Making Cities through Market Halls Europe, 19th and 20th Centuries

Manuel Guàrdia and José Luis Oyón (editors)

MUHBA MUSEU D'HISTÒRIA DE BARCELONA

Making Cities through Market Halls Europe, 19th and 20th Centuries

MUHBA MUSEU D'HISTÒRIA DE BARCELONA

Making Cities through Market Halls
Europe, 19th and 20th Centuries

Manuel Guàrdia and José Luis Oyón (editors)

Ajuntament de Barcelona

I have the pleasure to present the English edition of *Making Cities through Market Halls. Europe, 19th and 20th Centuries*, published as the 9th International Public Markets Conference is being held in Barcelona. This is the first time that the conference is held outside the United States and as Mayor I am extremely proud that Barcelona has been the chosen venue. The choice is not fortuitous: our city boasts over forty markets throughout its districts that make it a global reference when it comes to integrating trade into urban life.

Written by thirteen well-known specialists from different countries, this book bridges a gap in the history of European markets. As organisations, market halls changed the everyday existence of people in the second half of the nineteenth century, and in the twenty-first century they continue to play a significant role in the lives of the cities that decided to preserve them.

The construction of market halls in Europe became an unprecedented phenomenon, even though not all countries would introduce the same model. This book explains in detail their architectural and conceptual diversity throughout the Continent, describing how the model of district markets would withstand the test of time far better than that of the large central market and revealing how the function of district markets transcends that of food distribution. As key instruments for the social cohesion of cities, markets are meeting points that play a crucial role in the everyday life of urban neighbourhoods. Furthermore, as is perceptively noted in the book, in the early twentieth century they were decisive in women's introduction in the labour market, thus granting them more visibility and prominence in public life.

As a result of the contribution of markets to the improvement of people's well-being and quality of life, from the very first Barcelona City Council would be actively committed to preserving the model of the district market, decentralised and handy. The fact that our predecessors fervently embraced this model has proved highly beneficial to us all for well over a century, and has taught us to reflect on the qualities of the cities we would like to build for future generations. As we learn from the history of markets, we must all persist in working together to shape cities in which people continue to matter the most.

Xavier Trias
Mayor of Barcelona

11 **Introduction: European Markets as Makers of Cities**
Manuel Guàrdia and José Luis Oyón

73 **London and the British Public Market. Urban Food, Architectural Form and Cultural Language**
James Schmiechen

103 **Market Halls in France**
Gilles-Henri Bailly and Philippe Laurent

139 **Les Halles in Paris**
Bertrand Lemoine

167 **Covered Markets in Vienna**
Peter Haiko

195 **Covered Markets in Liberal Italy: a Comparison Between Four Cities**
Filippo De Pieri

231 **Iron Markets in Spain (1830-1930)**
Esteban Castañer

261 **The Barcelona Market System**
Manuel Guàrdia, José Luis Oyón and Nadia Fava

297 **Market Halls and Market Queens: Civic Culture and Gender in Barcelona's Food Retailing Sector**
Montserrat M. Miller

327 **Covered Markets in Germany: From Iron Markets to Central Concrete Markets**
Hannelore Paflik-Huber

363 **Budapest: Food, Cities and the Evolution of the Market Hall**
Allan Siegel

401 **Market Halls in Scandinavia, Russia and Central and Eastern Europe**
Małgorzata Omilanowska

431 **Lessons from Europe: Public Market Reform in The United States During the Progressive Era, 1894-1922**
Helen Tangires

463 **List of illustrations**

470 **Notes on the authors**

Introduction: European Markets as Makers of Cities

Manuel Guàrdia and José Luis Oyón

Food markets as a new form of architecture and town planning were established in urban Europe in the early nineteenth century and spread over the continent thanks to the proliferation of iron and glass markets in the second half of the century, managing to become one of the most obvious expressions of municipal pride, architectural innovation, urban renovation and the new commercial structures of capitalist cities. However, in the twentieth century many of them began to decline, some of them falling under the pickaxe and surviving only in people's memory. Contrarily, many others are still standing, their old structures defying new commercial structures. Their history —in many cities still in the making—remains for the most part to be written. This book is an attempt to take a step forward in this direction.

A Privileged Observatory of the City

While there is a notable consensus on markets as a force shaping European cities since mediaeval times, in contemporary cities historiographical attention has focused more on commercial structures characterised by absolute novelty: arcades, nineteenth-century department stores and twentieth-century shopping centres, structures that strictly speaking have nothing to do with food. Once the first stage in the construction of nineteenth-century markets of metal and some of concrete was over, i.e., in the first half of the twentieth century, markets were promptly associated with old-fashioned structures which sooner or later would have to disappear. Experience, however, has proven their ability to survive in a number of European cities in comparison with the surprisingly rapid cycles of growth and obsolescence of new commercial formats.

Most of the essays assembled here address a historical period that spans the nineteenth century and the first third of the twentieth century, the golden age of European covered markets, which, in many senses, should be seen as a 'transitional' period. From an urban point of view, these covered markets could be considered an intermediate step between the outdoor marketplace (or marketplaces), the core of pre-industrial cities, and today's pedestrian commercial areas or modern shopping centres on the outskirts of cities; in other words, a transition between a street sociability and a sociability welcomed by the interior of these structures. From an architectural point of view, the wide

nineteenth-century 'iron umbrellas' with their beautifully designed permanent stalls were the middle ground between the awnings and foldable tables of the ephemeral stalls in the open air or under the partial shelter of arcades, and the serialised display and purchase structures of the self-service modern supermarkets. From an economic point of view, covered markets replaced the direct exchange between producer and market buyer only to be replaced, in turn, by mediated purchases through specialised urban shops, wholesale companies, franchises or great food distribution chains.[1]

As we shall see, and several of these essays reveal this clearly, neither all European countries nor all cities underwent this transitional process simultaneously. Two of the hypotheses that this book hopes to confirm are that a Europe of markets emerged at different speeds and that the spreading of covered markets had diverse effects in different European spheres and was shaped by four overlapping generations. Otherwise, each country had some regions where the impact of the new buildings was greater than others, or certain cities, like London, where retail covered markets had little bearing, in spite of the huge size of the metropolis. Broadly speaking, markets first appeared in those countries that embraced modernity, the same countries where their cycle first came to a close. Be that as it may, in some European countries the period of their functioning is far from over and markets continue to be living structures that face up with dignity to the new forms of distribution that are timidly being introduced.

Speaking of markets, we must make a methodological comment, for the term encompasses many meanings. The fact is that it fictitiously unifies very different things, ranging from strictly architectural phenomena (the very building that welcomes 'market' activity) to the actual buying and selling of foodstuffs or the role of such activity in the more general system of urban supplies, and so on and so forth. The polysemy of the word has its advantages. As a result of its many meanings, the market offers numerous possibilities of analysis. This makes it a privileged observatory for architecture, for the city and the society of its age.

A non-exhaustive description would prove that when we speak of the introduction of covered markets in European cities we could indeed be referring to a number of different situations. Covered markets did not only entail a transformation in the traditional open-air market and a functional reorganisation of streets (traffic-wise and as regards recommendations for

1. Harold Carter, *An Introduction to Urban Historical Geography*, Arnold, London, 1983, chap. 8, p. 157-162.

new uses) but also in the field of moral values (restraining people's behaviour in markets, to avoid the havoc caused by the lack of food supplies at the end of the *ancien régime*, for instance). Food was distributed in new ways and the volume of sales in covered markets in comparison with traditional groceries, the changes in the consumer patterns of city dwellers and the connection between higher standards of living and diet, the fall in food prices and better food supplies were all factors that had a strong economic impact. Covered markets also exerted political and administrative influence, strengthening or weakening the public management of urban supplies as opposed to private administration, constituting a significant source of income in an age of chronic municipal deficit. Transformed into dominant social centres, they granted visibility to women as buyers and sellers in public space, imbuing it with new character. The new structures played a polarising role in neighbourhoods, channelling daily shopping experiences and retail sales. As regards the architectural changes they entailed, we shall discuss the new building types, their functional layout, their constructional innovations and their visual impact as public edifices. Last but not least, we shall consider their territorial impact, in other words, the selective role of cities with new markets and their links with other industrialised cities, agricultural economies and railway networks.

All these issues have been suggested to the authors of the essays compiled in this book, who have focused their attention on specific aspects among these possibilities. The chief purpose of this compilation is to present the first comparative view of a subject that, despite its obviousness, has been overlooked in most studies of contemporary urban history.

Traditional Markets and the Emergence of Covered Markets: France and the United Kingdom

A key element in urban revival during the Middle Ages, markets did indeed mark the beginning and end of the economic flows that shaped cities and favoured their subsequent development. As such, they became the true heart and basis of city life, its actual potentiality.

If one feature were to define European cities since the late Middle Ages this would certainly be the privilege of being able to hold a fair or a market. In his classic thesis, Henri Pirenne attributed the revival of mediaeval cities to the reappearance of the merchant class and the revitalisation of the great long-distance routes for sumptuary trade.[2] Today, however, it

2. Henri Pirenne, *Medieval Cities: Their Origins and the Revival of Trade* (1927). English version of *Les Villes du Moyen Âge. Essai d'histoire économique et sociale*, Maurice Lamertin, Brussels,1927.

is thought that this process was not promoted 'from above', by the broad horizons of international trade, but 'from below', by rural produce, and that since the year 1000 the extended growth cycle of mediaeval Europe was a result of small-scale trade channelled by local markets.[3] The dynamics unleashed led to a rise in large-scale trade and the subsequent development of capitalism. In point of fact, mediaeval cities grew around local marketplaces, especially those selling foodstuffs. The fundamental singularity of the newly formed European society was a result of the progressive growth of trade exchange to encompass rural produce, which had not occurred to the same extent in other historic periods. This primeval generation of local markets can be traced in the actual shaping of mediaeval cities and has been established in numerous studies.[4] The shape of markets basically corresponded to the shape of cities and their multiple unbuilt areas—plazas, small squares, streets, crossroads and arcades.

The articulation of municipal governments began in the thirteenth century and was consolidated over the following centuries. The first issue they addressed was precisely the economic administration of cities, an area in which the regulation of markets proved essential, appointing civil servants to undertake the task.[5] Later on, the growth in population and in commercial activity in larger cities made it necessary for sales outlets to be diversified, according to produce, in different areas. Markets branched out into the streets and squares structuring urban life. In small towns, the marketplace and adjoining streets were suffice to contain trade, whereas the increase in commercial activity in larger cities led to the creation of specialised sales areas for specific foodstuffs. The commercial fabric was further enhanced by market activity and craftsmen's shops that invaded public space. For five centuries, municipal governments would persistently strive to guarantee the social and political health of their communities, regulating the ethics of

3. Guy Bois, *The Transformation of the Year One Thousand. The Village of Lournand, from Antiquity to Feudalism*, Manchester University Press, 1992. English version (translated by Jean Birrell) of *La Mutation de l'an Mil. Lournand, village mâconnais, de l'Antiquité au féodalisme*, Arthème Fayard, Paris, 1989.

4. See François-Louis Ganshof, *Étude sur le développement des villes entre Loire et Rhin au Moyen Âge*, Presses universitaires de France, Paris, and Éditions de la Librairie encyclopédique, Brussels, Genval, 1943. See also Michael Robert Gunter Conzen, 'Alnwick, Northumberland: A Study in Town-Plan Analysis,' *Institute of British Geographers Publication*, no. 27, George Philip, London, 1960; and Pierre Lavedan, *L'Urbanisme au Moyen Âge* [Town Planning in the Middle Ages], Arts et métiers graphiques, Paris, 1974.

5. New governments in towns in the Iberian Peninsula appointed commissioners following the Muslim model, which was much more advanced. The Spanish and Catalan names of the position, *almotacén* and *al-mostassaf* respectively, come from the Arabic designation *al-muthasáb*.

exchange, ensuring the provisioning of cities and the organisation of marketplaces, mediating in conflicts, controlling retailers and hoarders, keeping an eye on weights and measures and on the profits made by middlemen—in short, assuring the survival of the old mediaeval 'fair price' doctrine. The chain of changes that succeeded one another in Europe as from the second half of the eighteenth century had a visible effect on the shape and organisation of markets. However, the inrush of new liberalising economic criteria did not bring the regulating measures of municipal governments or the legacy of the 'moral economy' to an end, as is revealed by Helen Tangires in her study of the first covered markets in the United States.[6] The intensive renewal of market systems that characterised the nineteenth century took place on these threads of continuity. Perhaps this explains why in times of crises they are considered anachronistic residues of the past.

It would be a mistake to think that the idea of a covered market was totally foreign to pre-industrial European cities, or that all market experiences can be summed up in the category of outdoor markets in squares and streets. Architectural handbooks and nineteenth-century designs were inspired by the covered markets of mediaeval times and even by Greek and Roman cities, and referred to their urban dimension as a way of justifying the transcendence of the new models architects hoped to build, thereby 'legitimating' them in the past.[7] Ever since the Middle Ages, certain products, usually those of greater value or those that stood a higher chance of deteriorating as a result of exposure to the elements, had been accommodated in covered open structures that were much plainer than the large guilds in the municipal buildings used as trading houses, or the stock markets trading in cloth or other manufactured products (the best examples of which are found in the large structures erected in Flemish towns). Certain sections

6. Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America*, John Hopkins University Press, Baltimore and London, 2003. Tangires speaks of the 'persistence of the moral economy despite the disruptive effects of capitalist market economy in nineteenth-century America. The moral economy reflected the local government's effort to maintain the social and political health of its community by regulating the ethics of trade in life's necessities,' p. 17. On the mediaeval doctrine of fair price in connection with Spanish cities, see for instance Concepción de Castro, *El pan de Madrid. El abasto de las ciudades españolas del Antiguo Régimen*, Alianza Editorial, Madrid, 1987, p. 19-20. On markets in pre-industrial European cities, see Donatella Calabi, *The Market and the City. Square, Street and Architecture in Early Modern Europe*, Ashgate Publishing, Hampshire, 2004. English version of *Il mercato e la città. Piazze, strade, architetture d'Europa in età moderna*, Saggi Marsilio, Venice, 1993.

7. See Esteban Castañer's contribution to this book, 'Iron Markets in Spain (1830-1930)', and also the revision of historical *halles* in Aymar Verdier and François Cattois, 'Halles, marchés et greniers d'abondance,' in *Architecture civile et domestique au Moyen âge et à la Renaissance*, V. Didrou, Paris, 1855-1857, p. 167-172.

of outdoor markets included enclosed areas that had been built by the municipality as communal granaries, corn exchanges or covered pavilions for butchers and fishmongers, some of which were large solid buildings such as the meat market built in Ghent in the fifteenth century.[8] In many cases, the market and the town hall were so closely related that they couldn't be distinguished. As a result, we come across a first type of market of mixed use, rectangular in shape with arcades on the ground floor and totally open to the market square it stood in, the space where the most perishable goods such as butter, eggs and fowl were kept and where municipal employees collected payment of sales rights. The upper floor was occupied by the grand hall where council meetings were held, and by other municipal quarters. Illustrious examples of mixed-use markets are the monumental Halles in Bruges, built between the twelfth and fifteenth centuries, the ground floor of which welcomed butchers, haberdashers and spice dealers, the Palazzo del Broletto in Como, and the extraordinary Palazzo della Ragione in Padua, with arcades on the ground floor that look on to the Piazza delle Erbe. More modest, the numerous market houses we find in many British market cities and which continued to be built until the mid-nineteenth century, belonged to the same basic type.

A second less sizeable but much more common model had an elongated ground plan. Easily accessible, this model included the simple colonnaded British sheds and the French *halles*, both of which were initially wooden structures covered by large sloping roofs. All these rectangular shapes adapted perfectly to the elongated squares and market streets of many mediaeval urban fabrics. The Renaissance loggias, built in the form of lightweight arcades resting on columns, were basically of the same type, as exemplified by the fishmongers designed by Vasari for the Mercato Vecchio and the Mercato Nuovo in Florence in the sixteenth century, and by fishmongers and butchers in cities of the French Midi like the Poissonnerie Neuve in Marseilles (1674). The third type of market had a cloistered layout: porticoes and arcades around a central area in the open air welcomed shops. As we discover in Renaissance treatises, this clearly Roman type (see, for instance, the markets in Timgad and Leptis Magna) was perhaps the most popular in Latin countries. The many mediaeval arcaded squares and Castilian main squares (not only conceived as markets) of the Modern Era, and others not originally

8. An interesting description of the genesis of Western markets can be found in Nikolaus Pevsner, *History of Building Types*, Thames and Hudson, London, 1976. See also Spiro Kostof, *The City Assembled. The Elements of Urban Form through History*, Thames and Hudson, London, 1992, p. 92-102.

The Fish Market, 1807, painting by Nicholas Condy. The new enclosed Pannier Market in Plymouth

designed as markets although subsequently adapted to this function, like the *baracconi* surrounding Turin's Piazza Carlina in the late seventeenth century, those at Les Innocents market in Paris or those in the square at Covent Garden would adapt to this formal structure.[9]

9. On the *baraconni* at Piazza Carlina, see 'Dai "baracconi" di Amedeo di Castelmonte all'Utopia di un grande progetto ottocentesco,' in Luisa Barosso, Maria Ida Cametti, Maurizio Lucat, Silvia

These structures, however, do not cover all types of pre-industrial markets. As Małgorzata Omilanowska has pointed out, most cities in Central, Eastern and Balkan Europe had a long tradition of contacts with the East, especially with the Ottoman Empire, that encouraged the building of bazaars and grain exchanges (*kahnes* or *funduk*) particularly in the regions forming a part of the empire. The great cities in the Russian Empire built shopping complexes in the shape of colonnaded structures, *torgovie riadi*, some of which made use of iron. These markets co-existed with those built in the late nineteenth century, so it is not by chance that we discover cities in which the Western European tradition of building pre-industrial markets and guildhalls around the town hall was enhanced by others derived from different geopolitical situations, thereby generating a wide range of market types in one and the same geographic area, and even in one and the same city.

In the second half of the eighteenth century the traditional open-air market became a source of great tension, particularly in Great Britain and France. As regards supply, the farming revolution and improvements in regional transport and international trade (modernised road links, newly built channels and ports) brought a greater number and variety of farm produce to urban markets. Furthermore, the demographic explosion entailed an unforeseen demand of food and many other manufactured products such as clothes, household items and other domestic objects for sale in markets. All this meant greater congestion and overcrowding in market streets and squares, lack of hygiene and increasing difficulty for buying and selling foodstuffs.

Markets, however, were the main source of social tension and George Rudé has highlighted the subsistence riots that broke out, especially in British and French market towns. It is well known that the main motive of the riots that triggered the French revolutionary movement of 1789 was

Mantovani and Luciano Re, *Mercati coperti a Torino. Progetti, realizzazioni e tecnologie ottocentesche*, Celid, Turin, 2000, p. 29-39. The three types of markets are examined in Durand's 1801 study *Parallèle*: Corbeil market, as an example of mixed-use structures, Amiens market and Brussels' Poissonerie, as model cloistered structures (besides large squares or piazzas and open-air bazaars), and Florence market and Marseilles' Poissonerie, to illustrate elongated colonnaded ground plans. See Jean-Nicolas-Louis Durand, 'Places modernes, Halles, Marchés, Bazars,' in *Recueil et parallèle des édifices de tout genre, anciens et modernes*, École Polytechnique, Paris (Imprimerie de Gillé fils), 1800. Pamphlet, published by Princeton Architectural Press, ca. 1982, includes an introduction by Anthony Vidler, a translation into English by Marthe Rowen of the introduction to Jacques-Guillaume Legrand's *Essai sur l'histoire generale de l'architecture* (the essay was included in 'some copies' of the first edition), and an English translation of Durand's preface.

dearth and shortage of bread,[10] the consumption product that took up most of the family budget of the popular classes. Thompson considered the subsistence riots associated with farm crises, often tolerated by municipal magistrates, inextricable from the moral economy of the poor, an indirect way of avoiding dishonest practices in commerce and of reducing the price of food.[11] Many of the first European markets emerged after political uprisings associated with protests against the high cost of food, as Montserrat Miller reminds us in the case of Barcelona and Hannelore Paflik-Huber describes in the case of Berlin. Besides being a prime source of disagreements among the poor, urban markets were privileged spaces for pedlars, petty thefts, swearing and the occasionally 'disorderly' recreation of an uncontrollable crowd, as proven by bullfighting or cockfighting spectacles.[12] In the eighteenth century the space of the traditional outdoor market became the object of intense scrutiny as a result of the new enlightened perception of public space. As Schmiechen and Carls have explained in the case of Great Britain, the traditional practices of open-air markets that encouraged immorality and blasphemy, the improper use of taverns, furtive sales and non-payment of municipal sales taxes—all that which made the market into 'a place of disorder and chaos and a magnet for the worst elements in society' and an ungovernable street culture—had to be eliminated.[13] In the case of France, Foucault referred years ago to the notion of 'transparency', to Rousseau's dream of a social space that would be at once visible and legible in each of its parts, that would avoid dark zones, enclaves of privileges or disorder, that would avoid all obstructions to the gaze.[14] Markets were thus enclosed in order to free the streets and squares

10. George Rudé, *Paris and London in the 18th Century. Studies in Popular Protest*, W. Collins & Sons, London, 1970.

11. Edward Palmer Thompson, 'The Moral Economy of the English Crowd in the Eighteenth Century,' *Past and Present*, no. 50 (February 1971) p. 76-136. For a quantitative assessment of social upheavals in England, see Roger Wells, 'Counting Riots in Eighteenth-Century England,' *Bulletin for the Society of the Study of Labour History*, no. 37 (1987).

12. An excellent outline of all these tensions can be found in James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, Yale University Press, New Haven and London, 1999, p. 10-16. For details of the *Bullangues* and Barcelona riots in the decade of 1830 and first years of 1840, prior to the setting up of La Boqueria and Santa Caterina market halls, see Montserrat Miller's essay in this volume.

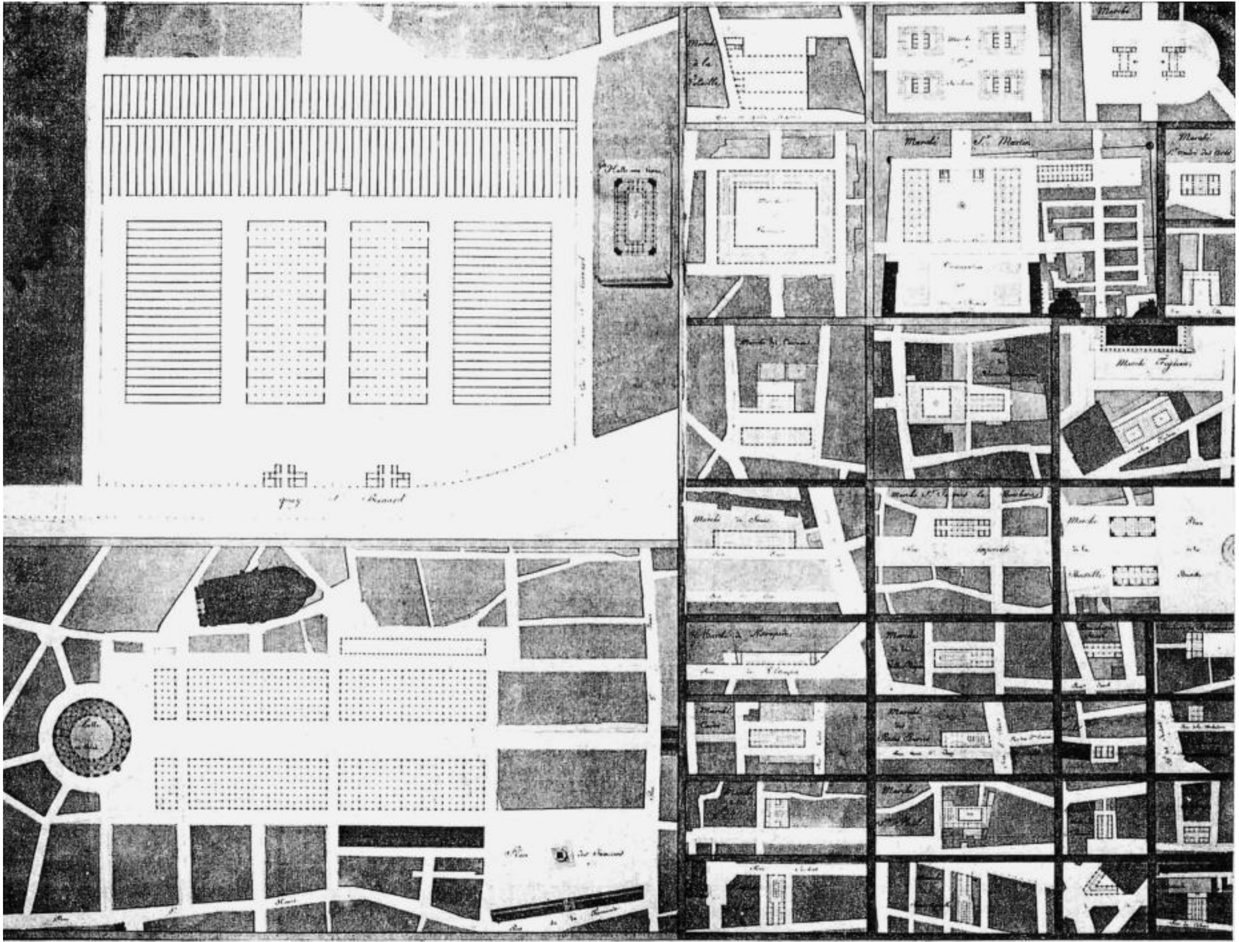
13. James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., p. 16, 19.

14. In his analysis of eighteenth-century philosophies, Foucault speaks of networks of discourse flooded with light, of the kind cast by the French Revolution on the social space to banish the dark areas, hidden from view. In such networks, 'human beings won't even be able to behave badly, because they will feel so bathed and immersed in an absolute field of visibility in which the opinion

from the invasion of buyers and sellers, to get obstacles out of the way and out of sight, in accordance with this ideal of transparency. Inside the new covered markets stalls were neatly set out, circulation was facilitated and hygiene was guaranteed, all in the name of the openness to the gaze and to control (as in other institutions like prisons and hospitals). These ideas, the end of feudal privileges and the availability of urban soil after the triumph of the revolution paved the way for the subsequent Napoleonic reorganisation of the Parisian market system. According to the new conception of public space that gradually emerged in the second half of the eighteenth century, streets and markets had to be improved following more 'rational' and 'informed' bourgeois models of respectability and order, so as to correct disorganised behaviour, establishing more drastic divisions between public and private space and specifying street uses in much greater detail. Separating the market from the street was merely a complementary measure to the transformation of the latter into a controlled space, subject to surveillance by an enlarged police force. The new streets were numbered, lit, surfaced using the latest techniques and provided with pavements that allowed road traffic to be strictly separated from pedestrian traffic, free from pedlars.

The market separated from the street, the insularisation of the market in a plot of land that was not necessarily totally covered was the first important conceptual step towards the invention of the covered market as an architectural type. The enclosed markets built in the last quarter of the eighteenth century in the United Kingdom, and many of the Parisian markets of the same period, evince the will to secure appropriate spaces in central areas of the city that would not only allow the authorities to fence the enclosure but also differentiate between the entrance of people and carriages, and set up pavilions where the sale of various types of farm products could be classified. A significant number of these markets had to negotiate their difficult insertion in the urban fabric, so it comes as no surprise to see those built before 1820 erected on plots of land between party walls, set in the façades of urban blocks or forming arcades, as exemplified by

of others, the gaze of others, the discourse of others will prevent them from doing what is bad or injurious.' 'The Eye of Power.' Originally published in French as 'L'Oeil du Pouvoir. Entretien avec Michel Foucault,' as a preface to Jeremy Bentham, *Le Panoptique*, Pierre Belfond, Paris, 1977, p. 17 and ff. The truth is that two issues are discussed here, the gaze and the internalisation of the gaze. In his work, Bentham proposed panopticism, according to which power would be exerted through surveillance and the dominating gaze. See Jeremy Bentham, *The Panopticon Writings*, Miran Bozovic (ed.), Verso, London, 1995, p. 29-95.



Collection des marchés de Paris avec projets, 1813. Louis Bruyère

British markets of the time and many markets included in Bruyère's survey *Parallèle* in 1813.[15]

The covered market did not only emerge as a result of this new conception of public space but was also connected to the idea of 'facility'. The first conceptualisation of markets as facilities arose in France in connection with the appearance of a new form of 'urban knowledge', modern town planning theories and practices in the second half of the eighteenth

15. Louis Bruyère, *Collection des marchés de Paris avec projets*, École Nationale des Ponts et Chaussées, Manuscript, fol. 486, 127 prints.

century. Voltaire's reflections on the subject of the design competition for the Louis XV Square in 1749 anticipated some of the key arguments. The beautification of the city was supposed to imply less the aesthetic of the new constructions and more the development of a system of conveniences based on a network of abundant, safe and easy communications and on the homogeneous distribution of markets, avenues, theatres and churches.[16] These ideas, developed in the sphere of architecture by Laugier and Patte, were enhanced by the progressive medicalisation of urban space, the theory and practice of the administration or 'police', the new cartographic tools provided by geometric plans, the systematic alignments and the extension of the economic gaze to territory put into practice by civil engineers. All this eventually shaped a corpus of town planning theory that took off with the revolutionary break.[17]

In 1790 France abolished all feudal rights connected to markets, which became the exclusive responsibility of local town councils. The expropriation of assets belonging to the church and the émigré nobility gave the new markets an opportunity of occupying confiscated plots of land. The centralised organisation of the state, under the supervision of the Civil Buildings' Council, favoured the adoption of a homogeneous technique for managing and assigning land uses and a programmed method for assessing needs, for distributing and building spaces that signalled institutional and technical modernity, thereby giving rise to the so-called *city of facilities*.[18] Market

16. Voltaire, 'Des embellissements de Paris,' 1749, in *Les oeuvres complètes de Voltaire/* 31A, 1749, I, The Voltaire Foundation, Oxford, 1992. Online: *Mélanges II* (1738-1753, Tome 23): http://www.voltaire-integral.com/Html/23/30Embellissements.html, accessed May 2010: 'Paris serait encore très incommode et très irrégulier quand cette place serait faite; il faut des marchés publics, des fontaines qui donnent en effet de l'eau, des carrefours réguliers, des salles de spectacle; il faut élargir les rues étroites et infectes, découvrir les monuments qu'on ne voit point, et en élever qu'on puisse voir. … Nous rougissons, avec raison, de voir les marchés publics établis dans les rues étroites, étaler la malpropreté, répandre l'infection, et causer des désordres continuels, … Il est temps que ceux qui sont à la tête de la plus opulente capitale de l'Europe la rendent la plus commode et la plus magnifique.' Also, in 'Des embellissements de la vill de Cachemire,' 1750: 'C'était une pitié de n'avoir aucun de ces grands bazars, c'est-à-dire de ces marchés et de ces magasins publics entourés de colonnes, et servant à la fois à l'utilité et à l'ornement.'

17. See a summary in Francisco Javier Monclús, 'Teorías arquitectónicas y discursos urbanísticos. De las operaciones de "embellecimiento" a la reforma global de la ciudad en el siglo XVIII,' *Ciudad y Territorio* (Madrid), I, 79, 1989, p. 25-40. On French town planning of this period, see Bruno Fortier, 'Espace et planification urbaine (1760-1820),' in *Prendre la ville, esquisse d'une histoire de l'urbanisme d'état*, Éditions Anthropos, Paris, 1977, and 'Storia e pianificazione urbana: gli anni 1800,' in Paolo Morachiello, Georges Teyssot, *Le macchine imperfette. Architettura, programma, istituzioni, nel XIX secolo*, Officina Edizioni, Rome, 1980, p. 27-54.

18. This vision of facilities was studied in depth in the seventies by French architectural and planning historians under the influence of Foucault. See Michel Foucault et al. (eds.), *Les machines à guérir. Aux origines de l'hôpital moderne*, Pierre Mardaga, Liège and Brussels, 1978. [Originally published

spaces and buildings, grain exchanges and slaughterhouses were registered as facilities, alongside prefectures, hospitals, state-run schools, law establishments, prisons, police stations, playhouses, variety halls and museums understood as public services. This idea of the market as a facility is implicit in Durand's *Parallèle* of 1801 and in his *Précis de leçons d'architecture* of 1817. Where it appears more clearly, however, is in the aforementioned *Parallèle* that the civil engineer Bruyère dedicated to the markets of Paris and which embraced the small markets constrained by the needs of the urban fabric, and the free-standing structures designed by the Empire, relating each market to a specific area of influence in the city. This idea of homogeneously distributed facilities appeared in the new Napoleonic city states: founding a city meant providing it with a range of facilities, among which markets played a key role. The new free-standing covered markets that were erected had to be dotted around the urban landscape and assigned to specific areas,[19] such as those also designed by Bruyère for the newly-founded city of Comacchio in the Adriatic (1805), in Ville de Napoléon (La Roche-sur-Yon, 1804) and in Napoléonville, designed by architect Guy de Gisors (Pontivy, 1805).

Diffusion and Establishment: Four Generations of Markets

As a result of the increase in exchange and communications throughout the nineteenth century, markets were gradually integrated in broader distribution networks and began to play a key role in the economy (which was only just becoming a discipline with laws of its own). The requirements of performance, efficiency and satisfaction of needs wove a web of practices, rules and laws that would influence the actual shape of the buildings. The idea of separating the market from street life was gradually imposed and the

by Institut de l'environnement, Paris, 1976]. The key essay is by Georges Teyssot, 'Città-servizi. La produzione dei "bâtiments civils" in Francia (1795-1848),' *Casabella*, 424, 1977, p. 56-65. See also Georges Teyssot, 'Heterotopia e storia degli spazi' in Georges Teyssot (ed.), *Il dispositivo Foucault*, CLUVA, Venice, 1977; 'Il sistema dei Bâtiments civils in Francia e la pianificazione di Le Mans (1795-1848)' in Paolo Morachiello and Georges Teyssot, *Le macchine imperfette. Architettura, programma, istituzioni, nel XIX secolo*, op. cit., p. 81-128. In *Les villes dans la France moderne (1740-1840)*, Albin Michel, Paris, 1988, p. 255-265, late urban historian Bernard Lepetit analysed the impact of facilities on the urban network, taking into consideration the designs examined by the Civil Buildings' Council. See also Bruno Fortier, 'Logiques de l'equipement,' *Architecture-Mouvement-Continuité*, 45, 1978, p. 79-94.

19. See Paolo Morachiello and Georges Teyssot, 'Città di stato. La colonizzazione del territorio nel primo impero,' *Lotus International*, III, 24, 1979, p. 24-39; François Laisney, 'Quartier des Halles: décadence et reconstruction dans les villes françaises: le cas de la Roche-sur-Yon,' in Gilles Bienvenue and Geraldine Texier-Rideau (eds.), *Autour de la ville de Napoléon*, Presses Universitaires de Rennes, Rennes, 2006, p. 277-287.

first large, totally roofed free-standing buildings appeared. These structures adopted a functional logic that was reflected in their internal organisation: 'the sales cell, geometrically identical for all, … the space of circulation, that must be as consistent and operative as possible, the sales area and the general layout, that responds to the desire to classify and control.'[20] The idea was also to ensure public space, markets in particular, had improved hygienic conditions and higher degrees of respectability: the market thereby became a facility and a school for manners, an ideal that pervaded Europe throughout the century.[21]

And yet it was not propagated homogeneously in all countries or cities. In fact, even in those countries where the ideal was more widespread, such as Great Britain, a number of towns—particularly those smaller in size—were left without covered markets. The nineteenth century was the golden age of British markets. Schmiechen and Carls have documented the construction of 480 new markets between the years 1801 and 1900, 81.2 per cent of the total number examined. In comparative terms, the fifty previous years (1751-1800) only represented 11 per cent of the total number of markets (almost all of which were traditional market houses of mixed use), and the fifty following years (1901-1950) represented an even smaller proportion (7.8 per cent). The phenomenon of British markets, therefore, was almost exclusive to the nineteenth century, in particular to a period of intensive construction between 1821 and 1890, dominated by the new type of large free-standing and completely covered market: almost two thirds of the total number of such structures were erected during these seventy years, including some of the most original from a constructional point of view. So, by 1850 the United Kingdom was the first European country to welcome the new type of structure, which was soon consolidated. Although no covered retail market selling food was built in London, the city was equipped with

20. Bertrand Lemoine, *Les Halles de Paris. L'histoire d'un lieu, les péripéties d'une reconstruction, la succession des projets, l'architecture des monuments, l'enjeu d'une 'cité'*, L'Equerre, Paris, 1980, p. 32.

21. James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., p. 47: 'The emerging "enlightened" view of urban life held that the street and the open marketplace, which had long been the turf of the lower classes, … should be reshaped according to "rational" and "educated" middle-class models of respectability, social order and civic virtue. [The new public market halls were planned as features] of everyday life which went beyond commerce into the realm of human behaviour and social values. If buying and selling were to be conducted in a respectable orderly fashion, then people needed to be educated in the appropriate virtues; it was believed that the proper spatial arrangement and visual language of the market environment would serve as instructors in such moral lessons.' See also Victoria E. Thompson, 'Urban Renovation, Moral Regeneration: Domesticating the Halles in Second Empire Paris,' *French Historical Studies*, 20 (Winter 1997), p. 87-109.

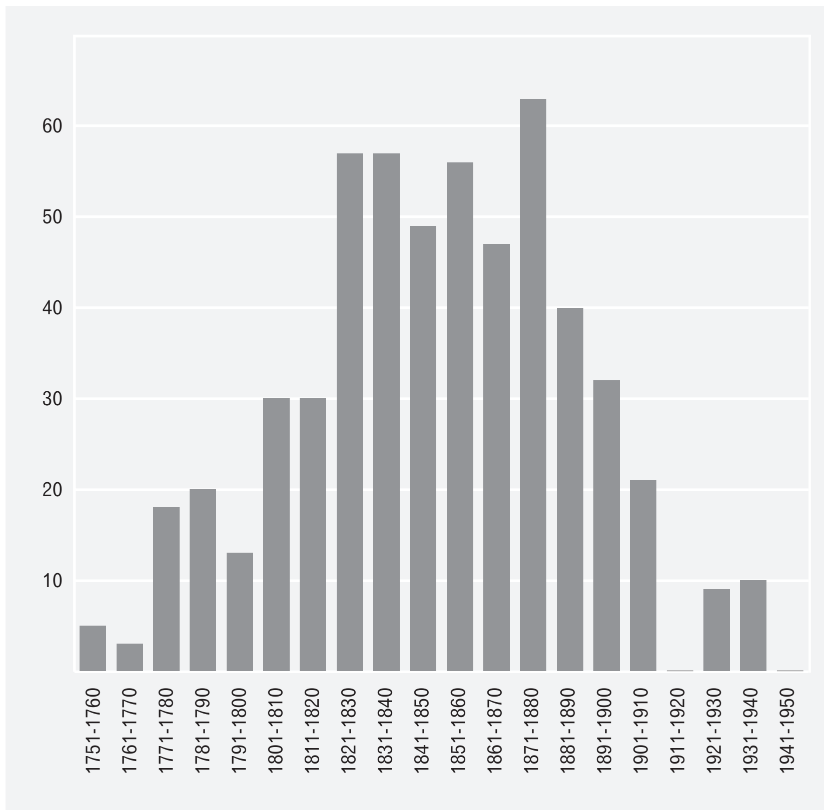


Chart of the construction of markets in Great Britain, according to James Schmiechen and Kenneth Carls, 1751-1950

an impressive system of wholesale markets, many of which were genuinely innovative in architectural terms, such as those designed by Charles Fowler around 1830. France was the second European reference. In the first half of the nineteenth century (1801-1851) the Civil Buildings' Council revised 253 projects for new markets, extensions and alterations to existing markets (277 if we include slaughterhouses). These projects affected 122 cities among the 309 studied by Bernard Lepetit.[22] As a result, 40 per cent of French cities were equipped with a first network of covered markets. However, not all of these were actually built, and those that were erected were not as impressive

22. See Georges Teyssot, 'Il sistema dei Bâtiments civils in Francia e la pianificazione di Le Mans (1795-1848)' in Paolo Morachiello, Georges Teyssot, *Le macchine imperfette. Architettura, programma, istituzioni, nel XIX secolo*, op. cit., and Bernard Lepetit, *Les villes dans la France moderne (1740-1840)*, op. cit.

or as original as British markets of the first half of the century. And yet the impression is that France comfortably regained lost ground with respect to Britain during the second half of the century. Unlike London, nineteenth-century Paris was not only the centre of reference for wholesale markets in France and many other European countries, but also for retail markets. Eight retail covered markets had been built since the mid-eighteenth century, although the idea of providing Paris with a coherent homogeneous system of such structures arose at the time of the Empire, in 1808: 'It is essential that public markets begin to provide solid shelter to stallholders, customers and purveyors in a regular fashion, that they be greater in number, larger and healthier … and be established as far away as possible from private houses,' declared Frochot, the Prefect of the Seine.[23] The true driving force behind the markets of Paris, those *Louvres du peuple*, emerged in 1811, at the end of the Napoleonic Empire. Four large free-standing covered markets were built: Saint-Martin, Saint-Germain, Saint-Jean and Les Carmes, in addition to Saint-Honoré, built in 1810 during Frochot's term of office, and to the wonderful cast-iron dome of the corn market, La Halle au Blé, built between 1802 and 1811. Although a number of projects were also designed for the central markets at Les Halles, these did not materialise.[24] Bruyère's compilation of 1813 reveals that the ensemble of Parisian markets was conceived as a genuine system, presided over by the project for the central markets at Les Halles, very close in organisational terms to those that would eventually be built in the eighteen fifties.

Outside of France only a small number of roofed markets were erected during the first half of the nineteenth century. Under French influence, a deliberate policy for building regional markets in Savoy gave rise to a fair number of *ali*, such as the large-sized markets of Novara, Alessandria and Asti, inspired by the Neo-classical French *halles*. As Filippo De Pieri has pointed out in his survey of Italian markets, Turin, the capital of the Duchy of Savoy, was equipped with a network of covered markets and slaughterhouses in the first half of the century. Other Italian regions also built *ali*, fishmongers and fish markets in the Neo-classical tradition.[25]

23. 'Il faut que des marchés publics de forme régulière, plus nombreaux, plus étendus, plus salubres, réunissent désormais sous des abris solides et les vendeurs et les acheteurs et les approvisionnements … soient reportés le plus loin possible de la masse des habitacions.'

24. Bertrand Lemoine, *Les Halles de Paris. L'histoire d'un lieu, les péripéties d'une reconstruction, la succession des projets, l'architecture des monuments, l'enjeu d'une 'cité'*, op. cit., chap. 4, p. 42.

25. See *Le 'ali' del mercato in provincia di Cuneo*, Città di Bra, Bra, 1992, and Mariacristina Gori, 'L'architettura dei mercati in Romagna fra Settecento e primo Novecento,' *Romagna Arte e*

During the era of French rule over Lorraine, two markets were erected in the German city of Metz (1831, 1834). The influence of Parisian Neo-classical markets extended to Spain, as illustrated by the markets of La Encarnación in Seville, San Ildefonso in Madrid and Santa Caterina in Barcelona, all of which were designed at the onset of the liberal regime in the decade of 1830, although traditional markets would continue to be built for some time. Broadly speaking, we could say that during the first half of the nineteenth century very few European countries were able to follow the example of British and French markets, except perhaps for Belgium: Brussels boasted a fruit and vegetable market on Rue de la Caille, the Poissonnerie and the large Sainte Madeleine market of mixed use opened in 1848, which aroused the interest of market propaganda organs in the second half of the century. Other fish markets with metal structures resembling the one in Brussels were built in Antwerp and Ghent, and another market was erected around 1850 in Malinas.[26] Iron was also partially used in market halls and grain exchanges built in the German cities of Hamburg and Munich.

The great age of covered metal structures in virtually all European countries was reflected in a wide range of publications that promoted detailed knowledge of the situation in Britain and France.[27] Paris was unquestionably the epicentre, with her modern Halles Centrales of the eighteen fifties (not to mention the huge number of district markets that followed). We can, therefore, speak of a second generation of markets characterised by iron structures that first appeared in France but would not really take on in other large cities on the Continent until the decade of 1860. In addition to the market halls erected in the United Kingdom during this period (despite the slackening after 1880), such buildings also began to be welcomed in Latin countries and in Western Europe. No large covered market appeared in Austria until 1865, where Vienna marked the trend and where the debate on the city's markets had been sparked in the eighteen fifties. In Italy the first great iron markets were built around the same time, such as those in Turin and the first two to be erected in Milan. The inauguration of

Storia, 60, 2000, p. 131-154. In Padua, Japelli designed a wonderful Neo-Greek meat market, built in 1821.

26. Among the first references to Belgian markets, see H. Tellkampf, 'Reisenotizen über Markthallen in England,' in *Romberg's Zeitschrift für praktische Baukunst*, 1857, p. 214-226. See also 'Le marché aux légumes dit Baille de fer à Malines,' *Revue générale de l'architecture*, series I, 1856.

27. The most complete compilation, that includes an extensive bibliography, is found in Georg Osthoff and Eduard Schmitt, 'Markthallen und Marktplätze,' in *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung*, Alfred Kröner, Leipzig, IV, 1909 (3rd edition), p. 295-429.

the original market system in Florence was slightly later, between 1869 and 1876. The year 1869 also marked the celebrations of Bucharest as capital of the new state with an early project for market halls, the Halele Centrale, designed by a French firm, and the very same year the Zurich Fleischmarkethalle was inaugurated. In Spain the idea of building metal markets began to be debated in Madrid towards the late sixties and also involved French designs. The following decade, that of 1870, witnessed the construction of markets in other large cities such as Barcelona. Esteban Castañer has documented some ninety markets erected in Spain between 1870 and 1920, although a few more were built in fact. In Germany, after the construction of the first metal markets in Hamburg and Munich, Stuttgart market was inaugurated in 1865, and in 1867 a short-lived private market opened in Berlin. Frankfurt did not open a market until 1879 and other large German cities would follow suit between the years 1885 and 1908. A total number of twenty-one cities equipped themselves with covered markets, and in his 1908 manual, Schmitt mentioned around forty. While some towns like Strasbourg, Cologne and Dresden erected two or more market halls, more often than not only one such structure was built, even in densely populated cities. The case of Berlin's complete market system was quite exceptional, in point of fact it was only a model for a small number of large Central European cities like Budapest.

Unlike the case of Belgium, most markets in large Dutch cities like Amsterdam and Rotterdam were open-air structures. In the former, only the egg market was a covered building, and in the latter only the cattle and fish markets were roofed.[28] The first Scandinavian markets were the one at the port of Bergen and the Fiskehallen in Gothenburg, both built in the mid-eighteen seventies, but the majority, including Östermalm market in Stockholm and the one at the quay of Helsinki, did not open until the end of the following decade and therefore could well be included in the next generation of such buildings. The same goes for the markets in Prague (the first of which was dated 1893) and for the other countries in Central and Eastern Europe. A parallel process took place in the Russian Empire and in Balkan Europe: commercial structures of oriental tradition were preserved and renovated alongside the metal covered markets imported from Western Europe. The city of St Petersburg, for instance, which had always looked to the West, began to erect her first metal markets as early as 1863, and the

28. Department of Commerce and Labor, *Municipal Markets and Slaughterhouses in Europe*, Government Printing Office, Washington, 1910, p. 49-53.

Nikiforov opened in Moscow in 1877, although the large *torgovie riadi* built en masse throughout the nineteenth century became the prevalent model in the capital and in other large Russian cities such as Odessa. Broadly speaking, outside the British Isles and Latin Europe, between 1850 and 1900 only capital cities, large commercial towns and a few regional capitals inaugurated markets, most of which were metal constructions. The establishment of an urban network of covered markets, i.e., the coordination between a central market and district markets spread over the city, was restricted almost exclusively to large towns in France, Italy and Spain, and to very specific cases in other European cities such as Vienna, Berlin, Dresden, Bucharest and Budapest. To be precise, however, by the year 1900 few of these cities could boast a complete and finished market system like those of Paris and Berlin, and were still equipped with unfinished structures located in relatively central spots that had previously been the site of open-air markets.

When the building of markets declined considerably in pioneering countries, particularly in Great Britain, it began to take off in other peripheral European cities. Indeed, we could speak of a third generation of markets emerging around the turn of the century, once the first market network of Budapest had been completed in 1897. Between then and the onset of the Second World War, a number of cities hitherto foreign to covered markets, chiefly in Central, Eastern and Baltic-Scandinavian countries, began to welcome the new structures. During this period, metal markets spread to several medium-sized and even small towns in Latin countries, and a number of the markets belonging to the original market systems in aforementioned cities were completed. The markets in this generation, particularly those built during the years between the two world wars, were characterised by the use of reinforced concrete, as best illustrated by central markets. Many of these new designs can be found in Germany and Latin countries.

The information that Omilanowska presents in this book on the countries in the former Communist bloc reveals the vitality of roofed markets in large European cities on the outer European periphery, in Eastern and Central Eastern Europe up until World War Two. Budapest completed her late market plan with the building of one central market and five district markets in 1897, but many other cities in Central and Eastern Europe and in Scandinavia continued to build market halls after having begun one such construction in the late nineteenth century. Three markets had been erected in Prague by 1908, and four had been built in Helsinki shortly before the onset of the World War One. During the same period, three district markets

and one central market had been constructed in Warsaw, and Gdansk also completed a number. Several Polish cities under German influence such as Breslau (Wroclaw) erected a couple of covered markets, and many other towns inaugurated their first market halls during the same years: Vilnius (that followed the Warsaw model), Riga (that built a huge central market in the nineteen twenties), Katowice, Chorzów, Kiev, Odessa, Sofía, Ploiesti, Ljubljana and also Turku, Tampere and Oulu in Scandinavian Europe.[29] As a result of the market-building process extending to countries hitherto foreign to the phenomenon, and of the ongoing construction of district markets since the mid-nineteenth century in Western European countries, by the onset of World War Two at least a score of large cities in Continental Europe had relatively structured market systems. Many towns in Latin Europe, both large and middle-sized, continued to construct and inaugurate new markets during the first half of the twentieth century.

Finally, we could speak of a fourth generation of markets that appeared at the same time as many others in key countries such as the United Kingdom, France and Germany, but also in the economically booming Scandinavian states, were neglected. Numerous fourth-generation markets developed in the countries where the introduction of modern food chains and supermarkets had been delayed. The market system in the European periphery, above all in Eastern Europe and certain Mediterranean countries, was eventually completed and new market halls set up in newly developed urban areas, abandoning once and for all iron and glass structures. Many cities under the Communist sphere of influence erected small covered structures in new housing estates, as in the case of Hungary. In Spain, new markets were also built in large cities and small provincial towns.

Territorial Impact

The territorial logic of markets distribution has been studied in some countries, although we would need to become familiar with more cases in order to draw solid conclusions. Only Scotland and the east of England were excluded from the areas in the United Kingdom that introduced covered markets. Those that were most influenced by the phenomenon were no doubt the industrial cities in the north and the West Country, areas of great urban and industrial growth that generated a huge demand for food for the working classes and with an intensive agricultural and livestock output

29. See the essay by Malgorzata Omilanowska in Allan Siegel and Gabriella Uhl (eds.), *Vásárcsarnok-Market Hall*, Ernst Múzeum, Budapest, 2005.

based on meat, dairy products and vegetables. Bernard Lepetit has carried out a detailed analysis of France in the early nineteenth century with a logic that values the *chef-lieu* of the territorial administrative structure imposed by the French Revolution, whether they be department or district capitals. The map of Spain, with her most industrialised cities and regions—Catalonia, the Basque Country and Asturias—and her intensive farming areas—Valencia and Murcia—resembled that of Britain. The construction of the railway network became a driving force that brought new horizons to small market towns, hitherto confined to local or regional supply areas. At this regional level, the railway played quite a selective role in Britain, as the number of small markets with a short range of influence that dated back to the pre-industrial age was considerably reduced, while a few others saw how their area of food supply was hugely increased when they became important railway junctions.[30]

The compilation of case studies in this book also enables us to confirm the importance of state capitals when it came to setting out on the construction of covered markets and introducing innovative structures. Leaving to one side the atypical case of Britain, in practically all European countries the building of covered markets began in the capitals: such was the situation in Spain, in the first capital cities in unified Italy after 1861, in Belgium, Austria, Romania, Hungary, Czechoslovakia, Poland, Finland, Sweden, Russia and Holland. Among the continental countries we have been able to examine in the preparation of this book, only Germany (besides Norway and the Swiss Confederation) was an exception, albeit a relative exception, for after the failed experience of a private company the Berlin administration itself decided to undertake the construction of covered markets and developed a system that couldn't be compared to that of any other German city. As Filippo de Pieri has revealed, many of the impulses or constraints of the Italian case were related to the change of capitals in the cities of Turin, Florence and Rome that followed the process of Unification. The significant weight of Bucharest and Budapest in the history of the markets in their respective countries cannot be understood without bearing in mind the function of the new capitals. Another impression we get after consulting sources of the period and the studies compiled here is that outside of pioneering countries like France and the United Kingdom, and of some in southern Europe (singularly Spain), covered markets were built in towns

30. James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., p. 158-159, 163-166.

of substantial size, large cities or those with minimum critical masses. As pointed out by Omilanowska, while it is true that there are numerous examples of medium-sized and small provincial cities that built market halls in Central, Eastern-Scandinavian and Balkan Europe, more often than not these were the exception rather than the rule.

While we are lacking comprehensive details to determine the intra-urban spreading of different markets in the age of metal construction, it seems safe to say that two very different models introduced markets into European cities. Totally advanced in Britain on account of their early appearance and dimensions they were not, however, conceived as neighbourhood or district facilities, i.e., they were not spread homogeneously around cities. After a first stage at approximately the turn of the century, when attempts were made at decentralisation and market halls were erected in new growth areas in large cities, the centrality of the main market was once again reinforced and new built structures were also erected in central areas, usually very close to the main market. According to Schmiechen and Carls, the only exception to this monocentric 'British model' was the city of Hull.[31] A few large continental cities, however, adopted the city-as-facility model, i.e., the Parisian model of a central market and neighbourhood or district markets. By 1850 this distinction could be observed in the United Kingdom and in France (1.76 markets per city in the UK and 2.07 per city in France), and would become even more marked when the Parisian model spread to other large cities, where it was considered an implicit reference for choosing the location of new smaller metallic markets that would supply the new growth areas. Many large regional French capitals built more than one iron market, as did large Spanish cities like Barcelona and Madrid, and more modestly, Valencia, Oviedo, San Sebastian and Valladolid. In the former Austro-Hungarian Empire, the cases of Vienna and Budapest, despite being quite exceptional in their national contexts, are highly illustrative of this multinuclear model. Such was the case of Bucharest, that erected six markets in the city based on the polycentric population and outdoor market structure of the pre-industrial city.[32] This was also the case of St Petersburg and, later on and more essentially, of Warsaw, Helsinki, Dresden, Prague and Gdańsk. The best example of the application of this 'continental model' (that could not be generalised to all

31. Ibid., p. 22, 28 and 92.

32. We would like to thank Andrei Russo, whose short academic work 'The Evolution of the Market System in the City of Bucharest' has proved very useful.

continental contexts, only to a few large cities, especially in the Latin area) was no doubt Berlin, whose market system was late in comparison with other European capitals but very powerful in its standing as a coordinated group of district markets under the direction of one central market, isotropically distributed throughout the city (the markets were named according to the number of the district they served).

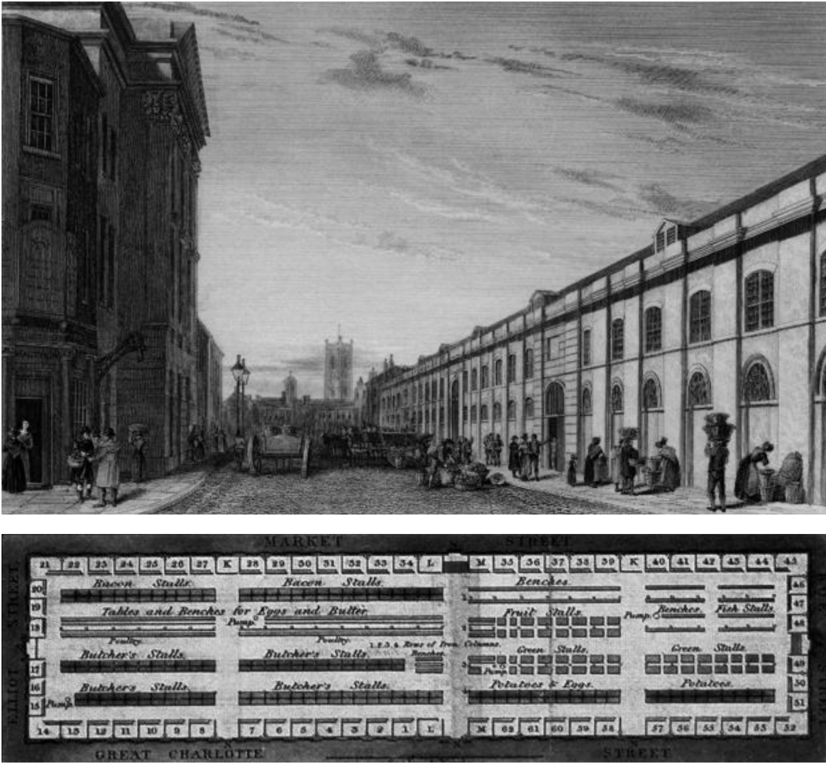
This logic of the homogeneous distribution of market halls in many large continental cities in Latin countries, and a few in Central European towns, was implicit in their designs for urban extension as early as 1850. In Barcelona it was reflected in the rules of the competition announced to enlarge the city in 1859 (markets 'in proportion to the population that will occupy each of the areas into which the city will naturally be divided up') and very clearly in the design submitted by Ildefons Cerdà, whose enlargement proposed a uniform distribution of a total of eleven markets presided over by El Born central market. It can also be traced in Alessandro Antonelli's projected enlargement of Turin of 1852[33] and in Giuseppe Poggi's 1865 plan for the city of Florence. The model had appeared much earlier in American cities. In the eighteen thirties New York, which had just over 200,000 inhabitants, boasted thirteen covered markets spread around the city.[34]

Architectural Types: From Neo-classical Market Halls to the Baltard Model

The transitional period during which the first markets were built as independent structures was characterised by a great typological diversity. Those built after 1750 repeated formal types established from time immemorial, such as cloistered constructions, those of mixed use and sheds, but they also adopted a few original models such as arcades or circular forms. The dominant form in the United Kingdom up until the nineteenth century was the traditional market house of mixed use. Without forsaking this type, after 1800 the pioneering enclosed market prevailed. With the exception of certain circular free-standing market halls indebted to the butter cross markets that were not too widespread and basically served the purpose of small specialised markets (fish markets and butter markets), the models

33. See Manuel Guàrdia and José Luis Oyón, 'La formació del modern sistema de mercats de Barcelona,' *Quaderns del Seminari d'Història de Barcelona*, 20, Barcelona, 2008, p. 9-10; Luciano Re, 'Il Louvre del popolo,' in Luisa Barosso, Maria Ida Cametti, Maurizio Lucat, Silvia Mantovani and Luciano Re, *Mercati coperti a Torino. Progetti, realizzazioni e tecnologie ottocentesche*, op. cit., p. 15-39.

34. Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America*, op. cit., p. 93.



Exterior view and ground plan of St John's Market in Liverpool, 1822

most frequently adopted were the cloister or *loggia*, a type that was not too common before then in England (Plymouth, Ipswich, Chichester and Stamford), and the 'arcade', built in communal areas inside blocks (Bristol and Cheltenham). The influence of British markets in the United States was indisputable between 1750 and 1820. As a result of their location in communal space, in the middle of long, wide and straight streets, long sheds that were open and extendable would be very popular as from the second half of the eighteenth century (the most famous one being the Philadelphia High Street Market built in 1785). Long markets of mixed use with council offices on the ground floor were less common, although their size and urban personality surpassed all those hitherto built in the former British colonies (Faneuil Hall marketplace, Boston, 1823-1826).[35]

35. Reproduced by Helen Tangires in *Public Markets*, W. W. Norton & Company/Library of Congress, New York, 2008, p. 20.

Interior view of St John's Market in Liverpool, 1822

Despite the fact that there were many examples of *halles* and markets with circular ground plans, as was the case in the United Kingdom, the large Neo-classical markets built in France between 1800 and 1850 preferred the cloistered type of semi-open *loggia* or open-air arcades around a large square or rectangular court that was partially closed on one of its sides. Paris set the trend with her Saint-Germain market designed by Blondel (120 x 148 metres), a model characterised by having a single perimetral nave and a double roof with a clerestory designed to provide increased ventilation. This simple layout spread to many French cities during the first half of the century. The model would be repeated with slight variations in the few Italian and Spanish market halls erected at this time, such as the one in Novara or Barcelona's Santa Caterina market. As early as 1813 Bruyère, the civil engineer responsible for public works in Paris, had presented the Minister for the Interior with the global plan for the city's markets which we have previously mentioned, comprising 127 drawings of markets, among them his Grande Halle design, *Collection des marchés de Paris avec projet*. In 1823 he dedicated the fourth volume of his Parisian publication *Recueil* to the specific subject of markets.

The age of large market halls and the extension of metal structures, initially just to pillars and then to pillars and roofs, meant the establishment of a new architectural type that was first developed in Great Britain. As from 1820, large market buildings would be designed as totally covered closed

structures in the form of semi-detached elongated naves, while smaller markets had single naves. The large parallelogram (usually a large rectangle in a basilican plan with several naves and lit from a clerestory) was not new in Europe, but the sheer size of the buildings, the fact that they were completely closed to the outside, their height and the lightness and transparency achieved thanks to the use of iron and glass entailed a genuine typological reinvention of markets. The first monumental example of the new type was St John's market, built in Liverpool in 1822. The building, with a rectangular plan, measured 167 x 40 metres and had five naves, 116 cast-iron pillars and wooden trusses. The introduction of iron in the pillars preceded the use of this material by Charles Fowler in London's Covent Garden wholesale market (1828-1830). The iron structure Fowler designed for the famous Hungerford market in 1835[36] would not become standard in retail markets in other British cities until ten years later when it first appeared at Birkenhead market, designed by the civil engineers Fox and Henderson, which was the largest metal structure in the world. A significant feature characterising British markets (and many American markets erected in the second half of the nineteenth century) was the complete dissociation between the buildings' interior metal structures and their façades. Unlike French markets, these structures were seldom apparent in the exterior elevations (beyond the cases of Shudehill in Manchester, Kirkgate in Leeds and the two markets in Bradford, that bore a greater resemblance to the French markets inspired by Les Halles in Paris). In order to conceal the structures, the façades became monumental—huge frameworks with their own styles, initially Neo-classical and then increasingly eclectic. They often included towers or projecting bodies on elevations, such as domes, turrets, pilasters, arcades and pediments that diverged completely from the architectural style of the interiors. In the seventies, the inclusion of more outlets that looked onto the street made façades even more prominent, and the increase in number of floors and in height gradually granted the new markets the monumental appearance of department stores. Such markedly urban traits revealed their singularity as public buildings that could just as well have been town halls or museums, an image that was substantially different to that of mass-produced industrial premises expressed by many markets on the Continent.

The construction of Les Halles by Baltard and Callet in the early days of the Second Empire entailed a radical change in the architecture of

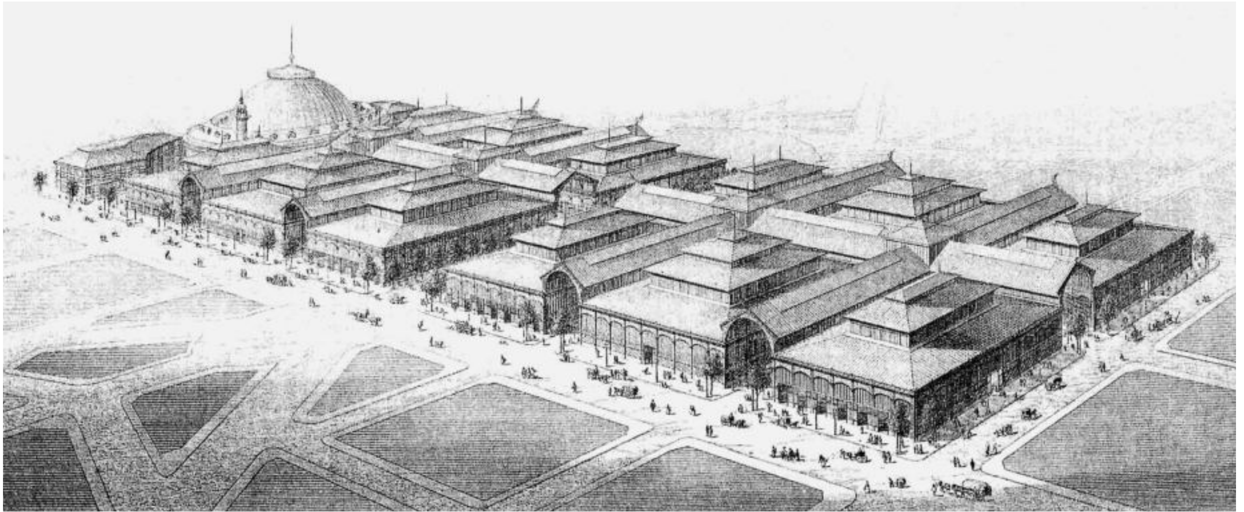
36. Gavin Stamp, 'The Hungerford Market,' *AA-Files*, 11, 1986, p. 58-70.

European markets, becoming the other indisputable referent. Baltard, who was appointed architect of the new *halles* in 1843, presented his first design for nine pavilions in 1845. The 'British' idea of an impressive classical outer framework that concealed a bold interior structure made entirely out of glass and iron was clear to see in the first pavilion that opened in 1853. The huge debate surrounding the building's solid, leaden appearance (which won it the nickname of *le fort de la Halle*) swung public opinion towards architectural solutions that favoured lightness and transparency, in short, the much more lightweight Crystal Palace buildings, inaugurated two years before, and the iron and glass railway stations built in Paris at the time.[37] Once the first pavilion had been knocked down, the new design, which had once and for all been altered following these guidelines in 1854, was an immediate success. Each of the ten cubic pavilions of metal and glass boasted a large central area that organised the space. The glass face and the light ceramic finish of the façades revealed the rhythm of the structure's metal pillars and became a model of constructive simplicity and elegance that lent itself to mass diffusion on account of its industrialised nature. In Paris alone, thirty-two metal market halls were erected, and a few hundred others were built in the main French provincial cities. The model was also exported, and French technicians and metal building contractors erected markets in Bucharest, Madrid, Recife, El Callao and São Paulo. The *Monographie des Halles Centrales*, published in 1863 and reprinted with a supplement ten years later, contributed greatly to the undeniable spreading of the model.[38] The indiscriminate repetition of such iron and glass pavilions was savagely criticised by many French architects. Viollet-le-Duc, who was committed to bolder projects, considered that market architecture should seek inspiration outside of France, in projects such as Hector Horeau's design for La Cebada market in Madrid: 'In France we are condemned to seeing the same market, time and again.'[39] Guadet felt that the imitation of Baltard's architecture

37. It is well known that, according to Haussmann, the opinion of Napoleon III was decisive: 'L'Empereur, enchanté de la gare de l'Est, … concevait les halles centrales construites d'après ce type de hall couvert, qui abrite le départ et l'arrivée des trains. "Ce sont de vastes parapluies qu'il me faut; rien de plus!", me dit-il un jour.' Quoted in Bertrand Lemoine, *L'architecture du fer. France XIXe siècle*, Champ Vallon, Seyssel, 1986, p. 166.

38. See Victor Baltard and Félix Callet, *Monographie des Halles de Paris*, A. Morel, Paris, 1863, and Victor Baltard, *Complément à la monographie des Halles centrales de Paris, comprenant un parallèle entre divers édifices du même ordre*, Ducher, Paris, in folio, 3 pl., 1873.

39. 'En France nous sommes condamnés à voir toujours le même marché,' E. V., 'Projet de marché. Place Cebada, a Madrid,' *Gazette des architectes et du bâtiment*, 15, 1868-1869. The initials could possibly be those of Eugène Viollet-le-Duc, one of the two editors of the journal. Horeau had already contributed highly innovative designs to the proposal for Les Halles.



Les Halles Centrales, Paris, 1863

was nothing but a persistent repetition of the same type: 'Unfortunately, if you've seen one you've seen them all! … As if a market in Lille could be identical to one in Marseilles.'[40] Not all provincial French markets, however, were of the same construction type. The model that was more often repeated, according to Lemoine, was the one inspired by the cubic shape of Baltard's pavilions and the one made up of several pavilions of the same type connected by covered streets (such as Troyes). Others had a central ground plan (Sens) or else one in the shape of a parallelogram with end blocks that revealed the nave sections (Belfort).[41]

The market type inspired by Baltard's pavilions for Les Halles soon spread throughout the Continent. By the middle of 1850 the new building types so successfully introduced in Les Halles were well established alongside British models. The excellent bibliography compiled in the 1891 monograph by Osthoff and Schmitt that spans the whole of the century reveals the growing importance of the French model as from the eighteen fifties. If we turn to the articles published in technical journals we see that the markets built in French cities enjoy a greater number of references, and

40. 'Hélas, qui en a vu un les a tous vu! … Comme si un marché pouvait être identique sous les latitudes de Lille et Marseille,' Julien Guadet, *Éléments et théorie de l'architecture*, Librairie de la construction moderne, Paris, III, 1894, p. 29.

41. Bertrand Lemoine, *L'architecture du fer. France XIXe siècle*, op. cit., p. 168.

Les Halles is certainly the most prominent of them all, followed closely by British markets.

Despite arriving somewhat late, the French model was highly successful in Latin countries. By the decade of 1860 the influence that Parisian markets would have in Spain was obvious. As Castañer recalls, after the 1868 revolution Spain's preference for metal markets with exposed structures was consolidated by references to the *Monographie des Halles* and the numerous trips made by municipal architects and technicians to Paris. Although Madrid took a long time to establish a coherent network of new markets it would be the first place to welcome large metal markets in the country. These markets faithfully reproduced Baltard's model, longitudinally attaching three pavilions separated by transversal covered streets. Many others adopted the simpler basilican ground plan with three naves, the middle one of larger dimensions, which we come across in many of Barcelona's district markets, in markets in Badajoz and Palencia (1898) and in the two large district markets in Valencia in the early twentieth century.

In Italy, with the exception of Turin, such a network had been promoted even earlier by the Unification of 1861. The first large iron markets were built by the engineers Pecco and Velasco on Piazza Bodoni in Turin between 1864 and 1866, following the Les Halles pavilion model. The first two small markets in Milan were designed by architect Terzaghi on Piazza della Vetra in 1862 and 1866, following the British shed model, one of them with an open roof and the other with several segmented sheds with 12.5 metre spans and enclosure walls instead of metal structures. Sant'Ambrogio market and Florence's Saint Lorenzo market, built in 1869 and 1876 respectively by Mengoni, were more faithful to the Parisian Les Halles pavilion model. In Belgium, besides Sainte Madeleine, French models inspired the circular fish market in Ostende (1870), publicised in German and Italian publications, Saint-Géry (1874) by Léon Suys and Edmond Le Graive, and the central market in Brussels (1875). At the onset of the twentieth century the Belgian capital boasted four metal market halls and Ostende possessed two. In Bucharest, the group of metal buildings that formed the Halele Centrale followed the Parisian scheme of Les Halles and was erected by a French company between the years 1872 and 1899. Five new metal markets, smaller in size, were built and disseminated around the city between 1872 and 1896. Only the latter, Hala Traian, concealed its metal structure with solid stone walls.

A *Gross-Markthalle* opened in Vienna in 1865 although the debate had arisen previously, in 1857, when the Ring Boulevard was about to be built. Typologically, the U-shaped market with solid Neo-Romanesque façades

has more in common with the wholesale London markets of Billingsgate and Columbia. In 1866 Vienna had signed a contract with the Austrian state for the building of small district markets. The first of these *Kleine Markthallen*, Stuben Baster, was erected in 1871 and had a basilican ground plan with a clerestory, like other smaller markets built later. The elevation seems to reveal a metal structure and reintroduces the architectural layout of Les Halles in Paris, although in all other markets the façade is a masonry wall that conceals the light interior metal structure. By 1890 there were six district markets besides nineteen street markets; some of them had ground plans in the shape of elongated rectangles, three naves and a clerestory in the middle nave which was always the most prominent.[42]

In Prussia it seems as if the model of British markets had a greater influence, both in the case of wholesale and of retail markets. In the former we discover a desire to connect the market to railway structures, which was never fulfilled in Les Halles in Paris even though such a subterranean connection had been foreseen. The opening of Smithfield central markets in London in the eighteen sixties had a huge impact on the new buildings (that were more than just monumental façades concealing metal structures, as was the rule in British market halls), and on the desire to ensure that the different pavilions had underground railway connections. German architectural and construction journals had been reviewing large English markets alongside Les Halles ever since the previous decade, and these had also prompted Berlin technicians and administrators such as councillor Theodor Risch to travel to Britain. London's wholesale markets and retail markets in other British cities also featured greatly in the compilations by Hennicke in 1881 and by Osthoff and Schmitt shortly afterwards.[43]

42. See Emil Winkler, 'Markthallen in Wien.' *Technischer Führer durch Wien*, 2, 1874, p. 208-212, and Georg Osthoff and Eduard Schmitt, 'Markthallen und Marktplätze,' in *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung*, op. cit., p. 249-251.

43. See H. Tellkampf, 'Reisenotizen über Markthallen in England,' in *Romberg's Zeitschrift für praktische Baukunst*, op. cit.; Theodor Risch, *Bericht über Markthalen in Deutschland, Belgien, Frankreich, England und Italien*, in Selbstverlage des Magistrats/Wolf Peiser, Berlin, 1867; A. Lent, 'Die neue Markthalle zu Berlin,' *Zeitshrift für Bauwesen*, 1869, pages 230-232 and 447-448; Julius Hennicke, *Mittheilungen über Markthallen in Deutschland, England, Frankreich, Belgien und Italien*, Ernst & Korn, Berlin, 1881; and Georg Osthoff and Eduard Schmitt, 'Markthallen und Marktplätze,' in *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung*, op. cit., p. 194-273. On the provisioning of London and Paris just before the construction of their large central markets, see Jules-Henry-Robert de Massy, *Des halles et marchés et du commerce des objets de consommation à Londres et à Paris*, Imprimerie Impériale, Paris, 1861-1862; Ernest Thomas, *Manuel des halles et marché en gros*, Guillaumin et Cie. Librairies, Paris, 1867; Steven Laurence Kaplan, *Provisioning Paris. Merchants and Millers in the Grain and Flour Trade during the Eighteenth*

With the exception of the markets of Hamburg and Munich, Germany had built very few large markets before the decade of 1860. Two market halls of Parisian influence (as revealed by the façades with their visible metal structures) opened in Stuttgart and Berlin in 1865 and 1867, respectively. Frankfurt built a metal market with a basement and a large vaulted central nave and two side naves with upper corridors such as those found in certain British markets of the first half of the nineteenth century like Aberdeen, Glasgow and Derby. Over the following decade, cities such as Leipzig, Cologne, Munich, Dresden (1891) and other smaller towns like Barmen, Aschaffenburg, Oldenburg, Resmscheid, Gera and Eisenach also opened new markets. Several were rectangular and had three naves, such as those designed by Osthoff, and were characterised by the impressive central nave and enclosure walls that made the inner metal structure invisible from the façade. Broadly speaking, the gradual preference for large central naves as the nineteenth century progressed has been related to the increasing use of arches in the metal structures, which enabled the construction of greater spans. Hanover market, designed by Bokelberg and Rowald and built in 1892, explicitly followed the model of the Gallery of Machines at the Parisian Exposition Universelle of 1889. Berlin was a latecomer to the group of large cities that possessed covered markets, although when construction began it did so vigorously. Between 1886 and 1893 the new capital of the Reich built up a strong network of fourteen district markets presided over by a great central market, the first of those erected.[44] The huge complex, possibly inspired by the Smithfield model, was connected to Alexanderplatz station and possessed underground railway sidings. District markets were essentially of two types: one was elongated and rectangular with a prominent central nave and a clerestory, and the other also had a prominent central nave with a number of smaller perpendicular side naves. In both cases the enclosure walls were made of masonry that concealed their metal structures.

Century, Cornell University Press, New York, 1984; and James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., chap. 3.

44. See Andrew Lohmeier, 'Bürgerliche Gesellschaft and Consumer Interests: The Berlin Public Market Hall Reform, 1867-1891,' *Business History Review*, 73 (Spring 1999), p. 91-113; 'Berlin in seiner gegenwärtigen Bauthätigkeit,' *Wochenschift des Architekten-Vereins*, Berlin, 1, 1867; *Wochenblatt, herausgegeben von Mitgliedern des Architekten-Vereins zu Berlin*, April 1867; 'Das Projekt der Berliner Markthallen,' *Deutsche Bauzeitung*, 1873, pages 152-153, 162-163, 265 and 288; Andreas Lindemann, *Die Markthallen Berlins*, Julius Springer, Berlin, 1899; Edgar Lange, *Die Versorgung der grosstädtischen Bevölkerung mit frischen Nahrungsmitteln unter besonderer Berücksichtigung des Marktwesens der Stadt Berlin*, Duncker und Humblot, Leipzig, 1911, chap. 27.

As Allan Siegel mentions, after a long debate the original network of markets in Budapest ended up following the Berlin model and therefore projected itself as a genuine system. The six original markets, in addition to a central market hall, opened almost simultaneously in the last years of the eighteen nineties. The central market, the first to be inaugurated, was impressive—its huge central nave had a sixty-metre span and measured 150 metres in length. The exteriors concealed the metal structures and emphasised façades and roofs by means of glazed ceramic materials. Metal roofs were usually concealed behind elaborate brick façades, as in Moscow's Nikiforov market. The same structures were built in Scandinavia and the Baltic Countries, where elongated basilican models were adopted in practically all the market halls erected, as described by Omilanowska. The model based on the basilican ground plan with three naves, a clerestory (and less frequently with five naves) and metal structures concealed by elaborate solid façades was also recurrent in the other countries in Central and Eastern Europe.

A key dimension of markets was the fact that their architecture was designed with circulation in mind, i.e., they had an intrinsically functional purpose—that of displaying and selling goods—which could only be fulfilled if an absolutely free-flowing movement was guaranteed. In his notes to *The Arcades Project*, Walter Benjamin had already stressed that the first iron buildings (covered markets, railway stations and exhibition pavilions) 'served transitory purposes … Iron is thus immediately allied with functional moments in the life of the economy.'[45] The concern with obtaining a free-flowing movement of people had already appeared in drawings of the layout of stalls and corridors in many open-air markets of the previous era, as local civil servants hoped to ensure purchases were made correctly, the different foodstuffs were properly classified and stallholders duly taxed. From the construction of the first Napoleonic market halls, 'the mesh of movements and stalls becomes the market's actual ground plan.'[46] Later on,

45. Walter Benjamin, *The Arcades Project*, Rolf Tiedemann (Ed.), translated by Howard Eiland and Kevin McLaughlin, Harvard University Press, Cambridge, Massachusetts, 1999, p. 154 [F2,9]. Georges Teyssot, 'Habits/Habitus/Habitat,' www.cccb.org, accessed Feb. 2015, Urban Library, 1996, observed: 'Two contrasting modes of subjectivity began to insinuate themselves into the world of things: on the one hand, the "transitoriness" that determines a sort of man, mobile and nomadic; and on the other, the old individualism of the inhabitant *par excellence* who defends his traditional "permanence" or "allocation". … It is certainly true that recent studies, for example, on the Victorian country house in Great Britain, or on the apartment building during the Hausmann era, tend to qualify Benjamin's assertion that "iron, then, combines itself immediately with functional moments of economic life".'

46. Bertrand Lemoine, *L'architecture du fer. France XIXe siècle*, op. cit., p. 34.

beneath metal roofs and the transparency of glass, movement became the leitmotif: above all markets were supposed to embody, to 'represent' free-flowing movement. This concern, inherent in markets, determined even the metal support structure—the metal pillars with small sections barely interrupted the activity of the ground floor, now freed of the obstacles of walls and of thick brick supports.[47] As in a modern car park, the iron pillars that supported the roof defined an interior layout divided up into corridors or sections (especially in markets that had three naves) marking the logic of movement of the building, designed to achieve a space wide enough to enable buyers to move around freely and stallholders to load and unload their carts. The transversal span between the pillars in the nave was particularly relevant in determining the placing of the stalls and the width of the corridors in each section, which were supposed to be wide enough to allow for crowds of buyers (a width of less than three metres was unthinkable for corridors in large markets). Lengthwise, the pillars were taken as a guideline for the symmetrical distribution of the rows of stalls on each side. The distance between longitudinal pillars was the reference for dividing the row of stalls into equal portions that determined their width. Finally, openings were foreseen between all the rows of stalls to make it easy to cross from one section to another, thereby multiplying accesses to all sales outlets and favouring criss-cross in lieu of linear movement. The interior corridors merely channelled or prolonged the exterior movement. In spite of their heaviness, the enclosure walls had a number of doors that were emphasised in the façade by the setbacks of the ground plan, and pediments and inflected terminations along the cornice of the elevation.[48] The multiplication of entrances and itineraries lengthwise and crosswise was due, in turn, to the desire to avoid the hierarchical organisation of stalls according to their

47. Even the handbooks published in the first third of the twentieth century, once reinforced concrete had been introduced, noted the qualities of slender iron pillars: 'The most appropriate structures to cover a large space such as that of a medium-sized market, reducing the number and the dimension of supports needed for the roof, are made of metal and of reinforced concrete; the former allows for the use of extremely small uprights.' Daniele Donghi, 'I mercato coperti,' in *Manuale dell'architetto*, Unione Tipografico-Editrice Torinese, Turin, 1923, p. 256-257. Our translation from the version by Manuel Guàrdia and José Luis Oyón in the Catalan edition of this volume.

48. For some interesting remarks on the movement inside markets and the layout of stalls as early as the pre-industrial age in many open-air markets, see *Il disegno di luoghi e mercati di Torino*, Politecnico di Torino, Dipartimento di Ingegneria dei Sistema Edilizi e Territoriali/Celid, Turin, 2006, pages 31, 66-67 and 92-97. See also James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., p. 105-111. For a survey of modern markets that continue to attach the same importance to movement and homogeneity, see Sergio di Macco, *L'architettura dei mercati. Techniche dell'edilizia annonaria*, Kappa, Rome, 1986, chap. 3.

accesses. To a certain extent, the sequentiality of stalls was the culmination of a logic of iron architecture consisting of serialised and repeatable elements (naves, pillars, trusses and roofs) that could be dismantled and rebuilt somewhere else, that could move or 'travel' from one place to another to accommodate similar architectural programmes, as actually occurred with some specific iron and glass structures. The affinity between the various building programmes we discover in iron-architecture handbooks and in general histories of nineteenth-century architecture reflects this common identity—the fact that all these buildings were designed with movement in mind, as interpreted by Benjamin.[49]

Last but not least, important functional matters related to markets were those of ventilation, lighting and sanitary facilities, which were progressively updated during the nineteenth century. Ventilation had been a key issue in such constructions since the early Napoleonic age; as the century advanced, cross ventilation with upper openings was consolidated, for it did not only eliminate foul smells and purify the air but it did so without inconveniencing buyers or sellers. In a century obsessed with eliminating miasmata, the lofty glass and iron *halles* with their great cubic capacity enabled market spaces to be aired and consequently the spectre of infection removed. Such iron and glass structures were also flooded in light and were therefore nothing like earlier dark crammed markets. The huge glass openings in ceilings, the increasingly solid and opaque enclosure walls, and the basements that allowed produce to be kept at reasonable temperatures or in cold stores would also gradually become standardised features. As regards water supply, it soon became important to have good drains and sewer systems with increasingly large volumes of flow and polished or glazed ceramic linings and surfaces that would facilitate the cleaning of stalls and prevent food from decomposing.

Market Management and the Public Sector

Up until the nineteenth century most markets in the United Kingdom were under manorial jurisdiction, but in England and Wales ownership would soon be transferred to municipalities. By the end of the century almost 90 per cent of market halls were under municipal jurisdiction (especially those in large towns), a few others remained in the power of the nobility and only a handful were private property. Between these two dates

49. See Antoni Rovira y Rabassa, *El hierro. Sus cortes y enlaces*, Ribó y Marín, Barcelona, 2 vols., undated (ca. 1900), p. 171, and Nikolaus Pevsner, *History of Building Types*, op. cit.

(the beginning and end of the nineteenth century) what were known as public or market commissions flourished, enabling cities to seize market halls from their former manorial ownership. These commissions administered markets in a fair number of cities until a series of legislative changes allowed noble property to be formally transferred to local authorities. In London, however, most wholesale markets were in private hands. In Scottish cities like Glasgow and Edinburgh public markets were soon abandoned in favour of grocers' shops.

In Latin countries, the weight of municipalities seemed greater from the very beginning. The majority of town councils inherited their prerogatives in controlling foodstuffs sold in markets, but that didn't always make it easy for other new ones to be built. Apparently, since the French Revolution of 1789 town councils in France had managed to obtain resources and technical guidance from the central administration to build new marketplaces. In the case of Spain, however, the later fall of the *ancien régime* made this process much more difficult. In legal terms, it was not until 1834 with the liberalisation of commercial activity that permission was granted to trade in 'all eatable, drinkable and burnable items', with the exception of bread. The confiscation orders drawn up in 1836 offered cities the possibility of rearranging and modernising urban space, introducing a number of new facilities that included markets. The permanent economic instability of the public coffers did not, however, enable programmes comparable to the French model to be implemented.

Broadly speaking, municipal intervention in market halls on the Continent was greater than in the British Isles, especially when the covered markets erected during the second wave of construction in Europe were added to the list of such buildings. In the mid-eighteen sixties Risch surveyed approximately sixty markets and revealed that 40 per cent of those in Great Britain, France, Belgium, Holland, Germany, Austria and Italy were administered by private companies and owners (some of which were concessions). Even in Paris, four were private property and five others were exploited as concessions and reserved the right of reversion, although these were certainly of secondary importance. During these years other cities also considered these options. In Madrid, for instance, private ownership prevailed in the case of the first two large iron markets built in Spain, whereas in Barcelona, in spite of the number of private offers made for the exploitation of wholesale and retail markets, the municipal alternative eventually proved victorious. Risch's report, which was an attempt to enlighten Berlin town council with respect to the management of the city's future markets and included an offer made by a construction company

to build several, explained that most public markets in Europe were municipal and that Vienna was thinking of establishing a public system with a central market and several district markets under local administration. Risch was convinced: 'We will only fulfil our objectives if it is the State rather than private companies that takes charge of the situation.'[50] The establishment of a powerful public market system after the decade of 1880 in Berlin, other German cities and other towns in Central, Eastern and Scandinavian Europe, not to mention the diffusion of municipal markets in Southern Europe meant that by the end of the century the network of public markets had been consolidated throughout the Continent. Exactly the opposite path was followed in the United States, where, after a brilliant public market phase, the singular advance of private markets and grocery stores was produced in a widespread atmosphere of deregulation, provoking the collapse of the thriving municipal market system of the first half of the nineteenth century.

In the early twentieth century, with the construction of the new markets in Vienna, Budapest and other cities in Central and Eastern Europe, the local administrations of a number of large cities on the Continent established a coordinated market network presided over by a central market. Some of the Central European cities that had begun to build markets in the last third of the nineteenth century then became the touchstones of a coordinated municipal system. If these markets included storage of certain goods, they could also help regulate prices in years of shortages and avoid the social conflicts derived from the high prices of provisions, an issue that would reach its high point during the period of inflation at the time of World War I. The coordination of all markets within a general urban supply system (the Berlin model of a central market connected to a railway, and in some cases to river wharves) would be copied by other German cities such as Dresden. In the others, whether if there was only one market or whether the activity of retail markets had been on the wane until World War I, the modern central market that supplied all the city's retail markets gradually gained prominence. Just before the outbreak of the Great War, the municipal central market in Munich (a city in which hardly any covered markets had been built), that also stored and refrigerated food and consisted of four large parallel blocks with inner metal structures specialised in different

50. Theodor Risch, *Bericht über Markthalen in Deutschland, Belgien, Frankreich, England und Italien*, op. cit., p. 450.

Market staff at St John's Market in Liverpool, 1885

foodstuffs and connected by railway, was considered in America to be the world's most modern central market.[51]

For town councils, the organisation of a market system also meant the creation of a specialised local administration with specifically trained staff. The rental of stalls, controlled and made public by town councils, replaced the taxes and sales rights collected by the *ancien régime*. As a result, such centres required regulations, initially drawn up for each individual market and then for the totality, with special rules for the various wholesale markets. The amount of rent paid by stallholders (usually calculated according to the area they occupied), the auctions and leasing of stalls to relatives of licensee sellers were also regulated by local authorities. Opening and closing times, control of weights and measures, inspection of foodstuffs in suspect cases of contamination, fines and confiscation for selling food in bad condition and internal policing, cleaning and general order made the control of markets a municipal prerogative that evoked past times, before the liberalisation of the food trade. In many European cities of the late nineteenth century like

51. See Helen Tangires's text in this book and also Richard Schachner, *Märkte und Markthallen für Lebensmittel*, Goeschen, Berlin and Leipzig, 1914.

Barcelona, municipal markets were in fact one of the few public services offered to citizens in an age of undeniable dominance of *laissez faire* and a shortage or lack of publicly managed facilities.

The internal management of public markets and their sound financial health became a great source of pride for many town councils, a fact that contributed to the upkeep and renovation of the markets themselves. In Europe, a number of town councils were thus able to resist the offers of private initiative and make a significant contribution to the regulation of urban provisioning and food prices. In cities like Manchester, however, the mismanagement of income derived from stall rental prevented infrastructure from being renovated and markets ended up in private hands.[52] In other cities suffering from serious economic deficits, like many in Spain, the health of public markets was good enough to lead us to believe that they were funded in part by town councils, that the service they provided was so profitable that they could be self-managed and even make provisions of funds for the cities' depleted coffers. In the words of one municipal architect, 'all markets generate income … if some cities don't have them this is not because of the poor condition of their local treasury, or because councillors have shown little interest [in them] but because markets everywhere face a huge enemy: vested interests!'[53]

The Urban Impact

A preliminary issue when it comes to assessing the impact of new covered market halls in European cities is elucidating their true significance with respect to other forms of trade in urban commercial structures, the most important of which was the grocery store, that became widespread in the nineteenth century and was inextricably linked to the consumption of the working classes.[54] The historiographical problem we face is discovering the speed at which they developed and the extent to which they actually rivalled or even disrupted the smooth running of the new markets. Broadly speaking, we have left behind a vision in which grocery stores—that had been thriving since the late

52. Roger Scola, *Feeding the Victorian City: The Food Supply of Manchester 1770-1870*, Walter Alan Armstrong and Pauline Scola (eds.), Manchester University Press, Manchester and New York, 1992.

53. See Ricard Giralt i Casadesús, 'Serveis Tècnics Municipals,' *Revista de la Vida Municipal*, 4, 1923, p. 100. For an appraisal of the management of Manchester's municipal markets in the nineteenth century, see Roger Scola, *Feeding the Victorian City: The Food Supply of Manchester 1770-1870*, op. cit. See also the chapter on Barcelona in this volume.

54. John Benson and Gareth Shaw (eds.), *The Evolution of Retail Systems, c. 1800-1914*, Leicester University Press, Leicester, London and New York, 1992, p. 200.

eighteenth century—won the consumption war in all social sectors (including, of course, majority working-class sectors), to embrace a much more cautious vision in which the new markets, that had virtually been forgotten in the former vision, played a more prominent role than initially foreseen. The question is to find out how large that role was as regards actual citizen consumption throughout the nineteenth century. Studies to date give the impression of a great diversity according to countries, but also to regions and towns. In the United Kingdom, as had been previously the case in the United States and Canada, a number of studies reveal the strength of grocers, butchers and fishmongers whose stores were located outside of markets. The same growth process appears to have taken place in Germany, although somewhat later perhaps.[55] In any event, the importance of this form of food distribution as opposed to market halls seems extremely varied in all countries. While in some English cities like Manchester, public markets had played a crucial role until the middle of the century and their importance had declined considerably by 1870, in other industrial towns like Sheffield apparently half the population continued to purchase their food at markets in the year 1888.[56] This explains why some writers have championed the commitment and positive results of grocery stores against the inefficiency of markets (like Scola in the case of Manchester), whereas others (like Schmiechen and Carls) preferred to focus on the examples of cities where the weight of municipal market halls is greater. Consequently, due to the lack of indisputable studies, no definitive conclusions can be drawn even in countries that have been researching the history of retail trade for a number of years.

Be that as it may, from the information we have about certain cities in the south of Europe, the impact of the retail food trade was far smaller than it was in English-speaking countries. In cities like Barcelona, the hegemony of municipal markets during the years between the two world wars was almost absolute; in comparison with capitals of similar size such

55. Ibid., in particular the essays by Martin Phillips, 'The Evolution of Markets and Shops in Britain,' Dietrich Denecke and Gareth Shaw, 'Traditional Retail Systems in Germany' and John Benson, 'Small-scale Retailing in Canada.' See also Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America*, op. cit., p. 201-205.

56. See Roger Scola, 'Food Markets and Shops in Manchester 1770-1870,' *Journal of Historical Geography*, I, 2, 1975, p. 153-168, and *Feeding the Victorian City: The Food Supply of Manchester 1770-1870*, op. cit.; James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., p. 128. See also Deborah Hodson, '"The Municipal Store": Adaptation and Development in the Retail Markets of Nineteenth-Century Urban Lancashire,' in Nicholas Alexander and Gary Akehurst, *The Emergence of Modern Retailing. 1750-1950*, Frank Cass & Co., London, 1999.

as Manchester, and indeed with other British towns in which the influence of market halls was greater, the fact proved quite eloquent, and was even more significant if we bear in mind that British markets had been losing importance since the first decades of the twentieth century. We should not overlook the fact that other forms of trade such as consumption cooperatives would play a considerable role in the United Kingdom from the late nineteenth century onwards.[57]

Nonetheless, the debate is not limited to comparing sales in market halls with retail trade in external establishments. Numerous forms of pre-industrial trade, like peddling, less stable and more difficult to appraise, also resisted disappearance. Even in large American cities like New York, peddling never lost its importance and quite substantial percentages of food supplies were channelled through street markets, particularly by immigrants. In London, open-air retail markets didn't seem to avoid the proliferation of pedlars in their environs, and by the mid-nineteenth century many of the city's enclaves had become hubs of street trade. In Germany such a supply was common, at least up until the First World War. Not even in cities with strong market systems like Berlin, did trade in the old outdoor markets held on streets and squares disappear completely, as proven by the photographs taken by Heinrich Zille. Siegel reminds us that when Budapest inaugurated her six markets at the turn of the century, the city had forty-four open-air markets in which between 4,500 and 8,000 traders sold their wares.[58] In large southern cities like Barcelona and Madrid, the street markets that often surrounded the perimeters of the new covered markets survived throughout the nineteenth century and burgeoned during times of crises such as the nineteen thirties.[59]

57. Martin Purvis, 'Co-operative Retailing in Britain,' in John Benson and Gareth Shaw (eds.), *The Evolution of Retail Systems, c. 1800-1914*, op. cit.

58. See the chapter by Allan Siegel in this volume.

59. For information on such trade in New York, see Daniel M. Bluestone, '"The Pushcart Evil". Peddlers, Merchants, and New York City Streets, 1890-1940,' *Journal of Urban History*, XVIII, 1, 1991, p. 68-92. The estimates of some distributors attributed between 25% and 40% of sales in the nineteen twenties to peddling (p. 86). For the situation in London, see D. R. Green, 'Street Trading in London: A Case Study of Casual Labour, 1830-1860,' in James H. Johnson and Colin G. Pooley (eds.), *The Structure of Nineteenth-Century Cities*, Croom Helm, Beckenham, Kent, 1982, p. 129-151. The German case is described in Dietrich Denecke and Gareth Shaw, 'Traditional Retail Systems in Germany,' in John Benson and Gareth Shaw (eds.), *The Evolution of Retail Systems, c. 1800-1914*, op. cit., and in Karen F. Beal, *Kaufrute und Strassenhändler. Eine Bibliographie*, Hauswedell, Hamburg, 1975; *fin-de-siècle* Berlin is portrayed in Heinrich Zille *Photographien Berlin, 1890-1910* (introduction by Winfried Ranke), Schirmer/Mosel, Munich, 1975, p. 121-127. For details of street vendors in Barcelona, see Chris Ealham, 'La lluita pel carrer. Els venedors ambulants durant la II República,' *L'Avenç*, 230 (November 1998), p. 21-26, and by the same author, *Class, Culture and*

While it is difficult to ascertain the relevance of markets within the global consumption of cities, it is even more complicated to discover their true impact on the increase and variety of the supply of marketed foodstuffs, on sale prices and on the quality of produce. Schmiechen and Carls have persuasively argued the issue by establishing the huge variety of products offered at the different stalls in British markets, many of which were not taken into account in the surveys of the average cost of a week's shopping or in those of the diet of the working classes, e.g. fish, fruit and vegetables or fowl. Despite basing their studies on non-conclusive evidence, these authors suggest that the revolution in the diet of the British working class in the eighteen sixties—triggered by the rise in salaries that entailed a widespread increase in the consumption of progressively cheaper foodstuffs—could have been connected to the growing supply of these products at the newly opened municipal market halls, given that cities with markets, and therefore a wider variety of products on sale, were able to offer cheaper prices.[60] Connections have also been established with the expansion of the areas supplying markets—boosted by the construction of railways and by international trade, that brought prices down—and with the intensification of farming in the rural areas neighbouring cities. By the end of the nineteenth century, intensive farming and new methods of fruit and vegetable production in the environs of many European cities had made huge progress, enabling them to supply their markets and even send surpluses to other cities, as described by Kropotkin.[61]

The trails of the impact of markets on planning are more precise, and enable us to make clear distinctions between cities with no markets, cities with a single large market in the town centre, and cities with a proper

Conflict in Barcelona, 1898-1937, Cañada Blanch Studies on Contemporary Spain, Routledge, Abingdon, Oxfordshire, 2005, and in Madrid, see José Antonio Nieto Sánchez, *Historia del Rastro*, II, Visión Net, Madrid, 2007, pages 46-51 and 171-193. For a comparison with other contexts, see Ray Bromley, 'Working in the Streets: Survival Strategy, Necessity, or Unavoidable Evil?,' in Alan Gilbert, Jorge E. Hardoy and Ronaldo Ramírez (eds.), *Urbanisation in Contemporary Latin America*, John Wiley & Sons, Chichester, 1982; John Benson, 'Hawking and Peddling in Canada, 1867-1914,' *Histoire Sociale/Social History*, XVIII/35, May 1985, p. 75-83; Andrew Brown-May, 'A Charitable Indulgence: Street Stalls and the Transformation of Public Space in Melbourne', *Urban History*, 23, Part 1 (May 1996), p. 48-71; Susie S. Porter, '"And That It Is Custom Makes It Law". Class Conflict and Gender Ideology in the Public Sphere, Mexico City, 1880-1910,' *Social Science History*, 24, 1 (Spring 2000), p. 111-148.

60. James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., chap. 7.

61. Piotr Kropotkin, *Fields, Factories and Workshops: or Industry Combined with Agriculture and Brain Work with Manual Work*, Thomas Nelson & Sons, London, Edinburgh, Dublin and New York, 1912.

system in which markets are evenly distributed throughout the various districts. In almost all the Russian cities that preserved their traditional bazaars or *torgovie riadi*, in many Balkan towns and in second-rank cities in the former Austro-Hungarian Empire, not to mention in German industrial cities like Bochum or Dusseldorf and in many provincial capitals around Europe, markets were still held outdoors or under the protection of arcades in squares and colonnaded pavilions of pre-industrial origin.[62]

In Great Britain the successful opening of central markets was not sustained. Exeter built two district markets at each end of the city, yet had to close them down shortly afterwards, and the same was true of Manchester and Liverpool. In practically all cases these structures were built on the same sites that had welcomed the former markets in the historical quarters of cities. New urban developments were increasingly dispersed and difficult for markets to supply. Distances to and from markets in these suburban areas dotted with detached houses were multiplied, and the area that could be served on foot was totally insufficient to make such a service profitable. These low-density urban sprawls were, however, much more suited to popular grocery stores or small groups of shopping parades, just as many American cities had been since the mid-nineteenth century.[63] A number of Central European towns in Germany, Austria, Hungary and former Czechoslovakia, as well as others in Scandinavia, were hardly committed to the construction of district markets and as a result repeated the British model of a single central market. Save for the case of certain large cities that ended up consolidating a mature market system, the new urban expansions during the period between the two world wars were not paralleled by the construction of public markets.

In spite of the fact that mature networks of covered markets were only established in a few large cities, their introduction represented an alternative to the model of central covered markets erected on the traditional sites that had been welcoming open-air markets since the Middle Ages. As opposed to the British model, in which covered markets were only exceptionally erected in non-central areas and where shopping therefore meant

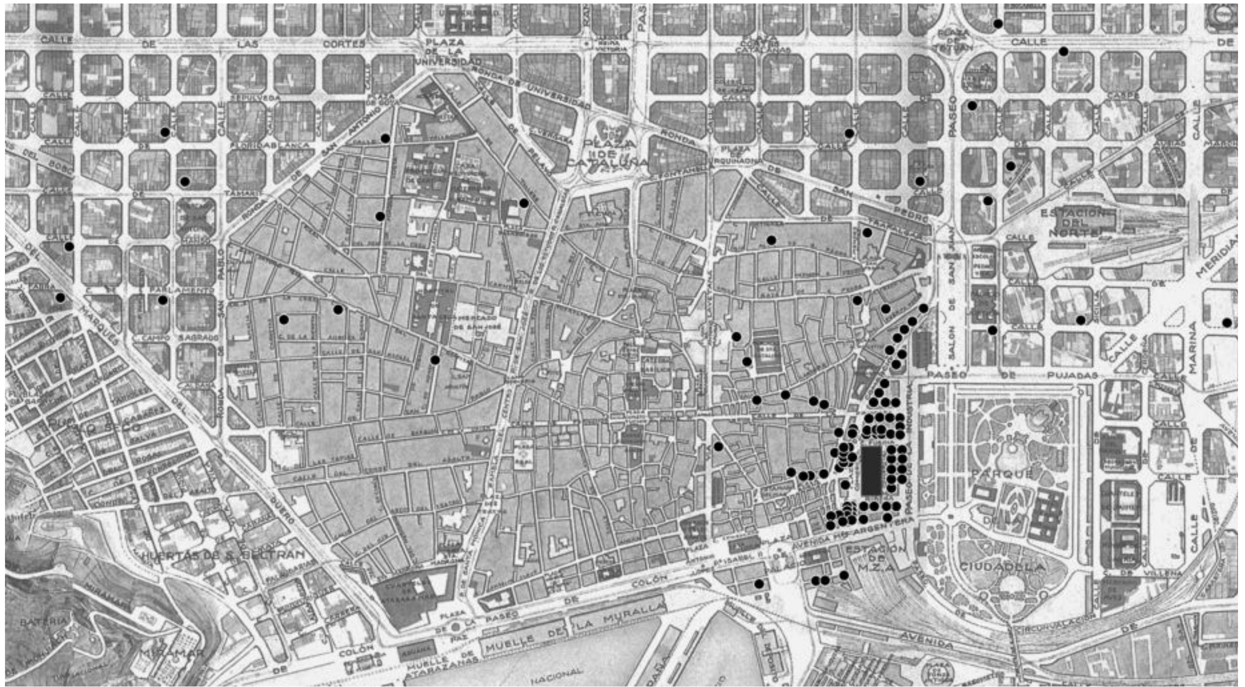
62. Dietrich Denecke and Gareth Shaw, 'Traditional Retail Systems in Germany,' in John Benson and Gareth Shaw (eds.), *The Evolution of Retail Systems, c. 1800-1914*, op. cit., p. 79.

63. See James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., pages 95, 101 and 185-187. The authors trace the evolution of urban growth, from 'intensive' to 'extensive', during the last part of the nineteenth century and early twentieth century, especially after 1914, to explain the decline of British markets in the twentieth century. See also Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America*, op. cit.

increasingly long trips to the city centre, the decentralised Parisian model entailed an experience of city markets that was based on proximity. Whereas the British model failed when it came to accompanying the growth of cities with market halls, the Parisian model of the market as facility, subsequently adopted in a programmed fashion by Berlin and Budapest, and in a more diversified way by Barcelona, Turin, Madrid and other Eastern European cities towards the end of the nineteenth century proved initially successful. Outside of the case of Berlin, in Central and Eastern Europe the idea of a powerful system of markets scattered around cities seemed to take on at a later date, as described by Haiko taking Vienna as an example.

The key to the early success of the Parisian market-facility model did not only lie in the fact that it built district markets, but that it did so in areas with medium and high population densities. As a result, a sufficiently high number of inhabitants actually pivoted around the markets, thereby making them not only economically profitable but also extraordinarily busy buildings from the point of view of sociability. By the year 1914, for instance, almost all large popular neighbourhoods in Barcelona, both in the city centre and in the industrial suburbs, had iron market halls and some of the largest suburbs boasted more than one. The facility and the model of compact city thus came together to act as a tandem and transform the new urban sprawls around markets into bustling areas. In the case of Barcelona, one building manual read as follows, 'Each market acts as a nucleus for different urban groups in the densely populated city, and therefore facilitates its services, making it more convenient for those inhabitants who live closest to it …' Not surprisingly, in those countries with densely populated cities already used to the services provided by the new district markets we come across surveys that reflect the general idea that, 'One market is required per every twenty or thirty thousand inhabitants, so that when a city's increase in population goes beyond a certain limit, this entails the need for new markets.' There could be no better description of the logic of the market as a facility.[64]

64. See Antoni Rovira y Rabassa, *El hierro. Sus cortes y enlaces*, op. cit., p. 172. The description of the word 'market' in *The New Shorter Oxford English Dictionary*, first published in 1933, is also quite illuminating. Italian manuals of the period between the two world wars follow similar criteria: 'A single covered market is not enough in large cities, which need to ensure that people do not travel more than 600 or 800 metres from home to their nearest market. The latter should measure one square metre per every 20-30 inhabitants.' Daniele Donghi, 'I mercato coperti,' in *Manuale dell'architetto*, op. cit., p. 262. See also Francesco Basile, *I mercati*, Collana Leonardo, Messina, 1940.



Plan of wholesalers' homes at El Born market in Barcelona, 1945-1948

In the early twentieth century covered markets were extremely important functional cores for structuring neighbourhoods, i.e., for making cities. The concentration of food stalls in many markets in city centres, especially in Britain, was not limited to foodstuffs but also included a wide range of household goods such as cheap linen, crockery, cutlery and toys.[65] Their ability to attract purchasers on a daily basis was not negligible if we take into consideration the shops that sprang up around them. In many cities on the Continent, like Barcelona, their influence could also be traced in district markets, the interiors of which were strictly reserved for fresh produce while their immediate perimeter welcomed shops selling perishables and non-perishables (salted fish, nuts and dried fruit, pasta), cheap bars and cafés and shops selling general household wares.[66] As Miller suggests

65. James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., p. 166-175. See also Andrew Davies, 'Saturday Night Markets in Manchester and Salford, 1840-1939', *Manchester Region History Review*, vol. 1, no. 2 (Autumn-Winter 1987).

66. See the chapter on Barcelona by Manuel Guàrdia and José Luis Oyón in this volume.

was the case in Barcelona's La Revolució market, the activity of many of these shopkeepers did not rival but complemented that of stallholders, and in fact they themselves purchased stalls 'as a way to extend their family's retail operations horizontally.' As a result, market halls became true centres for economic relations, reproducing on a small scale the mixture of activities that had characterised former outdoor markets. Despite the fact that butchers and fishmongers managed to convince town councils to draw up bylaws forbidding the sale of certain products by the competition within a close radius to markets, the attraction of retail trade was indisputable and, although it is diminishing, it can still be felt today.[67] The areas around markets were also convenient for traders to settle in. As we learn from Miller, more than half the stallholders at Barcelona's intramural Santa Caterina lived in the old quarter of the town, and almost a third within a one-block radius; more than two thirds of those at La Llibertat market lived in the Gràcia neighbourhood and 25 per cent lived within the range of the adjacent blocks. The appeal was even clearer in the case of wholesale markets. At El Born central market, where business hours greatly conditioned journeys to and from work, half of the wholesalers lived in the blocks closest to the market and only 8 per cent in areas that lead us to believe they used some form of mechanised transport to get to work.

In those cities that developed networks of district markets, these became genuine socialising centres. During the period between the two world wars, most workers in Barcelona lived close to a market. As a regular customer at Sants market in the popular Barcelona suburb of the same name put it, 'We've always been local people … from a lively neighbourhood, where it is not uncommon to be greeted by all and sundry, where everybody knows everybody else, where people socialise at the market and chat at grocery stores.'[68]

Special mention should be made of the specificity of gender at markets. The dominant presence of women was indisputable and there is an extensive bibliography on women in the public sphere of consumption among the booming middle classes and bourgeoisie, especially in department stores,[69]

67. See Carles Carreras (ed.), *Atlas Comercial de Barcelona*, Ajuntament de Barcelona, Barcelona, 2003.

68. José Luis Oyón, *La quiebra de la ciudad popular. Espacio urbano, inmigración y anarquismo en la Barcelona de entreguerras, 1914-1936*, Ediciones del Serbal, Barcelona, 2007, p. 329.

69. For an enlightening summary of English studies of the subject, see Richard Dennis, *Cities in Modernity. Representations and Productions of Metropolitan Space, 1840-1930*, Cambridge Studies in Historical Geography, Cambridge University Press, Cambridge, 2008, p. 351-362.

although little is still known of their role in one of the popular public spaces where their visibility was more obvious. Women from all social conditions met at markets—from the maids who shopped for their mistresses, to the humble housewives who shopped on a daily basis after weighing up costs or waiting till the last minute to buy food at giveaway prices. Montserrat Miller describes the transcendental role of saleswomen and female stall owners in Barcelona (wholesalers were predominantly male), and these women tended to establish privileged relationships with a mainly female clientele. Important territorial networks of primary solidarity were consolidated around markets, based on bonds of neighbourhood and kinship, and numerous festivities derived from retailers' associations were crowned by celebrations. The social role of women structuring the life of markets projected them symbolically into the public sphere as 'market queens'.[70]

The First Decline of Markets

In the early twentieth century European markets began to show the first undeniable symptoms of stagnation. Their progressive erosion was particularly noticeable in countries that had established innovative models, followed by other European regions. This downturn, that had been anticipated in the United States as early as the eighteen fifties,[71] progressed for more than fifty years until the virtual liquidation of market systems as they had been conceived in the nineteenth century.

The first and no doubt most important decline of markets was produced in Great Britain. After 1890, especially after the First World War, the construction of these buildings dropped considerably (no new market hall was built between the years 1910 and 1920 and very few up until 1950), the main reason being the revolution in food supply brought about when the distribution channel was dominated by large wholesalers, breaking the direct and local relationship between producer and retailer that

70. See the essay by Montserrat Miller in this volume.

71. As new uptown neighbourhoods were developing in New York, an 1885 publication wondered whether markets were permanently doomed by the growing competition of private shopping centres and stores. Prices were certainly higher in the latter, but as well as being close to residential homes they offered a much better service—customers were treated better, their tastes were catered for and they could pay on account, which meant they could send their servants to shop. In comparison, municipal markets were criticised for their poor upkeep, their lack of cleanliness and the vulgarity of their stallholders. In Philadelphia, the clerk of the markets of 1913 was convinced that in the age of the telephone and neighbourhood shops, the old habit of going to market was a thing of the past. In actual fact, by the late nineteenth century Philadelphia had lost a considerable number of her markets. For further details, see Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America*, op. cit.

had prevailed in the model of farming and food distribution in nineteenth-century markets. A wide range of products like fruit and vegetables, potatoes, eggs, dairy produce and, above all, industrially cured or canned foods such as imported meat and fish, were dominated by intermediary wholesalers directly or indirectly related to large cooperatives or booming food chains. The substantial price reduction increased the proportion of co-operatives and food chains in 1914 to a fifth of the total of food sales; by the end of the World War Two, the large food distribution chains and co-operatives amounted to a third of the total.[72] Moreover, other purchases were made less frequently in markets and increasingly in shops located in new peripheral neighbourhoods, especially when the huge shock wave of urban construction in the period between the two world wars led to a burgeoning of the outskirts of main cities. Significantly, the large-scale construction of public housing by town councils during these years in areas of urban growth was bereft of covered markets.

The authors who have studied the case of France have also observed a certain weakening of markets in the last years of the nineteenth century, disrupted by the new forms of marketing farm produce (wholesalers, co-operatives, etc.) and by the decline of traditional agriculture. To this drop, accelerated by the Great War, we should add the lack of upkeep and the subsequent demolition of many structures. Be that as it may, this did not mark the definitive collapse of French markets, which in most cities were still bustling with life. The main problem was that as the century progressed, public budgets found it increasingly difficult to meet the needs of renovation of such facilities. Open-air markets did not need great investments or installations and adapted more flexibly to the new situation. The fact is that those held in public spaces never quite disappeared, and around the year 1890 Guadet observed that in Paris, while some long-established markets held under old awnings managed to remain open, the new ones built at great expense were closing one after another.[73] The survival and re-emergence of outdoor markets was a recurrent phenomenon.[74]

72. See James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, op. cit., chap. 10, and Martin Purvis, 'Co-operative Retailing in Britain,' in John Benson and Gareth Shaw (Eds.), *The Evolution of Retail Systems, c. 1800-1914*, op. cit.

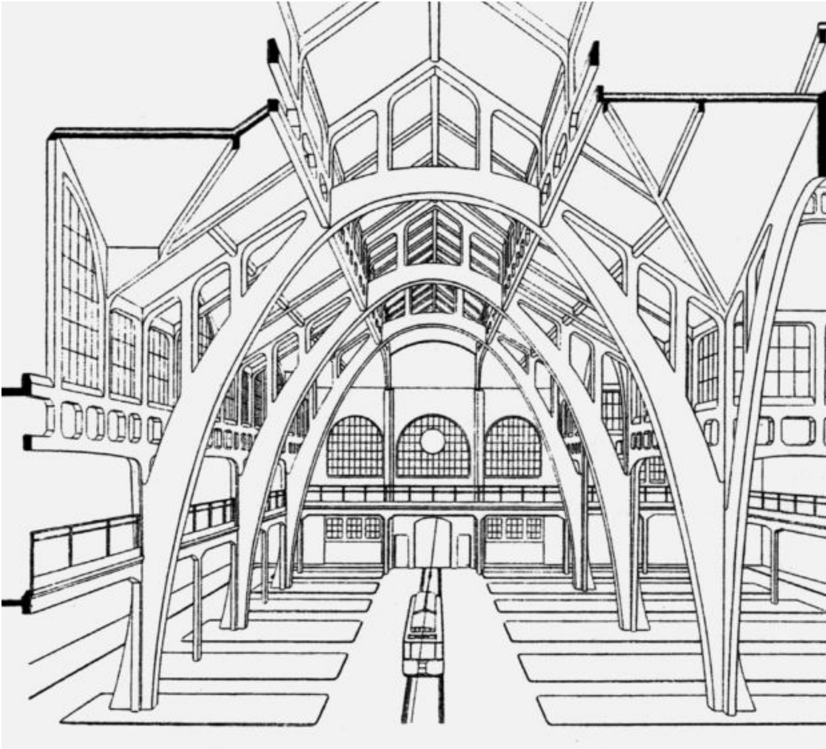
73. See Julien Guadet, *Éléments et théorie de l'architecture* [4 tomes], Librairie de la Construction Moderne, Paris, undated [ca. 1920]. Quoted in Gilles-Henri Bailly and Philippe Laurent, *La France des halles et marchés*, Éditions Privat, Toulouse, 1998, p. 45: 'à Paris même tandis que quelques vieux marchés tenus sous les anciens parapluies de toile goudronnée réussissent à merveille, les marchés neufs, construits à grands frais, aménagés avec luxe, ferment les unes après les autres.'

74. Gilles-Henri Bailly and Philippe Laurent, *La France des halles et marchés*, op. cit., p. 45-48.

In those countries where covered markets were erected at a later date, these reflected the latest innovations in early twentieth-century architecture and planning. In spite of the decline in some retail markets around the time of the First World War, Germany became a pioneer in the construction of covered markets, to be precise, of a new generation of central markets made of concrete. The tendency to build them in specific isolated places where farm produce could be rapidly processed from railways and river transport to the lorries and loading bays of wholesalers had first emerged when the great central market in Munich was designed by Schachner just before the war. German central markets made of concrete after the war consolidated the disposition to functional specialisation and introduced the lorry as the main vehicle for food distribution, a tendency that culminated in the markets built in large American cities in the thirties. Moreover, they took the spatial and functional possibilities of reinforced concrete construction to its maximum splendour. The search for large spans in market architecture and the aspiration to make markets increasingly open and uniform covered spaces had emerged in German markets in the late nineteenth century, and can also be traced in many markets built around Europe in the early twentieth century. In lieu of traditional trusses, we discover the use of iron and arches that became progressively more audacious, as exemplified by those in La Mouche livestock market and slaughterhouse built by Tony Garnier between 1907 and 1914,[75] and by the Central and Colon markets in Valencia built in the second decade of the twentieth century. The brighter structures, however, were those made of concrete. Parabolic concrete arches replaced iron arches in Breslau market, built between 1906 and 1908[76] by Heinrich Küster, although the possibilities of the new material would be taken to constructive and expressive heights in two large central markets: the one in Frankfurt, designed by architect Martin Elsaesser, which opened in 1928, and the one in Leipzig, designed by engineers Franz Dischinger and Ulrich Finsterwalcher and architect Hubert Ritter, inaugurated the following year. In the former, a tall longitudinal pavilion measuring over two hundred metres in length was built parallel to the railway tracks. The section, without

75. See 'Les bergeries du marché aux bestiaux,' *Architecture (Société centrale des architectes)*, 52, 1925, p. 187-188; Howard Robertson and Francis Rowland Yerbury, 'The Lyons Market: Tony Garnier, Architect,' *Architect & Building News*, 119, p. 467-472; and 'Marché aux bestiaux et abbattoirs de La Mouche à Lyon,' *Cahiers d'Art*, no. 8, 1928, p. 343-351.

76. Georg Osthoff and Eduard Schmitt, 'Markthallen und Marktplätze,' in *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung*, op. cit., p. 403-407.



Interior view of Breslau Market with concrete arches, 1906-1908. Architect: Heinrich Küster

pillars, was defined by huge reinforced-concrete arches that formed the skeleton of a space with a forty-metre span, and the arches were separated by cylindrical vaults.[77] Leipzig market consisted of three large adjacent domes made of reinforced concrete and a square ground plan that covered an area

77. For more information on the markets of Frankfurt, see *Architectural Review*, vol. 71, 1932, p. 60-61; Martin Elsaesser, *Martin Elsaesser. Bauten und Entwürfe aus der Jahren 1924-1932*, Bauwelt-Verlag/Ullsteinhaus, Berlin, 1933; and Roberto Secchi, *L'architettura degli spazi commerciali*, Officina Edizioni, Rome, 1991, p. 134, 136-139. Those built in other German cities are described in 'Markthallen in Reims und Leipzig,' *Wasmuths Monatshefte für Baukunst*, 14, 1930, p. 105-119; 'Leipzig Market Hall: Architect, Hubert Ritter,' *Architect & Building News*, 136, 1933, p. 138-139. On German markets built before the First World War, see Georg Osthoff and Eduard Schmitt, 'Markthallen und Marktplätze,' in *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung*, op. cit., and Richard Schachner, *Märkte und Markthallen für Lebensmittel*, op. cit. In 1941 another large central market opened in Cologne, designed by architect Teichen: 'Die neue Grossmarkthalle der Stadt Köln,' *Moderne Bauformen*, 40, 1941, p. 97-108; 'Large Market Hall in Cologne,' *Deutsche Bauzeitung*, I, 1941, p. 1; and 'Central Market Hall,' Cologne, *Architekt*, 5-6, 1942.

measuring over two hundred metres in length and seventy-six metres in width. The reinforced-concrete domes (of which only two would be built) formed a self-bearing system that made it possible to cover great distances between supports (in comparison with the cupola of St Peter's in Rome, for instance, the space free of pilasters was quadrupled) and provided a uniform span. The wide-open spaces and unobstructed ground plans conceived by the architecture of iron markets culminated in the lightweight domes of reinforced concrete.[78]

The suggestive plasticity of the curved roofs of these markets led the architects and engineers of the Modern Movement to value them as means to achieve hitherto unthinkable forms of expression. A substantial part of the most innovative concrete building work produced in the years between the two world wars was designed for large central market halls and slaughterhouses: first of all the one in Reims, designed in 1923 by Émile Maigrot; followed by Grossard's project for Gennevilliers in the thirties and early forties; the Obor premises designed by Creanga and Georgescu in Bucharest; Vevey market, with its huge cylindrical vault with a fifty-metre span built in 1935 by Taverny, Schobinger and Getaz; the Helsinki building designed by Hytonen and Luukkonen; the Maison du Peuple in Clichy, by Beaudouin and Lods; Algeciras market designed by Torroja; those in Madrid by architect Ferrero; the central market in Florence planned by Michelucci; the fruit, vegetable and flower market in Pescia, by Gori, Ricci, Savioli and Brizzi; and the fish markets in Naples and Ancona, designed by Cosenza and Minucci, respectively.[79]

78. Dischinger himself would shortly afterwards design a huge circular variety hall, measuring 140 metres in diameter and 44 metres in height, that quadrupled the space free of supports of the Leipzig building. On the possibilities of large open spaces made of concrete and the role played by Leipzig market in the path followed by the Modern Movement towards the openness of large covered spaces with reinforced-concrete domes, see Ludwig Hilberseimer and Julius H. Vischer, *Beton als Gestalter*, Verlag Julius Hoffmann, Stuttgart, 1928. In 1935 a mixed-use market building (wholesale and retail sales) opened in Karlsruhe.

79. 'Markthallen in Reims und Leipzig' and 'Covered Market and Festival Hall, Gennevilliers,' *Construction Moderne* (1 November 1936), p. 70; 'Covered Market and Festival Hall, Gennevilliers', *Parthenon*, 1939, p. 180; 'A Covered Market at Vevey, Switzerland,' 51, 1936, p. 341-348; 'Markt und Stadt Halle für Vevey,' *Moderne Bauformen*, 36, 1937, p. 169-172; 'A Covered Market at Vevey,' *Architectural Record*, 79, 1936, p. 374-379; 'Covered Market, Helsinki,' *Architect & Building News*, 1936, p. 312; Javier Ferrero, 'Nuevos mercados madrileños,' *Arquitectura*, 17 (June 1935), p. 115-124; 'El mercado de los pescados,' *Arquitectura*, 18, 1936, p. 2-11; 'Competition Designs for the Central Market at Bratislava,' *Slovensky Staviltel*, 11-12, 1937, p. 225 and ff.; G. Braive, 'Maison du peuple de Clichy', *Construction Moderne*, 54, 1939, p. 486-491; 'A Public Market, Clichy,' *Architect & Building News*, 159, 1939, p. 164-166; 'A Market Hall at Clichy,' *Builder*, 158, 1940, p. 273-275; 'Clichy Public Hall,' *RIBA Journal, Progressive Architecture*, 1948, p. 57-61; 'Proyecto para un mercado de fruta, flores y verduras en Pescia,' *Revista de Arquitectura*, Buenos Aires (September 1949), p. 238-242;

Most of these new market halls, which were more often than not central markets, were located in cities and countries that had not experienced the first wave of covered market construction.[80] We could say that these European countries took over from those of the first generation of markets. The case of Spain proved quite relevant in this respect. In spite of the country's historical backwardness in terms of commercial structures, between the years 1910 and 1936 a considerable number of markets were built in large Spanish capitals and smaller towns. The renovation of Madrid's market system in the thirties was characterised by the use of reinforced concrete. Barcelona and the Catalan region were particularly active areas in this sense.[81] Small provincial cities in Spain that had not had a metallic market hall erected in the nineteenth century built their first and last concrete market at this time; in some cities, like Logroño, the market would stand as one of the most emblematic and well built structures of the twentieth century.[82] During the years between the first and the second world wars many large Italian cities erected concrete structures selling meat, fish, fruit and vegetables and fowl (the central markets in Rome, Milan, Genoa, Venice and Naples, and Cuzzi's Turin market of 1934), and so did medium-size towns such as Padua.[83]

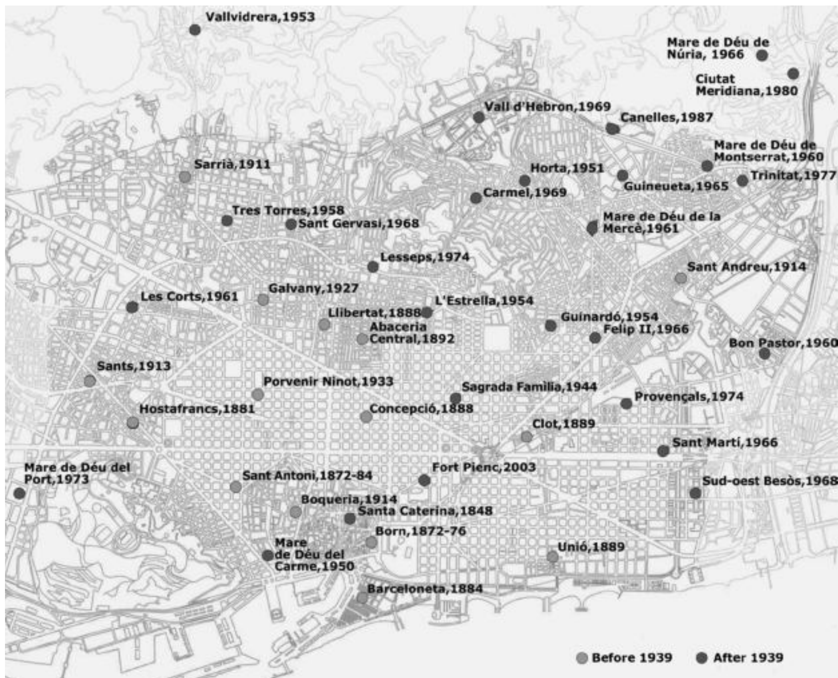
Gaetano Minucci, 'Mercato del pesce in Ancona,' *Spazio*, 2, 1951, p. 48-53; 'Marché aux poissons, Ancone,' *Architecture d'Aujourd'hui*, 24, 1953, p. 14-16. Other concrete markets were built in Vichy in 1934, in Basle, the cupola of which was inspired by the dome in Leipzig market. Those built in Gennevilliers and Vevey were based on the constructional concept of Reims market. For an excellent appraisal of all these markets, many of which were central markets, erected during the years between the world wars, see Francesco Basile, *I mercati*, op. cit., pages 9-13, 63-76 and 89-112. Market halls built in the nineteen fifties, such as Royan market in France and Hamburg central market, were also the object of discussion in architectural publications. For a general survey of all these designs from an architectural point of view, see Roberto Secchi, *L'architettura degli spazi commerciali*, op. cit., p. 131-135, and Roberto Aloi, *Mercati e negozi*, Hoepli, Milan, 1959, p. 1-59.

80. For the example of the slaughterhouse in Madrid, see *El Matadero Municipal de Madrid. La recuperación de la memoria*, Ayuntamiento de Madrid, Madrid, 2006. On the new central markets built in the Italian cities of Rome and Bologna, see Giuseppe Stemperini, 'La questione di un unico mercato alimentare all'ingrosso nella Roma post-unitaria: la scelta dell'Ostiense,' *Roma moderna e contemporanea*, XII, 1-2, 2004, pages 49-50 and 57-58, and David Sicari, *Il mercato più antico d'Italia. Architetture e commercio a Bologna*, Editrice Compositori, Bologna, 2004, p. 57-64.

81. See Esteban Castañer Muñoz, *L'architecture métallique en Espagne: les Halles au XIXe siècle*, Presses Universitaires de Perpignan, Perpignan, 2004. It is important to stress the activity of the newly founded body of municipal architects in Spain and their journal, *CAME*, that published a number of articles on markets between the years 1929 and 1936. Architect Giralt Casadesús, driving force of the publication, also devoted a monograph to the subject, *Mercados. Teoría y práctica de su construcción y funcionamiento*, Cuerpo de Arquitectos Municipales de España, Barcelona, 1937.

82. See 'Equipamiento comercial en edificios de interés arquitectónico,' *Cuadernos de la Dirección General para la Vivienda y Arquitectura*, Ministerio de Obras Públicas y Urbanismo, Madrid, 1989, p. 25-34.

83. Francesco Basile, *I mercati*, op. cit., p. 63-76.



The covered markets of Barcelona, before and after 1939

The situation in the countries belonging to the former Communist bloc described by Omilanowska in this book reveals the vitality of large European cities in the so-called outer periphery, in Eastern, Central Eastern and Northern Europe, up until the outbreak of World War Two. We could, therefore, speak of a third generation of market halls, that began to be erected around 1900 and are still standing. Budapest completed her late plan for setting up district markets in the early years of the twentieth century, and built a central market hall in the interwar period. Many other cities in Central, Eastern and Scandinavian Europe such as Prague, Warsaw, Bucharest, Helsinki and towns under German influence like Gdańsk, Breslau and Chorzów went on building markets after having begun to do so in the late nineteenth century. Many others opened their first market hall at this time: Riga (which built a huge central structure in the thirties), Vilna, Katowice, Ploiesti (which boasted a beautiful octagonal concrete cupola with a fifty-metre span designed in 1935 by architect Socolesco), Ljubljana (a splendid market hall planned Josef Plecnik), Sofia, Kiev and Odessa, as well as Turku, Tampere and Oulu in Scandinavian Europe.

In any event, the age that witnessed the building of the third generation of European market halls was not characterised by the same intensity of construction as the two previous periods. A substantial number of the new structures were exclusively central markets; virtually no new retail markets were built at district level, so the intense urban growth of the early twentieth century was not accompanied by an evenly distributed network of markets. Such was the case in Germany, France and Italy; Spain and certain Eastern European countries continued to open markets during the years between the two world wars, although these were the exception that proved the rule.

The Second Decline of Markets and the New Crossroads

The definitive crisis was hastened in the aftermath of the Second World War. The long period during which no investments were made, the destruction caused by the war, the renovation of city centres and, above all, the progressive increase in car ownership and dispersion of the population decimated the legacy. Moreover, the revolution brought about by supermarkets and self-services led to serialisation and to the packaging of goods on a totally new scale, and thereby contributed to making the traditional market definitely appear as an anachronistic option. Quality was increasingly associated with brands instead of with the establishments that sold goods. Indeed, the nineteen fifties and sixties witnessed the swift development of new forms of trade in Europe which, despite being combated by the representatives of traditional trade, enjoyed the decisive political support of economic teams concerned with containing inflation. The scene evolved rapidly after the sixties, when the foundations of the present system were laid in the United Kingdom, France and Germany. It is not surprising, therefore, that in the main Western European countries the most destructive period for markets should have been the years following World War Two. Many were modernised, losing in the process their original character, or else were replaced by other commercial formulas on account of being located in central and usually congested urban areas. The eventual demolition of Les Halles in 1971 and the debate surrounding Covent Garden around the same time marked the most visible and dramatic moments of this process of destruction and abandonment. The former had the greatest international impact and triggered public awareness of the need to conserve nineteenth-century structures.[84]

84. The architectural journals published during this period are an excellent guide for following in detail the projects designed to replace, adapt or renovate old markets to meet new commercial requirements.

Map of Madrid's Market Plan and its areas of influence, 1944

While this was the trend in more developed European countries, during the fifties and sixties a new generation of markets, the fourth, was built in countries on the periphery of Europe such as Spain and in those under former Soviet influence that had been quite productive in the first half of the twentieth century. As Siegel tells us, the initial structure of metallic markets in Budapest that was completed in the early years of the century began to be complemented by another generation of market halls in the new areas of growth of the city in 1949; in all, eight new markets would be inaugurated in seven of the city's districts. During the Communist régime, Bucharest also opened a number of unroofed neighbourhood markets that supplied the new housing blocks on the outskirts. In the eighties, several concrete markets were built featuring large domes in the so-called food and agriculture complexes, although only two of these 'hunger circuses' as they were popularly known were officially opened. Interest in market halls was also renewed in Spanish cities. In Madrid it had been obvious since the end of the Spanish Civil War, as reflected in the report published by the town council that summed up the work carried out between the years 1939 and 1943. During this short period, four markets were erected (thereby increasing the total number from ten to fourteen), in keeping with a plan that anticipated twenty-six such installations. The new buildings were envisaged as district facilities and genuine urban focal points to be promoted by the new town planning.[85] In this sense, the case of Barcelona was exemplary: between 1939 and 1977 twenty-six market halls were built, some of which replaced former street markets, but most of which were designed to be the only such facility in the new peripheral growth areas. While in Madrid the renovation of markets that began in the thirties meant the disappearance of the most outstanding iron buildings, in Barcelona practically all such structures were conserved. As a result, paradoxically, a latecomer city was able to retain a greater legacy than the towns it was modelled on, not only in terms of architectural heritage but also as regards the continuance of its commercial functioning. In spite of the number of stalls that have closed in recent years, the activity of markets in Spanish cities today is still incomparably greater than it is in France, not to mention the United Kingdom.[86]

85. See, for instance, *Mercados de Madrid: labor realizada por el excelentísimo Ayuntamiento, Comisión Especial de Mercados*, Publicaciones de la Sección Cultura e Información, Madrid, 1944.

86. These differences are also obvious in one and the same country, as exemplified by Great Britain. See Deborah Hodson, '"The Municipal Store": Adaptation and Development in the Retail Markets of Nineteenth-Century Urban Lancashire,' in Nicholas Alexander and Gary Akehurst, *The Emergence of Modern Retailing. 1750-1950*, op. cit. A swift survey of the information on market systems in

Up until the energy crisis of the mid-seventies, many of the European markets belonging to the second, third and fourth generations, both in Mediterranean and Central Eastern Europe, managed to withstand with dignity the incipient incursions of new forms of trade. Nonetheless, the economic crisis of the period and the fall of the Communist régimes in the late eighties placed cities at a difficult crossroads. Today nobody doubts that the increase in number of hypermarkets in large cities in the European Union has weakened the traditional trade that enlivened city centres. Although at the onset of the Great War, France was the European country that possessed a greater number of covered markets, and today 43 per cent of cities with over 10,000 inhabitants have one or more market halls, there are three times more unroofed markets than roofed ones. In fact, only thirteen of the seventy-eight Parisian markets are covered structures.[87] Even in Barcelona, the city that boasts the most complete and evenly distributed network of covered markets in Europe, the decline is undeniable—the proportion of market sales in overall urban consumption has also dropped considerably with respect to previous days of glory.[88]

The basic challenge faced by market halls today is the salvation of all this built capital and, more importantly, the reuse of local trade and services to structure cities. The possibilities of intervening in markets, the feasibility of continuing to use them, either as built heritage or as potential urban structures, as makers of cities in Europe vary extremely as a result of the historical differences we have been examining in this introduction. European market cities developed at different paces, i.e., following different

various cities reveals that in Paris, which served as a model for large Spanish cities, only eleven covered market halls out of a total of seventy-eight have survived. Most of the others, outdoor markets, are held only twice a week, including a Saturday or a Sunday. Covered markets in Paris open six days a week, for approximately forty-five hours. On average, opening hours for all markets are 2.72 days a week and the average per market is 20 hours. In Lyon, only four out of a total of thirty-five markets open forty hours a week, and seven open approximately twenty hours per week, the average being 2.37 days and 16.7 weekly hours per market. In Marseilles ordinary markets, totalling twenty-three, are distinguished from *marchés forains*, that total twelve. Two markets open sixty-six hours a week, fourteen open around thirty hours a week and the rest less than thirty. On average, opening times for ordinary markets are 4.43 days and twenty-six hours per week, while in the case of *marchés forains* the average is two days a week. In comparison, Madrid has fifty-one markets (in a municipal area covering 607 square kilometres) and Barcelona has forty (in a municipal area of 92 square kilometres), all of which are covered structures that open approximately forty-seven hours a week, Mondays to Saturdays (in Madrid opening time is on average forty-seven hours, and in Barcelona forty-seven and a half). Valencia possesses eighteen markets and both ordinary and extraordinary markets open on average more than forty-eight hours a week.

87. See Carol Maillard, *25 halles de marché*, AMC-Le Moniteur, Paris, 2004, p. 10.

88. See the essay by Guàrdia and Oyón in this book.

chronological cycles of growth (expansion), peak, continuance and recession (decline), and therefore the roles they are able to play also differ. Some cities have no covered markets at all and only hold occasional outdoor markets, while others still conserve a weakened network of markets relatively well distributed throughout urban areas (or at least in the densest parts), a system indebted to the continental model of homogeneous spreading of markets.

To speak of markets in pioneering countries, particularly in English-speaking countries, now that they have either disappeared or been converted to other uses, is extremely difficult. The abandonment of London's Covent Garden around 1970 seemed to be the most visible aspect of a widespread process of disappearance of former covered markets. Concern over the deterioration of city centres and the loss of such buildings favoured conversions that respected architectural heritage in the city of London.[89] Be that as it may, from a functional point of view the old markets seemed finally doomed. The only hope was that of a new lease of life for simpler commercial structures, many of them roofless, albeit in the distant future. Around the same time, in the early seventies, some voices defended farmers' markets as fully functional 'anachronisms'.[90] They were dearer than supermarkets but had managed to cater to consumers' desire for fresh, quality produce from the rural areas closest to cities, thereby rekindling the old friendship between producer and buyer that had existed in early market places. In contraposition to those who considered markets inefficient and anachronistic, the energy crisis of the seventies and growing environmental awareness were decisive arguments in their favour. Over recent decades they have enjoyed increasing support and have grown spectacularly.[91] However, their impact on urban space and their ability to structure commercial fabric seldom

89. The case of Covent Garden is studied in depth in Robert Thorne, *Covent Garden Market: Its History and Restoration*, The Architectural Press, London, 1980.

90. See Jane Pyle, 'Farmers' Markets in the United States: Functional Anachronisms,' *Geographical Review*, LXI, 2 (April 1971), p. 167-197.

91. In 1994 the United States Department of Agriculture, USDA, began to publish the *National Directory of Farmers' Markets* (on line) that lists all the farmers' markets doing business in the country. Between the years 1994 and 2006 their numbers doubled from 1755 to 4300. See www.ams.usda.gov/AMSv1.0, accessed May 2010. Open-air farmers' markets have been set up and run since 1976 within the green market and agriculture programmes backed by the Council on the Environment of New York City, CENYC (now known as GrowNYC), www.cenyc.org/site, accessed May 2010. Regional agriculture is promoted, continuous supplies of fresh local produce are guaranteed and farmers are supported thanks to the new opportunities they have to sell their produce. See also Theodore Morrow Spitzer and Hilary Baum, *Public Markets and Community Revitalization*, Project for Public Spaces and the Urban Land Institute, Washington DC, 1995.

deserve a mention, when the latter is as fundamental an issue today as it has been throughout their history.[92] As Michael Sorkin recalls, in recent years we have witnessed the gradual disappearance of the 'historical laws of proximity, the very cement of the city.' The logical consequence of this verification is that mere conservation of historical remains is not enough —what is important is to conserve the 'human ecologies that produced and inhabit them.' Every market day, the farmers' markets and *marchés forains* of many French cities revive the old laws of proximity between producer and stallholders, between market gardens on the urban perimeter and the city itself, between the market and its immediate area of influence, redefining the practices of local production with precise geographic limits and seasonal products and reactivating their urban surroundings with numerous commercial and socialising projects.[93] Promoting these markets, almost all of which were outdoor structures, was one of the efforts made to recover cities and that Sorkin identifies with the fight for democracy itself.[94] The structuring role of proximity is still preserved in many cities where nineteenth-century iron markets gave way in the twentieth century to outdoor travelling markets held daily at fixed venues. Alongside her old covered markets such as the one at Porta Palazzo, the city of Turin conserves a network of forty-two markets created during the twentieth century, most of them open-air structures in keeping with the various levels of planning influence: metropolitan, urban and local.[95]

In countries where covered-market networks were still in operation, these offered not inconsiderable advantages. Several Southern European countries like France introduced regulations, such as the 1973 Royer law, that were not posed strictly in terms of urban development but strove to avoid the collapse of small businesses and the waste of commercial

92. There are some interesting initiatives, however, such as the Project for Public Spaces (on-line), that suggests, among other proposals, using markets as elements in the revitalisation of cities and communities, www.pps.org, May 2010. Another interesting proposal is that of the Open Air Market Network, subtitled *The World Wide Guide to Farmers' Markets, Street Markets, Flea Markets and Street Vendors*, www.openair.org, accessed Feb. 2015.

93. This fight for recognition of the local as a sign of identity can be traced, for instance, in Michèle de la Pradelle, *Market Day in Provence*, University of Chicago Press, Chicago, 2006; Roza Tchoukaleyska, 'The Markets of Montpellier: national identity, food culture, and everyday city spaces,' *IXth European Association for Urban History Conference 2008*, Lyon, 27-30 August 2008.

94. Michael Sorkin (ed.), *Variations on a Theme Park: The New American City and the End of Public Space*, The Noonday Press, New York, 1992, p. XI-XV.

95. See Valter Cavallaro, 'Il ruolo economico dei mercati ambulanti e il piano della città di Torino,' in Dino Coppo and Anna Osello, *Il disegno di luoghi e mercati di Torino*, Celid, Turin, 2006, p. 49-59, and Carol Maillard, *25 halles de marché*, op. cit., p. 11.

Renovation of Santa Caterina market in Barcelona, 1997-2004. Architects: Enric Miralles and Benedetta Tagliabue

facilities.[96] From that moment on, the standpoint regarding hypermarkets became increasingly restrictive. In Spain, the impact of shopping centres was felt at a later date. Between 1984 and 1996 the expansion of large-scale shops coincided with the administrative adoption of the French model of commercial urbanism.[97] As had occurred with the plans for unroofed markets in Turin, Barcelona has been attempting since 1986 to use her covered markets to restore harmony in the city, stressing their significance in terms of planning and turning the renovation of the existing market system into a key element in proximity trade. These attempts have improved the infrastructure and image of many markets, although at the expense of

96. For a general survey, see Luis E. Arribas and Jacques Van de Ven, 'Políticas sectoriales adaptadas e insuficiencia analítica: la regulación del comercio minorista,' *Quaderns de Política Econòmica* (on-line), 2nd epoch, 5 (September-December 2003), www.uv.es/~qpe/revista/num5/arribasven5.pdf, accessed Feb. 2015.

97. See Raúl H. Green, Silvia Gatti and Manuel Rodríguez Zúñiga, 'Contraintes réglamentaires et logique commerciale. Le cas de la France, de l'Italie et de l'Espagne,' *Agroalimentaria*, 6 (June 1998), p. 83-93.

a widespread drop in the number of stalls and of an increasingly thematised approach to market practices. As in other areas of post-industrial civilisation, in a hyper-consumption society filled with 'leisure experiences' these attempts can be related to the development of a sphere of consumption in which food is a key element.[98] To place emphasis exclusively on this bourgeois vision of markets can be limiting and in the long run will lead to an inexorable decrease in food consumption channelled through markets, in the interests of the unstoppable rise of other forms of distribution that basically offer lower prices.[99]

The true challenge faced by cities with networks of roofed or unroofed markets is that of avoiding total gentrification and through-and-through 'touristisation'. The thematised renewal entailed by renovation recovers the original idea of the first British markets, the search for the idea of middle-class respectability, emphasising only a limited aspect of the market experience, that of the upper spectrum of demand. Nevertheless, both before and during the golden age of covered markets, shopping at such establishments was essentially a popular experience. Supply and demand of foodstuffs were generated around markets and a wide variety of retailers and buyers: from sophisticated delicatessens to onion and garlic pedlars, from ladies accompanied by their maids to working-class women on the lookout for last-minute bargains on a Saturday. While renovated markets could not offer products as cheap and popular as those found in large chain stores or small neighbourhood franchises distributing fruit and vegetables, as beautiful and patrimonial structures catering only to one sector of demand or to tourist curiosity the days of the new markets are counted. While they may of course welcome tourists and delicatessen customers, more important is that they do not lose their traditional interclass character. What are need-

98. See Gilles Lipovetsky, *Le bonheur paradoxal. Essai sur la société d'hyperconsommation*, Gallimard, Paris, 2006. Néstor García Canclini's research on consumption is also very interesting, for it revises the binary terms of consumption and anti-consumption in which the subject is often discussed. For an ecological vision of consumption and necessities see, for instance, Joaquim Sempere, *Mejor con menos. Necesidades, explosión consumista y crisis ecológica*, Crítica, Barcelona, 2009.

99. The growth of hypermarkets as a new form of commercial distribution shouldn't be considered unlimited and some experts predict a notable contraction of the large shopping centres that dominate today's retail trade. In this sense, *Harvard Design School, Guide to Shopping*, Taschen, Cologne, 2001, p. 72-92, documents a number of abandoned shopping precincts. The time American consumers spend in 'malls' has steadily dropped, and it is believed that new forms of on-line shopping able to guarantee lower prices will lead to a fall in traditional trade, concentrating distribution in a few giant companies. For a critical view of large-scale commercial distribution of foodstuffs, see Xavier Montagut and Esther Vivas (eds.), *Supermercados: no, gracias. Grandes cadenas de distribución: impactos y alternativas*, Icaria, Barcelona, 2007.

ed are policies that combine renovation and new forms of popularisation: the chance for customers to purchase fresh produce (preferably local and seasonal) at cheap prices and for retailers to associate in order to make this feasible and at the same time compete with large-scale food distribution. The idea is also to promote medium and low scale demand, as in the case of stalls run by immigrants. Face-to-face trade in markets offers richer and more genuine experiences than other more generic forms of trade, providing that the capital component on which it is based, the hustle and bustle of market life, is not lost. Links to the past, new habits and cultural diversity in cities can all come together in markets, but to ensure that they continue to be that 'landmark for understanding human relations in neighbourhood practices,' as defined by Michel de Certeau,[100] markets must continue to be privileged centres of sociability and preserve their virtue as genuine sources of proximity—the very stuff cities are made of. If stalls continue to close, one after the other, this won't be possible.

The historical experience of covered markets in Europe teaches us, among other things, that cities characterised by residential dispersion (and unable to offer prices competitive with other modern forms of distribution and sales) eventually demolished their market halls, while denser cities with living networks of markets scattered around neighbourhoods (cities where modern forms of food distribution were introduced at a later date) managed to conserve them. In the latter, markets continue to be assets that favour urban balance, institutions that contribute to the making of cities. Hopefully, we are still in time to avoid making the mistake that European cities made when they gave up efficient and democratic forms of public transport such as electric trams, only to reintroduce them at a later date and at a much higher cost. We are still in time to ensure that market systems in European cities help avoid the weakening of urban life, the loss of the sense of solidarity, of belonging to and appropriating public space entailed by indiscriminate urban dispersion. The strategies and practices we adopt in relation to our markets will determine whether or not we succeed.

100. Michel de Certeau, *The Practice of Everyday Life*, University of California Press, Berkeley and Los Angeles, 1984. Translation by Steven Rendall of *Arts de faire*, volume 1 of Certeau's *L'invention du quotidien*, Union générale d'éditions 10-18, Paris, 1980.

London and the British Public Market. Urban Food, Architectural Form and Cultural Language

James Schmiechen

> *When mighty Roast Beef was the Englishman's food,*
> *It ennobled our brains and enriched our blood.*
> *Our soldiers were brave and our courtiers were good*
> *Oh! The Roast Beef of old England,*
> *And old English Roast Beef!*
> Henry Fielding

Few chapters in the patriotic narrative for the people of Britain in the eighteenth century were as vivid and real as was the ballad 'The Roast Beef of Old England.' It became something of a populist national anthem, and artist William Hogarth even gave it an anti-French twist in one of his best-known paintings. It was a clear message that the British put good food first. In the century that followed, the notion of food superiority remained very much a part of the British identity, but for many, particularly in urban areas, the narrative had acquired a spatial and in many cases an architecturally stunning form: the market hall. The nation's food consciousness, in short, had moved from a particular product to a particular new building type—a modern way of providing what the nation's leading architectural journal called 'food for the millions.'[1]

By setting the London market alongside those of Britain's provincial cities this essay offers two arguments: first, that although late nineteenth century London could boast of some of Europe's most impressive wholesale market halls, in reality the British market hall was invented in provincial cities such as Liverpool and Birmingham as the centrepiece of a major re-arrangement of urban space—a way to teach people of all classes a new world of retailing. Here the goal was to keep alive the traditional public market practice of selling directly to the consumer. Liverpool's enormous new market hall of 1820 may have been the first big breakthrough, but by this time dozens of smaller British towns were on the same pathway to market modernisation and creating a new sort of consumer society.

1. *The Builder*, 19 May 1883, p. 664.

Second, this chapter suggests that the market hall was a cultural phenomenon as much as it was an economic one—the manifestation of a new language of civic virtue and bourgeois class identity that grew in part out of the late eighteenth century era of revolution and enlightenment and was communicated in spatial and architectural language.[2] More than most new urban building types of the nineteenth century, such as railway stations, hotels, public museums and public baths, the public market hall stood for the Victorian notion that good buildings (and spaces) made for good people and good society.

New Ideas about the Old Marketplace

Since mediaeval times, the purpose of the public market had been to provide public access to food coming from the countryside at designated times and to a designated space in the town, usually open-air market-places but sometimes covered stalls or even open-sided 'market houses' for certain perishable products such as butter and eggs. Price and product quality was occasionally regulated by town officials, as were specific market spaces for particular products. There was little or no distinction between wholesale and retail market functions as long as the public had fair access to market products, which meant keeping speculators and middlemen, known

2. A standard work in European urban history claims otherwise—that in Europe, London markets led the way in retail marketing. Spiro Kostof, *The City Assembled. The Elements of Urban Form Through History* (1992), p. 96. Kostof sees market-building reform coming only after the mid-nineteenth century. More recently, Colin Smith argues that the 'consumer revolution' had its origins in London's modernisation of the wholesale trade in the 'long' eighteenth century—and without much change after the eighteen forties. This essay, however, suggests that London's lead was considerably amplified by the building of giant wholesale markets in the period after the eighteen forties—and, as well, the retail side of the nineteenth-century 'revolution' that took foothold in the provincial towns and not London. Colin Smith, 'The Wholesale and Retail Markets of London, 1660-1840,' *The Economic History Review*, LV, 1 (2002), 31-50. Studies of British market history are sparse. Julian Orbach (ed.), *Victorian Architecture in Britain.* 1987 (the 'Blue Guide') is helpful. Other than my own book (James Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History.* Yale, 1999, with a Gazetteer of known market buildings of ca. 1750-1910) there is no general history of the public market or market buildings. The subject is slightly treated in standard works on London government (e.g. David Owen, *The Government of Victorian London. 1855-1889*, London, 1982) and market buildings have been generally dismissed as architecturally insignificant: e.g. see Peter Farriday (ed.), *Victorian Architecture*, 1964. A good but brief account of the public market as an architectural-social space can be found in Thomas Markus, *Buildings and Power: Freedom and Control in the Origins of the Modern Building Type* (1993). Nikolaus Pevsner's *A History of Building Types* (1976) treats it as little more than a new building type. A number of local studies are better, including Maggie Colwell, *West of England Market Towns* (1980), Roger Scolas's work on the Manchester markets (*Feeding the Victorian City*, 1994), and Derek Linsrum's *West Yorkshire Architects and Architecture* (1978). Most British local history library collections have good accounts of local markets. Helpful primary sources include the trade periodicals *The Market Trader* (1922) and *The Markets Yearbook* (since 1955) and the architectural journals *The Builder* and *The Building News.*

variously as higglers and hucksters, out of the market for a period of time (usually the early hours) during which householders got their share.

By the eighteenth century this system was breaking down, in part as a result of the rise of capitalist agriculture. Public markets were moving rapidly in the direction of two distinctly different markets—traditional retail markets where consumers dealt directly with producers/suppliers were being superseded by wholesale markets where townspeople were shut out of the market by middlemen/dealers who struck deals with large- and small-scale farmers. This trend was resulting in fewer and fewer retail sellers in the marketplace. In this 'free-market' course of market deregulation most of London's public markets went in the wholesale direction, leaving food retailing to street sellers or the small shops. The other direction, as taken by progressive-minded provincial cities, continued with the idea that consumer access to public markets was a public good—leading to a radical restructuring of the public market.

The old marketplace had become the centrepiece of a sociocultural battle. Here, under pressure from unprecedented urban growth and an enlightened awareness of space, 'respectable' townspeople sought to end the so-called 'street freedom' long enjoyed by the insubordinate lower classes. Every growing town had its complaints. No longer acceptable was the marketplace with its crowded and ramshackle collection of stalls, increased carriage traffic, its frightening mix of merchandise sold alongside the town whipping post and stocks for local criminals. Neither tolerable was the public slaughtering of animals and meat sold in the open air, side-by-side with bull baiting and other street entertainments, nor the sale of wives. The buying and selling of food had to be separated from numerous opportunities for lawlessness—including prostitution and thievery. Local market officials faced insurmountable obstacles such as insanitation, food adulteration and fraud—as well as common market-day nuisances including brawls among sellers, butchers' wives swearing and quarrelling, and loose animals running wild through the market. Price bargaining often led to fights. Indeed, the marketplace was the scene of some of the community's most uncivilised behaviour. The marketplace had become one of the most contested places of the eighteenth and early nineteenth centuries.[3]

3. 'It is not right,' said one critic of Oldham's open market, 'that the market be turned into a beer garden [by] young men and women … in hundreds [using] foul language … and … rushing and pushing each other.' For more of the same see Schmiechen and Carls (1999), op. cit., chapters 1, 2.

The marketplace was the scene of another battle as well: one over market ownership, usually played out between a municipality and an often selfish and neglectful manorial lord who still held the market rights (and profits), or in other instances, an 'unreformed' local government. A transfer of ownership was often expensive for a town and sometimes necessitated underwriting by a new public group known as 'improvement commissioners'. Such transactions were sanctioned by several decades of remarkable national legislation beginning in the eighteen thirties that have been called Britain's 'municipal revolution' whereby textile factory towns and other rapidly growing industrial towns experienced a shift in town political leadership from an old self-selecting elite to a reform-minded manufacturing/merchant class. A case in point is that of the large factory town of Bolton. In the eighteen forties, central government legislation (the Public Health Act) enabled the former towns of Little Bolton and Great Bolton to bring their respective public markets to a single site, essentially merging the two towns into one—the result being one of Britain's largest market halls which is still functioning as a major shopping centre.[4]

Like Bolton, over three hundred nineteenth-century British towns were following a similar pattern of marketplace reform, very often the first step being an enclosed and spatially regulated market and then, later, a purpose-built hall. This was often accompanied by rearrangement of street access or in some instances constructing new streets altogether, topographical changes and even construction of a tram or railway service—all of this often marked by a tall clock tower to signify the site's importance and confirm the idea of the public market as a public good. Such reform guaranteed that a good number of large towns such as Barnsley, Blackburn and Accrington, which developed as regional shopping centres, were flooded with buyers and sellers from surrounding countryside and villages.[5]

In order to keep the municipal commitment to a public retail market alive, the new market hall was nearly always constructed with an attached or nearby wholesale market. It was also essential that the new hall itself be grand and functional enough so as to attract a sufficient number

4. The Bolton reform grew out of the Public Health Acts of 1847 and 1848. See Derek Fraser, *Power and Authority in the Victorian City* (New York, 1979). It was the 1832 Reform Bill which opened the way for middle-class enfranchisement, then followed by the 1835 the Municipal Corporations Act, the 1847-1848 Public Health Acts and the 1858 Local Government Act. An 1887 survey of more than two hundred of the nation's largest towns found that only twenty of their town markets still had manorial owners. *Royal Commission on Market and Tolls* (1888), vol. 14, appendix B.

5. See Schmiechen and Carls (1999), op. cit., chapter 6, and 'Gazetteer,' p. 247-299.

of producers who could in turn attract a large retail clientele. This meant that the retail market had to sizzle. The architect needed to produce clean, protected spaces, preferably heated and with standardised stalls, refrigerated storage, lighting and pay special attention to aesthetic amenities such as indoor fountains. Managing indoor traffic was a marketing and security decision (e.g. balconies introduced early on did not work and were frequently converted to shops selling pets or bookshops). As modern selling practices such as such fixed and marked pricing and printed advertising were introduced, outmoded practices such as the of 'crying of goods' by sellers were outlawed. Market by-laws were all-encompassing, and larger halls maintained uniformed market police forces. All of this created order out of chaos. The market hall emerged as the town's most important public space, a new space unrivalled in urban life and in many ways the precursor to the nineteenth-century department store.

This new brand of 'commercial functionalism' sponsored by and for the public was only one of the engines driving market reform. The very same middle-class eyes that viewed the old public market as a place where the insubordinate poor could be taught good food sense also recognised this public space as a way to teach good morals, manners, civic virtue and a touch of class deference. Good and plentiful food contributed to social stability and to a healthy, contented labour force. Municipal reformers, engineers and architects, as well as the urban economic-political elite were fairly unanimous promoting a new civil code—what Charles Knight called 'national manners'. Like the cathedral and palaces of former times, the highly decorated Victorian architectural form of the market hall spelt out bourgeois lessons in civic and moral virtue. Good buildings made good people and utilitarian buildings were not to be tolerated. This is one of the reasons, for instance, that the architectural journal *The Builder* opposed the continuation of the controversial Smithfield open-air meat market: it was a collection of dangerous and unsightly scenes that contaminated the mind and spread 'evil pestilence' throughout society and everyday life. Similarly, as an admonition of the dangers of design chaos, journalist Henry Mayhew referred to an elaborately decorated and colourful beverage-dispensing London street market cart as being of the kind that attracts those who cannot distinguish 'between gaudiness and beauty'. 'Victorian' buildings and public spaces were intended as public text.[6]

6. Charles Knight, 'The Old Spring-time in London,' London, Charles Knight & Co 1841. Chapter X. *The Builder*, vol. 7, 25 August 1849, p. 397-398; Henry Mayhew, *London Labour and the London Poor*,

The Provincial Halls Lead the Way

The concept of the new market hall as an economic and cultural revolution was adopted nationwide but was particularly embraced in Britain's foremost industrial areas: the Midlands, the north and northwest, and the urbanised belts of Wales and Scotland. Indeed, a notable change in the urban diet was under way as more food was reaching the consumer and new nutritional options were introduced. The variations were numerous but a number of examples illustrate that the format was similar. When Liverpool's city architect presented his plans for a huge new market hall (to be called St John's Market) in 1820, he proposed the largest building of its time in Britain: a fully enclosed and roofed market two acres in size built of stone and brick, with classical arched bay windows and an interior supported by cast-iron pillars. The market was divided into five shopping avenues, with the centre avenue twenty-one feet wide and an outer avenue lined with sixty-two shops carefully organised into departments opening into the market rather than the street. Prior to the building of a new market hall in 1852 at Durham—with a Gothic façade, three-storey interior, and cast-iron roof—the traditional open-air market was purportedly the worst in the county, a declining and 'miserable' market with high prices and where buyers and sellers were exposed to 'dirt, filth and sludge'.[7] Within a generation, the town's new market hall was said to be more beneficial to the inhabitants of the city than anything.

Variations on the giant hall at Liverpool were constructed with great civic fanfare throughout Britain in the eighteen thirties and eighteen forties: Brighton (1830), Bridgwater (1830), Birmingham (1835), Newcastle (1835), Aberdeen (1842), Birkenhead (1845), Blackburn (1848) and Doncaster (1849). Manchester's central retail market, Shudehill Market Hall of 1854 (over 100,000 square feet) provided inexpensive, healthful food, and Saturday -night shopping was a popular and respectable entertainment for the city's working people. Nearly a mile of shops faced the interior of Swansea's enormous market hall (begun in 1889), and like the Manchester market, lighting for evening shopping was featured (in this case five hundred gas lamps) as an acknowledgement by the town fathers that most working people were at work six-and–a-half days a week and needed extended shopping

vol. 2. 'Street Sellers of Second-Hand Articles' (1861). For a discussion of the ideological groundings of Victorian urban-architectural reform see James Schmiechen, 'The Victorians, the Historians, and the Idea of Modernism,' *The American Historical Review*, vol. 93, no. 2.

7. William Fordyce, *History and Antiquities of the County Palatine of Durham*, vol. 1 (Durham, 1857), p. 359-369.

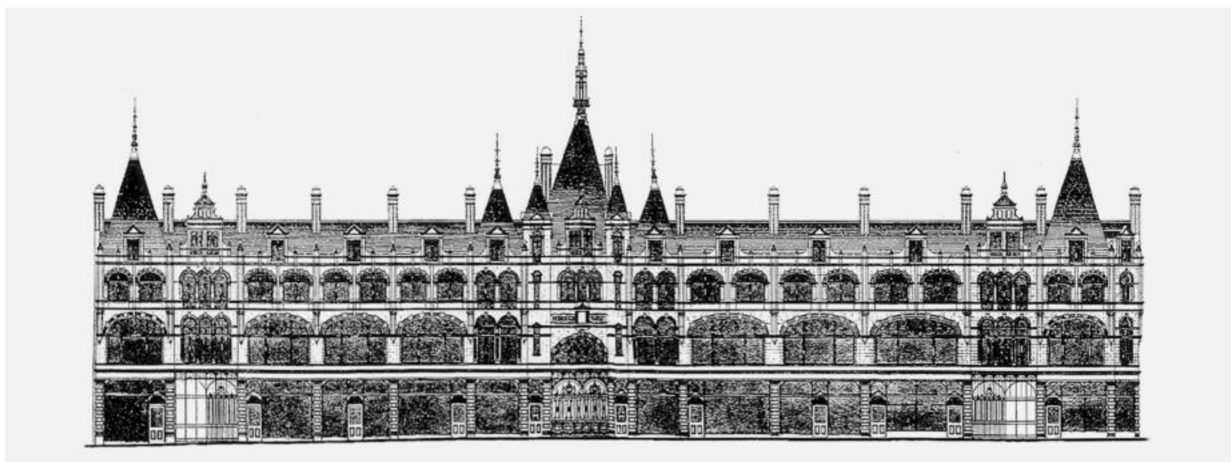
Grainger Market Hall, Butchers' Arcade, Newcastle, 1835. Architect: John Dobson

hours. At the time of its construction Newcastle's Grainger Market, organised as two adjacent parallelograms, surpassed the Liverpool market in size. Through a series of grand interior Roman arches one could view large fountains, one in the Vegetable Hall to one side and one in the Butcher's Hall to the other.

Bull Ring Market Hall, Birmingham, 1835. Architect: Charles Edge

In sharp contrast to its former street market, George Dymond's Higher Market Hall at Exeter (1838) was acclaimed as a magnificent example of Grecian temple architecture, complete with coloured stucco interior walls, stone floors, cast-iron ornamental railings and a fish market with glazed tiles, white marble slabs and water taps. But the most innovative early nineteenth century public market was that at Birkenhead in 1845: the largest cast-iron structure in the world, it rivalled the age's great railway stations and served as prototype for London's Crystal Palace project later undertaken by the same contractors. As an answer to urban congestion, market halls in Glasgow, Pontypool and Carlisle were arcades that moved customers into landlocked spaces or acted as links between streets. The Birmingham hall acted as a shopping arcade measuring three hundred and sixty-five by one hundred and eight feet, connecting two of the town's major thoroughfares. Halifax's hall today is similar to late twentieth century shopping centres with their enclosed pedestrian streets of shops.

As the century progressed, the market hall became more elaborate. Upon crossing the threshold of Bradford's Kirkgate market hall (1872), customers entered an octagonal pavilion with its grand fountain; the market's message was that of cleanliness and respectability, enhanced by a dose of splendour. Here shoppers could access six avenues of stalls and shops—with a glass roof overhead, ornamental painted ironwork and sanitised white glazed brick shop interiors. The Southport Eastbank Market (1879) was built in the notably posh grand Italian style with considerable



Kirkgate Market Hall, Leeds, 1904. Architect: Leeming and Leeming

ornamentation and crowned with an octagonal glass dome. The ultimate public market was, perhaps, at Leeds: by 1900, under increasing competition from the department store mania, the market was reinvented with a multi-storey façade pierced with large plate-glass shop fronts surrounding the exterior.

Most of these markets reveal a link between municipal market reform and urban redevelopment. Unlike twentieth-century development schemes, nineteenth century urban redevelopment favoured public over private commercial interests. Reforming existing streets and opening new streets was often done to maximise market access. In Burnley, as in other towns, a new market hall built in 1870 occupied the space of a former slum, while in Edinburgh the new hall was placed on a steeply graded site with a rooftop garden alongside the city's major shopping street. In Bolton, public market reform was used to block suburban sprawl and became the catalyst of an ambitious municipal improvement project that swept away 1,700 slum dwellings with new streets and a new market hall in a central location.[8]

Above all, new marketing premises were meant to increase the local food supply and introduce new foods into the urban diet—particularly fresh fish. While the London wholesale fish market led the way in increasing the nation's fish *supply*, it was the provincial market hall that created

8. Schmiechen and Carls (1999), op cit., p. 101, 102-103.

its *demand*. Municipal governments all over Britain entered into the retail fish business by building public retail and wholesale fish markets, occasionally as separate market buildings but more often as divisions within a general market hall. It was said that in 1868 the number of fishing vessels at Hull had increased twenty-fold to meet urban demand. Salisbury forged a 'Special Fish Express' railway spur to link its market hall directly to an outlying railway line. The introduction of 'fish and chips' in the eighteen eighties pushed this dietary revolution even further, and market floor plans suggest that fishmongers enjoyed popularity akin to that of butchers. In 1892 the Bilston market hall had eight fish shops to its eleven butchers' shops. Ironically, by this time it was claimed that because of better public markets, provincial cities such as Birmingham and Bradford were better supplied with fish than was London—even though much of that supply came by railway from London's Billingsgate market.[9]

London: Competing for Space in the 'City of Nuisances'

How did London fit into this picture of the changing public market? Even before the Great Fire of 1666, London was atypical in the realm of British markets in that it had no tradition of a central marketplace organised around a central market square. Instead, eighteenth-century London had six principal markets (Covent Garden, Spitalfields, Smithfield, Billingsgate, Borough and Leadenhall), all roughly within the one square mile 'City of London' and its immediate periphery, making up what one could call London's 'market zone'. In earlier times this zone was defined by a ring of ancient walls extending in all directions north from the River Thames. It was from here that the City enforced its ancient public market monopoly for an additional seven miles in all directions, virtually outlawing any public markets within the dozens of 'suburbs' that by 1888 made up the County of London. Since the City markets were highly centralised in the area of the old City, most Londoners found their food supplied by way of few small covered markets, a multitude of open-air street markets, and an army of door-to-door and street 'kerb sellers'. Almost all of this system had sprung up in an unplanned and chaotic manner and to make

9. Ibid., p. 128-129, 137-131, and see specific markets: Barnstable, Birmingham, Bristol, Chester, Hastings, Liverpool, Manchester, Newcastle and Stamford. Per capita fish consumption data and retail fish price data seldom show up in cost of living assessments. For example, A. L. Bowley, *Wages and Income in the United Kingdom Since 1860* (Cambridge, 1937) and Ian Gazeley, 'The Cost of Living for Urban Workers in Late Victorian and Edwardian Britain,' *Economic History Review*, 2 (1989), p. 218.

matters worse for the householders, most markets, like Borough Market at the south end of London Bridge or the Covent Garden Market, were awkwardly placed and horrendously congested. When action was taken to improve market conditions, it was nearly always to benefit wholesale dealers rather than retail customers. By the end of the nineteenth century Londoners still acquired most of their food from unregulated street sellers and street markets.[10]

The Great Fire of 1666 came at the outset of a massive population invasion that would tax the city's market infrastructure far beyond its capacity. Mid-eighteenth-century London grew at such an historic pace that by the beginning of the nineteenth century it was the largest city in the world, with a million in population and still growing. One in ten people in England lived in London, and by 1900 London's population had reached 6.5 million. Sub-urbanisation in all directions readily swallowed up old villages and transformed rural landscapes, while at the same time the City became packed with banks, commercial offices and warehouses in service to the growing 'imperial' economy. Underlying and alongside this was the fact that in reality, nineteenth-century London was a maze of rich and poor communities (eventually nearly three dozen independent municipalities or boroughs) bound together as the great metropolis but with limited unified infrastructure or government—a polycentric agglomeration of often-corrupt and irreconcilable layers of governmental units. Until the mid-nineteenth century, national government, be it parliament or the monarchy, had little power over how British urban areas were governed; this was particularly the case with the Corporation of the City of London, a little kingdom of its own. Governmental chaos supplied the recipe for the making of what Charles Dickens called 'the City of Nuisances'. From the great banks and commercial houses eastward and southward to the docks and to the 'West End' where many of them sat in their clubs and townhouses, the political scene was dominated by the capitalist merchants, trading companies and bankers, all interested in maintaining their various monopolies, including the markets. Inertia ruled. Reform by way of a government-led reconstruction of the city was impossible.[11]

10. Ministry of Agriculture and Fisheries, 'Report on Markets and Fairs in England and Wales,' Parts VI (London 1927), 136-138; Schmiechen and Carls (1999), op. cit., p. 101, 102-103.

11. Francis Sheppard, *London 1808-1870: The Infernal Wen*, (Berkeley, 1971) p. 18.

Street Food and the London People

London faced another disadvantage. Like the so-called 'shock cities' of the rapidly industrialising provinces, it had a growing population of working poor. But unlike the provinces, the sheer numbers were unprecedented and concentrated in class-segregated districts on a scale which had never been seen before. Prior to the later eighteenth century and with the exception of certain slum belts formed in earlier times, most wealthy Londoners lived cheek by jowl with the urban poor, using the same streets and the same markets and the same churches. But within a half century class segregation was a part of London life with huge working-class districts—some of them infamous for crime and opposition to authority—spread across the East End and south of the Thames, and with continual displacement by an invasion of the central city by railway lines, new streets and a massive expansion of the London docks. The railways alone ate up over five percent of central city land and simultaneously pushed untold thousands of residents into new slums. The late nineteenth-century social investigator Charles Booth noted such in his famous social surveys: London had become a city of immense inequality with no less than one-third of the population living at or below the line of poverty; 300,000 lived in the East End alone, itself larger than most other British cities.[12]

Not surprisingly, Booth observed a connection between poverty spaces and poverty of diet, arguing that the proximity of population to 'an appropriate market' and the character of retail shops and street markets differed radically as one moved from neighbourhood to neighbourhood. Poor neighbourhoods were stamped by their shabby shops, loosely regulated street markets and street sellers. Indeed, to the visitor to London, one of the oddities of that time must have been that Londoners, particularly the working classes, purchased their food not in a public market hall as in most other British cities where street marketing had been completely or partially banned, but largely from small shops, street markets and street sellers.[13]

12. Charles Booth, *Life and Labour of the People in London*, 'Poverty Series,' I, 178; see also George Rude, *Hanoverian London*, p. 86.

13. Charles Booth, *On the City. Physical Pattern and Social Structure* (Harold W. Pfautz, Chicago, 1967), p. 254, 145, 167. In the battle against street selling in ten cities in England's West Riding/Yorkshire (Batley, Bradford, Doncaster, Halifax, Harrogate, Huddersfield, Leeds, Rotherham, Pontefract and Dewsbury) all but one of these outlawed market sales in the streets altogether and took steps to draw all public marketing into one building. While not going this far, most other provincial cities required 'hawking' licenses. Schmiechen and Carls (1999), op. cit., p. 21. For Mayhew's survey see 'Of the Number of Costermongers and other Street Folks' in Henry Mayhew (1861), op. cit., vol. 1; Charles Knight wrote about the age-old 'evil' of street selling, Charles Knight (1849), op. cit., 134-141.

Paris had moved in the direction of improved public markets and so had other continental cities—hence the puzzlement of the Frenchman who posed the question in 1872: 'What! You have no district markets in London?' In his mid-century survey of the urban street scene, Henry Mayhew found 3,801 street sellers working on the streets of London and in the informal system of street markets — many of these being dirty Saturday-night and Sunday street markets for working people. 'Hawking butchers' walked through neighbourhoods, selling meat from large baskets. 'Trotting butchers' did likewise in distant neighbourhoods by horseback. Prepared foods of all sorts, particularly fried fish and baked potatoes, were sold at kerbside or door-to-door. 'Here is no trust, no reliance on truth and honour. He who cheats is the best seller: he who holds out the longest is the best buyer.' London's street big markets by the names of New Cut, Clare, Strutton Ground and Warwick Street were viewed as disreputable street markets—full of young thieves, 'hideous', and full of people battling 'for the cheap pennyworth'.[14]

The London Market Halls

London's six principal markets, Spitalfields, Leadenhall, Borough, Covent Garden, Smithfield and Billingsgate markets, further illustrate the character and quality of the city's food supply, how it changed over the course of a century and the sort of access Londoners had to the city's food supply. Of these markets, the first three, Spitalfields, Leadenhall, Borough, originated as 'general' retail markets providing householders access to a wide variety of foodstuffs, household products and clothing. Over time these markets became increasingly specialised so that by 1800, like the other three markets, they had become single-product markets, catering wholesale to middlemen buyers—some of them even buying off-site by action or by sample whereby the product never reached the market itself. Secondary to all of this was usually some sort of direct sale to householders, but usually through street sellers at the market fringes.[15]

14. Gustave Doré and Blanchard Jerrold, *London. A Pilgrimage* (London, 1872), 157-159. Fish and potatoes made up an appreciable part of the working-class diet. See Maud Pember Reeves, *Round About A Pound A Week*, Introduction by Sally Alexander (London, 1913), reprint, 1984; Charles Knight (1849), op. cit., p. 386; Henry Mayhew, (1861), op. cit., vol. 1, p. 157-167; Ministry of Agriculture and Fisheries, 'Report on Markets and Fairs in England and Wales.' Parts VI (London, 1927), p. 154; E. Watts Phillips*, The Wild Tribes of London*, chapter VIII (1855). www.victorianlondon.org/districts/ratcliffhighway.htm Dictionary Victorian London; Doré and Jerold (1872), op. cit., p. 157-158.

15. A number of minor market buildings have been left out of this survey, including the Hungerford market, a private market that was pulled down in 1862 to make room for the Charing Cross railway

Columbia market hall, Bethnal Green, London, 1868. Architect: H. A. Darbishire

The story of the Spitalfield's market hall illustrates this paradoxical state of food distribution in the East End: first-rate market facilities for wholesalers but little or no access for the general public. As one of London's first markets, Spitalfields was located just outside the City near to farm gardens in what grew into the Stepney-Spitalfields district, infamous for the poverty of its swelling population of artisan weavers who were displaced by machine production elsewhere; and the district later became home to many Jewish immigrants, crowded into dwellings of 'misery and wretchedness'. As a privately owned general market granted by King Charles II to a silk weaver named John Balch in 1662, it evolved into a vegetable market that specialised in potatoes—reflecting the dietary staple of the area's residents. The original Spitalfields market house was destroyed by fire in 1730, and from then on the market was a collection of wooden sheds and stalls largely for wholesale trading, with a retail market that spread into the streets. Mayhew reported in the eighteen fifties that half of Spitalfield's market items were purchased by sellers who would in turn resell the items in the district's streets. With a new market hall and a new private owner in 1876, the enterprise was reborn as a gigantic wholesale

hotel, and the Fleet market a partially closed market area that was swept away when the Holborn viaduct was built.

market covering an area of more than two acres; then in 1902 an Act of Parliament enabled the Corporation of London to buy the Spitalfields hall to take advantage of wholesale trading, but public market access continued by way of the unregulated street markets. Typical of street markets was the well-known Petticoat Lane market, a crowded, long, narrow and filthy lane which set East Enders' standards for buying and selling—and food consciousness.[16]

In the meantime, and no doubt with the fate of Spitalfields and the likes of Petticoat Lane in mind, a plan was developed for a modern public market to address the unhealthy and inadequate state of the working-class diet. Lady Angela Burdett-Coutts, a wealthy banking heiress active in various projects to lessen the plight of those at the opposite end of the material scale, put up £20,000 for the building of a market hall in the nearby Bethnal Green part of Spitalfields, on the site of a notorious slum 'in the very eye of London's misery.'[17] The population in this part of Spitalfields had increased nearly tenfold since Balch had established his market.

Burdett-Coutts was one of a number of social reformers who were aware of the degree to which public access to good markets had been strangled. Indeed, her new Columbia Market epitomised the Victorian certitude that the public market hall would improve the diet of the working class, as well as use the visual language of Gothic Revival architecture to teach bourgeois-Christian values. With Gothic vaulting and the Ten Commandments on the interior walls, the Columbia Market hall, by the well-known architect Henry Darbishire, was erected in 1869 to provide good food, including fish, at a fair price, in an architectural format that would teach good market behaviour as well as defend the poor from dishonest traders. Impressive as it was, mysteriously the market attracted neither buyer nor seller. One observer of the urban scene attributed the cause to the habits of the poor: 'so rooted to custom, so spiritless through long suffering that they can understand no bartering that is not done in the rain and snow …'[18] Others assigned its failure to the fact that competing with the street market was impossible because the new market, but not the street traders, by law, charged tolls on the goods sold. Most likely, however, absence of an on-site wholesale outlet contributed to the failure; Columbia Market could not compete with the absurdly

16. Charles Knight (1849), op. cit., p. 386; Henry Mayhew, (1861), op. cit., vol. 1, p. 157-167; Ministry of Agriculture and Fisheries, 'Report on Markets and Fairs in England and Wales' (1927), op. cit., p. 154; E. Watts Phillips, (1855), op. cit., chapter VIII.

17. Doré and Jerrold (1872), op. cit., p. 158.

18. Ibid., p. 157-158.

low prices of street vendors from the nearby Spitalfields wholesale market —who were often poorer than the market customer.[19] Whatever the cause, the Columbia Market was the victim of a dysfunctional public market system based on the nearby Spitalfields and Petticoat Lane markets, suggesting that London's market system failed to meet the higher public market standards being set elsewhere in the nation. For the East End of London, the 'public' market continued to be the public street:

> 'The consumers for whom good Lady Burdett-Coutts built a beautiful market … are those who are now forced to deal along the kerb-stones in their respective neighbourhoods, and whose tradesmen are the costermongers. In London there are nearly forty street markets; and from these markets the main body of Cockneys are fed, and … tumble out of attics and cellars on winter nights, in cold and rain, and on the chilly Sunday mornings, to make the best of their money for the coming week.'[20]

On the other side of the City, since 1614 the broad open space known as Smithfield evolved as London's principal open-air meat market, with a reputation for being clean, orderly and peaceable. Here the sale of live animals doubled between the late-eighteenth and the mid-nineteenth centuries—with totals reaching a quarter-million of beef and over a million sheep. But by the eighteen thirties the market was providing meat for more than two million Londoners, who, it was said, consumed it at a rate fifty percent greater that of that in Paris and Brussels.[21]

Nevertheless, the other side of the Smithfield story paints a grimmer picture of exactly how Londoners acquired their dinners. 'Smithfield' had long been the locus of the popular but rowdy St Bartholomew's Fair, where animals were butchered, criminals were executed and rebels and victims of religious struggles were burned. As London grew, it became increasingly notorious as a large and ugly square, packed weekly with thousands of animals herded into pens. The surrounding neighbourhood was made up of unsanitary butchering shacks and slaughterhouses, not uncommonly located in basements. Every week thousands of animals were driven onto

19. For Spitalfields history see Peter Cunningham, *Hand-Book of London*, 1850; Charles Knight (1849), op. cit., vol. 2, p. 321, and 'The History of Spitalfields Market.' www.sptialfields-market.co.uk/high/body_index.html.

20. Doré and Jerold (1872), op. cit., p. 157-158.

21. Charles Knight (1849), op. cit., vol. 2., p. 325; John Burnett, *Plenty and Want. A History of Diet in England from 1815 to the Present Day* (London, 1966), p. 62; Nathaniel Hawthorne, *The English Note-Books* (15 November 1857). www.victorianlondon.org/.

the site in which they were then placed in the pens to be 'fatted', sold, and killed. This social nuisance led to filthy streets, prostitution, gambling, poor housing, and many drinking establishments—a place where 'women have been gorged to death on the public side-walks.'[22] Making matters worse, some of the live cattle and most of the butchered meat was moved through crowded streets to other butchering premises and the nearby dirty and unsanitary meat markets of Newgate, Warwick and Leadenhall, and from there sold from butchers' stalls, shops or by street hawkers throughout London. In this sense, then, 'Smithfield' was regarded as a contamination that spread to other parts of the city, although market profits were of paramount importance to the city and the Smithfield cattle dealers and butchers saw any reform as a threat. Charles Dickens saw the situation as being absurd:

> 'How can you exhibit to the people so plain a spectacle of dishonest equivocation as to claim the right of holding a market in the midst of the great city, for one of your vested privileges, when you know that when your last market holding charter was granted to you by King Charles the First, Smithfield stood IN THE SUBURBS OF LONDON, and is in that very charter so described in those five words?'[23]

As a principal distribution point for Smithfield meat, the adjacent Newgate market's original 'market house' had been destroyed by the 1666 fire and was never rebuilt—leaving the market itself a narrow 'shambles' lined with partially covered stalls and sheds, spreading into a maze of alleys and streets which pushed up close to St Paul's Cathedral. Here the market morning was a scene crowded with street vendors, coaches, horses, cattle, country dealers and a mass of women porters who made their living carrying enormous quantities of meat to butchers' carts. Equally horrifying, regulation and inspection were lax, and by the eighteen sixties thousands of pounds of Newgate and London meat were being declared unfit for human consumption.[24]

22. Walter T. Thornbury, *Old and New London* (1878). http.//perseus.tufts.edu//; David W. Bartlett, *London by Day and Night* (1852). http://victorianlondon.org/.

23. Charles Dickens, *A Monument of French Folly* (1851). http://en.wikisource.org/wiki/.

24. Peter Cunningham (1850), op. cit.; Arthur Munby, *Diary* (12 December, 1865). www.victorianlondon.org/; John Hollingshead, *Ragged London in 1861*, Preface, p. 19-20. http://victorianlondon.org; Walter T. Thornbury (1878), op. cit.; David W. Bartlett (1852), op. cit.; Charles Dickens (1851), op. cit. The 'rude vistas' quote is from Arthur Munby (1865), op. cit. In one week in 1864 inspecting officers seized nearly two and three-quarter tons of meat as unfit for human food, nearly all of which was diseased and rotten sheep, pig and beef meat. Newgate, Leadenhall and several smaller markets,

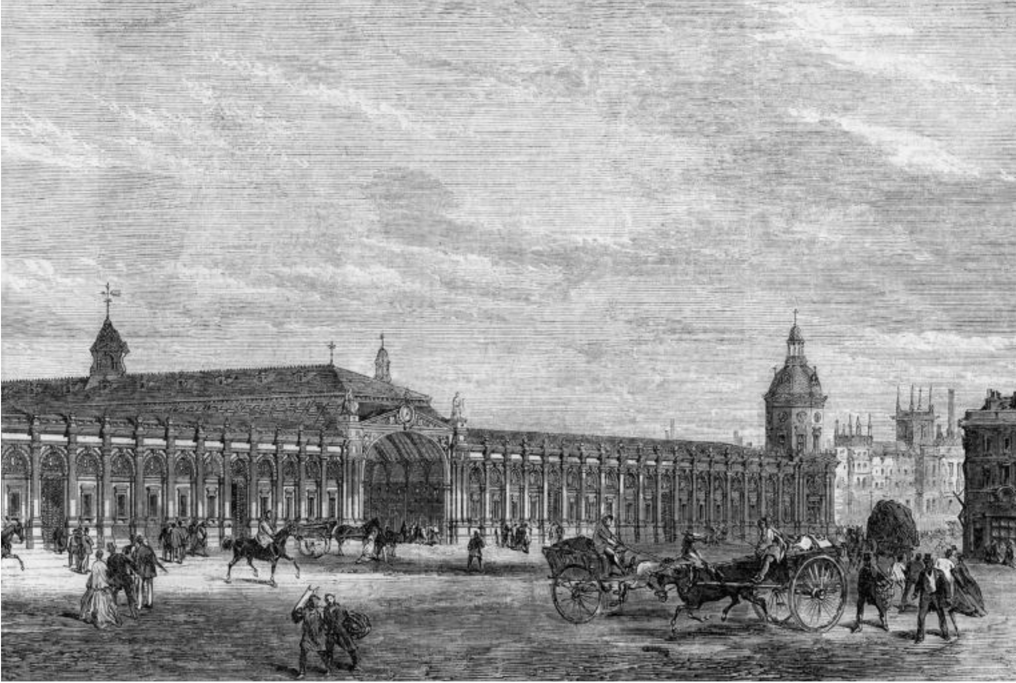
The Metropolitan Meat Market at Smithfield, London, 1868. Architect: Horace Jones

For the first half of the nineteenth century London officials opposed the growing chorus calling for Smithfield's replacement, but in 1849 a Committee of the House of Commons was told (and the Committee agreed) that there should be only one metropolitan meat market and that moving the market from Smithfield or creating a second, alternative market to relieve market congestion would be a mistake. *The Builder* was appalled at this view and called the decision a betrayal of the 'humbler classes' and a 'shame and disgrace to any Christian land'.[25] The markets stayed as they were.

Nevertheless, although financial and trade interests, including the butchers, seemingly trumped middle-class sensibilities about public space and public behaviour, the narrative at mid-century was expanding. Public markets, and particularly Smithfield, were being increasingly viewed as a

one being Sharp's Alley, were reputed for making common sausages of refuse meat, known in the slang of the district as 'blood-worms'. John Hollingshead (1861), op. cit., p. 19-20.

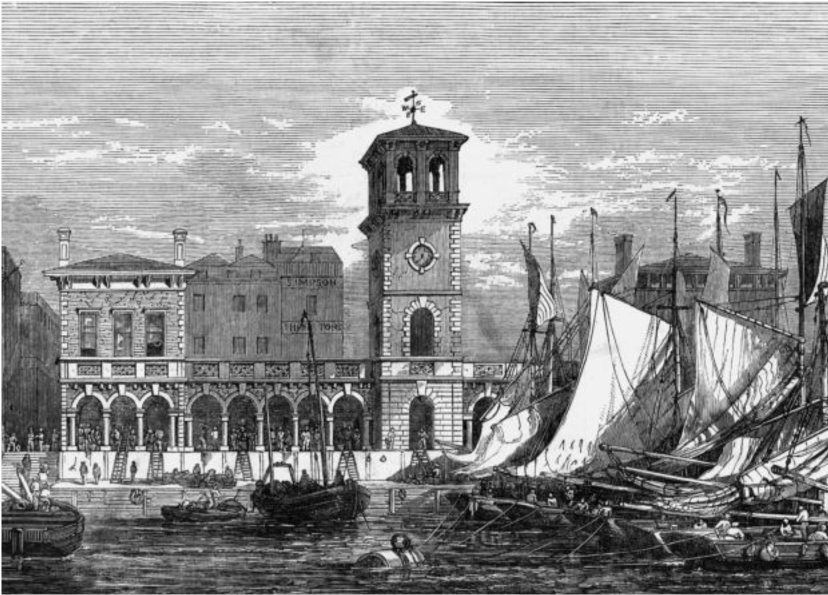
25. The Builder, 25 August 1849, vol. 7, p. 397-398.



'collection of abominations' that went beyond violent and diseased space or simply the rotten apple of City government, as Dickens put it, but some were characterising the Smithfield situation as a *class conflict*: the market as a space was a breeding ground for revolutionaries. In 1849 *The Builder* called it a place where 'the children of the poor' are conditioned to be 'the future Dantons', learning how to commit 'crimes and butcheries'.[26] 1849, of course, saw revolution in Paris and elsewhere, and 'terror' was understood to lurk in uncontrolled spaces.

Parliament eventually acted, albeit half-heartedly, and mandated that cattle sales and butchering be separated by building a new live cattle market at the London outskirts called Copenhagen Fields in 1855. This failed almost immediately because the City was not willing to move the butchers, recognising that to do so would be to give up its lucrative monopoly of the

26. The *Builder* editorial and the 'future Dantons' quote are found in *The Builder*, 25 August 1849, op. cit., p. 397-398. Supporting the position of the butchers and dealers, see E. Wilson, *An Appeal to the British Public or the Abuses of Smithfield Market and the Advantages of a New Cattle-Market Fairly* (London, 1850).



Billingsgate Market Hall. Fish market, 1850. Architect: John Jay

tolls. Thus, it took a further five years and an act of Parliament (1860) to move the cattle market for once and for all, this time to Islington, and build a 'new Smithfield' wholesale dead-meat market hall for the butchers on the old Smithfield, to the design of the City's architect, Horace Jones.[27]

When the new Smithfield Market Hall opened it was the world's largest and most modern market, a gigantic Italian Renaissance-style building with a tower at each of the four corners. It was constructed of brick and stone, roofed with slate, partly ventilated with glass with louvres, and had asphalt and woodblock floors. The building cost was £993,000. The *Illustrated London News* of the time called it 'a model market'.[28] The old open market place was now gone, the nearby Newgate market was abolished, and London had acquired a new and powerfully architectural sense of place. An underground railway brought killed cattle to the new market from the Islington cattle market and other distant cattle dealers, including

27. Peter Cunningham (1850), op. cit.; Charles Knight (1849), op. cit., vol. 2, p. 32; and *The History of Spitalfields Market*. www.sptialfields-market.co.uk/high/body_index.html, op. cit., accessed 9 September 2002.

28. *Illustrated London News*, 5 December 1868.

some abroad. It was expanded in the eighteen seventies to contain five separate buildings (263,930 square feet over 3½ acres) as a general market to include poultry, fruit, vegetables and fish—all for the wholesale trade.

London's only fish market had its beginnings at Billingsgate, a mediaeval riverside wharf to which a sixteenth-century royal charter gave the City a monopoly on fish sales. However, fresh fish was expensive and for centuries the only fish available to most urban people was dried or cured, brought from distant ports. In the early nineteenth century, improvements in the supply chain—namely a new covered market (1830) and the advent of railway delivery—brought cheap fresh fish for all. Sales boomed at Billingsgate as did the fishing industry itself. When a modern new market hall replaced what had become a crowded and old ramshackle market in 1850, it erased, for a time at least, the market's reputation as a place where warring and foul-mouthed saleswomen inflict abuse on the public. Then with its picturesque Italianate tower, the visual language on the riverfront suggested that the once disreputable trade of fishmongering had become respectable, and fish was now nearly as British as the Roast Beef of Old England and Billingsgate. By mid-century, fully a third of the Billingsgate daily fish supply was being sold to London's working population. Then in 1875, following the failure of the Columbia Market scheme in the East End, a new hall replaced the 1850 hall. This also boasted a classical arcaded façade facing the river—but larger and more modern, including a sophisticated air filtering system and modern fish stalls.[29]

Since both the 1850 and the 1875 Billingsgate halls were primarily wholesale markets, getting fish into the hands of the London consumers was increasingly problematic, but continued to be relegated to the fringes of the market either by way of street stalls, or more often by street sellers and costers who did most of their buying from middlemen outside of the market itself. On a normal market day at mid-century, 3,000 to 4,000 costermongers crowded around the market to purchase their stock of fish from dealers, making the street side of Billingsgate 'a dirty, evil-smelling, crowded precinct, thronged with people carrying fish on their heads, and lined with fish-shops and fish-stalls, and pervaded with a fishy

29. Maureen Waller, *1700. Scenes From London Life* (2000), p. 186; Henry Mayhew (1861), op. cit., vol. 1, p. 68-70; www.victoriandictionary.org; David Owen (1982), op. cit., p. 244-245. The market at mid-century sold more than 120,000 tons of fish annually. The connection between the Columbia Market failure and the expansion of Billingsgate is told in Charles Dickens (Jr.), *Dickens's Dictionary of the Thames* (1881) cited in www.victoriandictionary.org; John Timbs, *Curiosities of London* (1867). www.victoriandictionary.org; Nathaniel Hawthorne (1857), op. cit.; Karl Baedeker, *London and its Environs, including excursions to Brighton, the Isle of Wight …* (1881).

odour [and full of] rough men and slatternly women …' [30] Congestion at Billingsgate became legendry. The story was often told of a van loaded with fish being driven round and round Billingsgate market for eleven days, with the same load of fish, waiting for access to the congested market.[31] As noted above, the inspiration for the new Columbia Market was to relieve some of this congestion with a new retail fish market to serve the East End poor—but having failed, 'Billingsgate resumed its undisputed sway'.[32] From what is known about the higher standards of fish retail in the provincial market halls, one can surmise that the quality of fish available for public consumption in London was inferior.

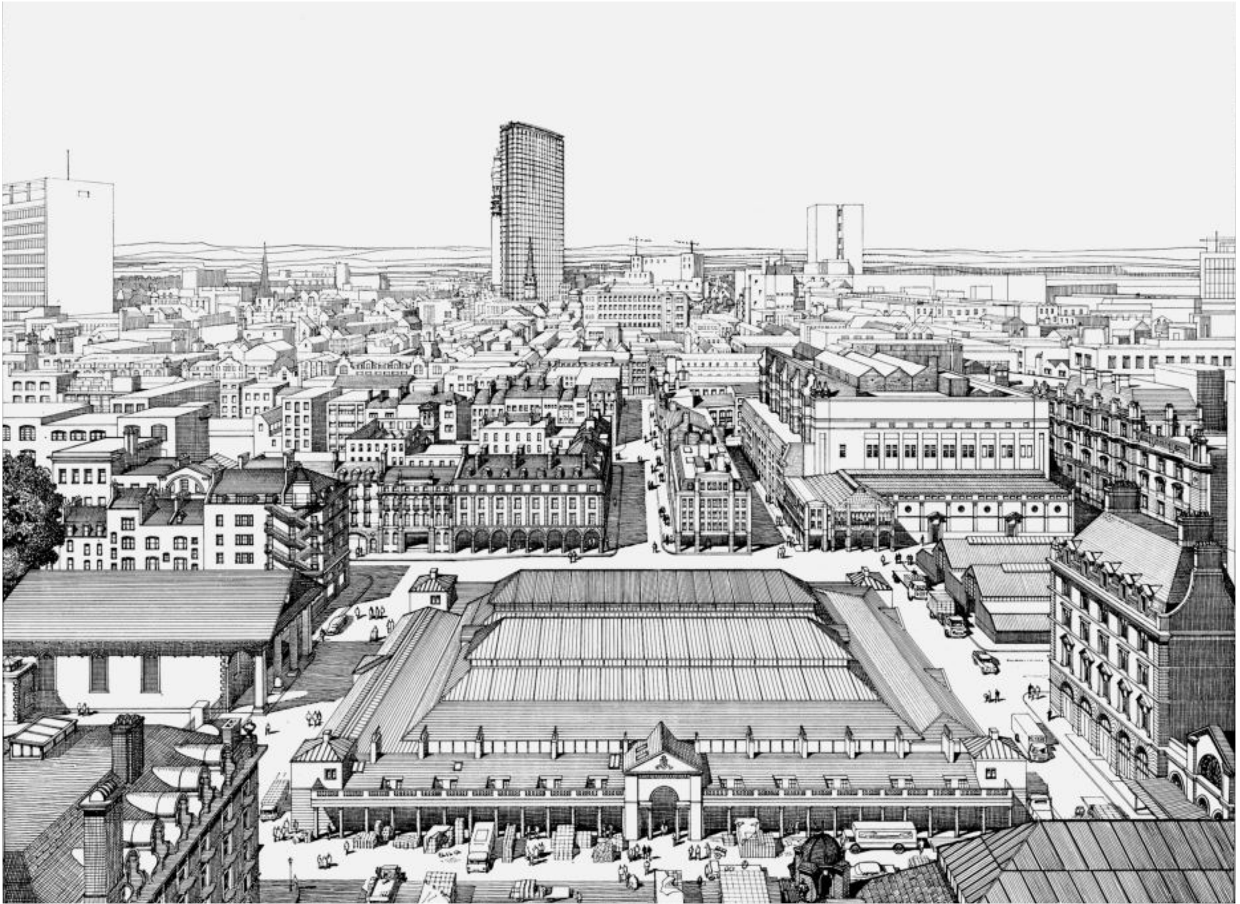
The story of the Covent Garden market is the story of one of the most successful wholesale markets in Europe and also about how the City of London failed to protect access for its citizens to their most important marketplace. The market originated as a small public market within the Westminster estate of the Earl of Bedford, privately owned by him by way of a charter granted in 1670 by King Charles II—both of whom conveniently ignored the City's presumed markets monopoly. At first the market was of a small scale and not of great importance but because the space was one of the largest open spaces in London it was prime for expansion as London's population expanded and as English farming practices improved. Within ten miles of early nineteenth-century London were hundreds of large and small farms with thousands of farm sellers and untold thousands of wholesale buyers and retail customers every week. As the supply of market-garden products increased, so did the number of buyers and sellers who entered and exited the market every day with carts piled with fruits and vegetables. Caught in this agricultural exchange were Londoners who ventured into the market district to buy first hand and street sellers looking to fill their carts for that day's sales journey. From a spatial perspective the result was shocking overcrowdedness but from that of Bedford the market was immensely profitable, and it is not surprising that the relationship between the market and the City became hostile — so much so that the general public attitude toward Covent Garden was that it was bristling with 'illegality, fraud and oppression'.[33] In 1828, at the very time when

30. Nathaniel Hawthorne (1857), op. cit.

31. Schmiechen and Carls (1999), op. cit., p. 138.

32. Charles Dickens (Jr.), 'Billingsgate' (1881). www.victoriandictionary.org; John Timbs (1867), op. cit.

33. 'Covent Garden Market,' *Survey of London* (1970), vol. 36, p. 129-150. www.british-history.ac.uk/report.aspx.//.



Covent Garden Market, Westminster, London, 1828. Architect: Charles Fowler. Between the years 1874 and 1889 a glass and iron roof was added to the structure of this fruit, flower and vegetable market, and between 1871 and 1901 a number of smaller buildings were erected around the hall to improve its facilities. The market was owned by the Duke of Bedford until 1918

many British towns were successfully negotiating the purchase of their market places from their manorial lords, the Duke of Bedford obtained an Act of Parliament to expand Covent Garden market and collect even more tolls. By the end of the century the market had reached seven and a half acres in size, covering the entire Covent Garden piazza and overflowing into neighbouring streets and spaces. By the early twentieth century the market, in part through further demolition of nearby buildings within the estate, had become the largest fruit and vegetable market in Europe, with five distinct markets. Throughout all of this the market itself was open only to wholesale buyers, leaving householders to trade outside the

market at street stalls, or to wait until the products reached them by way of street sellers or shopkeepers.[34]

To remedy some of the criticism, the Duke invested considerably in structural improvements and sought to stop the physical decay which had long plagued the neighbourhood, including the deterioration of streets into spaces for vice, vagrancy and crime. From 1828 to 1830 the old market structures were replaced with a huge new partially covered market hall designed by Charles Fowler, one of the premier market designers of the time. The Bedford estate widened existing streets, created new streets, added warehouses and a large flower hall and provided improvements such as gas lighting. With this came more dealers and street vendors, country sellers and horse-drawn carts, as well as more refuse and 'country dirt' on London's streets. Mounting profits only encouraged more expansion. Hostility towards the market became near constant. *Punch*, the British political satire magazine, spoke of 'the Duke of Mudford's market.' The rise of the Duke's revenues by 41 per cent between 1878 and 1884 shocked the public —leading to Sidney Webb's 1891 pamphlet titled 'The Scandal of London's Markets,' claiming that the Bedford's market policies had too long imposed 'an utterly unjustifiable tax on the food of the people'.[35]

By the later nineteenth century all parties, including the Duke, realised that the City of London must take over the market—if for no other reason than to protect the rights of the public. In reality, it was too late. 'Bedford's tax' on the people's food and the questionable rearrangement of this important urban space, along with the City's failure to protect the public's direct access to the market, meant that Covent Garden would continue for some time as a giant wholesale market in the middle of the world's largest concentration of people—who were left out of the market.

As the Covent Garden market raged out of control, another of London's great markets slowly shrunk from its ancient standing. Leadenhall Market in the Bishopsgate area in the northeast district of the City, was named for a mansion (with a lead roof) nearby where a popular market grew up and was acquired by the City in 1411. It was enlarged and rebuilt after the 1666 fire into a sizable general market (specialising in meat) within

34. For more on Covent Garden see Doré and Jerrold (1872), op. cit., p. 154-586; Ministry of Agriculture and Fisheries, *Report on Markets and Fairs in England and Wales* (1927), op. cit., parts V and VI.

35. The 'Duke of Mudford' was the invention of *Punch*, the satirical magazine: 'It is not too much to say that Mud-Salad Market is a disgrace to London, a special disgrace to his Grace of Mudford, and about the greatest nuisance ever permitted in a great City of Nuisances.' See 'Covent Garden Market,' *Survey of London* (1970), op. cit., p. 129-150. www.british-history.ac.uk/report.aspx?compid=46106

Leadenhall Market Hall, London. Wholesale poultry market. 1881. Architect: Horace Jones

an enclosed market square that was entered by way of a large Gothic gateway. This 'square' contained a large market house surrounded by a ring of buildings with shops and stalls. Extending from this unusual configuration was a long, narrow butchers' shambles and a second market house, supported on pillars and with a clock and bell tower, which housed a provisions market. Still further on were speciality markets for fowl and herbs. Passages allowed entry from surrounding streets—themselves filled with dealers in cheese, poultry, and fish. It was said in early the eighteenth

century that, with over two hundred stalls for meats and poultry of all kinds, it was unsurpassed by any market in Europe and sold the finest butchers' meat in the entire world. By the first years of the nineteenth century the butcher's shambles was still considered the largest and finest meat shambles in Europe, and an 1845 illustration shows the poultry market as a long arcaded market with a wood-framed glass roof. But by the eighteen fifties it was reported to have lost its place as a meat market as nearly all the city's butchering trade had moved to Smithfield and Newgate—most probably because of Smithfield's larger open space which allowed for easier access for the country drovers and because wholesalers preferred one central place for trading. Also, by this time the immediate area was contracting in population as the neighbourhood changed from residential into the spatial universe of British capitalism. Using the number of costermongers at mid-century as a measure of market activity, Leadenhall Market attracted only 100 of the 9,000 costers who frequented the London markets, thus confirming a prediction about the same time that a new wholesale poultry market building at Smithfield would be a 'severe drain on Leadenhall'. As a result, it is not clear why in 1881 the City built a new and architecturally stunning Leadenhall arcaded iron-and-glass market hall, largely to serve the wholesale poultry trade. The market, with its imposing classical entrance in the Italian Gothic manner, was designed by Horace Jones, the same architect of the new Tower Bridge of about the same time. Because poultry was a costly food seldom consumed by the poor, it must have been difficult at the time to escape the odd fact that one London's greatest market assets was only a few blocks away from a large population who lived in the wretched poverty and crowdedness of the East End where there was no public market.[36]

Finally, it was the people of the middle and working class districts of south London who found an accessible public market in the nineteenth century. Dating from sometime before the year 1000, the Southwark Borough Market originated as a trading space at the south end of the old London Bridge when farm people from the rich garden-farming areas south of Lon-

36. Cesar de Saussure, cited in Maureen Waller (2000), op. cit., p. 178. The costermonger figure is from Henry Mayhew (1861), op. cit., vol. 1; the market image is found in *Illustrated London News* (1845). www.victorianlondon.org/markets/leadenhall.htm/. Further Leadenhall history is drawn from Walter T. Thornbury, op. cit. www.british-history.ac.uk.oldandnewlondon.v.2.chapterlvi/. *Lime Street Ward. A New History of London: Including Westminster and Southwark* (1773), vol. 2, p. 662-663. www.british-history.ac.uk/report.aspx?compid=46767&strquery=markets London. Accessed February 2015; John Murray, 'The World of London,' *Blackwoods Magazine* (July 1841); Peter Cunningham (1850), op. cit. www.victorianlondon.org/

don carried their products by the London-Dover road to this spot where the old London Bridge met the south bank of the River Thames. By 1714 the congestion in this market was so great that the City abandoned it as a nuisance, giving spatial preference to the coaches, carts and other carriages passing through to the bridge. At this point the market was assumed by the local parish government and moved to the nearby site of St Savior's Church where it remained until it was later situated as a three-acre market alongside the New London Bridge. Throughout, it continued to be a general market—serving both retail and wholesale customers, with particularly ample space dedicated to the sale of potatoes. In 1851 a large glass-and-iron market hall was added, inspired by the famous Crystal Palace of the same year and constructed by the same engineers. It was expanded again in the eighteen sixties, and an Art Deco entrance added in 1932. By the early twentieth century the wholesale portion of the market was immensely busy but it remained a general retail market as well. The market was refurbished in 2001 and the old Floral Hall portico from Covent Garden was added to the market in 2004 to make it, historically, London's principal retail market hall.[37]

A Nation of Shoppers and the Making of a New Civic Identity

The British market hall was the invention of an age of revolutionary political, economic and social changes for urban people, ending a long contest over urban street space. Rather than 'comprehensive urban planning' in the twentieth-century sense, the Victorian mode of planning was directed to specific urban amenities such as clean water, new streets, public museums, baths, and parks, and in the case of the public market-place, the market hall. Market halls were designed to continue the old 'moral economy' mediation of the old marketplace—a modern upgrade of the idea of direct public access to food suppliers. Doing so was an important mechanism in balancing population growth with urban food needs.[38]

37. Charles Knight (1841), op. cit., vol. 1, p. 143; Doré and Jerrold (1872), op. cit., p. 154-155. *'Bankside' (the parishes of St. Saviour and Christchurch Southwark), Survey of London* (1950), vol. 22, p. 9-30. www.britishhistory.ac.uk/report.aspx?compid=65313&strquery=london market committee reports 19th century/.

38. Nineteenth-century market history is about the tension between two views of the public marketplace—the old paternalistic ('traditional') view of the moral economy society of earlier times and a new ('modernist') capitalist view that is linked to the new political economy of free-market exchange, the first being played out in the provinces and the second in London. For a summary of the moral economy debate see E. P. Thompson, *The Moral Economy. Studies in Traditional Popular Culture* (New York, 1993), chapters 4, 5. It is interesting that few historians of the subject, apart from

Kirkgate Market Hall, Leeds, 1904. Architect: Leeming and Leeming

In moving the market function beyond its primitive bargaining space to this new building type, municipal governments all over Britain wrote important chapters in the history of modern consumerism, invented new lessons in food consciousness for people of all classes and gave the face of their cities a strong municipal architectural identity. Buying and selling in everyday life assumed a new respectability and civic engagement, and the retail market hall introduced standardisation of product and rationalisation of commercial space, marketing and display—all in a controlled environment that sought to define consuming as a pleasurable pursuit. Indeed, it may be argued that it was out of shops and market-hall stalls in places like Liverpool, Glasgow and Leeds that modern retailing in Britain

Thompson, have considered the marketplace in terms of public policy, limiting their studies instead to bread and grain prices and food riots.

was born. By the eighteen nineties the British market hall had become a working-class department store and the Old Roast Beef narrative had moved on to bicycles, phonograph records and players, electrical appliances and all sorts of clothing. The public—particularly the female sector—was learning how to be modern consumers.[39] The department store and the supermarket were soon to follow.

This chapter suggests that it was because of the character of the public market of the provincial city, its efficiency in management, design and layout as well as its aesthetic qualities that many provincial cities were able to meet the century's growing need for food and other comestibles, working and middle class people (especially women) in provincial towns had access to more and higher quality food than people in London.[40] In London, on the other hand, by the eighteen nineties we find that Londoners' access to food retailers had changed little from a century earlier. For most of them the day-to-day food distribution system was a harrowing scene of thousands of retail sellers hauling all sorts of comestibles on their heads or in carts into the streets and to unregulated street markets. With two street sellers for every three general shopkeepers, an enormous proportion of the city's food was still being distributed on the streets.[41] This common but little studied part of daily life was essentially a product of a the nature of London government, including administrative disarray and a food policy intent on preserving ancient monopolies and tolls by way of a highly profitable wholesale trade. In short, London was no match for the new era of post-1835 municipal reform that led to the new model markets found in most provincial cities. This does not mean that London failed completely. Indeed, by the later nineteenth century the Smithfield and Billingsgate market halls stood as brilliant examples of the modernisation of the nation's system for wholesale marketing of food and other products, something that would contribute in time to the department store and chain food store revolution

39. This integration of urban classes by way of the public market does not appear to have been the case of the twentieth-century shopping centre. See Lizabeth Cohen, 'From Town Center to Shopping Center: the Reconfiguration of Community Marketplaces in Postwar America,' *American Historical Review* (October, 1966), p. 1080-1081.

40. For an opposing view, that the 'modernisation' of the markets of London was the 'long eighteenth century'—that is, 1660-1840, see Colin Smith (2002), op. cit., p. 31-50. He fails to stress the massive wholesale growth after 1840—and, compared to what was happening in the provincial cities, London's lack of 'modernisation' of the public-market retail environment.

41. It was noted by Mayhew at mid-century that the average street seller sold more goods than the small shopkeeper. The figures for the eighteen nineties are 23,760 costers and street sellers as opposed to 31,747 general shopkeepers and are found in Charles Booth's 'Survey of London' as cited in Harold W. Pfautz, (1967), op. cit., p. 231.

of the later nineteenth and early twentieth centuries. But in the meantime London's population was left without the sort of traditional protection that was reinvented in a modern sense in the provincial cities.

It has also been seen that the history of the public market in the nineteenth century was a part of a powerful culture war that very much centred on urban space. Old townscapes and landscapes had been erased in a battle between the two new urban worlds, one a street culture dominated by fear, poverty and alienation, the other one a set of new spaces—such as pubic baths and museums. The market hall was a part of this new map of 'bourgeois respectability' and purposeful place-making. As in 'Victorian' architectural statements elsewhere in the city, the new marketplace was dressed up in plenty of historic imagery and to the high architectural standards of the time. All of this reminding the urban planners of the twentieth century that aggressively class conscious mediation of urban space was, to them, more important than comprehensive 'planning'.

Finally, in London where subsistence for the poor by way of the public market was very low on the agenda, it may be argued that Fredreich Engels got it wrong in 1845 when he attacked Manchester and other industrial towns rather than London for being negligent of the food needs of the industrial workers.[42] By reinventing the public market in the nineteenth century, the idea of the 'public' market became a sustainable enterprise that lasted well into the twentieth century. When looking at the cultural meaning of the market hall as urban language, it was not simply as a set of new retailing standards and increased food supply, but, as well, a metaphor for civic virtue, moral uplifting and contribution to a modern food consciousness—a new social experience.

42. In his 1845 study of the British working classes Friedrich Engels claimed that the public markets in the new industrial towns were filthy and disease-ridden and that the market system worked against working-class interests: workers, he said, received nothing but leftover food and food is generally sold by petty hawkers who buy up bad food and are able to sell it cheaply because of it poor quality. See W. O. Henderson and W. H. Chaloner (eds.), *The Condition of the Working Class in England* (Stanford, 1958), p. 50-51, 80-81, 86, 90.

Market Halls in France

Gilles-Henri Bailly and Philippe Laurent

In all ages, cities have sought to attract local producers, market gardeners, livestock breeders and fairground traders within their walls by making available to them the open spaces, squares and fairgrounds offered by town planning. They help them set up their business by improving working conditions for their activities through the construction of fixed and mobile shelters, both provisional and permanent.

This type of architecture was widespread throughout French territory and was gradually inscribed in the evolving topography of towns from the Middle Ages to the present. All regions of France have possessed and still possess buildings that supported or support market trade. Large cities have often warranted several constructions of this type, which are found rather systematically in the regional capital of each canton. A large number of covered markets still stand in villages that have lost their former importance.

These 'covers' have extremely varied shapes, ranging from lightweight structures to monumental public facilities. They bear witness to a very diverse and original architectural craft. Their forms adapt perfectly to architectural styles, movements and functions, as well as to the particularities of the urban context of their time. From original marketplaces framed in wood and roofed in tile, to stone 'temples' and eventually to marquees of metal and concrete, the architecture of non-sedentary trade has been constantly renewed, just as the trade itself has. These constructions—hastily considered until recently as simple, utilitarian premises—have often attained monumental and representative expression. Today these buildings are considered amongst the outstanding public monuments of cities and villages and have become milestones in our everyday landscape.

The periodic event of the market finds a privileged location in the city, generally right in its centre. Beneath the great mass of covered markets, the liveliness, colour, picturesque charm and abundance of shoppers and wares offer an ever new and gratifying spectacle. On 'full market days', the market overspills into the streets and surrounding squares; it is a whole neighbourhood of bustling activity. History has shown that these periodic gatherings are to be counted among the most ancient traditions, and that they have indeed survived many changes.

The Dawn of Market Halls in the Middle Ages

The origin of markets is exceedingly ancient. Without a doubt, French guilds and other market houses have their source in the Gallo-Roman era, when the opening of trade in the Mediterranean and the profoundly urban character of Roman colonisation most assuredly contributed to the development of this form of trade in France. Cities in the Roman world contained marketplace areas, designated by the words *macellum* and *mercatum*, yet these places were also confused with the *forum* (giving rise to the word *fair*). Archaeological excavations have revealed the typical layout of these important complexes: vast esplanades lined with porticoes beneath which opened rows of shops.

The long period of the High Middle Ages that followed the fall of the Roman Empire was poorly suited to a sustained practice of commercial exchange. The urban history of markets began to be told in the eleventh century. At that time, and especially in the twelfth century, the development of markets and consequently of market halls was linked to advancements in agriculture, nationwide economic development and urban growth.

Seeking to control the towns' supply of provisions, abbeys and lordly estates managed their manorial granaries and tithed farms through a set of royal taxes.

Although the royalty attempted to boost trade by granting special jurisdiction to favour merchants (exemption from tolls on market days, safe-conducts for traders, franchises and the safety of fairs and their operations), the creation of markets was accompanied by a series of measures destined to regulate these periodic gatherings, in order to facilitate their control. Markets and fairs were held in definite locations, at fixed times in accordance with the liturgical calendar: markets generally took place once a week and fairs two or three times a year, notably on the holiday of the patron saint of the parish. They were already the object of strict control: a range of stall rentals like those still in effect today served to compensate the lord for the construction costs and maintenance of the marketplace. There were traffic rights and entry rights for produce (termed according to location as toll, toll on goods, cartage, wheelage), a stallage tax known as *leyde* (that ensured are served place for dealers), market dues collected on the sale of wares, even a 'drilling' tax on each barrel of wine that was tapped. The texts of oaths recorded during allegiance ceremonies contained lists summarising the contents of the fiefdoms, specifying the various permissions. Markets (then called 'fieffed' markets) were also mentioned in these regulations.

The creation of a market and the eventual construction of a market hall were privileges granted by kings to lords. The monarchy played an

Mediaeval wooden market in Arpajon

essential role in these matters. The earliest marketplaces were built under Philip Augustus (1183) in the neighbourhood of Les Halles in Paris. Louis VI likewise authorised the creation of the markets of Étampes and Dreux on the royal demesne. By responding to the needs of villagers, these decisions favoured local communities and set the course for urban development by granting new, more spacious sites for commercial activity. In 1355 King John the Good founded the site of what is today the Foire-le-Roi square in Tours, an important urban planning decision that represented a new focus of development. The French crown quickly applied fiscal revenues from the markets to its policy of bolstering the state, allocating these resources to its vassals.

The king sometimes granted the gift of a market hall directly to a town in his appanage as did Louis XII, who in 1508 favoured the town of Évreux. In 1180, several groups of stalls leased out to different speciality trades in Caen belonged to the Duke of Normandy. The vassal to which the king conceded his rights might also be an ecclesiastical manor, an abbey, a priory or hospice. The abbot then ordered a market hall to be built, as in Saint-Pierre-sur-Dives and Puiseaux. Such an origin explains why some market halls have been erected on the grounds of monasteries, on the squares leading up to them, or within the walls of the castles, i.e., on the territory of the lay or religious authorities who initiated their construction. The lord often placed his coat of arms on the market hall. He often bore the costs

Mediaeval market in Puiseaux. View of the interior

of its construction or contributed directly by authorising, for instance, the withdrawal of timber from his forests. Certain market halls were nonetheless established or completed by means of public donations.

One noteworthy example is the rural community of Campan, whose emancipation dates to the years around 1300. Defending itself against the surrounding feudal powers, the community itself exercised different lordly rights, in particular that of constructing a covered marketplace.

Communal charters were at the origin of building several market halls, notably during the reign of Louis VI the Fat (1108-1137), under whose

Mediaeval wooden market in Lorris

rule the first communes appeared. The king himself established a commune in Lorris (where he had a residence) for which, among other determinations, the founding charter known by the name of *coutume de Lorris* (custom of Lorris) authorised the creation of both markets and fairs. One of the first of its kind, the text soon spread and was imitated by other communities. These newly emancipated towns didn't take long to undertake the construction of markets; the presence of this building in the city centre certifies, as much as any juridical text, the new freedoms enjoyed by the townspeople. Gaining these urban liberties allowed townsfolk to develop quite distinct marketplaces: in the late thirteenth century a bourgeois market was annexed to the old episcopal market in Strasbourg, erected between the tenth and the twelfth centuries. Towns thus endowed proudly displayed their market halls, as did Meaux, adding the image of its market to the city seal in 1308.

The construction of a market has the final goal of boosting trade by offering the advantages of convenience and greater control over transactions. It is, in effect, easier to enforce regulations in a well-defined place, yet the disparity in size between ancient market halls raises the question of which functions they were attributed. To such different buildings correspond multiple realities: their dimensions range, in effect, from the largest, such as La Côte-Saint-André, to the smallest, such as Thémines. The former, that set the record for this kind of building with its five sections, occupied most part

of the square that accommodated it, whereas the latter was limited to one small pavilion, which obliged most vendors to make do with trading outdoors in the surrounding area. These smaller marketplaces were limited to providing weights and measures services and inspections of certain wares, in a place removed from the clamour and conducive to the fairness of transactions. Even the largest market halls were unable to host more than a selection of the most noble trades, such as drapers, or those demanding sheltered stalls, such as butchers and fishmongers. The covered market in Cordes in the south of France was devoted to cloths, although specialised markets for cloths, woollens and linens such as the Watlaube and Watschale markets in Alsace were mostly found in the north of France. Certain names like Halle aux Vins (Wine Market), aux Noix (Nut Market), aux Olives (Olive Market), aux Fromages (Cheese Market), au Beurre (Butter Market), were derived from the specialities of local produce.

In some cities the meat market might be held in a building adjacent to the covered market and take the form of a monument, known by the name *mazet*, *mazel* or *maisel*. Large cities (Paris in particular) were endowed with specific market halls for each type of ware.

In many mediaeval towns the only areas for markets were the unsheltered streets and crossroads of the city centre, even for the delicate grain trade, thus explaining recurrent toponyms such as Rue du Marché au Blé (Wheat Market Street), Place aux Toiles (Cloth Square), Rue du Marché aux Herbes (Herb Market Street), among others. The absence of a market building was often voluntary, for the lack of sheltered areas in which to store surplus produce favoured sales.

There was virtually no space available inside the city walls of mediaeval towns, where very few market squares are truly worthy of the name. Street expansions, crossroads, esplanades and even church porticoes were the usual areas housing markets. When it was impossible to provide them with a central location, marketplaces were often adjacent to churches and belfries, or else the sheds rested on cemetery fences. In the crowded world of the mediaeval city, churches and market halls touched—these buildings continue to stand today as coherent monumental complexes. Markets were therefore closely linked to open spaces, streets and squares covered by large roofs supported by pillars, and were often described in the south of France as 'squares' or 'covered squares', expressions that pointed to the public ownership of the sites that the open marketplaces cleared of all obstacles.

Streets and arcade-lined squares were characteristic of city centres in southern France. Whether or not they were associated with a covered market, their porticoes were themselves often called *halles*, market halls, and

played a commercial role complementary to that of outdoor markets. On the other hand, in the case of certain bastides or fortified towns, the arcades (known here as *couverts*) stood exclusively along traffic roads. Markets were also frequently set in individual housing blocks, a consequence of simultaneous residential and commercial development. It was common to find markets occupying the inner courtyard of these houses, where they were sheltered from street traffic yet also connected to it through ground-floor arcades as in La Flotte-en-Ré or the Cohue[1] in Dinan, although nowadays such layouts have practically disappeared.

As a result of the progressive congestion of intramural markets that began in the twelfth century, during the following two hundred peaceful years merchants progressively appropriated open spaces outside the city walls. New poles of economic activity sprang up around these sites, creating new districts characterised by both trade and craft, which spread from the initial area where roads converged at the city gates to the point of rivalling the enclosed city and warranting, in turn, the construction of new walls. The success of these new neighbourhoods is explained by the advantages they presented over the walled city: availability of space, greater accessibility and the possibility of escaping the burden of certain urban octroi taxes although they could not, of course, thrive without the protection of the civil or religious authorities.

In all ages market halls have been built along waterways, canals and ports. The fact is sufficiently common as to constitute a revealing piece of information. In the Middle Ages, when roads were neither easy or safe to travel, a significant percentage of the transportation of goods was carried out by water, which to a great extent favoured the development of cities and their markets. The prosperity of fairs and markets seems to have been linked to their proximity to a navigable waterway and, conversely, the decline of navigation in the nineteenth century threatened the activity of small riverside towns. In Paris, where the boatmen's guild accounted for much of the city's economic activity, markets were held on the bridges and banks of the Seine, where clusters of boats were genuine marketplaces on water. This peculiarity was recently revived as an attraction for tourists in Amiens: the city received the produce of its *hortillonnages*[2] via interlacing canals. The same could be said for Saint-Omer and Colmar.

1. The word *cohue* designates a tumultuous gathering of people, and, by extension, a market.

2. Traditional market gardens built on drained wetlands to the east of Amiens still farmed by a small number of traditional market gardeners and accessible to tourists by boat. Translator's note.

For public health reasons, meat markets were often situated outside peopled areas and regrouped near the water. The butchers at the Hôtel-Dieu in Lyon, which was also a slaughterhouse, was equipped with a wharf known as *le Pont des Bouchers* (Butchers Bridge) to allow for the disposal of offal in the Rhône. These cursory measures for hygiene and convenience survived into the twentieth century in wholesale and retail markets, butchers and fishmongers, granaries and warehouses.

For a long time the most widespread form of market-hall architecture was that of a simple timber frame that supported a roof. The majority of these structures belong to a common type: an elongated ground plan with four rows of pillars delimiting three sections of different widths, the middle one wider and taller and therefore reminiscent of a basilica, its high gable roof often sloping down quite low. These roofs, simply resting upon the pillars, seem to hover above the square like an umbrella. A few of these elongated buildings measure over seventy metres in length and are made up of several sections, in other words, of identical triangulated trusses. These features appear above all in constructions in northern France; the semantic root *hall* derived from the French word for marketplace (*halle*) seems to confirm their northern origin.

Some buildings differed from the aforementioned type on account their perimeters, made of masonry walls (Saint-Pierre-sur-Dives, market hall erected by Benedictine monks), and adopted the typology of tithed farms, where storage considerations were given more importance than distribution.

The timber market halls of the Middle Ages that have survived into our time can be counted among the earliest examples of such frameworks: Arpajon, La Ferrière-sur-Risle, Lyons-la-Forêt, Clères, Le Mas-d'Agenais, Luzarches, Gensac. The oldest market halls that exist in France date back to the thirteenth century. In Crémieu, the numbering of the elements of the frame gives us some idea of the construction process. In addition, the same model of market was often reproduced well into later eras, either due to fidelity to old, cherished edifices or to local building traditions. These elongated structures, well suited to shopping strolls, were perfectly adapted to the extended squares that characterised the mediaeval urban fabric.

The 'pavilion marketplace', with a square or similar ground plan, seems to have been favoured in the southwest of France, particularly in the bastides of that part of the country. The frames of this type of construction are distinguished by complex articulations of trusses arranged in a star-like pattern. The choice of ground plan obeyed functional and town planning criteria: the construction of the market was often combined with that of the

Mediaeval market in Mereville. Detail of the structure

town hall, which led to the erection of another floor above the market. The four-sided pavilion of the town hall-cum-market thereby stressed the monumentality attached to its civic function.

All traces of the cloister market type have been lost. Shaped as an atrium, this type seems to perpetuate its Roman predecessors, as exemplified by the Grandes Halles in Saumur, built by Henri II of England and which Joinville compared to a Cistercian cloister, and the Étape aux Laines in Calais. The sixteenth-century Halles in Rouen, very similar to the Parisian 'quadrangles', formed a sort of enclosed square along three sides of which ran

wooden galleries. A market in the form of an interior courtyard remains in La Flotte-en-Ré, a unique example of this bygone type. Other models were inspired by the shops on the ground floor of buildings in arcades or shopping streets (butchers or *mazels*) as in Dinan for instance, where the entrance provided space for a sculpted portal.

Market halls consisting simply of a timber frame are rather rare in the Midi, a region where the Roman legacy was more strongly felt. Most of these buildings present stone walls and pillars bearing rather weighty trusses, justified by the weight of the roofs made of round tiles in the lowlands and of flagstone in the mountains. In Aquitaine, octagonal pillars built of stone or brick with plinths and capitals decorated with mouldings are commonplace. The small market of Salies-du-Salat displays an ornate stone slab worthy of a chapterhouse. In Cordes, the rather flat roof was borne on tall column shafts resembling those of a church. The market in Fère-en-Tardenois, erected in 1552 under the initiative of Anne de Montmorency, rests on cylindrical ringed columns that anticipate the Renaissance. The arrival on the scene of master bricklayers alongside carpenters resulted in a more urban style of architecture and concern for monumentality. Yet alongside such refined and elegant examples, there are many cases of square section pillars, solid in appearance.

The structures of covered markets were often impressive due to the calibre of the timber, their geometrical complexity and their imbricated woodwork, all of which reveal the skill of the master carpenters.

Town Markets in the Renaissance and Classical Periods

The Middle Ages witnessed the multiplication of markets. After the destruction caused by the Hundred Years' War, many markets were renovated, rebuilt or newly erected, construction work that contributed to the economic growth of the years 1450-1500. When the fiefdoms were restored, new royal edicts were issued reinstating old markets and fairs or instituting the creation of new ones, such as those granted by Louis XI to the cities plundered by the war. His cousin Louis Mallet de Graville thus obtained permission to construct the famous marketplaces in Arpajon and in Milly-la-Forêt. In the wealthy Hurepoix region and the neighbouring Gâtinais, Puiseaux (under Charles VIII), Méréville (under Louis XII), and Limours and Égreville (under Francis I) all benefitted from identical favours and consequently boasted magnificent buildings.

Markets were again erected in the seventeenth and eighteenth centuries, when the new *noblesse de robe* (acquired in government office in the fields of justice and economics) took back the old fiefdoms. These new

oligarchs who had made a name for themselves in the service of the state were obliged to secure it through land ownership. They conspired to revive the old local privileges for their own profit. By way of example, Colbert purchased the barony of Seignelay in 1657, modernised the castle, created a bailiwick, established two royal factories and built a market, a public bakery, a wine press, a salt granary and a country inn. At a later date, the Duke of Penthièvre reinstated covered market halls in the main cities in his domains—Lyons-la-Forêt (before 1775) and in Gisors (in 1786), but also in Vernon and in Les Andelys. In Piney, the half-timbered upper storey of the market, which was the former granary of the dukes of Luxembourg, still stands. Such constructions always assured regular income.

In the age of the Enlightenment these markets, built following traditional construction methods and little concern for grand architecture, reveal an astonishing anachronism. Up until the decade of 1750 and even later, the owners of fiefdoms felt no need to modify or embellish buildings that in their original form had regularly allowed them to draw profits. Furthermore, the slightest touch of archaism could represent for the new landlord a sort of symbol emphasising the permanence of the rights attached to his land.

Although the Renaissance entailed some changes in architecture in general terms it had a weak influence on market halls. Nonetheless, we should consider certain special architectural programmes that since the fifteenth century had favoured the accomplishment of more refined buildings. These reflected the grandeur of their sponsors, the 'elite' guilds of the cities (butchers, drapers, 'river merchants'), professions that were often represented in the local councils. This added aesthetic value, which was chiefly found in the north and east of France, the wealthiest and first regions to be emancipated in the country, was associated with the rise of northern trade in the fifteenth and sixteenth centuries, which explains why the masterpieces of the style are found in Flanders—Ypres, Bruges and Ghent.

Renaissance market halls, with immense gable roofs, crow step decoration, rows of skylights and the protruding stair turrets that flank them, took on an aristocratic symbolism characteristic of the architecture of castles. The design is Gothic, the ornamentation Renaissance in style. The market in Mirecourt, with its turrets and its mullioned windows, resembles an aristocratic manor. In Perpignan, the Loge de Mer evokes Mediterranean trade: built between the years 1397 and 1418 under Aragonese control, it drew inspiration from Italian municipal palaces and bears resemblance to the emporia in Catalonia and the Balearic Islands. Throughout the rest of France, only the covered markets in La Ferté-Bernard bear any resemblance to Alsatian market halls, with their high walled structures and their

Classical market hall in Ambert

appearance of urban dwellings. Erected in 1536, however, at the expense of Claude de Lorraine, Duke of Guise, they are of seignorial origin.

It was in large cities, where the construction of butchers' shops, fishmongers and corn exchanges was undertaken and town halls were rebuilt, that classical architecture influenced the design of covered markets. In Aix-en-Provence, the Halle aux Grains (Corn Exchange) was built with dimension stone and equipped with granaries. It evoked a palace with its buttresses and its frontispiece decorated with allegorical statues depicting Cybele, harbinger of wealth and the Rhône, transporting her.

The market halls built in this age were indebted to the Italian Renaissance for their pavilions of lightweight arcades resting upon columns. In 1674 Pierre Puget, who designed projects for the beautification of Marseilles, built the Poissonnerie Neuve for this city inspired by the model of Florence's Mercato Nuovo (1551), in the shape of a hypostyle hall. Montpellier was equipped with elegant fish and meat markets. The butchers' shops in Arles and Avignon are decorated with symbolic sculptures—bulls' and rams' heads, and panoplies of butchers' tools. In Avignon, architect Jean-Baptiste Franque conceived his project for butchers' shops as a property operation: between 1749 and 1752 he supervised the construction of housing blocks on each side of the Rue Vieux-Sextier, the ground floors of which were occupied by these elaborate butchers' shops.

Classical stone market hall in Saint-Maure

The Enlightenment saw the appearance of a totally new way of thinking with the development of municipal policies. Intendants and regional administrators concerned themselves with projects for constructing facilities, notably those intended for public provisioning. It was imagined that the reformers of the age undertook to reshape the city starting with its oldest and most obsolete features—markets, with their imperfect ground plans and chaotic hustle and bustle. In 1733 Voltaire prophesied in *The Temple of Taste* the great changes to come: 'Those who will come after me will do just as I have imagined … New squares and public markets will be built beneath colonnades, to decorate Paris like Ancient Rome'. The beautification works undertaken in some of the larger cities in France granted an ever larger place to trade. While at the beginning aesthetic considerations and their symbolic staging were a priority, these slowly gave way to a greater concern for public welfare. Central spaces in towns, unorganised and congested, were then enlarged, straightened and restructured, and covered markets were rebuilt in harmony with newer arrangements.

In Versailles, a completely new city was created outside the palace gates and just as soon endowed with the means for its subsistence: a square-shaped marketplace was set aside in the quarter of Notre-Dame where market halls for different produce were erected: butter and fresh seafood, veal and poultry, herbs and wheat. In 1755, as the city began to expand, Louis XV ordered the construction of a symmetrical neighbourhood, the Carrés Saint-Louis, a sort of shopping centre before its time. The shops, crowned with mansard roofs, formed four square courtyards (*carrés*) assigned to

Classical market hall in Beaumont-sur-Sarthe

Classical market in Rochefort

different trades: *carré au puits* (Square of Wells), *carré à l'avoine* (Square of Oats), *carré à la fontaine* (Square of the Fountain) and *carré à la terre* (Square of the Earth). Times changed markedly at the end of the eighteenth century. In 1786, an enlightened personality well convinced of his

benevolent mission such as Camille d'Albon (whose chronicles have kept his memory alive under the ostentatious sobriquet King of Yvetot), erected an elegant corn exchange that bore the inscription *Gentium Commodo, Camillus III* (For Public Convenience).

The most brilliant projects emerged in towns that undertook beautification projects and were signed by famous names: Gabriel in Rennes, Giral and d'Aviler in Montpellier, Puget in Marseilles, Franque in Avignon and in Autun and Blondel in Strasbourg. Merchants' guilds had elegant buildings erected to house the stock exchanges where they discussed their business—in Lille, the Vieille Bourse with its Baroque façades surrounding a central courtyard, and in Tours, the Palais du Commerce and its Halle aux Draps (1759). Far from the sources of the new style adopted in these city buildings, country premises were characterised by a rustic, provincial classicism. Town-hall markets were magnificently reconstructed in masonry and had little to do with the popular model of the timber pavilion but instead resemble town palaces and feature typically classical architectural elements: columns, pilasters, bossages and decorative frontispieces. Their mansard roofs ornamented with bull's eye windows reveal the stylistic evolution of the model. In Carcassonne, the roof was deliberately hidden behind a balustraded attic.

The Reformation Period

As from the late eighteenth century, the problem of means of subsistence —especially grain, which was the main dietary staple—led to a series of reforms and profound changes in markets and market halls. The king was considered to have a father's responsibility with regard to his people and was expected to guarantee bread supplies for all his subjects. The administration and the police, in order to ensure social stability through a regular supply of provisions, were compelled to strictly monitor and regulate trading. This attitude was opposed to the often declared principle of the free fixing of prices and therefore risked strangulating the market. Hesitation between the liberalisation and control over exchange was constant during the eighteenth century.

At the time of the French Revolution, urban markets were scenes of unrest. As symbols of ancient feudalism, some were destroyed. Other market halls owned by the nobility and the clergy were seized in 1792 alongside other assets and put up for sale. Many others were abandoned or sold during these years. Private individuals thus found themselves the owners of buildings they tried to use for their own purposes. Some turned an immediate profit by knocking the markets down and selling the building materials.

Conversely, as a result of the seizure of the clergy's assets, markets were set up in convents and parish churches. These changes in assigned usage hastened the disappearance of certain buildings, although they also provided others with a new lease of life.

An offshoot of the Enlightenment, the French Revolution affirmed freedom of trade and free circulation of grain through the laws of Prairial Year V. But in practice the same hesitancy as existed in the *ancien régime*, teetering between dirigisme and laissez-faire. The communes often took the liberty to institute markets in and built market halls without awaiting authorisation from the Bureau de Commerce. After Thermidor, as each village wanted to enjoy the same prerogatives as its neighbours, the network of markets became much denser. The establishment of the Republican Calendar further contributed to this growth by changing the calendar that had ruled markets since time immemorial. The liberal attitude of those in power was to allow the 'natural' elimination of competition between towns to balance things out.

A 1790 law abolished all feudal rights attached to marketplaces and covered markets: market and measuring fees were suspended as were all onerous taxes surcharging transactions. Only rental fees on stalls were collected, considered as ordinary funds of the communes. Nevertheless, relieved of aristocratic governance over commerce, post-Revolutionary bourgeois France took to the game of trade and competition, as exemplified by the simultaneous and competitive construction of numerous elaborate market halls. If so many communes wanted to own their own market hall this was not in imitation of the past regime, but because they expected a new trade boom. All the same, many villages only drew a mediocre profit that was nowhere on the scale of the investment and maintenance costs.

The state strove by all possible means to accommodate the departments and cantons instituted by the National Convention according to a rational framework built around city centres. Prompted by the recently set up network of modern roadways, the capitals of each canton were chosen to accommodate various administrative offices, which together with the town market contributed to attract the inhabitants of the surrounding countryside. These small thoroughfare villages, spaced out at regular distances across the countryside, concentrated the commercial activity of the area; it is within these villages that we find most of the covered markets that were built during the nineteenth century. The area served by a market ideally allowed farmers to visit it and journey back in one day. Weekly market gatherings gave everyone the chance to meet with the local administration to comfortably converse side by side, and were considered

Market in Carcassone. View of the interior

by the state as fundamental devices that ensured effective means of social integration and control.

At the turn of the nineteenth century covered markets, like other utilitarian buildings such as slaughterhouses, octrois, barracks, prisons, gendarmeries and town halls, underwent notorious improvements both in their appearance and in their surroundings. Up until then it was unthinkable that a routine government building could constitute a town monument. After the Revolution cities suddenly became self-governing and had to embark on municipal building programmes to house the offices that now represented

them. Public buildings, by their very conception, were meant to instil respect and their location had to be carefully determined according to the possibilities of expanding their radius of influence throughout towns.

For a long time town halls had been accommodating markets and courts of justice on their humble premises. In the nineteenth century, seeing the advantage of fusing markets and town halls, municipalities often preserved this old custom. The overlapping of several programmes allowed for an economy of urban space and public funds, while creating more elaborate and stately buildings. Markets thereby attained a new monumentality and councils symbolically became the guardians of trade. Markets took their place among the monuments that put towns on maps. By the end of the century, the opening of a covered market had become a lay feast that counterbalanced religious celebrations.

The first great renewal of covered markets in the nineteenth century coincides with Neo-classicism, and so their architecture contains a whole repertoire of the movement: borrowings from Graeco-Roman antiquity, Doric or Tuscan columns, arcades, bossages, etc. Once a systematic programme of facilities was implemented in French departments by the Napoleonic Empire, all sorts of buildings benefitted from the new architectural style—slaughterhouses, prisons, churches, town halls, barracks, hospitals and market halls. Striving to harmonise with public sensitivity, architects sought to express the specific character of markets respecting architectural conventions: a certain rustic simplicity associated with the agricultural produce sold there and the prosaic image of a public space where crowds gather. These solutions privileged the constructional and architectural values of strength and roughness. The 'eternal' oeuvre of the Romans was imposed as an absolute reference, inspiring a whole generation of buildings until the decade of 1850.

In the eighteenth century, the public and commercial programmes included amongst the annual Grand Prix competitions of the Royal Academy of Architecture were a novelty. Before 1785 Claude-Nicolas Ledoux proposed a market among the public buildings planned for his 'ideal city' of Chaux. Yet the search for monumental compositions that characterised these academic projects soon proved inadequate and gradually gave way to more practical conceptions. Architectural production also evolved under the influence of the first generation of engineers graduating from the École des Pontset Chaussées, newly founded by Perronet, the activity of which was not by any means limited to bridges and roads—engineer Garipuy, creator of the finest bridges of Languedoc, drew up the plans for the covered market in Carcassonne.

Market in Rennes

At the turn of the nineteenth century a certain neutrality surrounded these projects. Jean-Nicolas-Louis Durand, theoretician and reader of architecture at the École Polytechnique, made a great contribution to the development of a universal and deliberate manner of handling architectural projects. Durand's students and collaborators would go on to create the markets that Napoleon commissioned for Paris. Written works on the subject began to flourish. Louis Bruyères, director of Public Works for the City of Paris, published his *Collection des Marchés de Paris*, and in an effort to demonstrate the suitablility of certain designs, Durand, Bruyères, and P. L. Fontaine made use of parallel advances in architecture by presenting a comparison of typological models on a single plate. A great number of covered markets with circular ground plans were erected. Architects imbued markets with the rustic architecture inspired by their travels to Italy: overhanging hollow-tile roofs, readily visible frameworks, granaries ventilated by attics as drying rooms of sorts, bare walls and arcades derived from Tuscan farms proclaimed a robustness full of character. In the same Italian vein, Blondel's Marché Saint-Germain (1817) was one of the finest markets of its time in Paris, along with the Marché des Carmes designed by Antoine-Laurent-Thomas Vaudoyer (1819).

Traditional marketplaces merely covered the ground of the square on which they stood, even if this was a slope, without blocking visibility or hindering pedestrians. In the nineteenth century, however, it was decided that the covered areas of markets should stand on raised floors, which entailed

providing entrance steps. Bars were placed between the posts whilst goods remained in storage. During the Empire, when rational designs for covered markets were made in large cities, open-air markets became the object of criticism. Unlike market shelters of the past that transcended commercial functions, nineteenth-century covered markets specialised by type of ware, which led to more enclosed buildings.

Innovations also appeared to improve the comfort of market premises. The additional raising of the highest part of the roof in the form of a lantern allowed for ventilation and cast a bit of light into the centre of the building. Such ventilation was treated *à la romaine*, either with an attic of small horizontal openings or with louvred windows. Gradually, the formula of a rectangular pavilion with four roof slopes and a central lantern developed, prefiguring the pavilions built by the Baltard generation.

Towards a Modern City

The second half of the nineteenth century, confronted with accelerated urban growth, was particularly sensitive to the problems of provisioning and of markets. The prefects of Paris (Rambuteau but particularly Haussmann) tackled this issue with radical measures. Their example was soon copied by prefects and mayors in provincial cities, who restructured town centres so they could welcome central market halls. These interventions were technically ambitious, but the restructuring of alignments of buildings was carried out with a sense of urban artistry that hid the scars inflicted on older areas of the city. Early marketplaces and the houses surrounding them were knocked down to draw a clean slate for construction. Iron markets of a new type were built in wide avenues that opened up neighbourhoods. Hausmann's urban planning developed new standards for space allocation, ventilation, comfort and hygiene that rendered the irregular configurations of old towns anachronistic, and notably markets, where the social and urban fabric had resisted administrative attempts at reform and restructuring. The new regulating criteria put an end to picturesqueness.

The example of the rebuilding of the Halles Centrales in Paris and the city's network of district markets, characterised by lightweight iron and glass structures, gained recognition in all regions of France and abroad. It is estimated that around four hundred metal markets were erected.

The extension of the use of cast iron, wrought iron and glass in architecture in the mid-nineteenth century brought about an undeniable element of comfort and permitted a full-scale renewal of traditional types of markets. The principle of the 'great umbrella' that liberated space, the association of metal and brick for walls and the huge glass surfaces for lanterns

Iron market in Belfort. Detail of the pediment

and windows, were fundamental technological innovations. Thinner iron elements combined with glass resulted in improved qualities of lightness, transparency and luminosity that were so important for commercial buildings. Besides the precocious use of metal during the process of rebuilding the cupola of the Halle au Blé in Paris in 1813, recourse to this material was

Iron market in Châlons-en-Champagne

at first tentative: small cast-iron pillars were sporadically used as an intermediary support between two main load-bearing elements. As a substitute for timber, wrought iron was first brought in for the construction of theatre ceilings, covered arcades, warehouses and libraries, where its fireproof properties favoured its gradual adoption. The covered market of La Madeleine in Paris, designed by Gabriel Veugny (1824-1838), had a metal roof measuring twelve metres in span. Hector Horeau, a fervent champion of iron, suggested iron roofs with spans of twenty-three metres in his 1845 design for Les Halles Centrales in Paris. The invention of the *Polonceau* truss greatly facilitated the use of iron in market construction. At once simple and economical, the procedure combined tension and compression parts and was first used in 1837.

As covered market halls from the Neo-classical period began to be outdated, when the question of rebuilding Les Halles in Paris was raised, metal was proposed for numerous projects. Like many of his contemporaries, Napoleon III seems to have been impressed by the new railway stations and their remarkable dimensions. Baltard wrote, 'A pronounced infatuation with metal constructions, of which the iron railway stations were offering interesting specimens, dominated the public taste and distanced it from stone

Iron market, Sécretan-Paris. Detail

constructions.' Baltard, who had been appointed architect for Les Halles, visited other European countries in search of the best models and was especially interested in English markets made of iron. Therefore, in his final project Baltard abandoned the massive masonry corset for lightweight iron frames, combining metal mullions with brick walls and louvres. The decoration, while limited, was in keeping with the constructional logic of the metallic structure.

As such, the market pavilion of the Baltard model experienced an immediate success. The assembly of the building relied mostly on metallurgy workshops that delivered the components, masonry being restricted to the mere enclosure of spaces. Henri de Dion, creator of the Gallery of Machines at the Exposition Universelle of 1878, who perfected the lattice truss, which made it possible to free up space from tie rods and cross beams. These technical innovations allowed for the improvement and rebuilding of defective buildings of the first generation of markets, such as the Marché Saint-Martin in Paris, where the Polonceau trusses collapsed in 1879 under the weight of snow.

Metal architecture was just as soon adopted outside the capital. The basic unit of the rectangular pavilion with a lantern sufficed for the most part, while the larger markets, in the image of those in Paris, would contain two, four or more pavilions. The city of Angoulême took the covered market

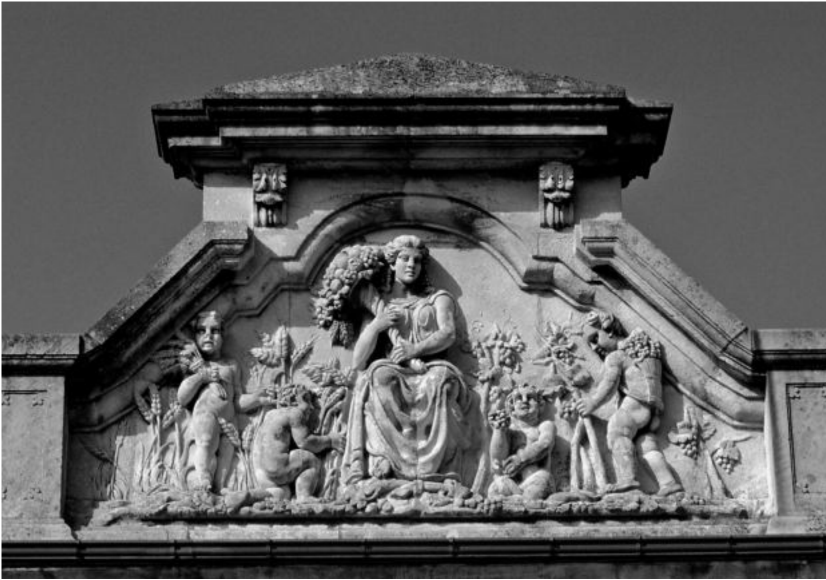
in Tours as its model, as this town had already gained some experience with metal-frame architecture, which explains the significant similarity between the two projects.

The 'Meccano' principle inherent in metal construction allowed workshops to commercialise their models in Algeria and South America. The São José market in Recife, Brazil, shipped from France in separate pieces and built in 1875, bore a fraternal resemblance to the Marché de Grenelle, the drawings and plans of which were published in 1869 in the *Nouvelles Annales de la Construction*. Besides the Grandes Halles in Paris, Baltard designed the Marché Secrétan in Paris and the market of Callao in Peru. It would be false to attribute to him all those markets built in the so-called Baltard style up until 1914. Iron must have seemed attractive to municipalities concerned about obstructing public squares with opaque, compact pavilions. A large number of old markets disappeared during these renovations.

The propagation of these metal market halls illustrates once again the efficiency of normative control in nineteenth-century architecture. While some deplored the repetitive monotony of these markets, the basic models nonetheless underwent infinite variations both in their forms and their materials. Paradoxically, these architectural works are far from being the products of uniform serialisation as the nineteenth century, which was still dominated by traditional crafts, avoided standardisation. Each design was drawn up by an architect in his own personal style, which he adapted to local tastes and situations and then had assembled by local foundries with little concern for systematisation.

Metal made its way into the heart of the city through the construction of market halls and railway stations. Its appearance, however, was only tolerated on account of its undeniable practical qualities. Iron was the object of aesthetic quarrels between architects and engineers, between rationalists and supporters of stylistic eclecticism. This metal architecture was mostly criticised for its excessively slender elements and its skeletal character, inadequate for monumental expression. So in the Marché Saint-Arigle in Nevers architects had to quadruple the small columns to give more fullness to the angles. During the Third Republic, tastes changed and favoured grander buildings where bourgeois society could express its affluence and accomplishment. The consequent return to the safe values of traditional masonry provided a better setting for ornamentation. The relatively sober expression of the first iron markets evolved under the pressures of eclecticism and the need to further ornament exteriors. Façades were decorated with conventional stone frontispieces that effaced the glaring modernity of iron. At the

Eclectic late nineteenth-century market in Saint-Calais



Classical market in Givry. Detail of the pediment

turn of the century metal buildings were thus often concealed behind an architectural 'bodywork' of stone, that granted them a monumental appearance. Cities, concerned with personalising their markets and making them more attractive, organised architecture competitions where heated debates emerged on such topics as ornamental language, the effects of materials and the question of style.

Another way of clothing iron market halls was by a mixed construction, i.e., metal-frame structures and various filling elements: decorative multicoloured bricks, terracotta bas-reliefs, glazed ornaments and artistic stoneware. Such combinations of materials and the desire for varied effects produced a very colourful kind of architecture full of pictorial qualities. These architectural ornaments (cabochons, rosettes, coffers) and symbolic depictions (fruit, vegetables, livestock, game) were produced industrially and inserted in the metallic structure. In Limoges, market halls were adorned with figurative porcelain panels. In such mixed constructions, the iron framework was obvious and the metal rods, nuts and bolts and truss configurations constitute ornaments in and of themselves, contributing to a sense of structural truth. This original style owed nothing to the past and had the merit of simultaneously satisfying rationalists and partisans of eclecticism. Around the year 1900 under the influence of the world fairs, markets were adorned with exuberant decoration crafted entirely in iron: monumental

sculptures, sheet-metal turrets, bulbous domes cladded with metal flakes, metalwork lanterns.

Twentieth-Century Changes

After the Great War, when the markets under construction looked resolutely to the future, a new pastiche of regional styles emerged. The projects designed by 'aesthete' architects working for municipalities sought picturesque, even eccentric facilities (spa towns, seaside resorts, harbours), markets with timber walls or structures, Basque and Normand fish markets decorated with pointed gables, roofs with imaginative trusses and exaggerated, disproportionate eaves, fairy-tale turrets, 'old-fashioned' tiled roofs and the reconstructed frameworks of the Normand village of Etreta … All these nostalgic tendencies revealed the desire to harmonise with ancestral landscapes, seeking a rootedness in tradition. These forms from the past evoked a picturesque and traditional rural world that was in the process of disappearing.

During the course of the twentieth century, the urgent need for building new facilities, economic demands, the availability of expedient technical solutions and the emergence of reinforced concrete once again changed the circumstances surrounding architectural production. Concrete buildings eschewed all decoration on principle, allowing the plain truth of their structures to express their essence, in conformance with the purist doctrines of modern architecture and with civil engineering works. Nevertheless, the weight of tradition and reticence towards modernity inspired some cities to stick to decorative façades in Art Déco style: frontispieces, stained-glass windows, roughcasts, colourations and pseudo-classical cornices. The decoration drew on geometrical sources, in the Pomona and Neo-antique styles. Hygiene concerns explain the taste for mosaic and ceramic wall cladding both inside and outside, on fishmongers' stalls, florists and fountains. The Pavillon du Verdurier in Limoges is characteristic of such extremely refined decoration (stained-glass windows, mosaics and a copper dome).

Engineers' art in the second half of the twentieth century was at the origin of expressive market structures. Forms were taken from nature (the concrete undulating roof of the Royan market hall evokes a seashell, the tridacna clam), from the properties of the material (the parabolic concrete sheet in the Boulingrin in Reims, the glued laminated timber in Saint-Jean-de-Monts). By their dimensions alone, a fair number of modern covered markets were already remarkable works: the La Mouche cattle market in Lyon, built by Tony Garnier in 1909, measured a hundred and twenty metres long by eighty metres wide. In the group of metal structures mention should be made of the Maison du Peuple in Clichy (designed by Beaudoin, Lods and Prouvé,

1937-1939), a multi-purpose public facility and an early example of the use of the curtain wall.

These interesting twentieth-century endeavours demonstrate the variety of technical means employed and the imagination of designers. Nonetheless, this architectural production revealed an absence of homogeneity and a great vulnerability to the effects of passing styles. Faced with such multi-purpose forms, the question arises as to whether the covered market as an architectural type will end up disappearing.

The nineteenth century was a golden age for fairs and markets, but at the *fin-de-siècle* they began to wane, disconcerted by new ways of marketing agricultural produce (pick-your-own produce farms, new types of cooperative farms, the development of industrial flour mills) and by the decline of traditional agriculture. The First World War hastened this economic decline in rural areas. In addition to the destruction of covered markets caused directly by the war, buildings that had been rendered useless and had fallen into disrepair were also demolished. In villages and towns, former grain markets were simply a vestige of the past.

Once wars were over, in cities devastated by the destruction the outdoor markets that had replaced flagging sedentary trade experienced a resurge in activity, although market premises were not always rebuilt. Later on, intense urban development and residential expansion away from city centres called for new facilities for peddlers. Markets have managed to adapt flexibly to the problems of these neighbourhoods awaiting permanent commercial installations, often functioning with lightweight, removable structures (such as the Cordonnier system in the boulevard markets of Paris).

The second half of the twentieth century witnessed a great diversification in forms of distribution. Traditional markets and shops were complemented by department stores, shopping centres, hypermarkets, mail-order sales, Internet sales today, etc., so non-sedentary trade underwent a profound mutation, particularly during the last quarter of the twentieth century. The number of market gardeners, small-scale livestock breeders, poultry farmers and local producers selling a portion of their harvest in exchange for a simple market fee waned among stallholders. Non-sedentary dealers sourcing their supplies through regional wholesale markets (such as that of Rungis for the Paris area) became mere retailers.

The interior fitting out of markets also underwent a notable evolution: the original, long-standing elementary furniture consisting of sawhorses and planks was gradually transformed into permanent stands, especially for the handling of perishables like meat and fish. The need to improve hygiene conditions, to satisfy consumer demands for food quality (cold chain, notably)

and to keep up with new European health standards have placed a particularly heavy burden on professional practices and created a need for proper equipment. Those choosing to remain in covered markets have equipped themselves with permanent installations (refrigerated display counters, cold storage, hot water, etc.) and arranged their stalls like genuine shops. Covered markets have, therefore, progressively transformed into large-scale food distributors under fierce competition from supermarkets in city centres and outlying districts.

Other dealers, preferring to carry on as stallholders, equipped themselves with fully conditioned, large-capacity vehicles: stall lorries, refrigerated lorries and all sorts of travelling shops with ready-made window displays all set up. Traders who travel with their own shelters leave the covered market behind and prefer instead outdoor areas—a car park suffices for such a market. The dispersal of town markets as a result of rotations through various sites and the disappearance of sedentary trade in smaller villages have led to the development of new sales routes and accelerated the use of such individual facilities among vendors. It is therefore not surprising that these traders should request that the old market hall (now useless but still occupying the village square) be knocked down in order to make room for their lorries.

The wave of demolitions that struck covered markets—taking a few remarkable buildings in its wake—during the years 1950 to 1980 has somewhat slowed down: whereas in the beginning practically one hall a week was knocked down (around fifty a year), nowadays at most two a month (twenty-five a year) are demolished, a number which is still, however, considerable. The motivations behind these decisions reveal certain prejudices and quite often a lack of analysis of the problems posed by the sites of town marketplaces. Only recently are people realising the negative consequences of these demolitions and of the disappearance of their commercial function, as the void created in the urban landscape and the functional repercussions for the city are thrown into relief.

Public opinion in favour of the preservation of market halls plays a considerable role today. The affair of the demolition of Les Halles de Paris in 1972 has noisily illustrated this, through the awareness it raised of the heritage of iron architecture. People realised that an architectural *magnum opus* had just disappeared, that a profound mutation, as physical as it was economic and social, was unfolding in the heart of Paris. Unwittingly, ever since that landmark event, anything that touches on a building of this kind arouses an immediate public reaction which can even go as far as costing the mayor his seat at the next local elections.

Evaluating the History: A Future for Covered Markets

Particularly exposed to the upheavals that have often affected town centres, market halls have been continuously replaced (often on the same site) by newer premises and urban improvements. Many of them have disappeared after hosting events, as a result of fires, wars or scheduled demolitions, and are only known to us today through archival documents: descriptions, engravings, photographs and films.

The increase in demolitions during the eighties prompted the drawing up of the Inventaire National des Halles et Marchés Couverts (National Inventory of Market Halls and Covered Markets) over thirty years ago. Our first move consisted of drafting a region-by-region inventory of existing market halls, then diagnosing the problems suffered by this architectural legacy. It is now up to the French government, the regions and communes, to make use of the data.

The number of market halls and covered markets remaining in France today is estimated at around three thousand and fifty. Utilitarian architecture being only recently (though fully) included in the notion of heritage, market halls now constitute a specific, resultant and diversified part of this architectural heritage. Distributed throughout the entire national territory, these old buildings have survived in very different conditions. While some market halls continue to bustle and benefit from regular maintenance, indeed, even adapting to today's conditions of non-sedentary trade, a growing number of others have seen their activities diminish to the point of totally losing their commercial function. The contexts of villages and large cities are very different: market halls have often been better preserved in rural areas, which have not undergone the urban transformations of large cities. Small towns, however, that do not always count on the financial resources to cover the maintenance and restoration of these buildings, nor enough business to justify their preservation, sometimes have to face difficult choices. Conversely, larger towns have been able to find new long-lasting purposes for their market halls and thus enhance their spatial and architectural qualities. The diversity of these situations deserves to be stressed.

In contrast to the above trends in policy, more and more cities are fortunately undertaking the restoration and valorisation of their market halls. Some of these have also realised the appeal in including as far as possible the renovation of the marketplace within an overall plan for reactivating and relaunching the city's historical quarter, thereby allowing both market and neighbourhood to profit reciprocally from the ensuing dynamic. Recent restoration examples and the construction of new halls are very often accompanied by improvements in surrounding communal spaces.

Covered market and outdoor market in Dijon

Projects affecting nineteenth-century metal market halls have sometimes produced spectacular revivals, notably by means of new colour schemes for old structures. Following a few initial works in contrasting colours (such as Marché Saint-Quentin in Paris, 1981), recent colour combinations are more natural: in Castres, a red metallic structure, cornices and décor are enhanced by naturalistic colours (green palm fronds and golden ears of wheat);

in Corbeil, the colour of the new painting highlights the contrasts in the hues of the bricks and the green, blue and pink ceramics; in the Grande Halle de La Villette, the dominant metallic grey of the edifice evokes the technological world of nineteenth-century engineers and offers a clearer reading of the structural frame; although in Dijon the original frame of the market hall was in two shades, renovations usually present a unified image of the metal structures in one single colour; and the restoration of the covered market in Sens sought to reproduce with utmost fidelity the calligraphic details of its inscriptions.

Renovation works on some traditional timber-framed market halls can be equally spectacular and remarkable. In Lorris and in Piney, for instance, neglected market halls have recovered their original capacity by restoring their aisles.

The restoration of an iron market hall often entails replacing louvres and stained-glass windows with new aluminium frames (as in Béziers) and reinforcing the load-bearing structure.

A few years ago, non-sedentary trade, an original and extremely ancient form of exchange, seemed to be a vestige of a bygone time. However, this apparently outdated vision in which street, square and market hall were still multifunctional places for socialising remains deeply anchored in our collective unconscious. Non-sedentary trade is an economic force still well present in France, where it continues to secure 7 per cent of commercial grocery transactions and holds a place among the multiple forms of distribution now available. Today's context even seems slightly more favourable: outdoor markets, especially producer's markets, are benefitting from the ever-growing awareness of ecological issues and organic products, and people are joyously rediscovering that one day of the week that has been an event in cities and towns since the Middle Ages: market day.

Markets selling fresh produce are a formula that continues to please—today's world still finds them attractive. Situated in the heart of residential areas, their originality ensures the ongoing existence of a competitive sales method before other forms of contemporary trade, which they imitate and complement. As well as continuing to play an economic role, markets also respond to a fundamental need for social interaction. Browsing through a market is still, above all, a pleasure and a delight to our five senses.

However, the obvious proof of the strong appeal that traditional markets, and in particular, covered markets, generate is provided by some supermarkets which organise their interior space in exactly same way, precisely in order to exploit this traditional image: counters the same size as markets stalls, displays arranged according to produce, in identical categories.

Farmers' Market in Caen

In rural areas, peddlers are increasingly abandoning covered markets and acquiring lorries equipped as stalls. Nonetheless, a number of small villages in these areas are devoted to restoring their old market halls, sometimes at the cost of significant financial sacrifices. A new awareness is motivating them: a market town without a market hall is deprived of one of the essential symbols that contribute to its urban character. Marketplaces and covered markets form a part of those familiar monuments that contribute to the historical density of the urban landscape. The importance and value of this architectural heritage is now gradually becoming known and appreciated in the extreme variety of its architectural types, and each market hall presents its own solution to the common, traditional theme. Far from blemishing the oldest quarters of city centres, nineteenth-century market halls are today considered heritage in their own right, contributing to the variety and richness of cities as one other layer of their memory.

Similarly, large cities are also renovating their market halls, following a reassessment of the architecture produced between 1950 and 1970, which had often followed purely aesthetic considerations and was already proving to be outdated and scarcely functional. Consequently, buildings have been either demolished or entirely remodelled to improve their architectural

La Villette glass and iron market, converted into a cultural centre, Paris

quality. The renovation of the market hall and car park in Agen and that of the market in Nîmes (Wilmotte, 1988) are fine examples, whilst new market halls have been built in Rouen (Saint Marc) and Bayonne to replace the buildings erected during the post-war period.

As regards the architecture of these new market halls, it is surprising to discover the survival of traditional models and of the nineteenth-century Baltardian model in the return to timber-frame marketplaces.

The withdrawal of non-sedentary trade from market halls was no doubt one of the main reasons for their disappearance. Why maintain a building that no longer has a use? Fortunately, however, a growing number neglected covered markets is being recovered for other purposes.

Sometimes these new uses can be more dramatic than complete disuse, as when the newly assigned function bears no relation to the original architecture or prescribed use. Conversely, those cities that are aware of the heritage value of their market halls have thoughtfully exploited their volume and monumentality, as proven by their renovation as concert halls and cultural centres. Such is the case of the Halle-aux-Grains in Blois, of the market hall in Toulouse (now the home of the regional orchestra), of Baltard's pavilion in the former Halles in Paris, restored by the town of Nogent-sur-Marne, of the Cultural Centre at the Grande Halle de la Villette (the former slaughterhouses) and of Le Centquatre also in Paris (former funeral parlours).

The huge dimensions of these buildings make them ideal for putting on shows, accommodating seats for audiences and raised platforms for the stage. Even small marketplaces are suited to hosting events, such as the Marcillac Jazz Festival.

The transformation of Barcelona's El Born Market into the district's Cultural Centre is clearly inscribed in the European movement for the preservation and promotion of this type of architectural heritage.

Conclusion

Originally an invention of the Middle Ages, spawned from the primitive function of a private warehouse (a closed place for tax collection provided by tithed farms and manorial granaries), the market hall has since become a public building open for business in the heart of cities, designed and adapted to fully respond to its commercial function.

Thus, the concept of the market building arose and evolved under the combined effect of two influences: on the one hand, the growth of cities, the need for provisions and the commercial exchange derived from this need (markets, fairs, etc.), and on the other hand, the rights and liberties progressively acquired by cities. The transfer of market governance to the city-dwelling bourgeoisie was gradual; democracy, by entrusting markets to town councils, made them into a collective asset. Since then, cities have been responsible for their architecture, elevating them to the rank of symbolic monuments to their commercial dynamism.

And yet, regardless of the succession of powers (seigniories, abbeys and communes), the founding and management of markets have always considered

two greater ends: promoting urban trade by improving its conditions of practice, and controlling economic flows in order to guarantee profits.

If in the course of their long history markets have continuously been the object of improvements and changes, today the tradition of the covered market hall has a good chance of being revived. On the one hand, there is renewed interest in non-sedentary trade, and fresh and organic produce markets attract our fellow citizens. On the other hand, the notion of architectural heritage, which has developed hugely in the late twentieth century, now comprises industrial and commercial buildings, including covered markets. Even if they have lost their original function, these buildings are appreciated, preserved, restored and transformed for new purposes, among which that of cultural facility seems to be the most appropriate.

Les Halles in Paris

Bertrand Lemoine

The history of the Parisian covered markets dates back to the early Middle Ages, yet it remains permanently marked by the construction of the famous ensemble of metal frame pavilions erected in the mid-nineteenth century under the name Les Halles de Paris. Surveying this history of nearly ten centuries, two features stand out prominently. Firstly, the strong relationship between the market system and the city centre, and the structuring roles these have played in Parisian neighbourhoods. Secondly, the definition of an original typology that emerges from the reinterpretation of classical models yet also incorporates the newer technologies of the Industrial Revolution. This architectural type defined by Les Halles in Paris has been considerably successful, as revealed by the proliferation of several hundred metal-frame covered markets throughout France, not to mention a great number of markets outside France inspired by the Parisian model.

The Les Halles Quarter

As a district, Les Halles began its development in 1137, when Louis VI the Fat decided to create an open-air market directly to the west of the city walls of Paris. Encompassed half a century later within the new city limits, the market developed further. Little by little, specialised markets were constructed: a corn exchange, as well as cloth, meat and fish markets. After the Hundred Years' War, however, the market began to decline before experiencing a new boom of growth in the mid-sixteenth century at the prompting of Francis I. This 'reformation of the Halles' determined the central location they henceforth occupied in the city, at the heart of a bustling and populous neighbourhood.[1]

Faced with the swelling growth of the district, as early as 1630 thought was given to rebuilding and even to moving the Halles to a new location, all the more so as a number of smaller markets had already sprung up in several areas across Paris. Yet the Halles' central location tipped the scales in favour of on-site expansion, requiring the demolition of various hotels and buildings. Several new buildings were promptly put up before any whole-scale plan could

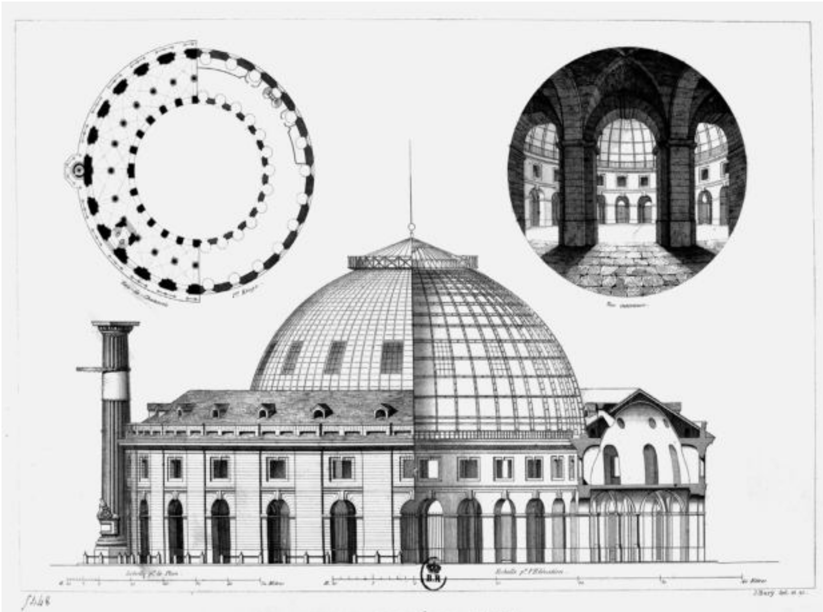
1. See Françoise Boudon, André Chastel, Hélène Couzy and Françoise Hamon, *Système de l'architecture urbaine, le quartier des Halles à Paris*, CNRS, Paris, 1977.

be carried out, despite various ambitious proposals such as that of Germain Boffrand in 1748. The Halle au Blé (Corn Exchange), a circular structure designed by Nicolas Le Camus de Mézières, delimited the western end of the Quartier des Halles as early as 1769.[2] The Halle aux Draps (Cloth Market), famous for its vaulted roof held up by a structural frame *à la* Philibert Delorme, replaced an older building in 1787. The shop-lined courtyard of the Marché des Innocents replaced, in 1789, the cemetery of the same name. A diversity of specialised buildings thus coexisted with both the ancient model of an open-air market surrounded by arcades, and with the encircling commercial activity held outdoors in the streets and squares of the neighbourhood.

The office of public works under Napoléon I placed rebuilding the Parisian markets at the centre of its agenda. Although many ambitious plans were researched for the central markets, none of these was truly implemented. Instead, a handful of covered markets, both wholesale and retail, were built in various neighbourhoods of Paris, taking pains to convey, through the simplified monumentality of architecture, the dignity and importance of mercantile activity, yet also its prosaic character.[3] All of these markets were timber-frame structures. The public spaces that accompanied them fell within their typology: an organised grid of walkways matched the grid of pillars and walls surrounding the sales area, and with the interior spaces thus delimited. Other markets were built upon these same principles during the Bourbon Restoration and the July Monarchy. The first iron-frame markets appeared during this period. Between the years 1837 and 1839 the market of Blancs-Manteaux, erected in 1819, was equipped by Peyre and Dubut with a wrought-iron roof clad in zinc. The Marché de la Madeleine, designed in 1824 by Marie-Gabriel Veugny and completed in 1838, contained from the beginning of its construction an interior structure made entirely of metal with two rows of cast-iron columns spaced twelve metres apart, and a raised section in the centre of the roof for lighting and ventilation purposes. This structure, an assemblage of specially made cast-iron pieces, could only be seen from the inside, for the outside of the building presented a Neo-classical stone façade. The most striking example of a covered market with an iron structure from this period is no doubt Hungerford Market in England. Built in 1835 by Charles Fowler, it was

2. The central courtyard of the Halle au Blé would be covered by a timber frame in 1783, and later in 1813 with a cast-iron structure. The Halle au Blé was incorporated into the modern-day Bourse du Commerce (Commodities Exchange) in 1888.

3. Among the markets of the Neo-classical style commenced or built during the Napoleonic Empire, we may cite the Halle aux Vins, the Boucherie de Beauvais, the Marché des Prouvaires, Marché Saint-Honoré, Marché Saint-Martin, Marché Saint-Germain and Marché des Carmes.



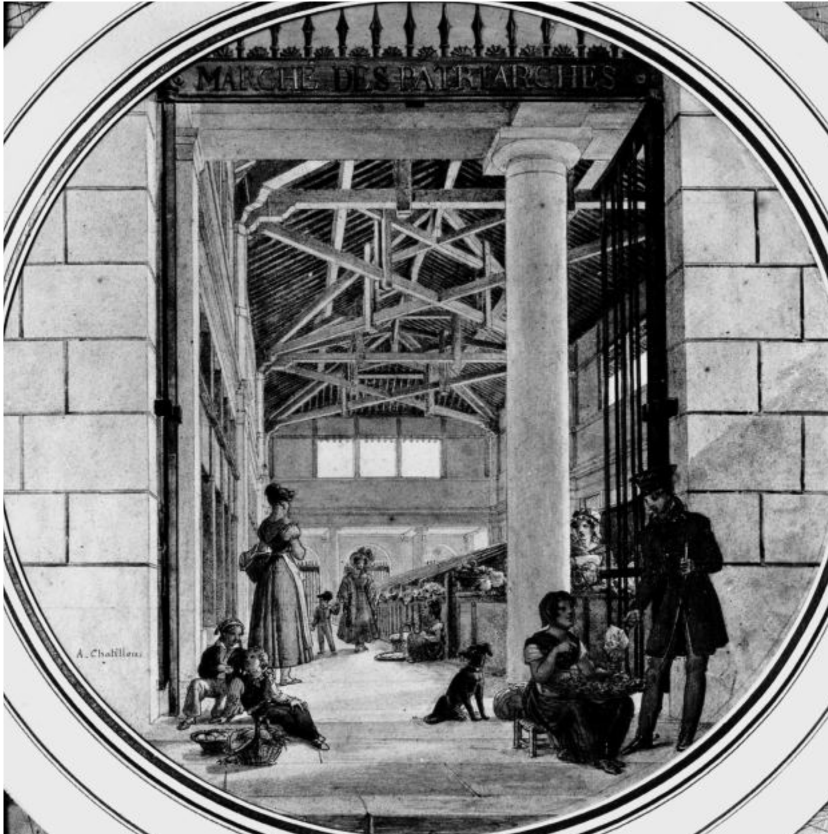
Elevation and section of La Halle au Blé, with a cast-iron dome built in 1813

composed of a straightforward cast-iron roof measuring 9.6 metres wide with extended overhangs. The preference of iron over timber was justified by the purpose the market intended to serve. Devoted to the fish trade, it was by all means to be avoided that the structure become 'rendered impure or offensive by absorbing any portion of the fishy matter, either in substance or exhalation.' [4] The overall structure, at once lightweight and elegant, effectively conveyed the idea of the 'umbrella' that would come to inspire Baltard.

After much rebuilding and densification, debate in the eighteen forties focused on the location of the central market. Diverse speciality markets interlaced with blocks of houses on a rectangular area of approximately five hundred by two hundred metres. The only available space remaining at the time was the *carreau*[5] or square plot of the Marché des Innocents, as well as the relatively narrow, congested streets of the quarter. Moving the Halles to the southwest corner of Paris, to a location on the Quai de la Tournelle on

4. Charles Fowler, 'Metal Roof at Hungerford Market,' *Transactions of the Institute of British Architects,* I, 1836, p. 44.

5. Located outside the former Halles, the *carreau* was filled with stands selling fruit and vegetables. The name stems from the paving stones on which the merchandise was originally sold. Translator's note.



Marché des Patriarches, 1828-1831. Architect: André Chatillon. The wooden framework closely resembles those of market halls built at the end of the Napoleonic Empire

the banks of the Seine downstream from the Halle aux Vins, was thus given serious consideration. After an intense debate and several proposed plans, a commission was set up in 1842 under the direction of the prefect Rambuteau to resolve the matter. Finally, in 1845, it was decided to rebuild the Halles in its traditional location.[6]

Baltard's Halles

Following the decision to keep the Halles on their historic site at the heart of Paris, attention then moved to the architectural configuration of the pavilions.

6. Bertrand Lemoine, *Les Halles de Paris,* L'Equerre, Paris, 1980. A large portion of what follows is borrowed from this work.

The new possibilities made available in the eighteen forties by advances in cast-iron construction allowed for a combination of the classical model of the peristyle with a roof covering for the interior courtyard. The different projects proposed by Victor Baltard and Félix Callet, officially appointed architects of Les Halles in 1845, illustrate this quest to integrate a masonry building pierced by large exterior windows with a lightweight, raised roof covering supported by cast-iron columns, allowing for an open space in the middle. In 1845 Baltard visited England, Belgium, Holland and finally Germany; most particularly he noted the English markets, whose designs he brought back with him and published in his travel report.[7] The plan he submitted in August 1848 in collaboration with Callet—after an initial draft for a Neo-classical design dated 1845—shows a magnificent metal structure inserted in a masonry building of rationalist design.[8] The skylight was supported by arches decorated with rosette spandrels, resting upon cast-iron columns. A girder with openwork Neo-Gothic motifs and relieved by a queen post truss united the base of the arches, preventing racking and guaranteeing the structural stability. The rooftop rested on intermediary bent sheet-metal purlins over curved trusses measuring twelve metres wide. The construction as a whole bears a certain resemblance to the Bibliothèque Sainte-Geneviève, which was at the time in its final construction stages and also based on the same principle of a stone covering carefully joined to an interior metal structure. The use of metal was justified in this case to comply with the health requirements of the market itself, by the freedom of space it allowed and by the incidental reduction of fire hazards. Leaving nothing to chance, while finalising the project plans in 1851 Baltard consulted the entrepreneur Joly, the builder of the Gare de l'Est and Gare de l'Ouest (Montparnasse), who sent back 'the technical drawings that were used for the execution of the wrought-iron ceiling of the Gare de Strasbourg' (Gare de l'Est).[9]

Among the other proposals drafted concurrently by a number of architects, Hector Horeau's also stands out for its use of a metal frame structure. Still, the use of metal would become a central issue when, scarcely brought out of the ground, the integrity of the first built pavilion was fiercely brought into question. Instead of a lightweight metal roof braced between four stone corner pavilions, Parisians were presented with an apparently massive, claus-

7. Anger, Victor Baltard and Armand Husson, *Rapport sur les marches publics en Angleterre, en Belgique, en Hollande et en Allemagne*, Paris, Vinchon, 1846. Report on the Public Markets in England, Belgium, Holland and Germany, 1846.

8. Drawings preserved in the Paris city records, published in Lemoine, *Les Halles de Paris*, op.cit.

9. Pierre Joly, Letter to Victor Baltard, 22 September 1851, French National Archives, 332 AP 7.

trophobic building. The building structure, forming a wrought-iron framework into which were bolted cast-iron ornaments, could not be seen from the outside. Shortly after its completion, Parisians had already dubbed the pavilion with the name 'the fort of Les Halles', considering it too compact and too closed-in, and so the work was stopped in June 1853. Moreover, railway stations, greenhouses and the Crystal Palace at the 1851 Great Exhibition of London had demonstrated the unforeseen potential of the use of new technological resources in the field of construction. Numerous proposals were then advanced in a climate of impromptu imitation, more or less closely inspired by the new railway terminals that were beginning to appear in Paris. All the same, Baltard had the support of Haussmann, a fellow architect and also a former pupil of Collège Henri IV. Inspired by a caricature of Napoleon III depicting 'huge umbrellas', Haussmann incited Baltard to comply with his recommendations ('Iron, iron, nothing but iron!'[10]) and resume work. Baltard and Callet thereupon radically changed sides, and opted for an entirely metal structure to build the pavilions.

It would take almost a year after a halt in construction to conclude and approve a new definitive plan. The Parisian administration took time to evaluate the situation. It examined the several counter-offers but wholly confided in the two architects who had been assigned for almost ten years to the construction of the Halles. The two men had demonstrated a remarkable perseverance through it all, and had shown they were up to the demands posed by an enterprise of such dimensions. They had to resume work half a dozen times, without counting the changes and modifications, faithfully interpreting a project that underwent various changes. Their stature as architects for the City of Paris worked both for and against them: it worked against them by strictly subjecting them to the administrative authority and limiting their margin of action. Baltard's silence during the course of the ensuing discussions was a direct consequence of this state of affairs; it worked for them because it provided them with the material means and quasi-official protection that would allow them unencumbered passage through the pitfalls of the Halles affair. Baltard and Callet's office was situated in the Hôtel de Ville itself: this simple fact proves the nature of the ties that quite likely existed between the architects and the municipal administration. Therefore, to disavow them would have been a contradiction in itself. The improvised contest did not have a direct effect on the conception of the final project,

10. See Georges-Eugéne Haussmann, *Mémoires*, Victor-Havard, Paris, 1890-1893, III, 478 and following pages. For further details see Bertrand Lemoine, *Les Halles de Paris*, 150 and following pages.

The first stone pavilion, completed in 1854. Its volume, narrow openings and solid, closed appearance won it the name Fort de la Halle among Parisians, despite the fact that the interior was covered by a cast-iron structure. It was eventually replaced by pavilions made entirely of cast iron

which was the natural follow up of their earlier sketches. However, the fact that Baltard and Callet were forced to play their hand in the decision contributed indirectly to emulating their own proposal rather than initiating new alternatives.

Ten Metal Pavilions

Their new project comprised ten pavilions of an entirely metal structure, including the basements. Inside each pavilion, cast iron columns spaced six metres apart and ten metres high were designed to hold up a structure crowned by a roof lantern for which the cross beams were reduced to a minimum. This covered a central area measuring thirty metres long in the largest pavilions. The spandrels of the arches were to be ornamented with cast-iron rosettes or garlands of cut sheet metal, in contrast to the simplicity of the lattice truss roof structure. Vertical windows, fitted with frosted glass panes or louvres, guaranteed at once lighting and ventilation.

The pavilions were grouped in two units separated by a large road running from north to south: the eastern unit, made up of six pavilions covering 21,080 square metres, and the western unit comprising the remaining four of 12,400 metres squared. Each pavilion was assigned to a particular type of ware: in the west, wholesale and retail meat, along with fruits and vegetables. In the east were potatoes, onions and mushrooms, retail sales of eggs, butter, and cheese; and in the two large central pavilions of 2,900 square metres were

The district of Les Halles around 1850. From left to right: La Halle au Blé, Les Prouvaires, a section of the fruit and vegetable market (former Halle au Blé), the butter and fish halls, and Les Innocents market extending into La Halle aux Draps

seafood and wholesale eggs, butter and cheese. It is worth noticing that the goods were relocated in their previous areas: meats remained in the west in the location of the Marché des Prouvaires, vegetables in the centre, fish and butter in two great adjacent halls, and fresh vegetables beside the Marché des Innocents. Besides topographical reasons (fish, for instance, arrived from the North of France via Rue Montmartre and Rue Montorgueil), the effect of the weight of tradition, persisting above and beyond spatial reconfigurations, also had to be taken into account. Inside each pavilion dedicated to retail sales, a grid of six-metre units divided up the sales floor. Thus delimited, the size of the shops varied, measuring two metres by two metres in general, and three metres by three metres for butchers.

The construction work started immediately for it was necessary to make up for lost time. So it was on 1 February 1854, even before the completion of the public report and the approval of the final plans, that the groundwork for the eastern unit was contracted, to be supervised by the entrepreneur Jaffeux. Construction began in May, after demolition in April of the old butter market. The work in masonry, mainly for the foundations, was undertaken in the early summer of 1854 by the entrepreneur Dallemagne, and the brickwork for the partition walls was executed by Texier and Petit. The furnishing of the principal cast-iron pieces (ten-metre columns) was provided by the Mazières foundry near Bourges, while other pieces were supplied by the establishments of Muel, Whal and Co. in Tusey, in the department of

The fruit and vegetable market at the Les Innocents Fountain of Nymphs in 1855, shortly before it disappeared

La Meuse. The actual assembly of the structural frame was entrusted to the Maison Joly, in Argenteuil.

The story of the Joly enterprise is in all regards typical of the passage of a small artisanal workshop into an industrial venture experienced by the foremost metal workers and builders of the mid-nineteenth century.[11] Around the years 1823and 1824 Pierre-François Joly established himself in Argenteuil as a blacksmith and metal worker. Assisted by his wife, his children and a few labourers, his workshop was prosperous enough to receive a visit from Napoleon III in August 1852. He came to admire the oriental gazebo of cast and wrought iron designed by Charles Duval for the viceroy of Egypt. Joly was awarded the Légion d'Honneur. The good fortune of his firm lay in the development of the Polonceau truss that he crafted in 1845 during the long carpenters' strike.[12] During this same time he also proposed two roof systems with metal frames. Finally, he submitted a design to the competition for the metal framework of the 1851 pavilion. His well known skills brought him to the emperor by recommendation of a referendary councillor at the Cour

11. See Charles Lhérault, 'Pierre Joly, fondateur des établissements Joly,' *Bulletin du Vieil Argenteuil*, 9, 1937. We shall point out in passing the astonishing cast-iron tomb which houses the Joly family in the cemetery in Argenteuil.

12. This strike, which put a halt to construction work in Paris during several long months, encouraged builders to seek out metal for the construction of floors and ceilings.

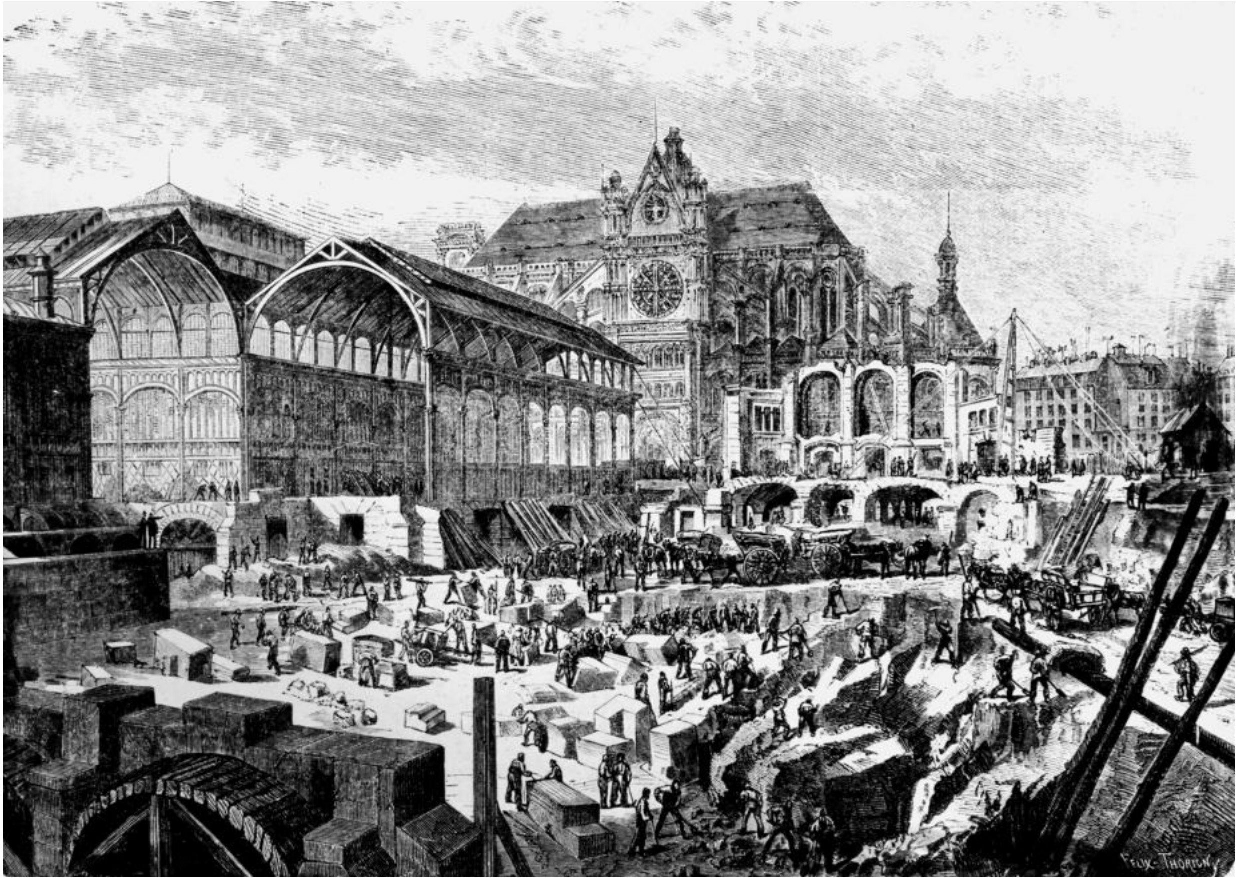
des Comptes named Barré, a resident of Argenteuil. Joly was summoned on 16 October 1854 by Napoleon's *aide-de-camp* and received the charge, apparently without the need for an adjudication process. At the same time, a young engineer from the École des Arts et Métiers in Châlons, César Jolly, was appointed, who would later become his son-in-law. It is difficult to determine today the firm's contribution to the actual finalisation of the project, but Baltard himself was pleased to pay homage to the 'cooperation, as devoted as [it is] intelligent', of Joly, his son, and his son-in-law. The structural calculations of the framework in particular were established by the firm, and it is possible to imagine they were carried out by César Jolly. Joly's enterprise prospered greatly following the construction of Les Halles, for it then went on to build a large number of Parisian covered markets.[13]

Félix Callet did not have the chance to see out the completion of the project to which he had dedicated ten years of his life, for he died in a matter of hours from cholera, on 2 August 1854. His figure remains obscure up to the end, and no one knows for sure what his full role was alongside Baltard, eleven years his junior. Although he was a co-signer of the plans for Les Halles, neither future generations nor his contemporaries would retain any other name than that of Baltard. From the beginning of 1855 the supervision of the construction was directed by Veugny, who took on the duties of principal inspector for Baltard and Callet's office, alongside the inspectors and contractors Hugé, Moutard-Martin, Davioud and Fayard.

The Construction of Les Halles

The first two pavilions to the east were opened on 26 October 1857, followed by two more in the following months. The eastern unit was completed on 18 October 1858. A commission was established on 14 December 1857 to look into the allocation of the six finished pavilions. As early as May 1858, they came forth with the suggestion that it was necessary to build additional pavilions. In 1855, after the death of Callet, Baltard—already aware of the problem—proposed four new pavilions, extending the perimeter of Les Halles to 13 Boulevard Sébastopol, contradicting an idea expressed in 1851, which only foresaw an extension as far as Rue Saint-Denis. In this symmetrical unit to the west end of the marketplace, extending across both sides of Rue Saint-Denis, he proposed to house wholesale poultry, an oyster bar, household wares and cloths since the old Halle aux Draps had indeed already been condemned

13. That is, seventeen markets in Paris, besides the livestock market of La Villette. The outfit also built markets in Montpellier, Lille, Rouen, Constantine and Pointe-à-Pitre.



The western body of the building under completion. The Fort de la Halle is almost completely dismantled and its stones used as the foundations of pavilion number 6, 1855

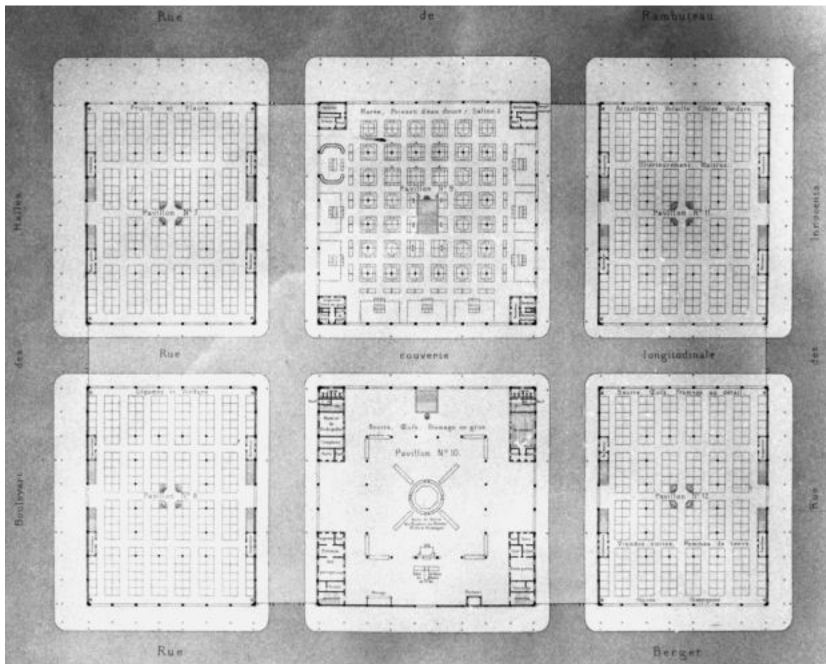
in 1854 and furthermore its structure had caught fire in May 1855. The surface area of Les Halles would thus increase by 9,080 square metres. Still, this proposition met with the difficulty of having to expropriate the many shops already established around Rue Saint-Denis; as a result, the extension had to be made in the direction of the Halle au Blé. A public survey was conducted to this effect in May 1859, and a new overall plan of Les Halles and their surroundings was published. The frontage of the Halle au Blé had to be completely redesigned, and the lot division of 1769 gave way to four new pavilions divided by broad streets. Two of these were assigned to actual trade, while the two others on the future Rue du Louvre were destined to house the market administration. The remaining surrounding areas kept on the whole to the plan outlined by Haussmann in 1854. This design completed the plans for

Map of the area around Les Halles in 1859, showing alignments and planned roads.
The former stone pavilion still appears on the map

improvement to the Halles' environs. The system thus defined would remain in effect for more than a century.

The second phase of construction was much slower getting under way. The opening of new avenues for the remodelling of Paris cost enormous sums of money that the loan could scarcely cover. The Place des Innocents underwent improvements in 1860 and Jean Goujon's fountain was moved once again. Davioud and Duban designed a new plinth, adorned with terraced basins. In 1861 a block of houses separated the square from Les Halles.

In the meantime, a new pavilion was unveiled on 8 October 1860. It was given the number 3 in the new numbering system of the twelve pavilions; numbers 1 and 2 had been situated next to the Halle au Blé. Number 4 was completed on 21 December 1866, number 5 on 3 May 1869 and number 6 on 11 April 1874. Number 5 replaced the stone pavilion constructed in 1851, and number 6 occupied the site of the pillars of La Tonnellerie (cooperage), destroyed in 1858. Twenty years were thus necessary for the completion of the ten pavilions foreseen in 1854. Redesigning the traffic network would take almost as long. The frontage of the eastern unit was modified between 1854 and 1855: Rue Berger, Rue Baltard (thus renamed in 1877), Rue Rambuteau.



Plan of the ground floor of the eastern body

The northern part of Rue Pierre-Lescot was not completed until 1867, at the same time as Rue de Turbigo. Rue Étienne-Marcel, begun in 1858, would not be concluded until 1885, as was the case of Rue du Louvre. To the south, Rue des Halles and Rue du Pont-Neuf were opened in 1866. Rue Saint-Denis was widened in 1859 and the Pont au Change rebuilt between 1858 and 1860. Finally, to the east, Boulevard de Sébastopol opened in 1859. The last two pavilions, next to the Halle au Blé, would not be erected until 1935, after numerous discussions on the possibility of moving the Halles.

As is usually the case with operations of such wide scope, the construction of Les Halles greatly exceeded foreseen costs. Despite the fact that a large part of the grounds were occupied by markets belonging either to the city or to the Administration des Hospices, expropriation costs weighed heavily. Baltard himself calculated them at 35 million francs, including the first expropriations made in 1812. In fact, this figure probably includes the sums of money paid for improvements to the environs and accesses of Les Halles. The buildings themselves were more expensive than originally foreseen. Baltard and Callet's abandoned project had been estimated to cost over twelve million francs. By using metal exclusively, they believed they could reduce this figure to eight million

francs for the ten pavilions, that is, three hundred francs per square metre for the pavilions and one hundred and thirty-three francs per square metre for the covered streets. In actual fact, the eastern unit alone cost eight million francs.

The initial the work was financed by the loan of 1851, which had provided sixty million francs for the extension of Rue de Rivoli and the completion of Les Halles. By 1853, it was foreseen that the following year the city would have to make an advance on a portion of the costs. A new loan in 1858 of 180 million francs was partly used for completion of the Halles, which cost the city of Paris a great deal, but in turn they have brought in non-negligible sums of revenue. Thus in 1873, taxes on wholesale goods yielded 5,500,000 francs, whereas before the construction they were under 1,000,000 francs. The letting of stalls brought in more than 880,000 francs, instead of 700,000, although the maintenance and administration costs should be deducted from this amount.

Description of Les Halles

Today, Les Halles have unfortunately disappeared, and it is no longer possible to view them *in situ*. Nonetheless, one pavilion, Number 8, was saved and has been re-erected with slight modifications in Nogent-sur-Marne. The architectural model of one pavilion, preserved in the Musée du Vieil Argenteuil, gives a sense of its overall effect. A number of photographs have also been taken. The drawings, floor plans and details have been published on several occasions: by Baltard himself in an imposing monograph[14] with beautiful plates painstakingly etched, in several compendiums of architecture, in particular the collection edited by Narjoux,[15] and in several architectural revues from the period.[16] All of these sources give an adequately precise description of the way the Halles were built.

Overall, the quantities of material employed were impressive. For the eastern unit alone: 2,000,000 bricks, 600 tons of cast iron for the cellars, 200 tons of cast-iron columns, 700 tons of wrought iron for the framework, 200,000 louvre blades … The foundation work posed great technical difficulty as it was necessary to pave over the abandoned wells, septic tanks, deep

14. Victor Baltard, and Félix Calet, *Monographie des Halles Centrales de Paris, A.* Morel et Cie, Paris, 1863, 2, vol., 35 engraved plates. Reprinted in facsimile in Lemoine, *Les Halles de Paris.* A *Complément à la Monographie des Halles Centrales de Paris* (Companion to the Monograph on the Central Halles of Paris) containing three plates was published in 1873.

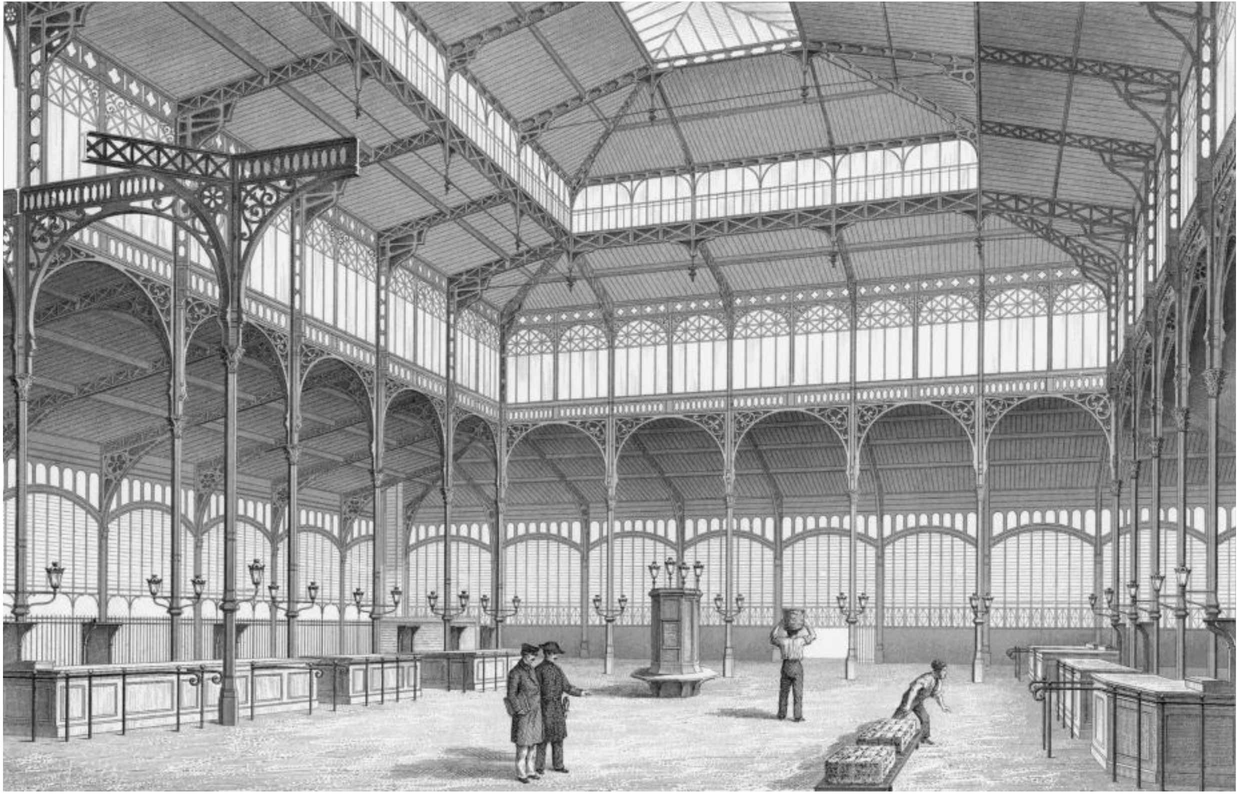
15. Félix Narjoux, *Halles centrales, Notice descriptive*, Morel, Paris, 1863, Plates I to VI.

16. *L'Encyclopédie d'Architecture*, 1856, tome VI ; *Nouvelles Annales de la Construction*, (January 1856), *Gazette des architectes et du bâtiment*, 1869, etc.

View of the interior of Les Halles and of the loading and unloading system along the covered halls of the pavilions

double cellars and remains of the shops and dwellings which formerly occupied the site. A concrete grating measuring fifty centimetres thick was laid over the entire surface to be occupied by the pavilions and their service roads. Foreseeing the construction of an underground railway system from the start of the works, the anticipated excavation to a depth of 5.2 metres for the basement area was increased to 6.70 metres for the railway tracks, so as to make room for the loading docks, and to 7.7 metres at the level of the turntables, to install the mechanism. The ground water on this bank was drained with terra-cotta pipes and levelled via masonry wells.

The system by which the cellars were built is at once simple and astute. Cast-iron supports spaced six metres apart and arranged in a quincunx pattern hold up a network of groin vaults for which the ribs are also in cast iron. The posts have an octagonal cross-section and a running diameter of two hundred and sixty-five millimetres, brought up to four hundred and forty millimeters for those supporting the roof load. Originally, the framework of the vaults consisted only of wrought-iron ribs, but were subsequently strengthened by a piece tangent to the curve of the rafters. Each half truss



Auction sales pavilion

was bolted to an abutment outfitted diagonally with dosserets. At the keystone, a cast-iron skeleton covered by a grille or a glass slab light unites the half trusses. The vaults were made on site with a single layer of Burgundy bricks, laid in courses of two hues. The reins of the vaults were filled with concrete. Beneath the covered streets, the thickness of the vaults was brought up to forty-four centimetres, that is, four courses of brick. At street crossings, that formed a square measuring fifteen metres a side, sheet metal girders one metre high supported a series of brick vaults.

Brick was also widely used for the exterior of the pavilions. The enclosure was secured by brick partition walls measuring eleven centimetres thick by 2.6 metres high, resting on a plinth of Vosgian red sandstone, called Phalsbourg stone. This arrangement made it possible to protect the inside of the pavilions from damaging air currents. These brick partition walls were of course kept in place by the cast-iron columns holding up the wrought-iron structural frame of the pavilion. The association of metal and brick,

so characteristic of covered markets and of future vernacular industrial architecture, was a new phenomenon. It even appears that Les Halles could have been one of the first notable examples of this layout so readily adapted to metal frame architecture, in Paris at least. We should not forget that the famous Menier chocolate mill in Noisiel, with its coloured brick motifs laid into an apparent metal structure, was built in 1871, that is, more than fifteen years after construction work on Les Halles began.

Above the brick partition walls, a set of arcades of segmental arches completed the enclosure of the pavilions. The wall openings in the lower part were filled with blade louvres in frosted glass, set into small wrought-iron runners and held in place with small strips of rubber. The upper part was simply windowed. A wrought-iron gutter ornamented with lion heads gathered the rainwater and channelled it into hollow columns, through which it was evacuated to a sewer. The roof and its supporting structure form the crown of this partition wall, turned identically inside the covered streets. These streets were treated differently than the pavilions. A framework of very simple design supported a raised roof made partly of glass. The tympanums were ornamented with rosettes and the coat of arms of the City of Paris.

The structural frame of the pavilions rested on perimetric columns and on a line of central columns spaced six metres apart following the grid of shops. It was equipped with a single-storey lantern in the smaller pavilions and a two-storey one in the large pavilions. Light and air came in through vertical wall openings and not through slanted roof openings, thereby avoiding the direct impact of sunlight on the goods displayed. Baltard had observed this type of layout in the English markets during his travels in 1845.

The zinc roof was set on a double layer of boards separated by a sheet of air, so as to improve insulation, for this achieved a temperature five degrees cooler than outdoors. The framework for the lateral aisles of the pavilions was formed of a series of trussed wrought-iron girders having an I-beam cross-section, resting on cast-iron columns and on wrought-iron abutments of roughly octagonal cross-section, spreading out the central columns. A spandrel adorned with rosettes braces the device. These same abutments are tied together by gusset plates of a circular arch, 'sufficiently extended and thoroughly assembled to the rise and span so as to oppose the closing and opening of the angle.' Across this span, situated at a height of 12.5 metres, rests the first floor of the lantern. A set of arcades with openings half the size of the lower arches lets in light and air by means of frosted glass windows. A flat iron platform that runs along the perimeter of each pavilion provides access to these arcades. The first floor of the lantern is surmounted by compound trusses: a series of main rafters lean on a trussed girder turned back towards the four

sides of the pavilion, subtended by a round iron tie beam. The same device was repeated for the second storey of the lantern in the two larger pavilions, but at a span of eighteen metres instead of thirty. A skylight dome crowns the top, culminating at a height of nearly twenty-five metres. Instead of a second storey, the smaller pavilions had a simple skylight roof.

The calculations for the metallic structure were made in a straight forward fashion, with a load for the metal that was under eight kilogrammes per square millimetre. The calculation method used in the Halles was indeed basic, yet correct and up to the standards of what could be achieved at the time. Nonetheless, it did entail some simplifications that led to an excessive use of materials. Baltard's architectural conception was criticised by some of his contemporaries, in the name of technical reasoning. So one reads in the *Gazette des Architectes* in 1869, 'In the design by Baltard and Callet, the wrought iron of the roof trusses works well at 6.96 kilogrammes and 7.07 kilogrammes per square millimetre, which is normal, but as the constituent components are too numerous there is no real efficiency, and from this result numerous joints, many of which are complicated owing to the use of raftered roofs. What more can be said of a shelter design (for a market hall is nothing less than this) entailing a considerable number of supports, perhaps not too awkward yet necessarily slim, and in which the metal functions, accordingly, in poor conditions … However, put together a plan where the supports are less numerous and they will be such that, the ratio of the base to the height being less, you will be able to use all the resistance the material can offer.' The author of the article snidely added, 'Their insufficient notions on the use of metal have led the architects to have a great number of minute details shaped in cast iron mostly, where stone would have been more adequate.'[17] Indeed, Baltard started from an architectural design and merely verified its stability without seeking a particularly performative use for the iron, yet taking advantage of the technical resources available. As an example, laminated wrought iron I-beams only came into existence in 1849, and lattice trusses in 1845.

The Critical Success of Les Halles

Even before their completion, the Halles by Baltard and Callet aroused the admiration of their contemporaries. The chorus of praise was almost unanimous, and even the harshest critics were forced to acknowledge the quality of

17. Lawrence Chapron, 'Étude historique et critique sur la construction des Halles centrales,' *Gazette des architectes et du Bâtiment*, 1869-1871, p. 337.

the concept and its execution. Haussmann was the first to celebrate its merits, 'In his use of iron—initially so repulsive to his artist's instinct—M. Baltard has proven building skills that surpass the credit (which he could not truly attribute to himself) of having designed this great project. With the aid of a fortunate combination of very simple elements repeated indefinitely, he has been able to give the monument as a whole a most effective sense of unity. Furthermore, to my great satisfaction he found the means to forego the tie beams overused by engineers to restrain the thrust of their structures. This unquestionable advantage of his work over theirs must have been a consolation after having had to accept the "umbrella" characterising railway stations as the structure for Les Halles Centrales, which he had conceived so differently.' He then added rather mischievously, 'I am not entirely sure if the great success of this approach he had criticised so much did not at first surprise him; but he easily adjusted and his consequent arrival at the Institute resulted in the use of wrought iron in public monuments.'[18]

Between 1858 and 1871 Baltard had indeed built Saint-Augustin church, the structure of which was made entirely of metal. He justified his use of iron in these terms, 'The use of stone for the exterior and dividing walls, combined with the use of cast iron for the supports and ribbing of the vaults, which might be unusual in the construction of a church, is but the rational application of the resources that industry has made available to builders. Although one may discover a few inconveniences, one ought to acknowledge that there are great advantages, particularly that of a simple, solid and economic combination that does away with the need for counterforts and buttresses by enlisting stereotomic devices to restrain the thrust of the vaults.'[19]

Eugène Viollet-le-Duc, not a fan of the 'warehouses', as he regarded these cast-iron constructions, acknowledged not without irony that 'if all our monuments were raised with such absolute respect for the needs and habits of the population, if they clearly indicated the materials for their construction, they would have a character proper to our times, and furthermore we would consider them beautiful and comprehensible forms of art. Here, where they submitted to the needs of the programme and to the materials employed, the result has been, in my opinion, a beautiful building indeed. Perhaps thought was not given to making it a work of art, so

18. Haussmann, *Mémoires*, op.cit.

19. Victor Baltard, 'Rapport au préfet de la Seine sur la construction de l'église Saint-Augustin,' 7 December 1859.

perhaps it would be best if no one had that intention: this would perhaps be the quickest way to provide ourselves with works of art, expressions of our civilisation.'[20]

Louis-Auguste Boileau, an ardent defender of 'iron architecture', admitted that 'the construction of Les Halles is, in short, a remarkable accomplishment from the point of view of architecture and of appropriation,' adding that 'the whole time these vast works have been under construction they have occasioned an extremely limited number of accidents, which is an essential point.' [21] The intelligent, audacious use of cast iron was lauded in the architectural press. The *Encyclopédie d'Architecture* did not hesitate to reproduce an article from *Moniteur Universel* celebrating the covered markets of Paris at the onset of their construction, 'A lively interest continues to surround the site of Les Halles Centrales, which offer a remarkable example of the immense resources that can be gleaned from the combined use of wrought and cast iron in great public constructions … So it is to the wonders of Paris will soon be added the wonder of Les Halles Centrales, this 'Louvre of the people' that will be worthy of its precedent—a most remarkable monument of public utility, the most complete ever built in the capital of a great empire.'[22] The *Revue Générale de l'Architecture*, which had supported Baltard's competitors during the project re-evaluation (particularly Hector Horeau), itself at last recognised that, 'The general appearance is very satisfactory, and, in this case, one may praise unreservedly the use of cast iron. The columns are slender, delicate, light, and pleasing to the eye … Each pavilion as a whole preserves a sufficiently monumental air without losing those qualities of a lightweight construction that ought to belong to a market which, all things considered, recalls open-air sales.'[23]

Joris-Karl Huysmans, a discriminating critic, placed Les Halles among the major accomplishments of the day, as a 'complete revelation of the new art … a decisive success for the new school … the glory of modern Paris.'[24] Indeed, the Halles soon became an admired monument and an obligatory sight for every foreign visitor to Paris. Guidebooks on Paris all contain a special section on Les Halles describing its appearance and activities. Travellers

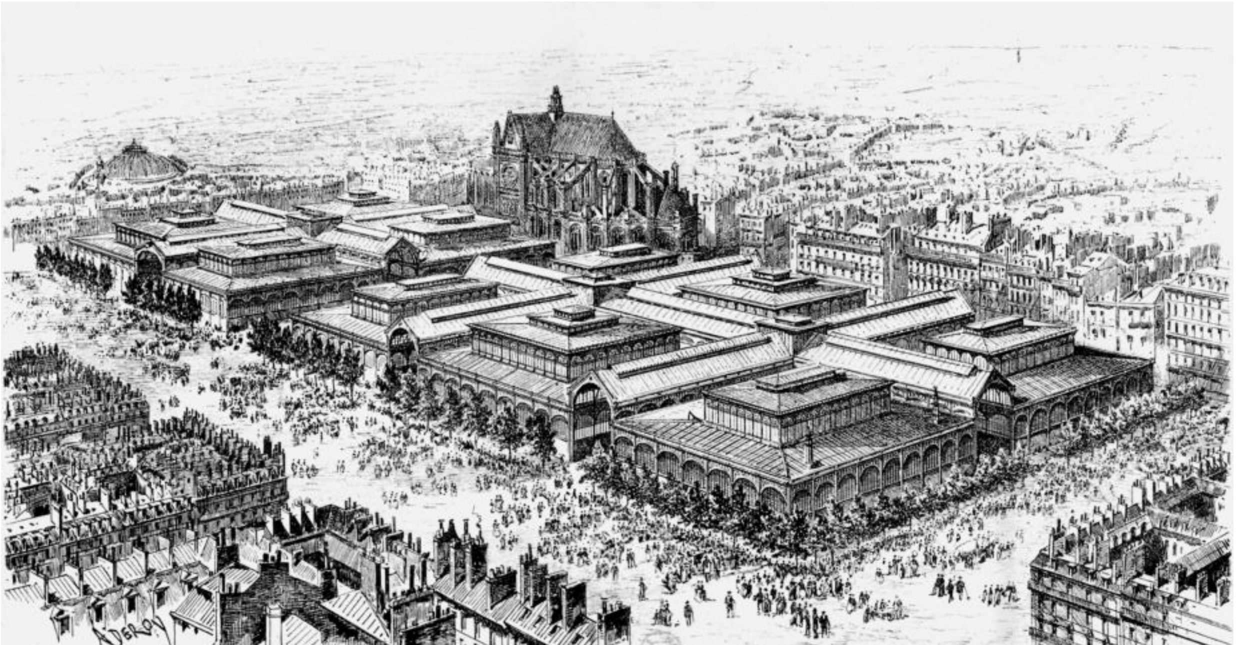
20. Eugène Viollet-le-Duc, *Entretiens sur l'Architecture*, Morel, Paris, 1872, VIII, 323, n. 1.

21. Albert Lenoir, and Louis-Auguste Boileau, cited in De Sauteiron, 'Les Halles centrales,' *Le Spectateur*, 17 October 1857.

22. *L'Encyclopédie d'Architecture*, 1 March 1856, VI.

23. 'Halles centrales,' *Revue générale de l'architecture et des travaux publics*, 1857, p. 104.

24. Joris-Karl Huysmans, 'Le Salon officiel de 1881,' *L'Art moderne*, Paris, 1883.



General view of Les Halles, 1890. Drawing by A. Deroy

never forget to describe their visit to Les Halles. The mainstream press set the tone. Numerous articles have been dedicated to the buildings, both during and after their construction, and popular literature has also found many a nice phrase with which to qualify them, 'veritable cathedrals of cast iron and glass, svelte and lightweight in their immutable solidity, luminous and airy like the Crystal Palace which they recall, although it does not appear to have been their model.'[25]

Literary evocations of Les Halles are numerous, yet these are dominated by the monumental work Émile Zola has consecrated to them. The genesis of his novel *The Belly of Paris* dates back to 1869. Zola was spellbound by the teeming life that unfurled beneath the pavilions. As his novel came together, around 1872, these pavilions took on an autonomous existence, and a life of their own. In the end, the Halles became the main protagonist of his odorous symphony, his violent and heavy-hearted painting of a humanity at once bestial and complex:

25. Edouard Fournier, 'Les Halles centrales,' *L'Illustration*, XXX, 1857, p. 138.

‘A bright glow at the far end of the Rue Rambuteau announced the break of day. The far-spreading voice of the markets was becoming more sonorous, and every now and then the peals of a bell ringing in some distant pavilion mingled with the swelling, rising clamor. Claude and Florent entered one of the covered streets between the fish and poultry pavilions. Florent raised his eyes and looked at the lofty vault overhead, the inner timbers of which glistened amidst a black lacework of iron supports. As he turned into the great central thoroughfare he pictured himself in some strange town, with its various districts and suburbs, promenades and streets, squares and cross-roads, all suddenly placed under shelter on a rainy day by the whim of some gigantic power. The deep gloom in the hollows of the roofs multiplied, as it were, the forest of pillars, and infinitely increased the number of the delicate ribs, railed galleries, and transparent shutters. And over the phantom city and far away into the depths of the shade, a teeming, flowering vegetation of luxuriant metal-work, with spindle shaped stems and twining knotted branches, covered the vast expanse as with the foliage of some ancient forest … The gas jets in the wine shops in the neighboring streets went out one by one, like stars extinguished by the brightness. And Florent gazed at the vast markets now gradually emerging from the gloom, from the dreamland in which he had beheld them, stretching out their ranges of open palaces. Greenish-gray in hue, they looked more solid now, and even more colossal with their prodigious masting of columns upholding an endless expanse of roofs. They rose up in geometrically shaped masses; and when all the inner lights had been extinguished and the square uniform buildings were steeped in the rising dawn, they seemed typical of some gigantic modern machine, some engine, some caldron for the supply of a whole people, some colossal belly, bolted and riveted, built up of wood and glass and iron, and endowed with all the elegance and power of some mechanical motive appliance working there with flaring furnaces, and wild, bewildering revolutions of wheels … He now heard the loud continuous rumbling of the wagons that were setting out from the markets. Paris was [chewing up] the daily food of its two million inhabitants. These markets were like some huge central organ beating with giant force and sending the blood of life through every vein of the city. The uproar was akin to that of colossal jaws—a mighty sound to which each phrase of the provisioning contributed, from the whip-cracking of the larger retail dealers as they started off for the district markets to the dragging pit-a-pat of the old shoes worn by the poor women who hawked their lettuces in baskets from door to door … [T]he markets, seen obliquely in the distance, filled him with enthusiasm. A huge arcade, a giant, gaping gateway, was open before him; then came the crowding pavilions with their lower and upper roofs, their countless Venetian shutters and endless blinds, a vision, as it were, of superposed houses and palaces; a Babylon of metal, of Hindu delicacy of workmanship, intersected by hanging terraces, aerial galleries, and flying bridges poised over space. Wherever they turned they caught sudden glimpses of it; the

View of Les Halles facing south from the church of Saint-Eustache. Drawing by F. Benoist and lithograph by J. Arnout

horizon was always bounded by it; merely the aspect under which it was seen varied … For the last time he raised his eyes and looked at the markets. At present they were glittering in the sun. A broad ray was pouring through the covered road from the far end, cleaving the massy pavilions with an arcade of light, while fiery beams rained down upon the far expanse of roofs. The huge iron framework grew less distinct, assumed a bluey hue, became nothing but a shadowy silhouette outlined against the flaming flare of the sunrise. But up above a pane of glass took fire, drops of light trickled down the broad sloping zinc plates to the gutterings; and then, below, a tumultuous city appeared amidst a haze of dancing golden dust … And as he looked at them all, the markets which he had left behind him that morning seemed to him like a vast mortuary, an abode of death, where only corpses could be found, a charnel house reeking with foul smells and putrefaction. Claude was right, he thought. The markets were a sphere of death. The soil was the life, the eternal cradle, the health of the world.'

And Zola concludes by echoing Victor Hugo, 'It's an odd mixture … that bit of a church framed round by an avenue of cast iron. The one will kill the other; the iron will slay the stone, and the time is not very far off. … No; there's a whole manifesto in it. It is modern art, realism, naturalism—whatever you like to call it—that has grown up and dominates ancient art. [The central markets] are a fine bit of building, though they but faintly indicate what we shall see in the twentieth century.'[26]

Huysmans was able to write in 1881, echoing Zola, 'So Claude Lantier's forecast in *The Belly of Paris* has in part come true.'[27] He compares Les Halles to constructions such as Labrouste's Bibliothèque Nationale, the railway stations, the buildings of the Universal Expositions, the Hippodrome and the livestock market of La Villette built by Janvier between 1864 and 1868 from plans drawn up by Baltard, 'Here, metal attains grandiose proportions. Enormous roads stretch out, broken apart by svelte columns that spring forth from the earth, supporting light ceilings flooded with light and air. This is an enormous courtyard where thousands of beasts are swallowed up, a vast plain under covered heavens that hover over the feverish bustle of commerce, over an incessant to-and-fro of livestock and men; it is a series of immense pavilions whose sombre colour, whose slender and yet stocky aspect, befits the unfaltering and bloody industries there performed.'

Descendants of Les Halles

Apart from Les Halles and the livestock market of La Villette, Baltard seems to have designed only two other covered markets—the Marché Secrétan in Paris and the market of Callao in Peru, for which the pieces were manufactured in France and shipped over, although the war of 1870 prevented its realisation. All the same, the Halles constituted a genuine model for innumerable covered markets in France and abroad.

We could point out at least three reasons for this extraordinary phenomenon. The prestige of the capital certainly played an important role: even the smallest trading town wanted its own covered market hall. The half-century during which covered market halls were built (1860-1914) witnessed the realisation of an extremely active programme of municipal facilities, of which markets became a key element—sometimes through the creation of a

26. Emile Zola, *The Belly of Paris*, translated by Ernest Alfred Vizetelly, Green Integer, Los Angeles and Copenhagen, 2006. Passages quoted variously from throughout the work.

27. Huysmans, *L'Art moderne*, op. cit., p. 225. This translation and the subsequent are my own. Translator's note.

The district of Les Halles once completed, 1935

new facility but more often through the transformation of an older building or location. After all, the very conception of the Halles in Paris lent itself admirably to a widespread diffusion of the model, supported on the one hand by the technical excellence of the detailed plans published by Baltard in 1863, and on the other by various articles on these markets published in the specialised press.[28] In the French municipalities the Parisian solution seemed clearly evident, all the more so as it was being successfully imitated all over the country. The plans could be easily conceived by local engineers and architects, who did not miss the chance to interpret the basic model in

28. For example, the *Encyclopédie d'architecture* published the markets of Saint-Martin (1855), rue Buisson in Lyon (1861), Réunion (1862), Martyrs (1879), Béziers (1888), and Epinal (1890); the *Gazette de l'architecture* those of Saint-Honoré (1864 et 1865), Oran (1878), Tarbes (1880), Nîmes (1881), and Joigny (1882); the *Revue générale de l'architecture* those of Nancy (1862), Grands-Hommes in Bordeaux (1866), Saint-Maur-Saint-Germain (1867), Temple (1872), Sainte-Claire in Grenoble (1877), Saint-Marc in Rouen (1885), Limoges (1885), La Roche-sur-Yon (1885); *Construction moderne* those of La Chapelle (1885), Compiègne (1885), Langres (1890), Epinal (1891), Clermont (1892), Clichy (1895), Avignon (1898), Auxerre (1901), Belfort (1906), as well as the enormous livestock market in the city of Lyon constructed in 1909 by Tony Garnier. See also Félix Narjoux, *Halles centrales, notice descriptive,* 1883, which provides documents on several Parisian markets.

View of Les Halles in 1971, shortly before it was demolished

their own manner—some very fine examples bear witness to this. All the same, it seems that the execution and supply of the pieces (particularly cast metals) were the work of a relatively small number of companies specialised in the manufacture of metals, this being particularly true after the eighteen eighties, when large firms became more closely interested in a regional market that they had previously shared with small local companies. It must also be noted that, while contractual procedures with these firms was the norm, as they often brought important modifications to the projects, several markets were built as the result of architecture competitions, such as those in Auxerre in 1901, Dakar in 1907 and Vannes in 1910.

We can count approximately thirty-two iron-frame markets in Paris built between 1854 and 1880 following the model of Les Halles Centrales in Paris. Only fourteen of these have survived, five of which have remained intact and nine have been modified. Still in existence are the markets of Saint-Quentin (1866), Secrétan (Baltard, 1868), the Marché aux Fleurs (1874), Saint-Martin (E. Petit, 1854, and later H. Dubois, 1880) and La Chapelle (A. Magne, 1885). Those altered or reduced include the livestock market of La Villette (Baltard and Janvier, 1864-1868) and those of Le Temple (I. de

Mérindol, 1863-1865), Saint-Didier (1867), Montmartre (1868), Japy (1870), Belleville, Wagram (1886), Botzaris, and Aguesseau. Among the markets knocked down were those of Passy (Godebœuf, 1857 and 1865), Grenelle (A. Normand, 1865), Saint-Honoré (J. de Mérindol, 1865, demolished in 1959), Saint-Maur-Saint-Germain (L. Dainville, 1866), L'Europe (1866, demolished circa 1970), La place d'Italie (H. Dubois, 1866, demolished circa 1965), Belleville (1867), Batignolles (1867, demolished in 1975), Auteuil (1867, demolished in 1899), Necker (1868, demolished circa 1910), Ternes (1868, demolished circa 1970), La Villette (1868), Joinville (1873), Nicole (A. Magne, 1873-1875, demolished in 1975), the horse-market (A. Magne, 1875-1878), Gros-Caillou (A. Magne, 1876, demolished in 1981), Les Martyrs (A. Magne, 1876-1878, demolished in 1912) and L'Ave-Maria (A. Magne, 1879, demolished in 1905).

Despite faithful reproductions of the Les Halles de Paris model, there is a wide typological diversity of covered markets, in terms of shape as well as regarding the materials employed in their construction. We do, however, note some significant variations: a massive, elongated type with strongly pronounced gables and side aisles (Arcachon, Aubervilliers, Belfort, Fontainebleau, Libourne, Lisieux, Lyon, Niort, Victor-Hugo Market in Toulouse); another more compact type, which was most widespread, sometimes with four identical entrances (Saint-Quentin); the type set against a street corner (Tonnerre); a 'double' or multiple type with a covered crosswise avenue (Bayonne, Bordeaux, Bourges, Cognac, Dijon, La Roche-sur-Yon, Troyes, Vichy) or a covered lengthwise avenue (Avignon, Lille, Meaux, Moulins, Orléans); a radial arrangement, either hexagonal (Sens) or octagonal (Amiens, Auxerre, Millau, Perpignan, Marché des Carmes in Toulouse); the shed type limited to a roof supported by columns, frequent in villages and in poor neighbourhoods.

While wrought and cast iron continued to be the basic constituents, enamelled lava-stone, ceramics, brick and terra cotta, as well as masonry, all contributed to create an ornamental quality and polychromy that were progressively refined until the early twentieth century. It is thus possible to distinguish between two generations of cast-iron market halls: the first, the largest in terms of numbers, takes strictly after the Parisian model both in terms of overall morphology and in details such as the arcades of the façade and the tie rod framing. In the eighteen nineties the introduction of steel and the evolution of trussed framing systems brought about an evolution in the technical design of market halls, thenceforth triangulated and leaving out the tie beams, even as the overall layout remained unchanged. And then a certain weariness with the homogeneity of covered markets emerged, 'Alas, whoever has seen one has seen them all! And it is no small disappointment that the traveller experiences when he goes to one of our towns in the Midi for

instance, to find the same old imitation of Les Halles de Paris. As if a market could be identical at the latitudes of Lille and Marseille!'[29]

Despite having been an undeniable factor of urban comfort, the covered market hall does not seem to have always responded to the desires of its customers. The tradition of the outdoor market revealed itself to be sufficiently rooted to overshadow the covered market. In Paris, covered markets (most of which dated back to the period between 1865 and 1880) experienced a slow but continuous decline in popularity from 1876 onwards, to the point of calling into question the concession contracts signed by a number of private developers. To varying degrees, this decline has continued into the twentieth century.

Fewer markets were constructed in the late twentieth century, yet those built are distinguished by a greater richness in detail and the introduction of colourful materials, such as stained glass. Among the finest examples of this generation of market halls are the one in Auxerre, built in 1901, and Belfort Market, erected in 1906. While covered markets have on the whole survived the first half of the twentieth century (notwithstanding a few notable exceptions, such as the market in Vichy destroyed circa 1930), growing pressure in city centres and the increasing awareness of town councils of the value of prime sites (occupied by what might seem no more than a common warehouse) provoked a genuine wave of demolitions between the years 1970 and 1977 that continues today, though to a lesser degree. Despite a vast display of opinion, voiced in the national and international press and through public demonstrations at times violently crushed, demolition of Les Halles de Paris began on 2 August 1971, after the Marché d'Intérêt National was moved to Rungis, in the south of Paris. Their destruction entails much more than an architectural loss—the bulldozers have not only destroyed a collection of iron girders, but have removed a piece of the Parisian imaginary inextricably linked to this place, which thirty years of planning and improvements have not sufficiently restored.

This loss is irreparable, yet many other demolitions are also to be regretted: in Toulouse (Victor-Hugo and Les Carmes markets), Bordeaux (Saint-Jean), in Auxerre, Nevers, Angers, La Roche-sur-Yonand Poitiers, not to mention the twenty-odd other Parisian markets that were destroyed. The remaining markets in France (probably around a hundred) deserve to be preserved, even more so because adapting them to other uses, or even disassembling them (as in the case of one of the pavilions of Les Halles de Paris, reassembled in Nogent in 1976) have proven to be easy tasks.

29. Julien Guadet, *Eléments et théorie de l'architecture,* Librairie de la Construction Moderne, Paris, 1894, III, p. 29.

Covered Markets in Vienna

Peter Haiko

The Competition for 'The Building of a Covered Market on the Landstrasse', 1857

'The building of a covered market or meat market is judged appropriate and the construction of such a market hall is … approved.'[1] Around that time Vienna Town Council, in its session of 26 February 1856, instructed the municipal Building Authority to prepare a suitable construction project. The Building Authority created a programme as a basis for an invitational competition for 'several local architects' to draw up projects for a 'covered market on the Landstrasse'.[2] From the designs presented it is clear that the building site was to be the area taken up today by the Rochus market in the III district. Out of a total of five invited architects, Ludwig Förster, Leopold Ernst and the Romano & Schwendenwein architectural office submitted projects. Although not requested, designs were also sent in by the assistant of the Municipal Building Authority, Eduard Hajek, and by Friedrich Paulik, director of the Altmann cabinetmaker's workshop.[3] Whereas Paulik's project has not survived, the sketch made by (Karl) Gabriel,[4] another member of the Municipal Building Authority, has.[5]

The three architects involved in the 1857 planning of a 'covered market on the Landstrasse' are important exponents of Austrian Historicist architecture of the mid-nineteenth century and all three would be active in the planning of Vienna's urban extension: as representatives of the architects and master-builders, Leopold Ernst and August Romano from the Romano & Schwendenwein office were part of the jury charged with evaluating the submitted designs. Ludwig Förster, who had by then already drawn up eight projects for Vienna's urban development, was the author of one of the three projects deemed worthy of a prize by the commission. Leopold Ernst

1. Archive of the City and the Land of Vienna (WSA), B 6/2, minutes of the public sessions of Vienna Town Council, 26 February 1856, p. 89.

2. Minutes, session of 20 March 1857, p. 93.

3. Minutes, session of 9 July 1857, p. 243.

4. In 1865 a certain Karl Gabriel, who at the time was working for the water supply commission, was appointed Chief Engineer. Minutes, 1865, session 354, p. 192.

5. WSA, Plans from the Collection of the Former Chamber of Plans and Archives, P 12/2 – M:b market halls 104 267.

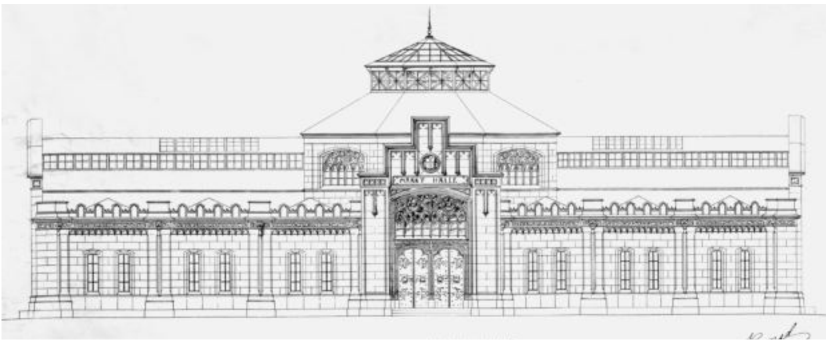
and Ludwig Förster belong to the generation that had dominated Austrian architecture before the construction of the Ringstrasse until approximately 1860, thereby influencing the onset of Historicism. One of the main works by Leopold Ernst is the Grafenegg Romantic castle in Lower Austria. At the time of the competition for the covered market he was master builder of Vienna's St Stephen's Cathedral. Ludwig Förster was considered one of the most influential architects and theoreticians of his time. Active in practically all branches of architecture, from public works and the construction of churches and houses, to the planning and partial building of the Vienna Arsenal and bridges. His construction journal *Allgemeine Bauzeitung*, founded in 1836 and published by his own lithographic press, would have a great importance for the development of architecture. As from the eighteen sixties, Romano Schwendenwein, the main exponents of the younger generation of architects, would dominate the construction of private housing in the Historicist style on the Ringstrasse.

Förster was the only participant who had already designed a covered market a few years earlier—a small market built in the early nineteen fifties in Vöslau, the second spa town after Baden, the main mineral resort, near Vienna, that let small premises to merchants during the summer months in order to 'supply spa clients with luxury items and articles of fashion.'[6] So it is less of a covered market as we understand it today and more of a single-storey luxury shopping centre.

The designs submitted for the covered market on the Landstrasse clearly reveal one thing: none of the participants has a clue of what a covered market should look like. Each project is based on a different stylistic model, but also on a different building purpose. Ernst's sketch evokes a Gothic palace on a smaller scale, Förster's a religious building, while Romano Schwendenwein's resembles a Baroque orangery. The two designs by the Municipal Building Authority were of comparable characteristics. Hajek presented two projects. One had much in common with the religious design by Förster; it's main hall was similarly shaped as a horseshoe, although integrated into an irregular, cone-shaped, lower enclosing wall. The second project was more austere, resembling a slightly Gothic functional building, and foresaw two inner courtyards surrounded by covered walkways which gave access to the various stalls and a barrel-vaulted pavilion designed as a sales area on the transverse axis. Gabriel, too, proposed several alternatives: a miniature Gothic palace with a long covered 'general market', clover-shaped

6. *Allgemeine Bauzeitung*, 1854, p. 7.

Design for Landstrasse Market Hall, 1857. Architect: Ludwig Förster

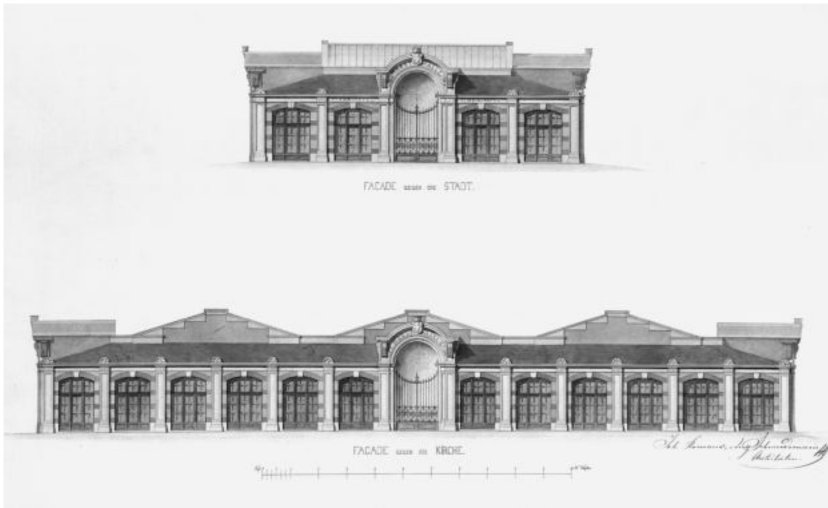


Design for Landstrasse Market Hall, 1857. Architect: Leopold Ernst

and made up of four conches, and a stylistically simpler enclosed structure, the only surviving drawing of which shows that only the stalls on the sides of the inner courtyard would be covered.

All the designs combined individual shops, which could be entered from the outside or the inside, and a large courtyard, or, in most cases, a covered hall for market stalls. Iron pillars were only used by the two municipal architects for supporting the roofs over the arcades around the courtyard.

Stylistically, the sketches reflected the situation of Austrian architecture in the eighteen fifties. The structures were still late Neo-classical, with Gothic or Byzantine decoration. The demand for monumentality that would dominate Viennese architecture twenty years later was still undefined; in particular, the question of whether a covered market should be a purely utilitarian building or a monument was left unanswered. Finally, with the exception of Romano & Schwendenwein, all the architects strove to adapt the



Design for Landstrasse Market Hall, 1857. Architects: Johann Romano and August Schwendenwein

markets to the various combinations of representation and utility explored in the Vienna Arsenal.

The Announcement of the Competition for Establishing a Plan for the Expansion of the Historical Quarter and Markets of Vienna

This competition for the building of a covered market on the Landstrasse came at a time when the long discussion concerning the possible extension of Vienna's town centre had drawn to an end and a competition for the expansion had been organised. The demolition of the town's walls and fortifications had been discussed since the eighteen thirties, for they had become obsolete in military terms, constraining the city centre and hindering easy communication with the surrounding areas. On 20 December 1857 Emperor Franz Joseph I sent his famous 'handwritten letter' to his Interior Minister, Baron Alexander von Bach, authorising the 'demolition of the ramparts and fortifications of the town centre as well as of the surrounding moat,' simultaneously expressing his desire that 'the organisation and embellishment of my town of residence and capital be treated with great care.' One of the demands in the letter concerned 'the building of covered markets and their placement.'[7]

7. *Wiener Zeitung*, 25 December, 1857, quoted from Kurt Mollik, Hermann Reining u. Rudolf Wurzer, *Plan und Verwirklichung der Wiener Ringstrassenzone*, Wiesbaden 1980 (Die Wiener Ringstrasse, 3), p. 113 and ff.

At the end of January 1858 the competition was announced, and the deadline for receiving designs was July of the same year. The construction of covered markets was not, of course, the prime objective of the competition, but rather the creation of space for the buildings that met increasing administrative and cultural needs but also the new representative demands of the rising middle class: a town hall, theatre and opera houses, a university, museums and, obviously, houses. Vienna had developed into a metropolis, but its historical quarter had essentially remained a mediaeval structure. As far as covered markets were concerned, their size, design and placement within the newly developed area were left to the criteria of participants.

The Wholesale Food Market

The construction of Vienna's first municipal market, which had prompted the aforementioned competition of 1857, was probably superseded by the general debate about the expansion and regulation of Vienna's town centre; it also became increasingly dependent on the agreements reached by the committee set up to decide on the city's extension. Thus in October 1861 the town council urged the committee to take up the question of the construction of covered markets as soon as possible—the first matter to be decided would have to be their location.[8] The minutes of a later meeting reveal that the expansion of the city in the meantime had reached a stage 'which gives the present town council renewed occasion to concentrate its full attention on this important matter.' The speaker called for the imminent start of construction of covered markets, deemed indispensable, as the town would otherwise run the risk of all appropriate building sites being sold to private developers. He demanded 'a systematic planning of covered markets' for the whole city and a decision on whether to simply look 'at retail food sales or whether to include a central market for the wholesale merchandise.' He made a motion for deciding on 'the building of a central market and a demand-based number of retail markets' and to establish a committee to plan the necessary measures.[9]

The market committee set up by the town council[10] chose two sites close beside the railway connection and next to the main customs house as being the most appropriate, and planned to build a provisional market

8. Minutes, 1861, session 35.

9. Minutes, 1861, sessions 44 and 45.

10. Minutes, 1861, session 54.

on one of them and then the definitive central market on the other.[11] The engineer Qualio was commissioned with drawing up the plans for the provisional market, but his timber construction was so harshly criticised that he resigned.[12] The only argument on his behalf was cost, as his wooden structure was much cheaper than 'the system used in Paris'. Proponents of this idea also claimed that the timber construction, 'which was reproduced in the annex to the building of the Exposition Universelle', has been extraordinarily preserved. Ludwig Förster, whom we have mentioned several times and who was now a town councillor, decidedly argued against the idea: 'If covered markets are to serve their purpose, they should not be made of wood but rather of stone, iron and glass, which will already give them a stable and permanent character.'[13] It is not surprising that Förster should demand a stable and permanent character for a covered market; what *is* worthy of note is his call for a construction in iron and glass, as well as stone. Between his preliminary plan of 1857, which used none of these new techniques, and 1862, the year of this comment, he must have had a change of heart. In 1859 Förster published a long unsigned article in *Allgemeine Bauzeitung* entitled 'The New Covered Markets in Paris and General Considerations Concerning Market Halls.' Several comments in the text allow us to surmise that Förster himself was quite likely the author of the article, as he probably hoped to establish himself as an authority on the subject with a view to the future construction of covered markets. The article emphasised the use of iron and its outstanding qualities as a material, 'The new central markets in Paris may be seen as an example of such structures,' even though (and here the author attempted to deflect the criticism away from economic reasons) 'they have been granted greater sumptuousness and luxury than would have been strictly necessary.'[14]

That same year Förster published an article in the journal about a synagogue he had built in 1858, placing special emphasis on the iron construction used in the interior, to which he dedicated a separate chapter in the table of contents. The complete inner structure was 'essentially' made up of iron; only the outer walls were made of masonry. 'This structure has

11. Minutes, 1861, session 69.

12. Minutes, 1862, session 99, p. 828 and ff.

13. Minutes, 1862, session 70, p. 251.

14. 'Die neuen Markthallen (Central hallen) in Paris, nebst allgemeinen Bemerkungen über Märkte' *Allgemeine Bauzeitung*, 1859, p. 233 and ff.

so far yielded good results in all aspects … It may be judged completely fire-proof.'[15]

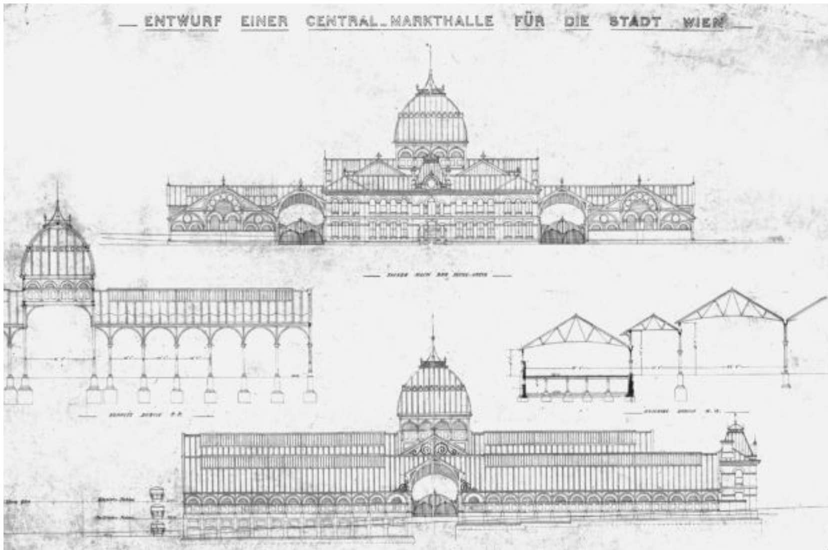
French architect Baltard Pate was possibly the inspiration for this, and iron in general would be the main theme of that year's *Allgemeine Bauzeitung*, used in roof structures for churches and railway stations, certain markets and bridges.

We suppose, of course, that Austrian architects in general were aware of iron as a modern building material, to be used not only in auxiliary structures but also for entire buildings and especially their interior structure. In 1852 *Allgemeine Bauzeitung* published an article on the newly built library of St Geneviève in Paris. The epitome of iron and glass constructions of the time, the Crystal Palace was also well known, even if in 1853 the journal somewhat nonchalantly described it as 'the great glass house where the Industrial Fair took place in London in 1851.' The article did stress the 'strange but sensible arrangement of everything and of the building materials.'

Vienna at the time had no tradition of large iron structures and it was only being used reluctantly in architecture. The indoor swimming pool at the so-called Diana's Baths built in the eighteen forties was the only interior space where iron played a dominant role, and it was not built by an Austrian architect but by the German Carl von Etzel, an architect and important railway engineer from Württemberg whose pupils and assistants played a major part in the expansion of the European railway network. In the second quarter of the nineteenth century Württemberg was one of the centres of railway construction and the Polytechnikum in Stuttgart became one of the best schools in the field that maintained strong ties with French architectural activity. The main railway stations in Vienna would be constructed by Württemberg architects in the eighteen sixties, yet even in those huge halls iron is not as dominant as it is elsewhere. The visible use of iron was refused in Vienna.[16] The ensuing discussion about the use of this material for the construction of Viennese market halls reveals that the reserve towards iron would continue and that it was still being criticised even at the turn of the century. When Otto Wagner wanted to use a glass and iron structure for the central hall of the museum he had designed for the Karlsplatz in 1900

15. Ludwig Förster, 'Das israelitische Bethaus in der Wiener Vorstadt Leopoldstadt,' *Allgemeine Bauzeitung*, 1859, p. 14 and ff.

16. Renata Kassal-Mikula and Peter Haiko, 'Vom "Arsenalstil" zur "Wiener Renaissance". Wiens gründerzeitliche Bahnhöfe in baukünstlerischer Sicht,' in *Grosser Bahnhof. Wien und die weite Welt*, Vienna 2006, p. 86 and ff.



Design for the Zentral-Markthalle, 1863. Henry Griszell

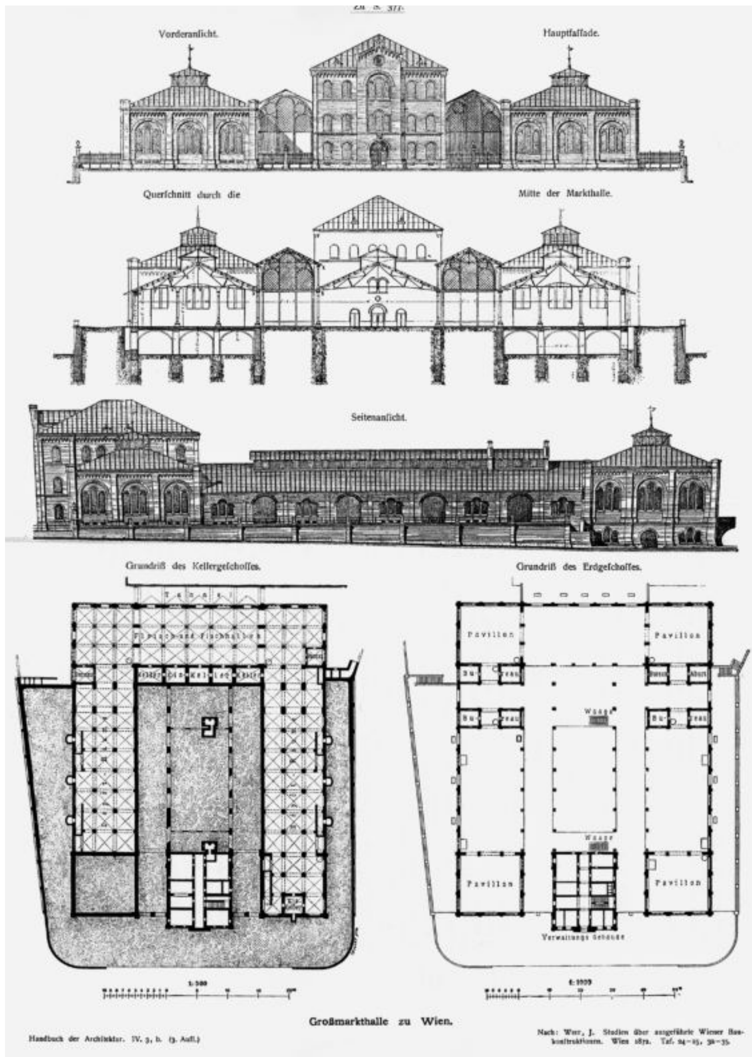
he was accused of French architectural materialism. The construction, even at that time, was deemed unsuitable to the task.[17]

In 1862 Vienna Town Council announced a competition among the engineers of the Municipal Building Authority for the construction of a central market. It was entered by the engineers Gabriel, Haberkorn, Hajek, Haussmann, Swaty and Wurm.[18] Hajek and Gabriel had already taken part in the competition for the covered market on the Landstrasse in 1857. The original idea of building first a provisional structure with timber walls and only later the definitive market hall was discarded, as the level and structure of the building site would have entailed too much extra expense to make a provisional structure significantly cheaper. The site stretched down to the River Wien and connected directly with the railway line. The Landstrasse Haupstrasse or thoroughfare and the Lastenstrasse or cargo road along the reserve garden of the Stadpark flank the two longitudinal wings.

In 1863, once the competition deadline had passed, the Rothschild bank sent the town council the project by the building contractor and iron

17. Peter Haiko, *Otto Wagner und das Kaiser Franz Josef-Stadtmuseum. Das Scheitern der Moderne in Wien*, Wasmuth, Tübingen, 1988, p. 50 and ff.

18. Minutes, 1864, session 249, p. 50.



Design for the Zentral-Markthalle, 1863-1864. Karl Gabriel

manufacturer Henry Griszell, a design made completely of glass and iron except for the middle administrative building.

All the projects, with the exception of Griszell's, respected the requirement of linking the market to the railway. The engineer Gabriel, whose project contained 'the greatest number of usable ideas,' and a representative of the municipal council drew up a 'combined project'. To this end Karl Gabriel and Georg Haussmann were sent by the town council to other large European

Exterior view of the Zentral-Markthalle. Karl Gabriel and Georg Haussmann

cities ‘to acquaint themselves with buildings of importance to the community such as market halls.’ Only Gabriel actually made the trip; Haussmann was unable to go, at first ‘due to various impediments, later because of the building work on the town’ expansion.’[19]

The possibility for direct delivery of goods from the lower level of the railway was considered the great advantage of the market hall designed by Gabriel. What was unusual was the layout, which was described as a *carré* or ‘square building’ with two longitudinal wings and one transverse wing, and an enclosed and slightly projecting middle section (an administration building with a market hall behind it), so that two covered inner avenues were created in the complex.[20]

Gabriel had foreseen massive outer walls made of bricks, and iron structures for the halls and the roofs. The style of the central market as a whole was

19. Minutes, 1862, session 95.
20. Minutes, 1864, session 254, p. 188 and ff.

that of the utilitarian buildings in the extensive Vienna Arsenal complex, such as the weapon factory built by Ludwig Förster.

In 1864 bids for various public works were still being solicited and approved by the town council.[21] The Market Committee decided to lay the apex stone on 31 October 1865 and commercial activity began on 20 November.[22] The engineer of the Municipal Building Authority, Georg Haussmann, was praised 'for his circumspect and active supervision of the construction of the market.' It seems that Haussmann was appointed supervisor after Gabriel's death.

Given that wholesale markets were still operating, that the smaller retail markets that were essential in the French system were never built and that the market had been planned too small and was badly organised, regulations for the central market had to be revised as early as 1868.[23] Even then the Parisian model would not be adopted and the central market was transformed into a wholesale market dedicated to 'the wholesale of all groceries and consumer products commonly sold at outdoor markets.'[24] The wholesalers who had hitherto worked in different marketplaces were now moved to the covered market.[25]

Zedlitz Market

During the planning and building phases of the central market various sites were suggested for the erection of retail markets, such as a site opposite the Stuben-Gate on the Kolowrat-Ring, proposed in December 1865, for instance. In September 1866 the Municipal Building Authority submitted two designs for the retail market on Kolowrat-Ring and one for the one on Park-Ring. The original designs, dated June 1866, were signed by Haussmann, who was at the time Chief Engineer of the Building Authority and had participated in the design of the central market. One version for the Kolowrat-Ring envisaged a hall with five naves and metal pillars. The outside of the building, conceived with masonry walls, could be described as a smaller version of the central market. The project was branded not very elegant and compared to a stable. No doubt the design lacked the lightness and elegance

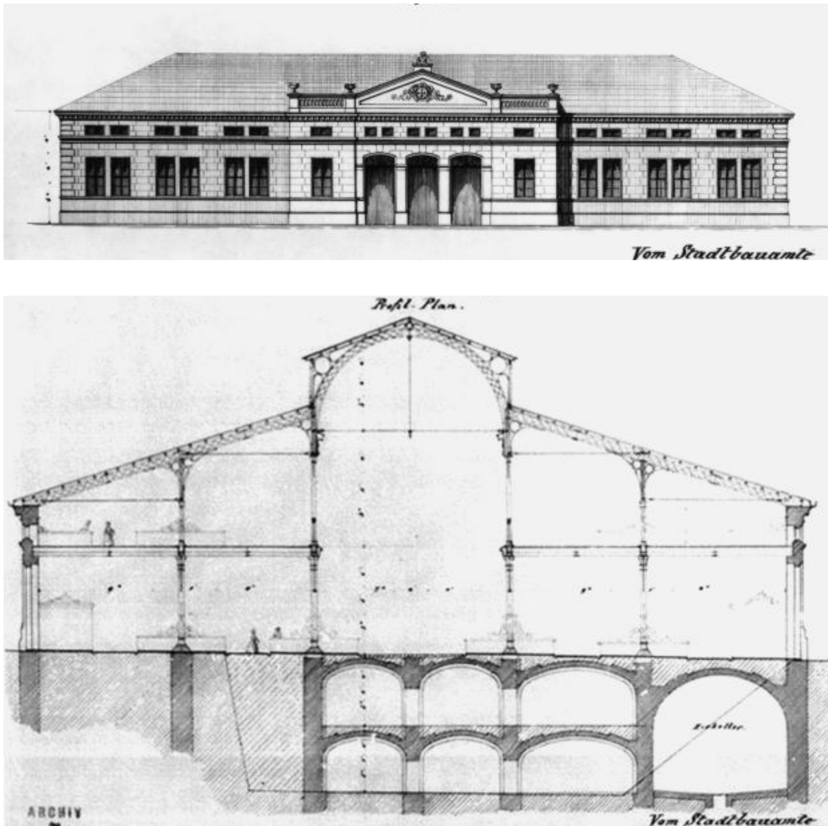
21. Minutes, 330, session 330, p. 2298 and ff.

22. Minutes, 1865, session 415, p. 1924.

23. Minutes, 1868, session of 11. 9. 1868, p. 1868.

24. WSA, Town Council B 22/171, Market Commission, Commission for the building of covered markets in Vienna.

25. Minutes, 1871, session of 16. 5. 1871, p. 614; session of 11. 8. 1871, p. 1064; session of 1. 9. 1871, p. 1144.

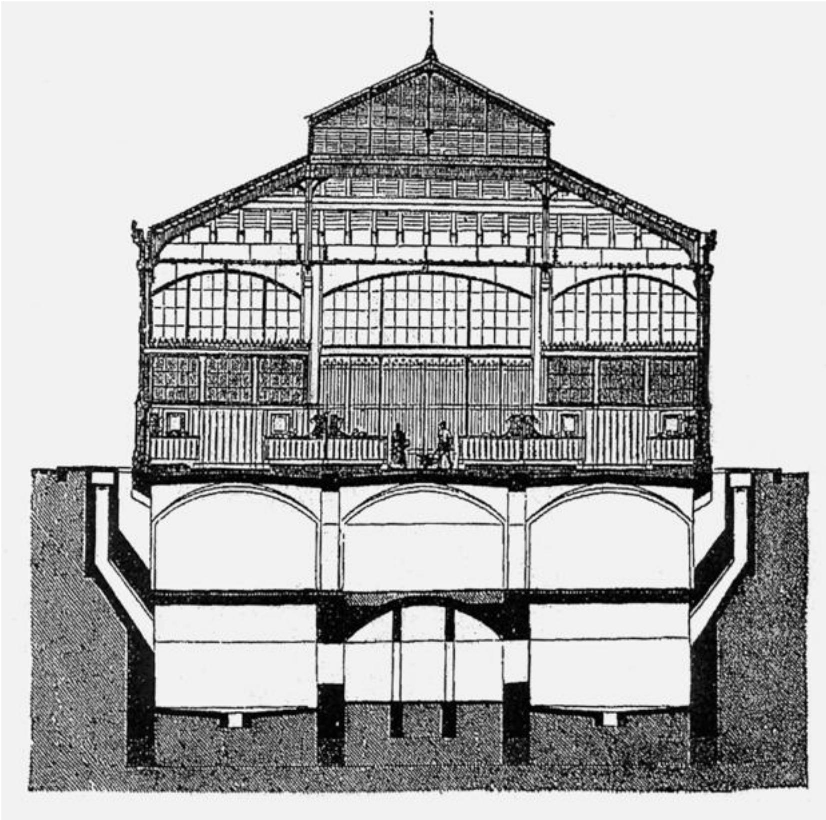


Proposals for a retail market at Kolowrat-Ring, 1866. Architect: Georg Haussmann

characterising large cities and gave the impression of a fortress. Nonetheless, it was not rejected by the Building Commission on these grounds but because it had 'spoken out in advance and with conviction against the use of masonry walls and advocated that retail markets should be built with iron and glass structures, as they were in Paris.'

Haussmann subsequently presented new plans for the market on Park-Ring (1867-1868) that included a glass and iron structure. The number of stalls grew by a third, and as a result of this and of the chosen structure, the estimated cost doubled. The increase was explained by the fact that it would be the first covered retail market in Vienna and that the construction work required some testing and preparation.[26] On 23 February 1869 the building

26. Minutes, 1868, session of 19. 5. 1868, p. 934 and ff.



Section of Zedlitz Market, 1869-1871. Architect: Georg Haussmann

of a 'retail market outside the Stuben-Gate' was approved,[27]by which time the idea of a second market on the nearby Kolowrat-Ring seemed to have been forgotten. Zedlitz Market, as it would later be called, was also intended as a model for testing other projected retail markets, and opened in 1871. For the market on the Phorusplatz, which wasn't built until the late eighteen seventies, Haussmann presented a design dated 1870, which was almost a repetition of Zedlitzgasse Market.[28]

Georg Haussmann, like Friedrich Paul, whom we shall discuss later, was an important albeit not fully researched representative of the Viennese

27. Minutes, 1869, session of 23. 2. 1869, p. 291 and ff.

28. WSA, Plans from the Collection of the Former Chamber of Plans and Archives, P 12/2 – M:b market halls 108.734/39-41.

Exterior view of Zedlitz Market, 1869-1871. Architect: Georg Haussmann

Municipal Building Authority. Both of them played a significant role in local architectural work in the eighteen sixties and seventies. Haussmann, for instance, conceived the municipal boys and girls school on the Zedlitzgasse[29] (1867-1868), thereby developing a basic model for such buildings which he would adapt to various other school buildings. His also were the schools on the Rochusgasse (1868-1869), Corneliusgasse (1869-1870), Löwengase (next to the Kolonitz church 1870-1872), Keplerplatz (1871), Czerningasse (1871-1872), the extension of the Waltergasse secondary school (1871; the original building had been designed by Ferdinand Fellner) and the school on the Rahlgasse (1874).[30] Time and again the town council awarded special bonuses to Haussmann for outstanding achievements.[31] In 1870 he supervised

29. *Allgemeine Bauzeitung*, 1868, p. 391 and ff., and 1869.

30. Emil Winkler, *Technischer Führer durch Wien*, Vienna, 1873, p. 230 and ff.

31. Minutes, 1862, session 95, p. 758. For his participation in the central market, see Minutes, 1864, session 250, p. 98; 1866; session 543, p. 2930. 1868, session of 5. 5. 1868, p. 843.

the conversion of the former Esterhazy riding school into a covered market; around the same time he also contributed designs to the project for the layout of the Stadtpark[32] and erected the buildings of the so-called reserve garden, among them a 'country style' residence and orangeries.[33] Between 1872 and 1873 Georg Haussmann designed a fish market and a combined fish and fruit market on the Franz Josefs-Kai thoroughfare, which is solely of interest due to the choice of its intended location: in 1872 he suggested it be erected between the Ringstrasse and Rudolph Barracks, and one year later, in front of the area in which the Ringstrasse came out onto Franz Josefs-Kai, alongside the Danube channel. This prominent location was not in keeping with the architectural design of the proposal.[34]

In 1874 Haussmann retired from office at the Municipal Building Authority, and that same year he was granted permission to construct a residential building on the Rennweg.[35] In 1885 he designed and built Villa Dworzak in Salzburg, between the Schwarzstrasse and Elisabeth-Kai, for his son-in-law, chief engineer at the Imperial Forestry Management. Both the schools and the villa reveal that Haussmann was very familiar with the stylistic development of Austrian architecture of the period. His artistic talent went well beyond what could be expected from a simple engineer and shows an intensive study and appropriation of the most modern trends in Viennese architecture.

Georg Haussmann's Zedlitz Market is the only covered market in Vienna made of iron and glass still standing in Vienna. It has a single nave, an iron framework and a masonry base. While Vienna's markets are always described as imitations of the French system, in comparison to those built in France Viennese market halls seem highly modest variants.

If we consider Vienna's architectural development after 1857, especially as regards the design of covered markets, the question arises of how a glass and iron construction could be accepted in the context of the town's expansion within the elegant Ringstrasse area. Admittedly, it must be considered that at the time of its discussion and planning the future appearance of the Ringstrasse, in particular its sociological and cultural structure, had not yet

32. 'Der Stadtpark in Wien sammt Kursalon und Reservegarten,' *Allgemeine Bauzeitung*, 1872, p. 325 and ff.

33. Pictures can be seen in Wiener Kommunal-Kalender und Städtisches Jahrbuch für 1870, Vienna (Year 8, 1870).

34. WSA, Plans from the Collection of the Former Chamber of Plans and Archives, P 12/2 – M:b market halls 106.960.

35. Minutes, 1874, session of 12. 4. 1874, p. 204.

been decided. The monumental buildings that characterise the Ring would only be built after 1872, the ZinsPalais, a prototype of the noble houses for rent was just taking shape and the definitive quality of the avenue as the 'sumptuous boulevard of the monarchy' was just in its initial phases with the transfer of the parade grounds and the Emperor's Forum with the Hofburg Castle and two museums is only in the early planning stage at best.

In future, glass and iron constructions would only be used in utilitarian buildings, with the exception of the tropical palm house in Schönbrunn and the one in the Burggarten or castle gardens. Vienna's largest complex of covered market halls was built between the years 1880 and 1883 as the great cattle market, consisting of two halls made up of three sections and a central covered street, situated in the huge area of the central animal market by the old slaughterhouse in St Marx, on the outskirts of the town. Smaller marketplaces for calves, sheep and pigs would be built following the same principle.[36]

A New Central Market and the Planning of Other Retail Markets

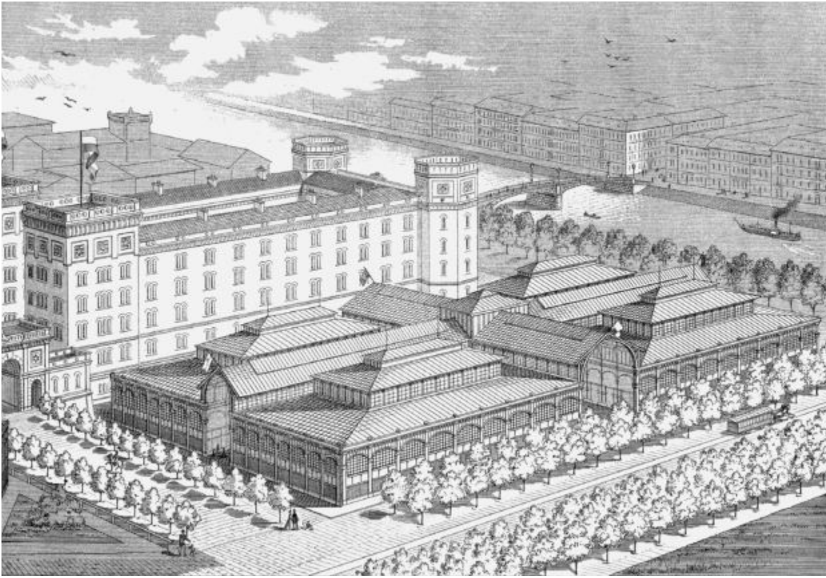
In 1871 the town council showed interest in purchasing a building site near the parade grounds for the construction of another retail market. That same year the council received a proposition by a French company connected with 'the construction of all of Vienna's covered markets.' The advantages of the centralised, French administrative model was praised again, stressing the fact that this efficient system had proven itself by successfully supplying a metropolis for sixty years. The company suggested the town council built '20 market halls after the model of Les Halles in Paris and on the scale of the city's new local retail market. The company will undertake the construction of the markets modelled after Parisian market halls using the same materials.' They would erect the markets on a date to be decided in exchange for a fixed amount to be paid over forty years.[37] Without actually accepting this offer, the town council decided to set up a commission to establish where these markets should be located and how the buildings should be constructed.[38]

A few months later the company renewed its offer through its representative in Vienna, Besnier de la Pontonerie, and committed itself to 'delivering the properties to the city before the opening of the Exposition

36. Paul Kortz, *Wien am Anfang des XX. Jahrhunderts*, I, Gerlach & Weidling, Vienna, 1906, p. 365 and ff., and *Handbuch der Architektur*, IV, 3/2. Darmstadt 1891 (2nd edition), p. 188 and ff.

37. Minutes, 1871, session of 19. 10. 1871, p. 1405 and ff.

38. WSA, Town Council B 22/236, Market Commission, Report on the issue of Covered Markets.



Design for a central market hall, 1871. Édouard Besnier de la Pontonnerie

Universelle.' Finally, at another session the municipal Finance Department requested the company's proposals were rejected on financial grounds.[39]

At least the French intervention in the Market Committee triggered a key debate of in which the building of a new central market surprisingly emerged as 'urgently required'. Even though it was not erected at the time for economic reasons, it wasn't totally forsaken, merely postponed to a more appropriate time.[40] The best suited location for the new central market seemed to be the area used until then as an ice rink opposite the wholesale market. The new market hall had to be connected to the existing one and thus be able to meet all needs easily. Objections as far as technical considerations and the make-up of the ground were quickly dispersed by Chief Engineer Georg Haussmann who shortly after retired from the local council.[41]

At the town council session held on 6 February 1872 the commission presented the chosen sites for the retail markets.[42] Five markets were planned

39. Minutes, 1872, session of 27. 2. 1872, p. 467 and ff.

40. WSA, Gemeinderat B 22/225, Market Commission, Report on the Issue of Covered Markets read by Town Councillor Alex Neumann to the Assembled Building Authority, 1875. p. 1 and ff.

41. Minutes, session of 25. 4. 1873, p. 533.

42. Minutes, 1872, session of 6. 2. 1872, p. 259 and ff. See also the session of 10. 6. 1873, p. 754 and ff.

for the historical quarter, the I district, alone. The districts beyond the Ringstrasse would receive a different number of markets: the II, III and IV districts three each, the V and VI districts two each, and districts VII, VIII and IX one each, while it was noted that 'Priority is given to the completion of the central market and the retail markets in the I district, the construction of the remaining retail markets is to be undertaken secondarily and according to need.'[43]

The following provision would be fundamental: 'Markets shall be built in the simplest and most cost-effective manner; their structure shall be mainly of glass and iron.'[44] As far as the method of construction was concerned, the committee declared that experience had tipped the scales. It also stated that in Paris, too, masonry was used at first in markets, which were 'only taken down later because they were unsuitable.' The argument over how markets should be built lasted until the erection of the Crystal Palace in London. 'The earliest market halls resembled fortresses.' The example of the 1851 World Fair in London was essential to Les Halles in Paris because in London, according to the speaker for the Committee, one could see 'the profitable arrangement of glass and iron and then adapt it to the construction of one's own market halls.'

Later on, the speaker for the Committee mentioned the retail market on the Zedlitzgasse, where glass and iron had revealed themselves to be the most appropriate building materials. The ensuing criticism that the building 'suffered from strong draughts, has no heaters for the inspection and administrative staff, snow falls inside in winter and the building too expensive' he countered be declaring there was 'nothing wrong with the construction in itself,' the shortfalls are easily repairable and it was partly the result of 'abnormal weather conditions.'[45]

In January 1873 the town council was informed of the decision of Emperor Franz Joseph I, according to which he 'has awarded his supreme approval' to the agreement reached by the Imperial City Expansion Fund and the representatives of Vienna town council concerning the cession of locations for covered markets. From this it can be surmised that it was in the town council's own interest to build the markets as soon as possible.[46] In June of the same year a competition was published 'in several national and international newspapers for a central covered market to be built by the ice rink and

43. Ibid.
44. Ibid.
45. Ibid.
46. Minutes, session of 2. 1. 1873, p. 1 and ff.

for three covered (retail) markets to be built on Paradeplatz, Rudolfsplatz and on the Fichtgegasse Square.' The deadline for handing in projects was 3 February 1874.[47] Five bids were received, two from French companies (from above-mentioned Besnier de la Pontonerie as well as from Fives-Lille[48]), one from Union-Baugesellschaft in Vienna, one from the Graz-based company J. Körösi and one from Hencke & Hude (Berlin-Vienna). The projects by the Graz and the two Parisian companies were 'made completely of glass and iron' as stipulated in the competition, the other two were 'made of stone'. For the first time there were doubts about which construction method to choose, moreover, the commission found that comparing the costs of the construction 'in our local conditions, buildings made of glass and iron in their main structure have no economical advantages whatsoever over buildings made of stonework, and taking into account our climate they must even rate second to the latter.' The commission judged the Union Baugesellschaft's project to be the best[49] and recommended acquiring it in case they could build it at a later stage.[50]

There was also a brief discussion about the aesthetics of market halls. Speaker Friedmann again fell back on a comparison with Paris, where simple wooden sheds, which had existed since time immemorial, fulfilled the function of retail markets 'in a way that the most splendid markets made of glass and iron, or of stone and marble, couldn't have much improved.'[51] This did not of course mean, as he emphasised, that 'even the slightest considerations of beauty should be totally neglected,' even though in its proposed location the new central market, 'no matter how it is constructed could not provoke any kind of aesthetic disturbance.' As far as the retail markets are concerned, 'it seems only proper that their pleasing façades do not disfigure the squares on which they stand.' And yet, proceeded the councillor, that did not mean designing façades as in a few of the competing projects, 'some of which would not look poor on a museum.' Nonetheless, he could not establish a universal rule for simplifying the construction and he obviously thought that the planned retail market on Rudolfsplatz in the centre

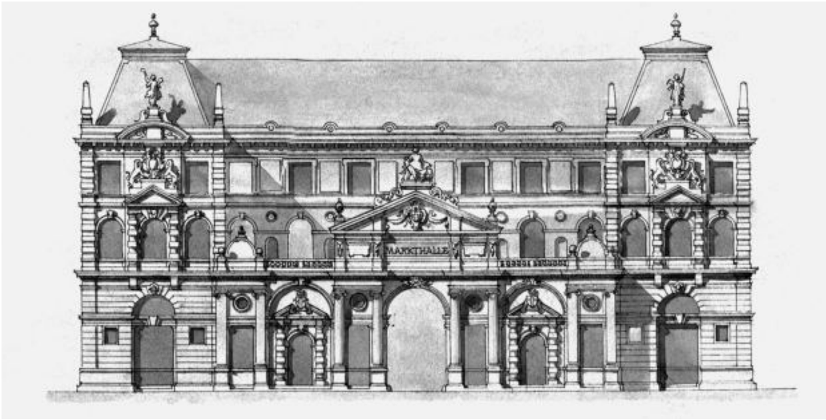
47. WSA, Town Council B22/236, Market Commission.

48. This last project is probably the one marked 111.026 at WSA, Plans from the Collection of the Former Chamber of Plans and Archives, P 12/2 – M:b.

49. Ibid.

50. WSA, Town Council B 22/225, Market Commission, Report on the Issue of Covered Markets read by Town Councillor Alex Neumann to the Assembled Building Authority, 1875. p. 1 and ff.

51. Ibid, p. 13.



Design for a market on Rudolfplatz, 1878-1880. Architect: Friedrich Paul

of Vienna 'should have a more pleasing appearance' than a market located perhaps in the IX district.[52]

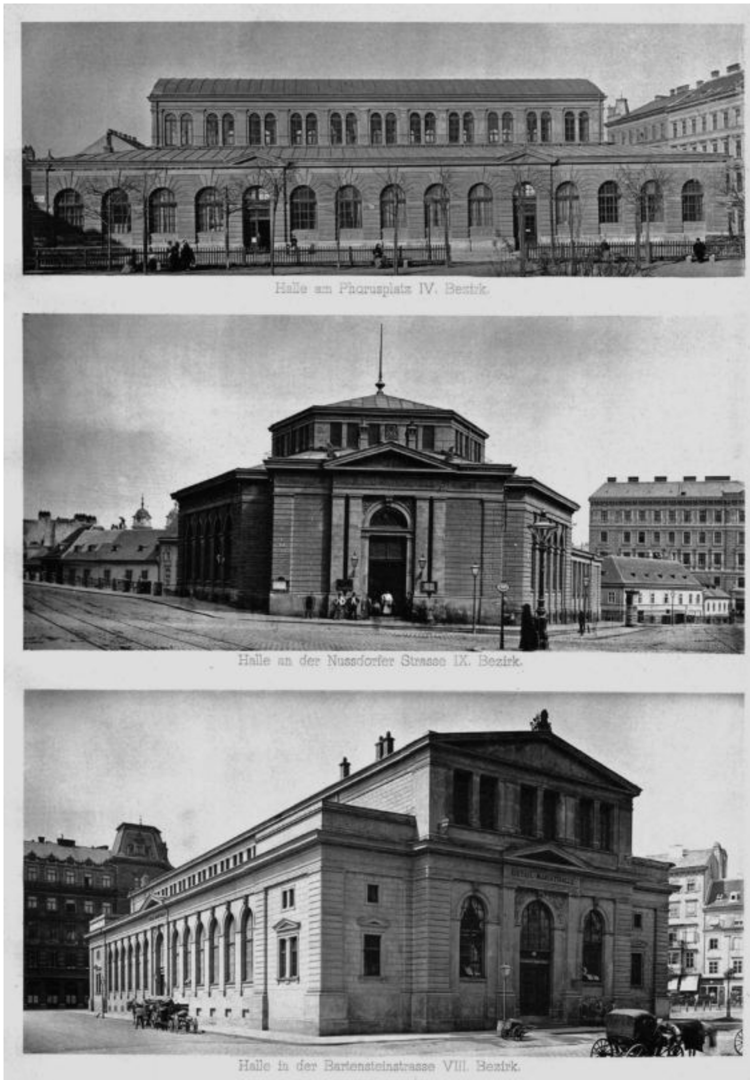
The Construction of Retail Markets

Musings of this nature would later lead to a unique proposal for a market at Rudolfsplatz, i.e., within the new and representative Ringstrasse area, around 1880. Rudolfsplatz had been on the list for some years as one of the possible locations for a covered market in the city's historical quarter.[53] The project envisioned a combination of market hall and school building and its façades did not betray its function, for their decoration was too illustrative, almost characteristic of a monumental building that could evoke a slightly odd palace. The centre of the front face is really a mock façade, behind which stood the market hall consisting of several sections. This way of concealing the structure and therefore the purpose of the building was a characteristic shared by the Vienna railway stations. The rule generally followed was that a railway station should not be identified as such from the outside, because its true features had to optically disappear behind a traditional façade. The combination of market and school was defended in the year 1878 under the argument of halving costs;[54] be that as it may, in 1882 Rudolfsplatz was definitely discarded as a possible

52. Ibid.

53. Minutes, 1873, session of 10. 6. 1873, p. 754.

54. Minutes, session of 9. 7. 1878, p. 290.



Retail markets for the 4th, 9th and 8th districts, 1878-1880. Architect: Friedrich Paul

location for a retail market.[55]All of this leads us to suppose, and stylistic arguments seem to agree, that the design was made after 1878 and before 1882.

In 1875 it was urged that preparations for a competition for the building of a central market and retail markets were undertaken and that finally

55. Minutes, 1882, p. 55.

'there be a firm and effective alternative to the so-called Verzehrungssteuer, tax on consumer goods. Furthermore, some of the buildings of the Exposition Universelle, which are out of use and neglected, should be assessed as to their possible use as warehouses'[56] or market buildings.[57] By virtue of the reports drawn up by experts, the Market Commission found that indeed the buildings from the Exposition Universelle and their annexes were perfectly suited to the construction of a market and that this approach would prove financially interesting, thereby recommending the purchase of the pavilions scheduled for demolition and remarking that the savings would be welcome at this moment of financial difficulty. There was also criticism that neither the Municipal Building Authority nor the architects taking part in the competition had imitated 'the pertinent structure' of the World Fair buildings.[58]

One year later, the question of accelerating proceedings for announcing a competition for the construction of covered markets was raised once again.[59] The only decision taken, however, was the transformation of a riding school in the VI district belonging to the former Count Esterhazy into a retail market.[60]

For years no progress seemed to have been made on the question of the retail markets. Köstlin and Frey had their projects returned to them in 1877, as there was no request for bids pending. In response to a query at the end of the year as to how the project of constructing a covered market in the IX district was advancing, the mayor responded with reference to the town council agreement of 1872 according to which that a market in that district was of secondary importance, as the markets in the extension of the city would have to be built first. Only when places for these markets had been allocated, would the Municipal Building Authority be able to draw up a report. Plans for markets in the area of the city's extension had already been submitted to the town council, but 'no agreement had been reached' on this subject.[61] Notwithstanding, there would be no further serious discussion of a covered market in the town centre. The whole project was postponed, including the

56. Minutes, 1875, session of 23. 7. 1875, p. 302.

57. Minutes, 1875, session of 3. 9. 1875, p. 357.

58. WSA, Town Council B22/236, Market Commission, Minutes of the Agreement of the Commission on the Suitability of World Fair Pavilions as Market Halls, 1875; Town Council B 22/225, Market Commission, Report on the Issue of Covered Markets read by Town Councillor Alex Neumann to the Assembled Building Authority, 1875. p. 14 and ff.

59. Minutes, 1876, session of 7. 7. 1876, p. 274 and ff.

60. Minutes, 1876, session of 22. 9. 1876, p. 367.

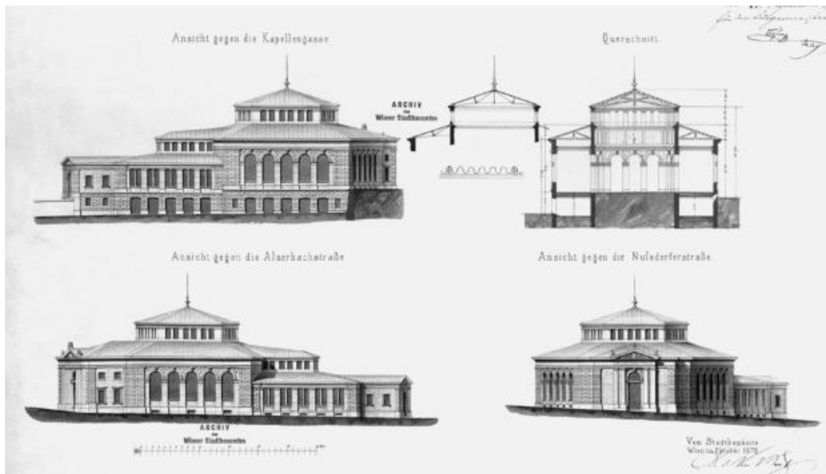
61. Minutes, 1877, session of 28. 12. 1877, p. 519.

Interior view of the retail market in Vienna's 8th district, 1878-1880. Architect: Friedrich Paul

intention of asking the mayors of the VII, VIII and IX districts 'to present appropriate sites for the construction of retail markets in these districts.'[62]

The first plans for a covered market in the IX district (Nussdorferstrasse) were finally presented in 1878. One year later, the Municipal Building Authority drew up the plans for the markets in the V district (Phorusplatz) and the VII district (Burggasse). On 13 May of that same year (1879) the town council finally authorised the building of the markets on Burggasse and

62. Minutes, 1878, session of 12. 2. 1878, p. 60.



Design for the retail market on Nussdorferstrasse, 1878-1880. Architect: Friedrich Paul

Nussdorferstrasse, with slight alterations,[63] and two months later it authorised the retail market in the V district.[64] As regards the market in the VII district, a motion was tabled to officially remind the mayor that the building work had to be carried out promptly.[65]

The earliest detailed plans for one of these retail markets, the one on Nussdorferstrasse, were dated October 1878. The hall was revealed as a Neo-classical construction with an almost sacred appearance, quite surprising in view of the market-hall architecture hitherto characterising Vienna. The building had a central ground plan and was a regular pentagon with a heightened central area, to which was added a trapezoidal annex with a basilican ground plan. The annex was destined for farmers and the central building was the market proper with permanent stalls. As far as the construction of the architectural volumes, the inner structure and decoration were concerned, this was certainly the most sophisticated project to date and presented the most intricate ornamental design in the Neo-classical style. In July 1879 the design for the markets in Burggasse (VII district) and Phorusplatz (V district) followed, both of which were also Neo-classical.

63. Minutes, 1879, session of 13. 5. 1879, p. 192.

64. Minutes, 1879, session of 6. 6. 1879, p. 228.

65. Minutes, 1879, session of 4. 7. 1879.

Even though all these halls were located in the districts surrounding the city centre, the 'market for the VIII district' belonged administratively to the I district, alongside the development of the Ringstrasse. In early discussions it was always referred to as the 'retail market on the parade ground', as it was situated in the area that was not available for building purposes until the eighteen sixties, due to military considerations. Permission for developing the parade grounds finally enabled the construction of the Parliament, the Town Hall and the University in the eighteen seventies. The building site for the covered market, next to two major monuments of Viennese Historicism (the Parliament and the Town Hall), was located in the most architecturally representative of the Ringstrasse neighbourhoods. The Parliament and Town Hall were scheduled for completion as the market was being erected, and the three buildings opened around the same time. Prestigious private residential buildings would soon crop up around them, definitely shaping a stately neighbourhood.

At the same time as the market was being erected (11 Stadiongasse) Otto Wagner built the housing building that stood opposite (10 Stadiongasse) and shortly afterwards, also opposite although slightly on a diagonal, (6-8 Stadiongasse), another such building where he himself had his home and office between 1884 and 1891. The architecture and interior design of both buildings rendered Wagner's artistic and architectural conception of the ostentatiously representative lifestyle of the bourgeoisie on Vienna's Ringstrasse, and became prime examples of the Neo-classicism that Otto Wagner stood for in the eighteen eighties.[66]

This is what made the first design for a market in that area so surprising. The first plan for the retail market dated April 1879 may have had a generally more representative appearance, especially on the front, than the central market built much earlier, but it could not deny the utilitarian appearance of its stonework and its old-fashioned style. In fact, it almost gave the impression that the Municipal Building Authority ignored its location, or had even rescued an earlier design that had been left in a drawer.

The second design dated May 1881 is a different story. As to style, like the market on the Nussdorferstrasse, it was a clear exponent of Neoclassicism, highlighting and yet blurring the monumental nature of its architectural function. Generally speaking, Neoclassicism became the style *par excellence* of Viennese architecture in the eighteen eighties, as Vienna

66. Paul Asenbaum, Peter Haiko, Herbert Lachmayer and Reiner Zettl, *Otto Wagner. Möbel und Innenräume*, Salzburg-Vienna, 1984, p. 14 and ff., p. 121 and ff.

Ringstrasse society considered it the architectural embodiment of its social and cultural claims to status. From museums to private palaces, railway stations and even market halls, the Viennese architecture that adopts a monumental character draws on Renaissance ideals.

All the plans for markets were signed by the deputy director of the Municipal Building Authority, Hieronymus Arnberger,[67] and chief engineer Friedrich Paul. Although the distribution of responsibility in the Viennese Building Authority and thus the authorship of any particular draft remain unclear to this day, there is one important indication that Friedrich Paul was the sole responsible designer. 1885 Friedrich Paul published the article 'Retail markets in Vienna' in the *Allgemeine Bauzeitung*.[68] In reference to the bad experiences concerning indoor temperature at the Zedlitz Market, built, according to Paul, following the example of Les Halles in Paris, albeit not nearly so delicate and elegant,' he reached the conclusion 'that in our climate, when constructing large halls it is preferable to resort to building materials that are non-heat conducting, in other words, to more massive structures.' In this, Friedrich Paul revisited previous debates on the subject of glass and iron: 'A market hall with stone walls and interior central pillars has a balancing effect on room temperature,' a statement he argued in detail, concluding 'For these reasons, the designer saw decided to propose a new system for the building of new retail markets, which was subsequently approved,' where 'system' simply refers to classical masonry. If Paul's argumentation against market halls of glass and iron is based chiefly on considerations of room temperature and climate this is due to the fact that it is one of his areas of specialisation, being as he is the author of several works on ventilation and heating.[69]

The covered market halls were built at the same time as the administration office for the X district in Gudrunstrasse was being erected, under the supervision of Friedrich Paul (1881-1882).[70] Paul, who had been a member of the Municipal Building Authority since the eighteen sixties, assumed the responsibilities of Georg Haussmann as regards designs. He built the secondary

67. The position of director was vacant at the time.

68. Friedrich Paul, 'Die Detail-Markthallen in Wien,' *Allgemeine Bauzeitung*, 1885, p. 31 and ff. and plates 22-27.

69. Friedrich Paul, *Central- und Ofenheizung in besonderer Rücksicht auf die Bedürfnisse von Schulen, Spitälern, Gefangenenhäuser etc. Mit der Darstellung eines vollkommenen Luftheizsystemes*, Vienna, 1878. By the same author, *Lehrbuch der Heiz- und Lüftungstechnik: nach leichtfasslichen Theorien und mit besonderer Rücksicht auf die Bedürfnisse der Praxis*, Vienna, 1885.

70. Paul Kortz, *Wien am Anfang des XX. Jahrhunderts*, II, Vienna, 1906, p. 164 and ff.

The new meat market, 1898-1899, in front of the Viktualienhalle, 1904-1906. Connecting bridge to the wholesale market

school on the Schottenbastei (1876-1877),[71] adding technical innovations to the school buildings erected after 1874, once Georg Hausmann had retired from public service, 'especially as regards size, natural lighting, heating and airing of the classrooms, as well as the interior decoration and school desks.'[72] The interior furnishing of schools was probably Friedrich Paul's second speciality,[73] and he went on to develop his own school-desk model.[74]

The Extension of the Wholesale Market into the New Central Market

The new central market discussed in 1870 was never built. In 1886 the wholesale of meat and derived products, which until then had been authorised at

71. Ibid, p. 200.

72. Ibid, p. 212.

73. Friedrich Paul, *Wiener Schuleinrichtungen: ein Beitrag zur Vervolkommung der Schulbank, der Schultafel und des Ventilationsfensters*, Vienna, 1879.

74. Minutes, session of 18. 1. 1881, p. 34.

the cattle market on St Marx, was moved to the existing wholesale market, which led to an extension of the market complex. Connected to the main hall by a bridge, a new meat hall was built on the other side of the railway tracks in 1898-1999, destined only for the sale of meat delivered by train. A cleverly devised electrical conveyor system allowed for the transport of 150 tons of meat from the railway level to the hall on the ground floor in thirty minutes, 'without needing to take the meat off its hooks.' The companion to this market hall was the Viktualienhalle (victuals market), built between 1904 and 1906, which had stalls for wholesalers, retailers and farmers.

In architectural terms, the two buildings are mirror images of one another. Like a sort of bridgehead, they marked the entrance to the city for those coming from the Landstrasse-Hauptstrasse. Stylistically old-fashioned at the time of their construction around 1900, for they denied Viennese avant-garde trends of the period, these markets still revealed the presence of certain Neo-classical features, albeit with bureaucratic sobriety. The two buildings bring the history of Viennese markets halls to a close; all that would come afterwards would be their demolition. Zedlitz Market was soon abandoned; part of it serving as an exhibition hall for the Hagenbund, the other part becoming a transformer station and garage until the whole place was knocked down in the nineteen sixties. The demolition of the other market halls followed suit. Only the market on the Nussdorferstrasse still exists, although, significantly, converted into a supermarket.

Covered Markets in Liberal Italy: a Comparison Between Four Cities

Filippo De Pieri

Covered markets have never been given major relevance in nineteenth-century Italian architecture history books. *Italian Architecture 1750-1914*, by Carroll Meeks (1966), a title that has for a long time been a point of reference for studies about this period, comprises a rich visual apparatus of two hundred and sixty-six images. Only one of them is dedicated to markets, although the book examines other service facilities, such as excise houses or railway stations.[1] Forty years later the scenario is not very different. Seemingly the most recent works of synthesis on nineteenth-century Italian architecture follow two trends when it comes to selecting major buildings. Either they omit markets,[2] or they sporadically mention two or three cases among those most significant.[3] Their choice gives evidence of the incompleteness of the studies.

There are several explanations of why the subject is disregarded. For instance, we may recall that for a long time the historiography of nineteenth-century Italian architecture has shown a prevailing interest in the analysis of the architectural language, especially of the relationship between the Neo-classic tradition and the variety of eclectic traditions (and their regional variants). Historiography has also paid particular attention to the debate surrounding the possible elaboration of a 'national style'. Even those studies examining urban transformation policies or infrastructural developments did not designate markets as their core subject or, at least, they did not allocate markets the same relevance they assigned to other topics, such as the implementation of public utility networks (sewerage, water and gas supply) and the spreading of the culture of hygiene.[4] In short, covered markets have usually been viewed as a feature of no particular architectural interest, or

1. Carroll L. V. Meeks, *Italian Architecture 1750-1914*, Yale University Press, New Haven and London, 1966. The only exception is Padua meat market by Giuseppe Jappelli, 1821.

2. Terry Kirk, *The Architecture of Modern Italy*, vol. 1, *The Challenge of Tradition, 1750-1900*, Princeton Architectural Press, New York, 2005.

3. Amerigo Restucci (ed.), *Storia dell'architettura italiana. L'Ottocento*, Electa, Milan, 2005, 2 vols.

4. Donatella Calabi, 'I servizi tecnici a rete e la questione delle municipalizzazioni nelle città italiane, 1880-1910', in Paolo Morachiello, Georges Teyssot (eds.), *Le machine imperfette: Architettura, programma, istituzioni nel XIX secolo*, Officina, Rome, 1980; Guido Zucconi, *La città contesa. Dagli ingegneri sanitari agli urbanisti (1889-1942)*, Jaca Book, Milan, 1989.

not sufficiently representative of the concepts of urban transformation of the second half of the nineteenth century. Works focusing on the spreading of new building technologies, of cast-iron and glass structures in particular, have given market facilities a more important profile.[5]

However, the architects, engineers and administrators operating in Italian cities at that time did seem to pay particular attention to the problem of markets. Their studies can be found, in part, in technical literature. *Manuale dell'architetto* by Daniele Donghi, one of the most ambitious attempts at compiling a manual of synthesis made in the nineteenth and twentieth centuries, dedicates a significant section (almost half of the volume) to markets, warehouses and slaughterhouses. It features a wide range of examples both from Italy and from abroad.[6]

In the late nineteenth century an engineer from Rome, Marc'Aurelio Boldi, dedicated a specific manual to markets. It was first published as a series of articles in *Annali della Società degli Ingegneri e Architetti Italiani* and later on as a separate volume, entitled *Dei mercati coperti*. Between 1892 and 1899 the manual experienced a particular editorial success; it was published in three successive editions, which were gradually expanded, moving from one hundred and forty-four initial pages, with eight full-page engravings, to three hundred and ninety-eight pages with two hundred and seventy-three illustrations in the body text.[7] In the years following the unification of Italy, Boldi was one of the engineers who promoted the construction of covered markets using cast iron and glass, based on the example of various foreign models. His

5. Romano Jodice, *L'architettura del ferro. L'Italia*, Bulzoni, Rome, 1985. Given the attention reserved to market buildings, the author concludes that 'among the nineteenth-century types of urban services, covered markets in cast iron and glass seem to give the best results when it comes to an architectonic methodology aimed at fully exploiting the environmental and operational potential of the new industrial technologies,' p. 656.

6. Daniele Donghi, *Manuale dell'architetto*, vol. II, *La composizione architettonica*, part I, *Distribuzione*, section II, Unione Tipografico-Editrice Torinese, Turin, 1925. It comprises chapters about *Mercati del bestiame, ammazzatoi e macellerie*, p. 97-245, *Mercati coperti,* p. 246-303, and *Magazzini commerciali di deposito e di approvvigionamenti,* p. 304-384. The work was first published in instalments in 1893. As for Donghi and *Il Manuale dell'Architetto,* please refer to the essays collected in Giuliana Mazzi, Guido Zucconi (eds.), *Daniele Donghi. I molti aspetti di un ingegnere totale,* Marsilio, Venice, 2006.

7. Marc'Aurelio Boldi, *Per i mercati coperti. Monografia tecnico-economica*, Tipografia Fratelli Centenari, Rome, 1892; (3rd ed.), 'notably expanded with the inclusion of significant additions,' Tip. Lit. Camilla e Bertolero di N. Bertolero Editore, Turin, 1899. The work was published in the annals *Annali della Società degli Ingegneri e degli Architetti Italiani*, VI (1891), 4 and 6 and VII (1892), p. 1-2 and 4-6. The publication of this volume marked the beginning of Boldi's successful career in the writing of manuals, particularly after the publication of the eight volumes of *L'arte moderna del fabbricare* (Milan, Vallardi, 1900-1918, with G. Misuraca), first published in 1900, and of *Le case popolari: monografia complete tecnico-economico-sociale*, Hoepli, Milan, 1910.

manual lists the advantages a covered market would give (bringing producers and consumers closer; boosting competition; providing a better control of sales transactions, better hygienic conditions and a better collection of statistical data; keeping hawkers and irregular dealers at bay; profitability). He proposed classifying markets into three fundamental categories (retail, wholesale and 'wholesale/retail'), and advised drawing up a plan for each city, detailing the location of all markets, to be adjusted to the specific topographic, social and economic conditions of the town and completed prior to the construction of each single building. These remarks were addressed, in particular, to the municipal technical departments of Italian cities. During the post-unification period (especially following the 1865 Municipal and Provincial Act) many of these underwent major reorganisation and were conferred an increasing amount of responsibility in the management of the urban modernisation process. As a matter of fact, Boldi contacted municipal engineers and architects to gather the background material for his study, through intense correspondence.

If asked to give a recount of the history of covered markets in nineteenth-century Italy by building type—a recount which could resemble the one proposed by Nikolaus Pevsner in his famous *A History of Building Types* (1976)[8]—as a first step one should select the most important edifices built and designed in Italy during that period. Therefore the list of buildings analysed across the various editions of Boldi's volume could provide the starting ground,[9] to be integrated with the findings from other research projects. However, various scholars of Eclecticism in architecture approached the topic from a typological viewpoint and reached the implicit conclusion that the history of covered markets in Italy is of less interest than the history of other building categories (theatres, banks, covered arcades), seen as more representative of the professional culture of the time. On the other hand, a similar typological approach was already entrenched in the discourse on cities which the urban elites of the nineteenth and early

8. Nikolaus Pevsner, *A History of Building Types*, Princeton University Press, Princeton, New Jersey, 1976. The volume dedicates a chapter to *Market Halls, Conservatories and Exhibition Buildings*, p. 235-236.

9. Boldi, *Per i mercati coperti*, op. cit., ch. 3 (*Descrizione dei principali mercati coperti eretti in Italia nel XIX secolo*). The 1892 edition, p. 67-101, lists the projects executed in eighteen cities, i.e., Turin, Asti, Novara, Venice, Milan, Pavia, Porto Maurizio, Trieste, Fiume, Bologna, Forlì, Leghorn, Florence, Rome, Naples, Palermo, Catania, Cagliari. The list includes Trieste and Fiume (Rijeka), two cities situated in the territory of the Austro-Hungarian Empire that many people hoped to see annexed to the new State. Neither of the cities were included in the 1899 edition, p. 143-198, to which Vercelli, Monselice, Crema, La Spezia, Genoa, Parma, Siena, Gallipoli, Acireale, Caltagirone, Paternò and Messina were added, for a total of twenty-eight cities.

twentieth centuries tried to impose in their local contexts. They suggested assessing the efficiency of local authorities based on whether certain buildings, considered the symbol of a better organisation of the urban fabric, had or had not been constructed. Is it not the historian's task to question the validity of these expressions as well?

This chapter suggests a different approach. It intends to compare the policies for covered markets developed in four Italian cities (Turin, Milan, Florence and Rome), in the period between the unification of Italy (1861) and the First World War. On the whole, the study of the Italian case will exclude the analysis of certain edifices of architectural relevance, in particular of some markets built in medium-sized cities such as Leghorn or Venice, and in medium to small-sized towns such as Pavia or Lecce.[10] This choice, however, will allow us to make a broad comparison of our cases by examining not only the constructions, but also the choices made, the hypotheses proposed, the discourses about the city and the impact of these processes on urban transformation.

According to the 1817 census, the four cities examined in this chapter were the largest in central and north Italy. They had similar sizes (Florence, 167, 000 inhabitants; Milan, 199, 000; Turin, 212, 000; Rome, 244, 000). In the following decades, however, they followed diverging trends. Florence experienced a modest growth (225, 000 inhabitants in 1911), in contrast to the greater growth of Milan, Turin and Rome (601, 000, 416, 000 and 522, 000 respectively).[11] The four cities played a major role in post-unification Italy. Turin, Florence and Rome, in this order, were named Capital City of the State (the first in 1861, the second in 1865 and the third since 1871). As such, they had considerable resources available to effect public works

10. Particularly interesting is the case of Venice, especially because of the number of proposals presented throughout the nineteenth century for the renovation of Rialto Market. In 1881 the construction of an iron-roofed market planned by municipal engineer Forcellini began. Completed in 1884, it would be pulled down in 1908 to be replaced by the Pescheria, a building inspired in historical Venetian architecture and designed by painter Cesare Laurenti in collaboration with architect Domenico Rupolo. See, among other references, Giandomenico Romanelli, *Venezia Ottocento. Materiali per una storia architettonica e urbanistica della città nel secolo XIX*, Officina, Rome, 1977, p. 315-329; *Mercato del pesce a Rialto*, in Giuseppe Pavanello and Giandomenico Romanelli (curators), *Venezia nell'Ottocento. Immagini e mito* (exh. cat.), Electa, Milan, 1983, p. 231; and Sergio Barizza, *Mercato*, in Lionello Puppi and Giandomenico Romanelli (curators), *Le Venezie possibili da Palladio a Le Corbusier* (exh. cat.), Electa, Milan, 1985, p. 197-202. The recent purchase of the Cesare Laurenti Archive by the Musei Civici de Venècia enabled the organisation in 2008 of a small exhibition on the Pescheria held inside the Galleria Internazionale d'Arte Moderna de Ca' Pesaro.

11. SVIMEZ, *Un secolo di statistiche italiane. Nord e Sud*, Rome, 1961, p. 1038-1039. In 1871 in Italy ten cities had over a hundred thousand inhabitants (four cities over two-hundred thousand), which increased to thirteen cities (eight cities over two-hundred thousand) in 1911.

projects, the implementation of which also carried symbolic weight. During these years Milan established her role as a city with a European vocation, a role that had already been its leitmotif in the previous century. For the time being, our comparison excludes the two largest cities in south Italy, i.e., Naples (which grew from 448, 000 inhabitants in 1871 to 669, 000 in 1911) and Palermo (from 219, 000 to 336, 000 inhabitants).[12]

Although it cannot be said that Turin, Milan, Florence and Rome are fully representative of the complexity and diversity of Italian urban structures, overall the four managed to adequately convey the discourses and the policies for markets in post-unification Italy. While this was a time when various cultural and administrative forces tended to standardise the (technical and bureaucratic) tools governing cities, the choices made in each single context and their impact on the transformations tended to be dissimilar. This shows how the fragmentation of the country, deeply rooted in the history of pre-unification Italy, persisted.

Florence

The most important covered market built in Italy in the nineteenth century, San Lorenzo Market in Florence was one of a range of projects that were advanced when the city was designated Capital City of Italy in 1865.[13] Florence lost this role in 1871, when Italian troops conquered Rome. The construction of the market was accomplished only in the following years (1870-1874) in a profoundly different context. This edifice can be seen as the embodiment of the transition from the grand programmes of Florence as a capital city to the policies of the years that followed, especially as far as the reorganisation of the town's central areas is concerned. The latter entailed the relocation of the commercial activities that had been previously based in the Mercato Vecchio area. The market facility (along with other surrounding constructions) was designed by an architect from Emilia Romagna, Giuseppe Mengoni, notorious for the building of Galleria Vittorio Emanuele II arcade in Milan, an emblematic example of the debate between local experts and external professionals characterising the Florentine case. The wholesale market was moved from the centre of Florence, to be relocated in an area just a short distance away. This confirms how the market maintained its central location through

12. Boldi, *Per i mercati coperti*, op. cit., 1892 ed., p. 91-95. As for Palermo, and in particular the 1860 projects signed by Giuseppe Damiani Almeyda, compare with Eliana Mauro *I nuovi mercati*, in Gianni Pirrone, *Palermo, una capitale. Dal Settecento al Liberty*, Electa, Milan, 1989, p. 65-76.

13. This choice followed the September Convention stipulated with Napoleon III in 1864. It was endorsed by an Act of 11 December of the same year, enforced on 1 June 1865.

time, as a long-lasting phenomenon. By virtue of this continuity, the market of San Lorenzo eventually became a characteristic feature of the area, even after it was no longer used as a wholesale market.[14] This was not the case of many other covered markets in Italy.

Discussions about refurbishing the Mercato Vecchio district in Florence lasted throughout the eighteen sixties and accompanied a growing interest in the city centre and its arrangement.[15] The issue was first raised by private companies: in 1859 a committee suggested Florence's *gonfalonier* to build two markets simultaneously, one in Florence and one in Leghorn, in return for the concession of the two edifices. Soon after the unification in 1861, another committee, partly related to the previous one, advanced a more specific proposal, accompanied by a project by architect Giuseppe Del Noce. This time the municipal administration reacted to the proposal and commissioned the drafting of a counter-project to municipal architect Luigi del Sarto. The proposals shared the hypothesis that the new market kept its previous site and should consist of a wide open-air space surrounded by shops and dwellings for traders. The solution did not meet with unanimous consensus and architect Giuseppe Poggi took a public stance which contributed to cast it aside.[16] His memoir titled *Dei pubblici mercati in Firenze*, read to the Academy of Georgofili in 1862, conveyed his stance particularly well. Poggi stressed how it was necessary to conduct a general study on the possible reorganisation of markets, prior to making any decision on the matter. He recommended that a range of covered markets be built in Florence as well, organised into one main central market and three secondary markets. In his report he also underlined the need for removing the main market from the Mercato Vecchio district. These proposals were welcomed into the local debate and led to the selection of a range of sites

14. As for nineteenth-century Florentine markets, please refer in particular to Giuseppina Carla Romby, *Pubblici servizi e città. I centri annonari di Firenze alla fine dell'Ottocento: i mercati delle vettovaglie, i macelli, il mercato del bestiame*, 'Bollettino degli ingegneri di Firenze,' 10 (October 1980), p. 8-18; 'Il mercato Centrale dei Camaldoli di S. Lorenzo (1865-73) e quello di S. Ambrogio (1873),' in *Le Officine Michelucci e l'industria artistica del ferro in Toscana (1834-1918)* edited by Marco Dezzi Barbeschi, foreword by Giovanni Michelucci, Pistoia, Cassa di Risparmio di Pistoia e Pescia, 1980, p. 254-7; Fantozzi Micali, *La città desiderata*, op. cit., p. 139-150.

15. As for the debates about the centre of Florence in the second half of the nineteenth century, please refer also to Silvano Fei, *Nascita e sviluppo di Firenze città borghese*, G. & G., Florence, 1971; Id. *Firenze 1881-1898: la grande operazione urbanistica*, Officina, Rome, 1977; Giovanni Fanelli, *Firenze*, Laterza, Rome-Bari, 1980; Osanna Fantozzi Micali, *La città desiderata. Firenze come avrebbe potuto essere: progetti dall'Ottocento alla seconda Guerra mondiale*, Alinea, Florence, 1992.

16. Giuseppe Poggi, *Dei pubblici mercati in Firenze: memoria letta alla Reale Accademia dei Georgofili nell'adunanza del 23 marzo 1862*, Tip. Galileiana di M. Cellini e C., Florence, 1862.

in 1864. The Camaldoli di San Lorenzo district, in the proximity of Santa Maria Novella railway station, was identified as the new potential home for the wholesale market. It was planned to have two secondary markets, one in the San Ambrogio district (to compensate for the loss of San Piero greengrocers market) and one in the San Frediano district (to have a market also servicing the west end, the Oltrarno area). Luigi Del Sarto was commissioned with to study the project.[17]

The process was speeded up after Florence was chosen as the new Italian capital city. The Municipal Assembly voted for the opening of a debenture loan of thirty million liras, to be amortised in fifty years,[18] for the execution of a series of public works, among which was the 'new market' (also found in the first draft of Giuseppe Poggi's general plan).[19] The voting took place soon after Florence became the capital city. A version of Del Sarto's project was ready by the end of 1865. It contained a square floor plan complex, comprising four courtyards, a main covered hall built in cast iron and glass and underground warehouses. Based on these studies, in 1867 the committee decided to initiate the procedures for the construction of the central and the secondary markets. However, the project by the municipal engineer was greatly cast aside on this occasion. Given that the town council wanted the deal to attract as many companies as possible, it decided that profferers should be free to submit their own proposals, even if these were alternative solutions to those envisaged by the council's departments. This choice provoked a chasm within the local authority, where some councillors supported Del Sarto's project and advocated for its implementation. Once the public tender had been initiated, a group of citizens submitted an offer to the council to build the market according to Del Sarto's plans. In spite of the initiatives against, the tender was concluded on 1 September 1868 by the signing of an agreement between the town council and the English company A. Skwarcow & Co., according to which the company agreed to building

17. As for Del Sarto and other architects and engineers quoted in these pages, see the biography tables collected in Carlo Cresti and Luigi Zangheri, *Architetti e ingegneri nella Toscana dell'Ottocento,* Uniedit, Florence, 1978.

18. The decision was authorised by the Royal Decree of 5 September 1865. In addition to the new market, the following works were to be carried out: construction of the aqueduct, implementation of Poggi's project, excise duty walls, Mattonaia district, 'wooden houses', town hall, enlargement of Sdruciolo de' Pitti road, 'works on the new territory', enlargement of Vicolo de'Lanzi alley, works on the Carraia bridge. Fei, *Nascita e sviluppo di Firenze città borghese*, op. cit., p. 41.

19. As for Poggi and his role in the years when Florence was the capital city, please see Franco Borsi, *La capitale a Firenze e l'opera di G. Poggi*, Colombo, Rome, 1970; *Giuseppe Poggi e Firenze: disegni di architetture e città* (exh. cat., Uffizi, December 1989 - January 1990), Alinea, Florence, 1989; Carlo Cresti, *Firenze, capital mancata. Architettura e città dal piano Poggi a oggi*, Electa, Milan, 1995.

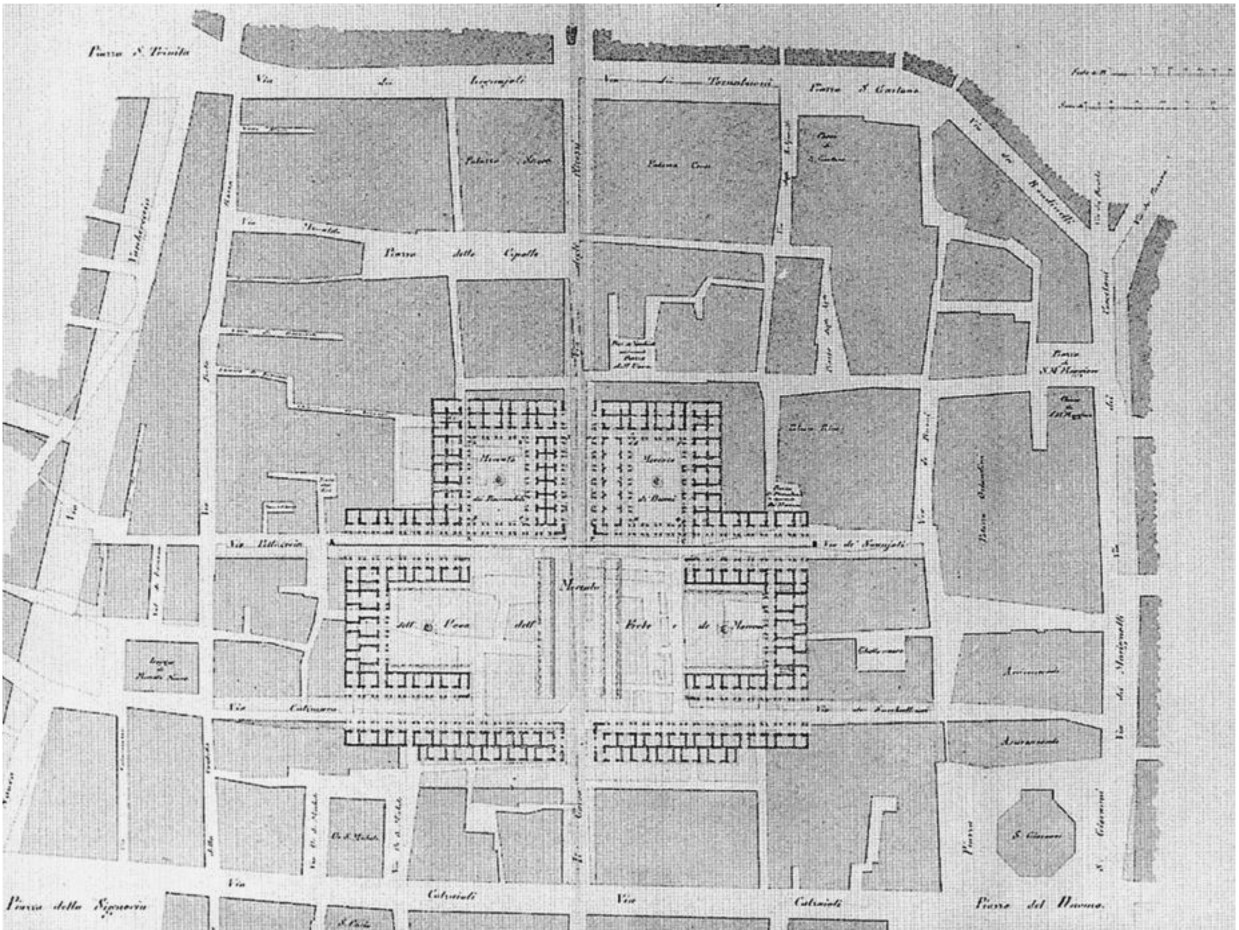
the new central market out of its own pocket, in return for a sixty-five year trading licence.

In all probability the Skwarcow company was linked to the City of Milan Improvements Company Ltd., which had been in charge of the construction works of Galleria di Milano (opened on 15 September 1867) and of the renovation works in Piazza del Duomo (still far from being completed), based on Giuseppe Mengoni's designs,[20] since 1865. Mengoni himself was asked to act as a consultant in the negotiations between the company and the council, to better the project advanced by the company. Mengoni worked closely with both parties.[21] Thanks to his contribution, Skwarcow's design was more easily accepted by the various actors in the Florentine debate. Moreover, the solutions proposed by the English company gradually became more compatible with those contemplated by Del Sarto, generating an even easier acceptance. In virtually no time at all Mengoni gained a prominent position of control in the future construction, to the detriment of the British company, which soon ceased to exist.

The change of scene was ratified in March 1869, when the council decided to breach the agreement signed with Skwarcow & Co. six months earlier, disregarding the projects currently under discussion and abandoning the idea of entrusting the market construction to a private company, taking responsibility over both the building and the management of the facilities. The draft of a new project was commissioned precisely to Mengoni. One could assume that this decision was also influenced by the financial strain that the City of Milan Improvements Company was evidently experiencing at the time, as a result if which Milan City Council purchased the buildings that had been completed and took full charge of the renovation works in

20. Several variations of the company name appear in the archive's documents (Sharcow, Skarcov, Skwarcoff, etc.). In the heading of the letters written by the company and forwarded to the Council of Florence, the name 'A. Skwarcow & C.' was used rather consistently. One can presume this company was A. Skwarcow & Co. based in Sheffield, found in the 1857 *White's Directory of Derbyshire* in the sections about Sheffield Iron & Steel Merchants and Ironmasters. In the historiography of Florence the relationship between Skwarcow and City of Milan Improvements Company has been disregarded to date, curiously enough (this relationship was probably behind the summoning of Mengoni to Florence). Conversely, the correspondence kept in the Historical Archives of the Council of Florence (e.g. in the ASCF, CF 7334) shows that engineer Orazio Baynes, representing Skwarcow in its relationships with the Council, was occasionally writing on the Milanese company headed paper.

21. The changes brought about by Mengoni can be summed up in a different arrangement of the wide central space (split into three naves, covered by one single roof), and in the planned addition of side courtyards and of 'crystal slat shutters' for all vertical openings.



Design for a market in Florence, 1861. Architect: Luigi Del Sarto

Piazza del Duomo.[22] However, the decision made by the Florence council did not silence the controversies, for two reasons: in the first place, because the council abandoned a number of projects that had already reached an advanced stage of development, and secondly, due to the mistrust of the private initiatives that seemed to be influencing the new choices. Such criticism was voiced in a pamphlet published in 1869 by Luigi Ridolfi, a member

22. The purchase agreement to whose terms the council would acquire the Galleria di Milano, the completed edifices and the areas and materials owned by the English company, is dated 13 October 1869. Laura Gioeni, *L'affaire Mengoni: la Piazza del Duomo e la Galleria Vittorio Emanuele di Milano. I concorsi, la realizzazione, i restauri*, Guerini, Milan, 1995.

Mercato Centrale, Florence, 1870-1874, ca. 1890. Architect: Giuseppe Mengoni

of the Municipal Assembly Commission who had assessed the projects by Mengoni-Skwarcow and Del Sarto and favoured the former.[23]

Mengoni's new project was more ambitious than previous designs, since it encompassed the road network and the surrounding urban fabric and, in addition to the market, it provided for six more annexed buildings (which were never erected). The project was ready by the end of the year and was approved by the council on 15 February 1870, following some modifications. At the same time, Mengoni's projects for the secondary markets of San Ambrogio and San Frediano were also approved. Meanwhile, the town

23. Luigi Ridolfi, *Due progetti pei nuovi Mercati della città di Firenze dinanzi al Consiglio Comunale. Relazioni e discorso del M. se Luigi Ridolfi nella sessione straordinaria del febbraio 1869*, printed by M. Cellini & C. at Galileiana, Florence, 6 March 1869.

council had purchased the land allocated for the construction of the premises, demolishing existing buildings and thus enabling the project to be initiated shortly after engineer Tommaso Riccardo Guppy's[24] Naples-based company won the tender. Just in time for the project to barely suffer the transfer of the capital city to Rome (1871), although soon afterwards this would influence many of the great projects conceived during Florence's five-year government as Capital City of the State.[25] Broadly speaking, the programme for the building of the market was met. Construction work came to an end in December 1873 and the central market hall was inaugurated on 11 May 1874 as a conservatory for tropical plants on occasion of the International Horticultural Exhibition and the International Botanic Congress. The building soon became an icon of Florentine modern architecture, as proven by its inclusion in the *Raccolta delle migliori fabbriche antiche e moderne di Firenze* by Mazzanti and Del Lungo, first published in 1876,[26] which dedicates eleven plates to the building. Nevertheless, the design was criticised in specialised writings, both in terms of its functionality and of its architectural solutions. Mengoni, a draughtsman not originally from Florence, was chided for importing a foreign architectural model such as the Parisian Halles to the local context. Such a criticism had already been formulated in a leaflet about the building, published in 1874,[27] and was proposed again in 1881.[28] A few years later it could also be read in the pages of Boldi's market monograph.[29]

24. Almost simultaneously, the expropriations and the works for the construction of two secondary markets took place. San Ambrogio Market opened in 1873 and San Frediano Market in 1875.

25. It is the case of the cattle market designed by architect Felice Francolini, next to the new abattoir, under construction in 1869. See Carlo Cresti, G. Orefice and Giuseppina Carla Romby, 'Analisi storica della vicenda progettuale e realizzativa dei Pubblici Macelli e del Mercato del bestiame', in *Museo Nazionale di Storia naturale a Firenze. Ipotesi di insediamento*, Municipality of Florence, University of Florence, Florence 1987, p. 131-150.

26. Riccardo Mazzanti, Enrico Mazzanti, Torquato del Lungo, *Raccolta delle migliori fabbriche antiche e moderne di Firenze*, Giuseppe Ferroni, Florence, 1876-1880.

27. R.M. [Riccardo Mazzanti], G.P. [Giovanni Pini], *Il nuovo mercato centrale di Firenze*, Florence, typography of the Dictionary directed by G. Polverini, 1874. The pamphlet (sometimes erroneously attributed to Giuseppe Poggi), clearly shows its preference for Del Sarto's project, which was rejected.

28. Pietro Comparini, 'Notizie intorno ai progetti per il riordinamento del centro di Firenze'; Antonio Canestrelli, 'Considerazioni generali sui mercati a proposito del Mercato Centrale di Firenze,' *Atti del Collegio degli Architetti ed Ingegneri in Firenze*, VI, 1 (January - April 1881), p. 17-26. The two articles, Comparini's in particular, reckon that the new markets 'do not fully meet the necessities … they were built for.' This would explain the difficulties that the projects for the 'rearrangement of the centre' were experiencing. They claim that the reason is to be found in the adoption of the 'French market model' without taking into account the particular Florentine habits, such as the need for spacious warehouses.

29. Boldi, *Per i mercati coperti*, op. cit., 1892, p. 87-91. Boldi recalls the pamphlet by Mazzanti and Pini and adds that 'experience partly demonstrated that the two experts' notes were correct' and quotes

Despite its swift completion, the building remained unused for quite some time, since its construction was part of a wider urban re-planning strategy of more complex implementation. Indeed, after 1871 the transformation strategies developed when Florence was the capital city had to face a new context, characterised by the crisis of the property market, the State's loss of interest in Florentine transformations and a problematic budgetary difficulties that made the town council bankrupt, as a result of which in 1878-1879 the government set up a Liquidation Committee to clear the city's debts. In this scenario, the 'redevelopment' of the city centre, especially in the Ghetto and in the Mercato Vecchio districts, was just one of the few public works programmes still confirmed, indeed reaffirmed, in the agendas of the local elites. Thus, a series of projects was discussed in 1877, expropriations began in 1884 and a definitive project was approved in 1888; works came to an end in the eighteen nineties.[30]

The renovation of the city centre to accommodate the new building was particularly thwarted by the Mercato Vecchio traders, since it was difficult to generate consensus among them. The town council tried to overcome their opposition through direct negotiation rather than expropriation procedures. The report of the visit that the Florentine municipal police paid to the market with a group of dealers and shopkeepers in 1876 to gather their comments and doubts[31] is in this sense representative. The building was not used as a market until 1881 and, as Boldi tells us, it would take another decade for the building to attain the intended volume of transactions.[32] The relocation of the market marked the onset of one of the major transformations of urban centres in liberal Italy; the interesting upshots and debates it raised in the late nineteenth century nourished architectural culture and with the formulation of new ideas that enhanced the values of the historical city.

Comparini's article in full. Although his volume agrees with most of the criticism expressed by the Florentine engineers, it already suspects that their criticism was probably moved by 'their being aware of the fact that the Municipality of Florence thought it was opportune to entrust the drawing of the market project to a Milanese architect.'

30. Fei, *Firenze 1881-1898*, op. cit.

31. Report of the visit to the market by the Municipal Police with Mercato Vecchio merchants, 22 June 1876, in ASCF, CF 7149, p. 588*r*-595*v*.

32. Boldi, *Per i mercati coperti*, op. cit., 1892, p. 90: 'The market is currently quite busy; however it had to be operative for ten years to reach such a growth. Had it not been for the appropriate improvement works, a decade would probably have not been sufficient.' Among the improvement works, Boldi recalls the addition of four new entrances at the corners, the addition of piles of containers to shelter vendors from the wind, the replacement of some glass fences by wooden fences and the painting of some glass windows for better sheltering from the sunlight.

Milan

In 1885 the Milan Association of Engineers and Architects published *Milano Tecnica*, in collaboration with Ulrico Hoepli, publisher and bookseller. In over six hundred pages, the book documented a range of projects executed in the city in the years following Milan's annexation to the Kingdom of Italy (1859).[33] The book, which was promoted on occasion of the 1884 National Exhibition of Turin, was a positivist declaration of faith in the role that engineering and technical knowledge were able to play in the modernisation of large cities in post-unification Italy. It analysed public works as the construction of Galleria Vittorio Emanuele II arcade, the building of the monumental cemetery, sewerage, commons, tramway lines and the electric lighting system.[34] Particular emphasis was placed on the dimensional and constructional details, paying tribute to the idea that experiences are transferable and that technical manufactured products are comparable. More specifically, two chapters were dedicated to covered markets and to the new public slaughterhouse with its annexed cattle market, respectively.

Milan's open-air public slaughterhouse—like other initiatives—was the object of pride of technical modernisation policies of the post-unification years,[35] also for being the first facility of this kind to be established in the city. Until the year 1869, animals in Milan were slaughtered in butchers' shops. With the construction of the municipal abattoir, this activity could eventually be removed from the urban fabric and concentrated in one single facility. The slaughterhouse was erected between 1861 and 1863 on a private company's proposal,[36] which built it out of its own pocket in return for a forty-one year monopoly of the facility concession. Located in southwest

33. Association of Engineers and Architects, *Milano tecnica dal 1859 al 1884*, Hoepli, Milan, 1885, Anastatic reprint, L'Archivolto, Milan, 1988.

34. As for Milan in the post-unification years, please also refer to Giorgio Rumi, Adele Carla Buratti, Alberto Cova, *Milano nell'Unità nazionale, 1860-1898*, Cariplo, Milan, 1991; Renato Rozzi, Maurizio Boriani, Augusto Rossari (eds.), *La Milano del piano Beruto (1884-1889). Società, urbanistica e architettura nella seconda metà dell'Ottocento*, Guerini, Milan, 1992, 2 vols.; Giorgio Rumi, Adele Carla Buratti, Alberto Cova, *Milano nell'Italia liberale, 1898-1922*, Cariplo, Milan, 1993.

35. Giovanni de Simoni, 'Il macello pubblico e il mercato bestiame,' in *Milano tecnica*, op. cit., p. 415-419. Please also refer to the remake by Antonio Cecchi, *I nuovi impianti di macello, mercato e scalo bestiame della Città di Milano*, Municipality of Milan, Industrie Grafiche Italiane Stucchi, Milan, 1931.

36. In April 1860 the Council launched a call for proposals for the 'submission of projects for public services', comprising of slaughterhouses. See, for instance, the 'Progetto del pubblico macello e mercato del bestiame per la città di Milano […] proposto dall'architetto Enrico Bardelli,' *Giornale dell'ingegnere, architetto ed agronomo*, vol. 9 (Jan. 1861), p. 71-75.

Milan, near Porta Magenta rampart, the premises were arranged in cells, where each butcher could carry out his own activity separately. Such a structure was also planned bearing in mind the local tradition of 'leaving the carved flesh of large animals under the skin for a few days, so that it could be cured.'[37] It was subsequently enlarged and modified, with the addition (a few years before its closure in 1930) of halls for the collective slaughtering of some animal species, such as swine and horses.[38] Two decades after the abattoir opened, a cattle market was built nearby, on the ring road off Porta Magenta rampart. The building of the facility, designed by engineer Natale Acerbi, was financed by a company which in return secured its management for twenty-one years. By the life span of this concession, one could assume its expiry date was made to coincide with that of the abattoir. As a matter of fact, the town council took over the management of both facilities in 1904. In the meantime, the area along the avenues between Porta Magenta and Porta Ticinese consolidated its vocation as a service area, for which thanks was also due to the construction of Via Filangeri cellblock prison, designed by Francesco Lucca in 1865 and built by the town hall between 1872 and 1879.[39] Lucca was working as an engineer for the Milan Civil Engineering Department.

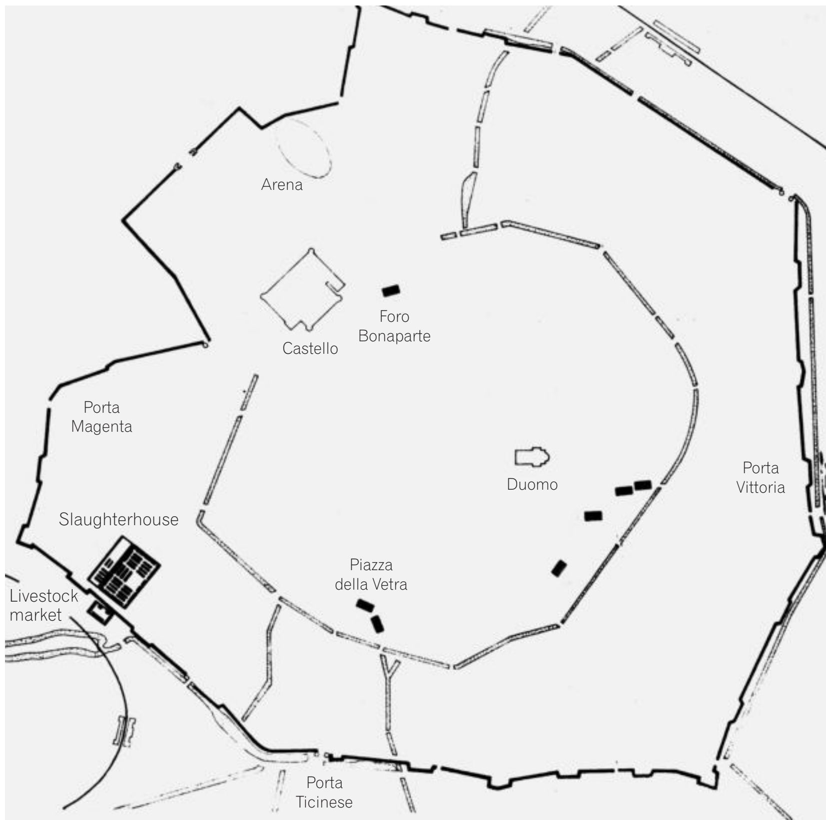
Milano tecnica provided a more critical view of the scenario of Milanese markets, by stating that 'the number of public covered markets existing in Milan to date' was clearly 'inadequate to meet the modern demands of a big city.' Actually the markets presented in the book were only a few and they could not be compared to the number of projects implemented in other European cities in the meantime. *Milano tecnica* mentions three facilities of modest dimensions, harbouring retail markets.[40] The issue of wholesale markets was not even raised and it was obvious that Milan was a long way from implementing ambitious projects, such as the one completed in Florence a few years earlier, or the one more recently finished in the nearby town of Pavia. In this city the large wholesale market-salon for farm produce was inaugurated in 1882, on the initiative

37. De Simoni, *Il macello pubblico*, in *Milano tecnica*, op. cit., p. 415.

38. Cecchi, *I nuovi mercati*, op. cit. The nineteenth-century abattoir was closed down four months after the new abattoir hall had opened. The latter was designed in 1914, but completed in 1930. It was located behind Porta Vittoria goods yard.

39. Tranquillo Magriglio, *Carceri e tribunali*, in *Milano tecnica*, op. cit., p. 247-264.

40. Eugenio Saldarini, *Mercati coperti*, in *Milano tecnica,* op. cit., p. 411-414. The chapter on Milan in Boldi's volume about markets, the first edition of which was published seven years later, is basically a paraphrase of this chapter from *Milano tecnica*, compare with Boldi *Per i mercati coperti*, op. cit., ed. 1892, p. 75-77.



Food provisioning system in Milan highlighting the different markets

of Count Arnaboldi Gazzaniga.[41] Among the covered markets described in the book, two were situated in Piazza della Vetra and were designed by architect Enrico Terzaghi, in 1862 and in 1866 respectively. The second one housed the dairy and egg market, which was held near Ospedale Maggiore.[42] In total they offered just over sixty stalls for permanent dealers, plus some space for external traders. They consisted of a metal arcade,

41. Antonio Cantalupi, 'Il mercato salone Arnaboldi-Gazzaniga di Pavia,' *Il Politecnico. Giornale dell'architetto civile ed industriale*, vol. XXXI, 1-2 (1883), p. 33-38, with three plates separate from the text. The construction of the market was financed by Count Arnaboldi Gazzaniga, then Mayor of Pavia, on occasion of the extension of Avenue Vittorio Emanuele. The building was designed by architect Ercole Balossi.

42. Historical Archive of the Municipality of Milan (ASCT), Municipal Proceedings, 1866, p. 374, n. 70.

quite simply designed, and of masonry pavilions. The third market, in the vicinity of Foro Bonaparte, was built between 1870 and 1873. It was designed by the Municipal Technical Department, to be precise by Agostino Nazari, with Eugenio Saldarini acting as assistant engineer. Saldarini, who edited the article featured in *Milano Tecnica*, highlighted the advantages of the most traditional masonry constructional solutions which, he reckoned, enabled cost contention and the creation of an 'edifice that is unusually shaped, but serves its purpose.'[43] One of the most interesting features of Foro Bonaparte Market is the space destined to external vendors, i.e., four covered courtyards separated from the arcades used by resident merchants. None of the aforementioned markets would survive more than two decades after the publication of *Milano tecnica*, a demonstration of how this model was rapidly becoming obsolete. The Foro Bonaparte edifice was sold in 1902, whilst the Piazza della Vetra building was demolished in 1905, by which time it was no longer used by traders and was often the target of acts of vandalism,[44] according to the sources we have consulted.

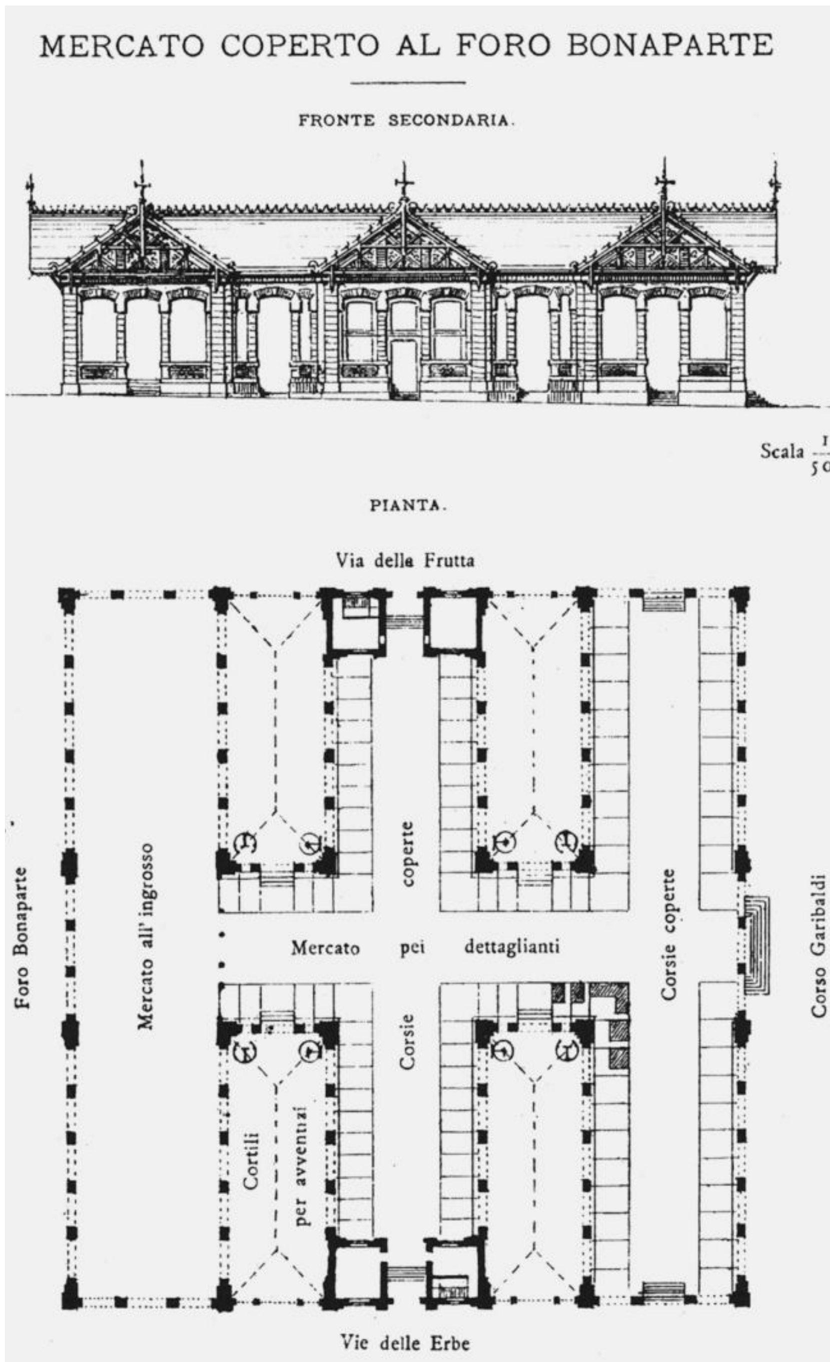
While these markets were under construction, Milan wholesale grocery market, the so-called Verziere, was still held outdoors, in the Piazza Santo Stefano district, right in the centre of the city. In 1873 it was moved to Porta Vittoria Avenue.[45] It was only in the second decade of the twentieth century that this location, far from being perceived as ideal, was abandoned and a huge covered market was erected. The Municipal Assembly formed a first committee to study the issue in 1905. The idea was to build a facility managed by the council. The project was ready by 1907 and completed in 1911, at a total cost of four and a half million liras, two million of which were spent on the purchase of the land. The chosen location was on Corso XXII Marzo, near the Porta Vittoria goods station. Conveniently located near the transport facilities, it had the advantage of not moving the market very far from its previous grounds.[46] As the site was slightly irregular, the structure designed by the Municipal Technical Department was laid out according to a concentric plan. The facility comprised areas for the three major

43. Saldarini, 'Mercati coperti,' in *Milano tecnica*, op. cit., p. 411.

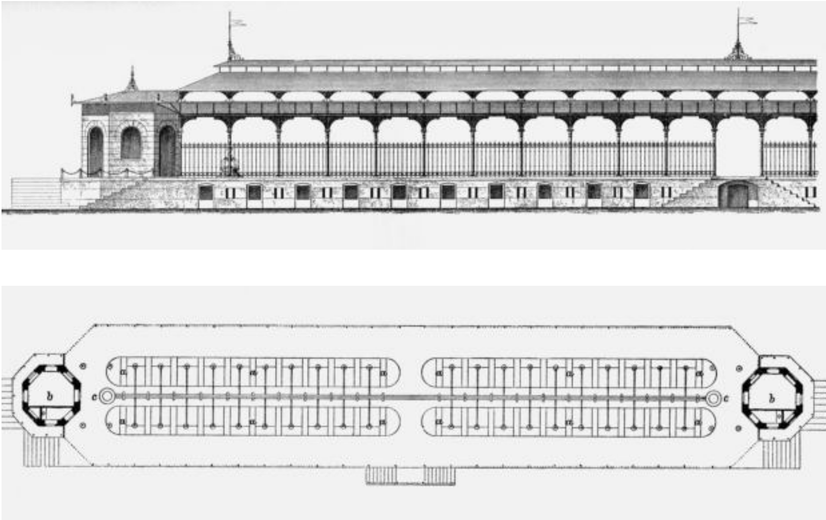
44. Historical Archive of the Municipality of Milan, Municipal Proceedings, 1902, I, p. 223, n. 156; 1905, I, p. 340, n. 257.

45. Piero Montagnani, Pery Batelli, 'Il cívico mercato ortofrutticolo di Milano,' *Città di Milano*, 4-5 (April -May 1947).

46. As for the construction of Porta Vittoria goods yard, compare with Corinna Morandi, 'L'adeguamento del sistema infrastruttura letral' Unità e la fine del secolo, in *La Milano del piano Beruto*, op. cit., vol. I, p. 191-217.



Design for the Bonaparte Forum Market, Milan, 1870-1873. Architect: Agostino Nazari. Engineer: Eugenio Saldarini

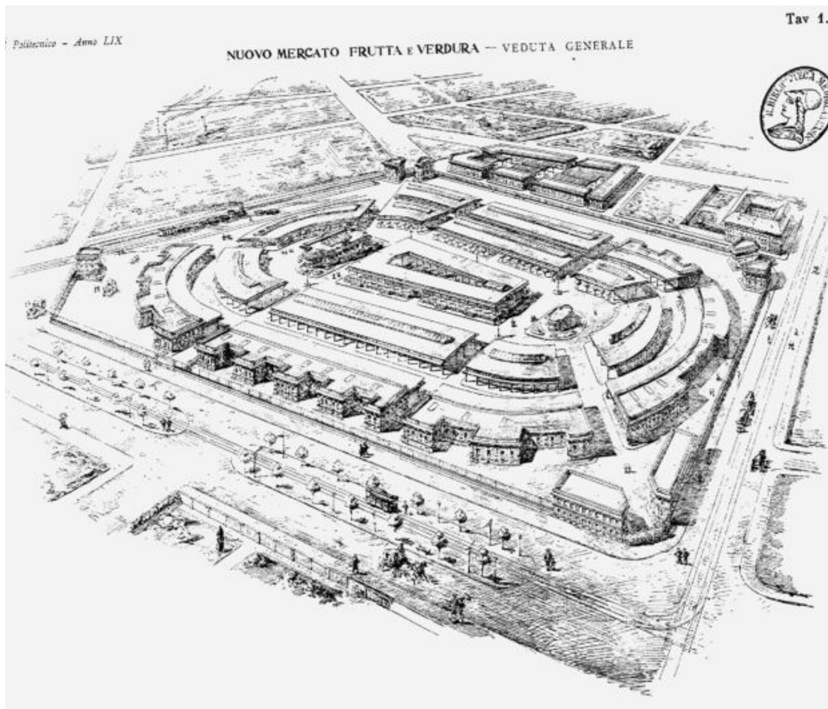


Elevation and ground plan of the Vegetable Market, Milan

players converging in the market, according to 'inveterate local customs': facing the street were the warehouses and porticoes of masonry and reinforced concrete used by 'wholesale greengrocers, who received their goods chiefly from the railway depot'; closer to the centre stood the metal arcades, 'used by costermongers from the surrounding countryside who carried their produce to the market by wheelbarrow, where they sold them directly'; the central area was occupied by the reinforced concrete porticoes, used by 'retailers commonly known as *racattatoni* (harvesters, pickers) who purchase goods from wholesalers and retail them to the greengrocers who visit the market to buy their supplies.'[47] In addition to sheds, warehouses and stables, the project provided for a café, an inn, sanitary facilities, a post office, a public telephone, a bank counter and several administration offices, located in an adjacent area. At first the project also provided for the possible construction of a siding to connect the markets to the Porta Vittoria goods yard. However the siding never came to life and, over time, automobile transport acquired an increasing relevance in the functioning of the facilities.[48] The complex

47. I took these descriptions from G.S.,'Il nuovo mercato frutta e verdura della città di Milano,' *Il Politecnico. Giornale dell'architetto civile ed industriale*, series 2, vol. LIX n. 8 (April 1911), p. 225-235, with five full-page illustrations.

48. Montagnani, Batelli, *Il civico mercato ortofrutticolo*, op. cit. From the same authors, refer also to 'I mercati rionali coperti della città di Milano,' *Città di Milano*, 8-9 (August-September 1947);



General view of the greengrocery market in Porta Vittoria, Milan

(partly rebuilt after it was damaged during the Second World War) was demolished in 1965, to be replaced by a public park, Parco Marinai d'Italia. Only the so-called *palazzina Liberty* or Art Nouveau Villa was kept. A new wholesale greengrocery market was built not far away, in the Calvairate district, close to the slaughterhouse and the cattle market. These new facilities added to the role of 'food and provisions district' that this area of urban growth had acquired.

Turin

Descrizione di Torino by Davide Bertolotti is a compilation of information and statistical data published in 1840 and financed by the Municipality of Turin on occasion of the Congress of Italian Scientists held in Turin. The book

reprinted excerpt, Milan, undated (1947). It recreates the interesting experience of the eleven retail covered markets, the construction of which began in 1928 in various Milanese districts. Initially they were conceived as places for the sale of basic necessity groceries, at controlled prices.

dedicates a chapter to the issue of 'Consumption, Markets, Slaughterhouses, Cemeteries', presenting the case of Turin as more original and more advanced than those of other Italian cities. According to this interpretation, the originality of the policies applied by the local council had to do with the decision of moving markets and abattoirs away from the city centre and concentrating almost all of them on the outskirts of residential areas. This strategy can also be explained by recalling some of the peculiarities of Turin's town planning:

> 'Grocery markets are usually located in the central areas of towns, an emplacement naturally dictated by the convenience of citizens who, day after day, must buy their provisions from them. Nonetheless, not a single individual is unacquainted with the clutter, the dirt, the crowd, the haste and the ado they generate. The shape of Turin and the relatively short extension of its roads, originating from the centre, have favoured the implementation of a bold innovation that is probably unfound in other towns. It consists in the relocation of grocery markets from the centre to the outskirts, an advantageous situation since it brings these inconveniencies to an end with no disturbance to citizens.'[49]

Bertolotti recalled that many of the new Torinese markets were covered (thinking of the 'convenience … that these markets be sheltered from the inclemency of the weather and the seasons')[50] and situated not far from slaughterhouses and meat markets, 'the proximity of slaughterhouses and grocery markets is an outstanding improvement in this city.'[51] In his words, the main traits of a policy focusing on moving trade away from the city centre were efficaciously summarised. His viewpoint was not distant from that of the local authorities. The policy had been pursued quite systematically during previous years and was virtually accomplished by the middle of the century. The history of Torinese markets in the post-unification period witnessed an increasing improvement of these choices on the one hand, and various attempts at departing from this model on the other hand, dictated by the needs emerging from the expansion of Turin.[52]

49. Davide Bertolotti, *Descrizione di Torino*, G. Pomba, Turin, 1840, p. 69-80 (cited on p. 73).

50. Ibid., p. 73.

51. Ibid., p. 74.

52. With regard to the history of nineteenth-century Torinese markets, please refer, in particular, to Luisa Barosso et al *Mercati coperti a Torino*, Celid, Turin, 2000; Dino Coppo, Anna Osello (eds.), *Il disegno di luoghi e mercati a Torino*, Celid, Turin, 2006. Most of the information provided in the following pages is extracted from these two volumes.

The truth is that in the early nineteenth century Turin had a compact urban layout. The city had experienced growth during the previous century by developing gradually within its surrounding walls. At the turn of the century, during Napoleon's occupation,[53] it was decided that the walls would be demolished. Urban services were reorganised during the first half of the century, in concomitance with the arrangement of suburban lands, now free of these defensive structures. In both processes we detect an implicit trend to concentrate several service activities in the growing areas of the north and the northwest; contrariwise, we can assume that the south end was mainly used for residential expansion.[54] In the eighteen twenties and thirties, due to various successive decisions, the main cemetery, some hospitals, the abattoirs and the markets were erected in the northern suburbs of the city.[55]

The construction of municipal slaughterhouses on the outskirts was a relevant aspect of these policies, especially when compared to the policies enacted in Milan where, as already explained, it was not until the second half of the century that slaughtering activities began to be concentrated in specific areas. Conversely, in Turin the ban on slaughtering in town butchers' shops and the construction of purpose-built public facilities dated back to the eighteen twenties. Construction work on the Dora abattoir (near Porta Palazzo) and the Po abattoir (near Piazza Vittorio Emanuele I) began in 1825; the buildings, designed by Giuseppe Formento and Gaetano Lombardi respectively, opened in 1828. During the same period, a third group of slaughterhouses was introduced in the western suburbs, located inside existing facilities. The construction and the rather even distribution of municipal abattoirs along the north western perimeter intended to prevent the traffic of cattle and meat from crossing the city. Around the eighteen forties the possibility of completing this plan with the erection of a fourth abattoir in the south end was discussed; the facility, however, would never be built.[56] The fact of privileging the north end of the city, especially the Porta Palazzo abattoir, can also be explained by the established presence of slaughtering activity in the area. During the eighteenth century some parts of the

53. Vera Comoli Mandracci, *Torino*, Laterza, Rome-Bari, 1983.

54. Filippo De Pieri, *Il controllo improbabile. Progetti urbani, burocrazie, decisioni in una città capitale dell'Ottocento*, Franco Angeli, Milan, 2005.

55. Franco Rosso, 'La Restaurazione: da Vittorio Emanuele I a Carlo Alberto (1814-31),' in Enrico Castelnuovo, Marco Rosci (eds.), *Cultura figurativa e architettonica negli Stati del Re di Sardegna (1773-1861)*, (exh. cat.), 1980, Turin, vol. 3, p. 1133-1187.

56. Related projects were drawn in 1843 (a tender won by Antonio Rinaldi from Parma) and in 1846 (a project by Giovanni Barone for a lot near Piazza D'Armi and Via Dell'Arsenale).

city's historical quarter near Porta Palazzo were increasingly specialising in this activity, to the extent that the area around the Roman Palatine Towers would be defined as the 'abattoir district'. In 1724 the Towers had been extended by the council to house butchers' and pork butchers' shops. Farther away from the walls albeit still close to Porta Palazzo, a cattle fair had been held since the end of the eighteenth century, in addition to the Moncalieri fair taking place nearby. The construction of covered slaughterhouses in Porta Palazzo paved the way for the decision of also situating the dairy cattle market in covered facilities. In 1832 the local administration built a factory designed by municipal architect Giovanni Barone, near the Dora slaughterhouse. This idea of situating an abattoir close to a meat market was also implemented in the case of the Po slaughterhouse. In 1832 Giuseppe Formento designed a covered market to be erected close to the Po slaughterhouse on a site between Via della Zecca and Corso San Maurizio.[57]

In view of the significant expansion of the city that was outlined around the middle of the century, the 'peripheral' slaughterhouses of the eighteen twenties began to appear obsolete,[58] which was also due to the approval of the 1851-1852 building plans and to the layout of the new excise duty walls in 1853. The post-unification years marked the decline of the model and the move towards a different concept, based on the concentration of all activities in one single facility, located far from the centre. The choices Milan successfully embarked on during the same years had a definite influence on this change. Thus, after a few initial propositions, between 1864 and 1867 engineer Antonio Debernardi built the new municipal abattoir, arranged in cells (like the Milan facilities and the contemporary Parisian complex of La Villette). The premises were constructed in a large area in the south-western suburbs, close to two important buildings erected in the eighteen fifties, i.e. the excise duty walls and the railway to Novara. This was a growing area that the policies of the eighteen sixties (established by an expansion plan in 1864) seemed to hope to turn into a service area, following a logic that, once again, was not far removed from the Milanese example, especially because of the proximity between the new abattoir and the new gaol—another cellblock structure built in Turin by Giuseppe Polani between 1862 and

57. Maria Ida Cametti, 'Dalle beccherie al Mattatoio civico,' in Barosso, *Mercati coperti a Torino*, op. cit., p. 119-147.

58. Borgo Dora dairy cattle market was converted into an abattoir in 1855, since the Dora slaughterhouse was no longer capable of accommodating all slaughtering activities, especially after a provision taken in 1845. The latter liberalised the access to the profession, but was still forcing slaughtering activities to take place in public facilities.

1871. Between 1868 and 1871 a huge dairy cattle market, designed by Luigi Pecco, was built behind the excise duty walls, again suggesting the idea of a close relationship between abattoir and market activities.[59]

As for markets, again the trend in early nineteenth-century Turin was to remove them from the city centre and erect new ones along the city's perimeter. Once more, these policies privileged the Porta Palazzo district, a quarter that during these years emerged as a large multifunctional exchange pole, capable of hosting transactions of different kinds. It came to be a strongly trade-oriented district, a feature that in the following two centuries would be virtually irreversible; the particular advantages offered by the space (a large area with good connections to the centre and the external road network) contributed to its emergence. During the same years a few important city squares saw their role as trade places greatly reduced or even lost. Such was the case of Piazza delle Erbe, opposite the town hall, the traditional wholesale vegetable market of which was definitively moved on account of the Cholera epidemic of 1835, and of Piazza Carlina, an important eighteenth-century market that gradually lost relevance due to the relocation of some of its activities.

Again, the role assigned to the Porta Palazzo district can be explained by the fact that it was already been hosting certain activities in the previous century, in particular a wholesale fruit market. When the greengrocery market was suppressed in 1835, given its proximity, the district seemed to be the most suited to house the new general market. The chosen emplacement was a wide open space in the Borgo Dora district, close to the River Dora, near the covered cattle market which had just been built. At the same time, the Porta Palazzo square (where the new slaughterhouses had already been built) began to appear better equipped to accommodate retail grocery markets. The marketplace was a wide space with an octagonal ground plan that had been designed as such in the Napoleonic era. During the Restoration years it was gradually built up along its perimeter, thanks to a process of expropriation of the land, which was managed by the council. The buildings were based on the plans successively provided by architects such as Gaetano Lombardi, Giuseppe Formento and Federico Blachier (particular relevance was given to Blachier's plans, which incorporated the space between the square and the façades designed by Juvarra, separating the piazza from the

59. As for the building of the Municipal Abattoir and its annexed market, compare with Comoli Mandracci and Giovanni Maria Lupo, 'Il Mattatoio Civico e il Foro Boario di Torino,' *Atti e rassegna tecnica della Società degli ingegneri e degli architetti in Torino*, new series, XXVIII, 3-4 (1974), p. 48-64.

historical quarter of the city).[60] The market facilities were placed inside this space, initially in two of the four parts into which the square had been ideally divided by the roads crossing it. Once again, in 1836 architect Giovanni Barone provided the plans for the two masonry buildings destined to house the various grocery stalls.[61]

Meanwhile, the re-organisation of abattoirs as planned in the eighteen twenties began to be questioned in the immediate post-unification years, as already explained. The role of Porta Palazzo as a major and consolidated market district, however, proved longer lasting. It was not until Fascist period that the wholesale grocery market was relocated. In the post-unification years the policies for markets enacted by Turin council focused on gradual adjustments and modifications that, on the one hand, promoted the construction of markets in the new growing areas of the city and, on the other, consolidated and re-organised the Porta Palazzo district by means of the erection of new covered premises.

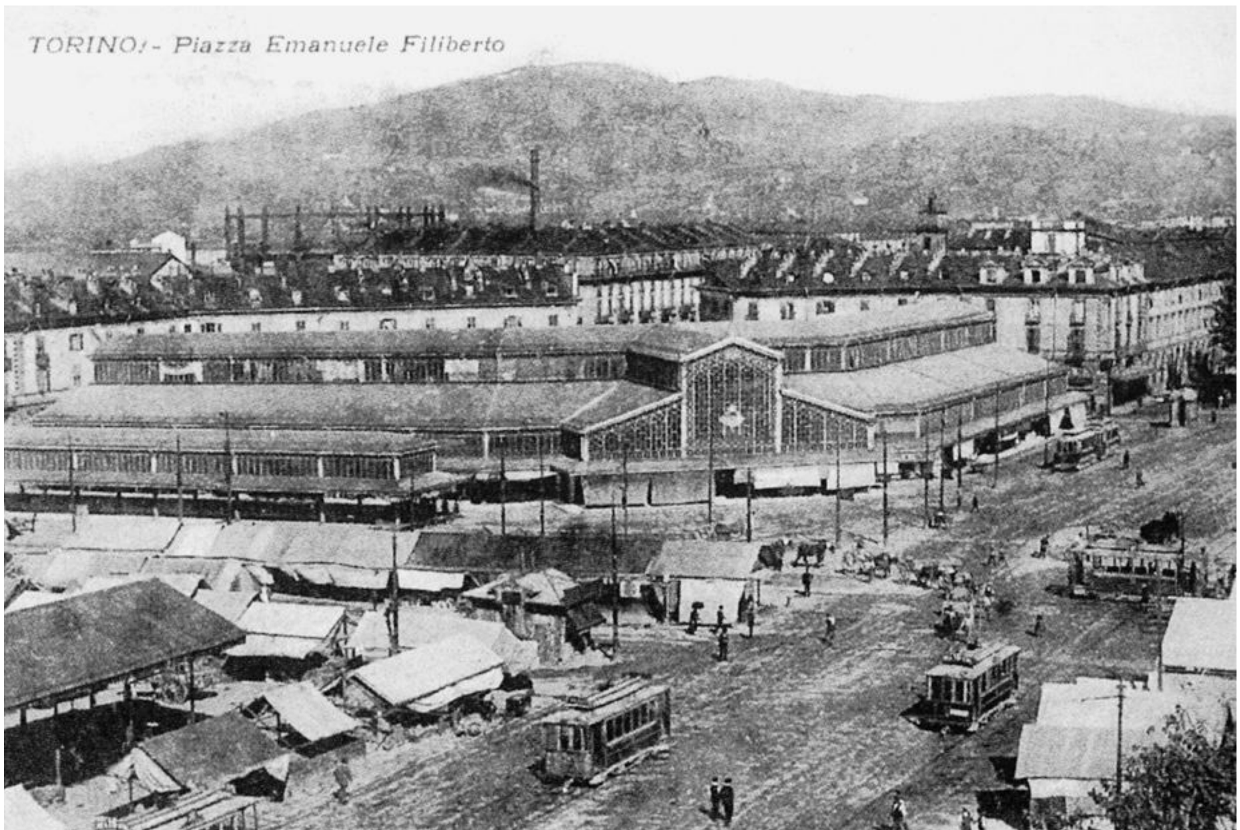
In 1860 the new wine market, designed by municipal architect Carlo Gabetti, proposed a structure made completely of masonry that had to be rebuilt when its roof collapsed in 1863, shortly after it had been completed. In the same years Gabetti himself, in response to a private initiative, designed a covered market for the retailing of grocery located nearby, thus helping to outline a new trade district located around the Via Montebello area.[62] The most up-to-date models were proposed during those years by the engineers in the Municipal Technical Department (*Ufficio d'arte*), who favoured a modernisation process based on the increasingly widespread use of glass and cast-iron roofs.[63] Among their most distinguished works were the Piazza Bodoni covered market (Edoardo Pecco and Carlo Velasco, 1864-1866), financed following the decisions made by a commission concerning the re-arrangement of Torinese markets set up

60. Rosso, *La Restaurazione*, op. cit.

61. According to the 1863 Municipal Commission's report on markets, at the time the two covered edifices were accommodating retail markets for the sale of the following groceries: flour, wood, vegetables, cheese and butter in the southeast building; poultry, game, truffles, fish, herbs, cooked dishes, tripe, lamb and mutton in the southwest building.

62. Please refer to Maurizio Lucat's essays on these buildings, included in Barosso. See *Mercati coperti a Torino*, op. cit., p. 41-71.

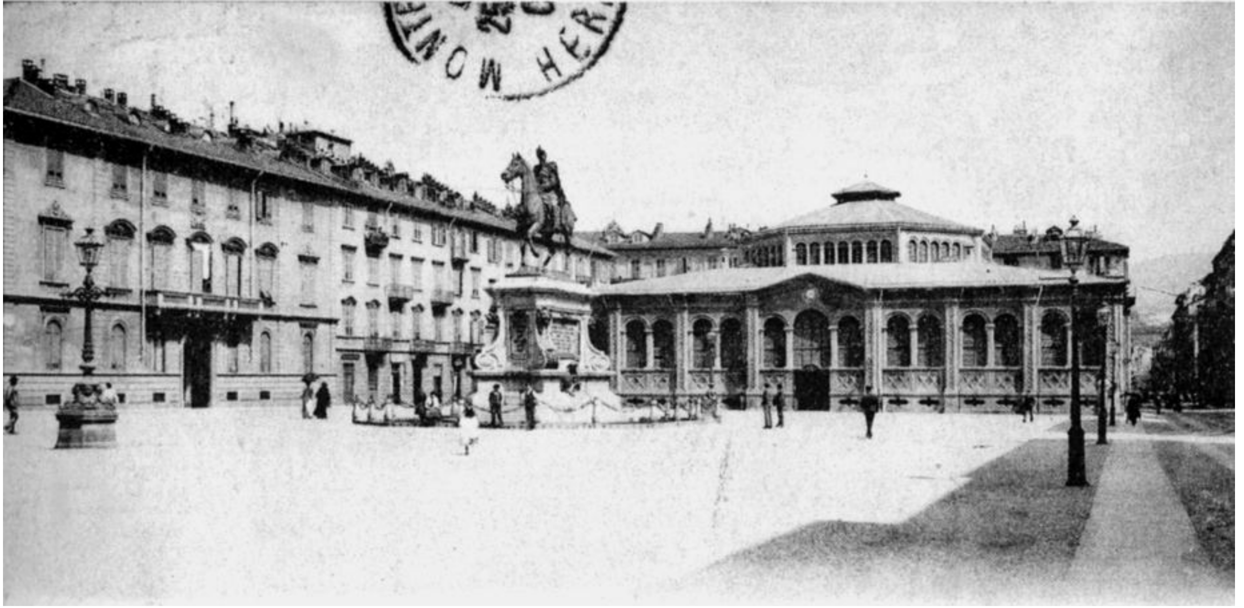
63. During these years the Ufficio d'arte, employing the municipal engineers, was a separate entity from the Ufficio edilizio*,* a minute department comprising one individual, Gabetti. See Filippo De Pieri, 'Nineteenth-century Municipal Engineers in Turin: Technical Bureaucracies in the Networks of Local Power,' in Michèle Dagenais, Irene Maver, Pierre-Yves Saunier (eds.), *Municipal Services and Employees in the Modern City: New Historic Approaches*, Ashgate, Aldershot, 2003, p. 31-46.



Market on Piazza Emanuele Filiberto (Porta Palazzo), Turin. Postcard, 1919

in 1863.[64] Another market was located in the south of the city on Piazza Madama Cristina, at the centre of the newly expanded San Salvario district, which opened in 1866, although its metal roof was only put up in 1879. These modernisation policies also extended to the Porta Palazzo district, which saw the construction of two large metal arcades (designed by Carlo Velasco) in the two northern quadrants in 1883-1884, in addition to the masonry buildings that had been conceived in the eighteen thirties for the southern quadrants. Precisely this range of works of the eighteen sixties to eighties, that widely featured metal structures, attracted the attention of Boldi, whose précis of 1892 acknowledged the innovative effort

64. Alessandra Foglino, 'Mercati in Torino nell'Ottocento. Il mercato di piazza Bodoni,' *Atti e rassegna tecnica della Società degli ingegneri e degli architetti in Torino*, new series, XXXII, 3-4 (1978), p. 78-82.



Market on Piazza Bodoni, Turin. Postcard, 1904

made by one of the most active technical departments in Italy at the time.[65] These innovations stemmed from—and confirmed—the strategies formulated during the Restoration years, which focused on the development of specific areas. As a matter of fact, the major works of the following years continued to involve chiefly the Porta Palazzo district, where projects included the modernisation of the masonry buildings on the south side (1896-1898) and, above all, the construction of two new arcades on the north side, to replace the previous ones, only one of which was erected (1915). The Porta Palazzo district developed in the nineteenth and the twentieth century as a major place for retail and distribution activities, given the spatial proximity of the markets. The rationale behind its development could to a certain extent evoke the (concentrated and multipolar) organisation of the Parisian district of Les Halles *prior* to the transformations of the Haussmann era.[66] The organisation of markets, as defined during the nineteenth century, was only reviewed in the Fascist period. The wholesale greengrocery market

65. Boldi, *Per i mercati coperti*, op. cit., ed. 1892, p. 68-73.

66. Marco Vitali, 'Porta Palazzo e il Balôn,' in *Il disegno di luoghi e mercati a Torino*, Coppo, Osello, op. cit., p. 321-337.

was moved to the south of the city (1931-1933) and housed in a new reinforced concrete edifice located near the railway line, in the growing southern area of Turin. During those years this district was experiencing significant industrial development, another reason for it becoming the centre of the Fascist regime's service policies.[67]

Rome

The reorganisation of markets in Rome, the object of various debates during the last few decades of the nineteenth century, only matured at the beginning of the twentieth century under the somewhat singular administration of Mayor Ernesto Nathan (1907-1913). Originally related to the historical quarters of the city, in particular to the removal of certain sales activities, it then turned into the development of suburban areas, especially of the 'industrial quarter' located between Porta Ostiense and the renovated Basilica of St Paul. Both the new slaughterhouses (1888-1891) and the new general markets were concentrated in this quarter. In this sense, the case of Rome had several similarities in common with the case of Milan, but it differed in one aspect: no covered market was constructed in cast-iron and glass, not even for symbolic purposes (there were also profound social, economic and institutional differences),[68] in spite of the many propositions that can be traced in the sources consulted.[69]

In Rome as well, the reorganisation of slaughterhouses and meat markets had priority and prominence over other market types. It brought solutions similar to the ones adopted in other Italian cities, such as Turin. Reforms commenced in the first decades of the nineteenth century. Initially they concerned the cattle market, which had been moved from Foro Romano on the initiative of Pius VII when the archaeological excavations began.

67. Guido Montanari, *Interventi urbani e architetture pubbliche negli anni Trenta. Il caso del Piemonte*, Clut, Turin, 1992, p. 65-68.

68. With regard to Rome in the liberal era, please refer to Alberto Caracciolo, *Roma capitale: dal Risorgimento alla crisi dello Stato liberale*, Edizioni Rinascita, Rome, 1956; Italo Insolera, *Roma moderna. Un secolo di storia urbanistica 1870-1970*, Einaudi, Turin, 1962; Vittorio Vidotto, *Roma contemporanea*, Laterza, Rome-Bari, 2001; Francesco Bartolini, *Roma dall'Unità a oggi*, Carocci, Rome, 2008.

69. With regard to the history of nineteenth-century markets in Rome, please refer to Francesco Scarnati, *La nascita dei mercati generali all'Ostiense: da Roma italiana al sindaco Nathan. I mercati a Roma dal 1870 al 1913*, Municipality of Rome, Department of Trade and Arts & Crafts Policies, Edizioni C. Lindbergh & P., Rome, 2002; Laura Francescangeli, Oriana Rispoli (eds.), *La memoria dei mercati. Fonti e documenti sulla storia dell'annona e dei mercati di Roma*, Associazione Nuove Tendenze / Municipality of Rome, Department of Trade and Arts & Crafts Policies, Rome, 2006. Here again, most of the information later provided derives from these two publications. I wish to thank Laura Francescangeli (Capitolin Archive) and Marcella Corsi (Museum of Rome in Trastevere) for their help and the information they provided.

Shortly after, the abattoirs were concentrated in one public facility, following a project by Valadier (1822) for the construction of a new slaughterhouse between Piazza del Popolo and the River Tiber. Work began in 1824, according a modified version drawn up by Giovanni Battista Marinetti,[70] inspector of water systems and roads. The facility was used for dairy cattle slaughtering only; in 1868, shortly before Rome was annexed to the Kingdom of Italy, it was enlarged following a project by municipal architect Gioacchino Ersoch to make room for the slaughtering of all types of animals. Twenty years later, due to works for the Tiber channelling, a decision was made (1888) to demolish both the facility and the contiguous meat market and to relocate the entire structure to the Testaccio district. Ersoch was once again commissioned with the design of the new facility, a very ambitious project both in terms of dimensions and of structure. Its construction began in 1888 and was completed in 1891.[71]

In the historiography of Rome, the name Gioacchino Ersoch is indelibly linked to the construction of the Testaccio abattoir. Interestingly, as a municipal architect he was particularly concerned with markets, for the organisation of which he proposed several ambitious projects.[72] His career developed uninterruptedly, first in the departments of the Local Administration of Rome, created by Pius IX in 1847 and at a second stage in the departments of the newly organised Town Council after Rome was conquered by the Italian troops (1870).[73] In 1866, under the administration of Senator Felice Cavalletti, Ersoch endorsed a project for the whole rearrangement of Roman

70. The construction was financed by Gaetano Ferrarini from Bologna, in return for the twenty-year concession of the abattoir and for the collection of taxes on slaughtering.

71. *Roma. Il Mattatoio e mercato del Bestiame costruiti dal Comune negli anni 1888-1891, con progetto e direzione dell'Architetto Comunale emerito Cav. Gioacchino Ersoch. Descrizione e disegni*, Rome, R. Stabilimento Lit. C. Virano& C., 1891. The Municipal Assembly of Rome approved Ersoch's project in its meeting of 21 July 1888. The following year Ersoch ceased his activity, but he was allowed to follow the final stage of the construction of the abattoir and of its annexed Foro Boario, as 'emeritus architect' of the Municipality of Rome. Among the several studies on Testaccio abattoir, please refer to Francesco Perego, *Monumenti differiti: il mattatoio di Testaccio a Roma, l'edificio, la storia, la risemantizzazione*, Clear, Rome, 1993; Giovanna Franco, *Il mattatoio di Testaccio a Roma: costruzioni e trasformazioni del complesso dismesso*, Dedalo, Rome, 1998; Luciano Cupelloni (ed.), *Il mattatoio di Testaccio a Roma: metodi e strumenti per la riqualificazione del patrimonio architettonico*, Gangemi, Rome, 2001.

72. Alberto M. Racheli, 'Gioacchino Ersoch', in *Dizionario biografico degli Italiani*, vol. 43, Institute of the Italian Encyclopedia, Rome, 1993, p. 264-8.

73. After 1870, the municipality was reorganised as per the new 1865 Municipal and Provincial Act. The technical department acquired a format similar to that of other Italian cities, although it had limited reach due to the interference of the State bureaucracies. See Denis Bocquet, Filippo De Pieri, 'Public Works and Municipal Government in Two Italian Capital Cities: Comparing Technical Bureaucracies in Turin and Rome, 1848-1888,' *Modern Italy*, vol. 7, 2 (2002), p. 143-152.

markets, which planned the construction of seven wholesale covered markets, organised by wares (fruit and vegetables, cereals, liquids, cattle, poultry, fish, fuel) and three retail markets. The project was revised and presented on several occasions to the various Municipal Assembly sessions which took office after the Unification: first in 1870, on the day following the November elections; then in 1873, to the committee led by Luigi Pianciani;[74] and then in 1875.[75] None of these propositions were implemented; however, Ersoch's conception of the plan had an influence on some of the decisions made during those years.

The wholesale greengrocery market was the main open question of the second half of the nineteenth century. Until the end of the century the market had always been held outdoors. Traditionally located in Piazza Navona, in 1869 it was relocated to Campo dei Fiori (a nearby and equally central piazza), which underwent some maintenance works for the occasion. The debate about the issue resumed soon after the Italian troops entered the city. In 1873 the town council proposed the implementation of a general renovation project to be commissioned to a private company; the Municipal Assembly session voted against.[76] A decision was finally reached in 1878 to move the market to Via dei Cerchi, a new area close to Circus Maximus. The initial idea was to build covered markets and other service facilities for traders, whilst relocating the market. However, when the decision was hastily put into effect in 1882, the chosen area was still barely equipped and had scant infrastructure.

From that moment on, the case of Rome developed in a highly original way compared to the other cases discussed here, particularly on account of the traders' self-organisation initiative that brought a new market to life. The initiative was apparently encouraged by the council's attempts to obtain stricter fiscal control over transactions, via an Act of

74. On this occasion, Ersoch's reorganisational project was hailed in a pamphlet by Baldassarre Capogrossi Guarna, 'I mercati di Roma,' Tip. Delle Scienze Matematiche e Fisiche, Rome, 1873 (originally published in *Il Buonarroti*, s. II, vol. VIII, February 1873).

75. That same year (3 April) Quintino Sella, a statesman and scientist from Biella, delivered a speech to the Municipal Assembly of Rome, in which he advocated for the construction of new houses and covered markets, to counteract the rising cost of living in the capital city.

76. The pre-agreement signed, this time, by the Committee and a private company, foresaw the construction of three wholesale covered markets and twelve retail markets, in return for their seventy-five year concession. The Municipal Assembly voted against the proposal and decided to build only three wholesale markets (one for fruit and vegetables, one for fish and one for poultry and dairy produce), financed by the council. This deliberation still had an influence on some later projects, as the relocation of the fish market to San Teodoro in 1876, in a building refurbished by Ersoch.

Fish market on San Teodoro, Rome, 1909

1891. That same year a group of over six hundred and fifty individuals—proprietors, farmers, wholesale and retail dealers, porters, dockers and other producers and traders working in the fruit and vegetable sector—founded the Roman Horticulture and Agriculture Society, a cooperative that purchased a spacious land along Viale del Re Avenue in Trastevere. Thanks to the infrastructural changes that had just been completed (a new bridge on the Tiber, the opening of the avenue in 1890 and the inauguration of the railway station in 1893) this district was particularly suitable for accommodating a market. The Society opened its own private facility on the site, which indeed welcomed the wholesale greengrocery market of Rome in 1893.[77]

77. Laura Francescangeli, 'Luoghi e regole del mercato dall'Ottocento al Novecento: una storia comunale,' in *La memoria dei mercati*, op. cit., p. 127-129.

This marked the beginning of a long controversy with the council, with which the Society had originally tried to enter into negotiations. The council regarded the initiative as an attack against its own monopoly of control over the market areas. A legal battle arose, which ended with the victory of the council around the beginning of the new century, and with the order to close the private facility down.[78] Another change of location was consequently produced, accompanied by the construction of the first covered market in Rome. Since it was assumed that the previous experience of Circus Maximus was over, the town council decided to destine an area of the Esquiline Hill to the market. The area had been purchased in 1873 and had already been considered as potentially suitable for the purpose in the debates of the previous years. With the aim of providing traders with a complex that had better infrastructure, a set of wooden buildings was constructed on the site, designed by engineer Mario Moretti and completed in 1902. Following the 1908 fire, they would be replaced by metal arcades.[79] The market was held on the grounds for the next twenty years, although the solution would soon be raised again for discussion.[80]

The five years that elapsed between the opening of the Esquiline Hill covered market and the moment Mayor Nathan took office were convulsive. During this time wavering opinions and second thoughts on the market issue were expressed, and bearing in mind that the 1883 town planning scheme was close to expiring, the reason for this debate did not only lie in the unsatisfactory functioning of the new facility, but also in the revaluation of land and property. In 1903 the council set up a commission for the rearrangement of markets. Its two reports, both submitted in 1906, were issued out of the dissatisfaction with the recently found solutions, and wavered between two reform possibilities: keeping the two wholesale markets, one on the Esquiline Hill and one located on its previous site

78. Before the controversy was solved, the council tried, unsuccessfully, to attract sellers again, through projects as the opening of a new wholesale market and a new retail one in some of the facilities previously harbouring the abattoir in Piazza del Popolo (1894), the construction of an arcade on Via dei Cerchi (1894-1897), and the extension of the space available on the site (1900). The council also adopted coercive measures. For instance, it amended the regulation (1896) in order to have control over private spaces and it ordered the closing of some facilities. Scarnati, *La nascita dei mercati generali all'Ostiense*, p. 34-38.

79. The area, measuring sixteen thousand square metres, was owned by the council (its previous owner, Monsignor de Merode, had been expropriated in 1873) and was not far from Termini Railway Station and the gates of San Giovanni, San Lorenzo and Porta Maggiore.

80. Giuseppe Stemperini, 'La questione di un único mercato alimentare all´ingrosso nella Roma postunitaria: la scelta dell'Ostiense,' *Roma Moderna e contemporanea*, XII, 1-2 (2004), p. 49-60.

in Trastevere; and concentrating everything in Trastevere, fish, poultry and egg markets included (which had until then been kept separate).[81] The Trastevere lands owned by the Roman Horticulture and Agriculture Society were implicated in both cases. As a matter of fact, shortly afterwards they were purchased by the council, along with a very spacious adjacent area.[82]

All these decisions came to nothing following the elections held in November 1907, after which Ernesto Nathan became mayor and leader of a 'popular front', comprised of radicals, republicans and socialists who brought discontinuity to the administrative choices of Rome, clearly visible in the policies for the markets during that time. Shortly afterwards, Nathan entrusted an external engineer, Edmondo Sanjust di Teulada (1909), employed by the Civil Engineering Department of Milan, with designing the market system. His scheme eclipsed the former debate and proposed a new organisational model that suggested moving the general markets to the south of the city, off Porta San Paolo in order to strengthen the productive vocation of this area and transform it into the 'industrial quarter of Rome'.[83] This decision was part of the service policies promoted by the new Municipal Assembly, based on the instruments provided by the new Act on the Taxation of Buildable Areas of 11 July 1907.

The placement of the general market was voted by the session of the Municipal Assembly held on 24 June 1910. The project envisaged dividing the market into two sections, one for fruit and vegetables and one for fish, lamb, poultry, eggs and other grocery products. A central section was kept for the siding connection to the National Railways and to the new Rome-Ostia line. The following year a loan of two and a half million liras was taken out at the Cassa Depositi e Prestiti building society to finance the

81. This wavering between two hypotheses confirmed the persistence of some topics, already populating the Roman debate. An article by Marco Aurelio Boldi – which he wrote in 1894, in the wake of his volume about markets—centred on the case of Rome, formulated the possibility of having several wholesale markets in Rome, and the possibility of locating them on Esquiline Hill and in Trastevere. Marc'Aurelio Boldi, *Per I mercati coperti occorrenti a Roma. Considerazioni tecniche, economiche e finanziarie*, Tip. Fratelli Centenari, Rome, 1894 (excerpt from *Annali della Società degli ingegneri e degli architetti italiani*, IX, 1, 1894).

82. The lands (fifteen thousand square metres) were owned by one of the major players on the Roman property market, a company called Società Gianicolo.

83. 'La zona industriale a sud della città,' in Giorgio Ciucci, Vanna Fraticelli (eds.), *Roma Capitale, 1870-1911. Architettura e urbanistica. Uso e trasformazione della città storica*, Marsilio, Venice, 1984, p. 448-459; Maria Luisa Neri, 'Sviluppo produttivo ed espansione urbana. Le vicende della I Zona industriale (1870-1941),' *Roma moderna e contemporanea*, VIII, 1-2 (2000), p. 83-141; Carlo Travaglini (ed.), *Un patrimonio urbano tramemoria e progetti. Roma, l'area Ostiense-Testaccio*, CROMA/ Edimond, Rome/ Città di Castello, 2004.

construction. However, the amount needed for the erection of the complex turned out, later on, to be much higher. The land (a hundred and thirty-eight thousand square metres) was purchased at a relatively cheap price thanks to the agreements with two proprietors affected by the transaction. The final version of the project for the complex was signed by municipal engineer Emilio Saffi and put out to tender in 1912.

For the Nathan board the building of the new general markets was part of a wider policy aiming at establishing a stronger municipal control on goods distribution and pricing. The new markets were thought of as tools to discipline access to sales, to collect statistical data and to implement food and provisions policies. This concept is very clear in some of the choices that accompanied the emplacement of the general markets in the Ostiense district. The years 1909 and 1913 witnessed the approval of two acts concerning the concession of trading licences, regular collection systems and the fixing of maximum and minimum prices. In addition to the general markets, in 1913 the location of twenty retail markets was approved, six of which were covered. During the same period the council tried to establish a direct distribution system of groceries by setting up a 'Municipal Food and Provisions Company', intended to be at once an instrument through which to influence pricing by increasing the transit of food provisions entering the Piazza di Roma, and a credit agency for small distribution entities and consumer cooperatives. However, none of these initiatives would have a long-lasting impact. Nathan's local government collapsed in 1913, the works for the construction of the new general market dragged on for a number of years. The facility only began to function in 1922, in a remarkably different context.

Conclusions

During the nineteenth century, engineers, experts and administrators in Italy proposed various models for the reorganisation of markets, at first based on the construction of covered buildings, following the example of those erected abroad, and then, in time, based on Italian example. They spread throughout cities in the Italian peninsula as a result of the close-knit network of contacts and mutual influences connecting cities, professional associations and technical departments, both public and private. The main proposal (in social and not merely architectural terms) was for a 'modern' market, i.e., an entity ordered by rules, contained within defined spaces and operated and managed by well-known figures. They regarded existing markets as essentially chaotic places, incompatible with good urban planning. Many of these depictions were dominated by the

hygiene paradigm.[84] Covered markets were hailed as a means to make cities healthier and to introduce the dynamics of the market economy into a sector of the urban economy still characterised by informal practices. Markets allowed for the participation of private capital in the modernisation of the city, thereby permitting a more efficient collection of tax and rent and freeing areas for property and land development. San Lorenzo Market in Florence, which was closely connected to a process of urban revaluation, was the most successful example of such discourses. During the entire era, the market issue and the city centre issue[85] remained strongly linked. It was not by chance that Marc'Aurelio Boldi took an interest in the renovation of Piazza Colonna in Rome,[86] whilst he was conducting studies on markets, or that the future leading player in the debates surrounding the transformation of Italian city centres, Gustavo Giovannoni, should have completed his degree in engineering at Rome's Training School for Engineers in 1895 with a dissertation on covered markets.[87]

In spite of the pervasiveness of this discourse in a significant part of the urban elites in the second half of the nineteenth century, the cases compiled here reveal that, surprisingly enough, in many cities its impact was limited. The construction of covered markets introduced symbols of modernity into a distribution and trade system that did not undergo substantial changes. An example such as that of Florence seems to be the exception, rather than the rule; in the case of Turin, which was in many ways antithetical, rather than the exemplary structures of cast iron and glass of the second half of the century, it was the reforms of the Restoration years that seemed to produce long-lasting effects. In more general terms, we can trace a continuous line originating in the years of the *ancient régime*,

84. Claudio Pogliano, 'L'utopia igienista (1870-1920),' in Franco Della Peruta (ed.), *Storia d'Italia, Annali 7, Malattia e medicina*, Einaudi, Turin, 1984, p. 235-331.

85. Alberto Mioni, Michela Barzi, 'Sventrare la città: il risanamento urbano 1870-1920,' in Franco Della Peruta (ed.), *Vita civile degli italiani. Società, economia, cultura materiale*, vol. V, *Città, fabbriche e nuove culture alle soglie della società di massa, 1850-1920*, Electa, Milan, 1990, p. 50-69.

86. Marc'Aurelio Boldi, *La sistemazione del centro cittadino di Roma: Piazza Colonna studiata principalmente per le sue necessarie comunicazioni con tutte le zone dell'abitato*, Department of Civil Engineering, Rome, 1900; Maria Luisa Neri, 'Nuovi tipi e stili antichi nella costruzione di Roma Capitale,' in Loretta Mozzoni, Stefano Santini (eds.), *Il disegno e le architetture della città eclettica*, proceedings of the 4th Convention of Eclecticism Architecture (Jesi, 2-3 July 2001), Liguori, Naples, 2005, p. 31-75.

87. Guido Zucconi, '"Dal capitello alla città". Il profilo dell'architetto totale,' in Gustavo Giovannoni *Dal capitello alla città*, Jaca Book, Milan, 1997, p. 15.

Bird's eye view of Rome's Ostiense district, 1941. The new central market can be seen in the centre

which crossed almost the whole century and was especially apparent in the persistent division of the markets according to categories of goods, i.e., fruit, vegetables, dairy produce, poultry and eggs, meat, wine, wood, hay, etc. Each category generated fluxes and exchange processes within the city, which obeyed different rules.

Only in the years preceding the First World War did the functional and cultural obsolescence of these models begin to be noticed, models that Boldi had reconstructed and widely recommended in his book of 1892. Over different periods and in different processes, the scale of works,

organisational models and technological and constructional solutions gradually changed. The way of conceiving urban economy changed even more radically, as did related actions undertaken by the public sector. In our opinion, however, rather than the renewal of the instruments and languages of modernisation, what marked the end of an era was, above all, the fast pace of urban growth.

Iron Markets in Spain (1830-1930)

Esteban Castañer

Nineteenth-century Spanish iron markets are an important legacy which calls for special attention and study, both on account of the high number of constructed buildings and the scores of unrealised projects, and on that of their architectural quality and variety. In Spain, unlike other countries, many of these buildings survived until fairly recently precisely because they preserved their original function. Over the past two decades variations in commercial structures and habits have posed the problem of the preservation and reuse of these buildings, that combine a utilitarian essence and a monumental quality and represent a key chapter in the history of cities. Iron markets had been ignored by art history until the rediscovery of Spanish nineteenth-century architectural culture by early authors such as Pedro Navascués Palacio,[1] who produced abundant monographs on local, regional and national examples of market architecture.[2]

The Historical and Urban Planning Framework

Chronology

In Spain the construction of buildings and urban developments destined to accommodate markets emerged around the years 1830-1840, parallel to the birth of the contemporary city. From those decades on, the necessary conditions for the development of such buildings were provided by disentailments (which enabled a restructuring of the uses of urban soil) and town expansion areas (which extended urban surfaces allowing for service planning), not to mention the sociological and demographic transformation of cities (which imposed a complete reorganisation of urban functions and services) and the affirmation of municipal power as an element for articulating contemporary

1. Pedro Navascués Palacio, *Arquitectura española (1808-1914)*, Summa Artis collection, vol. XXXV, Espasa Calpe, Madrid, 1993. By the same author: *Arquitectura y arquitectos madrileños*, Instituto de Estudios Madrileños, Madrid, 1973; *Del Neoclasicismo al modernismo*, Historia del Arte Hispánico, vol. V, Alhambra Editorial, Madrid, 1978; 'La arquitectura del hierro…,' *Cuadernos de Arquitectura y Urbanismo*, 1980, no. 65, p. 39-64.

2. An example of a regional study of iron architecture is that by José Ramón Fernández Molina and Juan Ignacio González Morillón, *La arquitectura del hierro en Asturias: 13 mercados y otros edificios urbanos*, C. O. A. Arquitectos Asturias, Oviedo, 1994. For a study on Spanish iron markets on a national scale, see Esteban Castañer Muñoz, *La arquitectura del hierro en España: los mercados del siglo XIX*, Real Academia de Ingeniería, Madrid, 2006.

society. This long cycle came to a close in the nineteen thirties, both on architectural grounds, because the Modern Movement introduced concrete as the main constructional material, thus bringing the supremacy of metal structures to an end, and on historical grounds, due to the fact that the political instability of the thirties, the Spanish Civil War and the post-war period curbed urban development and, save a few exceptions, the municipal markets in use in the twentieth century were those built the previous century—those built in the nineteen fifties or nineteen sixties were, on the whole, minor works that illustrated the gradual loss of public spiritedness of such facilities.

Within this broad chronological span we may distinguish three different periods.

From 1840 to 1874, in other words from the first liberal regimes until the Revolutionary Six-Year Period, a first batch of markets—San Ildefonso in Madrid, La Boqueria in Barcelona, La Encarnación in Seville—was built using traditional materials, which were gradually enhanced by metal architectural elements. This gave way to a pioneering period in which the new material was partially and modestly introduced in structures that combined wood, stone and iron like the Trascorrales market in Oviedo (1862-1867), and in small totally metallic and strictly utilitarian buildings, most of which remained unrealised, such as those by Francisco Daniel Molina for the historic district of the Born (1848), Miquel Garriga i Roca for the Barceloneta neighbourhood (1867), both in Barcelona.[3] At the end of this period we also come across other more important and complex unrealised projects, such as those by the engineer Miguel de Bergue for Valladolid and Barcelona (1865) and those by French architects Trélat (1863) and Horeau (1868)[4] for Madrid, ambitious projects which heralded the period of large-scale proposals.

Between 1875 and the decade of 1890 Spain adopted and applied the model imposed by Victor Baltard in the eighteen fifties for the construction of the central market in Paris.[5] Both the structure and much of the decoration of this architecture, conceived following strictly functional criteria, were made of iron or cast iron. The markets of La Cebada and Los Mostenses (1867-1875) in Madrid, El Born (1873-1876) and Sant Antoni (1876-1882) in Barcelona, Atarazanas in Malaga (1875-1879), El Val in

3. Esteban Castañer Muñoz, 'Elements tradicionals i renovadors en els primers projectes de mercats de ferro a Barcelona (1848-1873),' *Butlletí del Museu Nacional d'Art de Catalunya*, Barcelona, no. 2 (1994), p. 201-214.

4. 'Projet de marché de H. Horeau pour Madrid,' *Gazette des architectes* (1868-1869), p. 147.

5. Pierre Pinon, *Louis-Pierre et Victor Baltard*, Monum - Éditions du patrimonie, Paris, 2006.

Valladolid (1878-1882) and 19 de Octubre in Oviedo (1882-1885) are some of those that belong in this category. A lapse of almost a quarter of a century separates the Parisian construction from its first Spanish imitations, in appearance at least. In actual fact, this chronological difference should be qualified from the point of view of architectural culture given that in the eighteen sixties Spanish architects were very familiar with the new architecture of markets abroad, both in theory and in practice, thanks to specialised publications such as César Daly's *Revue Générale de l'Architecture*, Léonce Reynau's *Traité d'Architecture* and Baltard's own *Monographie sur les Halles Centrales*,[6] and to their trips abroad, especially to Paris.[7]

Finally, during a third period which spanned from the eighteen nineties to the nineteen thirties and was characterised by metal structures—increasingly advanced thanks to the universal use of steel and the incipient utilisation of concrete—and a variety of styles that coexisted or succeeded one another, Spain left behind the age of iron markets built following Baltard's model. Examples of this period are works as diverse as Lanuza market in Saragossa (1898-1903), the Colón (1914-1916) and Central (1914-1929) markets in Valencia, those of Alicante (1914-1921), Sabadell (Barcelona, 1927-1930) and Madrid's Olavide market (1931).

Geographical Layout

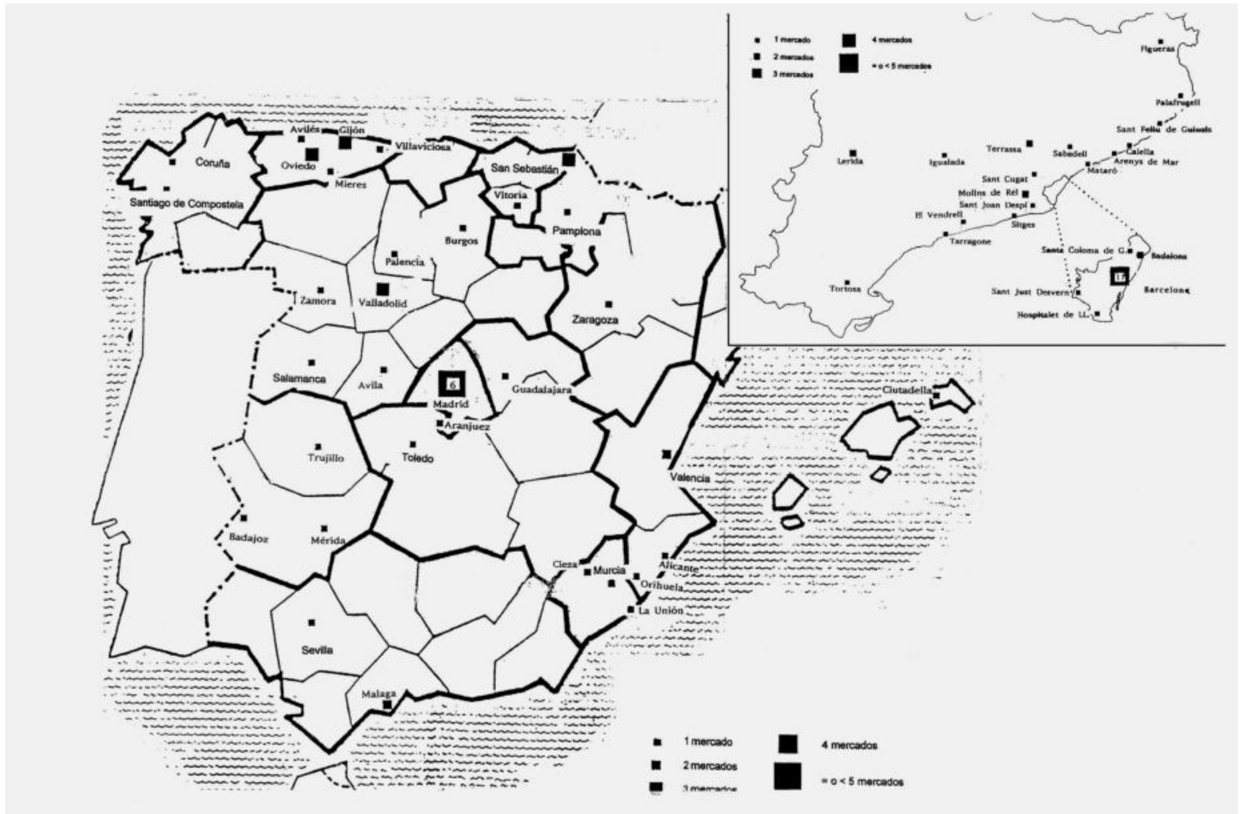
Overall, Spanish iron markets were densely established in markedly dynamic cities (in socio-economic, productive and commercial terms) and in those experiencing significant urban development and demographic growth. This tendency was also observed in smaller towns comprised within the areas of regional influence of some such cities.

The northern half of the country and the Mediterranean coastal region boast a greater number of constructed markets and of unrealised projects. Barcelona, Madrid, Valladolid, Gijón, Oviedo, San Sebastian and Valencia were more prolific than southern cities. Malaga, with her two markets, is one of the brilliant and early exceptions to this rule.

The regional layout adopted the same criterion: Catalonia was the densest, followed by Madrid, Asturias, the Basque Country, Castile-Leon

6. The structure and contents of some of the reports of projects designed during this period reveal the influence of Victor Baltard's *Monographie des Halles Centrales* published in 1862.

7. Elias Rogent, founder of the Barcelona School of Architecture quotes the Halles Centrales in his travel notes. Architects as important for market architecture as Garriga i Roca or Rovira i Trias travelled to France, England and Italy commissioned as experts or delegates of municipal administrations.



Location of iron markets in Spain

and Valencia. There are several explanations for this. On a local scale, for instance, the existence of a tradition of commercial buildings, but above all the new sociological and urban development needs, the ambition and the dynamism of modernising municipal policies. The market was not only a utilitarian facility that responded to the new demands and social imperatives of public hygiene and comfort but also a highly significant monument for industrial cities. The fact that the opening of La Cebada market in Madrid in 1875 was presided over by King Alfonso XII, and that Barcelona's El Born market was officially opened in 1876 by the mayor and industrialist Manuel Girona reveals a will for these buildings to express on different governmental levels the political, industrial and economic aspirations to modernity of these cities and of the country as a whole.

Then we should consider economic reasons external to the city. The geographical layout we have described can be in part explained by the impact

that the modernisation of transport had on the productive and commercial framework, especially the construction of the railway network in the eighteen sixties. Small or medium-sized cities removed from the incipient industrial centres such as Valladolid for instance,[8] which thanks to the railway became from 1860 onwards Spain's first wheat market, or Burgos, which was included in the Madrid-Irun route, experienced early and significant activity in the field of the conception and construction of markets. Further north, Vitoria with one built market and San Sebastian with four complete the outline of cities equipped with iron markets that matches the rail map of France. In view of the fact that most of the products transported by rail during the nineteenth century were agricultural, and that the nineteenth-century municipal market should not be considered an autarchic institution but as a trading place, a structure that qualitatively changed consumption habits to embrace more exotic products that are more difficult to preserve, the relationship between railway development and the architecture of the market does not seem coincidental.

Shortly afterwards, in the late nineteenth and early twentieth centuries, southern Catalonia and the region of Castellon, Valencia, Alicante and Murcia developed as important agricultural centres, the products of which were sought and reached both the national and international markets thanks to the railway. The consequent prosperity gave way to an entire generation of monumental markets in cities such as Alicante, Tarragona, Tortosa and Valencia, where as well as solving a local problem of urban facilities they expressed, through architecture, the richness of the regional production of irrigated crops and their trade.

Furthermore, the railway improved the possibility of transporting the new industrial construction materials, and the geography of Spanish industrialisation doesn't seem to be dissociated from the geographical establishment of iron markets.

Catalonia, Asturias and the Basque Country, three industrially developed regions in the Spanish context were also, each at its own level, the most prolific in the conception of projects and the construction of markets, a fact which in turn can be explained by the imperatives of such societies in rapid transformation and by their accessibility to a local metallurgic industry.

Far from being exclusive, the reasons for this geographical layout were often complex and involved a number of elements. For instance, Villaviciosa

8. Antonia Virgili Blanquet, *Desarrollo urbanístico y arquitectónico de Valladolid (1851-1936),* Ayuntamiento de Valladolid, Valladolid, 1979.

market (Asturias), which we could analyse in the context of one such industrialised region, also responded to the demand and appeal of its agricultural products.[9] As pointed out by architect Buigas i Monravà, who in 1889 designed the project for the market in Sitges (Barcelona), the construction of this facility emerged as a combination of a range of cultural, social, economic and urban development factors.[10]

The Agents of Construction: Architects, Master Builders and Engineers. Developers, Builders and Metallurgic Suppliers

Collective memory often puts all iron architecture, even that of market halls, on an equal footing with the work of engineers and foreign professionals. In his novel *Doña Perfecta* (1876) Benito Pérez Galdós related these to the construction of iron markets, seeing them as qualified professionals working for the modernisation of society and enemies of obscurantism.

These extrapolations, quite accurate as regards the architecture of railway stations for example,[11] are totally wrong in the case of markets. Essentially municipal institutions, most markets were developed by town councils and designed by municipal architects, who also supervised the construction. Apparently, the few markets built on the initiative of private developers were entrepreneurial failures and soon fell under the ownership and protection of their municipalities, as exemplified by the Lanuza market in Saragossa and the Abaceria Central de Gràcia and Galvany markets in Barcelona.

The chief exception to the general rule of local public development was the Spanish capital. La Cebada and Los Mostenses markets were built by an English company set up specifically for the purpose, the Madrid Markets Company Ltd., with imported materials, albeit as in previous cases the town council purchased them shortly after the building work was completed. Private enterprise in the sector of market construction had in

9. The anonymous architect who designed the market pointed out the need for the establishment, 'the abundance and quality of the products that come together in this market … make it justly famous throughout the province and in the main towns of Castile.' 'Memoria del mercado cubierto de Villaviciosa', anonymous, 1901 (Villaviciosa Municipal Archive).

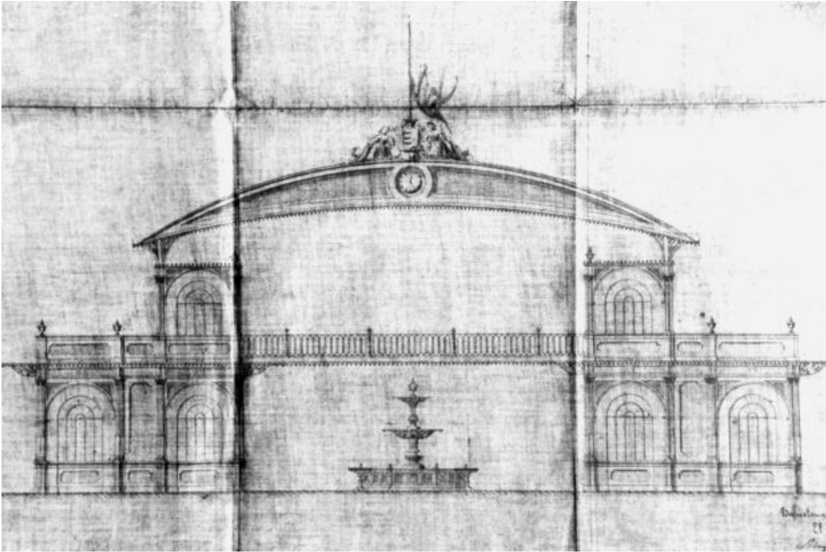
10. 'On account of its excellent situation on shores of the Mediterranean, its mild climate, the facility of its communications with the rest of Spain by railway and by national and provincial roads, the town of Sitges is the residence of well-to-do families. For all this, and for its proximity to Barcelona, it is more exacting as regards the establishment of public services in the town.' Gaietà Buigas i Monravà, 'Memoria del Proyecto para el mercado de Sitges, 15-II-1889.'

11. Inmaculada Aguilar, *La estación del ferrocarril, puerta de la ciudad*, 2 vols. Generalitat Valenciana, Valencia, 1988. On the subject of railway stations, see as well Mercedes López García, *M. Z. A., historia de sus estaciones*, Ediciones Turner - Colegio de Ingenieros de Caminos, Canales y Puertos - Fundación Ferrocarriles Españoles, Madrid, 1986.

Madrid a continuity that was unheard of in the rest of the country, as proven by the market in the Salamanca neighbourhood (no longer extant) and the San Miguel market.

The opposition between the provinces and the capital perhaps reveals the peculiar industrial growth of Spain, which was peripheral, had a limited range of influence and needed the protectionism of a permissive state with an open free-trade economy that benefited the great foreign powers it itself depended upon.

Logically, the designers of the buildings were not, for the most part, the country's engineers but the master builders or the municipal architects. The socio-professional rivalry between engineers, architects and master builders in the second half of the nineteenth century drew attention to the commissions for municipal markets, which became one of the last bastions of authority in the field of public works, favoured by the fact that the building structures of iron markets, less ambitious than those of railway stations and bridges, were not too complex in technical terms. On many occasions the iron and steel industry itself provided the building contractor with the necessary elements chosen from their catalogues. A long list of municipal technicians shows those responsible for market halls. The architects included Mariano Calvo Pereira in Madrid, Miquel Garriga i Roca, Antonio Rovira i Trias and Pere Falqués Urpí in Barcelona, Joaquín Ruiz Sierra in Valladolid, Joaquín Rucoba in Malaga, Javier Aguirre in Vitoria and Juan Miguel de la Guardia in Oviedo. The master builders included José Fontseré in Barcelona, José María Villanueva in Pamplona (who designed the Santo Domingo market and was involved in a corporate clash with architect Florencio de Ansoleaga concerning the execution of the building), Cándido González in Oviedo and Gijón. Far from any form of provincialism, this wide spectrum of professionals, many of them unknown, represented a transitional period between a traditional and a modern conception of their trades and were characterised by their cosmopolitanism, their erudition, professionalism and ability to adapt to a changing society. Two unique cases among engineers related to market building are those of Josep Maria Cornet i Mas (to whom the design of the structure of El Born market in Barcelona is attributed), Molinos and Pronier (co-designers, together with French architect Trélat, of Madrid's unrealised project), not to mention Miguel de Bergue (who designed the projects for Valladolid and Barcelona that were left unbuilt, partly as a result of general historical circumstances and partly, if we are to believe De Bergue, due to the professional rivalry between architects, particularly the provincial architect of Barcelona Francisco Daniel Molina).



Elevation of Valladolid Market, 1865. Architect: Miguel de Bergue

In the early twentieth century the progressive complexity of steel construction structures and the fact that the socio-professional conflict between architects and engineers had been overcome brought about greater co-operation between the two professional categories, both in general terms and specifically as regards market-hall design. The engineer Enrique Casas and the architect José Fradera designed Torner market in Badalona (Barcelona, 1924-1926), while the engineer Pedro Garou and the architect Francisco Roca designed the unrealised project for Palma (Majorca, 1914).

Unlike the Spanish railway, which was built by foreign companies, the construction of market halls ensured the national iron and steel industry was kept busy. The companies that supplied materials and metal structures for markets were mostly Spanish, whether they be small local foundries of which only know the names, or pioneering enterprises and leading firms in the metallurgic sector. The latter include the Barcelona companies La Maquinista Terrestre y Marítima (which supplied the building materials for most of Barcelona's markets) and Fundición Torras (Tarragona, Tortosa, Sitges and Saragossa markets), Fábrica de Mieres and Duro-Felguera in Asturias, which supplied the construction companies of Asturian markets and the Hispano-French company Averly from Saragossa (Gros market in San Sebastian).

General view of Los Mostenses Market, no longer extant, Madrid, 1867-1875.
Architect: Mariano Calvo Pereira

Foreign suppliers played a very marginal if not non-existent role, with the exception of La Cebada and Los Mostenses markets in Madrid we have already mentioned.

The Architectural Programme

The definition of the architectural programme for market halls in Spain was the result of the confluence between an empirical and handcrafted architectural culture, that of master builders, and an erudite, academic culture open to foreign theoretical production.

Although the Spanish architectural culture of the Enlightenment produced no programmatic model as such for market halls, it *did* focus on other food industry facilities such as granaries and grain markets,[12] as revealed by the theoretical works by Benito Bails and Manuel and Jose Fornés y Gurrea. Early nineteenth-century Spanish architects as instrumental as Silvestre Pérez, Pedro Manuel de Ugartemendía, Juan Gómez and Antonio Celles welcomed the teachings of Jean Nicolas-Louis Durand, whose *Recueil* presented models of '*places*, *halles*, *marchés*,

12. Benet Bails, *De la arquitectura civil, 1796*, 848-854; *Catálogo de los diseños arquitectónicos de la Real Academia de Bellas Artes de San Carlos de Valencia (1768-1846),* Valencia, 1981.

bazars.'[13] As mentioned, the influence of French theory would be consolidated by the middle of the century thanks to the dissemination of the articles published in César Daly's *Revue Générale de l'Architecture* (chiefly the one that appeared in 1854)[14], to Léonce Reynaud's *Traité d'Architecture* (1858) and to Victor Baltard's *Monographie* (1862), and extended until the end of the century through the theoretical influence of Julien Guadet. Spanish architectural theory produced a single monograph on markets in the twentieth century,[15] although the specialised press made a limited yet meaningful contribution to the reflection on and dissemination of this architectural programme.[16]

A Programme for a Mutating Commercial Function

The long gestation of the architectural programme of the market hall cannot be explained merely in terms of the transformation of materials and construction structures. While it is true that industrial technological development associated with construction played an important role, of equal or perhaps even greater importance was the transformation of urban needs and demands. As pointed out by Bertrand Lemoine,[17] since the late eighteenth century we have borne witness to changes in the functions and contents of commercial space in cities. Trade locations gradually ceased to be improvised spaces exclusively dependent on isolated and often survival economies to become decisive instruments in the provisioning of towns and in the setting of prices within an open and dynamic economic system. All this, alongside the transformation of cities and technological and industrial development, dictated the main points of the architectural programme of markets.

The typological formulation of the general market hall in a specific architectural setting that gradually introduced new building materials was the

13. Jean-Nicolas-Louis Durand, *Recueil et parallèle des édifices de tout genre anciens et modernes*, Imprimerie de Gillé Fils, Paris, 1801, ill. no. 14.

14. César Daly, 'Les halles centrales de Paris,' *Revue Générale de l'architecture et des travaux publics*, vol. XII, Paris, 1854, col. 52-54.

15. Ricard Giralt Casadesús, *Mercados. Teoría y práctica de su construcción y funcionamiento*, Cuerpo de arquitectos municipales, Madrid, 1937.

16. Among other sources we should mention Enrique María Repullés y Vargas, 'Mercado de Alfonso XII en Málaga,' *Anales de la Construcción y de la Industria*, no. 16 (Madrid, 1879), p. 241-244; Félix Navarro, 'El nuevo mercado de Zaragoza,' *Arquitectura y construcción*, no. 137 (1903), p. 356-363; Marcial Cámara, 'El mercado del Borne en Barcelona,' Biblioteca del constructor, del industrial, *Bellas Artes* (1878-1879), p. 260.

17. Bertrand Lemoine, *L'architecture du fer, France XIX siècle*, 1986, p. 32.

Exterior view of El Val Market, Valladolid, 1878-1882. Architect: Joaquín Ruiz Sierra

threefold solution conceived by nineteenth-century architects to the problem of the provisioning of towns and the trade of foodstuffs.

Beyond simply architectural issues, the building of markets involved town planning, especially in large or growing cities. The location of market halls was either set within a food distribution system determined by districts or within a hierarchic structure that articulated the chief distribution centres (central markets and neighbourhood markets), as exemplified by Madrid, Barcelona and Valladolid. The plurality of market buildings is the result of collaborative programming that takes into account centres of activity and means of communication.

It should come as no surprise that during the century of historicism thoughts on town planning should have turned to the past in search of legitimacy. Both Reynaud in his *Traité d'architecture*, describing the construction of the Parisian Halles Centrales, and the architect of the same project, Victor Baltard in his *Monographie* devote long passages to the history of markets, emphasising the periods in which they played, according to both authors, an important part in public life and urban planning, as they did in Classical times and in the Middle Ages. Such detailed historical reflections also appear in the reports of several projects for markets in Spain. Following this line of historical reasoning, in his report on a project for a market in Valladolid (1865) Miguel de Bergue described the regrouping of commercial

establishments and their monumentality in Greece and Rome; Ruiz Serra, in his project for Valladolid (1878) and Saturnino Martínez Díaz in his for Burgos (1889) recalled the ancients' specialisation of commercial spaces according to the nature of goods; and Miquel Garriga i Roca, in his report for a project in Barcelona, evoked the importance of mediaeval markets, which often became the heart of new settlements.[18]

Imperatives of the Architectural Programme

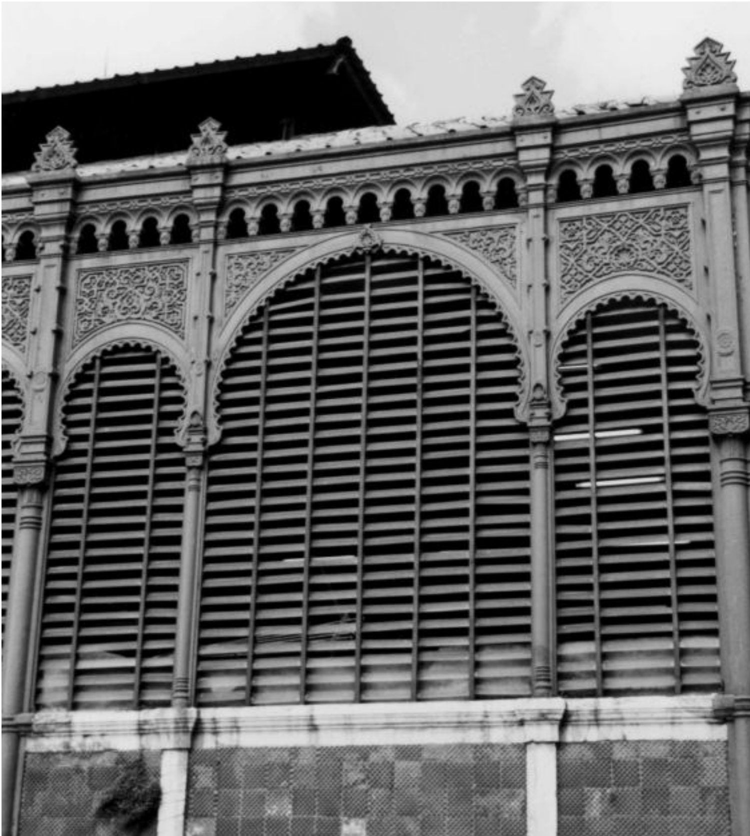
Up until the middle of the century the conceptual grounds of the architectural programme for market halls lay in general notions indebted to academic tradition and common to all forms of architecture: solidity, comfort and beauty. In the case of utilitarian forms of architecture such as markets these notions were complemented by those related to hygiene and economy. The statements made by market builders of this period such as Josep Mas Vila in Barcelona reveal lines of argument based on these generic categories. From the second half of the century onwards, the new technical complexity of town planning and building work enabled planners to bear in mind 'the advances and needs of the century,'[19] without relinquishing these Vitruvian values. The new concerns specifically posed by the design of market halls addressed the imperatives of functionality, hygiene and comfort.

The first issue was that of the layout of the ground plan and the internal and external circulation of goods and users. In Paris Baltard set down a guideline by envisaging a system that brought consistency to the connections between the market and the urban fabric, sales circuits and storage places. The alternation between large exterior entrances and concentric buildings, and the division between basements and ground floors we see in the façades of the first important Spanish constructions of the eighteen seventies and eighteen eighties such as La Cebada and Los Mostenses in Madrid, El Born in Barcelona or Atarazanas in Malaga, are indicative of the intricacy of such movements.

This particularly complex circulation produced a wide variety of ground plans. In formal terms, over the nineteenth century we have witnessed an evolution from conventional academic principles to strictly functional technical criteria.

18. Esteban Castañer Muñoz, *La arquitectura del hierro en España*, 2006, op. cit., p. 129-131.

19. As advocated in 1873 by Antonio Rovira i Trias in a municipal report on the market project by engineer Miguel de Bergue.



Detail of Atarazanas Market, Malaga, 1875-1879. Architect: Joaquín Rucoba

The former turned to the principle of regularity and to ground plan layouts based on the use of pure geometric forms, either alone or in combination. Circular, elliptic or semi-circular ground plans used in general markets, such as the Plaza Redonda in Valencia (1837) and especially in fishmongers' such as those in Barcelona's La Boqueria (1848) by Mas i Vila and the one in San Sebastian (1841-1843) by Manuel Ruiz de Ogarrio. A variation of this layout was the centred polygonal ground plan which, as described by Luis Villanueva in connection with his project for a market hall in Plaza de la Libertad in Burgos, was 'the most advisable for markets due to its likeness to the circular figure which covers the greatest space with the smallest perimeter.'[20] This type of layout, that brings the reference to

20. Luis Villanueva, 'Memoria del proyecto,' 31 December 1859, A. M. Burgos, OP 968, fº 14.

monumental buildings of antiquity such as the theatre or the Coliseum to the market hall, appeared at the same time as the model of panoptic prison was introduced in Spain. The coincidence proves particularly significant given that the importance of the panoptic plan resided not only in its applicability to prisons but to any other building designed to fulfil imperatives of economy and control such as the market,[21] as pointed out by one of the introducers of Bentham's thinking in Spain, J. Villanueva y Jordán.

We also find another variant of this sort of ground plan layout in the combination of quadrangular spaces and semicircular spaces inspired by the basilican ground plan and by the fora of antiquity: Trascorrales market in Oviedo by Cándido González and the extension of Santo Domingo market in Pamplona, popularly known as Zacatín, by José María de Villanueva (1877) which transformed the building's former quadrangular ground plan into a mixed ground plan, are two significant examples. This sort of layout survived, albeit inconsequentially, during the age of the great metal constructions that began around 1875, two fine examples of which are the El Val and Portugalete markets in Valladolid by architect Ruiz Serra, both with rectangular ground plans and with polygonal and semicircular apses, respectively.

Despite the fact that in the second half of the nineteenth century this layout, following a long academic tradition, repeatedly gave way to more functional solutions, it would partly reappear free from all historicist and symbolic content in the late nineteenth and early twentieth centuries in two guises: general market places and fishmongers with central plans, both circular and polygonal.

We shall quote as examples the fishmongers in Valencia's Central market, in the Alicante market and in Madrid's Olavide market, designed by Ferrero and built in the nineteen thirties, which boasted a concrete structure.

A second group of ground plan models are those with regular quadrangular perimeters, either square or rectangular. While it is true that this layout corresponds to an ancient double tradition of commercial spaces—on the one hand, that of porched squares, and on the other, that of naves roofed with either mediaeval or modern wooden frameworks—it became the prevailing model in the age of the construction of great iron markets, as a result of the extreme functionality of its shape and of its adaptation to building with industrially produced elements and to the logic of spatial organisation

21. Julio Arrechea, *Arquitectura y Romanticismo. El pensamiento arquitectónico en la España del siglo XIX*, Valladolid, 1989, p. 245.

and the circulation essential to the market hall. The model of the Halles Centrales in Paris, imitated in Spain, combined the overall rectangular ground plan arranged in an orthogonal network of circulation axes with internal sub-units or blocks that had square or slightly longitudinal plans and concentric arrangements.[22] On a smaller scale, the same approach appears in Madrid's Los Mostenses market, Barcelona's El Born market (with a ground plan arranged around a central urban arcade articulated by transversal and longitudinal corridors that connect secondary and side entrances) and Malaga's Atarazanas market (with four blocks framed by two transversal roofed corridors), to mention but some of the innovative examples of the eighteen seventies, and is perpetuated in the architecture of markets until well into the twentieth century, as we see in Malaga's Salamanca market, the Alicante market, Valencia's Colón market (1913), Saragossa's Lanuza market, Sants-Hort Nou (1892-1913) and Sarrià (1911) markets in Barcelona and the Girona market (1941).

A third type of ground plan, though much less widespread than the previous model, includes markets with unique layouts quite distinct from those with quadrangular-orthogonal layouts. Sometimes the architects themselves chose their specific features, but more often than not they were imposed by determining factors related to the site and prior to the project. Within this group we should mention markets with ground plans based on the intersection of wings or spaces, either L-shaped plans, as in Vitoria's Abastos market (1897) or T-shaped plans, as in Oviedo's Progreso market (1883-1887), and those with cruciform ground plans, possibly inspired by prison architecture,[23] such as Barcelona's Sant Antoni market (1883) and Galvany market (1927). This group also includes markets with triangular ground plans, such as Horeau's unrealised project for Madrid (1868), and irregular polygonal ground plans, such as that of El Sur market in Gijón (1898-1899).

The second issue inherent in the definition of the architectural programme of the market was the needs for comfort and hygiene, demands met through a compromise between the building envelope, that protects users

22. '[I]l faut deux mètres sur deux mètres pour les boutiques ; il faut deux mètres pour les passages ; … c'est cette considération qui a conduit à l'espacement de 6 mètres, multiple de deux mètres, entre les colonnes ou points d'appui des Halles, de manière à former deux rangs de boutiques et un passage intermédiaire.' Victor Baltard, *Monographie des Halles Centrales de Paris*, 1862, p. 24. ('[T]wo square metres are needed for the shops, two metres for the passageways … this is the factor leading to the six-metre spacing, a multiple of two metres, between the columns or points of support of the Halles, thereby forming two lines of shops and an intermediate passageway.')

23. See Julio Arrechea, *Arquitectura y Romanticismo*, 1989, op. cit., p. 250 and 264-265.

General view of Sant Antoni Market, Barcelona, 1882. Architect: Antoni Rovira i Trias

and goods from the elements, and transparency, that is essential to ensure the ventilation necessary for the building's hygiene and for natural lighting. Throughout the nineteenth century we are able to trace an evolution from marketplaces, with porches and uncovered central spaces (as in Barcelona's La Boqueria market), to iron markets with semi-permeable envelopes as designed by Baltard (as in Madrid's La Cebada and Los Mostenses markets, El Born in Barcelona, Atarazanas in Malaga and El Val in Valladolid, among others), which came after a period characterised by iron sheds or simple metal roofs (the most monumental although unrealised of these being the projects designed by Miguel de Bergue for Barcelona and Valladolid). One of the greatest merits of the Parisian Halles Centrales model was precisely its ability to adjust the effect of heat and light on the building thanks to new construction resources. The enclosing walls of the lower part of the façades and the entire roof of the building protected users and activities, while the

permeability of continuous spaces and blinds, combined with the raised lanterns on the roofs, introduced diffused light and ventilation. This constructional solution was based on new scientific and technological beliefs that would guide architects in their task. In the reports drawn up on his projects of 1878 Ruiz Sierra, who designed the Valladolid markets, emphasised the ability of science to respond to the modern needs of provisioning centres. While the use of arches and raised roofs in such buildings was not in itself a novelty, what *was* new was that projects were conceived following detailed studies of particular problems, precise expositions of needs and requirements and architectural proposals based on specific knowledge of construction elements and materials and their calculated combination. As well as designing and building the Parisian market, Victor Baltard described and disseminated this new design method in his *Monographie des Halles Centrales de Paris* (1862). Although this solution was effectively applied until well into the twentieth century, the truth is that the modernisation of food preservation systems, and of plumbing and artificial lighting in the late nineteenth century enabled architects to envisage markets as totally closed constructions, shut off from the elements, while the external metal structures would from then on be considered scarcely conducive to thermal insulation. The architecture of the early twentieth century and that of the Modern Movement culminated this process of total enclosure of market buildings, proscribing iron markets. In the report of his project for Olavide market in Madrid drawn up in 1935, Javier Ferrero deemed the huge volumes of air protected by the immense metal frameworks of the previous century totally unnecessary, no doubt due to the increase in hygienic conditions, and judged high stained glass windows and blinds impractical.[24] On the other hand, Ferrero advocated the use of standard size openings in markets, which would allow free entrance of light, diffused by projecting elements and filtered by coloured glass that absorbed the hottest rays of sun.

24. '[R]esulta un tanto pueril ver elevarse sobre el cesto de modestas lechugas o el cajón de aplastados lenguados una soberbia bóveda o una ingente cúpula, recuerdos del mercado *Grand Hall* del siglo XIX … las grandes superficies de vidrieras o persianas, difícilmente asequibles y siempre sucias, se han cambiado por ventanas de tipo corriente; la penumbra ha sido sustituida por la claridad; pero suavizando la luz por amplios volados que impiden la entrada del sol y por vidrio verdoso que absorbe los rayos caloríferos de la gama del rojo.' Javier Ferrero, 'Nuevos mercados madrileños,' *Arquitectura*, no. 4 (1935), p. 121 and 123. ('[T]o see a grand vault or a huge dome, reminiscent of nineteenth-century grand market halls, tower over baskets of humble lettuces or crates of squashed soles is rather pointless … large surfaces of stained glass windows or blinds, which are difficult to reach and are always dirty, have been exchanged for ordinary windows; the semi-darkness has been replaced by brightness, although the light is softened by sweeping cantilevers that prevent the entrance of sunlight and by greenish-coloured glass that absorbs the heat-producing rays of the different shades of red.')

Finally, and coinciding with the urban development debate on public health in the nineteenth century, the third issue contemplated in the definition of the architectural programme of the market was that of hydraulic installations, plumbing facilities and artificial lighting. The supply and evacuation of water were traditionally linked to the conception of markets for public health needs. However, for most of the nineteenth century Spanish cities still had traditional and underdeveloped water provision systems. Quite often the distribution of water in market spaces was restricted to fountains, which occasionally also served the general public. Simultaneously and in the context of nineteenth-century demographic and urban expansion, water supply to cities in general and to markets in particular became an unavoidable need that required more complex and ambitious technical solutions. As was stated in a Madrid review, 'Markets are needed by modern civilisation … if you want to eat well you must have good markets, spacious, clean, neat and tidy. Bringing water to Madrid will facilitate all this cleanliness.'[25] As early as 1837 the master builder who designed the project for La Boqueria market, Josep Mas i Vila, condemned the introduction of fountains in the market as an insalubrious element and advocated the installation of an underground network of hydrants fed from a general tank. In his final project for the Parisian Halles Centrales, Baltard contemplated the creation of a first circuit of fountains with taps, to avoid unnecessary damp, placed at strategic points in the stalls to supply stallholders and purchasers, and a second circuit to ensure the general cleanliness of the establishment.[26]

Of the same importance as the water supply for markets was the disposal of rainwater and sewage. As regards rainwater, iron architecture came up with a solution also used by Baltard in Paris and then generally in many market buildings with metal structures, that consisted in using the hollow shafts of cast-iron columns as roof drainage. In Spain this solution was frequently adopted in the unrealised projects of the eighteen sixties, such as those by Miguel de Bergue for Barcelona and Valladolid (1865), that by Cándido González for the Jovellanos market in Gijón (1867-1869) and that by Miquel Garriga i Roca for La Barceloneta in Barcelona.

Like provisioning, sewage disposal was conditioned by the development of urban facilities, of drains in particular. In the mid-nineteenth century Madrid and Barcelona began partial construction of drainage systems. From the eighteen seventies onwards disposal networks for rainwater and

25. 'Madrid moderno. La Plazuela de la Cebada,' *El Museo Universal*, no. 20 (1863), p. 157.

26. Victor Baltard, (1862), op. cit., p. 28.

sewage became inherent features of projects and an obligatory object of reflection for architects. Mariano Calvo Pereira, lecturer in Legal Architecture at Madrid's School of Architecture and author of a treatise on the legal aspects of hydrology,[27] designed and built three hundred and ten metres of drains and canalisation in Madrid's La Cebada market.[28] Joaquín Rucoba designed a double system for Malaga's Atarazanas market that included the channelling of rainwater through hollow columns directly connected to underground drains, and a disposal system for cleaning water consisting of hoses and inclined paving surfaces to collect and direct water.[29] The project for the 19 de Octubre market in Oviedo by architect Javier Aguirre included a drainage system for collecting sewage from toilets, cleaning water discharged from the fountain and rainwater collected by independent pipes and through hollow columns. Javier de Arregui's projects for Vitoria (1888 and 1890) introduced water hoses (the taps of which placed at the corners of the buildings) for cleaning the establishments, and paving surfaces that collected water and directed it to the general sewer system near the market.

The construction procedures that resulted from industrial development enabled improvements in the entrance of natural light in the monumental roofed nineteenth-century markets. Market activity, which begins in the early hours of the morning, benefited from another industrial invention, 'magic light' or artificial gas lighting. In Paris Baltard had designed a comprehensive lighting system comprising 1200 gas jets for the Halles Centrales that enabled work to be carried out night and day, ensuring business transactions no longer had to take place in the dark of night, as was traditionally the case, but could be held at any time.[30] In the aforementioned 1865 projects for Valladolid and Barcelona, Miguel de Bergue introduced a network of gas

27. Mariano Calvo Pereira, *De las aguas tratadas bajo el punto de vista legal y con aplicación a las construcciones y abastecimientos de las ciudades, en sus diferentes usos*, Madrid, 1862.

28. Plinio, 'Mercados de Madrid,' *La Ilustración de Madrid*, no. 58 (30 May 1872), p. 155.

29. Enrique María Repullés y Vargas, 'El Mercado de Alfonso XII en Málaga,' *Anales de la construcción y de la industria*, no. 16 (1879), p. 243.

30. '[U]n vaste système d'éclairage, 1 200 becs de gaz pour les deux corps des halles … [qui] permet d'opérer aussi bien de nuit que de jour,' assurant l'indépendance totale à l'égard du temps aux opérations commerciales traditionnellement gênées par l'obscurité : 'autrefois les marchandes qui tenaient à continuer leur commerce après la chute du jour fournissaient elles mêmes la lumière ; les arrivages avant le lever du soleil se faisaient à la faible lueur des réverbères.' Victor Baltard (1862), op. cit., p. 28. ('[A] vast lighting system, 1200 gas burners for the two bodies of the covered market … [which] enables it to open night and day,' ensuring total independence with regard to the times when commercial transactions were traditionally limited by the hours of darkness: 'in the past, those stallholders who chose to continue their trade after dark provided their own lighting; deliveries arriving before sunrise were made in the faint glow of reflected light.')

jets into the building structure of the edifices. In Barcelona's El Born market the issue of artificial lighting merited a competition, as a result of which a series of lighting features with numerous gas burners designed by Brugués and known as Sol-ventilador (Sun-fan) were suspended from the frames of the roof.

Styles and Formal Repertoires

From the point of view of styles, the evolution of nineteenth-century markets in Spain ran parallel to the questioning of the exclusiveness of classicism and academic culture throughout the first part of the century, and the search for the 'style of the century' that would eventually lead to Eclecticism and subsequently to *modernismo*, or Spanish Art Nouveau. Likewise, new historicist conceptions that differed from those of the nineteenth century and tendencies towards simplification and formal refinement that heralded the Modern Movement emerged.

In the specific case of iron markets, this general evolution of styles was accompanied by distinct overtones related to the nature of the buildings: in the first place, by an architectural composition in which the articulation of openings and roofs stood out as the most characteristic feature; secondly, a decorative iconography, both handcrafted and industrially produced, that obeyed the municipal proprietorship of the market, revealing a taste for historicism and for the symbology of productive abundance associated with the action of man on nature; thirdly, the creation of high-quality and complex architectural spaces characterised by the commitment to utilitarianism and monumentality. The constructions can be divided into two main periods.

From Neo-classicism to Eclecticism

The period between the late eighteen thirties and the eighteen nineties encompasses the end of the Neo-classical tradition and the plurality of Historicism and Eclecticism.

A number of markets designed or built after 1830, during the eighteen forties and even later were still indebted to the formal language of the architecture of the Enlightenment. On the one hand, during these years we come across several markets that respect classical Historicist repertoires, such as Barcelona's La Boqueria by Mas i Vila, the Cádiz market (1838), the San Sebastian fish market by architects Ruiz de Ogarrio and Echeveste, with its Dorian colonnade (1841-1843), and the fish market in Mataró (Barcelona) built by Miquel Garriga i Roca in 1841. On the other, we could describe another group of markets built during the same period as rationalist-utilitarian buildings also indebted to the architectural tradition of the Enlightenment.

Far from all rhetorical use of architectural orders, these buildings, inspired by Durand's teories,[31] are characterised by the simplicity of planimetric walls and sequences of round arches as sole compositional and ornamental features. This style, applied by Jacques-François Blondel in his Parisian Saint-Germain market (1813-1818), arrive in Spain at a later date for the construction of La Encarnación market in Seville (1833), Madrid's San Ildefonso market (1835), no longer extant, and Barcelona's Santa Caterina market (1837), and survived until much later as a formal and compositional solution to market architecture. Other subsequent examples were Trascorrales market in Oviedo, La Brecha market in San Sebastian (1870-1871) and the market on Paseo de la Plaza in Trujillo (Cáceres, 1896). What we should point out is that it was precisely this late Neo-classical architecture, whether Historicist or Functionalist, that introduced the first iron buildings, as exemplified by the panoptic fishmongers in La Boqueria, with its cast-iron Dorian columns, the fishmongers designed for El Born,[32] all in Barcelona, and aforementioned Trascorrales market in Oviedo, which also had cast-iron columns.

At the same time and alongside the late survival of classicist architecture a new taste emerged in Spanish architecture in general, and in Spanish markets in particular, characterised by stylistic diversity and the relativism of formal languages which would lead to Eclecticism. The unrealised project by Josep Oriol Mestres for La Boqueria in Barcelona (1841), which brought together horseshoe arches and Dorian colonnades, Luis Villanueva's project for Burgos (1859) and Miguel de Bergue's designs for Valladolid and Barcelona (1865) with reminiscences of the Renaissance are all fine examples of such diversity.

The age of the great construction of iron markets in Spain that dawned around 1870 coincided with the culmination of the taste for Eclecticism,[33] which in the case of markets would be reflected in specific instances of varied stylistic repertoires rather than in the promotion of a single Historicist style, and with the generalised use of industrially produced cast-iron architectural and decorative elements. Certain stylistic tendencies specifically characterised market architecture at this time.

31. Jean Nicolas-Louis Durand, *Précis de leçons d'architecture*, vol. 2 (1809), plate 13.

32. Rosa Maria Garcia Domènech, 'Mercats a Barcelona a la primera meitat del segle XIX,' *Actes II Congrès d'Història del Plà de Barcelona*, vol. II (Barcelona, 1985/1990), p. 191-207.

33. On eclecticism in Spanish architecture, see Julio Arrechea, op. cit., and Ángel Isac, *Eclecticismo y pensamiento arquitectónico en España*, Granada, 1987.

One was the survival of classical orientation. From a theoretical point of view, after Léonce Reynaud the second half of the nineteenth century witnessed a return to the logic of classical architectural thought, which was made compatible with modernity. In Spain, José de Manjarrés's *Teoría estética de la arquitectura* (1875), influenced by Léonce Reynaud and Charles Blanch, strove to establish a systematisation of a range of architectural elements taken from history. In some iron markets of this period, round arches (a synthesis of Graeco-Roman, Renaissance and Neo-classical styles) became a key feature of architectural composition. Examples of their use can be found in Calvo Pereira's La Cebada market in Madrid (1867-1875), La Brecha market in San Sebastian (1870-1871), San Lorenzo market in Gijón (1897-1898) and Javier de Aguirre's Vitoria market (1897).

The classical architectural orders were used in the composition and ornamentation of iron markets, the most important examples being the three Valladolid markets designed by the architect Ruiz Sierra, in particular El Val market (1878) with its cast-iron Corinthian columns and capitals. Miquel Rovira i Trias adopted the compositional feature of the *serliana*,[34] or arch flanked by lintels, in his design of the entrance to the Barceloneta iron market (1873, project unrealised) in Barcelona, while Joaquín de Vargas preferred the triumphal arch for the Salamanca market.[35] Broadly speaking, in the case of markets and according to nineteenth-century stylistic classification, the use of formal repertoires of classical origin can be related to their municipal institutional value.

Another tendency was inspired by the Arab architectural tradition. In Spain, the taste for exoticism was combined with the rediscovery of an Hispano-Arabian national tradition, and obeyed commercial activity related to the unknown and foreign. By way of illustration, José Folch y Brossa's *Album de arquitectura o Vignola de los artistas* (1864) suggested a decorative model of Arabic inspiration for a shop selling textiles. Malaga's Atarazanas or Alfonso XII market,[36] designed by Joaquín Rucoba in 1873, is no doubt the most significant and consistent example of this style. In fact, its construction on the

34. The serliana takes its name from the Renaissance architect Sebastiano Serlio. In English it is also known as Venetian or Palladian window. Translator's note.

35. Joaquín Berchez Gómez, 'Hierro y modernismo en la arquitectura de Salamanca,' Estudios *Pro Arte*, nos. 7-8 (1976), p. 29 and 30.

36. María Dolores Aguilar García, 'El mercado de Atarazanas,' *Baetica*, no. 6 (1983), 7-23. Francisco José Rodríguez Marín, 'La etapa malagueña del arquitecto Joaquín Rucoba,' *Boletín de arte,* Universidad de Málaga, Malaga, 1989; María Teresa Sauret Guerrero, 'El historicismo islámico y sus consecuencias en las transformaciones urbanísticas de la Málaga del siglo XIX,' *Actas VIII Congreso Nacional de Historia del Arte*, vol. 2 (Mérida, 1993), p. 1089-1096.

site of the former Arab shipyards conditioned the architect's choice of style, for he had been compelled by the provincial Fine Arts academy to include the surviving main entrance in his project. The tripartite composition of the intercolumniation that evokes the door in the Courtyard of the Lions in the Alhambra, the rich geometric decoration of the cast-iron enclosures of the façade and the scalloped horseshoe arches harmonised the innovative iron architecture with the patrimonial legacy of the Hispano-Arabian door.

This same tripartite composition can be found in the intercolumniation of the side façades of Badajoz market (1890-1898). Other markets adopted Neo-Arabian repertoires to varying degrees of repercussion and consistency. The market in Malaga's Salamanca neighbourhood (1923-1925) is a later example of a free and imaginative use of Arabising stylistic repertoires, while the central decorative feature on the façade of Oviedo's 19 de Octubre market is the continuous sequence of groups of four horseshoe arches for each intercolumniation, albeit combined with capitals of Ionian inspiration, all made of cast iron.

In other instances, Arabian references were more anecdotal, as in the Palencia market, where metal cross sections of horseshoe arches crown each fragment of the intercolumniation of the façades.

Thirdly, Neo-mediaeval repertoires (Gothic and Romanesque) were practically nonexistent in the architecture of Spanish markets of this period, although Barcelona's Sant Antoni market by architect Rovira i Trias is a rare example of this style. The design of radial rosettes that evoke Romanesque models on the sides of the main façades, and the exterior ceramic wall with motifs reminiscent of traditional handcrafted decoration were characteristic of the Catalan Neo-mediaeval style that preceded modernisme, the Catalan version of Art Nouveau.[37] However, the Sant Antoni ensemble is a very subtle example of Eclecticism, thanks to references to other classical elements or to the early Renaissance, and to the monumentality of iron architecture expressed by features such as the central arches of the main façades, the size and design of which recall those of London's Crystal Palace. At a later date, the layout, architectural composition and decoration of Barcelona's Galvany market, built in the nineteen twenties, evoke monastic architecture. In its

37. As regards Barcelona's Sant Antoni market, Pedro Navascués points out the significant presence of 'motifs derived from traditional architecture' without providing further details. See Pedro Navascués Palacio (1993), op. cit., p. 71. Mireia Freixa describes the evolution of Catalan Neo-mediaevalism from its mid-nineteenth-century archaeological origins to a later stage in the eighteen eighties, characterised by 'a less rigorous and more creative mediaevalist trend that we are sure was inspired by English Neo-Victorian Neo-Gothic.' See Mireia Freixa, *El modernisme a Catalunya*, Barcelona, 1991, p. 20.

turn, Tarragona's Corsini market (1911-1915)[38] had an inner metal structure with pointed cross sections which, beyond constructional logic, possibly indicated a taste for mediaevalist designs.

Lastly, a significant number of the iron markets of the period were characterised by what we could call Rationalist eclecticism and presented motifs and repertoires of diverse inspiration, though chiefly classical. Their compositions and structures were distinguished by geometric rigour that matched the intrinsic logic of their building materials, such as the flat or lintel arches which were at once functional and removed from all historicist references. The flat arch that Baltard adapted for the Halles Centrales in Paris was used in Spain in several markets, such as Los Mostenses in Madrid, and San Martín (1880-1902) and Gros (1906-1911) markets in San Sebastian. Lintelled rectangular openings were used repeatedly in the Barcelona markets of El Born, La Barceloneta, La Concepció and Hostafrancs, in Bilbao's historic Ensanche market hall and in the projects designed by Saturnino Martínez Ruiz for the markets in Plaza del Norte, the Palace of Justice and Huerta del Arzobispo (1899) in Burgos, as well as the early twentieth-century marketplace in Plaza del General Santocildes in the same city.

This functionalist-eclectic tendency would also have a bearing on other structural elements such as pillars, columns and capitals: when their dimensions were reduced to the strict requirements of metal construction they tended to visually dissolve in the sequence of uninterrupted openings of semi-permeable envelopes or blinds on the façades.

Fragmented by the vertical continuity of columns and pillars, and adopting the same blinds or glazing as used on the lower floor, the gable ends of buildings with pitched roofs lost their conventional singularity and compositional unity. The importance of the pediment disappeared before the logic of modular construction based on the use of industrial elements. The markets of La Barceloneta, Hostafrancs, La Concepció and La Llibertat in Barcelona exemplify this transgression of academic architectural language.

As regards the decorative iconography of these buildings, the capitals presented plant and geometric motifs, the precise historical references of which are difficult to establish, while other features such as consoles, medallions, pinnacles, frieze decorations, etc., could stylistically be traced back to classical roots, more conventional than rigorous from an archaeological

38. See the joint work *Tarragona, canvi de segle*, Tarragona, 1986.

point of view. Accordingly, certain motifs such as the palmette appeared time and again in pinnacles, cornices, arches, etc. The iconography of El Born market is a fine example of such decoration.

Rather than by the composition of its elevations or decorative styles, this group of buildings is best characterised by the articulation of architectural volumes based on a highly refined geometric language. In formal terms, the simplicity of the mural composition and the conventional decoration in the markets of El Born (Barcelona), Los Mostenses (Madrid) and Ensanche (Bilbao) emphasised the monumentality of the main entrances, the orthogonal layouts and volumes and the impressive telescopic disposition of the roofs.

As a result, this period in the history of Spanish iron markets, characterised by complex and plural references to historical repertoires and forms and by the development of new constructional possibilities, is representative of the eclecticism of nineteenth-century Spanish architecture in general, which according to Luis Céspedes (1866) sought inspiration in the Parthenon, the Pantheon, Hagia Sophia, mediaeval cathedrals, the Alhambra and the Crystal Palace,[39] i.e., in the heritage of classical antiquity, the Middle Ages, exotic cultures and technological modernity.

From Art Nouveau to the Early Stages of the Modern Movement

Between the last decade of the nineteenth century and the nineteen thirties market architecture reveals a stylistic diversity that ranges from Art Nouveau influences to the emergence of the Spanish Modern Movement and comprises new applications of traditional or academic styles and a gradual simplification of architectural shapes and volumes.

In the case of markets, the excessively broad use of the term *modernismo* has led to the establishment of an equivalence between the technological-constructional concept of the iron market and the stylistic notion of the Art Nouveau market, an equivalence as automatic as it is unjustified. Indeed, the technological and typological innovation of markets in the industrial age has often been confused with the plastic and formal originality of Art Nouveau. In point of fact the style had a limited and often partial influence on market architecture. As we have mentioned, the solutions introduced after the eighteen seventies would still be valid at the *fin de siècle* and well into the twentieth century. However, we should mention two innovations

39. Luis Céspedes, 'Correspondencia entre la arquitectura contemporánea y nuestro actual estado social.' In *La arquitectura española*, no. 2 (1866), p. 5.

of this period which may not be typical of *modernismo* but are somehow related to the style or to its direct precedents.

First of all, the transformation of decorative iconography in some of the markets built following Baltard's earlier design. This is the case of Barcelona's Hostafrancs market (1883-1888), where the sturdy ornamental motifs in the form of a cross decorating the beams are more in keeping with the taste of Art Nouveau furniture designers such as Gaspar Homar, and La Llibertat market (1888-1893), where the supports of the entablature and the central ornamental ensemble on the main façade present curvilinear designs, all very different to the eclectic cast-iron ornamental features characteristic of the eighteen seventies.

In another context and at a later date, Madrid's San Miguel market (1913-1915) provides another example of the formal renovation of industrial cast-iron ornaments.

Secondly, as we have pointed out, this period witnessed an evolution characterised by the gradual abandonment of apparent external metal structures inspired in Baltard's model, and by the adoption of complete wall enclosures. The constructional and aesthetic use of brick façades did not only imply a return to autochthonous building traditions[40] but also a spirit of renewal, following the models of architects such as Rodríguez Ayuso and Álvarez Capra in Madrid, who developed the Neo-mudéjar style, and of Domènech i Montaner and Vilaseca in Barcelona, as reflected in Cartagena's La Merced market (1880), the Toledo market (1896-1907), a large group of Catalan markets such as Sitges (Barcelona, 1889-1890) by Buigas i Monravà, those by architect Pere Falqués i Urpí in Barcelona, Unió and Clot (1881-1890) and Sants (1913), Sarrià market by Arnau Calvet, Maignon market in Badalona (Barcelona, 1889), Pere San market in Sant Cugat (1910) and the Sant Just Desvern market (Barcelona, 1920-1923).

This group of markets characterised by enclosure walls includes two examples that best show the influence of international Art Nouveau: Tarragona's Corsini market, where we can trace the inspiration of the Viennese buildings designed by Otto Wagner, and the municipal market in Arenys de Mar (Barcelona, 1928) by Ignasi Mas Morell, which is indebted to the style of Berlage's Stock Exchange building in Amsterdam.

40. '[E]l muro de ladrillo, económico y cargado de tradición, será un material idóneo para este primer momento del *Modernisme* catalán.' Mireia Freixa (1991), op. cit., p. 80. ('[T]he brick wall, inexpensive and charged with tradition, would prove to be an ideal material for the early days of Catalan *modernisme*.')

Main façade of Valencia's Central Market, 1914-1929. Architects: Alejandro Soler March and Francisco Guardia Vial

Paradoxically, the greatest influence of the best Catalan *modernisme* on market architecture would not be found in Catalonia but in Valencia: Valencia's Central Market, one of the most monumental in Spain built by the Catalan architects Guardia Vidal and Soler i March, both highly influenced by Domènech i Montaner and his circle, and Colón Market by Francisco Mora Berenguer, who combined the influence of Gaudí and Domènech i Montaner.

In parallel to *modernismo*, the late nineteenth and early twentieth centuries also witnessed the emergence of other styles that would have a bearing on Spanish architecture, that of markets in particular.

So, the concept of complete wall enclosure we have just seen was not exclusive to the markets influenced by the various Art Nouveau trends. Other markets of the same period adopted the same construction principle of the walled box but were formally more conventional, as exemplified by the Avila markets (1893) by architect E. M. Repullés y Vargas and the Villaviciosa (1901-1904) and Mieres (1904-1907) markets in Asturias built by Juan Miguel de la Guardia.[41]The difficult historical context Spain became

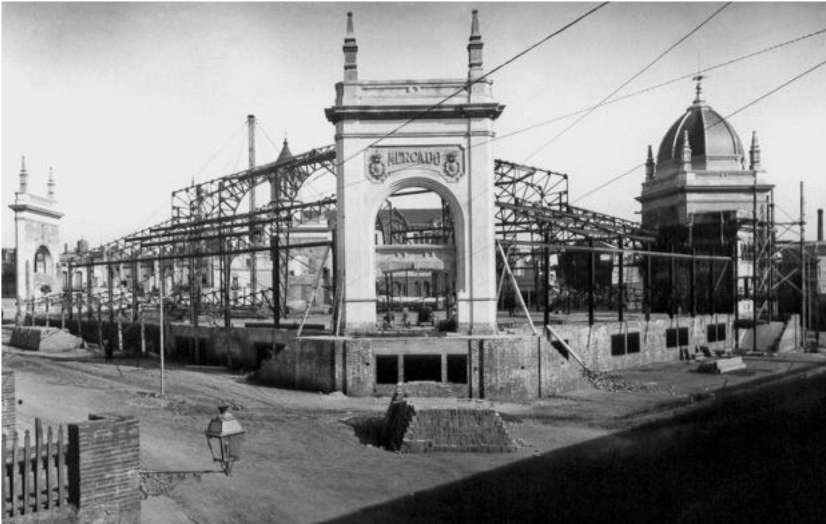
41. José Ramón Fernández Molina and Juan Ignacio González Morillón (1994), op. cit.

General view of La Lanuza Market, Saragossa, 1898-1903. Architect: Félix Navarro

immersed in after 1898 with the loss of her last colonies hastened the emergence of a culture of regeneration that was also expressed by national values. Lanuza market in Saragossa, designed and built by architect Félix Navarro, contained a host of stylistic references—from freely interpreted classicism to reminiscences of the Mudejar tradition—which it combined with a complex and abundant decorative programme that integrated evocations of the city, the region and the nation and the productive capacity of nature. This intricate building, which some have simply attempted to describe as regionalist is actually an example of this regenerational effort in which the market is presented as a temple of abundance, of national cohesion and social harmony under the omnipresent control of Mercury's caduceus.[42] This same interest in the recovery of Hispanic styles appeared, albeit much later, in the Molins de Rei market (Barcelona, 1932-1935) by architect Joan Gumà, who sought inspiration in plateresque architecture.

From the years 1906-1908 onwards and for the first few decades of the twentieth century the classical monumental and clearly cosmopolitan trend or *grande manière* that had configured the architectural landscape of

42. See the exhibition catalogue *Mercado central, 100 años. Zaragoza 1903-2002*, Ayuntamiento de Zaragoza, Zaragoza, 2003, and the collective work *El arquitecto Félix Navarro. La dualidad audaz 1849-1922*, Ayuntamiento de Zaragoza, Zaragoza, 2003.



General view of the construction of the Central Market in Sabadell (Barcelona), 1927-1930.
Architect: Javier Renom

the large new urban thoroughfares such as Madrid's Gran Vía or Barcelona's Via Laietana influenced some market design, such as that of Sabadell market (Barcelona, 1927-1930) by Josep Renom[43] and Ribera market (Bilbao, 1929).

In Catalonia the aesthetics of *noucentisme* advocated by Eugeni d'Ors found its architectural expression in a classicist Italianising trend—as exemplified by the market in Sant Feliu de Guíxols (Girona, 1928-1930) by J. Bordás—and an autochthonous baroque trend adopted by Jeroni Martorell in his design of the market at Calella de la Costa (Barcelona, 1927) and subsequently the markets at Mollet del Vallès (Barcelona) and Amposta (Tarragona), both built in the nineteen forties.

Simultaneously, during the nineteen twenties and early thirties a new trend began to emerge that paved the way for the Spanish Modern Movement, characterised by refined forms and the disappearance of references to architectural styles of the past. The influence of Art Decó following the 1925 exhibition in Paris was not far removed from the geometric language employed by architects Julio Carrillero in the Cieza market (Murcia), José González Edo in the Villafranca market (Cordoba) and Ramon Puig Gairalt in the Collblanc market (Barcelona).

43. Josep Casamartina i Parassols, *Josep Renom, arquitecte*, Sabadell, 2000.

In 1918 Madrid architect Luis Bellido designed a market hall for Plaza de Olavide in the capital, with an octagonal ground plan, a brick walled box and simple geometric volumes not foreign to the influence of turn-of-the-century Viennese architecture. Moreover, the extreme functionality of Bellido's project, which would not be realised, heralded the construction of Olavide market by architect Javier Ferrero in 1931, the conception, technique and style of which were by then unmistakably linked to the Spanish Modern Movement.

Thus the age of nineteenth-century iron markets finally and conclusively came to its end.

The Barcelona Market System

Manuel Guàrdia, José Luis Oyón and Nadia Fava

Barcelona appears as an interesting case study in the research on modern market systems because of its singularity, despite the fact that her first steps towards modernisation were taken somewhat belatedly in comparison with pioneering countries such as England or France. Considered in the long term, the process was more constant and ended up consolidating an extraordinary market system that is virtually unique in contemporary urban Europe. Not only has it preserved a remarkable architectural heritage that still exists today, but it has also played a leading part in the municipal politics of the last decade.

In those countries where it has been the object of more study, the market system would gradually give way to 'more modern' commercial formulas during the second half of the twentieth century. In Barcelona, however, markets underwent a decisive modernisation and an almost explosive growth, increasing in number from the eighteen that existed in 1940 to the forty that exist today, and from the nineteen sixties onwards old market buildings have been, and are still being, renovated. This fact seems to be related to two significant issues: the late introduction of new forms of retail distribution and the comparatively compact urban growth over the nineteen fifties and sixties.

In the nineteen eighties, municipal technical services began to consider the market system a key asset for restructuring retail networks in neighbourhoods and a tool enabling commercial urbanism to control the oligopoly of hypermarkets.

Despite the fact that the latest renovations have placed architecture and urban planning once again in the foreground, we should not regard market buildings from an exclusively architectural point of view but consider the system as a whole as a case study that sometimes seems to contradict the processes undergone in other cities of the Western world.

The First Steps (1836-1868): The Markets of Sant Josep[1] and Santa Caterina

City market halls are a historical legacy, but during Spain's transition from the old regime to the contemporary age they joined the new category of

1. In successive mentions, this market will be referred to as La Boqueria. Translator's note.

emerging facilities and therefore became crucial both in functional and in cultural terms. In spite of the liberalisation of the economy that characterised the new era, municipal intervention did not come to an end and even continued when the old rule finally disappeared around 1835. Commercial activity had been liberalised in 1834, when permission was granted to trade in all 'eatable, drinkable and burnable' products, save for bread. Town City Councils, however, maintained and reinforced their responsibility over provisioning. In addition, in 1836 disentailment laws of the assets owned by religious orders offered the possibility of reordering and modernising urban space, installing modern facilities that included market places. In Barcelona the rearrangement had to overcome a number of obstacles and made slow progress due to the difficult construction of two great markets on the sites of two former convents (that had been confiscated), during which time the other municipal markets remained open on squares and streets. The intention was to move the activities that occupied and congested the two most central areas of the city to the two new markets.[2] The old market known as La Boqueria would be accommodated in the nearby new Sant Josep market on the Rambla, set in a porched square with monumental Ionic columns as befitted a neighbourhood that had become markedly bourgeois, aristocratic even; the new Santa Caterina market, located in a more working-class neighbourhood, took as its model the Parisian market of Saint-Germain (designed by Jacques-François Blondel, 1813-1817), although its construction was much more modest.

These markets took a long time to be built,[3] and by the mid-nineteenth century, shortly after their completion, they seemed anachronistic. Both designs were contemporary to the projects for the Parisian Halles Centrales, and would soon be followed by numerous market halls built in the different Parisian neighbourhoods, as well as several hundred built in the French provinces.[4] Around the same time, both the 1855 report drawn up by the commission that established the premises of the urban expansion of Barcelona

2. Rosa Maria García Domènech, 'Mercats de Barcelona a la primera meitat del segle XIX,' *Història Urbana de Barcelona. Actes del II congrés d'Història del Pla de Barcelona*, 6-7, December 1985, vol. 2. Institut Municipal d'Historia de Barcelona, Barcelona, 1990.

3. In the case of La Boqueria, the agreement with the owners of La Virreina Palace to reorganise the fishmongers' area had yet to be signed in December 1848. The building work in Santa Caterina did not start until 1847, years of great progress in iron architecture. Reference and transcription in the Contemporary Municipal Archive of Barcelona (AMCB), Artistic and Environmental Heritage, 'Enderrocament antiga peixateria del mercat de la Boqueria, 1835' [Demolition of the former fishmongers in La Boqueria market], Box 46147 /7.50.

4. Bertrand Lemoine, *Les Halles de Paris. L'histoire d'un lieu, les péripèties d'une reconstruction, la succesion des projets, l'architecture des monuments, l'enjeu d'une "Cité",* L'Equerre, Paris, 1980, p. 32; Rosa Maria García Domènech, 'Mercats de Barcelona a la primera meitat del segle XIX,' 1985, op. cit.

Markets, foodstuffs and merchants, 1856
Number of people selling goods in Barcelona markets

Goods on sale	La Boqueria	El Born	Santa Caterina	Barce-loneta	El Pedró	Total	%
Vegetables	300	260	160	52	20	792	44%
Meat	120	69	30	18	9	246	14%
Ripe and dried fruit	90	30	12	10	10	152	8%
Fresh and salted pork	60	60	15	9	4	148	8%
Game and eggs	55	37	18	4		114	6%
Fresh fish and seafood	53	35	9	8		105	6%
Hens	35	19	10	7	2	73	4%
Bread	37	20	12			69	4%
Lingerie fabrics	33	9	20			62	3%
Tripe	25	10	5			40	2%
Totals	808	549	291	108	45	1801	100%
%	45%	30%	16%	6%	2%	100%	

Source: Ildefons Cerdà, 'Monografía estadística de la clase obrera en Barcelona en 1856.' Facsimile edition, in *Teoría General de la Urbanización*, II, Instituto de Estudios de Administración Local, 1968, p. 61

(Eixample) and Cerdà's project posed the need for market halls consistently located throughout the new city. All these facts revealed the distance between the aspirations to modernisation and the actual constructions.[5]

5. 'Memoria que la Comisión elegida ha presentado proponiendo las bases generales que en su concepto debieran adoptarse para el ensanche de esta ciudad' [Report presented by the elected committee to set forth the premises it believes should be adopted for the expansion of this city], Historic Archive of the City of Barcelona (AHCB), point 15: 'The map should show the areas where the following buildings should be located: a parish for every 10,000 inhabitants, and for every 1,200 residents, infants schools and nursery schools, providing the population that will probably occupy each of the districts into which the city will be divided up with town halls, hospitals, markets, public baths, neighbourhood fountains for drinking purposes, fountains for street and gutter cleaning, public washing places, etc.'

Nonetheless, economic and demographic growth and the establishment of new markets brought about significant structural changes. If we take the information presented by Cerdà in his *Monografía estadística de la clase obrera en Barcelona* as a starting point, we observe a great disparity between the various markets. The new market of La Boqueria concentrated 45 per cent of the city's stallholders, while El Born congregated a third. The new Santa Caterina market was still having difficulty getting off the ground, whereas the smaller outlying markets of La Barceloneta and El Pedró only attracted small numbers of stallholders.

In 1865 Santa Caterina with its 532 stallholders clearly exceeded El Born, which at the time had 384 stallholders, becoming the second most important of the city's markets, after La Boqueria.[6] Between 1856 and 1865 the growth of the two smaller markets was spectacular. La Barceloneta market reached a record 271 stalls and El Pedró reached 168. The latter was also allowed to continue on the neighbouring street, carrer de la Cera. The growth of the suburban Hostafrancs market also generated problems.

A survey of the evolution of all the municipal markets from the beginning of the century to 1868 reveals the gradual change from a relatively dispersed set of urban markets with small areas of impact to the establishment of a primitive ranking with less markets but greater areas of influence, on a neighbourhood, district and city scale. This incipient market system obviously still had serious shortcomings. With the exception of the covered Santa Caterina market that was born old, the other market places were not sealed off from surrounding vehicular traffic space, nor did they present the covered pedestrian areas, well lit, organised and hygienic, that characterised modern iron and glass architecture (the *parapluies de fer* or iron umbrellas described by Haussmann). Attempts were made to alleviate the inconvenience of open-air markets with tarpaulins that deteriorated very quickly,[7] while simultaneously the main mar-

6. A report by the municipal service stated that 'Isabel 2ª market is not what it was when it was erected, tenders and sales have multiplied by four since that period and many applicants find there are no vacancies.' AMCB, Public Works Committee / Section 3, File 3083, Piece 1 3/1, 'General a todos los mercados' [Extensive to all markets], 1865. Information on La Boqueria is lacking, and there is no way of knowing this year its exact weight among the rest of Barcelona's markets. File 3038, Public Works Committee / Section 3, 1865, 'Expediente relativo a los mercados públicos' [File relevant to public markets]. The increase in importance of Santa Caterina within the market system is easily inferred, although in 1877, once the metal construction of El Born market had opened, Cornet i Mas observed that 'as a result of its proximity to El Born, it is not as popular as it should be.' Josep Maria Cornet i Mas, *Guía de Barcelona*, Barcelona, 1877.

7. On 6 February 1855, for instance, the director of La Boqueria market made it public that 'some awnings in the market are in very poor condition, several cannot even be drawn, a fact which stallholders have complained about, for they pay their quotas but then either have to leave their stalls

ket places became increasingly denser, filling to the point of brimming over and thereby creating problems of hygiene, congestion and functioning. A report drawn up in 1840 by two physicians was extremely critical of the sanitary conditions of El Born.[8]

Aside from the early design for 'stalls' at El Born conceived by Daniel i Molina in 1848, most of the unrealised designs in iron appeared after 1860, as was the case in other Spanish cities—the project for El Pedró market (1861), Miguel de Bergue's design for La Boqueria (1863-1865) and Garriga i Roca's for La Barceloneta (1868). It doesn't seem coincidental that the latter should have been drawn up immediately after the architect travelled to Paris as a commissioner to study the Exposition Universelle, trip on which he visited other French cities to complete his survey.[9]

Towards a Market Policy (1868-1897): The First Iron Market Halls

The initiative to renovate market buildings was not just an outcome of the 1868 revolution, for some of the processes had been initiated before then, although the political change undoubtedly prompted its formulation and realisation. It is not fortuitous that a similar process should have begun in Madrid at the same time.[10] On 29 July 1870 the Municipal Plenary Session proposed the creation of a special committee to study the subject of markets that was set up on the 27 December 1870, which then asked the Director

when it rains or risk the sun ruining their vegetables.' AMCB, Public Works Committee / Section 3, File 1530, 3/1. The municipal agreements contain numerous references to the installation or repair of awnings made of canvas or cane and cardboard, all of which show concern about not incurring in excessive costs. Manuel Saurí i Matas highlighted Santa Caterina market 'because of the convenience of sheltering stallholders and customers from the elements.' *Manual histórico-topográfico, estadístico y administrativo. Guía General de Barcelona*, Barcelona, 1849, p. 235.

8. 'The building of El Born is quite small and wedged on two sides between the houses that provide the limits of the market. Enclosed as it is by the high walls of Santa Maria del Mar, rather than the erection of stalls it would need an extension in proportion with the attendance of customers, stallholders and passers-by who spend all day long moving around the premises.' A committee from the Academy of Medicine also deemed El Born market too enclosed and cramped. AMCB, Treasury Committee / Section 2, 'Gestiones del Ayuntamiento para la construcción de barracas en el Borne y el Bornet' [Actions taken by the Town Council for the construction of stalls in El Born and El Bornet], 1840, File 486.

9. AMCB, Municipal Minutes, 19 September 1867, no. 49, fol. 196 and 199v. Ibid. 22 April 1868, no. 50, fol. 61v.

10. According to the issue of *La Ilustración Española y Americana* published on 22 June 1875, in 1867 the Town Council of Madrid commissioned the design of La Cebada and Los Mostenses, and in 1869 it guaranteed the concession required in order for the building work to begin. Both markets opened in 1875; Chamberí market opened in 1876 and La Paz market in 1882. The process was then brought to a standstill until San Miguel market was erected between 1913 and 1916. On the first of Madrid's markets to be constructed in metal, see Pedro Navascués Palacio, *Arquitectura y arquitectos madrileños en España durante el siglo xix,* Instituto de Estudios Madrileños, Madrid, 1973, and 'La arquitectura del hierro en España durante el siglo xix,' *Cuadernos de Arquitectura y Urbanismo*, 1980, no. 65, p. 39-64.

of Construction and Ornament, architect Josep Artigas, to study the issue.[11] The resulting report, dated 25 May 1871, began with an analysis of the situation of the city's markets and its shortfalls and presented the first overall survey devoted almost exclusively to the city's historical quarter. It maintained the central role played by the markets of La Boqueria and Santa Caterina in their respective areas of urban influence and suggested complementing them with a solid and consistent network of markets.[12]

It proposed moving El Pedró to the site foreseen in Cerdà's project for the future Sant Antoni market, the creation of a new market on the site of the demolished Jonqueres convent and, in the case of El Born, considered the possibility of expropriating the section between the square and Carrer Esparteria to see if it could accommodate a covered market. This initial proposal was eventually abandoned due to its cost, and instead it was decided that the Sant Sebastià building would be knocked down so that Jonqueres and the new El Born would be located at the two extremes of Gran Via A anticipated in the Reform plan (of the future Via Laietana), thereby facilitating accessibility. The solution planned for El Born, however, was finally ruled out when in 1871 Fontserè introduced the new market in his project for the land made over to the Ciutadella in 1869, in a situation similar to the one foreseen by Cerdà. This is the true starting point of the modern network of metallic market halls. From this point on, the municipal agreements would pay constant attention to all the city's markets viewed as a system.[13]

11. AMCB, Municipal Minutes, 1870, 29 July, fol. 200, no. 52, and 'Sobre proponer las modificaciones y mejoras que pueden introducirse en los mercados' [On the proposal of alterations and improvements that can be introduced in markets], Public Works Committee / Section 3, File 3502. Appointment of a special committee in charge of the needs of markets: '[O]ne of the most meaningful pieces of information regarding the prosperity, the progress and even the culture of a town is undoubtedly the state of its police force, and consequently the state of its most frequented public places, including markets. For these reasons … the undersigned have the honour of proposing that Your Excellency appoint a special internal committee responsible for the needs of the market halls of the City and of the alterations and improvements that can be introduced under all concepts, to put forward as soon as possible those it should consider more convenient.' For more information see 8 July, fol. 147v. 'Dictamen de la Comisión para proponer mejoras en los mercados de esta capital proponiendo la traslación del de Padró … y otro de la Comisión para proponer mejoras en los mercados en el sentido de que aceptando el proyecto de trasladar el del Padró al punto que está señalado … en el plano oficial del Ensanche a la salida de la ex-Puerta de San Antonio; se oficie al Gefe (*sic*) de edificación y ornato para que exprese su parecer acerca de la expresada mejora' [Report by the Committee to suggest improvements in the markets of the capital, proposing to move El Padró market … and another report by the Committee to suggest improvements in markets whereby accepting the project to move El Padró market to the aforementioned location … on the official map of the Eixample at the ex-Door of Sant Antoni, the Head of Construction and Ornament is asked to express his opinion on the aforesaid improvement.]

12. Report by the Architect and Director of Construction and Ornament, Josep Artigas, published on 25 May 1871, AMCB, Public Works Committee / Section 3, File 3502.

13. During the first half of 1873 there is news in the municipal minutes of the process of purchasing the site of Sant Antoni market, but two years later judgement still hadn't been passed on the

El Born Market, ca. 1900, when it was still a retail market

The first two metal market halls, El Born and Sant Antoni, were conceived as genuine manifestos of the new urban planning, an alternative to the disorder of traditional market buildings that invaded public space and to the frustrated modernity of the markets of La Boqueria and Santa Caterina.

Following European models, they proposed open-plan spaces protected from the elements, cut off from the street and free of the obstacles that hindered the movements of customers dedicated to the orderly contemplation of goods. In the case of markets, as in those of arcades and exhibition pavilions, the new architecture of iron and glass created ideal spaces for displaying

assessment of the land belonging to the State. AMCB, Public Works Committee, 1873, no. 55, 27 February, 3 March, 6 May, 3 July, fols. 83, 85, 144, 187, and Municipal Minutes, 1875, no. 57, 2 March, fol. 66, 23 March, fol. 89v. See note 17.

goods, emerging as modern monuments of urban 'transience', epitomised by the railway station—structures that ensured safe and orderly movement for mobile nomadic individuals.[14]

El Born market eventually opened in 1876 and Sant Antoni opened in 1882. As well as the new technology of iron visible in the façades and in the interiors, the two had in common their large dimensions and centralised ground plans with crossings crowned by octagonal domes where spacious perpendicular naves converged. As a result of these features they rose as two modernising and 'monumental' structures in the ever-changing urban landscape, the result of a desire to move with the times and of unduly optimistic expectations.[15] It was thought that their allure would decongest the market of Santa Caterina and especially that of La Boqueria, which was noticeably overloaded. This was not the case, however, and in both instances the size of the building would prove excessive.

The debate generated by on the market to the right sector of the Eixample district confirms the excessively ambitious nature of these first two markets, and of the progressive tendency towards neighbourhood market halls of more modest dimensions. This was the logical option in the cases of La Barceloneta and Hostafrancs, but in that of the Eixample the choice proved highly significant.

In 1872 it was agreed that two markets would be established there, the most urgent being the one in the right sector of the district, which was a more

14. Georges Teyssot, 'Habits/Habitus/Habita' (1996), http://urban.cccb.org (urban library): 'In *Paris the Capital of the Nineteenth Century*, Walter Benjamin has noted how iron and glass were avoided in dwellings while such materials came to be used in passages, covered markets, pavilions for expositions and train stations: "buildings which served transitory purposes". Two contrasting modes of subjectivity begin to insinuate themselves into the world of things: on the one hand, the "transitoriness" that determines a sort of man, mobile and nomadic; on the other, the old individualism of the inhabitant par excellence who defends his traditional "permanence" or "allocation" … It is certainly true that recent studies, for example, on the Victorian country house in Great Britain, or on the apartment building during the Haussmann era, tend to qualify Benjamin's assertion that "iron, then, combines itself immediately with functional moments of economic life".'

15. Shortly before its opening, authorisation was granted 'to the Economic Society to celebrate a general Catalan exposition in the new Sant Antoni market,' which reveals the proximity between the exhibition palaces and the new market halls. AMCB, Municipal Minutes, 1881, no. 63 and 28 June 1881 AAMM fol. 419v. Ramon Grau has pointed out the similarities between El Born or Sant Antoni and the exhibition palaces designed by Fontserè for the Ciutadella. They share the condition of being spaces for displaying the spectacle of abundance and of perishables. The design by Rovira i Trias for the market of Sant Antoni is particularly interesting because it adopts a panoptical form that enables the director's office to be based in the middle, a solution that proved controversial and was finally modified. *Diario de Barcelona*, 8 December 1881: 'A huge and heavy structure made of wood and masonry with the appearance of a Swiss cottage is being erected in the centre of Sant Antoni market, destined, so we have heard, to house the office of the Director of the aforesaid market which reduces the visibility of the 4 wide and slender sections that come together at that point, and which is consequently detrimental to the impact of the building.'

developed and inhabited area. Once the Jonqueres site foreseen by Artigas had been ruled out, between 1875 and 1883 a location on land belonging to La Catalana General de Crédito was studied, comprising the two blocks of houses between four streets—Bruc, Casp, Bailèn and Ausiàs March.

The basic argument in favour of this option was precisely 'the building of a great central market' in view of the fact that the Interior Reform foresaw the disappearance of La Boqueria and Santa Caterina, and it would consequently be impossible to procure a large market hall that fulfilled the necessary conditions of centrality. One of the members of the committee opposed such an idea 'on account of past experiences such as the case of the market of Sant Antoni, the impressiveness of which far exceeds the needs of its neighbourhood and simply proves the excessive zeal of the city council; the same could be said of El Born; secondly, because if it is small in size yet large enough to accommodate the needs of local residents it will have the advantage of being more feasible as a result of its lower cost.' Another municipal representative insisted on the idea that a smaller market would be quicker to build, and 'the Municipality would save the price of the lease of the land annexed to La Boqueria.' So the idea of a large market building was finally given up and it was decided that a neighbourhood market would be built instead.[16] As early as January 1884 the acquisition of the definitive site for the future market of La Concepció was being officially discussed, opposed by certain representatives for a number of reasons that still included its inadequate size. On 18 June the reduced project and budget for La Concepció were finally approved.[17]

Be that as it may, the first two large markets and those that followed were built by the same local industry, chiefly by La Maquinista Terrestre y Marítima, a company founded in 1855 for the construction of heavy machinery that at the time, and in order to make up for the difficulties in this sector, directed a significant part of its production towards building in metal. Among many other works, in 1888 it had completed the metal construction of the five covered markets (El Born, Sant Antoni, La Barceloneta, Hostafrancs and La Concepció), the total area of which amounted to 23,600 square metres. This fact is emphasised in all official opening speeches of the time and in the guides to the city, and granted the first group of Barcelona market halls an overall unity of style.

16. AMCB, Municipal Minutes, 1875, no. 57, 2 April 1875, fol. 92; Ibid., 1883, no. 65, 28 August 1883, fol. 270; Ibid., 4 September 1883, fol. 275; 1884, no. 66, 18 January, fol. 15v and ff. on the great central market or the neighbourhood market.

17. AMCB, Municipal Minutes, no. 66, 8 January 1884, fol. 8v, fol. 423v; Ibid., 1885, no. 67, 18 June 1885, fol. 187v.

From the Aggregation of Municipalities to the Regulation of Wholesale Sales (1897-1921)

By the time the process of aggregation had concluded in 1897 Barcelona's six metal market halls had been built and the various surrounding municipalities had presented their own initiatives.[18] At the turn of the century the district of Gràcia, for instance, boasted three markets. La Llibertat market, in the square of the same name, had existed since the eighteen forties and would now be covered by a metal structure which was completed in 1888; its size and takings were similar to those of La Concepció and La Barceloneta. On the other side of Carrer Gran there were two rival centres: the one on Plaça de la Revolució was an open-air market while the one on Travessera de Gràcia, Abaceria Central, erected by a private group in 1892 was in conflict with Gràcia Town Council even before its completion, a conflict that would be passed on to the Aggregation of Municipalities and then to the Barcelona City Council.[19] To the left of the Eixample, on carrer València between Villarroel and Urgell and within the municipality of Les Corts the market popularly known as El Ninot (or Avenir or Les Corts)

18. Restricting the area would be a decisive factor in the endless issue of the slaughterhouse. The process had been prolonged indefinitely since the proposal Fontserè included in his design for the area of the park in 1872, and which had been rejected on hygienic grounds. The purchase of the first plots of land to accommodate the slaughterhouse in the district of Sant Martí de Provençals proved futile on account of the problems raised by the municipality. Subsequent attempts to erect it in the Sants district were also unsuccessful, and the decision to build it at La Vinyeta, within the municipal area of Barcelona, was not made until 1886. Aggregation implied that the new local administration in power inherited the different facilities of the various municipalities and had to reorganise them. This was very clear in the case of slaughterhouses: those in Sants, Les Corts, Sant Gervasi and Sant Andreu disappeared, while those in Gràcia and Sant Martí de Provençals remained provisionally open. The different municipalities in the Plan had followed their own policies concerning the markets that would have to come together from that point on in a broader and more homogeneous system, according to criteria that had been well defined and made explicit since the debate on the Eixample design had arisen and since Cerdà's proposals. Many more years would still have to pass before this would materialise, but aggregation no doubt played a crucial role in the process.

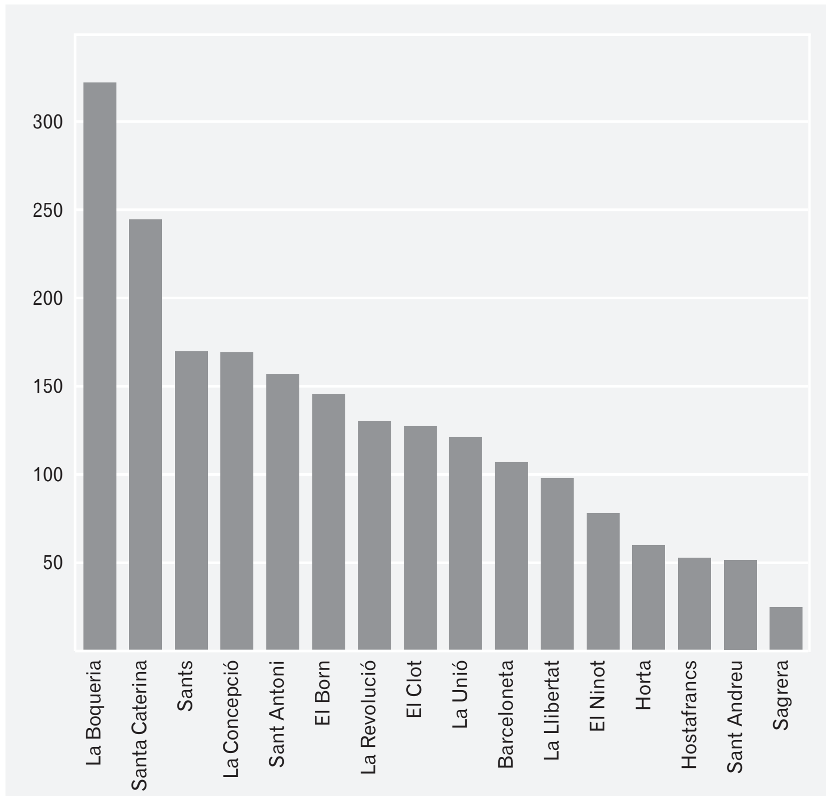
19. In Gràcia, La Llibertat market was completed with sales outlets in other areas of the district, which tended increasingly to concentrate on Plaça d'Isabel II, where the so-called La Revolució market was held. In 1888 Gràcia Town Council was offered the purchase of the land belonging to the F. Puigmartí i Cia. factory on Travessera de Gràcia for building a market. The authorities regarded the transaction costly. On 13 December 1892 *Diario de Barcelona* announced that a private group had erected 'a great market or central grocery [Abaceria Central] furnished with all known advances.' On 21 December the same newspaper announced the market's public opening. This marked the beginning of a long dispute with Gràcia Town Council, which was inherited by Barcelona Town Council after aggregation. The municipal authorities responded by presenting the design for renovation of the La Revolució market, the building work of which was put out to tender on 13 June 1903 and actually began on 13 August 1904. Barcelona Town Council didn't agree to purchase the Abaceria Central market until July 1911, when the La Revolució market would be dismantled and a part of its material reused to build Sant Gervasi market. See 'L'Abaceria Central,' *Gaceta Municipal*, no. 29 (17 July 1950), p. 741-746.

Markets	Value of the land	Value of the building	Revenue
La Boqueria	886.745	10.250	475.360,18
El Born	640.320	1.250.711	124.026,33
Sant Antoni	711.750	1.356.457	111.597,21
Santa Caterina	737.100	120.000	151.739,91
Sants	50.853	24.800	84.761,10
La Concepció	258.668	536.459	76.525,37
La Llibertat	132.996	250.000	42.305,93
Barceloneta	132.481	275.880	36.495,43
El Ninot		3.750	19.757,12
Hostafrancs	104.904	478.927	11.934,13
La Revolució	36.080		25.304,77
Sant Andreu	11.045	5.800	9.782,01
El Clot	60.702	84.000	21.605,58
La Unió	42.968	65.200	20.293,85
Sagrera	9.570		1.751,42
Horta			1.063,68
Els Encants			46.459,51
Poultry	216.195	36.031	17.583,24
Wholesale fish	158.186	102.500	24.868,50

Value of the plot of land and the building (1900), revenue in pesetas (1902). The number of stalls in La Boqueria has increased by 400 to correct the mistake noticed in the comparison with following years. Source: AMCB Patrimoni artístic i monumental, box 46.174, report 7.103, *Anuari estadístic*, 1902

had prospered.[20] In 1889 the town council of Les Corts de Sarrià stipulated that it be moved to its present location as an open-air market consisting of wooden stalls. The town council of Sant Martí de Provençals had ordered the construction of the two covered markets of Clot and Unió. Both projects were designed by the municipal architect of Barcelona, Pere Falqués, in 1887. The Hort Nou market in Sants was only partially covered but was growing

20. See 'L'obra constructiva de l'Ajuntament: el nou mercat del Ninot,' *Gaceta Municipal*, no. 39 (2 October 1933), p. 1007-1015.

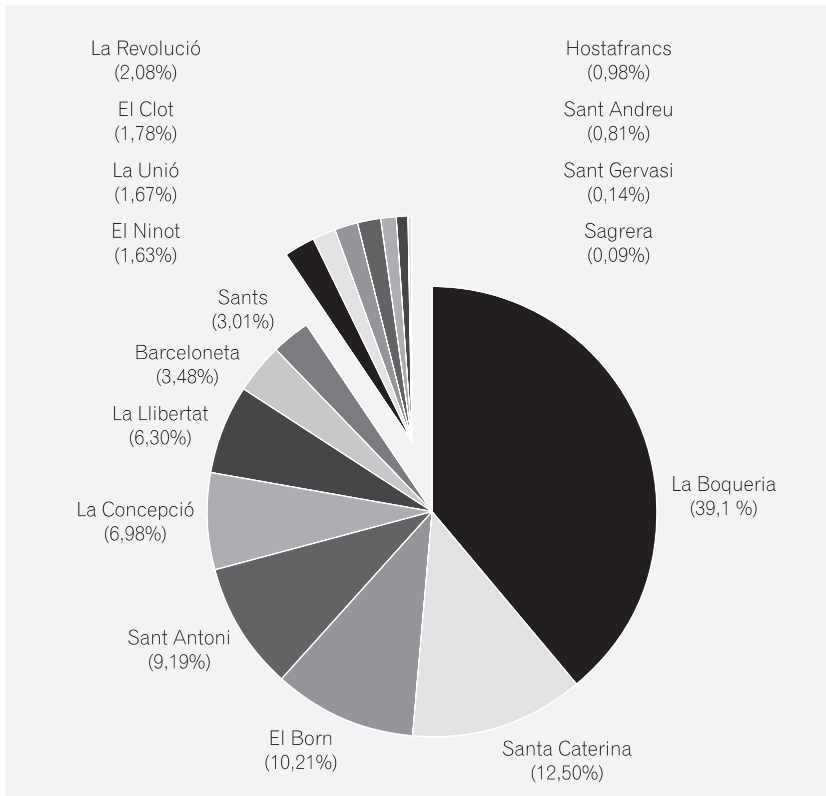


Average revenue per stall in pesetas, 1902. Source: *Anuario estadístico*, 1902

quickly, so by 1902 it had more stalls than those of La Concepció and La Llibertat.[21] Sant Andreu, Sant Gervasi and Sagrera had their own markets even though they were smaller (see graphs), as did Horta and Sarrià, although these would join the municipality of Barcelona at a later date.

The management was fragmented until the Aggregation of Municipalities was set up, although it did share collective experience, as exemplified by La Llibertat market—which had much in common with the other markets built by La Maquinista Terrestre y Marítima—and by Clot and Unió markets (1889) designed by Pere Falquès, municipal architect of Barcelona who

21. AMCB, Municipal Minutes, 1899, 11 January, no. 94 fol. 21v. 'It is agreed to build two side sections for the new Sants Market on land known as "New Vegetable Garden" for 164,444.33 pesetas; the other points of the report are sent back to the committee to be studied.' The design by the municipal architect and a total estimate of 310,398.92 pesetas had previously been approved. See also AMCB, Patrimoni Artístic i Ambiental, File 7103, Box 46174.



Revenue percentage per market in pesetas, 1902. Source: *Anuario estadístico*, 1902

benefited from previous experiences and suggested building cheaper structures, replacing cast-iron pillars with factory pillars that separated the stalls and supported the jambs.[22] The Aggregation of Municipalities necessarily

22. AMCB, Artistic and Environmental Heritage, File 7125, Box 46186, Q147, Clot Market, 'Proyecto de Mercado Cubierto para la plaza del Clot, 1886, Ayuntamiento Constitucional de San Martin de Provensals' [Project for a Covered Market for El Clot marketplace, 1886, Constitutional Town Council of Sant Martí de Provençals], and Report, 7 January 1887, by Pere Falqués: 'One of the circumstances to be taken into account when designing a roof for a covered market is the economy of intermediate points of support in the sheltered area, so a solution should be found for the roof to be supported by the side enclosures. For this purpose solid supports are placed on the length lines on which rests the roof, leaving the sheltered length totally free. As we do not accept the side enclosure of the market, we shall not build a continuous wall for the said supports but buttress walls on each section axis and in the direction of the roof rafters … As well as economic reasons, the adoption of the aforementioned supporting and buttress walls instead of iron columns is due to the need for partitions in the butchers. … Bricks are used in the outer building work, plaster in interiors and cement in the moulded sections and crowns.'

imposed a new level of administration and joint management of all these markets. A first schematic evaluation appears in a file dated 1900, and the *Anuarios Estadísticos* published as from 1902 give us a much better global perspective.[23] It is surprising that of all the markets in the old municipality of Barcelona the only one still lacking a definite architecture, still unfinished and on the whole open-air was La Boqueria which, according to the 1902 *Anuario*, represented 40 per cent of the total takings of the sixteen markets in the city.[24] The second, Santa Caterina with 12 per cent, was described in 1900 as follows: '[F]or the most part this building is in ruins, and some alterations are currently being carried out.' In short, the two most central and most important markets are also those in the poorest conditions. One of the reasons for this anomalous situation was the threat of the Interior Reform project that Àngel Josep Baixeras was promoting at the time and which fully affected La Boqueria and Santa Caterina. Baixeras suggested three alternative markets, one on carrer Jonqueres, another on the site of the House of Mercy and the third close to the shipyard, all three on the new A and B thoroughfares. To this threat was added, in the case of La Boqueria, the uncertainty regarding the future of the site of the ex-convent of Jerusalem; such a precarious situation hindered its architectural remodelling but not its *de facto* reinforcement.

Furthermore, the evaluation of the different markets clearly confirms the substantial change in strategy between the first two markets, El Born and Sant Antoni, and those that followed.[25] Both markets doubled or tripled the area of Santa Caterina and La Boqueria and they alone accounted for two thirds of the total municipal investment in new market buildings. Their takings, on the other hand, were quite modest compared with those of La Boqueria and Santa Caterina, and even with those of La Concepció (see graphs).

However, the most profitable and active (and consequently most congested and difficult to manage) were the most 'traditional': La Boqueria, open-air and cramped, the true heart of Barcelona's market system, and Santa Caterina, architecturally obsolete.

In general terms, the attempt to surpass traditional markets was associated with control over forms of urbanity and the moralisation of customs.

23. AMCB, Artistic and Environmental Heritage, File 7103, Box, 46174, Barcelona Markets 1900.

24. *Anuario Estadístico de Barcelona* (1902), 503-530.

25. AMCB, Artistic and Environmental Heritage, File 7103, Box 46174.

La Boqueria market before it was roofed, ca. 1910

This is an issue that surfaced in all Western countries.[26] The shortcomings in this field were often used as biased arguments. An 1859 official request against the transfer of the market of Hostafrancs pointed out, '[I]n the first place, given that the aforementioned school stands in the centre of the stretch of pavement that acts as a market, insofar as we can say that the entire area in front of the building is a market place, the two hundred boys and girls who go to the same school every day and at all times necessarily hear and witness

26. Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America*, John Hopkins University Press, Baltimore, 2003; James A. Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History*, Yale University Press, New Haven, 1999, p. 11-19, 51-58; Bertrand Lemoine, *Les Halles de Paris* (1980), op. cit.; Gilles-Henry Bailly and Philippe, *La France des Halles & Marchés*, Privat, Toulouse, 1998; Victoria E. Thompson, 'Urban Renovation, Moral Regeneration: Domesticating the Halles in Second Empire Paris,' *French Historical Studies*, 20 (Winter 1997), p. 87-109.

the profanities, obscene and indecent words, quarrels and fights and all the rest that is known to go on in market places and which is a terrible example for educating children and forming good habits and customs.'[27] The same arguments would be used in 1895 in a lecture published against the Encants market: 'And on the moralising sights of the traders on business days, what can we say? There is no doubt that they place the culture of Barcelona on a level that especially honours it. That hideous shouting … consisting for the most part in vulgar and obscene words, coarse insults that they direct at one another, often accompanied by gestures and actions that are by no means edifying and other similar nasty comments, produces a motley set of scenes that run contrary to the morality and decency characterising cities such as ours.'[28] In the regulations approved in 1898 this became the object of article 30: 'Stallholders are obliged to use good form and refined manners among themselves, with the public and with the municipal employees of the market.'[29]

The Encants became an object of great controversy. The open-air flea market was seen as the most irrefutable testimony of the intolerable disorder of life on the streets. On 23 September 1879 it was agreed that a row of stalls would be removed, although an amendment opposed the measure, considering that it fell short of what was required, for 'there was no reason for either the Encants or the stalls on the public thoroughfare … the stalls located on carrer Capmany on market days should be made to disappear completely.'[30] The indecisiveness was brought abruptly to end by the 1888 Exposition Universelle—the Encants were too central and occupied a main artery so it was decided that they be moved to a peripheral area. As stated in a document drawn up in 1892, '[U]nder the pretext that the Encants, as they were set up on carrer Consulat and plaça Sant Sebastià, would degrade Barcelona, the town council decreed at a stroke to move those demeaning Encants to the area around the market of Sant Antoni […] Therefore, the former Encants, with all its flaws and their 245 stallholders, was installed (in spite of the protests made by those who were most affected) around

27. AMCB, Public Works and Promotion Committee, File 1530 3/1, 18 March 1859.

28. M. Pirretas, *Inconveniencias y perjuicios que los Encantes y el Rastro causan al Comercio al detall en particular y a Barcelona en general, Conferencia en la Liga de Defensa Industrial y Comercial de Barcelona,* Barcelona, 1895.

29. *Reglamento para el régimen de los mercados de esta Ciudad. Aprobado por el Excmo. Ayuntamiento en Consistorio de 13 de abril de 1898*, AHCB, Entity 1-25, Box 2,1. Along these lines, see the comments on El Born and La Boqueria in José Coroleu, *Guía del forastero en Barcelona y sus alrededores,* Seix Barral, Barcelona, 1887, p. 262.

30. AMCB, Municipal Minutes, 1879, 23 September, no. 61, fol. 411.

Barcelona's most important market hall.' In 1892 and 1893, when a number of residents asked for the market to return to its original site, the stallholders had discovered the advantages of the new location and made strong objections.[31] The following year attempts were made to bring some order to area around Sant Antoni market where the host of stallholders had divided themselves up without too much control.[32] Therefore the same year in which the first generation of modern market halls had been built, 1888, the largest and dearest of such constructions was besieged by the most primitive marketing techniques antithetical to the values of modern urbanity that the new markets aspired to represent.

A number of signs during the last decades of the nineteenth century revealed the growing importance of wholesale sales. Meaningfully, in 1891 three proposals were made which had much in common: allocating a large city building to accommodate, examine and hire livestock, build a warehouse for selling fish wholesale in the Machine Gallery within the 1888 Exposition Universelle, and equip Santa Caterina market with a compartment-lazarette for hens, most of them imported, that 'due to the crossings they must undergo in congested spaces contain infectious principles.' The growth of the city had changed the scale of her provisioning, leading to problems of management and control. The decision to take advantage of the aforementioned Machine Gallery as an installation for wholesale sales foretold the direction things would follow from then on. In 1897 it was suggested that the same building could accommodate the Wholesale Fowl, Fruit and Fish Market and the following year the building work commenced. However, in 1900 the Fowl Market was the only one of the three that was open for business.[33] In 1899 a change of programme was agreed when it was decided that the Fruit and Vegetable Market would be installed in El Born, which still had a well-defined area for selling fish wholesale. We

31. They adduced that '[S]o many pains and efforts have at least yielded satisfactory results … for the establishments, previously neglected, are now thriving and the 245 stallholders have now become 700 permanent and 200 seasonal retailers,' and finally appealed to the interests of the town council itself. 'Exposición. Defensa de los derechos de los vendedores en los Encantes… del mercado de San Antonio' [Statement. Defending the rights of the stallholders of Els Encants … of Sant Antoni market], AHMB, Entity 1-25, Box 2.5, AMCB, Municipal Minutes, 1893, 19 January, fol. 33v. 'The majority report returns to the committee (fol. 338v. of the previous minute book) for the Encants to be installed once again in plaça Sant Sebastià.'

32. AMCB, Municipal Minutes, 1894, vol. 2, no. 85, 20 November, fol. 270 and 27 November, fol. 290, p. 294. The issue of moving the market would be raised again in 1906. AMCB, Municipal Minutes, 1906, Index, Box 138, 20 November.

33. AMCB, Municipal Minutes, 1897, 1 December, no. 91, fol. 605v.-606; 1898, 9 February, no. 92, fol. 138v., and no. 93, fol. 312; 1899, 12 July, no. 95, fol. 18. 'The Municipal Architect has been commissioned to carry out the necessary work for the swift completion of the fruit and fowl markets,' 12 July 1901, no. 106, fol. 42v.

are also familiar with the situation and areas of these wholesale markets in 1900. The Fowl Market occupied 5,444 square metres of the Machine Gallery building. The Fruit Market was nominally on the same site and occupied almost 3,300 square metres but was not in operation. The Wholesale Fish Market was on carrer Marquesa by the França Railway Station and had an annexed plot of land between that street and those of Ocata and Aduana that measured approximately 390 square metres.[34] In 1904 the first proposals were made for returning the wholesale fish sales to El Born. The idea prospered and around 1920 the wholesale fish market occupied 1,719 square metres of the 8000 square metres odd of El Born.[35]

During these same years three regulations were being drawn up: the general regulation of markets and the special regulations of the Central Fish Market and the wholesale Central Fruit and Vegetable Market.[36] One of the most active champions of the need for a wholesale fruit and vegetable market was the Catalan Agricultural Institute of St Isidre. Some of the paragraphs in the publication describe the malfunctioning of La Boqueria market, the true central market of the city: 'It is really sad to see the conditions in which the fruit and vegetables that stock the market arrive and are inspected. The location and layout of the present Sant Josep market are well known. If we told people that three hundred carts overflowing with fruit and vegetables are crammed into that back alley daily they would probably consider the statement inconceivable; however, it is true, extremely true. Such an incomplete and rudimentary system is another factor that leads to a depreciation of prices for stallholders, i.e., farmers, without necessarily benefiting consumers. The reason is obvious. The carts from the Llobregat plain, for instance, have to wait from twelve o'clock midnight when they arrive until the early hours of the morning when after having sold their goods they can set back. They have very little space so baskets and baskets pile up, great stacks of fruit are briskly unloaded, almost thrown out of the carts due to the accumulation,

34. AMCB, Artistic and Environmental Heritage, 'Relació i valoració dels Mercats de la Ciutat' [List and appraisal of the City's Markets], Q 147, File 7103, Box 46174.

35. AMCB, Artistic and Environmental Heritage, 'Proyecto de habilitación de parte del mercado del Borne para la venta al por mayor de frutas y verduras' [Project for fitting out a part of El Born market for wholesale fruit and vegetable sales], October 1920, File 7108, Box 046177 (13/88/803).

36. AMCB, Municipal Minutes, 1901, Index, Box 106, 25 January 1901, vol. 1, fol. 70v. S/M report on changes to the present regulation of markets. Municipal minutes, 1906, Index, Box 138, 31 January 1906, vol. 1, 250v.: '[A]pproval of the three regulations included for Markets in general, for the Central Fish and Fruit Market and for the Wholesale Vegetable Market, and their publication in the *Gaceta Municipal*, 31 January 1906.' The *Gaceta Municipal* was probably scheduled to appear around this time, but the fact is that the first issue would not be published until 1914.

the total absence of conditions, the lack of time and space needed to arrange them. Delicate produce travels this tortuous path to the market place and for these and other reasons farmers are forced to hand it over at totally ruinous prices.'[37]

The subsistence crisis originated by World War I proved decisive in solving the problem of the establishment of a central market in the city.[38] In February 1916 the Institute insisted: 'One of the causes that determine the so-called subsistence conflict in Barcelona was the lack of organisation in the city's markets, aggravated by the fact that it had adverse effects for consumers and for producers, in other words for the farmers from neighbouring regions and from further afield … This is the sad situation we are experiencing … a crisis due to scarcity in the city, a crisis due to abundance in the country. How can we solve this problem? By establishing a free central market where trading is public and prices receive as much publicity as necessary. This would bring the present chaos and prevailing privileges to an end.'[39] On 17 January 1918 it argues: '[S]ome stipulations dictated with the intention of reducing prices have counterproductive effects, violating economic laws to such a degree that it was possible, cheap even, to feed livestock on potatoes and maize on farms and allow the produce obtained to rot at the doors of Barcelona to avoid subjecting it to the restrictions and taxes entailed by entering the city. The impediments applied last season to the sale and circulation of potatoes and the tax on the price of pork have provoked the shortage of both products. Rather than intervening in retail prices the authorities should promote and stimulate production, as a result of which and by virtue of the law

37. J. M. Pujades, 'Un mercado central de frutas y verduras,' *Revista del Instituto Agrícola Catalán de San Isidro* (20 December 1913), Year LXII, Notebook 24, p. 371. The survey mentions some of the conclusions of the statement presented before the council: 'Consequently, so we are told, there will be a unification of prices controlled by the central market, not only as regards the markets of Barcelona but those outside of the city as well, whereas today not even those established in the capital are able to unite. If the market were to be erected in the right location for this purpose we would be able to send consignments out again if a given product is so abundant that it fetches a low price; this would be easy if the market were located in the vicinity of a railway line.' The report also suggests the use of cold stores.

38. On the consumption struggles and the leading role played by women during the Great War see Lester Golden, 'El rebombori del pa del gener de 1918,' *L'Avenç*, 44 (1981) 45-50; Temma Kaplan, 'Female Consciousness and Collective Action. The Case of Barcelona, 1910-1918,' *Signs* (Spring 1982), vol. 7-3, p. 545-546, 560-564.

39. 'Las subsistencias y el mercado de Barcelona,' *Revista del Instituto Agrícola Catalán de San Isidro* (5 February 1916), Year LXV, Notebook 3, p. 33. In November 1916 the Treasury Committee received a proposal 'to introduce the Central Market, for the trade and storage of vegetables, fruit, etc., Municipal Minutes, 1916, Index, no. 217, 9 November, vol. 6, fol. 48v.

of supply and demand the price of the product would drop … Another way of reducing the conflict in Barcelona, in the opinion of the Institute, was by establishing free central markets where products would converge, eliminating intermediaries wherever possible and consequently managing to lower prices. One of these markets should be for all sorts of agricultural products, fruit and vegetables, tubers, grain, seeds, etc., and even firewood and charcoal, with an annex for fowl and another for livestock, and would be set up in the slaughterhouse … The Institute affirms that if it has been supporting the establishment of these municipal improvements for almost a quarter of a century, it hopes that now in such critical circumstances it will be listened to.'[40]

In February 1918 a report by the Treasury Committee suggested the steps necessary to make this possible. The first was to temporarily equip El Born market, the second was to move the Central Fish Market to other town hall premises, and the third was to transfer those retail stallholders who for reasons of seniority were entitled to choose their stalls from among the vacancies available in all markets with the exception of La Boqueria. The others would be transferred to Santa Caterina market, where the large interior courtyard was being covered and surfaced to accommodate them.[41]

Be that as it may, the changes were slow in coming and throughout the long-drawn-out process the town council received numerous accusations of passivity and vested interests and was fiercely opposed by the wholesalers who obtained huge profits with the rise in prices. It is not, therefore, surprising that in spite of the professed urgency of the initiative it should have taken three years to be implemented. On 19 April 1920 a new deferral was granted for repairing the roof of El Born market and work was still being performed on the

40. *Diario de Barcelona*, (17 January 1918), p. 701.

41. Municipal Minutes, 1918, Index, vol. 2. A report by the Treasury Committee dated 11 February 1918 which on 13 March had yet to be debated, proposing 'that without detriment to the agreements considered appropriate for the construction of a great Central Fruit and Vegetable Market, El Born market be provisionally fitted out … The town council will proceed to transfer the Central Fish Market and the Market Offices to other premises owned by the Council … Likewise, present stallholders will be transferred as follows … Once a list of occupants is drawn up, according to seniority, they will be summoned in the same order to choose a place from the vacant stalls in all markets, except those of La Boqueria, Santa Caterina, El Born and the Central Fish Market … The others will be transferred to Santa Caterina Market as soon as the urgent building work on the premises permits.' Especially important was the work on the roofing and surfacing of the hitherto open-air central courtyard, which was considered urgent 'because it would have a direct effect on the fall in price of the fruit and vegetables,' 25 September, vol. 5, fol. 62. 'Making available to the Chief Architect of the Treasury Section a given amount to cover the expenses of transferring the retail stalls of El Born Market,' 6 November 1918, vol. 6, fol. 29. 'Motion proposed by Sr Vinaixa on the beginning and interruption of building work on El Born market.

Area occupied by wholesale fruit and vegetable sales in different markets in 1920	
La Boqueria	3.547 m^2
Santa Caterina	1.751 m^2
Sant Antoni	993 m^2
Sants	290 m^2
La Llibertat	230 m^2
El Clot	124 m^2
El Born	
Central Area	3.864 m^2
Wholesale trade of fresh fish today	1.719 m^2
Pavements protected by the new canopies	1.840 m^2

'Projecte d'habilitació de part del mercat del Born per a venda a l'engròs de fruites i verdures,' October 1920. There were 120 permanent dealers (middlemen) and a small number of provisional dealers divided among the different markets. The area fitted out in El Born accommodated 147 permanent dealers and 100 provisional dealers. Source: AMCB Patrimoni artístic i monumental, box 46.177, report 7.108 (13/88/803), 15/11/1929

new canopies, while on 17 November the layout of stalls in El Born had yet to be decided on account of the repairs. In October 1920, when the project for equipping the new wholesalers market in El Born was designed, wholesale sales of fruit and vegetables were still divided up among the different markets in the city. A municipal report analysed the existing situation, with the areas allocated to each market, and the solution proposed.

Even though the building work seemed quite advanced, the designation of General Martínez Anido as Civil Governor of Barcelona quite likely helped solve the question of the transfer, or at least helped speed up the process. Appointed on 10 November 1920 he was invested with considerable authority and was determined to intervene in 'social affairs', particularly the high number of industrial disputes and the problem of public order. On 13 November he had his first meeting with the press to announce the measures to reduce the disputes and 'study the question of associations, trade unions and federations.' On 16 November he declared that the issue of supplies was one of his greatest concerns, and from then on he would introduce all sorts of measures, some of them counterproductive

Street sellers on Arc del Teatre, 1930

although always well publicised in the press.[42] Years later, in a reply to the Chamber of Property, the Delegation of Provisions admitted this openly: '[T]he building work was a problem and a worry for many councils, eventually imposed by Sr. Martínez Anido during his term in office as Civil Governor of this province.'[43] Despite the fact that the reasons given by the Catalan Agricultural Institute of St Isidre were based on favouring competition and correct pricing, the new central market was supposed to facilitate a decidedly interventionist policy to regulate both the profits of intermediaries and the taxed prices affecting the sale of the most critical products.

The Undisputed Validity of Markets (1920-1975)

Studies carried out on market systems in some of the countries that we take as models such as France, the United Kingdom and the United States suggest that as the twentieth century advanced the role played by markets in retail food sales gradually diminished.[44] In the second half of the century the erosion of the market system increased, leading to the loss of many invaluable architectural works built during different periods.

Contrary to what is inferred by these studies, almost the opposite trend prevailed in Barcelona. Throughout the twentieth century markets in Spain preserved their importance, in fact, many Spanish cities and many smaller towns in Catalonia witnessed the construction of quite outstanding markets during the first decades of the century. An exemplary case is that of the two monumental markets of the city of Valencia.

In spite of the obstacles, especially those of an economic nature, the municipal action and commitment with respect to markets would be constant throughout the century, accompanied by significant reflection on the part of those architects and town planners engaged with municipal management. This is particularly explicit in the nineteen thirties when the

42. *Diario de Barcelona*, 1 March 1921, 2208. 'Speaking yesterday to journalists, the Civil Governor stated that he had dropped by the central fish market that morning to convince himself of the possible grounds of the complaints that had been received … after visiting the central fish market the Governor called in on the vegetable market, where the building work is making swift progress.'

43. AMCB, Public Works Committee, CV-137/145 (topographic call number B-2-D-01-01-15176), 1926. Petition by the Chamber of Urban Property regarding the disappearance of El Born.

44. Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America* (2003), op. cit.; James A. Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History* (1999), op. cit.; Bertrand Lemoine, *Les Halles de Paris* (1980), op. cit.; Gilles-Henry Bailly and Philippe Laurent, *La France des Halles & Marchés* (1998), op. cit.

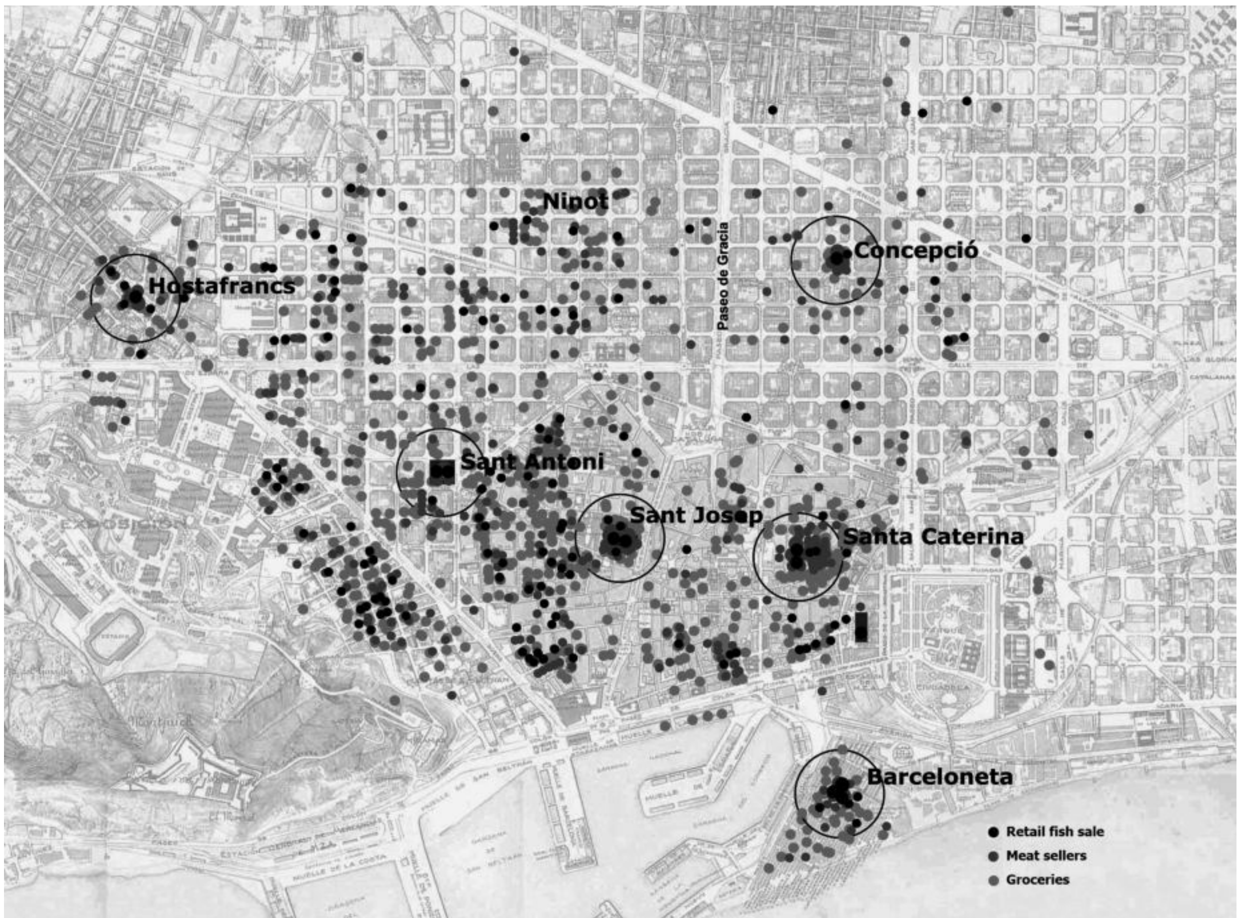
review *CAME* published by the Group of Municipal Architects of Spain dedicated numerous articles to the subject, dealing with issues ranging from the construction of exemplary modern wholesalers markets, such as the one in Frankfurt, to following the designs and projects executed in various Spanish cities. Initiatives that merited special attention included those undertaken in Madrid at the time, such as the design and construction of the wholesale central market of fruit and vegetables in Legazpi or the market plan promoted by the architect Ferrero. In Barcelona the designs conceived in the nineteen twenties and thirties were more modest, but the example of Madrid, such as that of other European cities, reveals that public markets were far from losing their topicality and were the object of a marked renovation of typologies related, in part, to the use of reinforced concrete. From a town planning point of view, the visionary design for Madrid by Zuazo-Jansen (1929-1930) was very interesting and granted the market system great visibility, transcending the well-balanced layout of the various units, some of which were presented as groups of markets and vast commercial buildings designed to grow progressively over the space of ten or fifteen years.[45] The economic crisis of the nineteen thirties, aggravated by World War Two and the prolonged postwar period, did not break the trust in markets. In fact, Madrid and Barcelona experienced a significant increase and reinforcement of their market systems in the postwar years. In comparison with the trajectory of other Western countries, this period will probably stand as a decisive junction.

We should bear in mind the effects of demographic growth and of the crises experienced from the late nineteen twenties to the nineteen fifties. The disputes generated by unemployment in the period between the two world wars, marked by attacks on markets and the increase in number of illegal street vendors, has been studied in various sources.[46] Municipal agreements reflect the growing concern for this subject after 1929, when numerous regulatory initiatives were proposed in response to this climate of conflict, until the year 1934 when the creation of 'street markets' was approved in several districts in order to reorganise the peddling of food products.[47]

45. *Anteproyecto del trazado viário y urbanización de Madrid Zuazo-Jansen, 1929-1930*. Preliminary study by Lilia Maure, COAM, Madrid, 1986.

46. Chris Ealham, 'La lluita pel carrer. Els venedors ambulants durant la II República,' *L'Avenç*, 230, November 1998, 21-26. *Class, Culture and Conflict in Barcelona, 1898-1937*, Routledge/Cañada-Blanch Studies on Contemporary Spain, Oxon-New York, 2004.

47. AMCB, Municipal Minutes, Index 1934, 26 September 1934 (Minutes of 1934, vol. 5, fol. 20v.).



Retail food trade outside marketplaces and location of market halls in central Barcelona, 1932.
Source: Arxiu de la Corona d'Aragó (ACA), Matrícula industrial

Markets, peddlers, street markets and small retailers would have a notable and different effect on the various neighbourhoods. In this sense, the distribution of small food trade enterprises in 1932, studied through the registers of business licences, proves enlightening and reveals two different lines of reasoning: concentrations around municipal markets and dense concentrations in areas of working-class residence, scarcely catered for by these markets. On the other hand, the absence of this form of trade in the affluent residential areas around Passeig de Gràcia is quite meaningful. The same pattern had been traced in other parts and by other authors since the early nineteenth century. John Benson and Gareth Shaw, for instance, emphasised the growth of the number of small shops in connection with

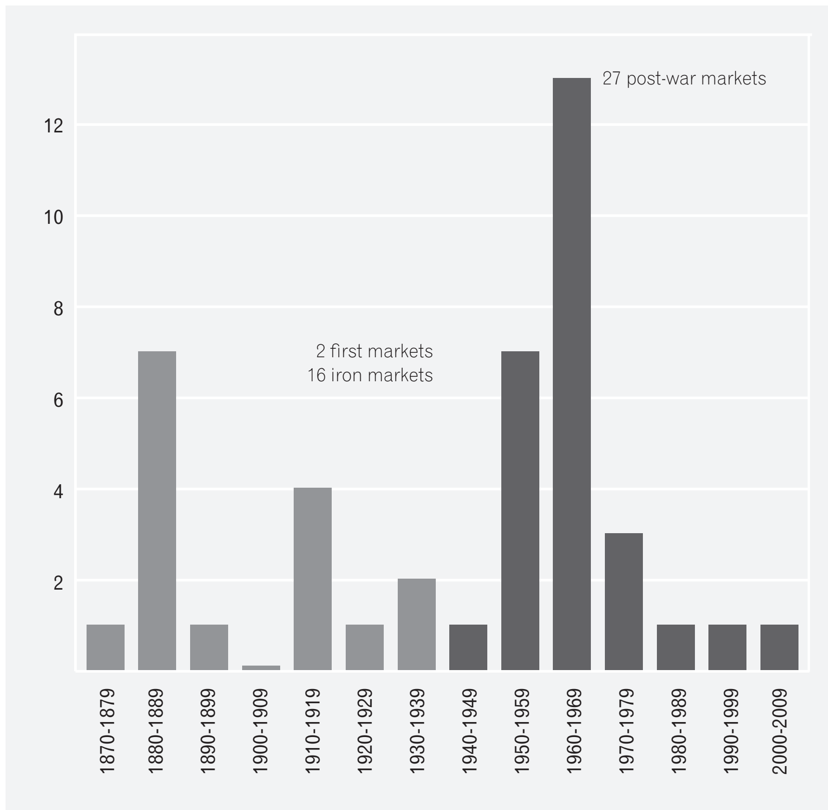
fulfilment of the demands of the working class.[48] However, it is important to point out that we are far from equalling the impact of the retail food trade in English-speaking countries. Although Deborah Hodson states that data concerning the years 1920 and 1970 show Lancashire to be one of the regions 'where retail market trading was still most firmly established,' Scola's study of the town of Manchester, a city of similar dimensions to Barcelona, reveals how the most significant part of the retail food trade was not produced in market halls.[49] The Manchester figures for 1871 confirm that only 3.6 per cent of meat, 11.9 per cent of fish and 16.6 per cent of fruit and vegetables were distributed from markets, while in Barcelona, if we compare the outlets in the 1921 markets with those of the various shops as recorded in the business licence register of 1932 we may establish that markets account for 79 per cent of trade in meat, 74 per cent in fish and 60 per cent in fruit and vegetables. The hegemony of municipal markets, therefore, was absolute, even in comparison with cities such as Sheffield, where apparently in 1888 half of the population did their shopping in markets.[50] This difference is all the more meaningful if we bear in mind that British markets had been losing ground since the first decades of the twentieth century.

The Spanish Civil War, which took place between 1936 and 1939, generated an extremely serious problem of supplies and a considerable lack of organisation of the retail trade. Precisely the first measures implemented by the local administrative body of the victors included attempts to regulate and arrange the various modalities of the retail food trade. After 26 January 1939, when the Nationalists took possession of the town council, the municipal agreements show signs of total disorganisation, as published in the minutes the following year, '[W]hen Barcelona was liberated the disorder of the town council was so complete that we could safely say that none of the services were functioning adequately due to the absence of many civil servants, some of them Republicans and therefore on the run,

48. John Benson and Gareth Shaw (eds.), *The Evolution of Retail Systems, c. 1800-1914*, Leicester University Press, Leicester, 1992, p. 200.

49. Deborah Hodson, "'The Municipal Store": Adaptation and Development in the Retail Markets of Nineteenth-Century Urban Lancashire,' in Nicholas Alexander and Gary Akehurst (eds.), *The Emergence of Modern Retailing, 1750-1950*, Frank Cass, London, 1999: 'It is significant in this light, however, that two twentieth-century surveys of market trade and provision, conducted in the 1920s and 1970s, revealed Lancashire to be one of the regions where retail market trading was still most firmly established. Furthermore, it was the national stronghold of distinctive market type; namely the undercover, daily-operating municipal market.' Roger Scola, *Feeding the Victorian City: The Food Supply of Manchester 1770- 1870*, Manchester University Press, Manchester 1992.

50. James A. Schmiechen and Kenneth Carls, *The British Market Hall. A Social and Architectural History* (1999), op. cit., p. 128.



Markets built (or rebuilt) in Barcelona per decade

others prisoners who had been taken to France during the retreat.' Added to this lack of organisation was the laborious and traumatic purging of staff members that affected 7000 employees, as we read in the minutes. In this context, a lot of work was put in to boost a series of regulations that strove to organise the provisioning processes. Applications for licences to open new retail food establishments were suspended (15 March 1939), only three of the existing 'street markets' were authorised to remain open, restrictions were imposed on peddling, the sale of sea fish was regulated, attempts were made to control and administer the provisioning of milk, requirements were approved for opening retail establishments for 'eatable, drinkable and burnable' articles (16 June 1939). Shortly afterwards, a regulation of bakeries was endorsed (29 August 1939). This tendency continued with the building work and restructuring of sales at the Central Fruit and Vegetable Market, the endorsement of the various bylaws, the acceptance of a fourth

Interior view of El Born converted into a wholesale fruit and vegetable market, ca. 1930

'street market' (14 September 1940), and on 21 April 1942 the purchase of the site for the future Sagrada Família market was agreed, which was supposed to accommodate the street market located at the time on carrer Sicília. This was the drift of market policies in the nineteen forties and early fifties. In 1950 Nostra Senyora del Carme market replaced the little Drassanes market. In 1951 the new markets of Horta and Vallvidrera were built and in 1954 the new Guinardó market replaced the former street market on Passatge de Llívia. The stallholders who sold their goods on the street market on carrer Camèlies also moved to Guinardó. As a part of this restructuring process, towards the end of 1952 some of the stalls in the Gardunya court began to be transferred to La Boqueria, Santa Caterina,

Galvany, La Barceloneta, Sagrada Família and Sagrera markets. The latter officially opened in 1955.

After the terrible crisis of the first postwar years, the nineteen fifties were characterised by a gradual transition from strongly autarchic approaches to a new, more open economic model which would not be definitively established until the Stabilisation Plan of 1959, a prelude to the so-called development policies of the nineteen sixties. Activation of the economy entailed a greater extent of private participation, and in 1955 the requirements and conditions for the installation of privately owned markets were examined.[51] The new regulations smoothed the way for privately built and run markets that the town council had in reversion, and would therefore regain possession of after a pre-established period, as opposed to the first generation of markets. They were sanctioned on 26 July 1956 and laid the ground, in Barcelona, for the most active era in market construction. The idea was that every citizen of Barcelona could have a market at a distance of under than a kilometre from home. Between 1957 and 1977 eighteen neighbourhood markets were built in less well-served areas. On the other hand, by 1966 'the possibility of combining the construction of area markets and the prevision of car parks' was systematically presented, affecting at once new buildings in the extended network of retail markets and the renovation of existing markets.[52]

In parallel, in 1962 a public competition was held to choose a design and an economic formula for a wholesale fruit and vegetable market, an issue that had been raised unsuccessfully on several occasions since the establishment of El Born in 1921. The mayor of the period, Porcioles, argued in June 1964: '[R]ather than following town-planning criteria, markets today are studied and regulated according to social and economic considerations,' the basic problem was 'their repercussion on the cost of living and their immediate effect on the social sphere,' going on to add that, 'Barcelona is rightly considered the City with the highest cost of living in Spain.' By comparing local prices with those of Madrid's central market he inferred that the

51. AMCB, Municipal Minutes, Plenary Session, 26 July 1955, fol. 120v., and Municipal Minutes, Plenary Session, 28 April 1956, fol. 54. 'At present we have 24 markets, a number which, bearing in mind the million and a half inhabitants of Barcelona, is insufficient to meet residents' demands—the proportion is less than one for every 500,000 inhabitants, when a sensible provisioning policy advises a maximum of 20,000 souls per market. For different reasons … the provisioning regime in our city cannot be compared to those of other large European and American cities. As a result, and in the face of the difficulties entailed by the construction of the great number of markets the public requires, this deficiency could be solved by private markets, in other words, by granting access to private initiative as a form of collaboration in municipal activity.'

52. AMCB, Municipal Minutes, Plenary Session, 4 August 1966, fol. 79 and ff.

distribution of fruit and vegetables could have had a significant impact, and estimated a difference of the order of 11.65 per cent in this group of products. The initiative was indeed in keeping with the previsions made by the First Development Plan of 1964-1967, which strove to overcome the inertia of commercial structures and the persistence of obsolete means of distribution that had serious repercussions on the cost of living.[53]

The process for approving the new fruit and vegetable market had to overcome much resistance and proved quite painstaking. Mercabarna eventually opened in 1971 and welcomed the central fruit and vegetable market. The first few years were quite eventful and in spite of the improvements furnished by the new facilities the truth is that it was loss-making, probably because of inherited management flaws.

As regards area markets, in 1975 the municipal agreements revealed the growing difficulties in completing the network with outlying centres such as the one anticipated for the Trinitat neighbourhood, the last one in the series. On 21 January 1975, in view of the fact that tenders were not awarded, it was decided that the existing system could not be applied to Trinitat market because it wasn't profitable for the building contractor. One councillor compared the system adopted in Madrid in 1930 with the one implemented in Barcelona in 1960, and concluded that if Barcelona system hadn't been copied was because it hadn't really worked; a committee

53. AMCB, Municipal Minutes, Plenary Session, 9 June 1956, fol. 67 and ff. 'Public provisioning is one of the issues more in need of painstaking study and conscientiousness due to its repercussion on the cost of living and to its immediate effect on the social sphere. This explains why governments pay special attention to this matter, either by adopting isolated measures or by reforming commercial structures that guarantee free concurrence and avoid inflation, correcting any monopolistic tendency that could have harmful effects on communal interests. As declared in the Development Plan, markets in certain areas of Spain still present conservative, even ancient structures. Hence the need to overcome, as stated, the inertia of certain commercial structures and the persistence of old-fashioned means of distribution that slow down economic development, have a direct bearing on the cost of living and give rise to huge imbalances in the evolution of the different sectors. The current system of provisions unnecessarily burdens consumers, undermining free competition and, in turn, harming farmers, whose legitimate interests are reduced by the strangling of commercial channels. Governments today focus their attention on the organisation of central provision markets as the most appropriate instrument to arrive at free concurrence and, in short, at a fair price.' Fol. 68 v.: 'Barcelona is rightly considered the City with the highest cost of living in Spain. If we take the year 1958 as a base of 100, the cost of living in our city, according to the National Institute of Statistics, is of 135.3 while in Madrid it is of 128.1 and in the whole of the country is of 130.7 … The relative high cost of Barcelona with respect to Madrid as regards food, is therefore of 6.16%. The present system of fruit and vegetable distribution may have an influence on these costs, but this influence is difficult to calculate … However, if we take a simple example to consider the dominant prices in Barcelona and Madrid during the week comprised from 27 April to 2 May, the last week for which we have detailed information, it transpires that of the total produce sold in El Born of eight types of fruit, twenty-one types of vegetables … the highest cost is of 11.65%, even though Madrid's central market is not yet of the same standard as foreign markets.'

was set up to determine the appropriate trading system but the cycle was coming to a close, leaving forty markets homogeneously spread out over the reduced municipality of Barcelona, a scarce 92 square kilometres. From then on, the triple crisis of the nineteen seventies that affected economics, politics and urban planning models superseded the issue of markets in all the debates held by local administration bodies.

Crisis and Urban Revitalisation: Markets as Urban Planning Tools (1975-2008)

Markets in the nineteen eighties regained prominence, albeit from a different angle. The new municipal policy strove to mitigate the shortfalls they had inherited and address the various expressions of the crisis. In the sphere of municipal markets, the first problem that had to be confronted by the new town council was the chronic malfunctioning of Mercabarna. The technical team that had managed to put order in Mercabarna was asked to study the solutions to the problems of retail trade in the food sector, by virtue of an agreement signed by the Area of Municipal Services of Barcelona Town Council and the General Board of Interior Trade within the Ministry of Trade and Tourism of the Catalan Government.[54] During the same years in which the Spanish central government was carrying out a difficult industrial restructuring, the democratic town council believed that this sector, strongly affected by the crisis, was also in need of restructuring, despite its fragmentation and dispersion. Alongside modern shopping centres, the economic impulse of the nineteen sixties witnessed the emergence of new technologies for the production, storage, preserving, distribution and sale of foodstuffs, whereas the economic crisis of the nineteen seventies and early eighties generated a great growth of the food sector as an answer to unemployment. This entailed a land-ownership system based on small shops, a lack of professionalism, limited investment, an extremely low degree of self-organisation, an elderly working population with little initiative, negligible market quotas, etc. Paradoxically, the increase in supply was accompanied by a rise in prices, as these establishments were only sustainable with high trade profits. Some of the information in the study proves quite revealing. Barcelona had 15,674 retail outlets, which meant a 13 per cent increase over a nine-year period when the population was static or even decreasing, and a totally unsustainable average of thirty-six families per establishment. Furthermore, local legislation did not provide town councils

54. *Proposta d'assignació de la gestió dels mercats municipals a Mercabarna*, Ajuntament de Barcelona, 1984, typewritten document, AGEM Archive.

with many means to influence prices—chiefly bylaws, the wholesale market and municipal markets.

This analysis also showed the proportion of global consumption represented by municipal area markets that concentrated 49.9 per cent of total consumption per inhabitant, 53 per cent of which corresponded strictly to food consumption and 40.4 per cent to all kinds of establishments (provision merchants, delicatessens, self-services, hypermarkets, indoor food markets and market stalls). As a result, from the very beginning the extensive market system of Barcelona (comprising forty municipal markets) and the Barcelona metropolitan area (totalling seventy-five municipal markets) was considered an essential tool in this restructuring process. Drawing together a remarkable amount of retail traders and grocers, they could prove to be decisive in avoiding oligopolist concentration of the still incipient hypermarkets. If the responsibility of town councils had traditionally been that of guaranteeing provisioning, in this new period what was needed was a global and coherent policy in the fields of trade and consumption: 'a truly commercial urbanism.'[55] The feasibility of transforming municipal markets into a modern, dynamic, well-balanced and exemplary trade sector made them crucial elements in the new context.

In 1984 the survey was taken as a premise for the elaboration of the Special Plan for Food Establishments in Barcelona (PECAB) adopted by municipal markets, especially in those areas where trade was dense or scarce, areas that concentrated most of the food-shopping activity.[56] The study, therefore, was not restricted to market halls alone but also took into consideration the establishments around markets (nodes of polarity). Over 138,000 surveys carried out at market entrances examined the scope of these polarities, asking shoppers where they lived in order to chart customers' origins and mapping the commercial environment as a whole as well as accessibility issues (bus-stops, underground stations, car parks, pedestrian areas, traffic directions, etc.). The idea was to locate and organise commercial polarities, gauge business establishments to avoid flooding the sector and regulate the uses and forms of trade allowed in each area of the city, presenting in the field the food trade policies of Barcelona Town Council. With regard to direct actions, the plan anticipated the construction of new area markets and the

55. *Proposta d'assignació de la gestió dels mercats municipals a Mercabarna* (1984), op. cit. Speaking of the competence and responsibility of the town council and presenting markets as essential instruments of municipal politics, the text insists on the need 'to practice a truly commercial urbanism.'

56. *Pla Especial d'Equipament Comercial Alimentari de la Ciutat de Barcelona*, Ajuntament de Barcelona, Àrea de Proveiments i Consum, Barcelona, 1990.

Customer areas in local district markets as stated for 1983-1984 in the Special Plan for Food Trade Amenities (PECAB). The three bands mark the origin of 25%, 50% and 75% of each market's customers

refurbishment or renovation of those already existing; as for economic restructuring, it suggested adapting the size of establishments to the consumption capacity of the areas of influence, tending towards the idea of an area market that was not cut off from but actually formed a part of upgraded shopping centres, welcoming local shopkeepers, favouring concentration and the modernisation of the commercial infrastructure by promoting larger stalls and furthering the training of stallholders and shopkeepers, improving public accountability of markets by increasing the levels of information in all strata, completing and extending the supply of area markets and removing obstacles in order to facilitate administrative tasks. Fully aware of the impossibility of dealing with the problem posed by the territorial implantation of food retailers from a strictly economic point of view, it suggested promoting the commercial nucleus, preventing the emergence of forms of trade that tended to replace the objectives of market halls within the distribution network, centralising and promoting complementary retail outlets and providing the surrounding area with appropriate urban planning infrastructures and funding, creating focal points or pedestrian traffic islands

La Concepció Market, 1888. Architect: Antoni Rovira i Trias. Renovated by Albert Pineda, 1998.
The earliest of the renovation projects

around markets, car parks, etc., demanding, in effect, that greater attention was paid to these issues by town planners.

In April 1991 the Municipal Institute of Markets of Barcelona was founded (IMMB), an independent commercial and service organisation for managing and administering municipal area markets and special markets in the city of Barcelona. The idea was to make the regulation of market activity and administration more dynamic, providing markets with their own budgetary management systems under the protection of Barcelona Town Council with the consequent streamlining and increase in their economic capacity.

Since the nineteen nineties, IMMB has worked for the progressive commercial modernisation of markets. Even though its policies were not free from hesitation, a great number of interventions were made in most Barcelona markets (including cash dispensers, customer car parks, home delivery, self-services, etc.) and over recent years market activity has been revitalised. The physical and commercial structures of the markets of Sagrada Família, Clot, La Concepció, Lesseps, Santa Caterina, La Boqueria, and most recently, La Barceloneta have been completely renovated; the markets of La Llibertat, —Sant Antoni and El Ninot are in the process of being renovated, and new markets such as Fort Pienc have been built.

From the early concerns of the nineteen eighties to date, theoretical considerations on markets and practical interventions in them, carried out in the name of economic restructuring, have reflected the changes in urban planning premises and policies. The early nineteen eighties, an age rather hostile to the general town planning scheme, were characterised by interventions able to regenerate the quality of life in neighbourhoods, based on the quality of design, the formal commitment to each project and its scheduling. The idea of PECAB arose when these fragmentary visions were beginning to be articulated into more structural proposals (such as the new areas of centrality), and even though it derived from economic concerns, the market policies developed by IMMB gradually introduced many of these values that emphasised architectural features. The very first interventions already revealed consideration for the quality of the architectural designs, which varied according to each project. They were also accompanied by a process of spectacularisation that is obvious in designs such as those of Santa Caterina and La Barceloneta. The reorientation of markets towards tourism and spectacle went hand in hand with a substantial growth in the number of stalls offering choice produce, increasingly aimed at the customisation and diversification of food consumption. It is clear, however, that the gentrification of Barcelona's markets cannot in itself overcome the dwindling participation of markets in the global sphere of food consumption or, more broadly, in the

actual life of the city. As regards the twentieth century, this participation can only be gauged through approximations, which have confirmed the extraordinary importance of markets between the years 1921 and 1932, when they concentrated of the order of 60 per cent of fruit and vegetable sales, 74 per cent of fish sales and up to 79 per cent of meat sales, grouped in 6,696 stalls. A comparison with sales reports, calculated in 1983 by Mercabarna, reveals that markets still represented a significant quota of sales, which was uncommon in other Western cities at the time. The policies implemented over the past few years have been unable to prevent a sharp drop in sales. In 2006 it was estimated that around 29.3 per cent of shopping was carried out in markets, between 25 per cent and 30 per cent of fruit purchases, 45 per cent of meat purchases and 66 per cent of fish purchases. IMMB has implemented a responsible policy of reducing stalls and extending their average size; at present they amount to 6,708, almost the same number as existed in 1921 although they are now distributed among three times the number of markets. Furthermore, a fourth of the number of stalls is currently vacant. The number of establishments has similarly dropped: from around 7500 that existed in the mid-nineteen seventies to 6700 in 1983, 4223 in 1998 and 3105 in 2006. The picture we see when we take a look at the reality of Barcelona, i.e., the metropolitan city of Barcelona with over four million inhabitants, is probably even more delicate. It is becoming increasingly difficult for market halls to compete with the prices of neighbourhood supermarkets and fruit chains. In spite of the specific weight they still carry, it is not at all easy for them.

Market halls in Barcelona today find themselves at an awkward crossroads, although they still stand as a powerful asset to the city. So we should not make a hasty judgement of results from entrepreneurial criteria but consider instead the positive aspects of this policy in terms of the social structuring of neighbourhoods, the containment of oligopolistic trends and the economic promotion of the city. This comprehensive evaluation of the situation, however, can only be made through comparative approaches.

Market Halls and Market Queens: Civic Culture and Gender in Barcelona's Food Retailing Sector

Montserrat M. Miller

In the century before the outbreak of the Spanish Civil War, public authorities in Barcelona faced complex challenges in adjusting the city's provisioning system to keep up with the dramatic increases in urban density and scale coinciding with industrialisation. Food supply was an urgent political concern insofar as shortages, price hikes and breaches in public perceptions of fairness in the marketplace for provisions periodically sparked violent popular protest. A key element of the nineteenth-century municipal response to food supply challenges in Barcelona, as in many cities, involved the construction of a series of new public market halls that were designed to supply the urban population more rationally. By 1936, Barcelona's provisioning system featured a network of sixteen retail and two wholesale market halls distributed across the urban landscape.

Under the municipal governments of the Restoration era, retail commerce in Barcelona's market halls became increasingly rationalised and standardised as the main feature of a new political economy of food retailing in the city. Indeed, the historical significance of Barcelona's retail food market halls extends beyond their long-term commercial vibrancy; their importance lies also in the fact that they became civic, social and cultural spaces. Though cast as monuments symbolising public commitment to the well-being of the urban populace, Barcelona's market halls became crucial centres of everyday neighbourhood life. The markets fostered layered formal and informal networks linking male and female stallholders to one another, to their customers and to the municipal bureaucracy that owned and administered the space in which they worked.

Operating within a regulatory structure that limited competition, enhanced commercial stability and increased the economic value of stall permits, in the first decades of the twentieth century the market vendor population in Barcelona emerged as a significant urban political constituency. As small-scale retail entrepreneurs, thousands of men and women achieved a modicum of economic security and even upward social mobility through acquiring municipal licences to operate stalls in the city's market halls.[1]

1. The actual number of individuals engaged in food retailing in markets fluctuated over time. The article 'Presupuestos ordinarios de gastos en el interior y especial de la zona de Ensanche para 1931'

Though men worked as vendors, porters, guards, inspectors and directors, the markets themselves were largely feminised public spaces. Women dominated numerically as the legal holders of stall permits throughout the period, and their clientele remained almost exclusively female until much later on. As such, Barcelona's market halls constitute highly significant, though largely overlooked, venues for examining the extensive involvement of Spanish women in late nineteenth and early twentieth century small-scale commerce. Female market dealers, wielding considerable local power through their access to food in what was often a hungry city, occupied a contested cultural space in which the mature were cast as feisty hags and the young as civic icons of virtue and feminine beauty. Between these polarised cultural representations, Barcelona's real-life market women functioned as intermediaries between public control of provisioning and popular consumption of food. Operating from thousands of stalls across the city, generations of market women laid claim to honour, dignity and propriety within the neighbourhood-based communities of consumers they served.

Background

Barcelona's municipal market hall system in the eighteen thirties emerged within the fortified urban core of the city. The first structures were built as responses to the problems of congested and disorderly open-air food markets that had grown as a result of intensifying population density. The relocation and physical segregation of open-air market trade to more physically defined and delimited urban spaces was made possible by the sacking of ecclesiastic properties in waves of mob violence that broke out in 1835. Popular uprisings claimed, among others, the convents of Sant Josep along the Rambla, and Santa Caterina near the cathedral. These properties were purchased by the city council and designated as new market sites. The conversion of these spaces from sacred to secular commercial use took place in fits and starts: La Boqueria opened to the public in 1837 and Santa Caterina was inaugurated in 1848.

With the razing of the Bourbon walls encircling the city and the development of the Eixample neighbourhood in the second half of the nineteenth century, municipal authorities faced new challenges to the food supply system. In the way of architectural coherence, a programme of municipal construction

indicates that at the time of the declaration of the Second Republic there were 7, 286 municipal licences to sell food in the city's markets. *Gaceta Municipal de Barcelona*, Imprenta de la Casa Provincial de Caridad, Barcelona, 1931.

opened five grand new market hall structures between 1876 and 1888: El Born, Sant Antoni, Barceloneta, La Concepció and Hostafrancs market halls radically extended food retailing in the burgeoning metropolis. Between 1897 and 1921, Barcelona acquired additional market halls through annexation of a series of industrial towns and districts that had grown up along the periphery of the new Eixample neighbourhood. Thus the city inherited and took over the management of pre-existing market hall structures, including Gràcia's La Llibertat and Abaceria Central markets, Sant Martí's Clot and Unió markets, plus that of Sarrià.[2] Continuing growth then prompted the additional construction of market halls in the newly annexed districts —Sant Gervasi, Sants, Sant Andreu and Galvany market halls opened as food retailing centres between 1912 and 1927, and El Ninot was inaugurated in 1933.[3]

Markets as Symbolic Capital

From their outset, Barcelona's new market hall structures reflected a strengthened commitment to the already well-established regulatory tradition of public control over food supply.[4] Yet the rhetorical scripts followed at the ceremonies surrounding the construction of La Boqueria and Santa Caterina indicate that the liberal public authorities acting in defence of Isabel II had embraced a vision that appropriated and exalted markets as a new form of symbolic capital.[5] For instance, on 19 March 1840 Barcelona's highest ranking political, military and religious authorities gathered at La Boqueria for the official ceremony at which the first stone of the relocated and reorganised market was laid.[6] While the solemn ceremonies included a procession from

2. Abaceria Central was initially a privately owned structure and was not purchased by Barcelona Town Council until 1912.

3. There was a corresponding extension of municipal control over wholesale trade (concentrated in the Born district as of 1921) and the slaughtering and butchering of meat (monopolised by the council through the Municipal Slaughterhouse after 1892).

4. Municipal regulations of the late eighteenth century and early nineteenth century had already begun to rationalise, reorganise and relocate outdoor market trade that overcrowded the Rambla and the Born areas. The most notable of these efforts included a set of new policies in 1826. See *Diario de Barcelona*, 5 October 1826, p. 2233-36. The tradition of public control over markets and fairs in Catalonia has a long history. See for instance Carme Batlle i Gallart, *Fires i Mercats: Factors de dinamisme economic i centres de sociabilitat (segles XI a XV)*, Rafael Dalmau, Barcelona, 2004; Lluís Casassas i Simó, *Fires i Mercats a Catalunya*, Edicions 62, Barcelona, 1978, and Albert Carreras i Lídia Torra, *Història Econòmica de les Fires a Catalunya*, Generalitat de Catalunya, Barcelona, 2004.

5. Pierre Bourdieu, *Outline of a Theory of Practice*, translated by Richard Nice, Cambridge, 1977 and Montserrat Miller, 'Mercats noucentistes de Barcelona: Una interpretació dels seus orígens i significat cultural,' *Revista de l'Alguer: Anuari Acadèmic de Cultura Catalana* (4, December 1993), p. 93-106.

6. The market was named for and dedicated to St Joseph, but the name never caught on in popular usage.

the town hall that resembled the public rituals associated with religious holidays, the task at hand involved legitimising the re-appropriation of church property for secular use. As a part of the stone-laying ceremony, the authorities buried a cache of coins that linked La Boqueria to Spain's imperial past and heralded the future riches the market would generate for the city.[7]

Bearing in mind that mob violence had opened up the space for the new Boqueria market, such efforts to build popular legitimacy were urgent. In the five years preceding the foundation stone-laying ceremonies at La Boqueria, Barcelona had experienced a string of violent popular uprisings known as *bullangues*, in which convents had been sacked, luddite violence had led to the burning of the Bonaplata textile factory and the Military Governor, General Pere Nolasc de Bassa i Girona, had been defenestrated, murdered and dragged through the streets of the city. These uprisings were sparked by a series of factors related to the First Carlist War, by divisions within the liberal political movement and by the emergence of new popular democratic and utopian socialist movements among the disenfranchised lower ranks of urban society. But the *bullangues* of the period were also aggravated by urban overcrowding and resentment towards the rising price of food and, more specifically, to the dreaded consumption taxes imposed by the state.[8] No wonder, then, that having brought this cycle of mob uprisings to an end, the reigning liberal municipal authorities chose to exalt the newly relocated La Boqueria market as a symbol of the benefits to the public that could accrue from order and rationalisation. While the new market certainly facilitated greater levels of municipal control over vendors, the public ritualisation of the space served as an early move to more firmly integrate food market trade within the emerging liberal political culture of the city.

The symbolic power that Barcelona's market halls were assuming for the young and fragile liberal state was also evident in the inaugural ceremonies for Santa Caterina market held on the 10 October 1844. Here, too, the municipal rituals celebrating the new market followed waves of urban violence. Insurrections in 1842 and 1843 culminated in a three-month long egalitarian and anti-centrist popular uprising known as *La Jamància*, which the liberal forces were only able to quell through siege and bombardment

7. 'Barcelona antigua y moderna: el mercado de La Boqueria, 1840-1944. Recuerdos, evocaciones, perspectivas,' Publicidad Gabernet, Barcelona, 1944, B.1944 8 op. 1, Barcelona, IMH; 'Nuestros centros de abastos: el mercado de San José,' *Gaceta Municipal de Barcelona* (17 October 1949), p. 1218.

8. The *consumos*, excise taxes on food, essential to municipal finance throughout the nineteenth century, were a lightning rod for popular protest until their abolition under Canalejas in 1912. See Raymond Carr, *Spain 1808-1939*, Oxford University Press, Oxford, 1966, p. 133, 165, 374 and 495.

of the city. Again, a complex set of motivations drove the cycle of violence, but the *Jamància* revolt was also fuelled by shortcomings in the city's provisioning system: the uprising's name is generally attributed to the enthusiasm that the hungry showed for swelling the ranks of the popular militia, not so much out of ideological commitment but rather in order to gain access to rations. Though order and liberal control were finally restored at the end of November in 1843, the physical havoc wrought upon the urban landscape by the uprising and its suppression remained clearly visible when the highest civilian and military authorities in the city and all the foreign consuls gathered to lay the foundation stone at the site of the new Santa Caterina market under a year later. As a part of the event, both the dignitaries and the public were led in a series of cheers—*visques*—for her majesty, for the liberal constitution and for the Queen Mother.[9] Again, the ceremonial rhetoric drew upon traditional expressions of loyalty to the monarchy in hopes of building popular support for the contested rule of Isabel II; even the market was named in honour of the young queen.[10] Thus, Santa Caterina's inaugural ceremony was used to help build the case for the legitimacy of centralised control over municipal government from Madrid. The celebrations that marked the official public opening of the market four years later were infused with similar rhetoric and imagery. On 15 August in 1848, while much of Europe was caught up in the century's most significant wave of revolutionary violence, Mayor don Domingo Portefais, Superior Political Chief Manuel Gibert and other dignitaries again made their way from town hall to an elegantly draped platform in a procession led by the municipal band. Before the assembled public, Mayor Portefais emphasised the important practical interests that Santa Caterina represented for the popular classes. Superior Political Chief Gibert, declaring the genius and glory of those who had conceptualised the new rationalised and orderly market, described it as the best in Europe.[11]

The opening of the first enclosed and covered markets during the tumultuous years of the reign of Isabel II involved the adoption of an important new political tradition by successive regimes seeking to build popular

9. *Diario de Barcelona*, 16 August 1848, p. 3827; *Gaceta Municipal de Barcelona* (26 April 1948), p. 255; and J. A. Balaguer, 'El primitivo mercado de Santa Catalina,' in *Los Abastecimientos de la Ciudad*, volume XII of *Divulgación histórica de Barcelona* XII, Publicaciones del Instituto Municipal de Historia, Ayuntamiento de Barcelona, 1965, p. 84.

10. The name never caught on in common usage and was officially changed after the 1868 Revolution that drove Isabel II into exile.

11. *Diario de Barcelona*, 16 August 1848, p. 3828.

Santa Caterina market, 1907. Etching

legitimacy in the city. In the second half of the nineteenth century, when the fortifications limiting the city's growth had been demolished and Barcelona fanned out across its adjacent plain, market politicisation became more elaborate and complex. The new grand market halls emerged as even more effective physical rallying points around which to conduct rituals designed to foment broader loyalties to both the municipal government and the nation state. By the time El Born market hall was officially inaugurated, Spain had emerged from an eight year-long period of political upheaval that involved the revolution ending the reign of Isabel II, the failed monarchy of Amadeo de Savoy and an unsuccessful experiment with Republicanism. The restoration of the Bourbon monarchy under Alfonso XII produced a political system that was more stable than the regime of the liberal generals that had preceded it. The spirit of optimism surrounding the first years of order and stability was clearly reflected in the inaugural ceremonies for El Born market in 1876, where religious rituals and expressions of loyalty to the monarchy were emblematic of the wider use of traditional symbols of authority to legitimate the rule of the Restoration system.

The rhetoric of the opening of El Born market emphasised once again the bond between local and national polities. Linking the new municipal

market to the nation state at its highest levels, the celebratory event was scheduled for the 28 November 1876 to coincide with the young monarch's nineteenth birthday. The ceremony began with the usual ritual displays of pomp and power: on their way to the inauguration, political, military and religious authorities travelled the streets of the city to the market hall in a procession that was led by the mounted municipal guard in dress uniform, along with their respective mace-bearers. Speaking from a platform festooned with velvet and gold cloth and the municipal coat of arms, Mayor Manuel Girona's speech was charged with Spanish nationalist rhetoric as he declared that the new El Born market hall had been conceived, designed and built by Spaniards, its iron truss components made by the Spanish firms La Maquinista Terrestre y Marítima and Vulcano. Civil Governor Castro Ibañez de Aldecoa, representing the king at the ceremony, added that the construction of the new market illustrated the vitality of Spanish national industry in Catalonia. He extended the king's congratulations to the local council for having built the market and then led the crowd in a round of hails to his majesty. Thereafter, the church blessed the market and, seizing upon the occasion, embraced the visions of modernity characterising the Restoration—the Bishop declared that the church always associated itself with 'true progress'. The market's destiny, he said, was to operate as a 'source of well-being for those who sought sustenance for their families,' a goal in keeping with the moral aims of sanctified religious work.[12] To close the ceremony, several of the city's bands joined together to play the Spanish Royal March.

The next day, *Diario de Barcelona* proclaimed that these events would be continually remembered in the annals of the city. Lauding the new Born structure for the positive impact it would have on the surrounding Ribera district, the newspaper held that the inauguration heralded 'a new era for our markets, so badly appointed until today and unworthy of a population that carries the title of the second capital of Spain.'[13] Building on the nationalist rhetoric of the opening, the newspaper declared that the grandiose new market proved that Spain need not rely upon foreign technical help in large-scale iron construction.[14]

In both public discourse and press accounts, the new El Born market hall was praised as a monument to progress, municipal commitment to the

12. *Diario de Barcelona*, 29 November 1876, 13140-13141.

13. Ibid.

14. Ibid.

common good and to the promise of Spain's on going industrial development under the new Restoration government. As in the eighteen forties, these ceremonies were inextricably linked to broader efforts to secure popular support for both the municipal and national regimes, which presented themselves as the creators and defenders of order and progress. The fact that by 1876 progress had more explicitly become understood as involving industrial accomplishment is reflected in both the structure of the new market hall itself and in the official oratory that celebrated its opening to the public. Here, too, while El Born furthered the broader process of physically segregating the retail food trade within clearly a demarcated space, the official ceremonies that celebrated its opening had the effect of integrating market-hall trade within the urban political culture of the Restoration era. The opening ceremonies of the other nineteenth-century market halls in the city followed similar rhetorical scripts, and heralded the emerging consensus that such structures were key civic institutions.

New Political Economies

The municipal governments during the Restoration period justified ownership and management of food market halls by including these retail institutions within their paradigm of the city's modern public service infrastructure. Cerdà's plan for the urbanisation of the Eixample, in calling for each ten-block district was to have its own general market, had both reflected and reinforced this view. Cerdà envisioned a new city where social distinctions would be minimised through equal access to a range of municipal public services, among which he included modern rationalised market halls. Though property speculation would lead to dramatic overbuilding of Cerdà's plan by the early twentieth century, his vision helped to cement the commitment of successive Restoration regimes to municipal construction and management of increasingly rationalised and standardised food markets: a new political economy of food retailing took shape in the city.

The legal codes governing the operation of food markets in Barcelona struck a balance between facilitating profit-making enterprise and defining market exchange as a realm that was subject to municipal intervention in the name of the public good. Keeping the popular classes fed and ensuring that markets operated in the public interest were frequent features of local council rhetoric. Though some control rested at the national and provincial levels, the city's legal authority over the expanding network of market halls was well established by the early twentieth century. Supreme Court rulings of 13 January 1903 and 5 May 1905, as well as the Sanitary Commission's instruction of 4 January 1904 all 'clearly and unmistakably' promulgated 'as

a general and indisputable principle that the provisioning of the population falls within the legal authority of the Municipalities.'[15]

An important element of social control underlay municipal policy. The city operated food market halls in part to generate funds for public coffers, but also to prevent food shortages, skyrocketing prices and outbreaks of disease that might fuel social unrest. By rationalising the management of food market halls, the city sought to dampen social volatility within the working classes and extend access to food. Municipal regulation and control of food markets also permitted the city to exert direct power over the growing population of vendors who were required to remain in the good graces of directors and inspectors in order to operate their stalls. In return for adherence to municipal rules, traders were separated from new sources of competition—the political economy of food retailing in Barcelona thus protected both consumers and vendors from unregulated market forces. In their affirmation of a reciprocal relationship between the city government and the urban population, these policies granted legitimacy to the authority structures that constituted local rule.

Municipal commitments to the ethical dimensions of food retailing were clearly embodied in the 1898 code governing market halls.[16] The code addressed consumer interests by setting hours, establishing standards of cleanliness, controlling weights and measures and requiring 'proper forms and manners in relations among vendors [and] … with the public.'[17] The code held individual permit holders personally responsible for their stalls by forbidding sub-leasing or hiring clerks as substitutes except by permission from market directors, and then only in cases of illness or temporary absence.[18] The 1898 code also set up a system in which every market was allotted a given number of concessions according to strict specialisations. Dealers could only sell items specified in their stall licences; even when a stall concession changed hands, the goods assigned to that stall could not be changed. The range of foods for sale from each stall was extremely limited: shellfish dealers could not sell fresh fish and fresh fishmongers could not sell shellfish, nor could salt cod vendors sell anything but salted fish. Similarly, veal and beef butchers could not offer pork; poultry sellers had to leave the

15. *Reglamento u ordenanza de carnicerías*, Ayuntamiento de Barcelona, Barcelona, 1927, p. 13-14. Archives of the Butchers' Guild, Barcelona.

16. *Reglamento para el régimen de los mercados de esta ciudad*, Ayuntamiento de Barcelona, Barcelona, 1898), AHCB, Entit. 1-25, box 2, 1.

17. *Reglamento para el régimen de los mercados de esta ciudad*, op. cit., articles 1, 29 and 30, 1898.

18. Idem., article 19, 1898.

sale of eggs to the licensees of stalls designated for that item alone; it was forbidden for olive vendors to sell anything that was not preserved in vinegar, and so forth. At least in theory, all city dwellers could be assured that they would find an assortment of the necessary staples at a centralised point within their neighbourhoods. These restrictions, however, also fostered contention within the markets. Municipal control over the range and distribution of food items sold in public market halls limited the competition that market traders would otherwise have faced. Only slowly and infrequently did the city alter the balance among specific commodities sold in given markets. Vendors regularly requested expanding the range of goods they could sell, and occasionally succeeded in adding items, yet market vendors as a group also frequently endorsed the rules that limited competition. On 4 October 1911 stallholders at Sant Antoni asked the market administration to enforce more strictly the rules specifying what could be sold at each stall.[19] Two years later, when the poultry vendors at Sant Antoni launched a strike and closed their stalls, the local administration responded by opening up poultry sales to all market traders, thereby annulling the effectiveness of the stallholders' action and bringing the conflict to a swift resolution.[20]

This rigidity engendered some conflict, but it also provided a modicum of stability. Vendors did not only receive protection from one another but also from other food retailers operating outside the market structures. The repression of hawkers in and around the market was endorsed by traders and local authority regulators alike throughout the period. An order dated 31 October 1923 sent to the manager of Sant Antoni Market calling for the use of all means possible to stop street traders reflects the ongoing challenge that such controls involved.[21] Fresh fishmongers in markets enjoyed the most thorough protection from competition; very few fresh fishmongers were authorised to compete with market trade until the eve of the Second Republic.[22] To more effectively insulate traders from competitive forces, in 1925 the Lieutenant Mayor in charge of provisioning, Enrique Barrio y Zafra, ordered that 'the old aim of prohibiting the sale of articles retailed in markets within fifty me-

19. Administrative Records, Sant Antoni Market, document dated 4 October 1911.

20. This tactic was used again in 1920, when Barcelona's fishmongers went on strike and the sale of fish was opened to all categories of vendors. Administrative Records, Sant Antoni Market, documents dated 12 November 1913, 2 August 1920, 3 September 1920, 22 September 1920 and 23 September 1920.

21. Administrative Records, Sant Antoni Market, document dated 31 October 1923.

22. In 1930 only two fish shops existed outside the market in the Sant Antoni district. Administrative Records, Sant Antoni Market, document dated 29 March, 1930.

Sant Antoni market, 1880-1889

tres of the same be converted to official policy.'[23]As of 1927, market butchers received even more protection from shopkeeper competition; article 5 of the new butchers' ordinance stipulated that shops selling meat or pork could not be located within two hundred and fifty metres of the market halls located in the Eixample, one hundred and fifty metres elsewhere in the city.

Under the municipal regimes of the Restoration, a new political economy of food retailing had taken shape in the city that filled the vacuum left by the abolition of guilds earlier in the century. The movement toward the liberalisation of the economy did not relegate trade in food to the vagaries of unbridled capitalist forces. Rather, a public-private partnership created bonds of dependency between consumers, individual food retailers and the city. This growing dependency was reflected in the civic pageantry organised by local authorities in the decades that followed the adoption of the 1898 code and its 1928 revision.[24]

23. Idem., document dated 4 March 1925.

24. *Reglamentos de los mercados en general y de los especiales de pescado y frutas y verduras al por mayor*, Ayuntamiento de Barcelona, Barcelona, 1928. Archives of the Butchers' Guild, Barcelona.

Market Queens

By the turn of the century, municipal commitment to Barcelona's market hall food trade was explicitly reflected in a range of cultural expressions.[25] Individual markets were authorised to organise their own holiday celebrations by 1910, but the city maintained the right to veto or alter any planned events.[26] Under the Primo de Rivera dictatorship, municipal market personnel and market traders were increasingly called upon to participate in political events and civic celebrations.[27] The most conspicuous of all were the ritual festivities that signalled the arrival of springtime in the city. In June, the town council sponsored spring festivals that included concerts, theatrical performances, arts and crafts exhibitions and sporting matches. Alongside these events the spring festivals showcased the market halls as institutions deeply embedded in the political and popular cultures of the municipality. Unlike the inauguration ceremonies held for the nineteenth-century markets, these early twentieth-century municipal rituals explicitly recognised and venerated the population of market vendors as a specific and legitimate urban constituency, thereby reinforcing the political economy of food retailing in the city. A key part of these annual events involved the election of queens from the ranks of young female traders in each of the city's markets. Dressed in white and riding in horse-drawn carriages, the market queens were paraded through the streets of Barcelona in grand cavalcades that celebrated agricultural fecundity and youthful feminine beauty.

By 1930, the spring festival in Barcelona had gained enough prestige to attract the Spanish royals. The civic celebration that year included a day-long programme of films, exhibitions, *sardana* dancing and even the final match of the Spanish Cup that pitted the Athletic Club of Bilbao against Real Madrid. Alongside these popular attractions the *Diario de Barcelona*

25. Most holidays were recognised and promoted in some fashion or another through the markets. Administrative Records, Sant Antoni Market, documents dated 6 April 1895, 12 June 1895, 28 March 1896, 24 March 1902, 1 April 1903, 21 March 1904, 10 March 1905, 2 April 1906, 13 December 1906, 20 December 1911, 19 December 1913 and 27 May 1929.

26. Administrative Records, Sant Antoni Market, documents dated 21 April 1910 and 13 October 1910. The fact that there were differences of opinion on these matters is evidenced in an October 1910 petition to the city signed by traders at La Boqueria and Sant Antoni complaining about the how their respective managers had spent holiday funds.

27. The Primo de Rivera dictatorship imposed greater levels of provincial and national control over the city's markets without dismantling the municipal system of administration. The regime demanded that market employees expressed *amor y lealtad patriótica* (patriotic love and loyalty) and participate in a range of ceremonies designed to build Spanish nationalist allegiances. Administrative Records, Sant Antoni Market, documents dated 29 November 1923, 3 July 1926, 11 October 1926, 3 May 1927, 25 May 1927, 8 October 1927 and 27 December 1927.

Market queens, 1930

announced a 'fantastic parade of twenty-two floats, sixty cars and an entourage composed of over one thousand attendants' to show the city its market queens.[28] Barcelona's mayor, Joan Antoni de Güell i López, also organised the Great Market Ball to be held at the National Palace overlooking the city from Montjuïc.[29] The ball, which included the 'Proclamation of the Queen of all Market Queens' was marked by excited anticipation.[30]According to one contemporary account, the night was 'characterised by the great abundance of beautiful faces and by the boisterous gaiety of the young people.'[31] At 10.00 p.m., stallholders assembled in the elaborately adorned ballroom. Two and a half hours later, King Alfonso XIII, his family and a retinue of nobles entered the ballroom and met with a 'prolonged and affectionate ovation.'[32] Shortly afterwards the fifteen market queens assembled, whereupon young Lola Capdevila from Horta was selected by a margin of just one vote to become sovereign over all the others. In the presence of royalty,

28. *Diario de Barcelona*, 1 June 1930, p. 55.

29. Ibid.

30. Ibid.

31. 'Festejos y bailes. Las reinas del mercado,' *Barcelona antigua y moderna. El mercado de La Boqueria, 1840-1944. Recuerdos, evocaciones, perpectivas*, op. cit., p. 12-14, AHCB B. 1944 8° op. 1.

32. *Diario de Barcelona*, 3 June 1930, p. 15.

Lola Capdevila was reified as a symbol of virtue, beauty and civic splendour. After congratulating all the contestants, one story holds that the King of Spain honoured Lola Capdevila, Barcelona's newly crowned Queen of Market Queens, with a dance.[33]

Unlike the civic rituals of the nineteenth century that had focused on the market halls as physical places and structures, these ceremonies celebrated market traders as iconic elements in the city's popular culture. Despite being, in part, clearly intended to foment loyalty to the beleaguered Spanish monarchy, the 1930 spring festivals also affirmed the relationship of mutual dependence between Barcelona's market dealers and the municipal corporation that owned and administered their workspace. This relationship had matured over the first three decades of the twentieth century with the consolidation of the political economy of food retailing during the Restoration period. The conspicuous inclusion of market sellers in the plans for the royal ball signalled municipal endorsement of stallholders' formal and informal claims for dignity, recognition and protection from unregulated trade. More explicitly, however, the early twentieth-century market queen elections involved municipal reinterpretation of broader gender iconographies.

Female stall-keepers had long been associated in the city's popular culture with bawdiness and independence. Markets were, after all, boisterous and busy places with a particular smell and visceral carnality that challenged bourgeois sensibilities. The numerous articles of the market code intended to tame vendor language and sanitise market space testify to the extent to which markets were perceived as tending towards vulgarity.[34]Alfons Roure's play *La reina del mercat*, starring the immensely popular Assumpció Casals in the role of the widow Tresina, opened at the Gran Teatre Espanyol in 1927. Foul-mouthed, middle-aged and frankly sexual, Tresina nonetheless elicited the sympathy of audiences because of the cultural prejudices she suffered as a consequence of her work as a poultry seller in one of Barcelona's markets. Roure built the play's conflict around the engagement of Tresina's daughter to marry the son of a prominent physician. Viewing the union as a social embarrassment, the young man's parents demanded that Tresina give up her market stall to as-

33. Oral history interview with Semi Colominas Aliya conducted by the author, 11 May 1992. Ironically, given that a groundswell of support for republicanism would drive Alfonso XIII from Spain in less than a years' time, Lola Capdevila's reign technically outlasted that of the king.

34. The 1928 *Reglamentos de los mercados en general* contained new provisions designed to tame vendor behaviour; articles 42 and 43 outlawed traders' cries and the spreading of rumours concerning price increases.

Domingo, 1.° de junio de 1930 — DIARIO DE BARCELONA — Página 56

Exposición de Barcelona de 1930

Precio de entrada al recinto, 1'05
Abierta desde las 9 de la mañana hasta las 1 de la madrugada

Parque de Atracciones
Abierto hasta la hora del cierre.

Iluminaciones y fuentes luminosas desde el anochecer hasta las 9 y de 10 y media hasta las 12 de la noche.

PALACIO DE PROYECCIONES
Hoy domingo, a las 6 de la tarde, 6.ª representación. A las 10 de la noche, 7.ª representación de la revista inglesa

WAKE UP AND DREAM (Despierta y sueña)

de la Compañía de revistas de Charles B. Cochran's procedente del London Pavillion de Londres.
GRADIOSO EXITO - INTERPRETACION INMEJORABLE - 7 UNICOS DIAS, 7

HOY DOMINGO
A las 11 y media, audición de sardanas en la Plaza de las Diputaciones, por la cobla «LA PRINCIPAL» de Cassá de la Selva.

ESTADIO
A las 2'30 de la tarde. Final del campeonato de España amateur de Futbol:
GIJON - HERCULES DE ALICANTE
A las 4'30 de la tarde. Gran final Campeonato «Copa España».
ATHLETIC CLUB DE BILBAO - REAL MADRID F. C.

Tarde, en el Campo de basket (Avenida de Montanyans), Partidos de torneo «Copa Exposición».
Precio: Palcos, 5 ptas. — Entrada general, 0'50 ptas.

A las 5 y media, en la Plaza Mayor del Pueblo Español, sardanas por la cobla «LLOBREGAT».
A las 5 y media, en los Jardines del Palacio de Agricultura, otra audición de sardanas por la cobla «BARCINO».
GRANDIOSA CABALGATA DE LOS MERCADOS:
A las 4 de la tarde. FANTASTICO DESFILE DE 22 CARROZAS, 60 COCHES, UN CORTEJO COMPUESTO DE MAS DE 1000 COMPARSAS.
GRAN BAILE DE LOS MERCADOS
A las 10 y media de la noche, en el Salón de Fiestas del Palacio Nacional, Proclamación de la Reina de las Reinas de los Mercados. Desfile de éstas acompañadas de sus cortejos. El salón estará magnificamente adornado.
Precios: Sillas platea 1ª fila, 2'50. Sillas platea 2ª fila, 2Ptas. Restantes filas, 1'50 Ptas. Delanteras piso, 1'50 Ptas. Restantes filas, 1 Ptas. Palcos, 30 Ptas.

Palacio de Artes Gráficas
Exposicición filatelica. Entrada 1'05 pts. Entrada con derecho al sello conmemorativo 2'05 pts.

PALACIO ALFONSO XIII
Exposición de trabajos manuales de Gente de Mar. Exposición de trabajos de la Mujer Española.

Palacio de la Electricidad y Fuerza Motriz
Fargas catalanas. Exposición de Hierros de Arte.

LABERINTO
Curiosa atracción en la planta baja del Palacio de Proyecciones.

Advertisement of the market parade, 1930

sume a more domestic, and thus presumably, more genteel existence. After rounds of high-pitched verbal combat with her daughter's future in-laws, Tresina ultimately relented by giving up her market stall and her economic independence. Explicitly ridiculing bourgeois conceptions of honour and decency, Tresina was forced to accept domestic enclosure as the kept woman of a shadowy but powerful man. As in several other productions featuring

Market cavalcade on the site of Barcelona's Esplanade, 1930

female vendors in Barcelona's early twentieth-century popular theatre, Tresina possessed a profane beauty and sexual appeal that paralleled the carnal sensuousness of the food for sale to the public in the city's markets.[35] In contrast, Barcelona's real-life 1930 market queens were characterised in

35. Alfons Roure, *La reina del mercat*, La Escena Catalana, Barcelona, 1927. Institut del Teatre, Centre de Documentació i Museu de les Arts Escèniques.

civic rituals as young, single, virginal and garbed in white. The local council and the stallholders themselves had joined together to present a new more sanitised market queen iconography, yet one that still rested upon powerful popular legitimacy.

However they were cast in theatrical pieces and municipal pageantry, the representation of market women in Barcelona's popular and civic cultures reflected their ubiquitous presence among the ranks of the trader population and in the political economy of food retailing. Cerdà's analysis of Barcelona's markets in the mid-nineteenth century estimated that 90% of the city's vendors were women.[36] Fifty years later, a very large proportion of stallholders still comprised women who operated their small businesses in their own right, worked throughout their life cycles and balanced marriage, motherhood and domestic responsibilities with formal participation in retail trade. In a period during which increased gender segregation characterised most sectors of the economy, the markets of Barcelona constituted an important exception to the general pattern.

The code governing market trade in Barcelona formalised and facilitated women's legal access to food stall permits. In particular, the code encouraged stability within the market vendor population by privileging the numerical preponderance of what were known as permanent, long-term stall licences. Provisional licences were increasingly converted to permanent ones in the first decades of the century. Yet because market trade was expanding with population growth and the physical extension of the city, the most usual way of acquiring permanent licences in the early twentieth century was through municipal auctions, held monthly at the town hall. Article 11 of the 1898 regulation specified that women participating in auctions for municipal market stalls would 'be subject to the same [terms as men], regardless of their status, and the married will not be allowed to use as a pretext or excuse to elude their obligations the fact that they might have negotiated without the consent of their respective husbands.'[37] Explicitly exempting market women from the restrictive provisions of the 1885 Spanish Commercial Code, Barcelona's market regulations involved the application of principals drawn from older Catalan property law to an expanding commercial sector of the

36. Ildefons Cerdà, *Teoria general de la urbanización, reforma, y ensanche de Barcelona, Vol II. La urbanización considerada como un hecho concreto: estadística urbana de Barcelona*, Imprenta Española, Madrid, 1867; reprinted by the Instituto de Estudios Fiscales in 1968, p. 627.

37. Article 11, 1898, *Reglamento para el régimen de los mercados de esta ciudad* and Article 9, 1928, *Reglamentos de los mercados en general.*

urban economy.[38] Thus a significant measure of gender equality was built into the rules that standardised market trade and set the official parameters of food retailing in the city. Correspondingly, a pattern of widespread female market stall operation defined Barcelona in the late nineteenth century and early twentieth century. Anecdotal evidence and collective memory affirm the degree to which market halls were feminised commercial spaces. So, too, do municipal records, in particular the city's registry books that list the acquisition of traders' permits in each individual market hall, stall by stall.[39] The evidence they yield reveals much about the consolidation of the stallholder population as a municipally dependent group, the continuous presence of women as the dominant retailers in Barcelona's market halls and the crucial home economic strategies upon which so many successful market stall operations were based.

Table 1 shows that while women continued to compose the majority of the vendor population in the late nineteenth century and early twentieth century, men's presence in the market retail trade was steadily growing. This was especially the case in the newer markets that opened after the imposition of the 1898 code. Certain market specialisations in particular attracted more men than women. The fact that women acquired 63.3% of all the fruit and vegetable stall permits (out of a total of 5, 329) but only 38.58% of the pork butchers' stall permits (out of 705) suggests that initial capital investments shaped gender patterns in market retailing.[40] Pork-stall licences allowed the sale of a range of additional, often pricey, items including hams, special sausages and other processed meats. Many pork butchers did some of the processing themselves from small, family-owned workshops located near their markets. Fruit and vegetable stall operations, where women predominated, required lower levels of investment in inventory, labour and commercial space. Such distinctions notwithstanding, the dominant pat-

38. Spanish commercial law specifically stipulated that married women needed their husbands' permission to engage in trade and that husbands had the right to single-handedly revoke their wives commercial licences at any moment they so chose. See Stephen Jacobsen, 'Law and Nationalism in Nineteenth-Century Europe: The Case of Catalonia in Comparative Perspective,' *Law and History Review* 20 (2002), p. 307-347; Mary Nash, *Mujer, familia y trabajo en España, 1875-1936*, Anthropos, Barcelona, 1985, 20, p. 371-373; and Lucy A. Sponsler, 'The Status of Married Women under the Legal System of Spain,' *Journal of Legal History* 3 (1982), p. 125.

39. The extant records documenting the acquisition of permits for stalls in municipal market stalls are remarkably complete, if also methodologically challenging because of their volume and physical scattering across the city in unedited and unorganised collections. Data concerning La Boqueria market are not included in this analysis because of the sheer volume and complexity of the records, although a 20% sample indicates little deviance from gender patterns in the other markets.

40. These are subsets of data included in Table One.

Poster advertising the play entitled *La reina del mercat*, 1930

tern featured men and women working alongside one another in the city's markets and collaborating on the basis of household-economy relationships to successfully operate their stall businesses.

The growing participation of men in Barcelona's retail markets was also a consequence of significant changes in the legal nature of stall permits. Amendments to the 1898 code in 1921 and 1922 consolidated the rights of heirs to stall licences and legalised their sale on the open market,

dramatically increasing their value.[41] Seizing the municipal auctions for stall permits as new investment opportunities, the swelling ranks of men working in Barcelona formed a range of associations aimed at formally defending and expanding their commercial interests. Some of the new associations were established in the actual markets, others were organised around market specialisations and still others brought stallholders and shopkeepers. By the time El Born was reorganised to specialise exclusively in wholesale trade in 1921, the town council had to negotiate the terms of the rearrangement with the Barcelona Market Traders' Union that extended across the whole city.[42] Put on ice by the imposition of the Primo de Rivera dictatorship and re-emerging under the Second Republic in closer coordination with shopkeepers, this associationism on the part of Barcelona's stallholders formed a part of the commercial dimension of the broader regeneratory civil society in the early twentieth century.

Although market women did not assume positions of leadership in these commercial associations, they did contribute to the success of their enterprises by wielding considerable local power. Market women built interpersonal networks that extended beyond the market halls into the surrounding neighbourhoods from which they drew their clientele. Largely informal in nature, such networks, however, proved useful in several respects: they were channels for information and collaboration among those who worked on the stalls and they could confer honour upon female traders and thus build consumer loyalty that endured overtime, despite political disruption. Female consumers were accustomed to purchasing much of their food from other females in public spaces where women dominated. Though there was a growing presence of men in the markets of the city during this period, the supposition persisted that women traders came equipped with particular advantages in dealing with a consuming public that was overwhelmingly female. They were presumed to be more verbally dexterous, more capable of showing sympathy with women's concerns, especially prepared to offer informal advice to other women, and better suited to recommend the sorts of culinary strategies that female consumers sought

41. Administrative Records, Sant Antoni Market, documents dated 18 November 1921 and 21 January 1922.

42. Pre-archival Deposit at the Barcelona Municipal Administrative Archive, R-100, Consumption and Provisioning, box 17, 10634 and 10637, box 19, 10680, box 21, 10853 and box 44, 30074. The range of traders' associations in this period reflects what Javier Casares Ripol and Alfonso Rebollo Arévalo have described as the 'quasi professional period'. *Distribución Comercial,* second edition, Civitas, Madrid, 2000.

Patterns of acquisition of permanent stall licences
*Denotes markets where registries include entries predating annexation and the passage of ownership and control to Barcelona City Council

Market Name	Initial date of municipal record	Licences recorded up until 1936	Licences issued to females	Licences issued to males	Female % of total	Male % of total
Santa Caterina	1863	1905	1159	746	60,84	39,16
Sant Antoni	1882	2425	1438	987	59,3	40,7
Barceloneta	1884	914	539	375	58,97	41,03
La Concepció	1888	1192	708	484	59,4	40,6
Hostafrancs	1888	708	438	270	61,86	38,14
La Llibertat	1875*	1100	660	440	60	40
Abaceria Central	1892*	1263	733	530	58,04	41,96
Clot	1889*	500	291	209	58,2	41,8
Unió	1889*	490	262	228	53,47	46,53
Sarrià	1911*	276	139	137	50,36	49,64
Sant Gervasi	1912	178	94	84	52,81	47,19
Sants	1913	814	471	343	57,86	42,14
Sant Andreu	1923	549	307	242	55,92	44,08
Galvany	1927	523	285	238	54,49	45,51
El Ninot	1933	421	218	203	51,78	48,22

Table 1. Administrative Records, Area of Provisioning and Consumption (now the Barcelona Municipal Institute of Markets), Administrative Records of Santa Caterina, Abaceria Central and Sant Antoni markets, Barcelona, Spain. Data collected and tabulated by the author.

in order to stretch their budgets but still please their families when they sat at the dinner table. A set of putatively natural feminine skills, when properly developed and practiced, could generate the most fundamental commercial capital that market vendors sought to accumulate: consumer trust and loyalty. Reputation mattered in the market halls of Barcelona, and word of mouth among female consumers largely determined the success or failure of stall enterprises. Gràcia, where three markets operated when it was absorbed in 1897 by the city of Barcelona, is one illustrative neighbourhood in which to consider the characteristics and consequences of women's extensive participation in food retailing. La Llibertat was the district's oldest market hall, dating back to 1875. Not far away was an open-air market known as La Revolució, which was never vested with more than a partial covering or any enclosure other than that provided by the residential and commercial

structures that dominated the square in which it operated. A third market, Abaceria Central, located just a block from La Revolució, was built by private initiative on the site of an earlier textile factory. The long controversy over the legitimacy of a private market hall seeking to establish itself in competition with the public and older La Revolució outdoor food market was not resolved until 1912, when the city bought the new market and made room for the older traders within the structure. Yet for a crucial period in the early stages of Gràcia's integration into Barcelona, all three markets vied for consumer loyalty.

The municipal registry that recorded stall permits issued for La Revolució market covers a period that extends from 1882 to 1913 and thus reflects the composition of traders over a period of time that included the annexation of Gràcia to Barcelona and the imposition of the 1898 market trade regulations. In the years leading up to the annexation, La Revolució market featured some twenty-six men selling food at its market stalls alongside approximately fifty-four women.[43] When Gràcia's stallholders came under the authority of Barcelona's municipal market code in 1898, women began to acquire licences for stalls in La Revolució market in increasing numbers; between 1898 and 1913, the permits held by women almost doubled those held by men.[44]At La Revolució, the application of the 1898 regulations appears to have explicitly promoted, or at least legitimised, the acquisition of licences by female traders among what was a largely immigrant and working class population.

Whether male or female, the lives of stallholders at La Revolució were deeply rooted in the neighbourhoods from which they drew their clientele. The registry suggests that a quarter of the traders resided within a one-block radius of the market and that less than a third lived outside of Gràcia itself; significantly, almost half of them listed a neighbourhood shop as their residential address.[45]At La Revolució market at least, many stallholders, both

43. Insofar as family members could stand in for permit holders, using data from municipal registries entails analytical challenges. Nonetheless, the registry of La Revolució market includes notations on substitutions. In this case, the above numbers are adjusted to reflect not who held the stall permit but rather who actually operated the stall. No other extant market registries included records of substitutions.

44. After 1898 there are many fewer notations designating family or clerks working on stalls, partly as a result of the new market code.

45. The registry of La Revolució market is among the few extant records from the early twentieth century that includes the home addresses of stallholders. My calculations from the registry show 26% of stall permits issued to individuals residing within a one-block radius of the market (note that I am defining Gràcia here according to its 1898 boundaries). The registry shows that 48.83% of the stall permits were issued to individuals listing street name and number followed by *tienda* as their home addresses.

male and female, emerged from the ranks of the shop keeping population and quite likely acquired stall permits as a way to extend their family's retail operations horizontally. Though the interests of shopkeepers and stallholders could diverge, there was much complementarity and overlapping between the groups; rigid distinctions between them did not exist in Gràcia. With both work and residential life so anchored by the market, small-scale food retailing at La Revolució market at the turn of the century was characterised by intense levels of familiarity and neighbourhood social relationships. Similarly, after 1912 the accommodation of traders in the Abaceria Central structure, which was just one block away, meant that the transition from open-air to enclosed food retailing did not undermine the local character of food commerce in the district.

While the surviving municipal registries for Abaceria Central and La Llibertat markets in Gràcia offer less detail, they certainly document the extensive involvement of women in the retail food trade in markets in the early twentieth century.[46] With respect to Abaceria Central, the municipal registry records 1, 263 acquisitions of stall permits in the years between 1892 and 1936;[47] of these, 733, or just over 58%, were issued to women. At the slightly smaller but older La Llibertat market hall, the municipal registry recorded 1, 100 stall licences from 1875 to 1936, of which a full 60% were issued to women. Men were clearly working in large numbers in all three of Gràcia's markets at the time, but women predominated as the legal holders of trader permits.

At La Llibertat and Abaceria Central markets in the early twentieth century both men and women often acquired stall licences through family connections. Children and adolescents often worked in stalls held by grandparents, parents, aunts, uncles, siblings and other kin. Designated as heirs, after 1921 they often gained legal title to the permits through transfer on death conveyances. Marriage among stallholders was also common, as it was between traders' offspring and members of their age cohort whose families worked in the food retailing, wholesaling, warehousing, and meat slaughtering sectors. Another common pattern involved market clerks marrying either the licence holders for whom they worked or the permit holders' heirs. Once stallholder couples married they sought, if possible, to combine

46. These registries do not include notations on the addresses of licence holders.

47. Administrative Records, Abaceria Central Market. Due to the fact that Abaceria Central ultimately absorbed the bulk of La Revolució traders after 1912, these records of stall permits must be assumed to overlap with and repeat much of what the latter's municipal registries recorded.

and expand their operations. The code specified that no individual could possess more than two permits in any one market, but couples could create enlarged stalls based on four separate yet adjoining licence numbers. Traders were also frequently encouraged and assisted in the acquisition of permits by older family members and kin operating from the same or other markets in the city. The markets of Gràcia functioned with complex, multigenerational family relationships that linked stall-keepers to one another and to the broader system of food retailing in the city.[48]

Many of these patterns are illustrated by the lives of typical women who worked at La Llibertat market. Joana Grillé Fornell was born in 1915 and has lived her whole life in a flat overlooking the market where her parents held adjoining licences to operate a fruit and vegetable stall. Joana studied at Les Escolapies and learnt to sew at La Cultura de la Dona, but she did not pursue a career as a seamstress because she knew that her future was in the market. Indeed, she took up full-time work alongside her mother at the age of seventeen, shortly after her father's untimely death. After the Civil War, Joana married the son of another family of greengrocers from the market, and he joined her stall business. Together they had a daughter, raised by Joana's mother who had provisionally give up market work. Alongside her husband, Joana worked until retirement; by then her daughter, after a long apprenticeship, had taken over responsibility for the stall. The life story of Joana Grillé Fornell exemplifies a common family strategy: in this case, three generations cooperated to successfully operate a food retailing business while living in a single apartment immediately adjacent to the market structure in which they spent their working lives. In her own words, Grillé explained the nature of their economic arrangement: 'A casa meva sempre hem tingut només una bossa. No hem sigut d'aquella gent que deia que això és teu i això és meu. No. [A] casa meva … tant era de la meva mare com era meu.'[49]

Josefa Noguerolas Casas, born in Barcelona in 1919 and known as Pepita, is another La Llibertat stallholder whose biography illustrates broader patterns.[50] Her maternal grandparents, with their descendants, held seven stalls permits at La Boqueria. When La Llibertat market opened in 1875,

48. I am particularly indebted to Joan Bonastre and Xavier Trull, who generously made time and space available to me in their markets and helped to arrange oral history interviews with sixteen stallholders from La Llibertat and Abaceria Central in 1991 and 1992.

49. Oral history interview with Joan Grillé Fornell, conducted by the author on 1 June 1992.

50. Oral history interview with Josefa Noguerolas Casas and Tomàs Sancho Roman, conducted by the author on 19 May 1992.

Stall selling olives and preserved foods at La Boqueria, 1929-1932

they acquired a licence in order to extend their veal trip and offal business horizontally. Pepita's mother began selling at La Llibertat aged barely eleven, from atop a stool that enabled her to see over the counter. Married outside the market to a longshoreman and widowed young, Pepita's mother raised three children on her market wage. In 1931, at the age of twelve, Pepita joined her mother full time. After the war, Pepita married Tomàs, a young man who had long worked for her mother. Tomàs used his mother-in-law's influence to get a job at the municipal slaughterhouse where he could gain access, through daily raffles, to what remained from the veal carcasses prepared for sale to the city's butchers. Thus situated, Tomàs opened a small processing operation in the Les Corts neighbourhood and from there prepared his mother-in-law's entire inventory: *el cuit*, which included tripe, lung, brains, heads and hooves, and *el cru*, which comprised liver, tongues and heart. While the women in the family took responsibility for the retailing end of the business in the

market, Tomàs worked long weekly hours acquiring and processing the stock, and then competed eagerly for the chance to process the entrails and organs of the bulls that were killed by the matadors on Sundays. Collaborating in the family business over the course of their married lives, Pepita and Tomàs raised two boys with the help of her mother and several servants; when they retired they passed their stall business over to one of their sons.

The life of Pepita Noguerolas Casas exemplifies a crucial element of the food retailing system that took shape in Barcelona's market halls over the course of the late nineteenth century and early twentieth century: in this case, four generations cooperated to successfully operate a stall business while forging family and commercial relationships that linked La Llibertat market in Gràcia to La Boqueria in the city's historical quarter. Moreover, Noguerolas' family stall business in La Llibertat market depended upon the access to supplies from the municipal slaughterhouse in Sants, and the processing that took place in their workshop in Les Corts. Her story was not unusual; repeated perhaps thousands of times over, it reveals the social significance of the market-hall system of retail food provisioning in Barcelona. While individual markets operated as neighbourhood commercial mainstays, they also formed close ties with the larger municipal provisioning system that supplied the city as a whole. La Llibertat and the other markets in Barcelona acted as crucial generators for the formal and informal networks that linked individual consumers to particular traders, traders to one another, and both traders and consumers to the municipal administration that controlled and regulated the city's political economy of food retailing.

Both Joana Grillé Fornell and Pepita Noguerolas Casas attested to their affection for the markets in which they had spent their lives and boasted of the faithful *parishes* upon whom they were able to depend through thick and thin.[51] 'S'ha de tindre molta picardia per vendre,' Noguerolas explained. She won her regular customers over by offering recipes, inquiring after the well-being of their mothers and grandmothers and making sure never to engage in gossip. Grillé, especially, emphasised the family atmosphere that characterized La Llibertat market in her youth during the decades that preceded the Spanish Civil War. Noguerolas, in particular, spoke of her mother's reputation in the market as a *lady*. Yet having always worked outside their homes, despite marrying and having children, both these women's lives defied the

51. This term translates literally as 'parishioners'. The history of its use, common among market traders, extends back to the early twentieth century and suggests the kinds of bonds that women cultivated within the pool of consumers from which they competed with other female stallholders for sales.

bourgeois gender ideologies that emphasised the virtues of feminine domesticity. Neither of them, however, embraced working-class identities that, by necessity, accepted women's work outside the home more readily. Occupying an intermediary social, and culturally contested, space, both women stressed the high domestic standards their mothers set as a point of honour and to mark the distance from the lower classes of vulgar, gossiping women with whom they shared market and neighbourhood space.

Though Gràcia was and remains a distinctive area within the city, the pattern of womens' work in markets, the strategies that market families pursued and the social and cultural contexts of stallholders' lives were not exceptional. Similar circumstances and arrangements characterised all municipal market halls in the late nineteenth century and early twentieth century. In the city's historical quarter, Santa Caterina, like other markets in the city, was essentially a feminised commercial space—extant registries reveal that of the permanent stall licences recorded at Santa Caterina between 1863 and 1936, just over 60% were issued to women, the same proportion as at La Llibertat market in Gràcia.[52] Similarly, male and female stallholders at Santa Caterina also led lives that were embedded in the community from which they drew their clientele: between 1898 and 1929 more than half of the one hundred and eighty-four traders who acquired stall permits to resided in the old city centre, of which almost a third resided within a one-block radius of the market.[53]At Santa Caterina, as elsewhere, many stallholders lived in the same blocks of flats as their customers, hung their laundry from the same rooftop lines and drew their water from the same public fountains.

Santa Caterina, in fact, operated as a neighbourhood nexus, not just for commercial and social exchange but also for daily public contact with the local authority. In addition to its main purpose as a food retail centre, a section of Santa Caterina near the rear of the building had long served as a municipal shelter for indigent women known as the *Albergue Municipal* (Municipal Shelter). Other sections of the building had also housed both a fire brigade and police station.[54] While the administration of the market was

52. See Table One.

53. Administrative Records, Santa Caterina Market. Residence patterns calculated by the author as follows: 31.7% resided within a one-block radius of the market; 26% resided elsewhere in the city's historical quarter; 30.4% resided outside the historical quarter; and 11.9% listed no address and are therefore unknown.

54. J. A. Balaguer, 'El primitivo mercado de Santa Catalina,' in *Los Abastecimientos de la Ciudad*, *Divulgación histórica de Barcelona*, vol. XII, Publicaciones del Instituto Municipal de Historia, Ayuntamiento de Barcelona, 1965, p. 86. The fire brigade was accommodated in the market from 1870 to 1915.

clearly in the hands of municipal authorities, who jealously guarded their turf, vendors and consumers alike laid claim to Santa Caterina as neighbourhood community space. The market was famous as the site of Sunday dances that were open to the public.[55] Traders organised parties in the market, decorated their stalls to celebrate public holidays and used it as a meeting point for group excursions to the countryside and the seashore. Typically referred to as *la plaça* (the square) rather than as *el mercat* (the marketplace), like other markets in the city, Santa Caterina was considered by stallholders and consumers to be an extension of the public square, playing important economic and social roles in the neighbourhood.

The personal testimonies of Santa Caterina stallholders emphasise a strong sense of community in the market and its immediate environs during the first decades of the twentieth century.[56] Socialising with one another and with their neighbours through organisations such as La Penya Cultural de Barcelona and Germanor Barceloní, individual traders recall that market families took care of one another, forging bonds in childhood that extended into their adult years.[57] The younger dealers working in the market, especially, had a reputation for playfulness. Often groups of servants who went to shop in the markets would gather around the stalls of the most entertaining to laugh and chat.[58] The young women who worked in Santa Caterina enjoyed certain advantages within their local marriage markets, as well. Skills related to food handling and display, the possession of—or access to—stall permits, and family and kinship ties with other traders all constituted commercial capital that added to the attractiveness of choosing a wife from amongst the ranks of market women.

Early twentieth-century civic pageantry certainly underpinned the popular allure that market women could hold while acting as a counterweight to the more negative stereotypes. As a part of the 1930 Spring Festival, eighteen-year-old Francesca Orriols Palmeda, a third generation lamb butcher, was elected as Santa Caterina's market queen.[59] The experi-

55. J.A. Balaguer, 'El Primitivo mercado de Santa Catalina,' op. cit., p. 85. The dances were held for nearly a century, beginning in 1848.

56. I am especially indebted to Francesc Puigdomenech, who generously made time and space available to me in Santa Caterina market and helped to arrange oral history interviews with fifteen stallholders from the market in 1991 and 1992.

57. Oral history interview with Joan Mani Burgedà, conducted by the author on 8 April 1992.

58. Oral history interview with Carmen Giner Folch, conducted by the author on 10 May 1992.

59. Oral history interview with Francesca Orriols Palmeda and Lluís Casals, conducted by the author on 18 May 1992.

ences that surrounded her year-long reign command primacy of place in her recollection of a life spent working in the market. She rode in the fantastic cavalcade of 1930 that wound its way through the streets of the city; she wore a white tulle gown with silver embellishments to the grand ball attended by the King of Spain; she befriended the radiant young beauties from the other markets, was whisked away by night in municipal cars to attend parties, got to fly in an aeroplane and, bedecked in black lace mantilla and red carnations, went with the other market queens to watch the great matador Manolete perform in the bullring. Half a century later, the old-timers in the market still pointed in her direction and spoke of her as *la reina del mercat*. She herself is quick to assert that while there may have been some *pubilles* (heiresses) elected later on, she was the one and only queen of her market.

The fact that such official cultural manipulation should have been enthusiastically embraced by the stallholders themselves is not surprising. The veneration of market queens and their presentation as virtuous young ladies on a broader civic stage offered a welcome antidote to more diffuse social and cultural insecurities. Through her participation in municipal rituals, Francesca Orriols brought honour and recognition to her market and, more specifically, to female vendors. Yet as a female stallholder, she still occupied a contested cultural space, the tensions and ambiguities of which appear in the way she constructed her life story—as she tells it, she did not like cutting and selling lamb and would rather have been a secretary than a stall-keeper. When she first started working at her grandparents stall, she ducked down behind the counter and hid at the sight of school friends passing through the market, feeling embarrassed within her social cohort by the work that her family did. Though she was elected market queen and showered in the attention and admiration of many, she imagined another life for herself, in an occupation that may have been more prestigious.[60]

The remarkable long-term commercial success of Barcelona's markets invites a series of questions, not only about the larger municipal provisioning system but also about the population of traders and the formal and informal strategies that male and female stall-keepers pursued in operating their small-scale businesses and in consolidating their position in the urban social hierarchy. However they were conceived, designed and managed, market halls could not prosper without a population of dealers successfully plying their trade. Barcelona's markets generated informal networks that mitigated

60. Ibid.

the potential for anonymity and isolation in urban, industrial life. Despite being sites of contention in periods of inflation and shortage, more often than not they were centres for creating and reaffirming a broad consensus at neighbourhood level about the right of the popular classes to obtain cheap and safe food and the obligation of the municipality to limit the economic competition that traders faced in operating their stall businesses.

Covered Markets in Germany: From Iron Markets to Central Concrete Markets

Hannelore Paflik-Huber

The Initial Situation in the Nineteenth Century

When we speak of covered markets (or market halls) we must make it clear that for the most part we are speaking of markets that no longer exist. Most covered markets built in Germany during the nineteenth century were destroyed during World War Two or demolished in the following years as a result of town planning projects. Some markets became too small very soon after opening because of the rapidly rising population of the city, and their placement in city centres allowed no room for extension. During the planning stage of the first covered markets no one counted on such a tremendous growth: in Europe the population increased from 187 million in the year 1800 to 400 million in 1900.

More and more people moved to cities in search of work in factories. Due to the long working hours at plants and service industries, people had very little time to buy food and other daily necessities. The rising demand for food led to a rapid increase in the number of street markets and intermediaries played an ever more important role. Dealers occupied a grey area that was not under the control of the market authorities and led to an increase in food prices and also to a decline in quality. Goods had to be provisionally stored and dealers who did not sell their own produce ceased to identify with their goods. As a result, quality became a secondary issue after the most important objective, which was making a profit. Retailers would buy produce from farmers in rural areas and deliver it to the markets. Dealers were frowned upon by citizens and administrators alike, regarded as intruders who stood between producers and consumers and 'increased the price of food like usurers.'[1]

As their name indicates, weekly outdoor markets do not open daily; in fact, their opening times were usually limited to mornings. According to Krüer, in 1914, outdoor markets provided no protection 'against dust or sunshine … against pollution from dogs going from one stall to another. In most cases the stalls themselves are lacking in hygiene, which can be quite disgusting, especially in the case of stalls selling meat. Both buyers

1. August Lindemann, *Die Markthallen Berlins*, J. Springer, Berlin, 1899, p. 1.

and sellers are exposed to the vagaries of the weather. Sellers often have to stand in the mud for hours, as marketplaces are rarely paved and thus puddles are formed whenever it rains. Customers have to walk through the mud from stall to stall and in bad weather they have to rush to buy the things they need.'[2]

Once sellers had dismantled their stalls, they often left spoilt or unsold goods lying around, which presented a health risk for local residents. Cats, birds, rats and mice would devour these leftovers. Just as the building of covered markets greatly improved hygienic conditions, it also addressed socio-political demands made by the population and therefore aroused the interest of politicians. As early as 1883, Eduard Eberty wrote, '[S]o the desire to furnish markets to cover the needs of daily life in the best possible way contains a good measure of practical social policy.'[3] Such was the situation of large cities in the mid-nineteenth century.

Concept and Prototype of the Covered Market

The term covered market or market hall generally designates a building used for the sale of perishable goods such as meat, fish, poultry, vegetables, fruit, eggs, dairy produce and flowers. Paragraph 66 of the Gewerbeordnung or GeWo, the German trade regulations act dated 1 January 1978, defines the term *Großmarkt*, central market, as 'an event at which a large number of vendors offer a certain type of goods'.[4]

Before the nineteenth century, covered sales areas were probably just simple sheds or the porticos of town halls. A market square in Münster with a surrounding colonnade was used as an outlet as early as the Middle Ages, in order to shelter produce from dust and weather. So, what prompted the boom of the covered market in the nineteenth century? This was a period in which architecture was greatly revolutionised by the advent of iron construction. The World Fairs held in London and Paris in 1851 and 1855 respectively had proved that iron structures could cover huge areas that were higher and lighter than those erected previously, that

2. Hermann Krüer, 'Markthallen und ihre Hilfskräfte als Faktoren der Lebensmittelversorgung in unseren Grossstädten,' *Kölner Studien zum Staats- und Wirtschaftsleben*, p. Aberer et. alt. (eds.), Bonn, 1914, p. 32 and ff.

3. Eduard Eberty, *Über Lebensmittelversorgung von Grossstädten in Markthallen. Bemerkungen nach einem in der Volkswirtschaftlichen Gesellschaft zu Berlin am 18. Dezember 1883 gehaltenen Vortrag auf Grund eigener Betrachtungen und neuerer Quellen*, Simion, Berlin, 1884, p. 5.

4. The German law that regulated commercial, trade and industrial activity passed on 21 June 1886 did not yet include the concept of 'wholesale market'.

needed no columns and, above all, could be put up quickly with minimum building material.

We could say that the covered market was the first outlet for foodstuffs, which in part explains our current fascination with these buildings. Their architectural form lies somewhere between that of a cathedral and a railway station, and yet the special purpose of these buildings is what seduces us as consumers.

Besides the wish to be able to buy essential products from local areas at any time of the day, customers also have a 'need for the superfluous', as Paul Valéry puts it, a need which can be met thanks to the existence of long-distance trade routes. Some material goods such as exotic spices and fruit are in demand everywhere, despite not being basic necessities.

For what reasons was it decided in the nineteenth century (in Germany at the *fin de siècle*, to be precise) that market trade would be held in enclosed buildings?

The first explanation is that covered markets protected goods from the inclemency of the weather. In a solid structure such concerns were irrelevant; people were protected against heat waves and snowfalls and wares could be sold all year long. The second motive for putting up solid buildings answered the demands for greater hygiene and met the regulations approved by local authorities, which became ever stricter as knowledge of diseases and their causes increased. As mentioned previously, industrialisation brought about an enormous growth of the population in cities producing supply and traffic problems. Goods had to be stored for short periods in cool hygienic conditions and protected from light. Sheds or saw-toothed roofs were the most appropriate way to cover large spaces or market halls, and had slanted skylights that rhythmically alternated with wide, closed roof portions to prevent light from shining directly into the halls.

When markets were being planned in large cities, the question always arose whether one large central hall would suffice or whether it should be complemented with several smaller ones. The latter solution was adopted in Berlin. Not until the twentieth century was planning realistically conceived with future necessities in mind, i.e., either markets were constructed allowing for future extensions with an increase in number of stalls, or else this possibility was contemplated when purchasing the grounds to accommodate additional buildings. The mistaken evaluation of future extension needs was a nineteenth-century failing and explains why so few of these structures still exist today, as the demands made by growing populations could not be met.

The basic elements for planning are easy to enumerate: you need a large covered hall, interiorly equipped with a system of roads, stalls, stairs, lifts to the basement, offices for customs and market administration, rooms for a post office and a bank, a power centre, housing for employees, a restaurant, garages, lavatories, space for an outdoor market, refrigerating chambers, railway lines, covered delivery and unloading stations and space for refuse. Construction has to be such that no sunlight falls directly on the wares, as these would otherwise easily be spoiled. Here there is a simple rule: narrow halls require high lateral lighting, while long halls need overhead lighting and skylights. In the latter case, special glass that refracts sunlight is required. Ventilation should be natural, in order to avoid the presence of ventilation shafts in the selling area. Vaulted ceilings, that help stale air rise automatically to the building's highest section, are an ideal solution.[5] The heating system should preferably be central, which is the best way to ensure the produce isn't sullied with ash, soot, etc.

Lighting is also important. Light sources should be installed so as to avoid glares and extra heat, and enable clear viewing of wares. For reasons of hygiene, basement and hall windows should have wire mesh to prevent the entrance of animals. All these considerations reveal that, at least initially, those drawn to such building projects were industrial engineers rather than architects.

Location and Architectural Configuration

The entire history of the covered market depended on one decisive urban planning issue, namely its location. Good communication links ensured faster and easier delivery of merchandise and refuse removal, enabling producers and traders to sell their goods. Choice of location depended on transport networks—rivers, railways and roads. For Frankfurt, a city that had trade agreements with Italy, especially with Naples, it was important to have customs authorities nearby to guarantee quick and easy transactions.

In our consideration of individual markets we shall see the importance of good road approaches and of rational circulation within the actual market halls, governed by a simple and important rule: avoiding crossroads and backward movements.

Town centres already boasted structures created in the Middle Ages and the modern period that housed their most significant buildings.

5. Hans Poelzig, 'Markthalle auf der Ostdeutschen Ausstellung in Posen,' *Der Industriebau* (1911), p. 22.

Churches, town halls and palaces marked the centres of cities, from which it followed that central locations were sought for markets, the cathedrals of commerce. The disadvantage was that streets in such areas were usually narrow and unable to absorb the increase in traffic. So Frankfurt, for instance, sought a location for the large market designed by Martin Elsaesser in the new and yet undeveloped part of town, the Ostend. Today, central markets are found in outer industrial areas, while town centres only house markets that sell high quality products to end customers, as in Stuttgart.

Their architectural configuration depends on whether they are wholesale markets, retail markets for end customers, or both in one.

We shall now present examples of the three different types, revealing the extent to which design depends on these factors. In all cases it is important that the retail area is covered and as far as possible free of supporting columns, which is the only way to ensure fluid circulation and a good overview of stalls. As there was no architectural tradition to fall back on, the first builders, usually civil engineers, looked to the architecture of railway stations and the crystal palaces of World Fairs—that is, buildings designed to cover huge spaces without the use of columns.

At first, most market halls had longitudinal ground plans and side halls that were reminiscent of churches. Early examples, that presented numerous similarities and few distinctive architectural traits, were modelled on their famous predecessors in London and Paris. Subsequent examples continued to prove that in both technical and aesthetic terms they drew on their forerunners, and in this sense we can establish an analogy with Gothic cathedrals; in both cases there was a desire to apply the latest technological advances and architects often visited and studied previous buildings.

The first covered markets could be described as engineering works: on the one hand, because they were chiefly built by engineers and, on the other, because the numerous innovations in materials and structures had not yet found their corresponding architectural shape. In 1913 architect Hermann Muthesius (1861-1927) came up with a simple and fitting definition for this: 'Engineering works stem from the desire to meet a need,' which could be applied, word for word, to market halls.[6] That same year in Stuttgart, Martin Elsaesser attempted to transcend the purely constructional side of architecture and blur the division between engineer and architect by applying

6. Hermann Muthesius, 'Das Formproblem im Ingenieurbau,' *Jahrbuch DWB*, Jena, 1913, p. 31.

modern advances, albeit from his perspective as an architect, i.e., with aesthetic requirements.[7]

A pragmatic reason for aesthetic restraint, for the minimum use of ornament, was suggested by Schmitt when he claimed, 'Special architectural design for the interior and exterior of the halls is superfluous and greatly increases building costs … Simplicity with a maximum of solidity is to be recommended.'[8] In hindsight, such a requirement proved disastrous, for it decreased the value of the buildings and therefore of their preservation, and the image of cities was not culturally reconsidered.

Broadly speaking, the ground plans of these buildings were rectangular, their main sections were pavilions and the various vaults were most remarkable from an architectural point of view. Instead of a second floor, galleries were usually built on each side of the main hall, destined to sell extra supplies of household items, wares and objects of everyday use. Whereas at first it wasn't clear from the outside what functions the visitor might expect from the building, the size and façades of latter markets did provide hints as to the purpose of their construction.

New Structures and Materials

Numerous advances in construction technology and building materials allowed for the erection of markets that met the demands of their time and sometimes even largely surpassed expectations. First and foremost there was the new compound material, reinforced concrete, an invention credited to Frenchman Joseph Monier (1823-1906) who registered his patent in 1867. In 1886 German engineer Gustav Adolf Wayss (1851-1917) purchased Monier's patent and developed it further. His research, together with the founding of the construction company Wayss & Freytag, led to the spreading of this new construction method. Monier owned several nurseries and strove to develop more resistant plant pots. The larger the earthenware pots were, the more easily they broke, so Monier began making pots out of pure concrete, which were not sufficiently solid, until he started using an inset of wire mesh, which markedly improved their durability.

The invention of reinforced concrete allowed for the construction of many modern architectural works (bridges, skyscrapers, etc.). Engineers managed to develop reinforced-concrete construction to such an extent that

7. Years before he had built two railway bridges.

8. Eduard Schmitt, 'Markthallen und Marktplätze,' *Handbuch der Architektur. Entwerfen, Anlage und Einrichtung der Gebäude*, Part IV, III, Notebook 2 (revised edition), 1909, p. 310.

a minimum of material produced maximum performance. The burdensome weight of walls was thus also visually reduced, and yet this technical innovation was not immediately translated into aesthetic terms. The first buildings made with these new materials presented a remarkable contrast between inside and outside—the exterior decoration could be described as historicist whereas the interiors revealed surprising pavilions that expressed the new industrialisation.

The new construction method of the laminated dome was first used in the Zeiss planetarium in Jena. The idea was to create a precise and lightweight heavenly vault. The procedure was developed in 1923 by Walther Bauersfeld and Franz Dischinger (Patent DRP.415 395) and applied at the grounds of the Zeiss factory near Jena in 1924. A network of iron rods shaped a dome,[9] which was then reinforced with wire mesh, and finally a casing was built and all the iron parts were closed in with concrete. We shall see later that this double network was first used in a horizontally reinforced cylindrical ceiling vault for the central market in Frankfurt (1927-1928). The invention of casing construction with reinforced concrete had a remarkable architectural effect on the appearance of open spaces: using thin walls, large halls could be covered without supporting columns.

What are the further advantages of iron architecture?

Weight is lower, construction is easier and can be completed faster and structures can be prepared in specialised factories independent of weather conditions, so that the final on-site assembly is much quicker. Another important aspect is that it is quite easy to make constructional changes.

A disadvantage is that iron rusts. The decay of food and especially of refuse produces acrid fumes that accelerate the oxidation process. In his historical novel filled with social criticism *The Belly of Paris*, Émile Zola recreated life in the market halls of Paris and described the odours, the noise, 'the smells of the fish market and the stench of the butter and cheese.'[10]

The permanent effluvia required the iron beams to be repainted at regular intervals.

A new development also helped solve the ventilation problem—the sloping roof, which had an area under the ridge, produced ideal ventilation

9. The glass pavilion designed by Bruno Taut for the Werkbund exhibition held in Cologne in 1914 had a similar dome system.

10. Émile Zola, *The Belly of Paris*, translated from the French by Brian Nelson, Oxford University Press, Oxford, 2007, p. 21.

that caused no draughts around the stalls on the ground floor, only high up beneath the roof.

Another significant invention for markets was the lift, which enabled goods to be conveyed easily to and from the basement. In 1853 Elisha Graves Otis (1811-1861) invented an elevator in New York, and in 1855 devised another, powered by steam. Later on hydraulic drive systems would be added. In 1857 the first lift designed to transport only people was installed in the then new cast-iron department store E. V. Haughwout and Co., in SoHo, New York. In 1861 Otis registered the patent for his lift, and from then on they began to appear far and wide.

The possibility of storing foods in refrigerating chambers for longer periods was another innovation, and an ideal water supply was also a key element. The building of wells outside the Franz Gustav Forsmann markets in Hamburg was considered pioneering. In the second half of the nineteenth century markets were supplied with water from wells located in their basements, and only later would water pipes be installed during the building process and water tanks supply the stalls with running water, thereby improving hygiene conditions. To reduce the risk of soiling, the floors of stalls were raised approximately five to ten centimetres above those of the markets' streets.

Economic Aspects

The covered market entailed radical changes in the selling of wares and led to the founding of cooperatives, thereby supporting agriculture. The condition of foodstuffs was subject to continuous monitoring as established in the new laws drawn up by local administrations. The controls did not only cover the hygienic condition of goods but extended to their prices. The larger the area covered by traders, the greater the competition, thereby producing a balancing effect on prices.

Compared to other large buildings of the period, such as concert halls or railway stations, covered markets had low maintenance costs. When planning markets, however, the following aspects had to be taken into account: electrical consumption had to be minimum, access roads had to be short and refuse had to be removed as swiftly and easily as possible (for hygienic reasons, of course). Inner streets and stalls had to be paved with resistant cobbles that would be easy to clean.

For many years, market halls were managed by local authorities and were therefore not profit-oriented. The rental of stalls, which was higher in covered markets than in outdoor markets, was worked out to ensure that they were self-supporting. In Berlin and in other places sales

in covered markets were so high that the rental of stalls was reduced on several occasions.

As mentioned earlier, dealers would drive to surrounding farms to purchase their goods, and consequently producers were less visible in the markets, especially in large cities. At first, buyers and sellers were from the lower classes, whereas the textile trade had been in the hands of the bourgeoisie since the Middle Ages, which explained why it had its own magnificent halls, such as the cloth market in Krakow. As early as the nineteenth century it was important to have goods imported from cheapest producing countries.[11]

Market halls were chiefly public buildings developed by towns and therefore built by town council employees, i.e., the chiefs of public works. Showy architecture was seldom permitted and in most cases budgetary considerations prevented the creation of new, aesthetically pleasing shapes. It was decided that cities would not be allowed to profit from the exploitation of covered markets.[12]

Foods such as cereals, fruit, potatoes, meat, fish, dairy produce and exotic fare were generally delivered by rail or waterway to markets, where wholesalers sold them to retailers and stall keepers, usually by auction. These sales took place in the early hours of the morning, as the goods had to reach the shops soon as possible—the sooner they got there, the more time that end customers had to purchase them. Originally, in the late nineteenth century a lunch break of about an hour was the rule. While the first covered markets gave a chaotic impression as far as the muddle of stalls was concerned, the building of greater halls introduced order to favour an organised system of business. The decision of stall placing was strategically solved to the best interest of all parties: fishmongers had always set up their stalls in the outer areas of markets to reduce smells, and also on the edges butchers sold meat and poultry, while further inside the market's 'belly' came the fruit and vegetable, and flower stalls.

If a market was intended for both wholesale and retail, a different system had to be found to ensure that everyone had their place, from small retailers to large wholesalers. In 1884 Georg Osthoff defined the six criteria covered markets were supposed to meet: Halls had to be as well lit as

11. Fritz von Emperger (ed.), *Handbuch für Eisenbeton, Gebäude für besondere Zwecke I*, Berlin, 1924, XIII (3rd revised edition), p. 148.

12. The order dated 26.07.1900 that regulated commercial, trade and industrial activity can be found in the survey by Erich Rindt, *Die Markthallen als Faktor des Berliner Wirtschaftslebens* (Ph.D. thesis), Berlin, 1928, p. 44-72.

possible; the lack of draughts at ground level had to be compensated by excellent ventilation beneath the roofs; outer walls had to be thick enough to preserve inner temperatures in summer and winter; sales areas had to be large enough to meet local needs; a sufficient number of easy entrances was essential; structures had to be cheap to build.[13]

The Current State of Research

At present, research on the architectural types of market halls must still be classified as rudimentary. In the early twentieth century some chief municipal architects published detailed reports, such as the one presented by Richard Schachner in 1914, but for the most part they were limited to describing the construction and layouts, specifying the sizes, number of stalls, turnover, etc. They didn't include any scientific or critical study, perhaps due to the fact that this was a new building type still devoid of its own jargon, or perhaps because authors lacked specific training, being as they were architects, chiefs of public works and civil servants whose prime interests were of an economic and practical nature. In 1928 Erich Rindt read his Ph.D. thesis on the impact of covered markets on Berlin's economy, which listed all relevant facts without analysing them. Thorsten Knoll's 1998 thesis on market halls in France, England and Germany was unfortunately never published, and so his valuable comments are not accessible to the general public. In comparison with the number of surveys of covered markets in other countries, those in Germany have been scarcely studied. Furthermore, official archives did not deem these buildings worthy of being documented and preserved. The main difficulty in trying to trace the history and development of this architectural type is that most of these buildings have ceased to exist. Even in the latest studies, such as the book recently published by Michael Mende, the main focus is on buildings in England, France and Spain, while markets in Germany are only mentioned in passing.[14]

We shall now present a few market halls in chronological order. Our selection is based on their significance in the history of the covered market as a building type, in architectural, aesthetic and economic terms. Similar enthusiastic statements about the new constructions were pronounced by contemporary witnesses in various cities: 'It's the biggest market hall of

13. Georg Osthoff, 'Anlagen für Versorgung der Städte mit Lebensmitteln. Markthallen, Schlachthöfe und Viehmärkte,' *Handbuch der Hygiene*, Jena VI, Notebook 1, 1884, p. 354.

14. Manfred Hamm and Michael Mende, *Markthallen*, Nicolai, Berlin, 2008.

the day', 'It incorporates the latest technological advances', 'It's the most impressive structure and boasts the largest dome,' etc.

The Market Halls

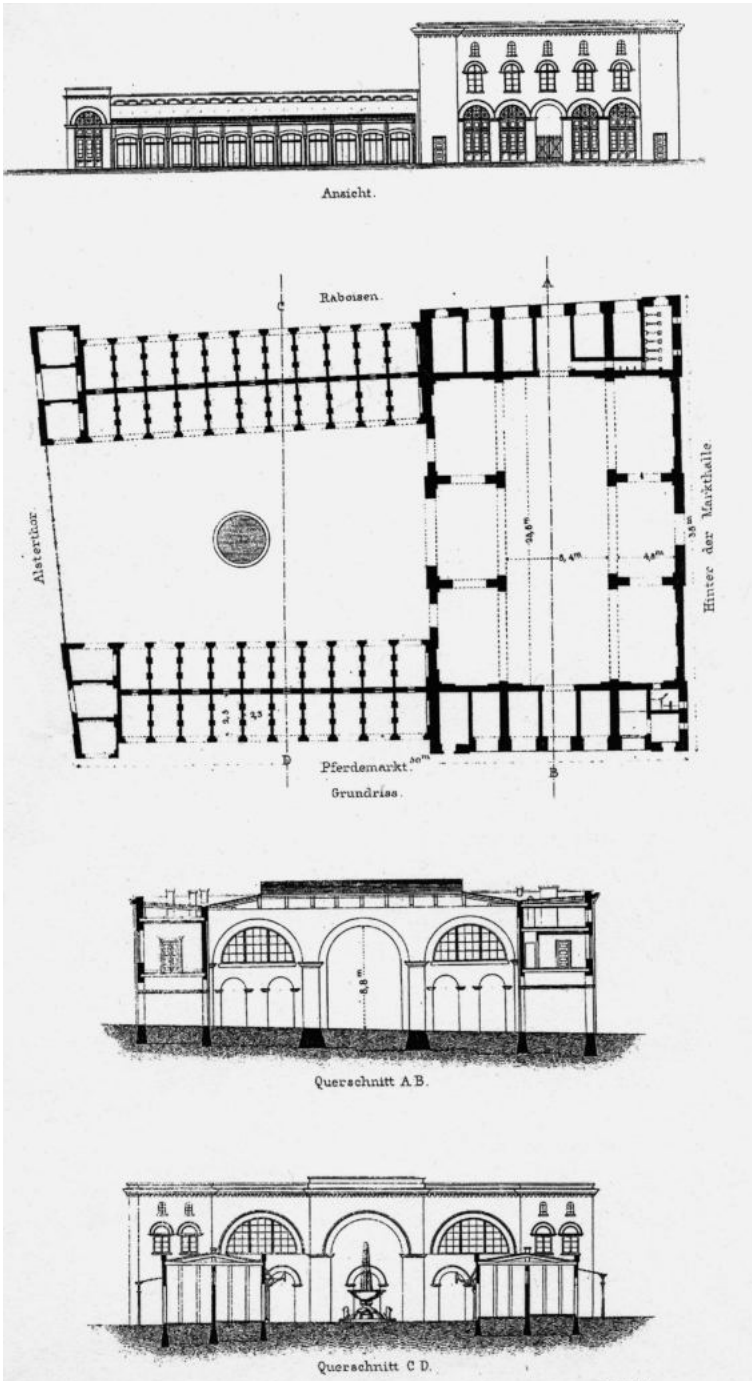
Hamburg

The first two markets, built by architect Franz Gustav Forsmann (1795-1868), deserve a special status. Few drawings have been preserved of these buildings, but those surviving revealing individual solutions that prove the importance attached by the city of Hamburg to the location of her market halls.

Between 5 and 8 May 1842 the so-called Great Fire destroyed several areas in the city's historical quarter. Forsmann, chief building inspector for the Hamburg Senate, designed two covered markets for the city, commissioned shortly after the fire and modelled on London's Covent Garden and Hungerford markets built by Charles Fowler. The first market, erected in 1845 next to the Pferdemarkt (horse market) and opposite the Thalia theatre, opened in April 1846; the second one was built close to the Hopfenmarkt (hops market) and the Nicoleifleet, Hamburg's oldest canal, to ensure cheap delivery of fruit and vegetables, and fish. The review *Allgemeine Bauzeitung* presented the two markets as forming 'part of the installations in the service of the community that are so abundant in this newly developed area that it may well be ranked at the top of German cities.'[15] The building at the Pferdemarkt is a U-shaped structure, composed of two lower parallel wings and a higher central edifice. As regards building materials, Forsmann used brick, hewn stones for the cornice and sheet metal for the awnings. The open courtyard, connected to the road by a cast-iron gate;[16] it had a cast-iron well decorated with a dolphin that supplied fresh running water. The central building housed the vegetable stalls, the front part of the wings housed the fruit and flower stalls, while in the rest of the wings meat and poultry stands were arranged in two rows. The fishmongers were located in the courtyard on account of the smell. This was the first of Forsmann's works with brick facing and semi-circular arches, an architectural detail that Julia Berger attributes to the rounded arches of the nearby Thalia theatre that could have inspired

15. 'Markthalle am Pferdemarkt in Hamburg. Ausgeführt von dem Bauinspektor Hern Forsmann,' *Die Allgemeine Bauzeitung*, Year 12 (1847), p. 215.

16. *Franz Gustav Forsmann (1795-1878). Eine Hamburger Architektenkarriere* (exh. cat.), Altonaer Museum, Hamburg, 2006, p. 134.



Elevation, ground plan and sections of Hamburg Market

the architect.[17] Neither of Forsmann's market halls exists today. The second one also opened in 1845 in the environs of the Hopfenmarkt, a site that had erected wooden sheds for meat slaughterers in 1821, and vegetable and poultry stalls in 1822. The Great Fire had also damaged St Nicolas's Church, built by George Gilbert Scott between 1846 and 1863 and dominating the central square, so plans were soon made to redesign it. Both flanks of the church welcomed longitudinal wings for food stalls. Their front areas, reserved for meat stalls, were decorated with arched awnings made of corrugated iron and had cast-iron columns. Here too there was a well between the two wings, i.e., in the entrance square, facing the church. The back sections housed a room for the market directors, and areas for scales and public lavatories; the latter were in fact praised by the *Allgemeine Bauzeitung* in 1847: 'A great number of them … are supervised by women and for a small tip are even available outside of market hours. At last Germany can count on *cabinets d'aisance* where to date, even in large towns, we can still find certain blackboards bearing certain boring inscriptions in any practicable corner.'[18]

The architectural correspondence between market and church, both in terms of structure and location, marked the re-evaluation of administrative buildings in changing times. The church and the town hall, which continued to shape city centres, were now enhanced by buildings of the same architectural value dedicated to the sale of basic necessities.

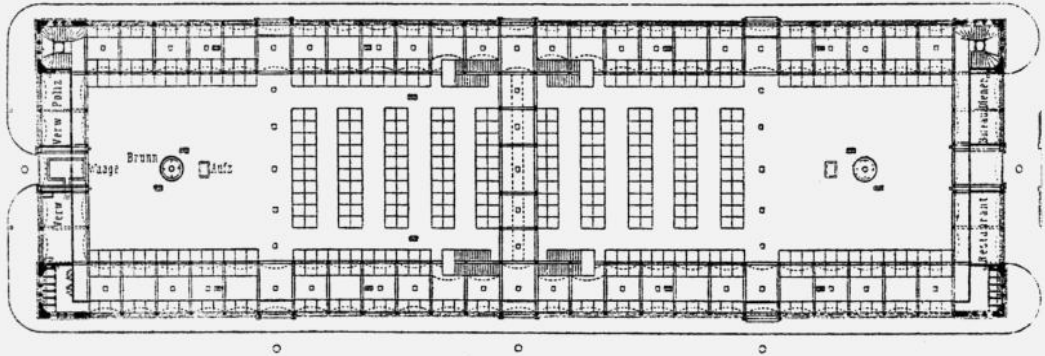
Frankfurt, 1879

The so-called Crystal Palace of the Hasengasse[19] was erected quickly and cheaply as an iron and glass structure, following a plan designed by town councillor Behnke. In 1871 the council decided to build a covered market on the site between Fahrgasse and Hasengasse, to be opened in 1879. The new hygiene regulations approved by local authorities brought about considerably higher maintenance costs for this market. At the time there were ten markets in the centre of Frankfurt, including a Jewish market,

17. *Franz Gustav Forsmann (1795-1878). Eine Hamburger Architektenkarriere*, op. cit. In 1869 it was decided the building would house the recently founded Museum of Arts and Crafts, but the idea was abandoned. Nonetheless, this went to prove that the pavilions were no longer used as market buildings. In 1882 the Marienthaler Bierhallen opened on the premises.

18. *Franz Gustav Forsmann (1795-1878). Eine Hamburger Architektenkarriere*, op. cit. See note 7, p. 215-216.

19. Rainer Meyer, *Martin Elsaesser von 1925-1932. Zum Werk eines avantgardistischen Baukünstlers* (Ph.D. thesis), Bremen, 1988, p. 311.



Ground plan of Frankfurt Market, 1879

which meant a total of 1224 dealers.[20] The 1879 Frankfurt market, being as it was a model for many others, was known as the mother of German market halls.

The decision was made to build a central marketplace that would be 118 metres in length and 34 metres wide. However, as was the case in all cities at the time, the population grew very quickly and the market soon became too small.[21] In 1911 the plenary session of the municipal council agreed to build a wholesale market on an area of open land on the southern side of the Sonnemannstrasse.

Berlin: The Great Project

In the late nineteenth century, Berlin counted fifteen covered markets, four of which are still standing: the Armeniushalle, the Marheinekehalle, the Eisenbahnhalle and the Ackerhalle. The first attempt at building a market hall in Berlin dates back to 6 April 1848—day on which the plans for covered markets were presented at the full session of the council—and had been preceded by the potato revolution. In 1848 there were revolts at the Gendarmenmarkt due to hunger and exorbitant food prices, that had originated in the autumn of 1846, when it became clear that both the cereal

20. Walter Bachmann, *Frankfurter Grossmarkthalle*, Frankfurt, JV, 2001, p. 7.

21. In March 1944 the small market was destroyed by heavy bombing.

and the potato harvest had fallen by 50% due to diseases (blight and black spots on the tubers). As early as October 1846, Berlin councillors had sent the king a written petition asking for a ban on the export of cereals and the production of eau-de-vie from potatoes. In reply, they received the admonition that such petitions were not the responsibility of a municipal council. Eventually, in January 1847 the Prussian government 'exceptionally' removed the taxes on cereals and flour, although not the municipal tax that was paid at the city gates. By then potato prices had already tripled. The authorities campaigned in favour of ersatz flour and the consumption of horse-meat. The nobility organised fund-raising balls 'for the poor' but nothing changed, and by April 1847 potato prices had multiplied by five, which meant that a normal family that had barely tasted meat and lived chiefly off potatoes, had to pay half of a daily wage for just a handful. The first week in February a group of furious Berlin women had overturned a farmer's cart full of potatoes, and in April, after a renewed increase in prices, female workers expressed their anger by ransacking the potato stalls. During the following market days, stalls were destroyed and dealers charging usurers' prices were threatened; when the potato sellers stayed away, the anger was directed at bakers and butchers. The military government, which until then hadn't considered itself responsible for market matters, intervened and made a number of arrests.[22]

In 1862 the plans for building a covered market were finally retrieved. The city commissioned master builder Julius Hennicke (1832-1892) to inspect the architecture of markets built in other towns. The task was entrusted to a private investor, the Berlin Immobilien-Aktiengesellschaft, in 1864.[23]

Berlin's first covered market opened on 1 October 1867 in a former wooden loading bay located between the Schiffbauerndamm, the Karlsstrasse and the Friedrichstrasse. It measured 84 metres long, 62 metres wide and had a maximum height of 15.5 metres and an annex dedicated to fishmongers was anticipated. The interior layout was modelled on the market halls of Paris. It was forced, however, to close down barely a year later—customers had to travel too far to reach it, stall rental was too high and therefore wares became too expensive. The first project had failed. In 1871 Berlin became the capital of the newly founded German Reich and that same

22. Christophe Klessmann, 'Die Berliner "kartoffelrevolution": Hungersnöte im 19. Jahrhundert,' *DAMALS Magazin für Geschichte und Kultur*, Leinfelden-Echterdingen, XX, 1 (1988), p. 81-87.

23. Thorsten Knoll, *Berliner Markthallen*, Haude & Spener, Berlin, 1994, p. 17.

year the Deutsche Baugesellschaft suggested the construction of covered markets—in the plural—because, due to the dimensions of the city, the model of a single market such as the one built in 1867 wasn't feasible. On 21 December 1872 the town council signed a contract for the construction of eleven covered markets, which could only be erected if the weekly street markets were closed, otherwise the new idea would not have been financially feasible. The project fell through when the chief of police was replaced. Günther Karl Lothar von Wurmb (1824-1890) demanded that markets be financed by the town council, for Berlin had embarked on several ambitious projects since having been proclaimed capital, and he therefore considered it impossible for the city to finance the building of markets too. After four years of negotiations with private investors, the idea of dividing the cost between the municipality and the private investors was written off as a failure. In 1875 a new commission was set up. In the meantime, food prices had rocketed because of the fees charged by middlemen. On market days, traffic was chaotic in public squares. The population complained about being unable to shop daily and about the appalling hygiene conditions. It would take another thirteen years for the construction of a central market on Alexanderplatz to be approved on 29 June 1883, alongside a railway connection for easy and cheap delivery to the market. Until the year 1882 railway tracks ended at the city gates, from where all supplies were brought into the city on horse-drawn carts. The following year trains were able to cross the town.

In his 1899 book on the markets of Berlin, Lindemann declared, 'The well-organised supply of food to large cities is a subject of such economic importance that it seems only natural that in recent times it should have become a subject of special care for municipal administrations'.[24] The construction plans for all the markets were entrusted to the same architect and were therefore all very similar. Up until the year 1893, fifteen covered markets would be built under the supervision of Hermann Blankenstein (1829-1910), chief of the city's public works; only the building foremen varied.[25]

The central market was to be built near Alexanderplatz, whereas the so-called retail markets were designed for the city's various districts. All these markets received popular names, although officially they were successively

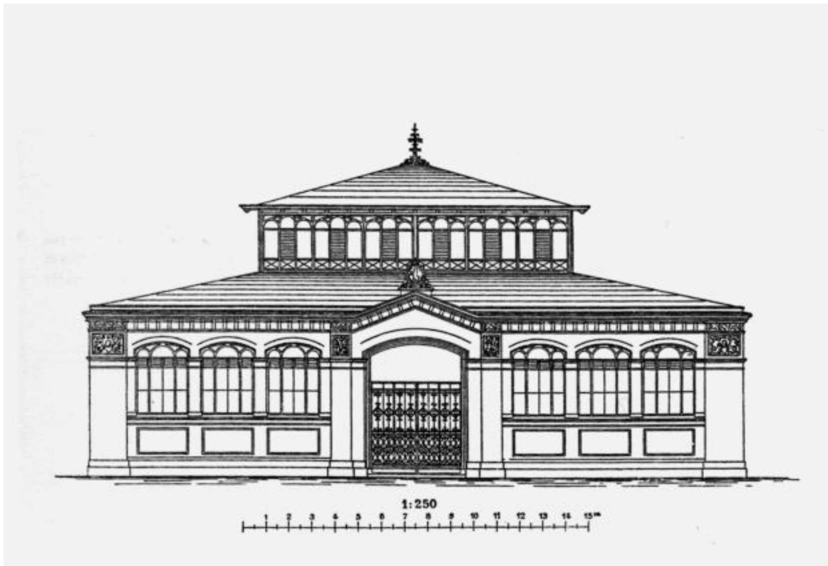
24. August Lindemann, *Die Markthallen Berlins*, op. cit., p. 1.

25. Blankenstein was Chief of Public Works in Berlin between 1872 and 1896. From now on, instead of discussing markets in general we shall describe their specific features. See Erich Rindt, *Die Markthallen als Faktor des Berliner Wirtschaftslebens*, op. cit., p. 44-72.

Ground plan of the Central Market in Berlin

numbered in Roman numerals. The first construction phase, from 1883 to 1886, saw the erection of markets I to IV.

Although the site on Friedrichstrasse was obviously too small to house the first market, its proximity to the railway was deemed important enough to counterbalance this lack. The façade was profusely decorated—different coloured stones and ornaments, such as vases on pilasters, created an impressive exterior. Tower-like corner structures were flanked by seated clay statues depicting the meat, poultry, game and vegetable trades. The total area of the market, laid out in two halls, was of 11.600 square metres. Delivery to the marketplace, which opened on 3 May 1886, was facilitated by the link to the railway. Six pressurised water lifts installed for distributing merchandise inside the market enabled up to 15.000 kilogrammes of goods to be unloaded per hour. The three entrances were large enough for carts to

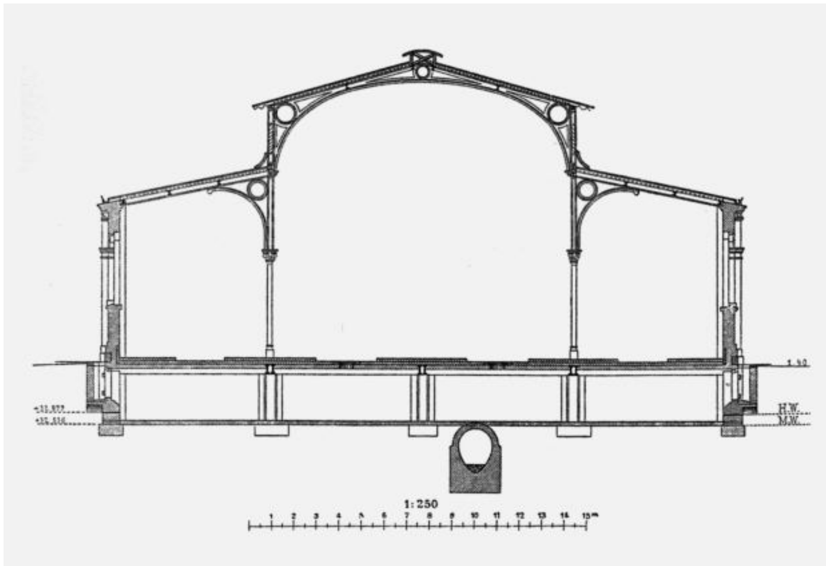


Elevation of Berlin's V Market

enter and exit simultaneously; the wholesale market stood in the middle. As for the interior layout, this was based on the French model. Stalls were grouped according to their produce (greengrocers, fruiterers, etc.); butchers were located on the outer edge. The market hall was busy in the early hours of the morning, when dealers purchased the supplies they would then sell on their stalls. On account of its central location and of Zola's novel, it was nicknamed the 'belly of Berlin'.

The inauguration of a market hall (markets number II, III and IV opened simultaneously) was quite an attraction, preceded by a special supplement in the *Berliner Sonntagszeitung* newspaper the day before. The sequence of inaugurations was as follows: markets V, VI, VII and VIII opened in 1888, markets IX and X in 1891, and markets XI, XII, XIII and XIV in 1892.

The location of the remaining markets were chosen according to the criteria of good transport links, accessible from at least two streets, cheap building sites and proximity to the closing weekly markets. Most covered markets were built on so-called second-line plots, i.e., they did not open directly on to the street, so their design could obviously be less elaborate than that of the dwellings and department stores on the first line. All markets were covered with shed or saw-tooth roofs because the halls, most of which had been redesigned, were surrounded by buildings and therefore

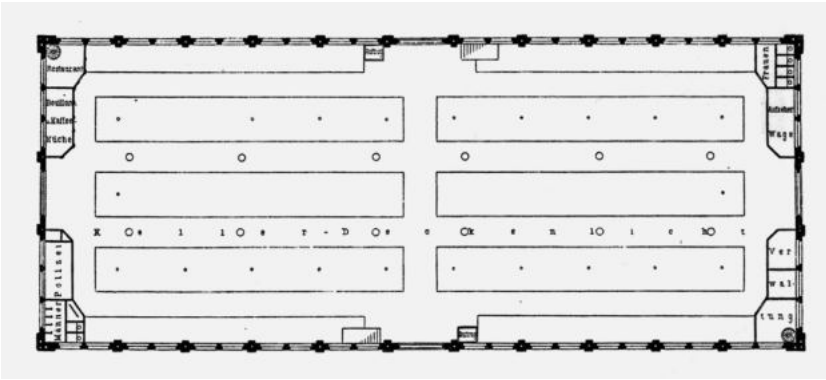


Section of Berlin's V Market

needed to obtain as much light as possible from the roofing. Stallholders themselves could open and close windows with chains, thereby ensuring the whole market was well lit. Floor space was usually between 2,000 and 3,000 square metres; the structures were made of masonry. All markets had basements, and those that differed from the standard model and were erected as free-standing structures on open squares, however, had ornamental façades, as for example the one on Magdeburger Platz, built in 1888 as market number V and popularly known as the 'market cathedral'. Inspired by the central market, it was decorated with ornamental terracotta tiles.[26]

The markets on Arminiusplatz and Marheinekeplatz built in 1890 also had two-storey entrance buildings that housed restaurants, sanitary facilities and small accommodations. The head buildings of the Arminius market were modelled after the semi-circular arches of the Ospedale degli Innocenti in Florence. All visible façades show a passion for Neo-classicism, which Blankenstein expressed through varied ornamentation. Seldom were concessions made to the architectural style of the period.

26. Thorsten Knoll, *Berliner Markthallen*, op. cit., p. 251 and ff.



Ground plan of Berlin's V Market

Stall rental was higher than it was in the weekly street markets of course, as vendors and customers were in a covered hall and could carry out their activities regardless of weather conditions. An additional advantage for dealers was that they could take their meat and other products to the market restaurant, where it would be prepared for them. The market premises also housed the Meat Inspection office and the market police. Markets had their own regulations that controlled the inspection of merchandise and fixed prices, ensuring that the market financed itself. No profit could be made, nor was it intended. In the early years the turnover was so good that stall rental was even repeatedly reduced.

Administrative costs were relatively low. Only one hundred and twenty-nine employees and labourers worked in Berlin's fifteen markets: one chief inspector, ten inspectors, three assistants, one accountant and one machine operator per market; thirteen head foremen, thirty-three foremen, one telephone operator, twenty-six doormen, seventeen watchmen, two basement supervisors, five machine engineers, two lighting technicians, five plumbers, one stove technician, one general manager, six secretaries and one clerk.[27]

And yet, some of these halls were obliged to close even before World War One for economic reasons, and most of them were damaged or destroyed by bombs during World War Two. Only four of the fifteen markets exist today, one of which, Marheineke market, was rebuilt in 1952.

27. *Bericht über die Gemeideverwaltung der Stadt Berlin in den Jahren 1889-1899*, Part I, Berlin, 1898, p. 252.

The system of covered markets in Berlin was unique and had an inspiring effect on many German cities. Besides the capital, Dresden was the only town to adopt the Berlin system of one central market and various retail markets.

The first large construction based on the Berlin programme was built in the market town of Leipzig, where an L-shaped building site of 8,500 square metres was bought on the Rossplatz. With gable pediments and parallel roof structures, it looked impressive. Visitors' attention was drawn to a bell-tower that evoked the campanile in Siena's Palazzo Pubblico. The stone statues on the gables symbolised market trade and were a reference to the figures sculpted by Michelangelo for the tomb of Lorenzo de Medici in Florence.

Hanover

The Hanover market hall was built between 1891 and 1892, according to plans drawn up by Georg Bokelberg and Paul Rowald. It covered an area of 83.84 x 47.86 metres, i.e., 3971,74 square metres.[28]

The building costs amounted to 1,730,398 marks.[29] Only a short time elapsed from the initial idea to the construction of the market. In 1887 several plots were acquired in the city centre, alongside the former town hall, between the Köbelingerstrasse and the Leinstrasse. The rapid construction was prompted by a complaint made in writing by the Royal Police to the local authorities in 1888 against the terrible traffic disruptions caused in the town centre on market days.[30] This accelerated the decision made by the town council at its 6 November 1888 session to build a covered market in the city's historic quarter. The Municipal Public Works Office was commissioned to draw up a sketch,[31] which was presented barely five days later. Public works' officials Bokelberg and Rowald did not only produce a sketch but also an estimate of building costs, which the council approved almost unanimously on 18 December 1888.

28. Bokelberg was born in 1842 and died in 1902. No information has been found on Rowald. See Eduard Schmitt, 'Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung, Schlachthöfe und Viehmärkte. Markthallen. Märkte für Pferde und Hornvieh,' *Handbuch der Architektur*, Part 4, III, Notebook 2, Leipzig, 1909, p. 397.

29. Idem, p. 340.

30. Georg Bokelberg and Paul Rowald, 'Die Städttische Markthalle zu Hannover,' *Zeitschrift des Architektur- und Ingenieur-Vereins zu Hannover*, Notebook 2, Hanover, 1894, p. 7.

31. Idem.

Hanover Market, 1891-1892

So only six weeks later an agreement was reached for this ambitious project. The first design proposed a building with three transversal sections, which was soon rejected in favour of a design presenting one main section and surrounding galleries. Building work began in the summer of 1889; in the period between the two designs, covered markets in other cities had been visited and a contemporary layout for the interior had been conceived. The Hanoverian project was inspired by the Machine Gallery at the Parisian 1889 Exposition Universelle, a joint design by architect Charles Louis Ferdinand Dutert (1845-1906) and engineer Victor Contamin (1840-1893). The new plan, which was supposed to cover the hall without supporting columns and had an apex of 21.40 metres, caused some concern among local authorities and it was decided that Müller-Breslau, reader at Berlin's Technical University, would be entrusted to draw up an expert's report. Having approved the design, he also made the calculations for the iron structure. On 18 October 1892 the market hall was officially opened and two hundred and forty-three traders offered their goods. At the time, it was the largest glass and iron construction of the Reich. Bokelberg designed several features for the market's interior decoration, choosing oak to form a contrast with the wrought iron balustrade, which had beechwood bannisters, as he hoped to create an interplay of colours with the natural shades of the different materials.

Six staircases and pressurised water lifts gave access the basement, which covered an area as large as that of the hall above: 'In order to grant it a more pleasing appearance, the lift is not installed in a closed well but

View of the interior of Hanover Market

rather sheathed with open wire mesh,'[32] wrote Bokelberg in his report on the construction of the market.

Although the plan to build a major market hall as other cities had done previously had been successfully implemented, on 26 July 1943 Hanover was bombed and the whole market, save for the basement, was completely destroyed. In 1955 a new covered market was erected on the former foundations, designed by architect Erwin Töllner. Compared to the 1892 structure, the new hall was lacking in finesse and was based on purely objective principles.

Munich

In 1912, after three years of building under the direction of the chief of public works Richard Schachner (1872-1936), the covered market in Munich opened in the vicinity of the city's southern railway station. Until then, trading had taken place at the outdoor Viktualienmarkt, which was

32. Idem, p. 11.

continually being expanded. Cereal dealers had been moved to the nearby Schrannenhalle market.

The site had an area of 46,500 square metres. Schachner combined four serially placed naves with supporting columns to form one large hall divided into small sections. The exterior was plain: white surfaces broken up by lattice windows and decorated with a simple linear design. The building was compared to Peter Behren's AEG turbine hall and to Hans Poelzig's chemical factory in Luban; it was also rated among 'the most important purely functional building in modern architecture'.[33] A non-central location was chosen, where long sheds had been built in 1910 to house customs offices opposite the wholesale market. Management of goods imported from southern countries was meant to flow smoothly, so there were no elaborate ornamentation or representative design features. A purely functional structure was planned and built following the latest construction laws. New building materials dominated the interior, which had a similar lack of superfluous detail and ornamentation.

Stuttgart

According to Fritz von Emperger, Stuttgart market was an attempt by architect Martin Elsaesser (1884-1957) 'to create a new model that was halfway between a department store and a traditional marketplace'.[34]

The building was erected in the vicinity of the Altes Schloss and Neus Schloss palaces, the central railway station designed by Paul Bonatz that was still not completed, and the extension of the Breuninger department store, that was also still under construction.

The new market hall was supposed to assume the functions of the former 1865 covered market in the same district. The exterior structure and façade evoked neighbouring historical buildings—in other words, their design was full of concessions and therefore not that innovative. The spacious light-flooded halls, however, made a completely different impression thanks to the advances in construction technology. Architect Ludwig Hilberseimer (1885-1967) was harshly critical of his colleague, and in 1928 wrote, 'While the architect of the Stuttgart palace set his Baroque [design] beside the Gothic and Renaissance, our age has become so despondent and sceptical

33. *Vom Glaspalast zum Glaskessel. Münchens Weg ins technische Zeitalter*, Bayrisches Amt für Denkmalpflege, Munich, 1978, p. 30.

34. Fritz von Emperger (ed.), *Handbuch für Eisenbetonbau, XI, Gebäude für besondere Zwecke. Markthallen; Schlacht- und Viehhöfe*, Berlin, 1915, p. 23.

that we believe we have to hide what distinguishes us behind a historical faux exterior.'[35] This criticism appeared the same year that Elsaesser built the magnificent covered market in Frankfurt; that is to say, the architect who conceived a new architectural and constructional language in Frankfurt still restrained himself in Stuttgart, but only as regards the market's outer skin. Elsaesser strove to attain a compromise between the architecture of the Stuttgart school and that of New Objectivity,[36] to harmoniously integrate a building that looked more like a department store into the surroundings of the two palaces. Surprisingly, the impression made by the traditional exterior is completely different to that of the interior. In Frankfurt, Elsaesser worked with architect Ernst May (1886-1970), under whose influence he developed an innovative architectural style all his own, free from the restrictions of the Stuttgart school.

The first covered marketplace in Stuttgart was a flower and vegetable market (1864) commissioned by King Wilhelm I and erected on the south side of the Altes Schloss. The building was modelled on Parisian market halls and can be described as a combination of a glass pavilion and a railway station. The architect and construction supervisor Georg Morlok (1815-1896) was simultaneously building the extension to the existing Stuttgart railway station with a representative entrance hall. The rapid growth of population soon made the building, with an area of 40 x 41 metres, too small to meet local needs, and in 1898 information on the covered markets of over twenty cities throughout the country was compiled. Leipzig, to quote one example, sent a list of the minimum amounts required per stall: at least 2.5 kilogrammes of asparagus.[37]

In 1906 the town council decided to commission the construction of a new covered market. The municipal committee in charge visited market halls in Dresden, Breslau, Munich, Vienna and Budapest, which seems to point to a revaluation of the architectural model. Other buildings were also studied, as the aim was to transcend the merely functional. Stuttgart was to house a structure that could integrate the entire retail food trade.

35. Ludwig Hilberseimer and Julius Vischer, *Beton als Gestalter*, Stuttgart, 1928, p. 14.

36. The Stuttgart school loosely describes an architectural style taught and upheld at the city's Technical University in the period between the two world wars. Its chief exponents were Paul Schmitthenner, Paul Bonatz and Hugo Keuerleber. The school rejected historicism yet still embraced a classical and conservative style of architecture, producing structures suited to their purpose and employing natural materials and traditional methods.

37. Asparagus cultivation in Germany had its origins near Leipzig, in the Altmark region.

View of the exterior of Stuttgart Market, 1914

In June 1910 an invitation for tenders was issued for architects born or established in Stuttgart to build the Karlsplatz market. By October, seventy-seven bids had been submitted.[38] One of the jury members was professor Theodor Fischer (1862-1938), chief exponent of the Stuttgart school.[39] The first prize was awarded to Martin Elsaesser, and the second prize to Paul Bonatz. Construction began on 13 May 1912; and the market was inaugurated on 30 January 1914 and total building costs amounted to 1,85 million marks. The market housed four hundred and thirty stalls, three hundred of which were in permanent use. On the tenth anniversary of its opening, Hans Baum metaphorically described how people were supposed to imagine everyday life there: '[The market hall] is like a beehive, with a constant humming and hovering in and out. If a painter wished to render

38. Rainer Redies and Karlheinz Fuchs, *Markthalle Stuttgart*, Leinfelden-Echterdingen, 2003, p. 35.

39. Among his students were Richard Riemerschmid, Dominikus Böhm, Paul Bonatz, Ella Briggs, Hugo Häring, Ernst May, Erich Mendelsohn, J. J. P. Oud, Bruno Taut, Heinz Wetzel, Lois Welzenbacher, Oskar Pfennig, Martin Elsaesser and Paul Schmitthenner.

View of the interior of Stuttgart Market, 1914

a picture of it in colour, he would need a lot of orange, a lot of white, green and yellow on his palette.'[40]

The hall measured 60 x 25 metres and was crowned by a glass roof supported by exposed reinforced concrete beams; it was flanked by two three-storey side buildings connected to the main hall by arcades. The second floor was designed with openings that provided a view of the market hall below. The top floor of the side buildings was originally reserved for local civil servants. As previously stated, the exterior gave not the slightest indication of the innovative solution for the interior. The façade, partially decorated with paintings, a playful use of turrets and balconies, could be interpreted as a harbinger of Art Nouveau.

The market's technical facilities corresponded to those of the period, but they were soon replaced by newer designs as a result of rapid progress and stronger demands. Refuse, for instance, was initially collected in special carts, until neighbours began to complain about the smells, so a refuse

40. Hans Baum, quoted in Claus Endmann and Herbert Medek, *Die Stutrgarter Markthalle*, Stuttgart, 1989, p. 14.

treatment machine was installed to shred waste material and discharge it into the sewer.

In 1939, year of the market's twenty-fifth anniversary, forty stalls remained under the same original ownership, a fact that proves good market management, as stalls were passed on from one generation to the next. Like many other covered halls, the market had a restaurant, popularly known as Neuigkeitsbörse (News Exchange). Tramway tracks, which are still visible today, led directly to the market from the nearby railway station: three days a week the tram reached the market via the Dorotheenstrasse. Air raids on 26 July, 12 September and 19 October 1944 destroyed most of the hall but in 1946 it began to be rebuilt and by 1953 it had been completely renovated at a cost of 1,5 million marks. Foodstuffs were on sale there until 1957 when a new market hall was built in Stuttgart-Wangen, one of the most modern facilities of its kind in West Germany at the time, although lacking in architectural distinction. In 1971 it was decided that the 'old' market, which was not profitable, should be knocked down. The town council, however, eventually changed its mind and with one vote in favour decided to preserve the building, which the following year would be classified as a historic monument. The glass roof, measuring 60 metres in length, was restored in 1974 and today the market is once again open to the public and houses a number of food stalls.

Frankfurt, 1928

In 1911 a special commission was created in Frankfurt and the local Public Works Office prepared an estimate for a new central market that amounted to 4,322,000 marks. The project did not materialise because of the outbreak of the First World War, but in 1926 a plan was presented to the local authorities on an initiative of the mayor Ludwig Landmann, and on 14 September 1926 it was officially approved. Martin Elsaesser, then head of the Public Works Department, supplied the design, which would be supervised by Ernst May (1886-1970), director of large infrastructure projects. The Munich wholesale market by Schachner (1912) was taken as a model, for it was considered at the time a successful example of transparency as regards supply and demand. Building work took one year and a half and the market opened for business on 4 May 1928, although the official inauguration took place on the following 26 October. The opening ceremony consisted of a number of speeches, followed by the projection of the film *Die Halle im Bau* (The Building of the Market) at 12.30 p.m. Around 1.00 p.m. guests were served a market lunch:

View of the exterior of Frankfurt Market, 1928

> Jardinière soup
> Frankfurt roast beef brisket served with a market garnish
> Central European cheeseboard
> International fruit[41]

The menu defined the new market's intentions: to provide local food with local colour, and set up good trade relations to offer goods from other countries.

The opening speech by Mayor Landmann conveyed the idea that the market was designed with a look to the future as regards both its size and location: '[I]n the case of such structures one cannot plan or build generously enough … If we don't act, Frankfurt am Main will have to face competition from elsewhere.'[42] Landmann hoped that the marketplace would exist for at least fifty to a hundred years and, as far as possible, reflect the progress of the times. The building still stands today and has been listed as a classified historic monument since 1984; as a market it was in service until 2004. On 1 January 2005 the area of the wholesale market was given over to the European Central Bank, which intends to build its

41. *Die Grossmarkthalle in Frankfurt am Main*, Ernährungsamt und Hochbauamt, Frankfurt, 1928, p. 12.
42. Idem.

future headquarters on the site, preserving the hall. Coop Himmel(b)lau architecture office in Vienna has submitted a design for the annexes and interior refurbishing, which should be completed by 2011.[43]

One of the speeches delivered at the market's opening ceremony was by architect Martin Elsaesser, who stressed the enormous development task he faced: 'The huge dimensions justify an independent building design.'[44] The invention of the Zeiss-Dywidag method in Jena enabled Elsaesser to build a wide barrel vault: fifteen barrel vaults, measuring 14 x 37.50 metres each, rested on slightly inclined columns, barely 7.5 centimetres thick. In the absence of joists, the vaults were supported by the columns and party walls. In cross-section, the vault was shaped like a half ellipse measuring 6 metres in height. These were built by Franz Dischinger and Ulrich Finsterwalder between 1926 and 1928. The Zeiss-Dywidag vault was a dome structure made of reinforced concrete. With the semi-elliptical arches acting as supports, greater distances between mainstays could be covered. The entire construction of the hall took twenty-four weeks. Architects worked closely alongside engineers, thereby producing an elegant and harmonious solution in which interior and exterior formed an aesthetic whole, unlike that of the covered market in Stuttgart. Martin Elsaesser concluded his speech stating that the market was 'the work of many hands and the oeuvre of architect and engineer.'[45]

The main axis of the hall, which was two hundred and twenty metres long, fifty metres wide and between seventeen and twenty-three metres in height, ran parallel to the River Main. Lengthwise, the market had two huge entrances, an administrative building and a cold storage area, which formed a sharp contrast with the exterior vertical staircase made of concrete. Lower wings for use as accommodation were attached to the main building, surrounding an unloading dock for railway freight cars. A hall housing imported goods was positioned rather discreetly, also lengthwise, in the direction of the river. The market also had a direct link to the Hafenbahn, the historic harbour train. Lorry traffic opened directly on to the Sonnemannstrasse via the Wagenhalteplatz, a lorry holding area that surrounded the market on the west, north and east. The main entrance for vehicles was

43. In the spring of 2008 Elsaesser's heirs reached an agreement with the town of Frankfurt and the European Central Bank regarding the execution of the project. The annex buildings, which had lost their classification as listed buildings, were knocked down in the summer of 2008.

44. Martin Elsaesser, 'Die Bauaufgabe der Grossmarkthalle,' *Die Grossmarkthalle in Frankfurt am Main*, Ernährungsamt und Hochbauamt, Frankfurt, 1928, p. 13.

45. Idem.

located to the west, under the office building, while the main exit was situated to the east, under the cold storage area. The eight gates flanking the side wings were pedestrian entrances, and four lifts and ramps led down to the basement. The railway tracks opposite the marketplace were roofed to facilitate unloading regardless of weather conditions, two bridges led across the railway tracks to the area housing imported goods, and a tunnel connected the basements of the two halls. The entrance buildings were thirty metres long, fifty metres wide and twenty-three metres tall at the apex of the vault—a total area of 11,000 square metres, including the halls. The ground floor had three main streets, as opposed to the basement, which had two that could also be used by lorries. Traffic could only flow from west to east throughout the whole complex. Ventilation was achieved through operable panels hinged on the window jambs. The basement comprised 8,500 square metres of storage space. Air shafts through the roof provided ventilation of the basement. The cold storage area covered 3,000 square metres, and the basement boasted an ice factory that in the twenties and thirties produced 220 tons of ice per day. The hall was used to store tropical fruit, southern wine and goods in transit. In its day, Frankfurt market was the most modern of German markets in terms of construction and served as a model for those in Leipzig, Breslau and neighbouring Holland. The River Main had been subjected to new legislation and provided a swift waterway connection to Rotterdam and an underground tunnel linked the Main docks to the marketplace basement, although this was never used.

According to the spirit of the times, the living quarters of market employees were in the same market district. Their expenses, including accommodation and child care, amounted to 14,560,000 marks. Ten years later, the market boasted a 52% increase in turnover: imports grew by almost 29% and in 1939 German products shot up 84% as the result of the Reichsnährstandgesetz, a new agricultural law introduced by the Reich.[46]

Frankfurt am Main was also a transit market that supplied other German cities with goods from the south, an activity defined in economic terms as re-shipment. Goods were delivered to the market from Italy and Spain, countries with which Germany had signed contracts, before being sent on to Hamburg, Dresden or Leipzig. Frankfurt's goal was to become (together with Munich) the largest transit area in the west and north of

46. This law of 1933-1934 decreed a union of all voluntary farmers' associations headed by the Reichslandbund (Agricultural League) and the Chambers of Agriculture. The intention was to socially reinstate the image of farmers, partly to serve the National Socialist ideas concerning land and partly in an attempt to attain self-sufficiency.

Germany. Mayor Landmann, who had previously held responsibility in the municipal Economic Department, reached an agreement with the town of Naples to ensure that tropical fruit could be delivered to Frankfurt within sixty-eight hours, ready for distribution.[47] In this sense, the imported goods hall could also be considered an architectural symbol of foreign trade. As well as meeting purely practical needs, this building transformed the city of Frankfurt into a political and economic example of the Weimar Republic's desire for change. The architectural project also meant a substantial employment scheme, being as it then was the largest building site in Europe. World War One had finally been overcome, both in political and in financial terms. In spite of the new building methods entailed by the use of reinforced concrete, no major industrial accident occurred. Another sign of the importance Frankfurt attached to its central market was the fact that it was the only building lit up with floodlights. The townspeople saw it as a landmark of the future.

On 4 October 1943, 29 January, 18 and 22 March 1944 the market was seriously damaged. As of October 1941 the basement had been used as a gathering point for the deportation of Jewish men, women and children from Frankfurt and its environs. By night, a total of 9,500 people were crammed into waiting freight cars and transported to the concentration camps. In 1997 a plaque was erected to commemorate these events. On 4 April 1945 occupying American troops confiscated large parts of the market, which they used as a garage in which to repair their tanks. It was returned only in stages to the Federal Republic of Germany up to the year 1958, until the last confiscated building, the imported goods hall, was handed over in 1960.

Martin Elsaesser described the new hall with false modesty as 'a covered marketplace', whereas in popular parlance it was affectionately referred to as the Gemiskerch (Church of Vegetables) or Kappeskathedral (Cathedral of Cabbages). Rainer Meyer has compared the building to the Futuristic architecture of Antonio Sant'Elia. This comparison only holds in fact for the two towers and reduces the singularity of the work.[48] The building has even been likened to the set decoration in Fritz Lang's famous film *Metropolis*, shot the same year. Elsaesser's wholesale market was the first

47. Rainer Meyer, *Martin Elsaesser von 1925-1932. Zum Werk eines avantgardistischen Baukünstlers*, op. cit., p. 314.

48. Rainer Meyer goes even further and makes a comparison to the city gates in Mesopotamia and to Egyptian granaries. See *Martin Elsaesser von 1925-1932. Zum Werk eines avantgardistischen Baukünstlers*, op. cit., p. 309.

to have a reinforced-concrete roof, which made it a unique structure, and its ideal location afforded it ample room for spreading. The building was covered with resistant red clinker, which gave it a regular uniform surface.

In the memorial publication about the marketplace, Fritz Wichert, director of the Frankfurt School of Arts and Crafts, wrote enthusiastically, 'How the giant pylons between which the hall appears to be suspended are rammed into ground! In the expression of the overall shape, as it makes room for itself and impressively stretches upwards, lies an animal intemperance'.[49]

Frankfurt market had a direct influence on the market hall in Budapest. In Japan, too, it made an impression and was visited in 1929 by the directors of the Tokyo Reconstruction Agency and in 1930 by a delegation of the Imperial University of Kyoto.

Leipzig

For a short period of time, the market built in Leipzig between 1928 and 1929 was also the largest in the world. Each of its two halls has a lateral length of 76 square metres and used 2,160 tons of material to cover an area measuring 5,700 square metres. By way of comparison, St Peter's in Rome,[50] technically the finest cupola of its age, had a 40 metre diameter and covered 1,600 square metres with 10,000 tons of material, so one of the domes in Leipzig covered three and a half times the area of St Peter's using almost a fifth of the material.[51] Up until the construction of this market hall, the largest dome in the world was that of the Centennial Hall in Breslau, designed by Max Berg. If a square metre of covered area cost 200 marks in Breslau, in Leipzig the cost fell to 88 marks. The wholesale market occupied a total area of 12,000 square metres, and was designed by Hubert Ritter (1886-1967), architect and Municipal Building Inspector. The market was popularly known as the Turnip Circus. In 1995 it was relocated to the northwest of Leipzig. Listed as a historical monument, no decision has yet been reached as to its future use. If Hubert Hans Ritter was the supervising architect, Franz Dischinger—employed on the market hall in Frankfurt—was chief engineer and produced equally extraordinary work. The original design called for three domes; the two that

49. Fritz Wichert, 'Betrachtungen,' *Die neue Grossmarkthalle*, p. 6.

50. The term St Peter's Cathedral is often used by mistake. The cathedral of Rome is the Basilica of St John Lateran, seat of the Pope.

51. Between the years 1889 and 1891 an 'old' market was built on the corner of the Brüderstrasse and the Markthallenstrass, designed by Licht, director of Public Works.

View of the exterior of Leipzig Market, 1929

were actually built were supported by eight corner pillars and reinforced concrete arches. Reinforced concrete ribs extended up to the apex, and the concrete shell between the ribs, which was only 9 cm thick, had four layers of steel mesh.[52]

Dischinger's invention of the reinforced concrete vault considerably reduced construction costs. Before Ritter submitted his plans he made a detailed study of the covered markets in Munich and Frankfurt. His interior, with its eight supporting columns, was a fascinating yet bold design. Architectural theorist Winfried Nerdinger wrote, '[T]he Leipzig cupola (compared to the one by Berg in Breslau and the one by Thiersch at the Frankfurt Festival Hall) marks the culmination of the efforts by architects of the new school to create a lightweight and non-representative architecture, for which it deserves a place of honour in the history of modern ar-

52. Wolfgang Hocquél, 'Die Leipziger Grossmarkthalle,' *Bauwelt*, Notebook 27, 1993, p. 1459 and ff.

chitecture.'[53] In 1982 (the period of the German Democratic Republic) the southern dome, initially made of copper, was covered in aluminium, which made a significant change to its appearance. On the inside everything has been preserved in its original form. The domes do not stand out against the city's skyline as they are very flat, the ratio between height and width being of 2.5:1.

Covered Markets after the Second World War

After World War Two central market halls were either built beside a main railway station or else on the outskirts of cities with their own access roads. Today they are purely industrial buildings selling goods to retailers. Faceless buildings, their only purpose is cheap and efficient delivery of goods and their transfer to retailers, and they have no need for finesse in ornamentation or architectural shape. In other words, they are completely lacking in aesthetic. One exception is the Hamburg marketplace, built between 1956 and 1962 by Bernhard Hermkes (1903-1995), a colleague of Martin Elsaesser's. Partially reinforced double-curved concrete shells rest on wave-like arches, resulting in an expressive and dynamic front view that reminds us of an aircraft hangar. A complicated system of almost parabolic reinforced concrete roofs resting on girders has skylights facing north. In this harbour town the design is immediately associated with waves. The interior gives a uniform impression. The halls, which are in the Hammerbrook district and still stand in their original condition despite being used as event venues, were extended by Hermkes in 1984 with a smaller horizontal building that looks on to the street. Unfortunately, all the other markets in large cities can be ignored as far as analogies to covered markets go.

Concluding Remarks

Many of the market halls presented no longer exist, which means a loss for Germany's architectural landscape. Even though most of those surviving are now being put to new uses, like the Frankfurt marketplace destined to become the headquarters of the European Central Bank, one can see the former function of the buildings that stand as cultural icons of a time of economic growth and architectural tradition that always sought to incorporate the latest technological advances. The earliest market halls were avant-garde when they were erected, although by the late nineteenth century they could no longer meet the rapidly growing demands of the public and so

53. Idem.

department stores, that provided a much greater variety of wares, began to take their place. Covered markets were never modernised whereas retail shops, particularly department stores, had much better facilities—goods were presented cleanly, diligently and under good lighting. Another disadvantage of the markets was the fact that dealers had no qualified training, at least not insofar as business management went. In retail and in department stores it was a different story, for both valued specific training. Popular shopping in market halls held no appeal for the new type of consumer who earned a good wage, and as a result at the turn of the century many markets were forced to close. Those discussed here, which were built between the two world wars, were in essence a reaction to conditions of hardship and are still considered today as exceptional buildings.

Budapest:
Food, Cities and the Evolution of the Market Hall

Allan Siegel

> The Crystal Palace forced many to realise that 'the standards by which architecture had hitherto been judged no longer held good.'[1]

From the nineteenth century onward, exposition halls, railway stations and skyscrapers altered the urban horizon. And, like the Crystal Palace, what emanated from the most impressive of these structures was a new grandeur of possibilities: a structural ingenuity that defined an ability to reach new heights and span greater distances. Innovative design and engineering solutions brought forth original structures that addressed the needs of emerging city institutions and forms of transport. The cityscape was realigned.

While the skyscraper heralded a reformulation of the skyline, other structures roused the imagination with their ability to enhance the language of interior spaces. The market hall draws upon this liberating lexicon as well as its cultural and historical precedents.

The framework for the discussion that follows draws upon the various strands that contribute to the market hall's realisation and evolution. My purpose is to present an overview of the architectural qualities of the market hall and examine its current viability as an economic entity. The primary geographic, economic and historical terrain of this analysis is Budapest where there are still numerous functioning market halls.

Following their earlier appearance in London, Paris and Berlin, the first Budapest market hall was opened in 1896. Four more were built in the years preceding the new century. These and more recent markets have straddled a variety of socialist and capitalist economic models. That they endure is a reflection of their cultural significance and commercial importance.

Divided into three areas, the discussion that follows establishes a historical framework for these attributes and related questions: a brief accounting of the market square and its position in the mediaeval city; the status of the market square and the evolution of a moral economy; the rise of the industrial city during the nineteenth century and the emergence of the market hall.

1. William Curtis, *Modern Architecture Since 1900*, Phaidon Press Ltd., London, 1982, p. 37.

The planning and building of Budapest's six original market halls; the post-war and socialist period and a new era of industrialisation and resettlement; the years of transition and Hungary's economic restructuring after 1989.

The post-socialist years and Hungary's integration into the market economy of Western Europe; its accession into the European Union; new market halls and the arrival of hypermarkets, shopping centres and plazas.

The Mediaeval City and the Market Square

> Closer to a work of art than to a simple material product … the city created by the Western Middle Ages was animated and dominated by merchants and bankers, this city was their oeuvre.'[2]

As early as the fifteenth century, patterns of daily life, public discourse, trade, in sum, 'Both the form and the contents of urban life were in consequence transformed.'[3] Central to the 'oeuvre' and its manifestation, to the routines of daily life, was the market square: 'the most important public space … the place of exchange.'[4] Besides the town hall, the boundaries of the square were marked by the church and the guildhall. Emanating from this triumvirate of edifices was an interplay of moral values and laws: an unfolding ethos that regulated trade and commerce and which had an indelible impact on city life. The market square is thus more than simply 'a device for attracting or pumping out fast moving traffic,' as Mumford tells us; its added significance arises because it 'forms an agora and an acropolis in one'[5] and thus 'urban space becomes the meeting place for goods and people, for exchange.'[6]

Parallel to this, another transformation occurs as the market becomes 'a natural focus for social life … [where] news, political or otherwise was passed on.'[7] Consequently, within the market square, besides the public

2. Henri Lefebvre, *Writings on Cities*, selected and translated by Eleonore Kofman and Elizabeth Lebas, Blackwell Publishing, Oxford, 1996, p. 101.

3. Lewis Mumford, *The Culture of Cities*, Secker & Warburg, London, 1940, p. 75.

4. Lecturer Andras Szallai, ELTE University. Interview by the author, 7 October 2005, Budapest, mini disc recording.

5. Mumford, *The Culture of Cities*, op. cit., p. 54.

6. Henri Lefebvre, *The Urban Revolution*, translated by Robert Bononno. University of Minnesota Press, Minneapolis, 2003, p. 10.

7. Fernand Braudel, *The Wheels of Commerce: Civilization & Capitalism 15th-18th Century*, Volume 2 translated by Siăn Reynolds. Harper & Row Publishers, New York, 1979, p. 30.

display of goods, conventions relating to their exchange emerge. New social values, customs and cultural practices are brought into play, then substantiated or dispelled. What emanates from this discourse of the market square are informal codes as well as defined and enforceable regulations that give substance to a moral economy which defines the parameters of fair and just exchange practices.

Food and the Moral Economy

The origins of the moral economy and the tacit equilibrium of interests guiding transactions in the market square evolve with 'the expansion of the local markets in which peasants displayed their own products in a common location at a set time and under public control.'[8] During the Middle Ages, the arena of exchange was bounded by religious and civil institutions which articulated an ethos that gave it substance. The market place was thus imbued with qualities that acclaimed it both as a functional and symbolic public space. It was a delimited social space organised and maintained according to local exigencies and mores; managed with regulations, enforced when necessary, by those who managed and participated in its operation. In England, 'the English justices of the peace had the authority to regulate the public marketing system from the very beginning of their official existence.'[9] And, 'the idea of a "just price" was still a governing consideration'[10] which ran contrary to traders and private merchants who were rapidly becoming the ascendant force in the marketplace. Charles Tilly states further that, 'Serious conflicts over the food supply occurred not so much where men were hungry as where they believed others were unjustly depriving them of food to which they had a moral and political right.' Tilley emphasises that the ramifications of tampering with or attempting to manipulate moral guidelines triggered severe social conflicts, often mislabelled as 'food riots', that were still occurring well into the nineteenth century. Thus, matters relating to food and its distribution were 'of the acutest political significance'[11] and were held together by a *moral economy* designed to protect the needs of the consumer as well as the profitability of the vendors. Mumford states that an order or ethos was imposed and 'the market peace, symbolised by the market cross

8. Charles Tilly, ed., *The Formation of National States in Western Europe*, Princeton University Press, Princeton, 1975, p. 427.

9. Ibid., p. 429.

10. Ibid., p. 431-32.

11. Ibid., p. 427.

Open-air market

that stood in the market-place, could not be broken without suffering and heavy penalties.'[12]

Approaching these arrangements from another perspective, Hannah Arendt stated that it is 'with the rise of society … [that] all matters pertaining formerly to the private sphere of the family have become a "collective" concern.'[13] Food and its distribution become a concern and responsibility of the citizens of the polis; 'the organization of the people as it arises out of acting and speaking together, and its true space lies between people living together for this purpose.'[14] The 'acting and speaking together,' and the ability to converse and act upon collective concerns are aspects of a democracy. Tilley states that, 'The establishment of the food market in the agora proved

12. Mumford, *The Culture of Cities*, op. cit., p. 18.

13. Hannah Arendt, *The Human Condition*, The University of Chicago Press, Chicago, 1958, p. 33.

14. Ibid., p. 198.

important to the development of the Athenian version of democracy.'[15] Yet, to some the haggling and the commercial perturbations that intruded were not always welcome; consequently, efforts were made to sequester trade within its own zone away from the discourse of the citizenry. Nevertheless, 'attempts to ban the presence of merchandise in the agora, a free space and political meeting place, were unsuccessful.'[16]

With the melding of political discourse and trade within the social space of the agora, society's collective concerns entered the public realm; the practices and values relating to the buying and selling of food became matters of governance. As trade expanded, the political entities governing and regulating these transactions also evolved. Thus, the social space of the market square is the spatialisation of an ethos defined by its institutions and individuals. While the structural and symbolic paradigm of the market square can be found in ancient Greece and Rome, its transformation and reinvention attests to a continued relevance. In this context, the market square, and later the market hall, were places that reflected and enabled new forms of transaction and trade. In both instances, they represented 'as much an idea (or ideal) as an architectural form.' Most importantly they defined 'the principal place where society could evaluate its success or failure at organising urban life.'[17] The market hall became an element in society's response to the chaos of the street and squalid living conditions; an answer to the health hazards of outdoor markets and an inadequate food distribution system. With its appearance, the market hall sought to address conditions inherent to the rapid growth of industrial cities and the massive economic upheavals propelling the cityscape wider and higher.

Industrialisation and the Emergence of the Market Hall

> Industrialisation changed the size, shape and relationship of buildings in the cityscape, disturbing pre-existing conventions of representation and exacerbating uncertainties about the basis of style.[18]

15. Tilly, *The Formation of National States in Western Europe*, op. cit., p. 394.

16. Lefebvre, *The Urban Revolution*, op. cit., p. 9.

17. Helen Tangires, *Public Markets and Civic Culture in Nineteenth Century America*, Johns Hopkins Univeristy Press, Baltimore, 2003, p. 205.

18. Curtis, *Modern Architecture Since 1900*, op. cit., p. 34.

Presently, in supermarkets and speciality shops, images of abundance and unlimited variety exist in sharp contrast to the social conditions and food scarcity common in the dawning years of industrialisation. Rapid population shifts from rural to urban took place during this period of economic development, while concurrently fundamental transformations were taking place in basic agricultural processes. The market hall originated at the time when 'industrialisation transformed the very patterns of life in country and city and led to the proliferation of new building tasks … for which there was no obvious convention or precedent.'[19]

Cities swelled with cluttered neighbourhoods, the noise and smoke of railways, thoroughfares clogged with horse carts and coaches and diseases resulting from overcrowded tenements. Like a wound, 'the city had become an open structure, within which it was utopian to seek points of equilibrium.'[20] This onslaught of new social realities signalled an era requiring original architectural paradigms.

What emerges is an 'empiricist attitude which undermined the idealistic structure aesthetic of Renaissance aesthetics.'[21] It appeared in the nineteenth century, displacing one form of idealism with a more functional other, 'a space of the community, which belongs not to an individual, an organisation or a social group, but to the entirety of the residents of the city.'[22] Here, within the industrial city, with the necessities of organisation and functionality, it was insufficient to think of the architect's role as simply 'giving form to single elements of the city.'[23] The task was more demanding and all encompassing. Architecture 'could become the instrument of social equilibrium' investing its sense of vision within the 'structure of the bourgeois city' and reshaping and immersing its purpose 'into the uniformity ensured by preconstituted formal systems.'[24] Thus, when civic leaders and planners were confronted with the proliferating disorder and unhealthy conditions of the marketplace, solutions were necessary that sought to address the full range of a city's food supply issues.

19. Ibid., p. 22.

20. Manfredo Tafuri, *Architecture and Utopia; Design and Capitalist Development*, MIT Press, Cambridge, 1976, p. 42.

21. Curtis, *Modern Architecture Since 1900*, op. cit., p. 21.

22. Lecturer Andras Szallai, ELTE University. Interview by the author, 7 October 2005, Budapest, mini disc recording.

23. Tafuri, *Architecture and Utopia; Design and Capitalist Development*, op. cit., p. 107.

24. Ibid., p. 11-13.

The metamorphosis of the merchant city into an industrial city, the transposing of market square into market hall are events that did not always take place at the same time nor in a similar manner; nevertheless, these transformations did not occur in isolation from one another. One location was not immune to events occurring in another European city. Therefore, in the latter part of the nineteenth century, as changes in the economic and social life of Budapest accelerated, discussions bearing on the city's infrastructure took on a greater impetus and questions pertaining to the food supply came to the forefront. The context for these discussions was enriched by changes unfolding throughout Europe.

Budapest

The development and construction of market halls in Budapest can be divided into three time frames. The first, starting in the years after 1867 coincides with similar projects in Europe. Eight decades later, the second stage spans the socialist period after World War Two until 1989; during this time frame market halls adapt to conditions particular to socialist economies. The third stage occurs after 1989 with the dissolution of the Soviet bloc, Hungary's transition into a market economy and its membership of the European Union.

The Evolution of a City and its Market Halls

In Budapest, as in other cities throughout Europe, the market square evolved into the market hall in conjunction with developments that marked the many shifts from agricultural, and predominantly rural, to urban industrial societies. The duration of these processes varies; in Budapest the developments occurred within a greatly compressed period of time relative to other cities in Europe. It was not until the dissolution of the Habsburg Empire, which began with the 1848 Revolution, and the Great Compromise of 1867[25] that Hungary first obtained a degree of political autonomy. Only then, in the wake of these events, was the city of Budapest created and it soon began to acquire stature as an urban centre.

Encircling a section of the Danube River, in 1873 a constellation of distinct towns—Buda, Pest and Óbuda—formed the area that was to become Budapest. At the time of its founding, the city had a population of 280,000 people with numerous market squares spread along the river and within the

25. 'The Great Compromise' of 1867 established the dual monarchy of Austro-Hungary and allowed Hungary considerably greater autonomy in its internal affairs.

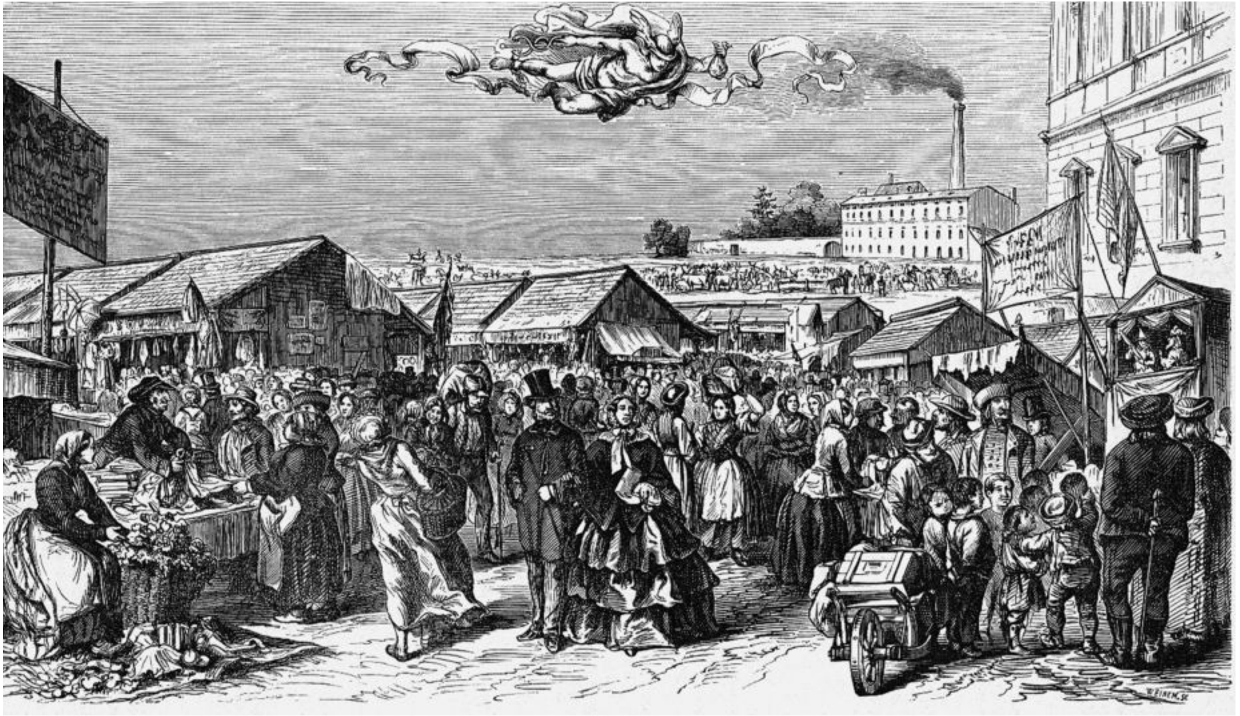
city's open spaces. Their early representations can be found in drawings and photographs from the period. In a set of early images by the photographer André Kértesz we can perceive the familiarities that defined market activity. Two photographs of Bomba Square,[26] one of the many outdoor markets that were situated on the Danube, show an expanded view of the area; an engraving presents an idealised, romantic vision of *the marketplace.*

In one of Kértesz's photographs three women are seated on a cobblestone pavement beside a kerb. Their heads are covered with typical country headscarves, their faces are barely visible. Kértesz concentrates on the conversations taking place. Their large wicker baskets are empty; two of the women look attentively at the third, who is perhaps describing a tragic tale, local gossip or news of a forthcoming event. In another image two city women, as shown by their manner of dress, one holding a parasol and the other wearing a black bonnet, are chatting with a peasant woman. It is difficult to say for sure, but the city women could be servants talking to another woman from their village. The square looks empty; a young woman in a headscarf stands nearby and a horse-drawn carriage is resting in the background. In a third picture a bearded man in a bowler hat is engrossed in some pieces of cloth he is holding; a woman, in a white kerchief and a dark shawl, her back to the camera, watches him attentively. Is he counting the pieces of cloth or examining its quality? These images provide a sense of the social dynamics of the market and it significance as a place where news and information were exchanged.

The first of two photographs taken in Bomba Square in 1863[27] shows a man in a top hat standing next to a carriage, facing the camera directly with his hand posed carefully on his hip; the driver is seated in the carriage. It is a crowded market day and the square is filled mainly with women. Those closest also peer at the camera. The women's heads are covered in scarves or shawls tied in the manner of women from the countryside. They are crouching, standing or sitting behind whatever produce they are selling. Judging by the type of hat he is wearing the figure standing in the centre of the frame is an officer. Immediately in front of the buildings that border the square is a construction with Tuscan columns and a painted or metal sign that says 'People's Kitchen.'

26. Because of its proximity to river traffic and the quays, for easy unloading, Bomba Square was a highly visible and popular market in Buda.

27. Today, Bomba Square is called Batthyány Square and it is directly opposite the Parliament building on the other side of the river.



Etching of a fictitious market in Pest. In this idyllic scene Mercury, god of traders, presides over the various compositional motifs

The second photograph shows groups of baskets on the ground filled with produce: carrots, potatoes, onions etc. On the left, a solitary woman sits amidst a large cluster of baskets; on the right, three women are chatting. In contrast to the other picture, here the square looks empty. In the background we see the rear end of five carriages. The horses are not visible. There is a ë*kávámérés* (coffee house) right behind the carriages and then to the left a tavern called the BombaTérhez. Whoever had been riding in the carriages is absent from the picture, probably having retired to either the coffee house or the tavern.

The images of Bomba Square form a sharp contrast with a print depicting a fictitious Pest market scene. In this idyllic panorama Mercury, the god of trade and commerce, floats above the various motifs of the composition. The focal point, placed in the centre of the frame, is a middle-class couple casually strolling through the mêlée. The 'invisible hand' of prosperity has cleared a way for them. In the far background we see a prosperous factory, its smoke drifting wistfully into the air. Between the market scene and

the factory lies a patch of land, signifying agriculture and farming. Horses and cows can be seen but otherwise the field is barren. The market stalls are prominent to the left of the farm while on the right there is a stone building. Throngs of people swarm through the market, going about their shopping chores with carefree composure. The faces of the women here are all neatly framed with headscarves. A group of children are watching a puppet show. One can imagine the assorted products of farming and manufacturing that can be found and purchased within this idyllic milieu. The handsome couple is imbued with prosperous self-esteem while up above Mercury holds a bag of gold, presumably to bestow on the fortunate couple.

While the print presents a glorified vision of middle-class life, framed by its commercial and social benefits, the photographs offer glimpses of a dirtier, more chaotic and finally unmanageable reality. However, despite their differences, the representations portray a sense of the carnivalesque atmosphere present in the marketplace. The inspiration for the engraving probably stems from the highly popular and frequently held fairs in Buda and Pest that Hungarian anthropologist Dankó Imre asserts, 'gained fame in distant lands … due to their internationally important paths over water and land.'[28] In contrast with this festive atmosphere, what we see in the photographs are the daily realities of the market square in which, 'The most basic standards of hygiene could not be maintained [and which had become] the most filthy, rat-infested areas of the city.'[29] Variations of these scenes existed throughout Europe in large cities as well as middle-size towns. They represented more than a casual annoyance and had in fact become health hazards and unreliable suppliers of food for burgeoning industrial cities.

Additionally, what the images can only allude to is a larger reality. By the time of its incorporation, Budapest had become one of the largest centres of the milling industry in Europe. It thrived on the interrelated branches of the food industry, such as meat processing (with huge slaughterhouses and feeding lots), and the canning industry. In this sense, 'the real roots of the development of Budapest should (…) be traced back to agriculture.'[30] Its significance in the world of commerce grew as a result of its strategic river location and position within the growing continental rail network. Consequently, the city's industrialisation was built upon capital

28. Dr. Dankó Imré. Interview by the author, 26 August 2005, Debrecen, mini disc recording.

29. Gergely Nagy, *Market Halls in Budapest: From the Turn of the Century to the Present*, Hungarian Pictures, Budapest, 2002, p. 14.

30. György Ránki (ed.), *Hungary and European Civilisation*, Akadémia Kiadø Budapest, Budapest, 1989, p. 165.

resources drawn from or related to agriculture; its rate of population growth was especially dynamic during the last decade of the nineteenth century (a 45 per cent growth in one decade), the highest increase among contemporary capitals.[31]

The rapidly changing city required efficient internal trade networks for its growing population, a reliable food supply and solutions to the problems of sanitation and hygiene. With obstacles stemming from a combination of growth and rising social expectations, market halls became a commercial and social imperative. As in other major European cities, they became necessary and integral elements of the city's master plan.

Besides the aggravated social conditions, Budapest's leaders also confronted the need to establish a Hungarian identity different from the Habsburg Empire period. The city's de facto independence and expansion brought these issues to the fore, particularly amongst the political and intellectual classes who ardently sought to create their own unique world-class city. Architects were outspoken about defining the attributes of a Hungarian architecture and dissatisfied with simply applying the 'Empire style' to its buildings. Architect Ödön Lechner stated that, 'the Hungarian formal language today is still not settled, from an artistic point of view not established.'[32] Despite the impediments, within a twenty-five year period Vienna's second cousin had been transformed from a Habsurg outpost into a thriving, modernising European city with a distinct Hungarian architectural identity.

Building upon the impetus to modernise and simultaneously address urban conditions, the region's administrative organs concentrated upon development of infrastructure, building policies and the handling of social tensions. What ensued were discussions by civic leaders to promote the city's first market hall. The results of their planning supplemented or amplified Ödön Lechner's quest and drew extensively upon the experience of architects, engineers and municipal authorities in Budapest and other towns. The first specific outcome of these early discussions came in 1872 with a market hall proposal by the French contractor Édouard Besnier de la Pontonerie.[33]

31. Zoltán Kovács and others, *Budapest: from State Socialism to Global Capitalism*, ACRE report 2.4, Amsterdam Institute for Metropolitan and International Development Studies, Amsterdam, 2007, p. 23.

32. Ödön Lechner, 'Hungarian Formal Language Has Not Been, but Will Be,' in Katalin Kesarü and Péter Haba (ed.), *The Beginnings of Modernism in Central European Architecture*, Ernst Museum, Budapest, 2005, p. 149.

33. Nagy, *Market Halls in Budapest: From the Turn of the Century to the Present*, op. cit., p. 15.

However, De la Pontonerie's proposal was short-lived and would be overshadowed by the ongoing work of the committees and commissions responsible for addressing the issues pertaining to the planning process. This protracted developmental and research phase drew upon the designs and practical experiences of cities as far away as Newcastle and as near as Vienna. The key personalities and civic leaders in the process would seek and finally achieve a market hall system on a par with any of those that existed in Europe.

A major figure in the proceedings was Károly Kamermayer. In the eighteen sixties he was a meat inspector but by 1879 his prominence had increased sufficiently to be elected the city's first mayor. In that same year the government established the Committee for Economics and Food, which would play a pivotal role in planning the markets. Because of his political position as well as his ample knowledge of the food industry, in 1882 Kamermayer was appointed head of the Committee and travelled throughout Europe to visit the major functioning market halls.

Besides the Committee for Economics and Food, the Municipal Commission of Public Works[34] also played a prominent role in the planning process. Lajos Lechner was the Commission's energetic and forceful director. As the diligence and power of the Commission increased, the momentum driving its vision of Budapest would become an overriding factor affecting the designs of the first market halls. Its mandate was derived from the centralising efforts of the Habsburgs as well as Hungary's evolving profile as a separate nation-state. Members were chosen on the basis of their different areas of expertise.[35] Its importance cannot be underestimated—in creating and implementing a master plan for Budapest's growth and design, the Commission defined patterns of urban development, land use, building elevations and delineated the functional arrangements of its structures. Most significantly, by articulating the city's architectural qualities it established the nucleus of an enduring urban framework.[36]

The same issues being addressed by Budapest planners were analogous to those that had been confronted by Berlin planners some thirty years earlier. Faced with rapid industrial and population growth, the town was striving to acquire the stature of Paris or London, hoping to implement the

34. This commission is sometimes also referred to as the Municipal Engineering Bureau depending on the translator.

35. Kovács, *Budapest: from State Socialism to Global Capitalism*, op. cit., p. 10.

36. Ibid., p. 27.

technologies and transport systems that could make the movement of food safer and more economical.[37] In Budapest, as in Berlin, markets would replace the overflowing and congested open-air markets, in squares and along the riverside, or wherever there happened to be large open spaces.

While in the Paris and London markets producers and suppliers used an effective 'rail based market hall network,'[38] the Vienna plan lacked an integrated transport network. Budapest planners desired a system with river transport and rail links that could easily feed a wholesale market and serve as the main source for the retail markets in the surrounding districts. This concept closely resembled the Berlin plan.

In addition to logistical matters, other aspects of the Berlin plan were important, particularly the fact that markets were a public enterprise for 'improving the supply of daily necessities for the inhabitants.'[39] Maintaining affordable prices and the protection of consumer interests as opposed to those of private merchants or retailers was an implicit objective and also added to the public impetus for the market halls. Berlin police president Guido von Madai considered, 'private capital and the profit motive (…) inimical to the public interest.'[40] Opponents of public ownership objected because they thought the city would not be able to cover costs even though the Paris market was consistently making profits.[41]

On 3 July 1889 the city's general assembly decided that a plan for the central and district halls should be developed. The individuals who played the most significant roles in finalising the plan were Alderman Alajos Matuska, Lajos Lechner, Kamermayer and the architect and engineer Győző Czigler. The latter, who had studied and observed the Berlin market halls, was brought into the deliberations by Matuska.

The following year Matuska, then chairman of the Committee for Economics and Food, argued against a revised proposal from De la Pontonerie on the grounds that 'the food supply for the city should not be organised with the idea of making a profit.'[42] In October of the same year Lajos Lechner submitted a report to the relevant committees in which the building of a central market hall and an ancillary network were suggested. The need for

37. Andrew Lohmeier, 'Bürgerliche Gesellschaft and Conumer Interests: The Berlin Public Market Hall Reform, 1867-1891', *Business History Review*, 73, Cambridge (Spring 1999), p. 95.

38. Ibid., p. 101.

39. Ibid., p. 97.

40. Ibid., p. 98.

41. Ibid., p. 105.

42. Nagy, *Market Halls in Budapest: From the Turn of the Century to the Present*, op. cit., p. 17.

a network was never an overtly contentious issue; what was always crucial to the discussions was the form of its components and how it would draw upon the experiences gathered from existing European market halls. Thus, the challenge which confronted those responsible for the plan's realisation was not simply one of design but additionally addressed equally important issues relating to the integration of the network structure into a civic framework as well as to the questions of transport, health and revenue. Uniquely, judging by the different models that evolved during the course of the nineteenth century, 'the experience of the social-democratic architects of central Europe was based on the unification of administrative power and intellectual proposals.'[43] Thus, it was not at all surprising that the market hall systems of Berlin and Budapest should be the most closely related.

Prior to submitting his final report in April of 1891, Matuska had visited the markets in Germany and France. A chief member of the Commission therefore had a vast practical knowledge of the construction and economic organisation of Europe's major market halls. Throughout its deliberations and research the Commission was confronted with contrasting market-halls systems: particularly, the French-English system versus the German system as typified in Berlin. In its concluding deliberations, the idea of a complete system similar to the Berlin plan outweighed the other proposals.[44] The plan consisted of a Central Market Hall (Fövam Square) and satellites located in five nearby districts: Rákóczi Square, Bomba Square (now Batthyány), Széchenyi (now Hold utca), Hunyadi Square and István Square (now Kauzál).

The proposal put forward by Matuska and Lechner was adopted and an invitation to submit tenders for the main market hall was advertised on August 25 1892. The winning submission would be selected by a sixteen-member jury with representatives from Berlin, Leipzig and Paris, most of whom were architects, engineers or building specialists. These included Győző Czigler, architect and university professor, and Hugo Licht, director of public construction for the city of Leipzig. Kamermayer, Lajos Lechner and Alajos Matuska also took part in the selection process as unofficial observers. The jury received nine submissions, four from Budapest and the other five from Paris, Sofia, Berlin, Prague and Leipzig. The three winning entries were those from Paris, Leipzig and Budapest. After much scrutiny and a number of revisions the commission was awarded to the Hungarian

43. Tafuri, *Architecture and Utopia; Design and Capitalist Development*, op. cit., p. 112.

44. Nagy, *Market Halls in Budapest: From the Turn of the Century to the Present*, op. cit., p. 18.

Detail of the interior of the market on Rákóczi Square, 1896

Samu Pecz on 11 January 1893. His design mostly clearly addressed the prerequisites established in the tender, particularly as regards the transport of goods and the use of the site.[45]

The interior of Pecz's design for the Central Market Hall draws upon elements found in the various nineteenth-century industrial structures in which 'Iron, and its relative steel, were increasingly able to establish their own aesthetic conventions.'[46] Because of the impressive dimensions of the site—the final nave-like main corridor is 60 metres wide while the length of the entire building is 150 metres—it would be important to arrive at an uncluttered design solution that would emphasise the building's scale without simply erecting a listless shell. The solution required a skilful handling of the support columns and the manner in which the trusses span the building's large areas. The resolution of the problem is obvious in the structural use of ironwork and its application as a design motif. Throughout the building the trusses create a visual balance between style and functionality. Their airy quality is further emphasised by the clerestory and high windows, which run the length of the nave.

45. Perhaps it is simply a coincidence, but the Pecz design most clearly resembles the Leipzig market hall.
46. Curtis, *Modern Architecture Since 1900*, op. cit., p. 38.

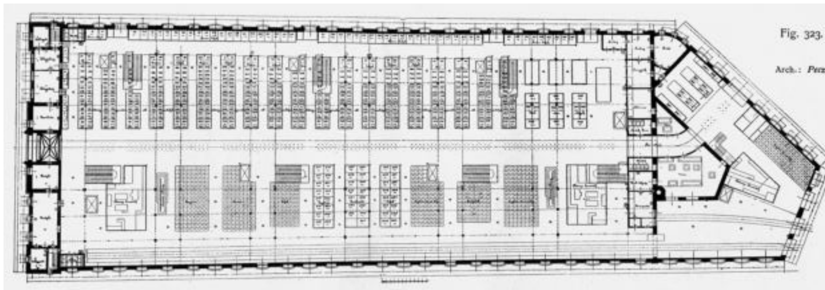
Currently, when entering the hall through the main entrance, one passes under the mezzanine lining the interior perimeter. Once in the main corridor, although the large scale of the structure becomes immediately apparent it is welcoming. In the original design, the selling floor was laid out with oblong clusters of stalls which could be let to traders.[47] As in other markets, special areas were designated for fish, dairy and other produce in need of refrigeration and sanitary equipment. Above each stall was a device for name-plates that would identify each stallholder.

Viewing the Central Market from the outside, directly above the entrance we see a large vertical window set into the façade that positively diminishes the building's visual weight. At the outer corners of the building two towers with steeply angled turrets are covered in green, orange and amber tiles of Zsolnay ceramic.[48] The roof of the building is similarly ornamented, minus the green tiles, although the cornice and frieze along the roof is adorned with white and orange tiles. The same elements articulate other features of the exterior, such as an identical frieze-like band above the loggia archways that encases the entire structure. The Zsolnay tiling, plus the ornamental detailing and large windows running the length of the building lighten its mass. Orange and amber bricks punctuate the walls and arches above the numerous multi-shaped windows. To playful effect, the colour scheme of the roof and ornamental details blends into the exterior's brick surfaces, creating an alluring structure.

In conjunction with the planning and completion of the Central Market, over a two-year period five of the six original market halls would be finished and in operation; Rákóczi Market Hall (number 2) received a permit for operation on 11 July 1896 and, after many delays, on 13 April 1902 the market on Bomba Square (number 6) was officially opened. Architect Győző Czigler was responsible for the markets on Hold Street and Hunyadi Square. The remaining market halls were designed by a team from the city's engineering office. While the Central Market is the largest and most distinctive, the other structures have broad similarities but with differences stemming from the size and character of their sites. Hold Street, Hunyadi, Istvan and Bomba markets are all adjacent to housing structures; Rákóczi market is the only other free-standing structure. Except for the one on Hold Street, they all look out on public areas, either parks or plazas. Strangely enough,

47. The stalls have since been replaced by much larger self-contained shops.

48. Zsolnay ceramics were used extensively in many art nouveau buildings throughout Europe. The vast Zsolnay tile-works was located in Pécs in southwest Hungary.

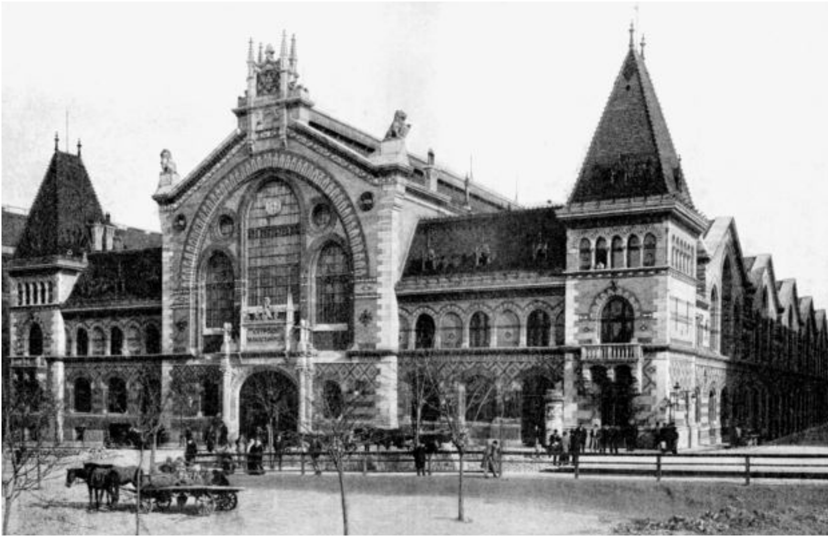


Ground plan and interior of the Central Market

in the case of Istvan market it is the rear, secondary entrance that gives on to a park.

Although the construction of these six markets had an impact on Budapest's retail and wholesale food businesses, by the end of the century there would still be '44 markets in Budapest with 4500-8000 vendors.'[49] Thus, anticipating the need for further projects, in 1904 the engineering office proposed a ten-year plan for the continuing construction of additional market halls. In the 1910 census the population had reached one million and the city had advanced to seventh place in Europe. 'Budapest had acquired

49. Nagy, *Market Halls in Budapest: From the Turn of the Century to the Present*, op. cit., p. 13.



View of the exterior of the Central Market

an economic and cultural influence stretching beyond the borders of the Austro-Hungarian Empire to the Balkans and northern Italy'[50] and had become a major player in the economic and cultural life of the region. During these years of transformation, market halls were becoming integral ingredients of the life of the city, and due to their size and strategic placement they had altered the very profile of the cityscape.

How we experience the different elements in the city—parks, buildings or streets, for example—is one of the qualities that determine its habitability. It can effect our perception of a structure's scale or a boulevard's spatial qualities. Is a building to be inhabited, visited or worked in? Is it viewed only from a distance, ephemerally, in transit, or is it a place we pass through regularly? In a photograph of the main façade of the Central Market Hall taken at the turn of the century we see a queue of carriages lining the pavement in front of building, guarded by their drivers. A small group of pedestrians stand on the near corner. In the foreground, the square is empty. One wonders about the time of day or occasion that would present such a static vacant view of this large construction. As opposed to the carriages and their attendants, the building appears domineering, but unlike a cathedral or a court, there are no ready clues as to its function. However, like other

50. Kovács, *Budapest: from State Socialism to Global Capitalism*, op. cit., p. 19.

structures of the era, such as railway stations, it exudes a unique presence. Was the Central Market a welcome sight for shoppers? Did it constitute a more beneficial workplace for stallholders? Perhaps a pertinent question then, one that might affect our present economic conditions, concerns the manner in which this building altered or influenced Budapest's daily life and the economy of food shopping.

The Socialist Period and the Flórian and Bosnyák Markets

A complete restructuring of Hungarian society was initiated in the aftermath of World War Two. The economic, social and political life of Hungarians were now administered by a government directed by and through the ideological lens of the Hungarian Communist Party. In 1948 the Communist Party joined up with the Socialist Party and became the Hungarian Working People's Party and the political and social life of the country were further consolidated. While the dynamics of the government and its new political institutions are far beyond the purview of this essay, certain basic aspects are worth noting as are relevant details regarding the changing social geography of the Budapest region.

Most significantly, in 1949 the original Budapest Commission of Public Works was abolished and its responsibilities transferred to the newly organised Ministry of Building and Public Works, a national entity that was, however, mainly ceremonial as real decision-making powers resided within the Council of Ministers. Issues relating to urban development were implemented by a highly centralised political system, the guidelines of which emanated from the ideological and economic priorities stipulated in the 'national plan'.[51] The increased industrialisation of Hungarian society was an essential feature of the plan. As a result, after 1950 the city experienced another massive wave of urbanisation and the population of Budapest reached its highest level, two million people.

The repercussions of this internal migration and the 'socialist urbanisation based on the planned economy,'[52] were threefold: centralised state planning minimised local planning initiatives; infrastructure to supplement the needs of everyday life tailed behind the needs of industrialisation; and expansion of the working class tended to eradicate or displace smallholders.[53] In addition to the social dislocations resulting from the accelerated urbanisa-

51. Ibid., p. 33.
52. Ibid., p. 10.
53. Ibid.

tion, new imbalances appeared in cities as social space gradually lost much of its cohesiveness and though damaged, the pre-war urban fabric was subsumed in a miasma of new buildings. On the most superficial level, the consequences of such urbanising policies are clearly visible. Travelling from Budapest's older urban core to the East in Pest, as in the Southern and Northern Buda districts, we come across a proliferation of pre-fabricated housing estates (blocks), ever-present throughout the Budapest region (and many parts of Eastern Europe), especially in the peripheral and suburban areas that experienced the greatest population growth.

Located within the imposing housing estates that encircle the city centre we find a hybrid form of market hall: one-storey, shed-like industrial structures that enclose rows of shops and stalls. During the socialist period prior to the arrival of supermarkets they were the primary—often the only site— for purchasing produce, meats and other perishable commodities. An example is the Bosnyák market in Zugló (the XIV district), a chiefly low-rise and single-family area bordering on the city centre. Located on a major commuter route with a bus terminus and an adjacent tram stop, the market's site is convenient to all forms of transport and readily accessible to most parts of the city. Nearby are clusters of housing blocks, pre-war single-family homes and pockets of new garden apartments. Despite the monotony of the estates, the neighbourhood boasts many tree-lined streets and small parks. The large concentration of apartment dwellers and commuters has provided the Bosnyák market with a steady stream of shoppers.

The original Bosnyák market was built in 1961. Its two-storey plain brick façade, with shops on the ground level and business premises above, resembles a small office block. Neither its exterior design nor its details suggests the purpose of the building; its significance and function have been negated by the bland 'socialist aesthetic' characterising the period. An early photograph shows a butcher's shop next to the entrance: only a simple cast concrete sign designates the site as a market. In another picture taken during the construction of the building we see a large paved square that accommodates tables for fruit and vegetable sellers, bounded by a ring of butchers' and dairy shops with refrigeration units and toilet facilities situated on the outer perimeter.

Although some shops have been renovated and even a DM drugstore has opened,[54] the bland exterior of Bosnyák Market remains today for the most part unchanged. Once inside the market one discovers a compact labyrinth

54. The Germany based DM drugstore chain is found often in Central and Eastern Europe.

Bosnyak Teri Vásárcsarnok Market

of shops and passageways. The space seems randomly structured like a section of an Istanbul bazaar. Eventually one arrives at what was once the large open space seen in the photograph, the entire area of which has now been covered. The corridors are shielded with plastic roofing and in the centre is a small open-sided hall made of prefabricated concrete trusses. The empty space in the photo is now a jumble of vegetable and fruit stalls. The various internal modifications and alterations seem improvised and haphazard. Passing through this maze of tables and stalls one reaches an open-air market filled with additional stalls and tables selling clothing and household goods. Most of the market's available space is completely devoted to stallholders and shopkeepers. Like the adjacent housing blocks, the market on Bosnyák Square fulfils a basic need. Yet, seen in the context of a history steeped in market hall tradition, its spiritless conceptual nature is surprising.

One can imagine the various budgetary conditions and planning stratagems that led to the market on Bosnyák Square and other similar markets built during this period. However, across the river in an older section of the city, Óbuda market represents another possible solution. Situated on an

oblong site bounded by narrow access roads, it is hidden behind apartment blocks and a small two-storey shopping centre, close to an intersection of two major roadways. The neighbourhood also contains an abundance of historical monuments including the remains of Aquincum (an ancient Roman town), the Óbuda Town Hall and plaza, an unpretentious Catholic church and a Greek revival synagogue, converted into a television studio.

The award-winning design for Óbuda market, built in 1985, was drawn up by the Budapest architectural firm Tihanyi-Halmos.[55] Despite its budgetary constraints, it represents a modest but noteworthy attempt to architecturally organise and celebrate the local market hall. Óbuda market consists of a series of shed-like modular structures built from pre-cast concrete elements that enclose a courtyard. Due to the features of the site, the size of each basic module varies according to its placement. On the long side they are stepped whereas on the opposite side, used for deliveries, they are flush with the loading area. In this plan the larger units are used for dry goods shops and the smaller ones for butchers' or bakeries. The counter and selling areas face inward toward the courtyard and the remaining space is used for refrigeration and preparation. The courtyard itself is divided into stalls of different sizes for fruit and vegetable sellers. In 1993 the entire courtyard area was covered with elements used in the original modules. The result is an upgraded structure consistent with the original. What distinguishes it from much larger structures is both its intimacy and orderliness. It has no pretensions of being more than a community market hall; for local residents, Óbuda market is a pleasant, convenient and functional shopping space that fulfils its role, as architect György Halmos stated, as one of the 'traditional meeting places of city life.'[56]

Besides the obvious design qualities that differentiate the markets of Óbuda and Bosnyák Square, making one location more appealing than the other, their viability also depends on a combination of economic and demographic details. From the earliest examples, the sustainability of the retail market hall was linked to and dependent upon population density and accessibility factors. As the traditional urban core morphed into an agglomeration of different sized districts and suburban towns, the economic base of the market hall began to lose ground.

55. The principal designers in the firm are György Halmos and Judit Tihnayi.

56. György Halmos and Judit Tihanyi architects, interview by author, 30 Sept., 2008, Budapest, mini disc recording.

The Period after 1989

Today, the Budapest metropolitan region has a population of approximately 2.44 million people and is the largest such area in East Central Europe.[57] 1.7 million live within the city's twenty-three administrative districts, while the remainder live in the growing agglomeration. The continued flow from the inner city to the urban fringe and suburban areas parallels new apartment construction and commercial and residential building facilitated by deregulation and easy-credit mortgages.[58] Consequently, the slow process of renovating the city's infrastructure and older buildings, is matched by another form of advancement as the inner architectural core becomes surrounded by a dystopic *mélange* of shopping complexes, car parks and logistical centres. Like a strange migrating flora, they materialise on the outskirts of most of the region's major cities.

Since 1989, and especially after Hungary joined the European Union, the pre-existing food distribution and supply apparatus has had to confront new competitors in the form of the regional and international food retailers seeking a foothold in the Hungarian market. Local Hungarian supermarkets like CBA, COOP or Reál now faced competitors from Austria (Kaiser's) or the Netherlands (Spar). Situated on the edge of city near the Southeast motorway lies the Nagybani wholesale vegetable market: the large regional re-distribution and trading site for produce. The market complex, which once sat amidst fields and strands of trees, is now bordered by Tesco on one side and Auchon on another, in addition to a number of logistical centres. Nestled within the sprawl of faceless mega-stores, hypermarkets and winding access roads, this mammoth market with its growling, chugging complement of lorries and vans, seems almost a deficiency in a world of car parks and neon merchandising.

These ongoing disparities between old and new continue to reinforce the evidence that in conjunction with the rise of consumerism another phenomenon is taking place, irrespective of borders, national identities or even cultural traditions. What appears, ironically as a sign of economic progress, is a kind of vaporisation of criteria or standards governing land use and urban planning. While countless 'regional development strategies' and 'planning commissions' exist throughout the industrialised world, more often than not they evolve into consultative bodies with little power to implement

57. Kovács, *Budapest: from State Socialism to Global Capitalism*, op. cit., p. 16.

58. "Between 1990 and 2001 the population of Budapest decreased by 14.3 percent, that of the agglomeration grew by 18 percent." See Kovács, *Budapest: from State Socialism to Global Capitalism.*

their own recommendations. In Budapest one such commission warned about the hazards of 'wasting resources and environmentally unsustainable development.'[59] Not surprisingly, these warnings were either dismissed or ignored.

In this context, in the developed world, where *food scarcity* is, supposedly, no longer a paramount issue, other food-related issues come to the fore. Such issues address the changes brought about by the accelerated reification and globalisation of food production and the accompanying food distribution and retailing systems. This remodelling of the food chain does not only influence how we shop but also where we shop. It becomes manifest in the differences between a market hall filled with vendors and shoppers and the endless aisles of products that define the space of the hypermarket. In one instance shopping is continuation of processes of trade and social discourse; in the other, it has become depersonalised and saturated with anomie.

The Market Hall in Transition

Like most European cities, Budapest contains all categories of food markets. Prior to the global financial convulsions in the autumn of 2008, market halls were often viewed as either quaint relics or lingering scars and their chances of survival were marginal. Faced with an unfettered momentum bolstering mega-stores, food discounters and up-scale supermarkets, the market hall persisted as a retailing anomaly from another era, ill suited to compete with the economies of scale fuelling vast free-market enterprises in which the sheer volume of goods bought and sold enables cost savings that are subsequently, in theory, passed on as discounts to the consumer. To appraise these forms of food retailing without taking into account related economic and environmental features promotes a distorted image of their value and role in city life. Additionally, weighing the benefits of their influence, publicised as an unequivocal sign of progress, can broaden an understanding of the market-hall's adaptability and prolonged existence as a civic institution.

The Supermarket Idea

The industrialisation and global exploitation of food production and distribution is a relatively recent phenomenon. In the modern era, these various practices have enabled the combination or corporatisation of different aspects of the food chain. As consumers, our lives are mostly immersed in the final links in the chain, i.e., distribution and marketing, so on a day-to-day basis

59. Ibid., p. 42.

we have little recourse but to accept the policies that influence the cost and availability of food items and the underlying assumptions that they are regulated or determined by the benign laws of supply and demand. However, these policies and assumptions have become increasingly illusory as agri-businesses and food retailers have consolidated the links in the food chain.

In 1912 the Atlantic and Pacific Tea Company (A&P) opened the first grocery store with a standardised layout, combining food retailing with the productivity principles set out by Frederick Winslow Taylor. In order to increase efficiency and reduce labour costs, Taylorism promoted a regimentation and organisation of the workplace: a streamlining of labour practices. Manuel De Landa suggests[60] that the roots of Taylorism lie in forms of military organisation in which consistency and reliability were necessary for the constant feeding of soldiers and the movement of supplies. Thus, the movement grew out of military procedures for the storage, preservation and distribution of various commodities as well as techniques to prevent spoilage and waste. Taylor's principles were applied first in the workplace, but with their adaptation to the grocery store they also found a home in retailing.

Innovative forms of food retailing began to appear in the nineteen thirties with the opening of the 560m^2 King Kullen supermarket in New York City, the first of its kind. The arrival of the supermarket introduced new forms of organisation, regimentation and consumerism into everyday life. The supermarket remodelled food shopping into an activity taking place, and overseen, within a corporate domain. Branded as a sign of modernity, its appearance seemed to delegitimise the social space of the market hall. As it proliferated, practices associated with food production and distribution became more opaque and focused on the needs of retailers rather than consumers. As a result of the growing global pervasiveness of corporate food production and retailing, the 'moral economy' of the market square, already diminished, began to withdraw further into the background. The maintenance of a tacit equilibrium between the needs of food producers and wholesalers, the conservation of equitable conventions between retailers and consumers receded into a labyrinth of regulatory bodies beyond the effective scrutiny of any public sphere.

Market halls today have been subsumed within the global retail framework dominated by the supermarket model. In the aftermath of the changes undergone by Hungary in 1989 and the country's integration into

60. Manuel De Landa, 'Markets and Antimarkets in the World Economy.' Zero News Data Pool, http://www.t0.or.at/delanda/a-market.htm, p. 5 (accessed Feb. 2015).

the economic models of the European Union, the market hall system in Budapest has had to confront the latest all encompassing forms of competition. However, in one way or another all of the six original Budapest market halls have managed to survive war, socialism and now capitalism, proving both their adaptive capacity and a certain degree of cultural tenacity. While they exist today as semi-public entities and economic hybrids garnering municipal support and incentives, their durability and position within the urban fabric appear precarious.

Still a thriving market and now also a tourist attraction, the Central Market, between 1991 and 1994, was completely overhauled. Beginning in the late nineteen seventies, the Batthyány Square market (formerly Bomba Square) went through two major conversions into a supermarket. Minus the major renovations, the Klauzál Square market (Istvan Square) is in a similar situation. Rumours continue to circulate that it will be converted into a dance hall. Hold Street market has also been renovated and a gallery added. Large parts of the floor space are now set aside as *büfe*,[61] catering to area office workers. Rákózsci Square was destroyed in a fire and then rebuilt; today it contains vendors and a small supermarket. Though underused now, its location adjacent to a forthcoming underground station bodes well for its future.

The Fehérvári and Hunyadi Square Markets

Architecturally, there is a sharp contrast between the Fehérvári and Hunyadi Square markets. Fehérvári was built in 1977. Recently, in 2006, it has had a complete face-lift; the original structure has been enclosed in a faceless white box which virtually eliminates its open design characteristics and submerges the multi-level details in featureless banality.

Fehérvári is situated in the Eleventh District on the Buda side of the city at the intersection of two major traffic arteries. Demographically, it lies within a mixed use high density zone. It was a distinct element in a shopping complex which included the national department store, Skala, and other small retail shops. Nearby are large apartment houses, office buildings and a university campus. Another factor favouring its location are the convenient transport links: major tram lines all stop in front of the main entrance; a station on the new Metro line will be located here and a short walk away is the Moricz Zsigmund plaza with more tram and bus stops. All these charac-

61. A *büfe* is a small cafeteria type establishment that offers a daily menu of typical Hungarian specialities.

teristics make the market easily accessible either by foot or public transport providing it with a solid base of shoppers to draw upon.

The original Fehérvári structure was designed in the late seventies and opened in 1977. According to György Halmos, the original architect, the commissioning process was quick and efficient.[62] The final height of the ziggurat shaped structure conforms to the surrounding buildings. The atypical design does not feature the vertical space prominent in most market halls; rather it is like a layer-cake and one is confronted more by its massiveness rather than the sense of interior space. The market has three main levels. The first two levels are set aside for vendors with the outer perimeter for fruit and vegetables and the central area mainly devoted to shops that require space for refrigeration. Terrace space has been allotted for tables to accommodate the day sellers. The main selling floor is sunken below street level and can be entered either by ramp or one of three large stairways. The upper level is set aside for *büfe*, small pubs and espresso bars that cater to office workers and nearby residents. The self-serve dining tables are located on a large terrace. During lunch hours the area is always crowded.

When first built, Fehérvári made a strong architectural statement that contrasted with the mall and the neighbouring residential block. Without being overbearing, the structure had a distinctive 'Brutalist' edge and visibly asserted its function as a public space where local residents, office workers and students could shop and socialise: a definitive community magnet. A photograph from 1981 reveals a sense of activity and liveliness. The large pavement areas in front of the market are filled with pedestrians and vendors. There are pedestrians on the street. Presently, with the addition of the exterior shell and roof, the selling area has been expanded. Galleries line the outer perimeter where shops featuring dry goods and house wares have been added. The old state-run Skala shopping centre has been knocked down, to be replaced by a new vastly expanded shopping centre. The broad pavement area has been diminished.

Diverging from the high visibility of Fehérvári and the surrounding retail complex, Hunyadi market seems hidden. Yet, easily accessible by trolley, tram and metro, it is the final element in a long block of early twentieth-century apartment buildings that begin at Andrássy Boulevard, one of the city's prestigious avenues. It is immersed within a residential area in a lively neighbourhood inside the city centre. Nearby is a secondary school, the Spanish Embassy, the University of Fine Arts and the Lizst Ferenc Music Academy. A park and children's playground face the main entrance. Shops, pubs and

62. Halmos interview, op.cit.

Fehérvári Market, 1977. Architect: György Halmos

smaller eateries ring the park. With its location and demographics, Hunyadi market is a thriving and cherished market hall; its physical state of neglect, however, belies its importance and role in the surrounding community.

Built over a century ago, Hunyadi Square was one of the original six markets halls. Its exterior is in an obvious state of physical decay; brickwork is crumbling and the ornamental sculptures are in complete disrepair. The market is located in a privileged area, which places it at the centre of an ongoing neighbourhood dispute. On one side stand the local residents who advocate renovation, and on the other stand those against the idea, who want to turn the building into an upscale shopping centre specialised in foodstuffs. In essence, will the hall be gentrified or rehabilitated? The political process determining the outcome of these issues is controlled by the district mayor's office; lacking transparency, it is subject to constant questioning by community members who are wary of hidden political intentions and motives. Activists would like to see Hunyadi renovated and allowed to operate, with improvements, as it has done for decades. Most recently, the mayor's office has proposed building an interior car park and upgrading the market hall. In spite of the unresolved dispute, little about the market's life has changed in the eight years during which I have watched the conflict slowly unfold. Many of the meat, poultry and grocery shops lining the hall's main corridor are still run by the same dealers.

What likens the Fehérvári and Hunyadi markets, and most markets in Budapest, is the mixture of vendors who let their shops or stalls and occasional dealers who work at free-standing standard-size counters found in most markets throughout the city. While in theory both types of vendor can stock up on goods from the wholesale market, in practice

Fehérvári Market, 1977. Architect: György Halmos

the occasional vendors usually sell specialities or produce from large home gardens or small local farms. For example, the pavement opposite Hunyadi Market is lined with two parallel rows of stalls. During the week, only one-third of the stalls are occupied. On Fridays and Saturdays they are occupied by a variety of specialised vendors, some selling products not available in the market halls: three or four apiarists sell different varieties of honey. Choices of fruit from local orchards and vineyards are available, as are eggs and cheese. Some of the vendors are pensioners and use cash earned in the market to supplement their income. But, for the most part, they all by-pass the middleman and often provide the main retail outlets for the region's small farmers.

For a region historically rich in agricultural resources, markets like Fehérvári and Hunyadi are the essential links in the food supply chain. They maintain a continuity between local producers and the public, adding to

Fehérvári Market, 1977. Architect: György Halmos

the quality of city life and bolstering small businesses and farms. Their economic value is not insignificant. The existence of these civic institutions is not only challenged by developments in food retailing but by a more fundamental realignment in agricultural methods and the integrated systems of food production and distribution.

Hypermarkets and the Urban Food Supply Chain

> Whether an apple grower in Kent, or a coffee producer in Peru, the major supermarket chains control access to consumers.[63]

North America and Europe represent the planet's largest markets for manufactured goods and high-end commodities. Within these highly developed and mature consumer markets, production and marketing practices, particularly in the area of agriculture and the food industries, are dominated

63. Bill Vorley, *The Chains of Agriculture: Sustainability and the Restructuring of Agri-food Markets*, International Institute for Environment and Development, London, 2001, p. 7.

by a handful of companies. By the year 2010, 'ten major global retailers'[64] will exercise a commanding power on food production and retailing. Rather than synthesising, this new global configuration supersedes established supply and demand patterns, marginalises local producers and accrues market advantages to large agri-businesses.

Whereas supermarkets had selling areas of about 600m^2, the hypermarket averages 3500 - 4000m^2 with only a portion of the selling area actually devoted to foodstuffs—in many cases, only 50% of the sales area is actually devoted to food. The hypermarket concept was developed by the French retail giant Carrefour. Carrefour's first supermarket opened in June 1957. The hypermarket followed six years later in the Parisian suburb of Sainte-Geneviève-des-Bois. After Wal-Mart, Carrefour is the world's second largest food retailer. The typical hypermarket needs a minimum population base of 100,000 to be economically viable and depends primarily on the automobile to provide a steady stream of shoppers, ensuring that the typical hypermarket surface area can be at least twice the actual retail floor space. A Carrefour motto was 'No parking, no business.' This dictum has generated vistas of macadam dotted with trolley shelters.

The appearance of a hypermarket is not usually an isolated event. One megastore tends to produce an agglomeration of compatible enterprises (TESCO with OBI or Wickes) feeding on 'the greater ability of the superstore format to meet the needs of time-poor consumers seeking a convenient, one-stop way of shopping.' There can be little argument about the diversity of products that these stores offer, but other claims about 'lower prices and usually a brighter, more interactive store atmosphere'[65] are far more dubious.

Hypermarkets are supported by regional logistical centres situated on the periphery of metropolitan areas. Products are primarily lorried in, sorted and then lorried out to neighbourhood retailers. Through the digitalisation and interfacing of product availability and acquisition, warehouse inventories and consumer data, these logistical centres are part of a coordinated global data network that monitors and regulates all aspects of distribution and sales processes, able to stimulate and cater to local demand.

The logistical supply centres are significant elements in the vertical integration of the food supply chain; they define the distribution tributary channels

64. Ibid., p. 3.

65. Maggie Geuens, and others, 'Food Retailing, Now and in the Future. A Consumer Perspective,' *Journal of Retailing and Consumer Services*, 10, 2003, p. 241–251, http://www.sciencedirect.com/science (accessed Feb. 2015)

for regional and local producers and reflect the way in which over the past century 'agricultural production has been changed into a form of industrial production.'[66] Like any manufacturer who needs to control inventory, hypermarket managers can 'determine what food processors want from farmers.'[67]

Following in the wake of their more affluent Western neighbours, large hypermarkets, with their advertising bluster, awesome allure of abundant products and promises of reduced costs have saturated the metropolitan Budapest region. Various brands common to Western Europe now ring the city, the most common of which are TESCO, followed by Auchan, Metro and discount establishments like Lidl.

Consequently, large food retailers are not only capable of determining agricultural and farming priorities on a global scale, but the basic dietary and nutritional parameters of the planet's most affluent consumers. The disintegration of supply-and-demand dynamics results in an economic distortion, whereby 'farmers have to produce more, but get less.'[68] Furthermore, for consumers, contrary to popular opinion, 'The giant supermarkets do not sell on competitive prices; they sell an illusion of cheap, wrapped up in the indisputable modern tenet of convenience.'[69] To test this claim, during the course of writing this essay for one month I visited four of the markets halls described in this article and recorded prices for basic items like poultry and meat, as well as selected vegetables and fruit. I kept a similar record for TESCO and a large neighbourhood supermarket. There were variations in prices at all the locations but the highest priced market basket was at TESCO, and the lowest at the Central Market. Additionally, the shopping experience, colours, smells and variety of products was incomparable.[70]

The Lehel Market, TESCO and the Post-Industrial City

In the contemporary city, *the street*, as Sergio Porta asserts, has been under attack as part of a systematic 'assassination of the urban public space.'[71] He

66. Vorley, *The Chains of Agriculture: Sustainability and the Restructuring of Agri-food Markets*, op. cit., p. 3.

67. Ibid.

68. Ibid.

69. Rachel Shabi, 'Price isn't right. Supermarkets don't sell cheap food, we just think they do and they're ruining local economies,' *The Observer*, 25 January 2004, http://observer.guardian.co.uk/ (accessed Feb. 2015)

70. Allan Siegel, *Budapest Food Survey*, July and August 2008.

71. Sergio Porta, 'The Community and Public Spaces: Ecological Thinking, Mobility and Social Life in the Open Spaces of the City of the Future,' *Futures*, XXXI, 5, 1999, p. 437-456. http://www.sciencedirect.com/science (accessed Feb. 2015).

View of the interior of Lehel Market

advances arguments stated much earlier and prophetically by Jane Jacobs in her criticisms of modernism and urban renewal programs initiated in cities in the United States. He situates the wilfulness of 'the crime' as an inevitable extension of 'Descartes' "machine-world".' It presupposes an 'intervention in public space' that decimates the urban life-world and assaults 'the social dimension of cities, memory and, in short, the many dimensions of man.'[72]

The siege is visible in modernist paradigms in which public spaces become reductionist components within the grand scheme. The tensions of the life-world, as Imre Dankó states, 'the metabolism of society … this constant movement that insures it survival,'[73] have been constrained or sanitised. Within overly rationalised and instrumental paradigms, public spaces evolve into commodified components, like parts in a machine, drained of their dynamic qualities.

With streets functioning primarily as traffic arteries, shopping centres inserted in urban environments are the agents that advance the 'colonisation of public space through privatised shopping zones.'[74] Zones formulated to promote the illusion of publicness but hard-wired by the exigencies of consumerism. These transformations radically alter the nature of urban life and signify 'the repression of public social space.'[75] Stripped of its social context, in such realms market halls seem like either anomalies or quaint appendages.

The process of 'colonisation' is well under way in Budapest. Since 1989 and parallel to the city's encirclement by hypermarkets, numerous urban entertainment centres have also cropped up: shopping centres in their various configurations. One notable example is the West End City Centre. Designed by Jon Adams Jerde, whose credits include the Mall of America and the Mall of Egypt, this high-end complex, observes Robert Misik, appealingly organises leisure activities around shopping, the multiplex and fast food.[76]

A short distance from West End City Centre is the recently built Lehel Market. Inaugurated the year following the change of millennium, it replaced an outdoor market that covered a large triangular plaza on the

72. Ibid., p. 441

73. Dr. Dankó Imré. Interview by the author, 26 August 2005, Debrecen, mini disc recording.

74. Robert Misik, 'Simulated Cities, Sedated Living,' *Eurozine*, 12 June 2006, http://www.eurozine.com/articles/2006-12-15-misik-en.html p. 5 (accessed Feb. 2015)

75. Lecturer Andras Szallai, ELTE University. Interview by the author, 7 October 2005, Budapest, mini disc recording.

76. Misik, 'Simulated Cities, Sedated Living,' *Eurozine*, op. cit., p. 3.

Eastern edge of the XIIIth district. Situated in close proximity to local and regional transport systems and a major north-south thoroughfare, the outdoor market was easily accessed by vendors and shoppers. Over the years, it acquired a reputation for quality and value; its attractiveness was bolstered by a lively, crowded atmosphere. Today, the outdoor market has been replaced by a structure many residents consider poorly defined, even offensive. The market, designed by Rajk Lazslo, an architect not immune from controversy, continues to produce considerable consternation.

Conforming to the original site, Lehel Market is a triangular-shaped structure. Using different materials and colours, the veneer of the three-storey facade is sheathed in a style akin to *shopping-centre kitsch*, a quality Rajk seems somewhat pleased with.[77] The colour scheme of the façade and the hanging plants all collide to form an eclectic hulk. While the nearby West End City Centre presents a kind of tasteful banality, the Lehel Market parades a structure of garish intrusiveness that delivers ambiguous architectural dividends to the surrounding neighbourhood. However, while negative reactions to the exterior are commonplace, the internal world of the market follows another strand.

The building is accessed via four street-level entrances; the main entrance faces the tram terminus and an entrance to the metro. At the opposite end and midway are the secondary entrances. The rooftop parking lot, with lift access, makes Lehel the only inner-city market with parking facilities. In opposition to the grid-based layout evident in most market halls, Lehel's triangular shape required a different formula. Its distinct organising solution is immediately discernible: the main entrance leads into a low-ceilinged lobby; shops line either side; ahead there is a fork in the wide corridor, and, moving towards the centre of the building, the space expands and we find ourselves in the high-ceilinged large, elongated, main hall; a mezzanine, easily accessed by stairways, escalators or lift, rings the perimeter of the hall. Above, a clerestory rings the outlines of the roof. Like a tree trunk, the central corridor connects the two opposing lobbies; extending from this main ambulatory are secondary corridors, some perpendicular, others more aslant. Two long secondary corridors follow the outer perimeter of the building.

On my first visit, my immediate response was that it seemed more like a bazaar than a market hall, which gave it a positive sociable atmosphere. This quality is a result of the irregular spaces, the variations in height and the abundance of naturally lit areas. This is readily apparent in the large selling

77. Rajk Laszlo, architect. Interview by the author, 28 October 2005, Budapest, mini-DV recording.

area with the counters for occasional sellers. Interestingly, Lehel is the only market with seating areas; places where shoppers can rest and converse without having to buy a coffee or a beer.

Regardless of the divergent opinions on the design of Lehel Market, it is now an immensely popular shopping site and an unmistakable descendent of the market-hall tradition. Evidence of its long-term viability is, however, inconclusive. The same might be said about the Fehérvári or the Fény Street[78] markets. Yet their presence does indicate that the Budapest city and district governments are committed, in some manner, to market halls and view them as advantageous civic institutions. This is confirmed by the current existence of eight markets halls, located in seven districts, built since 1949. Of the original six markets, two now house supermarkets. Thus, ignoring the city's more banal market structures, within Budapest's twenty-three districts there are presently twelve active market halls.

Support from governmental institutions adds to the sustainability of these markets, but their continued viability is contingent on additional economic details not necessarily under the control or regulation of the local government. Within the new urban realms of shopping centres, hypermarkets and discount supermarkets, the continued economic feasibility of the market hall is dependent an array of governmental policies pertaining to land use, agriculture and food retailing. Within the larger regulatory environment of the European Union, the practicality of semi-public institutions like the Budapest market halls rests on the establishment of equitable and practical regulatory guidelines that support and encourage vendors and local producers whose livelihoods are dependent on the market hall's continued existence.

Conclusion

Unfortunately, in these early years of the twenty-first century, most city planners and designers have jettisoned their urban visions and consigned the grand utopian tropes to coffee-table books or computer hard drives. So, judging by the evidence, the path that leads to any substantial alteration in a city's architectural mesh often steers an unpleasant course. To a great extent, wars and catastrophe trigger the metamorphosis of cityscapes, once the events and circumstances have wounded their essential components, leaving them twisted in pain. Thus, if indeed there are other possible routes, if we

78. The recently built Fény Street market is attached to the rear of the Mammut Shopping Centre. It replaced an older market of the same name that was destroyed when the shopping centre was built.

value the city as a living organic entity, it would be wise to heed Alvar Aalto's observation that 'the status of public buildings in society should be just as important as the role of the vital organs in the human body.'[79] Architects, and those who articulate and implement matters of public policy, fail if they cannot both preserve and create the civic structures beneficial to community life. This failure ensures a conceptual inertia, a void of possibilities, amidst which the city is transformed into its lowest common denominator.

Perhaps the void is attributable to the economic restructuring of what Saskia Sassen describes as the 'global city' and the manner in which architecture has been seduced by its role in this transformation. Within Sassen's topography, high profile commissions for skyscrapers and financial centres contribute to the ongoing dematerialisation of urban social space; their appearance is part of the new 'spatialisation of power.'[80] Significantly, Sassen also notes that the global city is not without its sites of contestation churning beneath the picture-postcard gloss of skyscrapers and office buildings. Whether in workplaces, parks, housing estates or hospitals, for a city's inhabitants these sites can materialise within any of its social spaces. These sites of contestation are congruous with what I would describe as discursive zones, situations related to what Lefebvre calls 'places of simultaneity and encounter.'[81] They emanate from within and mark the horizons of experience of daily life. In addition to its invaluable basic functions, the market hall is a discursive zone. In the earliest manifestations, it served to consolidate, organise and define standards for a city's food supply. The market hall extended a tradition in which, 'in its robust simplicity,' as Fernand Braudel explained, '[the elementary market] is the most direct and transparent form of exchange, the most closely supervised and the least open to deception.'[82]

Like many of Europe's most formidable public buildings, market halls arose in another era. Despite the economic uncertainty, many still survive and remain lodged in the fabric of city life. Not yet consigned to the corporate or private sphere, they endure as invaluable civic institutions. In Budapest, the market hall's continuing survival has been contingent upon cultural values in which public spaces still exist outside the private domain. Perhaps this

79. Alvar Aalto, *In His Own Words*, Goran Schildt (ed.), Rizzoli International Publications, Inc., New York, 1998, p. 211.

80. Sassia Sassken, 'Reading the City in a Global Digital Age - Between Topographic and Spatialized Power Projects,' in *Global Cities: Cinema, Architecture and Urbanism in A Digital Age*, Linda Krause and Patrice Petro (eds.), Rutgers Univeristy Press, New Brunswick, 2003, p. 15.

81. Lefebvre, *Writings*, op. cit., p. 148.

82. Braudel, *The Wheels of Commerce: Civilization & Capitalism 15th-18th Century* , op. cit., p. 29.

endurance only signifies a temporary condition. However, their vigour and persistence stem from an ethos of transparency and the minimisation of artifice. At a moment when livelihoods and social values have been undermined by complicated financial schemes, when the remnants of a moral economy are riddled with decay, in its economic and social tenacity, the market hall's perseverance imparts values of more than a passing significance.

Market Halls in Scandinavia, Russia and Central and Eastern Europe

Małgorzata Omilanowska

Modern market halls first attracted historians of architecture in the second quarter of the twentieth century, when researchers began to show an interest in the architectural heritage of the previous hundred years.[1] The studies undertaken at that time focused on seeking nineteenth-century buildings that could be considered pioneering in terms of the architectural context of the twentieth century. Market halls, alongside railway stations and the pavilions of the great World Fairs, were usually constructed out of cast iron, a technologically advanced material which performed its function perfectly and beautifully.

The expansion of the field of study of market halls beyond their architectural form to encompass the role they played in the development of modern urban structures and their socio-cultural role in nineteenth-century cities, did not take place, however, until the nineteen eighties. Much has been written on the subject of shopping arcades but, to date, none of the works devoted to market halls as a European phenomenon have included all their intricacies, although numerous works have been written on specific market halls in certain cities and countries, such as Bertrand Lemoine's book on Parisian market halls.[2] Researchers have also been drawn to Berlin's market halls, which became a focus of interest for Thorsten Knoll[3] among other authors; Spanish market halls have been studied in depth in the dissertation by Esteban Castañer Muñoz;[4] while British market halls have been described from a historical perspective in a broader socio-cultural context (excluding London) by James Schmiechen and Kenneth Carls,[5] who produced a monograph later completed

1. Sigfried Giedion, *Bauen in Frankreich*, *Eisen, Eisenbeton*, Klinkhardt & Biermann, Leipzig, 1928; Nicolaus Pevsner, *Pioneers of the Modern Movement. From William Morris to Walter Gropius*, Faber & Faber, London, 1936; Sigfried Giedion, *Space, Time, Architecture*, H. Mildford, Oxford University Press, London, 1941.

2. Bertrand Lemoine, *Les Halles de Paris*, L'Equerre, Paris, 1980.

3. Thorsten Knoll, *Berliner Markthallen*, Haude & Spener, Berlin, 1994.

4. Esteban Castañer Muñoz, *L'architecture métallique en Espagne: les Halles au XIXe siècle*, Presses Universitaires de Perpignan, Perpignan, 2004.

5. James Schmiechen, Kenneth Carls, *The British Market Hall: A Social and Architectural History*, Yale University Press, New Haven and London, 1999.

with an additional chapter by Kathryn A. Morrison dedicated to English commercial buildings.[6]

Against this background, research into the architecture of Central and Eastern European market halls looks quite modest. Gergely Nagy published a comprehensive book on Budapest market halls[7] and another on the architecture of Polish market halls in the European context.[8] The gap of information regarding other Central and Eastern European countries was filled by the publication by Allan Siegel, which accompanied an exhibition held in Budapest in 2005.[9] More recently, illustrated albums have been published, describing the architectural beauty and construction of market halls, but also the fascination exerted by the colourful life that took place under their roofs.[10] Unfortunately, most of these buildings are still beyond the scope of scientific research, although market halls are occasionally mentioned in general texts dedicated to nineteenth-century architecture, in architectural maps of large cities and in tourist guidebooks.

The urban structures of Central and Eastern European cities in the Middle Ages were determined by trade organisation. German towns were founded in the upper and middle Elbe River Basin, and later in Silesia, the Czech lands, Greater Poland, Lesser Poland and the Teutonic Countries, where trade coexisted with administrative functions in buildings situated around squares. Very large rectangular squares were designed for town centres (from the German *Ring*), dominated by a town hall and commercial buildings, such as arcades for trading cloth, buildings that accommodated different guilds, linen stalls, bakery counters and herring stalls. The climate in this part of Europe did not allow for trading in open arcaded halls, which were common in France and the British Isles, for instance; the cold weather required the construction of closed structures such as solid brick buildings lined inside with rows of stalls, although quite often temporary wooden market stalls were erected. The largest and most developed central structures were built in cities such as Wroclaw (Breslau) in Silesia, and Krakow and

6. Kathryn A. Morrison, *English Shops and Shopping: an Architectural History*, Yale University Press, New Haven and London, 2003, p. 109-120.

7. Gergely Nagy, *Market Halls in Budapest: From the Turn of the Century to the Present*, F. Szelenyl House, Veszprem, 1997.

8. Małgorzata Omilanowska, *Swiatynie handlu. Warszawska architektura komercyjna doby wielkomiejskiej*, Instytut Sztuki Polskiej Akademii Nauk, Warsaw, 2004.

9. Allan Siegel, Gabriella Uhl (eds.), *Vasarcsarnok / Market Hall*, Budapest, 2005.

10. Gilles-Henri Bailly, Philippe Laurent, *La France des halles & marches*, Editions Privat, Tolouse, 1998; Michale Mende, Mandfres Hamm, *Markthallen*, Nicolai, Berlin, 2008.

Poznan in Poland. Large individual town halls that combined municipal with judicial and trade functions were built in various cities. The largest of these was Torun's Gothic town hall, which, when the city belonged to the State of the Teutonic Order, has been preserved until the present day.

Most of the countries forming Eastern and Central Europe had trade connections with the West, especially with the Ottoman Empire. This was an important historical episode, for in the case of a number of South-Eastern European countries, such as Greece, Bulgaria and the Balkan states, these trade relationships lasted for many centuries, a period characterised by complete political and cultural dominance. For other nations, such as Hungary, it meant over a hundred and fifty years of occupation, and for regions such as the Polish-Lithuanian Commonwealth, confrontations with the neighbouring Ottoman Empire further stimulated trade relations. The large and intricate structures of the khanates and bazaars of the Far East, with their maze of small covered streets and courtyards surrounded by arcaded quadrangles of vendors were also common in the cities of the Black Sea region, the Balkans and Greece.

In Central and Eastern Europe, the complexes built in the Middle Ages to fulfil trade requirements provided a solution to managing and organising town merchants located on the main squares. In most cities these structures would survive until the beginning of the nineteenth century.

Commercial buildings that had been destroyed by fire or war were usually replaced by similar structures equipped with the same functional solutions and spatial layout. A good example of this is a trade complex built around the town hall at the heart of the historical quarter of Warsaw. Designed by Tylman van Gameren, it was erected in the years 1700-1701. The decline of such structures began in the early nineteenth century, when the country implemented administrative reforms that abolished guilds and the privileges of merchant associations and municipal authorities. In the majority of towns, practically all trade buildings located around central squares would be demolished over a period of approximately twelve years. Only a small number of buildings suitable for continued use, such as the Sukiennice cloth market in Cracow, survived.

In the second quarter of the nineteenth century, industrial products began to be traded in shops located on the ground floor of tenement houses all over the city, and subsequently in department stores. As cities developed and grew, annexing new territories, trade of foodstuffs remained in the former marketplaces.

Nineteenth-century trade in Eastern and Central European cities took place in traditional buildings organised in rows of stands, market stalls or

arcade shops, which were usually quite small. In larger Russian cities, however, commercial buildings were generally brick constructions—shopping precincts lined with rows of stores. As an example of this architectural type we should mention the huge shopping precinct Gostinyj Dvor, designed by Jean-Baptiste Michel Vallin de la Mothe and built in St Petersburg between 1761 and 1785. The building was largely conceived in the classical style, following a non-standard square layout with two floors of shops. Thoroughfares carrying traffic were located in the outer part of the building, on the ground floor in the arcades and on the first floor in the galleried shopping arcade.[11] So-called *torgovye riady*, i.e., rows of shops connected into intricate architectural structures, were one-storey or multi-storey buildings laid out on a rectangular plan with an inner courtyard. Some designs were laid out as double shopping precincts that included internal streets, which could be simple or have the added complexity of multiple, multi-row layouts around right angles. Some resembled the classical shopping arcades found in Paris or London.

This structure was prevalent in the territories of the Russian Empire throughout the nineteenth century, although as from the mid-eighteen hundreds it coexisted with a new architectural type, the large modern market hall, which sold foodstuffs as well as industrial produce. Depending on the wealth and size of a city, *torgovye riady* would be built in either brick or in wood, although other building materials were occasionally employed. In 1841 a large building with 168 stalls was erected in Warsaw to meet the needs of traders. Designed by Jan Jakub Gaya and Alfons Kropiwnicki, it was called Gościnny Dwór and built entirely of iron,[12] according to a plan that resembled a teardrop and was accommodated to the shape of a square. The interior courtyard was left as an open market place and the permanent stalls, located along the perimeter, were arcaded.[13]

Urban planning in Central and Eastern Europe in the nineteenth century depended to a large extent on the political situation prevailing in that part of the continent. The influence of the Ottoman Empire gradually regressed in South-Eastern Europe as one territory after another was lost and each country gained independence. This occurred while most of Central and Eastern Europe remained under the dominion of large superpowers: the Russian Empire, the Hapsburg Empire and Prussia. Prussia was

11. Igor A. Bogdanov, *Gostini dvor*, Leningrad, 1988.

12. Omilanowska, *Swiatynie handlu*, op. cit., p. 91-95.

13. Only in 1916 the interior courtyard was covered with a roof, which created a large market hall.

growing in power, gaining a dominant position in Central Europe together with the German Empire, founded in 1872. The cities developed under the influence of St Petersburg were in Finland, the Baltic States, central and eastern Poland, including Warsaw and Vilnius, and the Ukraine. In the south, Habsburg ruled Poland including Cracow and Lvov, the Czech lands, Slovakia, Hungary and a large part of the Balkans. The western and northern parts of Poland, including Poznan, Gdansk and Bydgoszcz, depended on the German Empire ruled from Berlin. These cities were governed by the central authorities that exerted a great cultural influence. The political systems implemented were complicated and bureaucratic, and to a large extent restricted their independent economic development. Many cities in the region underwent a process of fast and sometimes uncontrolled development, as exemplified by Budapest and Warsaw, which were among the ten largest European cities in the period immediately preceding World War One.

Covered market halls were not usually a lucrative undertaking. A few entrepreneurial ventures did focus on profit by constructing private market halls but went into bankruptcy; such was the case of Berlin market hall, designed by Friedrich Hitzig and built between 1865 and 1868. Covered markets were usually erected on the initiative of municipal authorities, which were able to sacrifice high profit to meet social objectives. As a result, when taking on an investment such as a market hall, town authorities had to overcome many more difficulties than in the case of profitable projects. Market halls occupied very large areas, so relatively sizable plots were needed, which could have been exploited more lucratively. Sometimes a council had to buy more land to add to the plot it already had at its disposal, to create a system of better connecting roads, for instance. Such projects needed the support of higher authorities, which was often time-consuming and required many political manoeuvres. This was especially true in the case of the cities of the Russian Empire, where the municipal authorities had very limited autonomy and a strict hierarchy had to be followed before any important decision could be approved by the higher authorities.

The idea of constructing a market hall usually had its supporters, but it had its opponents too, mainly among the merchants trading in a given district and the owners of marketplaces and stalls who were afraid of competition. The first step that the authorities had to take was to establish legal regulations restricting trade on marketplaces in the neighbourhood of the future market hall. To convince market traders to introduce more practical and comfortable—albeit more expensive—stalls in market halls was an impossible task. The next step was to obtain capital, for which very strong

guarantees were needed due to the scarce prospects for its quick recovery, and therefore loans were usually obtained to build market halls. Municipal authorities decided to build such venues when they were sure that the potential income from the exploitation of a given market hall would cover the repayments. In actual fact, market halls only became profitable many years later, once the loan had been paid off and citizens had got used to shopping there.

In countries with a dominant central government and relatively weak local authorities, the complexities of such a financial and legal situation made the preparations to start building such large venues very time-consuming. Once the first plans were made, which were usually published in the press by opinion groups, it was quite some time before the central authorities made specific decisions and funds were obtained. Sometimes, such as the extreme example of Warsaw, over a quarter of a century could elapse between the time a new market-hall initiative first appeared and the finished building was ceremonially blessed.

Market halls were among the fundamental facilities of large cities. Together with a few other types of buildings, to a certain extent they were considered to be indicators of a metropolis. They bore witness to higher standards of living and also considerably influenced the further urban development. Market halls provided the appropriate, hygienic conditions for the trading of foodstuffs, complying with contemporary standards, allowing for a fast distribution and redistribution of food and enhancing the quality control of products. They were almost indispensable when a city reached a certain critical mass of growth that enabled it to be considered a metropolis. The aforementioned rule has been confirmed in the majority of cases by the analysis of cities in Scandinavia, Central and Eastern European and Russia.

Large modern market halls modelled on the solutions applied by Victor Baltard to the Parisian market hall, fitted with waterworks and sewage systems, cooled warehouses in basements, with good networks of connecting roads and rationally planned interior spaces began to appear in Central and Eastern Europe cities slightly later than in Western and Southern Europe. Such constructions emerged in Vienna, Berlin and a few other German cities as early as the eighteen sixties; with some exceptions, similar initiatives were undertaken in the cities of Russia, the Czech lands, Hungary, Poland and Scandinavian countries in the eighteen eighties.

It has often been mentioned that the Crystal Palace, designed by Joseph Paxton and erected for the Great Exhibition held in London in 1851, was a key building in European market-hall architecture that changed the

vision of architectural form for trade purposes. The iron-glass umbrellas that replaced traditional brick structures in the central market-hall complex in Paris, reportedly commissioned by Napoleon III, and the construction of a new project designed by Victor Baltard set new standards in market-hall architecture, not only in France but also far beyond.[14] Open-framework iron constructions designed by Baltard were very suitable for buildings erected in France, Spain and Italy. However they did not catch on in Central and Eastern-European countries. It was only in Bucharest that a similar market hall was built between 1869 and 1872 under the initiative of French entrepreneur François Alexandre Godillot.[15] The building, which is unfortunately no longer standing, was erected in a town square, which had a long tradition as a marketplace. It was almost an exact copy of one of the pavilions of the central market hall in Paris designed by Victor Baltard.

Lightweight iron 'domes' were not suitable due to weather conditions in most Central and Eastern European countries, although this doesn't mean that they weren't used in the glass and iron structures employed in covered market halls. Architects and builders in Russia and in Eastern Europe were familiar with London's Crystal Palace and most of them actually visited the Great Exhibition held in 1851. They were also familiar with Parisian market halls and with the various structural solutions applied to the building of covered railway stations. Even in cities of medium size, architects kept up with technological advances and modern construction solutions through specialised publications. The libraries of the Fine Arts Academy in St Petersburg and of higher technical schools, such as the Institute of Civil Engineers in St Petersburg or the Technical University of Riga, purchased European magazines and periodical publications on architecture and construction, and systematically acquired the latest manuals and catalogues.

Market halls were preferably built as solid brick structures and, as a rule, they weren't plastered. Equipped with glass windows and ventilation systems, and covered with large roofs supported by steel structures, they usually consisted of three or five halls, a basilican ground plan with rows of steel columns supporting the roof. Some were fitted with skylights, and supportive structures for the first-floor galleries were occasionally used. Rows of

14. Frances H. Steiner, *French Iron Architecture, Its First Century of Development*, Evanston, 1978, p. 50.

15. Augustin Ioan, *Influences francaises dans l'architecture et l'art de la Roumanie des XIXe et XXe siècles*, Institutul Cultural roman, Bucarest, 2006, p. 48-49.

traditional shops were sometimes introduced in the aisles of the central hall or in small premises surrounding it, thus combing two architectural solutions in one.

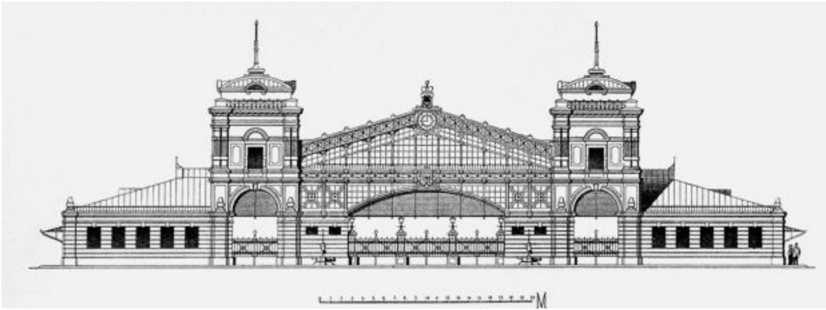
Pragmatic considerations helped decide the location of modern market halls: the convenience of connecting roads from different directions or the proximity of a railway siding or a port, to ensure easy deliveries. Traditional trading places were also valued, such as the squares formerly acting as marketplaces. For this reason, most modern market halls in large cities were built on the sites of earlier outdoor markets. It was quite unusual for completely new places of trade to appear in the urban fabric, unless specifically required in new districts.

Market halls were more common in the large cities of Central and Eastern Europe under the Russian Empire. Between 1863 and 1864 a trade complex called Mariinskij Rynok was built on the former marketplace in St Petersburg. Designed by the architect Aleksander I. Krakau, it was conceived for the trading of fruit and vegetables; its roof structure of glass and iron covered a maze of little streets with rows of stalls.[16] The largest market place in St Petersburg was the Old Square (Siennoj Rynok) and in 1864 a project to build a covered market hall in iron and glass on the site was drawn up, although it did not materialise.

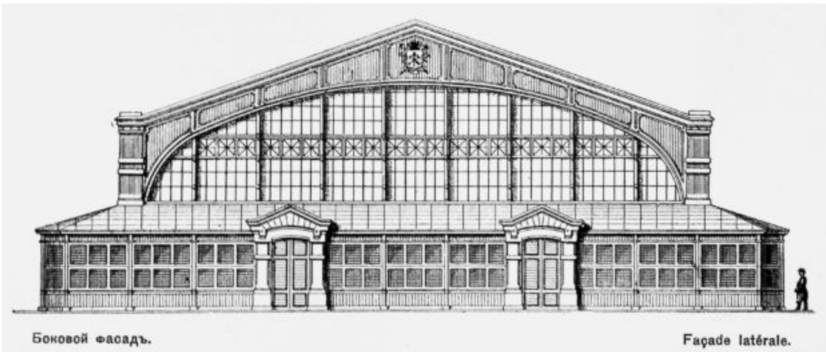
Almost twenty years later the idea to build a market hall on the Old Square was revived. Tenders were invited for an architectural competition in 1879. Petr O. Salmanovitsch presented a stunning design, which consisted of a large hall with eight shopping precincts and an intricate shape enhanced by a couple of front towers situated above the middle line of pilasters, resembling the solution of the façade of the market hall in Antwerp. This project was not accepted, however, and a much smaller one was chosen for the eventual structure. It was designed by Hieronim Kittner, who proposed four identical buildings on a rectangular ground plan, and large single halls surrounded by radiating buildings instead of three-nave structures. The design included additional commercial space with access from the outside street.[17] The market hall was erected between 1883 and 1886, and consisted of two rows of halls on either side of Sennaia Street. An original and pioneering load-bearing structure was used, following Kittner's design, made in the metal factory of St Petersburg by engineers G. E. Pauker and

16. Jelena Borisova, *Russkaja arhitektura vtoroj poloviny XIX vieka*, Moscow, 1979, p. 188.

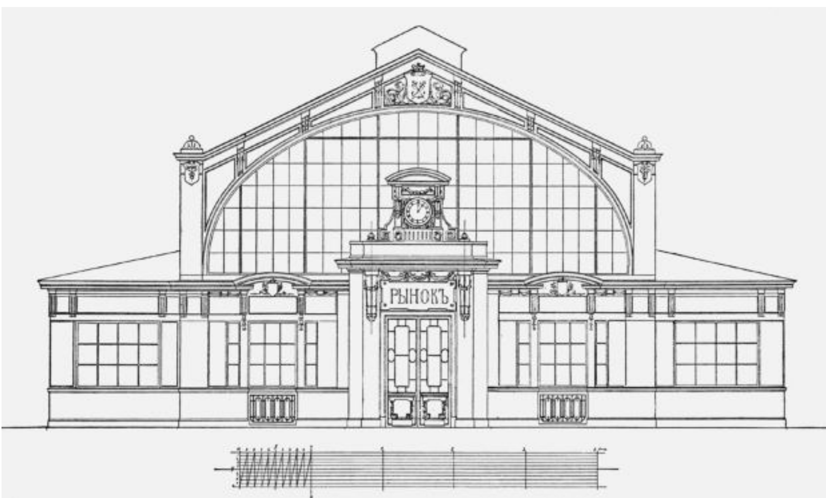
17. Andrej Punin, *Architiekturnyje pamiatniki Pietierburga. Vtoraja polovina XIX veka*, Leningrad, 1981, p. 98-99.



Design for the market on the Old Square, St Petersburg, 1879. Architect: Petr O. Salmanovitsch



Design for the market on the Old Square, St Petersburg, 1879. Architect: Hieronim Kittner



Design for the market at the port in St Petersburg. Architect: Aleksander Montag

O. E. Krel.[18] The roof of the hall was supported by flattened elliptical arches placed on single span columns with no central supports, which allowed for a considerable extension of the commercial area. Furthermore, the builders came up with an ingenious system for erecting the whole construction, which only required scaffolding for building the first of the arches, while the others were placed in vertical position without any other supporting constructions. The aforementioned solution became a model for other buildings in St Petersburg, including the so-called Andreyevskyi Hall built in 1891, designed by Pavel Siuzor, and the remaining market halls in the city, such as the one built in the harbour and designed by Aleksander Montag, had the same scheme of large single halls surrounded by rows of low shops.

In 1876 a market hall designed by Aleksander Nikiforov was built in Moscow, a relatively modest brick building with a rectangular ground plan, covered by a metal roof supported by pillars that delimited the hall's central rectangle. Nevertheless, covered markets did not dominate the landscape of Moscow's marketplaces, where until the early twentieth century the most common type of building were the so-called *torgovye riady* that combined the characteristics of covered passages and shopping arcades. The most famous of these are Vierhnije Torgovye Riady on Red Square (known as GUM during the Communist era) built between 1888 and 1894 following a design by Alexander Pomerancev. This huge commercial building occupies the whole north-eastern frontage of the square, and is composed of three rows of three-storey shopping arcades measuring two hundred and fifty-two metres in length and ninety metres in breadth. The whole building is characteristically Russian in style, and is rich in ornamental details and decorations that evoke the illustrations in Russian fairy tales.[19]

Brick market halls began to appear in Scandinavia in the late eighteen seventies. The most common type had rectangular ground plans, and were fitted with small windows and covered with iron roofs with skylights. One of the first halls, specialised in the meat trade, was Kjøttbasaren, designed by Conrad von der Lippe and erected in the port of Bergen between 1874 and 1875. The brick building, which stood on a stone base and had plastered ornaments in the Romanesque and Renaissance styles, has been preserved to the present day.

18. Borisova, *Russkaja arhitektura vtoroj poloviny XIX vieka*, op. cit., p. 284.

19. Jelena Kiritschenko, *Zwischen Byzanz und Moskau. Der Nationalstil in der russischen Kunst*, Munich, 1991, p. 111.

Meat market in Bergen, 1874-1875. Architect: Conrad von der Lippe

Market halls began to be built in other Scandinavian cities in the eighteen eighties. One of the most interesting was Stockholm's Östermalm market hall; designed by Isak Gustaf Clason and Kasper Salin and erected between 1885 and 1889, it still stands. The market hall was built as a row of halls at the junction between two streets, and therefore the main entrance to the market was on the corner, through a large squat tower placed at an angle. The exterior, Neo-Romanesque in style, was of rough brick. The whole edifice was covered with a light roof structure supported on iron abutments placed at rectangles that sectioned off the central area, surrounded by a slightly lower pedestrian passageway. In Goteborg the first market hall conceived for the fish trade, the Fiskehallen, was built in 1874, designed by Victor von Gegerfelt, and between 1888 and 1889 Victor Adler and Hans Hedlund's design for another hall, the Saluhall, materialised, and was covered by a roof supported on semi-circular arches.

View of the interior of Östermalm Market in Stockholm, 1885-1889. Architects: Isak Gustaf Clason and Kasper Salin

Almost at the same time, in 1889, Wanha Kauppahalli market hall was built in the port of Helsinki, designed by Gustaf Nyström, who provided the building with Neo-Renaissance forms, enlivening them with plaster decoration in bright colours. In 1896 a very similar market hall also designed by Nyström was built in Turku, in the vicinity of the main square. Market halls became part and parcel of the architectural landscape of most large towns in Finland, being erected in Oulu, Tampere and in several districts of Helsinki. The Hietalahti Kauppahalli was built in 1904, designed by Selim Lindqvist, and consisted of a beautiful brick building with a rectangular

View of the exterior of Östermalm Market in Stockholm, 1885-1889. Architects: Isak Gustaf Clason and Kasper Salin

ground plan, semi-circular apse closings on the shorter sides and two entrances in the symmetrical eaves. The details of the building combine Art Nouveau features with elements taken from Finnish Romanticism, the national architectural style of the period. What is interesting is that the roof of the building was not supported by an iron construction, but by an extremely complex wooden structure of the truss system that opened on to the hall. A few years later, Kaarti market hall was erected; designed by Lindqvist, it is no longer extant. The next marketplace to be built in Helsinki was the Hakaniemi. Designed by Karl Hårdaf Segerstad and Einar Flinckenburg, it was completed between 1911 and 1914 as an asymmetrical two-storey building with a reinforced concrete slab ceiling and Art Nouveau exterior decoration that highlighted textural contrasts between the non-plastered red brick and the stone details.

One of the most ambitious projects for creating a complex system of food distribution in cities was set up in Budapest (see the text by Allan Siegel in this volume). It consisted of a central market hall and a few other marketplaces located in different districts. Between the years 1892 and 1896 a large market hall designed by Samu Pecz was constructed next to Fővám tér Square, along with five district market halls, all of which opened the same

Wanha Market, Helsinki, 1889. Architect: Gustaf Nyström

day, 15 February 1897.[20] The central hall had a very neat brick Neo-Gothic exterior, combined with stone and a large number of sculpted elements, and was crowned by a high roof made of multicoloured tiles, a characteristic feature of turn-of-the-century architecture in Budapest. The building's sophisticated shape was no doubt due to the fact that it would stand out among other buildings in the scenic view of the Danube dominated by the Neo-Gothic parliament building.

Prague's first modern market hall, the Staroměstská tržnice, was erected on quite an unusual site in the Old Town, an interior courtyard surrounded on all sides by buildings and the frontage opening on to a four-storey tenement house. Designed by Jindřich Fialk, it was erected in 1893[21] as a functional building, although being as it was deprived of a façade, it didn't really make a mark on the architectural landscape of that part of the city.

So Prague didn't have a large functional marketplace until the beginning of the twentieth century, 1902 to be precise, when Vinohrady Market

20. Nagy, *Market Halls in Budapest: From the Turn of the Century to the Present*, op. cit.

21. Pavel Vlček, *Umělecke pamatky Prahy. Stare město, Josefov*, Prague, 1996, p. 286-287.

Hietalahti Market, Helsinki, 1904. Architect: Selim Lindqvist

Hakaniemi Market, Helsinki, 1911-1914. Architects: Karl Hårdaf Segerstad and Johan Dinar Flinckenburg

Hall was built in the district of the same name, designed by Antonín Turek. This beautiful Neo-Renaissance building has a three-nave interior structure and exterior decoration in plaster with an attractive and well designed façade. The whole building stands on a rusticated base course and the main entrance

is flanked by two columns, crowned at second-floor level by two allegorical sculptures. A thermal window, also divided by two columns, opens in the gable wall, framed by two smaller towers crowned by ornamental domes. During the last renovation the market hall was painted with contrasting colours to highlight the details of this decoration.

In 1908 a new market hall was built in Prague, in the Smichov district. Designed by Alois Čensky, it too had a three-nave structure, and the central area was illuminated by natural light entering from windows in the upper part of the building. The exterior decoration was made of plaster and the rusticated corners were enhanced by Art Nouveau elements.

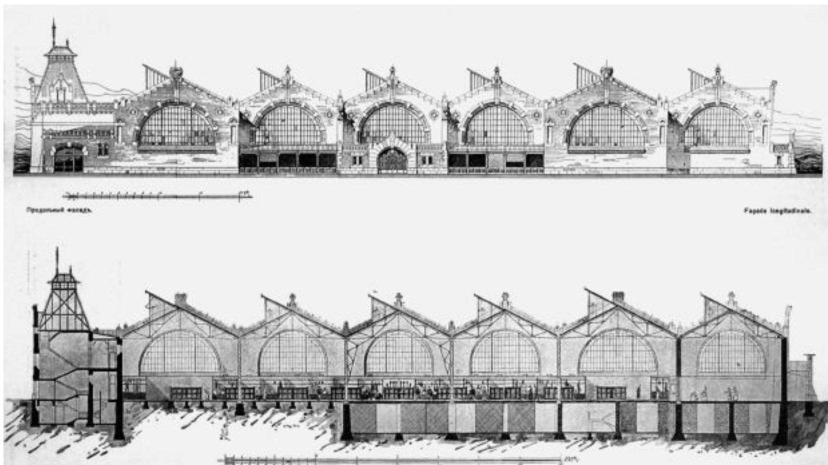
Warsaw was eventually able to build a covered market after long period of building preparations, successive project designs, the quest for financing and adaptation to changes in trade regulations, all of which spanned almost thirty years. The first proposals for a market hall in Warsaw were voiced in the early eighteen seventies, and Józef Orłowski presented his first project in 1877.[22] Initially, the construction was designed to occupy the centre of the main square in the Old Town, the same spot which had welcomed a marketplace since the Middle Ages. Successive designs for different locations were submitted, among others, by Karol Kozłowski and Stefan Szyller, the latter having been inspired by the Russian designs put forward by Kittner and Montag.[23] The plan Szyller submitted for the competition intended to build two market halls on a square in the centre of the city where army barracks had formerly stood. Although the project was not carried out, it became a basis for a new plan drawn up by Bolesław Milkowski and Ludwik Panczakiewicz, which was eventually completed between 1899 and 1902.[24] The Hale Mirowskie consisted of two large square halls with a three-nave structure and additional side annexes which accommodated administrative offices and their with social and technical departments. Both buildings were covered with iron roofs supported by two rows of supports, and the structure of the main hall was a line of three-hinged arches. The exteriors were made of rough bricks and were quite ornate, displaying alcoves in different shapes and friezes with sculpted decoration that included the Warsaw coat of arms and its mermaid, the hat and caduceus of Hermes representing the symbols of trade, and garlands with fruit and plant motifs.

22. Omilanowska, *Swiatynie handlu*, op. cit., p. 144.

23. Ibid., p. 147-153.

24. Ibid., p. 154-162.

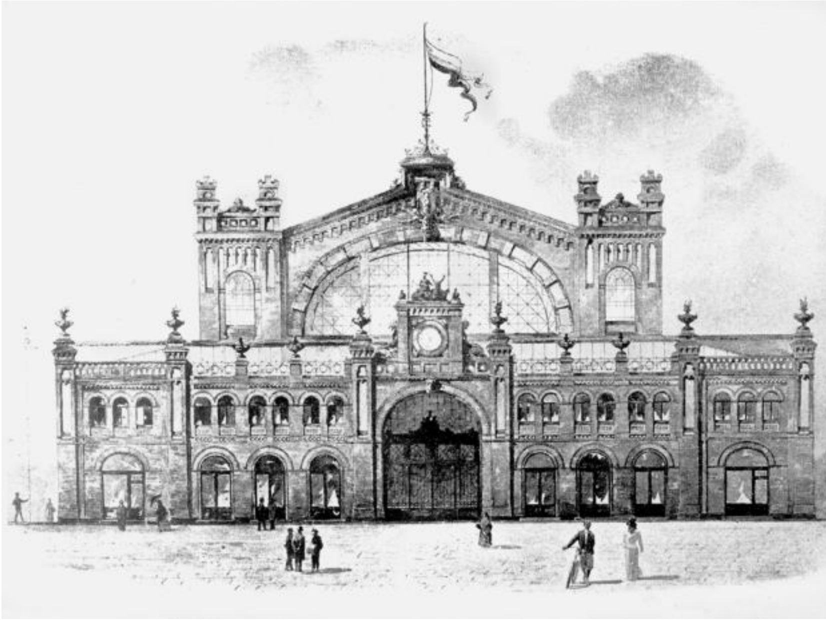
View of the exterior of the market on Kalikst Witkowski Square, Warsaw. Postcard



Elevation of the design for the market hall on Kalikst Witkowski Square, Warsaw, 1904-1908.
Architect: Henryk Gay

In 1904 the second project for a covered market was proposed, on this occasion for a central wholesale market designed by Henryk Gay,[25] construction of which was completed in 1908. It was located on the outskirts of the

25. Ibid., p. 162-169.



Mirowskie Market, Prague, 1899-1902. Architects: Boleslaw Milkowski and Ludwik Panczakiewicz

city centre, not far away from a railway junction and from the western exit of the city through the Kalikst Witkowski square. It was a free-standing, one-nave building covered with a sawtooth roof, held up by a row of supports that divided the interior into six perpendicular 'naves', each of which was designed for a specific type of produce. All the auxiliary functions were located in the front area, which was a ground-floor building with a clock tower that dominated the entire neighbourhood. The façades were made of red brick filled with ornate sculpted decoration by Zygmunt Otto, showing fish, game, baskets of fruit and plant motifs.

The third of Warsaw's covered markets was a district market on Koszykowa Street, completed in 1909. Designed by Juliusz Dzierżanowski,[26] unlike the previous halls it was not built on a free plot of land, but in a row of street buildings, which is why the architect gave it a U shape. The small square in the front granted access to delivery carts and favoured their manoeuvres. The main three-nave commercial hall was parallel to the street and two small perpendicular wings located in the extremes were furnished with ornamented entrances. Despite being a brick building, the façades of the

26. Ibid., p. 169-175.

wings were richly decorated with Art Nouveau elements in stone, also designed by Zygmunt Otto, including interwoven sunflower and apple twigs above the entrances, and bulls' heads bearing the Warsaw coat of arms in the finials. The next market hall to be planned was designed to stand under the bridge over the River Vistula (today known as the Poniatowski Bridge), built between the years 1905 and 1914. This project, however, did not materialise, but a fourth covered market was built in the city during the First World War, once the market hall that had begun to be erected in 1913 on Świętojerska Street had been completed.

With the exception of the covered market on Koszykowa Street, built on a plot bought precisely for this purpose, Warsaw market halls followed the rule that bound the whole of Europe to locating market halls in places traditionally linked to trade. The choice of location for a new market hall did not depend only on tradition and customer habits, but also on access. Some new buildings, however, such as the Mirowskie Hale, required changes in transport arrangements. Admittedly, the place was traditionally related to trade in a large market square, the so-called Za Żelazną Bramą, but as the plot of land had previously welcomed a complex of barracks, the system of connecting roads had to be renewed.

The construction of new covered markets in Warsaw led to a growing interest for this type of building in other Polish cities. Unfortunately, the projects for market halls in Lodz and Lvov stayed only on paper, although in Mlawa a market hall inspired by the Mirowskie Hale was built on a smaller scale. This town, despite being quite small, played a very important role in border trading between Prussia and Russia as the railway line connecting Gdansk with Warsaw passed through it.

A few years after the Mirowskie Hale opened in Warsaw, a market hall was erected in Vilnius, inspired by the Warsaw model and designed by Wacław Minkiewicz.[27] The construction took from 1904 to 1906 and the walls were made of light yellow brick, very characteristic of Vilnius architecture. As regards details and decoration, this hall was more modest than the one in Warsaw, and yet it was practically the same size and had a similar interior layout, with a striking three-nave construction.

Riga's first market hall was not built until the early twentieth century, when it was erected in the Alexandrowski, the city's traditional marketplace. The first project for an elegant Neo-Gothic hall with lacy open framework details was presented by Adam Jensch, although it was not approved for

27. Nijole Lukšionytė-Tolvaišienė, *Istorizmas ir modernas Vilniaus architektūroje*, Vilnius, 2000, p. 83-84.

Vilnius Market, 1904-1906. Architect: Waclaw Minkiewicz

construction. The design had a rectangular ground plan with a basilican structure, iron truss supports and an iron roof. The exterior was to be richly ornate, in the English Neo-Gothic style, with a large number of small towers and other divisions. In 1902, however, the slightly less spectacular project designed by Reinhold Georg Schmäling was completed instead, for an oblong brick building with an iron roof and Neo-Romanesque exterior decoration.[28]

A new brick market hall was built between 1909 and 1910 in Lubawka, a fast growing Baltic port resort. The hall was erected on the site of a former butchery complex in the vicinity of the old square. The new building, with a rectangular ground plan, was made of brick with green clinker and plaster details. It was equipped with an iron roof that had a rectangular skylight in the middle. The exterior was decorated with Art Nouveau ornaments.

As previously explained, the *torgovye riady* model of trade buildings would be a common feature of large cities in the Russian Empire for many years. As a rule, those built in the late nineteenth century were huge commercial complexes, similar to large shopping galleries such as Milan's Vittorio Emanuele II Gallery, although the new complexes also had rows of shops in arcades on higher floors, connected by a network of footbridges and

28. Jānis Krastiņš, Ivars Strautmanis, *Lielais Rigas arhitektūras ceļvedis*, Puse, Riga, 2002, p. 160.

Riga Central Market, 1902. Architect: Reinhold Georg Schmäling

overarching platforms. Similar buildings were also constructed in Odessa, for instance, which welcomed the first brick *torgovye riady* in the early nineteenth century in the city's two main commercial centres, the Novyj Rynok and the Rynok Privoz. They were long buildings with rows of shops preceded by arcades with columns. A few of the oldest classical complexes have been preserved to the present day. By the late nineteenth century, new modern covered markets would be added to these two commercial centres that continued to develop gradually.

The two huge marketplaces in Odessa always had, and still have in fact, a slightly Near Eastern character. Covered markets, shopping arcades, *torgovye riady* and elegant complexes of stalls and temporary stands shared the same large area. In a seeming chaos and a maze of passages, the division of separate commercial areas gave the bazaar very clear and visible sections. The first modern market hall with an iron roof and stunning exteriors was built around the year 1895 on the New Square or Nowy Rynek, designed by Arkadiy Dmitrievich Todorov.[29] The original project was to build a market hall on Torgova Street, along the length of the bazaar between what is known today as Kniazeski Piereulek and Novobazarnyi Piereulek. Two buildings were eventually erected by the exit on Koblevskaya Street, and a space was left for the entrance to the main marketplace located behind the covered markets. The halls had an extended structure with three-nave interiors, three-storey pavilions at the ends and in the corners. Rows of little shops and stalls were placed against the exterior walls of the hall, which were accessible both from the street and the bazaar. The halls' exteriors were decorated in a Neo-Renaissance style, and had many architectural divisions and large semicircular windows in the gable walls.

A few commercial buildings were built at the turn of century in the huge marketplace complex known as Rynok Privoz, located beside railway tracks and the railway station on Privoznaia Street. One of them was a brick market hall covered with an iron roof and a large entrance arcade closed in a semicircle. There was also a large fruit gallery, a detached building composed of two parallel rows of small shops with a roofed passage between them. The fruit hall was built in 1913 following the design of Odessa architect Fyodor Pavlovich.

A large central market hall with a modern iron construction was built in Kiev on Bessarabska Square, which was one of the city's traditional marketplaces. The project had been chosen at an architectural competition held in the spring of 1908. In the beginning the city authorities had planned to build a dozen odd public utility buildings in the square and in its vicinity, although they were not all going to be destined for commerce. As well as the central market hall, the square was supposed to welcome a building with an underground warehouse and a public library on the upper floors. On the neighbouring streets, a market hall for the

29. *Architektura staroj Odessy.* Stoletie Odessy, Odessa, 2007, p. 133-135.

flower trade, three small retail markets, a dining hall and a restaurant, public toilets, a water fountain and covered pavilions for direct trade from delivery carts, were also part of the design.

In the competition held at the end of 1908, the first prize was won by Warsaw architect Henryk Gay, who designed the market hall on Warsaw's Kalikst Witkowski Square.[30] Although most of the buildings planned for the complex did not materialise, the large market hall, the most important of them, was erected in 1912. Gay, when designing the market hall for Kiev, was inspired by the architectural solution adopted for St Madeleine market hall in Brussels, which he had learned of in specialist magazines, or perhaps from the reprint of a monumental Russian publication in several volumes describing world architecture of the second half of the nineteenth century; the second volume of this work was dedicated to commercial buildings and had appeared at the beginning of 1908.[31] The hall had a rectangular ground plan, almost a square in fact, closed in the shape of a semicircle, and its main body was surrounded by shops. The building was made of brick and had decorative elements in plaster and stone. It was covered with an iron roof fitted with skylights, and was based on iron truss supports, which delimited the three-nave structure of the rectangular part of the hall, that smoothly changed into a semicircular shape in the apse closing. The whole building combined a modernist way of composing masses, characteristically Art Nouveau forms for the decoration and mediaeval details. The main entrance was crowned by a bas-relief with fishes and fishing net motifs.

Market halls were also built in the late nineteenth century in the cities on the eastern frontiers of the German Empire. Far from the central government cities of the region, they developed slightly later than those located in the central or western German provinces. The financial means obtained from the war reparation payments contributed greatly to the urban processes in the eastern provinces. Gdansk was one of the cities that only began to grow steadily in the eighteen eighties. It had been one of the finest of the Baltic Sea cities, but during the nineteenth century it had fallen seriously into decline. Gdansk covered market was built in 1896 according to the project developed by the municipal architect Karl

30. 'Competition project for the market hall in Kiev,' *Przegląd Techniczny*, 1908, nr 43, p. 520, tabl. XXIII-XXV.

31. Gawryl Baranovskij, *Architekturnaja Encyklopedia 2. poloviny XIX wieka*, t. II, St Petersburg, 1908, p. 248.

Gdansk Market, 1896. Architects: Otto and Karl Felhaber

Felhaber.[32] It was located in the historical Old Town, in the vicinity of the Dominicans monastery, with a long marketplace tradition that dated back to the Middle Ages. Despite not being near a railway line, it was well connected to the port and the streets leading out of the city, and consisted of a detached building made of red brick with a large number of Neo-Mannerist small columns modelled after Gdansk historical buildings, such as The Great Arsenal, St Catherine's Church and the town hall in the old quarter.

In 1904 a market hall was opened in Bydgoszcz, designed and built by the Berlin building company Paul Boswau and Hermann Knauer, in the Old Town, in the vicinity of the former market square and by the docks of the River Brda. The detached brick building was distinctive for its Neo-Gothic decoration of the exterior around the main entrance, located on the corner of the building. An accentuated, step-like gable was flanked by two cylindrical towers. The central market hall built in Chorzow in 1905

32. Małgorzata Omilanowska, 'The Question of National and Regional Identity on the Example of Polish and German Interpretations of Gdansk Architecture in the 19th and 20th Centuries,' *Acta Historiae Artium* [Hungary], Tomus 49, 2008, p. 222-227.

Bydgoszcz Market, 1904. Paul Boswau and Hermann Knauer

was an extremely elegant large building with a three-nave interior structure and an attractive though eclectic multicolour facade that combined Neo-Renaissance and Neo-Romanesque elements.

Some time later, two market halls were built in Wroclaw (Breslau). These were among the first market halls in Europe to implement modern reinforced concrete structures with parabolic arches. Slightly earlier, in 1904, a project proposing exactly the same constructional solution was put forward for the market hall in Munich, although the latter was not erected until the Wroclaw halls had been completed. Richard Plüddemann designed two similar buildings that had, however, different structural shapes and combined features from defensive architecture with Art Nouveau elements. The bold parabolic structures of reinforced concrete in the roofs were designed by Friedrich August Küster.[33]

The tendency to provide the market halls with more refined forms, which is obvious in the buildings erected in the early twentieth century, also appeared in Bulgaria, especially in the elegant neighbourhoods of Sofia,

33. Agnieszka Gryglewska, *Architektura Wrocławia XIX-XX wieku w twórczości Richarda Plüddemanna*, Wrocław, 1999, p. 210-215.

Wroclaw (Breslau) Market, ca. 1904

where they were provided with architectural forms considered to represent a national style. The Central Sofia Market Hall, Tsentralni sofijski Hali (also called Halite), close to Maria Luiza Boulevard, was designed by Naum Torbov and built between 1909 and 1911.[34] Its location was quite unusual, as it was near a synagogue and a large mineral baths by Petka Momtschilov. Although Torbov designed the hall in the Neo-Byzantine style that was considered the national style of Bulgaria, the market was in keeping with its surrounding buildings.[35]

The history of the construction of covered markets in the cities of Central and Eastern Europe by no means ended with World War I, and they continued to be erected throughout the interwar period. As a rule, they were reinforced concrete buildings supported by bold structures with parabolic arches, although arches and iron girders were also commonly used as supports. Such was the case of Katowice Market, for instance, built in the years

34. Nikolaj Trufesev, *Sintez na architekturata s monumentalnite izkustwa w Blgarija, w: Iz Istorijata na blgarskoto izobrazitelno izkustwo*, v. 2: 1878-1918, Aleksandar Obretenov, Sofia, 1984, p. 146-214, 154-155.

35. Stefan K. Bojadziev *et. al., Blgarskata architektura prez vekovete*, Sofia, 1892, p. 201.

1935-1936, with a structure designed by Stefan Bryła and an architectural shape by Lucjan Sikorski and Jan Zarzycki. The market hall built between 1935 and 1938 in Gdynia is an extraordinary example of Constructivism, a masterpiece by Jerzy Müller and Stefan Reychman[36] that has been preserved to the present day. This complex comprised two halls, one for fruit and vegetables and the other for meat produce, joined together in an L- shape structure, and a third hall for fish, which was separate. The fruit and vegetable hall is the most original feature of the entire complex, covered with a parabolic roof based on nine iron two-hinged arches with ceramic rivets, as in the Förster system. The meat hall, covered with an almost flat gable roof, supported by a two-hinged roof truss, formed a sharp contrast with the fruit and vegetable hall and, in its turn, the fish hall had an iron roof supported by reinforced concrete pillars.

One of the largest market-hall complexes in Europe was built in Riga, taking elements from the hangars that had housed Zeppelins during World War I and were moved to the city and located on the bank of the river, close to a railway line.[37] As a result, a complex of five huge connected halls supported by reinforced concrete arches was built between 1924 and 1930, designed by Pāvil Dreijmanis, Pāvil Pavlov, Vasilij Isajev and Georg Tolstoj.

The market halls built in Romania in late nineteen thirties are interesting from an architectural point of view. The dynamic growth of Bucharest after 1935 resulted in a few new initiatives for commercial buildings. A modern functional district market hall was planned for the Domenii district, designed by Nicu Georgescu, and a complex of wholesale halls was planned for the Obor district. The first projects for these, designed by Octav Doicescu in 1937, were rejected in the second phase of work, and a prominent architect of the modern movement, Horia Creangă, was commissioned new projects in 1937.[38] His visionary design did not materialise, however, and the idea of building the halls in the Obor district only resurfaced in 1942, when a smaller project was conceived by Creangă in collaboration with Haralamb Georgescu. The construction lasted until 1950, led at first by Creanga and after his death by Georgescu, but when the latter moved to the United States the building was completed by Ilie Teodorescu

36. Omilanowska, *Świątynie handlu*, op. cit., p. 195.

37. J. Krastiņš, I. Strautmanis, J. Dripe, *Latvijas Arhitektūra no senatnes līdz mūsdienām*, Riga, 1998, p. 163.

38. Luminiţa Machedon, Ernie Scoffham, *Romanian Modernism. The Architecture of Bucharest, 1920-1940*, Cambridge, London, 1999, p. 267-268.

and Gheorghe Trifu. Obor Market Hall is an exceptional example of sober functionalism. The mass of the hall is a pure cuboid, crowned by a geometrical open attic structure. The spacious interior was lit by rectangular windows and decorated with a monumental mosaic. The market hall built in Ploiesti had a reinforced concrete structure. The central part of its commercial area was covered by a dome designed by Tom Socolescu and the engineer Zalinger.[39]

In the context of architecture of the nineteen forties, an extraordinary building designed by Jože Plečnik and erected in Ljubljana between the years 1940 and 1944 must be mentioned.[40] Its beautiful structure, a two-storey building on the River Ljubljanica, evokes defensive buildings and Renaissance shopping arcades. On the Vodnikov and Pogačarjev squares, its frontage displays a sober classical colonnade. Small shops are found on the top floor and a fish market is housed on the ground floor.

Covered markets were an investment and played an important social role. They were often not profitable, but they contributed to raising the standard of living of citizens in metropolises. They served everyone and fulfilled the basic human need for food. They created urban spaces for the lower social strata: market traders, cooks, housemaids and housewives. They were meeting points between a town and its countryside, traders and producers, suppliers, carriers and sellers. In some cities, such as Warsaw or Vilnius, they became meeting points between two cultures, that of the Jewish stallholders, who dominated the trade, and that of their Christian clients.

New types of commercial buildings in nineteenth-century architecture adapted to the needs of big cities and were considered by their contemporary societies as a synonym of progress. The construction of this type of building was considered proof that a town had reached the status of a metropolis. Market halls were as indispensable in a large city as a sewage system, waterworks, trams or municipal slaughterhouses.

The architecture of covered markets is characterised by a wide range of styles and their variants, as it depended on local conditions and on trends and tendencies that changed over time. As a rule, market halls had exteriors made of non-plastered or rough brick, that binding rules of the nineteenth century associated with utility buildings. This does not mean, however, that architects gave up their ambitions to come up with interesting

39. Grigore Ionesco, *Histoire de l'architecture en Roumanie*, Bucarest, 1972, p. 471.

40. Aleksander Baskin, Branko Cvetkovic, *Ljubljanke trznice architekta Jozefa Plecnika / The Market in Ljubljana Designed by the Architect Joze Plemnik*, Ljubljana, 1996.

and original designs, which were often based on local building traditions. Special attention was paid to creating the main volume and the decoration of halls, which were usually close to cities' historical monuments or representative buildings. The market halls in Sofia, for instance, were stylistically adapted from the beautiful Neo-Byzantine baths, and the central marketplace at Fővám tér in Budapest, with its neatly ornamented elevations and multicolour roofs covered with glazed roof tiles, merged perfectly well into the panorama offered by the Danube riverside. The market hall in Gdansk, decorated with numerous Neo-Mannerist towers, was built in the Old Town, close to the Gothic Dominican church and to many buildings in the Mannerist style, such as the tower of St Catherine's church and the town hall in the old historical quarter. The covered markets built in new districts often adapted their forms to the style of their surroundings; such was the case of the market hall on Koszykowa Street in Warsaw, the exterior of which was ornate with Art Nouveau stone sculptures.

Most market halls also presented sculpted or painted decorations, that were interesting in iconographic terms, for they depicted motifs related to trade and foodstuffs. These decorations were sometimes allegories of trade, such as the figure of Mercury or his attributes, and at others were bunches of flowers and vegetables, piles of fruit, seafood and game. Heraldic elements related to coats of arms of the city in which a given market hall had been erected also appeared frequently.

The importance market halls in the processes of urban development depended to a large extent on the economic potential of the city in question and on the type of hall to be built. In this sense, the most significant role was played by central wholesale markets, for they required extensive commercial space and the best communication networks, i.e., access to outside transport (usually by railway, but also by road and water), not to mention good transport connections within cities. So, new access roads were opened around market halls, and new streets and tramlines were built. Broadly speaking, covered markets became the core of their commercial districts, attracting traders from different urban areas. Surrounded by swarms of traders and clients, they were not only the 'bellies of cities', but to a certain extent their hearts. They were also an inspiration for artists and writers, who often situated the plots of their novels in these locations. Painters loved to immortalise the colourful whirl of traders and the fairy-tale world of the goods they offered.[41]

41. Małgorzata Omilanowska, 'Commercial Architecture in the Cultural Landscape of Nineteenth-Century Warsaw,' in Peter Martyn (ed.), *The City in Art*, Warsaw, 2007, p. 115-125.

The number of market halls that continue to fulfil their primeval function is dropping steadily. Those that have survived the turmoil of wars and the wave of demolitions of nineteenth-century architecture are likely to have lost their primeval function. Today they often embrace luxury shops and supermarkets, or else have been converted into cultural centres and exhibition halls, and very seldom are the backdrop for the food trade that they were in the times when dealers in different delicacies met their loyal clients in stalls and stands at daybreak.

Lessons from Europe: Public Market Reform in The United States During the Progressive Era, 1894-1922

Helen Tangires

In 1913, municipal leaders from cities throughout the United States gathered in Philadelphia, Pennsylvania, for a symposium sponsored by the American Academy of Political and Social Sciences on the topic of reducing high food prices through improved public markets.[1] Dr. Clyde Lyndon King, editor of the proceedings and professor at the Wharton School of Finance and Commerce, pointed out that in 1910 American cities spent two dollars on cemeteries to one dollar on markets, 'more, that is, on resting places for the dead than on food buying facilities for the living.' Urban prosperity, he argued, depended on productive farmland combined with municipal markets for local produce—a combination one could find in Munich, where twenty-five per cent of the city's meat came from neighbouring farms. King also argued that urban prosperity in the United States would depend on well-administered wholesale terminal markets, which were already 'characteristic of every European city,' with specific mention of Budapest, Prague, Le Havre, Lyons, Brussels, London and Paris. The wholesale terminal market, according to King, was a reliable and cost-effective clearing place for local and imported produce, thus ensuring a year-round market for fresh food.[2] Representing Germany at the symposium was Dr. Willy Levin, member of the city council in Frankfurt. Speaking before his American audience, Levin stated that without question cities should 'provide and find means to secure the supply of provisions,' by which he meant that they should build public market halls for the wholesale trade in perishable food.[3] On behalf of the

1. Clyde Lyndon King (ed.), *Reducing the Cost of Food Distribution*, Annals of the American Academy of Political and Social Science, vol. 50 (Philadelphia, 1913). See also Helen Tangires, 'Feeding the Cities: Public Markets and Municipal Reform in the Progressive Era,' *Prologue: Quarterly of the National Archives and Records Administration*, vol. 29 (Spring 1997), p. 16-26.

2. Clyde Lyndon King, 'Municipal Markets,' in King (ed.), *Reducing the Cost of Food Distribution*, op. cit., p. 102-117.

3. Stadtrat D. Levin [*sic*], 'Wholesale Terminal Markets in Germany and Their Effect on Food Costs and Conservation,' in King (ed.), *Reducing the Cost of Food Distribution*, op. cit., p. 153-165. Dr. Jur. Willy Levin (1860-1929) was a magistrate for the city of Frankfurt, Germany, from 1895-1919, as well as vice-chairman of the Committee on the Development of Markets and the Commission of Food Supply. I wish to thank Ute Schumacher, archivist at the Institut für Stadtgeschichte in Frankfurt, for Levin's identification and dates.

United States Department of Agriculture was Dr. Charles J. Brand, chief of the department's newly-established Office of Markets. Brand declared that it was time for the federal government to take steps to improve the complex commercial organism through which crops passed from producer to consumer. The United States, Brand argued, should adopt a cooperative system, which was already operating successfully in Europe, notably in 'Denmark, Ireland, Holland, Germany and other European states.' Dozens of other speakers, including academics, landscape architects, government officials, city planners, transport officials and consumer advocacy groups, made reference to the exceptional food markets and marketing systems in Europe.

This symposium represented a microcosm of the Progressive era, the period of reform in the United States that lasted from the eighteen nineties into the nineteen twenties, and which was driven by a shared belief in man's ability to improve living conditions in an urban-industrial society. Affordable healthy food, among other items high on the public agenda, would require cooperation and efficiency, the advice of experts, and government intervention in economic and social affairs.

Why had urban food marketing and distribution, traditionally the role of city government, become a topic of national and international debate? Despite the impending predominance of grocery stores, municipal reformers believed that public markets could play a vital role in feeding the cities in the new, twentieth century. They valued the public market system for its efficiency and equity, and rather than abandon the system, they looked to Europe for ways to improve it.

This essay will explore the persistent view in the United States that public markets in Europe were superior to those at home—a view that reached national proportions in the early decades of the twentieth century. The superiority of European markets was expressed in terms of their organisation and oversight, access to major transport systems, solid and technically advanced architecture, elaborate meat inspection system, frequent auctions, wholesale price reporting, accommodation of street vendors and open-air marketing and coordination of central markets with municipal slaughterhouses and livestock markets. The lessons from Europe were drawn from a variety of sources ranging from consular reports, sample market regulations and government documents, to newspapers, books and popular magazines.[4] These sources consistently upheld European markets as models—a view that contradicted

4. Travellers' accounts and official reports on markets in Spain during this period were noticeably absent, probably owing to the Spanish-American War of 1898.

claims of American exceptionalism, the belief that the United States differed qualitatively from other nations. The notion that the United States could learn from Europe—at least with respect to food marketing—had historical roots, but its greatest effect occurred during the Progressive era, when American cities suffered from high food prices, traffic congestion around marketplaces and dilapidated, unsanitary public markets. Federal, state and local government got involved in market reform in unprecedented ways, and to an extent that has not been equalled since.

The History of Public Markets in the United States

The historical precedent of the public market system in the United States explains why believers in good government at the beginning of the twentieth century valued public markets and looked to Europe for inspiration. The American system was deeply rooted in English and Continental common law, customs and practices. Public markets in the United States, like their European counterparts, were critical to the economic survival of a city because waste or excessive competition could mean poverty and hunger for the community. Following this tradition, municipalities in the new nation provided public space and extra wide streets for markets, built sheds for the protection of buyers and sellers and established precise rules of commercial conduct in the form of market laws.[5]

Throughout the nineteenth century cities appointed market clerks to supervise public markets and to protect consumers from spoiled food and merchandise that did not meet standard weights and measures. Revenues from stall rentals supported relief funds for the poor, and market clerks donated confiscated food products that were deficient in weight or measure to poor houses and asylums. Market hours accommodated the various social classes, for at the opening of the market prices were higher, when middle-class patrons made their purchases. At the end of the day, the poorer classes filled the market, when merchants reduced prices and when the city permitted the elderly, widowed or handicapped to sell small items from empty stalls. The notion that government was responsible for food retailing was reinforced by the location of markets either near—or on the ground floor of—the town hall. The proximity of markets to the local authority had been a European tradition since the Middle Ages, when the king, the church or local government regulated the urban economy.[6]

5. Helen Tangires, *Public Markets and Civic Culture in Nineteenth-Century America*, Johns Hopkins University Press, Baltimore and London, 2003, p. 3-14.

6. Ibid., p. 14-25.

Faneuil Hall Market, Boston, 1823-1826

During the first half of the nineteenth century cities throughout the United States built market houses, often at great public expense, in order to satisfy a growing urban populace. Highly celebrated was Faneuil Hall Market in Boston, Massachusetts, built under the direction of Mayor Josiah Quincy in 1823–1826 at a cost of one million dollars in public funds. The new market house provided larger facilities for merchants and customers who had outgrown the old market on the ground floor of Faneuil Hall—the town hall across the street. Market houses were objects of city pride and praised not only for their architectural merit but also for their ability to contain a city's food marketing under a single roof.[7]

Faneuil Hall Market, however, was atypical in terms of its physical size and large public investment, for the majority of market structures in the United States, particularly in the first half of the nineteenth century, were simple free-standing sheds in the middle of a street or public square. This market type had been a standard form since the colonial period and was consistently found throughout England and continental Europe. Bays, arches or colonnades made of stout timber, stone or brick supported a low-pitched gable roof over an open floor space. Builders occasionally added

7. Ibid., p. 40-42. For the history of Faneuil Hall Market, see John Quincy, Jr., *Quincy's Market: A Boston Landmark*, Northeastern University Press, Boston, 2003. Faneuil Hall Market was renovated in 1976 and converted into a tourist-oriented shopping centre.

Louisville Market

wide projecting eaves to increase selling space. Sheds provided minimal protection from inclement weather for the least cost; they did not require an architect and they were quick to build in comparison with more substantial structures. In some cases they were built over time as a series of sheds, separated for cross traffic and by food type. In part, the shed was popular because builders were familiar with a modular bay system to achieve the desired building length for structures like barns and churches. In addition, the shed's multiple entrances made the market easily accessible to patrons, its openness promoted air circulation and facilitated the loading and unloading of goods and it was easy to wash down at the end of a market day.[8]

The urban landscape changed significantly in the second half of the nineteenth century, as local and state government deregulated the public market system. Many cities, for example, had adopted the radical innovation of permitting butchers to operate their own meat shops under license rather than in the mandated public markets, as was customary. Moreover, in the late eighteen fifties legislators in the United States began to extend

8. Ibid., p. 34-47. For more on the history of the shed, as well as other market types, see Helen Tangires, *Public Markets*, Norton/Library of Congress Visual Sourcebooks in Architecture, Design, and Engineering, W. W. Norton, New York and London, 2008. For the development of market sheds in England and France, see James Schmiechen and Kenneth Carls, *The British Market Hall: A Social and Architectural History,* Yale University Press, New Haven and London, 1999, esp. p. 61-94; and Gilles-Henry Bailly and Philippe Laurent, *La France des Halles & Marchés,* Éditions Privat, Toulouse, 1998.

corporation privileges on a large scale to merchants and investors who wanted to build and manage their own market houses. These private market houses, sometimes referred to as 'food department stores', were impressive structures indeed. With their legal authority to issue stock, market companies raised the initial capital to afford the latest innovations in building construction, lighting, refrigeration and ventilation, with wide aisles and lavish stalls. In Philadelphia, birthplace of the market-house-company mania, twenty market companies were incorporated between 1858 and 1861, and by the end of the century there were hundreds more throughout the United States.[9] Paradoxically, the movement to privatise market houses in the United States coincided with the opposite phenomenon in Britain, where the Local Government acts of 1858 and 1875 broadened municipal power to construct, purchase and regulate markets formerly held by market commissions, trusts and manorial owners.[10]

The licensing of meat shops and the proliferation of market-house companies forced the question still asked today—why should government be involved at all in providing markets for the sale of fresh food, when private enterprise could do it? This question generated a heated debate in New York City, where market-house companies challenged a public market system that was entrenched in the city's landscape and municipal culture. In 1872, for example, the Manhattan Market, funded entirely by private investors, opened uptown to the dismay of city officials. The imposing brick, iron and stone structure capped by a series of graceful turrets had an interior floor space of 15,000 square metres that could accommodate up to one thousand wholesale and retail dealers. Twenty entrances provided access to a grand interior hall that was illuminated by one hundred windows and a central dome. An ornate vestibule with an iron staircase led to company offices on the second floor, restaurants were located at each end of the building, and there was an ice cellar underneath the market's eastern end. Thomas F. De Voe, the city's superintendent of public markets, opposed the private venture because he believed that it was more practical in the long term to channel funds to repair and upgrade the existing municipal markets downtown. Another opponent of the market company was Andrew H. Green, the city comptroller, who preferred that the city build an uptown market hall modelled on the grand market houses of London and Paris. One year after the opening, in 1873,

9. Tangires, *Public Markets* (2003), op. cit., p. 95-117. Examples of private market houses in Pennsylvania from this era that are still in use are Central Market in York and Broad Street Market in Harrisburg.

10. Schmiechen and Carls, *The British Market Hall*, op. cit., p. 40, 157-158.

Manhattan Market, 1872

Paul J. Armour, president of the Manhattan Market Company, wrote a letter to the Editor of *The New York Times*, declaring that 'public markets under Municipal rule are a failure, and must give way to Boston private enterprise such as the Manhattan Market Company has demonstrated in the erection of their magnificent building, to which Mr. Green never refers, and entirely ignores, never having seen it himself, and going to England and France for patterns to our people.' Not surprisingly, Armour promoted the popular myth that uptown residents were better off shopping at private market houses nearby than at the downtown city-owned markets.[11]

11. Tangires, *Public Markets* (2003), op. cit., p. 140-143; Editorial, *The New York Times*, 26 March, 1873. The Manhattan Market failed to sustain any business and the acclaimed fireproof building burned in 1879.

Public markets at the end of the nineteenth century, however, were not just targets of capitalist hyperbole, for the entire system was indeed in a crisis. They competed not only with private market houses but also with suburban grocery stores, which gave consumers an alternative to travelling downtown to buy food.[12] Likewise, commission merchants took advantage of improved railways to purchase produce directly from farmers, thus taking away some of the wholesale business typically carried on at the public markets. In addition to competition, public markets suffered from shifting populations and physical deterioration. As Deputy Controller Levey of New York City said in 1899, public markets had been a feature of the city government since its founding, but it was time to 'go out of the public market business.'[13]

Reform of public markets, not their abandonment, remained a hopeful cause among people who considered it an *American* problem, claiming that no market in the nation compared with the magnificent ones in Europe, such as London's Smithfield Market or Les Halles in Paris. In 1909 a writer for the *Atlantic Monthly* magazine declared that neither Fulton Market nor Washington Market in New York, nor Faneuil Hall Market in Boston, were in the same class with 'the great modern markets of the European capitals.'[14] An 1891 report of England's Royal Commission on Market Rights and Tolls also noted the poor condition of American public markets—attributing their demise to the absence of government control. Regarding a public market *system*, from the British point of view there was no system in the United States.[15]

The Beginning of Reform

Bad times for public markets in the United States coincided, not surprisingly, with the 'Dark Ages' of American municipal history, from 1865 to 1895, when municipal government was characterised by disintegration, corruption, waste and inefficiency. The problems associated with tremendous physical growth, lack of competent public officials and administrators, and corruption were not confined to the town councils. The situation was also manifested in the marketplaces, neighbourhoods and other institutions of

12. For a history of the grocery store see James M. Mayo, *The American Grocery Store: The Business Evolution of an Architectural Space*, Greenwood Press, Westport, Connecticut, 1993.

13. 'Talk of Selling Markets,' *The Brooklyn Daily Eagle*, vol. 59, no. 352 (21 December, 1899), p. 1.

14. Hollis Godfrey, 'The Food of the City Worker,' *Atlantic Monthly*, vol. 103 (February 1909), p. 272.

15. Royal Commission on Market Rights and Tolls, *Final Report of the Commissioners*, vol. 11, Eyre and Spottiswoode, London, 1891, p. 17.

South Second Street Market, Philadelphia

daily life. In 1894, when the National Municipal League organised and united various city reform groups, the market problem was high on its reform agenda. Public markets, as the centres of city life, were highly visible places where the urban problems of traffic congestion, sanitation and physical deterioration converged. Few people, even those who shopped for food elsewhere, could venture through the city without encountering them. Public markets were everyone's business and important 'thermometers' from which to gauge a city's health and well-being.[16]

Even though grocery stores and other food marketing outlets offered options to consumers, most people could still not imagine a society without public markets. When a committee of the National Municipal League drafted its Municipal Program of 1897, it continued to recognise the right of cities to establish, maintain and regulate markets.[17] In 1907 Don E. Mowry, a contributor to *Municipal Journal and Engineer*, explained that 'the market is, from the standpoint of economics and society, a necessity,' because by

16. Frank Mann Stewart, *A Half Century of Municipal Reform: The History of the National Municipal League*, Greenwood Press, Westport, Connecticut, 1950/1972, p. 10, 26.

17. Ibid., p. 33.

bringing together producer and consumer it keeps down the cost of food. Practically all municipalities in continental Europe had monopolised market rights with favourable results, for they could regulate the food supply for the benefit of the public during times of need. Mowry considered Paris to possess the best markets in the world with respect to sanitation and the availability of live fish. Berlin was another model, having followed Paris by establishing a system of well-regulated municipal markets. The markets of London, however, were 'in a very bad way' due to the custom of giving exclusive rights for markets to individuals, thus making it difficult to create a central market in the capital. Still worse, however, according to Mowry, were public markets in the United States, a symptom of persistent 'laissez-faire policy with respect to questions which affect the future interests of the city,' such as food supply.[18] J. F. Carter, secretary of the Chamber of Commerce of San Antonio, Texas, also argued that markets owned and regulated by the municipality were necessary because they lowered the cost of living. Carter prayed for a 'genius who will weld the producers of food into one great association, and who will then operate public markets in every city.' Municipal reformers, therefore, valued public markets and fought valiantly to eliminate the problems that threatened their survival.[19]

Women took a particular interest in the improvement of public markets, such as the four members of the Chautauqua society who sponsored a symposium on the topic in 1896. They praised the artistic arrangement of fruits and flowers at Lexington Market in Baltimore, Maryland, but scoffed at the market buildings in San Francisco, California, with their ceilings 'artistically festooned with cobwebs … floors a mosaic of soggy sawdust … and enough vegetables wasted every day to make free soup for the city's entire poor.' They also noted the lack of tasteful displays and artistic decoration of booths at Boston's Faneuil Hall Market, which needed a more feminine touch.[20] Women were also encouraged to adopt the shopping practices of the European housewife. In Europe, 'the housekeeper does not do her marketing over the telephone, neither does the maid get a chance to flirt with the grocery clerk or butcher's boy … . No, indeed. The European housewife

18. Don E. Mowry, 'Municipal Markets: An Economic Necessity,' *Municipal Journal and Engineer* (23 October, 1907), p. 462.

19. J. F. Carter, 'Public Markets and Marketing Methods,' *The American City*, vol. 8, no. 2, 1913, p. 124.

20. Mary L. Lincoln et al., 'A Symposium—The Markets of Some Great Cities,' *The Chautauquan*, vol. 24 (December 1896), p. 332-335. Chautauqua is an adult education movement that was highly popular in the late nineteenth and early twentieth centuries.

goes to market in person, she carefully inspects the stock in trade, she goes from one stall to another, and buys wherever she can get the most quality and quantity for her money.' Unlike the American housewife, her European counterpart was not afraid to go to the market, haggle over prices or monitor the salesperson, nor was she ashamed of carrying home her goods.[21]

The 1910 Consular Reports from Europe

Responding to the American appetite for knowledge about public markets in Europe was a special consular report, *Municipal Markets and Slaughterhouses in Europe*, issued by the United States Department of Commerce and Labor in 1910. It featured extensive details on the administration, physical characteristics, principal goods for sale and chief features of the laws and regulations governing municipal markets, in Austria-Hungary, Belgium, France, Germany, the Netherlands and the United Kingdom. The reports were prepared by American consular officers at the request of the Department of Commerce and Labor, 'in order that the Department might answer numerous inquiries received for information regarding the character and management of such institutions abroad.'[22]

The consular reports consistently praised the municipal markets in the thirty-three European cities and towns represented. The consul-general in Budapest, for example, reported that the large central market and its six branch markets were 'placed under control of a municipal commission and are governed by a set of regulations admirably adapted to develop the highest degree of hygiene and efficiency.' He was also 'struck with their cleanliness and order, and the absence of noise and confusion which are so often found in many of the markets of the great cities of Europe and America.' The report from Vienna described the city's forty open-air market places and seven enclosed market buildings, the latter being 'very large, well ventilated halls with stone floors, and are kept scrupulously clean.' The Paris report confirmed the city's long-standing international reputation for fine markets. Namely, 'the system of public markets through which the people of the French metropolis are supplied with meats, poultry, fish, game, vegetables,

21. Antonia J. Stemple, 'Markets of the Old World,' *American Cookery*, vol. 19, no. 6 (January 1915), p. 441-444. Stemple based her comments on visits to markets in England, France, Germany and Italy.

22. United States Department of Commerce and Labor, Bureau of Manufactures, *Municipal Markets and Slaughterhouses in Europe*, Special Consular Reports, vol. 42, part 3 (Washington, D.C., 1910), quote from page 5. The section on municipal slaughterhouses included reports from Austria-Hungary, Belgium, France, Germany, Italy, Russia, Switzerland and the United Kingdom.

fruits, and other fresh-food materials, is one of the most extensive and carefully administered institutions of its kind in Europe.'[23]

Anyone familiar with the American public market system at the time of this report would have been struck by the centralised oversight of markets at the uppermost levels of local government in Europe. In contrast to New York City where markets fell under the control of seven different departments, making coordination and accountability difficult, Berlin's fourteen municipal markets were in the hands of the municipal market hall deputation, composed of five members of the city council and ten select men. This body exercises general control over the market halls and buildings connected therewith, fixes and collects all rentals, appoints and installs, in conjunction with the city council, the principal managing officials in the system, and appoints the municipal sales commissioners, brokers, and auctioneers, as well as fixes the regulations by which these are bound. The immediate control and management of all market halls is in the hands of a managing director, subject to whom are eight inspectors distributed among the fourteen halls. Each hall also has an overseer, doorkeeper, a watchman, besides helpers to these, and a limited number of mechanics of the various trades. Furthermore there are about 150 employees for the janitor work, etc., in connection with the various halls.[24]

Equally full of praise were several consular reports from the United Kingdom, such as the one from Birmingham, whose municipal markets were 'admirably administered in every detail, and a source of considerable profit after all expenses of management of interest on the debt incurred to build them, and of a sinking fund to redeem that debt have been met. Excellent facilities are provided for all market purposes, and the markets are one of the prides of this great industrial center.' Glasgow was admired for its solid, stone market buildings that were 'in keeping with the buildings in general throughout the city.' The consul-general in Glasgow also reported that the management and control of market property and affairs were 'of the high order for which the corporation is noted.'[25]

A Model Market System for the United States

The country's 'market problem', fuelled by reports of successful markets in Europe, prompted the United States Department of Agriculture (USDA) to

23. Ibid., p. 7, 10, 34.
24. Ibid., p. 37-38.
25. Ibid., p. 54, 86.

establish the Office of Markets in May 1913. The primary goal of the new agency was to develop a model market system for American cities interested in establishing more economical and efficient marketing facilities.[26] Public support for the Office of Markets came from several directions. First, farmers hoped that the federal government would eliminate the middlemen, the commission merchants whom they accused of taking a disproportionately large share of the food profits. Second, housewives hoped that a model system would improve sanitary conditions at the markets. Third, municipalities looked to the federal government for national standards for building market facilities.

Federal involvement in food marketing in the United States was inconceivable before the Pure Food and Drugs Act of 1906, one of the great achievements of the Progressive era. Dr. Harvey W. Wiley, Chief of the USDA's Bureau of Chemistry, enforced the Act with squads of inspectors who policed the food and drug marketplace, collected specimens and studied them for adulteration or misbranding. Indeed, by 1913 the food consumed by Americans had become an affair 'of state'.[27]

The USDA established the Office of Markets following the precedent for government intervention in the food and drug marketplace, chose a moderate approach to reform by proposing a model market system that promoted cooperation between public and private enterprise. Its philosophy held that pure food standards in the slaughterhouses would be futile if butchers at the market failed to provide adequate refrigeration for their meats. The regulation of chemicals used to preserve food in storage and in transit would be ineffectual if produce was then subjected to hazardous preservatives for the benefit of marketing displays. Likewise, effort to assure pure food at the dinner table would be in vain without sanitary markets, the hygienic handling of food or efficient transportation of food to and from the market.[28]

Public support for the Office of Markets was immediate. In June 1913 Cyrus Miller, President of the Bronx (the northernmost borough of New York City), addressed the New York State Conference of Mayors and announced that finally the federal government was giving attention to food

26. 'Program of Work for Fiscal Year 1919,' in Record Group 83, Bureau of Agricultural Economics, City Marketing and Distribution Project, entry 11, box 1, National Archives. The source for other items in these Project records will be cited hereafter in this essay as RG 83, CMDP.

27. James Harvey Young, *Pure Food: Securing the Federal Food and Drugs Act of 1906,* Princeton University Press, Princeton, New Jersey, 1989. See also Morton Keller, *Affairs of State: Public Life in Late Nineteenth Century America*, Harvard University Press, Cambridge, Massachusetts, 1977.

28. Brand, 'The Office of Markets,' p. 252-259.

marketing, having established the Office of Markets just a few days before.[29] The most important activity of the Office of Markets and one that began immediately was its programme of on-site market surveys and investigations. George Verne Branch was the first chief marketing investigator, and he was joined by key staff members Miss Achsah Lippincott, market investigator, and Mr. R. Mc C. Beanfield, a structural engineer.

Branch and his team from Washington travelled across the United States to study urban food marketing and distribution and provided cities with recommendations for new or improved marketing facilities depending upon the size of the city and local conditions. From 1914 to 1918 they completed surveys in Battle Creek, Jackson, Kalamazoo, Ludington, Manistee and Muskegon, Michigan; Chicago, Illinois; Cincinnati and Cleveland, Ohio; Colorado Springs and Denver, Colorado; Hartford, Connecticut; Huntington, West Virginia; Jersey City and Trenton, New Jersey; Lynchburg, Virginia; Memphis, Tennessee; Oil City, Philadelphia, and Wilkes-Barre, Pennsylvania; Providence, Rhode Island; Rochester, New York; St. Louis, Missouri; Salt Lake City, Utah; and Washington, DC.[30]

Their market surveys were based on the new principles of scientific management, in which food marketing and distribution were broken down into small components in order to isolate the problems. USDA staff took advantage of the burgeoning field of documentary photography by capturing on film images of the most extreme cases of unsanitary market buildings, congestion around the marketplace and improper methods of shipping perishable produce. Other photographs traced the journey of food products from the farm to the consumer, in order to identify sources of waste and to record unnecessary steps in handling. They also photographed the problems associated with non-standard baskets and crates, the hoarding of food products, the 'evils' of the credit system and telephone ordering, and poor accounting practices particularly among wholesale fruit distributors. Investigators also produced the earliest known documentary films of urban food marketing and distribution in the United States. The film, *To Market! To Market!*, neatly summarised the agency's model market system—one that proposed a curb market, retail market or wholesale terminal market, depend-

29. Cyrus Chace Miller, *What the City Can Do to Reduce the Cost of Living*, Address of the Conference of Mayors and Other City Officials of the State of New York, Binghamton, New York, 6 June, 1913, p. 2.

30. Memorandum from G. V. Branch to Mr. Bailey, 26 October, 1914, 'Program of Work for Fiscal Year 1917,' and 'Program of Work for Fiscal Year 1919,' in RG 83, CMDP, entry 11, box 1, National Archives.

ing upon the size of the city and local conditions.[31] As a result of their work, the USDA Office of Markets (1913-1917) and its successor agencies, the Bureau of Markets (1917-1922) and the Bureau of Agricultural Economics (1922-1953), produced the single most comprehensive visual record of public markets in the United States.[32]

The Shape of Market Reform

The USDA Office of Markets promoted three basic market types with an aggressive campaign of public lectures, educational exhibits, publications, market reporting services and model designs for buildings and equipment.[33] The curb market, or outdoor farmers' market, was the one best suited for cities too small to support an enclosed building. A curb market could be started with little expense, was easy to move if the location were faulty or no longer suitable, and it could test public support for direct marketing between the producer and consumer before building an enclosed structure. This market type gained popularity during World War I, when prices for labour as well as all kinds of structural material and equipment were inflated, thus hampering new building construction in the United States. According to a nationwide survey of public markets conducted by the United States Bureau of the Census, the majority of the thirty-four markets established in 1917 were curb-stone or open markets.[34] Their popularity during the war also was confirmed by a National Municipal League survey in 1917, which found that fifty-six out of sixty-seven cities in the United States had curb or open markets.[35] The United States Food Administration (1917-1920), headed by Herbert Hoover, promoted curb markets because they were quick and easy to establish, and because they encouraged

31. George R. Goergens, photographer, *To Market! To Market!*, ca. 1917 to 1924, 12 minutes, USDA video no. 33.79, National Archives, Motion Picture, Sound, and Video Branch.

32. These historic photographs are in the National Archives, Record Group 83-G. At the time they were taken USDA staff mounted them on cardboard and labelled them on the reverse with location, photographer, subject, date and a brief description of the purpose of the photograph. For a preliminary listing, see Charles E. Magoon, *Photos at the Archives: A Descriptive Listing of 800 Historic Photographs on Food Marketing at the National Archives*, McNally & Loftin, West, Santa Barbara, California, 1981.

33. Beanfield, the Bureau's structural engineer, developed seven standard designs for model markets, and the USDA provided his architectural plans to cities upon request. It also made available Beanfield's designs for white-tiled, refrigerated fruit and vegetable stalls. His blueprints and designs are in RG 83, entry 2, National Archives.

34. Samuel L. Rogers, *Municipal Markets in Cities Having a Population of Over 30,000*, US Department of Commerce, Bureau of the Census, Washington, DC, 1918, p. 14-15, 24.

35. Clyde Lyndon King, *Public Markets in the United States. Second Report of a Committee of the National Municipal League*, National Municipal League, Philadelphia, Pennsylvania, 1917, p. 4.

Street market (curb market), Allentown, 1917

consumers to buy fresh fruits and vegetables direct from the farmer so that other food products could be directed to the war effort in Europe. A typical kerb market was established in Allentown, Pennsylvania, in 1917, where farmers were directed to park in two long rows at the edge of an empty lot, facing the backs of their wagons or trucks to an aisle for customers. The United States Food Administration for Pennsylvania reported that 130 wagons loads cleared Allentown's five markets in a single week in 1917, and the highest weekly number in 1918 doubled to 252 wagon loads. Every conceivable type of farm produce including fruits and vegetables, poultry and other meat products, butter, cheese, eggs, cider, dried and canned fruits and vegetables, bread, pies, cakes and other products of the farm kitchen were sold. The Food Administration reported that curb markets tended to stabilise prices and increase production. Unfortunately, they could be closed as quickly as they could be established, and in October 1918 several towns in Pennsylvania closed their farmers' markets when influenza scared farmers and patrons from gathering.[36]

36. 'History of Curb Markets Established by Division of Distribution and Markets, US Food Administration for Pennsylvania, Seasons of 1917 and 1918.' In Record Group 10 – Office of the

Stalls in the Central Market, Washington D. C.

The enclosed retail market with interior food stalls, the second USDA model, was not a new type, but its twentieth-century version promised a new style dictated by new materials. Glazed tile, steel-reinforced concrete, glazed brick, marble and glass were expected to meet the new demands of durability and sanitation in markets. Wood was the least desirable material, owing to the constant application of water in cleaning. It was not practical for cities with existing market houses to build new ones, but they did make efforts to modernise their old market interiors with refrigerated tile display cases, such as the cases designed and tested by the USDA at Center Market in Washington, DC.[37]

A few cities built enclosed retail markets for aesthetic reasons, believing that modern, attractive markets would contribute once again to their nation-

Governor, Council of National Defense and Committee of Public Safety, General File, State Archives of Pennsylvania.

37. 'Contested Space: The Life and Death of Center Market,' *Washington History*, vol. 7, no. 1 (Spring / Summer 1995), p. 65.

View of the exterior of West Side Market, Cleveland, 1912

al and international image. This belief was at the core of the City Beautiful movement, whose promoters also hoped that physical improvements would inculcate citizens with moral values and civic pride. This city of Cleveland, Ohio, built one of the finest public markets at the height of the movement. Completed in 1912 and still in operation, West Side Market measures 37 by 75 metres and has an impressive barrel-vaulted ceiling. A few years after it opened, the market was praised not only for its architecture but also for its sanitary features, including the protective food display cases, toilets and hand-washing facilities.[38]

The vaulting at the Cleveland market was the work of the Guastavino Company, founded in the 1880s by the Catalan-born father and son, Rafael Guastavino y Moreno (1842-1908) and Rafael Guastavino y Esposito (1872-1950). Their laminated vaulting technique aided the city in accomplishing

38. Eric Johannesen, *Cleveland Architecture 1876-1976*, Western Reserve Historical Society, Cleveland, Ohio, 1979, p. 116, 122-124; Donald B. Armstrong, 'The Sanitation of Public Markets,' paper read before the Section on Preventive Medicine and Public Health at the Sixty-Seventh Annual Session of the American Medical Association, Detroit, Michigan, June 1916, Pamphlet Number 3, *Public Hygiene*, SPI p.v.45, New York Public Library.

View of the interior of West Side Market, Cleveland, showing the vaulting made by the Gustavino Company, 1912

its progressive goal of embellishing a new civic structure with architectural grace while at the same time improving provisions for sanitation. The thin masonry vaults laminated with multicolour glazed tiles supported a large covered space unencumbered by interior columns, creating an attractive light interior with a flexible floor space that was easy to clean. In terms of sanitation and the modern twentieth-century aesthetic, the Cleveland market stood in sharp contrast to the aging nineteenth-century market sheds still in operation. Soaring vaults of Guastavino tile also were employed at the Bridgemarket, an open-air market established in 1909 underneath the Manhattan approach to the Queensboro Bridge in New York City.[39]

39. George R. Collins, 'The Transfer of Thin Masonry Vaulting from Spain to America,' *Journal of the Society of Architectural Historians*, vol. 27, no. 3, 1968, p. 176-201; 'Special Issue: Preserving Historic Guastavino Tile Ceilings, Domes, and Vaults,' *Association of Preservation Technology Bulletin,* vol. 30, no. 4, 1999. The company was the leading practitioner of Catalan vaulting in the United States, and it built many public buildings, residences, institutions and commercial and industrial structures before closing in 1962.

Wholesale Terminal Markets: A Case Study of New York City

The third model—the wholesale terminal market—was a complex of several structures that included warehouses, merchant stores, railroad yards, auction houses and cold storage. The wholesale terminal market unified the arrival of goods by rail, water and roads, as well as the subsequent distribution of goods to various points in the city and region. The USDA recommended this type for large cities with developed rail and water facilities.

New York, the nation's largest metropolis and market for fresh food, presented the greatest challenge for implementing the USDA model for a wholesale terminal market. The city fed a resident population of five million people as well as thousands of daily commuters, it provisioned outgoing trains and steamships and it exported food to other cities and towns. A total of nine railway companies and twenty-three steamship lines brought food into New York, and from their piers the produce went by wagon and truck to the various shops, markets and institutions. In 1912 the Pennsylvania Railroad alone received approximately 35,000 tons of fruit and vegetables per month, as well as tons of butter, poultry and dry goods. An important factor in the marketing and distribution of produce was the commission merchant—a newcomer to the food trade owing to developments in rail and steamship transport. Also known as middlemen, commission merchants received goods on consignment and sold them again, usually for a five per cent commission on sales. By 1912 there were over five hundred commission merchants in New York City.[40]

The commission merchants were, however, a mixed blessing. They crowded the markets with their bulk sales and makeshift stores, making it difficult for farmers and patrons to negotiate the crowded streets. More serious, however, they were often accused (and justly so) of falsely reporting goods as received in bad condition and of holding back goods in the freight yards to keep prices high. They also passed on to farmers the railway's uncontrolled freight rates. This malpractice inflated food costs for the consumer and very little profit went into the hands of the farmers.

Echoing the advice of the USDA Office of Markets was Bronx president Cyrus Miller, who declared that New York's answer to high food prices was the establishment of *wholesale terminal markets,* municipally-owned and located near major rail, road and water routes. This market type, Miller argued, would facilitate food receipts and inspection, and it would reduce

40. New York City, Mayor's Market Commission, *Report of the Mayor's Market Commission of New York City*, December 1913.

handling costs before food was delivered to various private retail establishments. By investing in wholesale rather than retail markets, the city would gain control over the most lucrative aspect of the trade which, Miller argued, was in the hands of steamship and railway companies. Moreover, his proposal would involve, not eliminate, the middlemen on whom New Yorkers depended, because consumers were too far from the food source to purchase directly from producers.[41]

Miller was not alone in his sentiments. In 1912, Mrs. Elmer Black, member of the Advisory Board of the New York Terminal Market Commission, declared that 'everywhere in Europe, the provision of adequate terminal markets under municipal control is pointed to as a powerful aid in keeping food prices down. There is a lesson in that for New York and other American cities.' Mrs. Black, having spent several months investigating markets on both sides of the Atlantic, reported that the new Munich Terminal Market was the most modern market in Europe and the best equipped in the world. At the heart of the Munich complex were four parallel markets halls constructed in reinforced concrete with cast iron interior supports, designed by the architect Richard Schachner. Each market hall specialised in the sale of certain kinds of produce, which arrived on sidings connected to the city's south railway station. Underground cellars were fitted with hydraulic lifts and electric lighting, and the market also had a toll department, post office, restaurant and beer garden. Black pleaded to her fellow citizens in New York to support a new wholesale terminal market. 'With wise administration, stringent inspection and sound safeguards, these municipal markets benefit both producers and consumers. They eliminate considerable immediate expense, delay and confusion. Last but not least they return a profit to the city treasury.'[42] The New York Terminal Market Commission recommend a new wholesale terminal market at Gansevoort market in Manhattan.[43]

Recognising the magnitude of market reform, Mayor William Gaynor appointed Cyrus Miller chairman of the Mayor's Market Commission in 1912. The commission's task was to understand the current market system in New York and to make recommendations for improvement. It conducted

41. Cyrus C. Miller, *Municipal Market Policy*, City Club of New York, New York, 1912, p. 3-5.

42. Mrs. Elmer Black (Madeline Powell), *A Terminal Market System: New York's Most Urgent Need. Some Observations, Comments and Comparisons of European Markets,* Willett Press, New York, 1912, 3-32. For more on the Munich market see Tangires, *Public Markets*, op. cit., p. 262.

43. A model of the proposed Gansevoort market was on display in the Woman's Industrial Exhibition at the Grand Palais in Paris in March 1913. See J. W. Sullivan, *Markets for the People: The Consumer's Part*, Macmillan, New York, 1913, p. 274.

an extensive investigation of market conditions in New York City through a series of public hearings at which experts and various interest groups gave testimony on the subject. Information was also gathered from numerous reports and monographs on markets in other American cities and abroad. Based on its findings, the commission concluded that the city's most pressing need was the establishment of a wholesale terminal market in each of the five boroughs, beginning with a model market in the Bronx.[44]

The proposal was ambitious, and reformers considered it to be the most progressive step ever taken in the history of New York toward a final and complete solution to the food problem. The comprehensively planned industrial complex would be located on a large tract along the Harlem River, between 149th and 152nd streets. The principal features of the plan were covered fish and poultry markets out on piers, a long railway spur that would connect to the private railways, and a vast complex of cold storage warehouses, administrative offices, wholesale stores and auction houses. The proposed Bronx Terminal Market was expected to consolidate food storage and inspection, link food distribution to all modes of transport including the underground railway, and cost approximately ten million dollars for the land and buildings.

Similar proposals for wholesale terminal markets were under way in Los Angeles and Chicago, but both were being developed by private enterprise. In Los Angeles, developers purchased the land for a wholesale terminal market as early as 1909, and by 1910 they were promising to build a market that was so big that it would take away the title from Paris, whose market was until then 'the largest on earth.' It took years to clear and excavate the site, attract investors and organise a company, and by 1917 the Los Angeles Union Terminal Company opened a portion of the market.[45] Like the Bronx Terminal Market, the Chicago Wholesale Produce Market was planned before the war, but it was not completed until the nineteen twenties.[46] The delay in New York was caused by many factors, the

44. Cyrus C. Miller, *Report on the Mayor's Market Commission of New York City*, Little and Ives, New York, 1913. Mrs. Elmer Black also served on the advisory committee of this commission.

45. 'Largest Market, Covering Eighteen Acres, Soon to be Completed in Los Angeles,' *Los Angeles Times*, 1 January, 1910, p. 4; 'Rushing Work on Terminal,' *Los Angeles Times*, 18 November, 1917, p. 1; 'Market and Warehouses Form Large Building Group. Produce Terminal for Los Angeles Comprises Seven Concrete Buildings Arranged Around Central Court,' *Engineering News Record*, vol. 80, no. 1 (24 January, 1918), p. 167-168. I wish to thank Richard Longstreth for bringing these articles on the Los Angeles market to my attention.

46. Edwin Griswold Nourse, *The Chicago Produce Market,* Houghton Mifflin, Boston and New York, 1918; Tangires *Public Markets*, op. cit., p. 268-270.

Design proposal for a terminal market in the Bronx, New York

war notwithstanding. No one could agree on whether wholesale terminal markets should fall under the jurisdiction of city or state government. The boroughs of New York were tangled in competing proposals. And regardless of location, the commission merchants operating in Lower Manhattan did not want to move.

The Open Market Movement

A wholesale terminal market for New York was also stalled by the Open Market movement, which favoured more open-air markets rather than more costly facilities funded by the taxpayers. A key spokesperson and writer for the movement was J. W. Sullivan, who in 1909 began investigating the benefit of public markets as a means of reducing the cost of food. During that year Sullivan joined Samuel Gompers, President of the American Federation of Labor (AFL), on a tour of Europe, which gave him an opportunity to visit public markets, collect official reports of their operations and gather popular views regarding them from labour representatives. Sullivan continued working with Gompers as his assistant editor for many years, and he managed 'literally a stream of printed matter on the subject' of public markets that arrived from all over the world to the editorial offices of the AFL in Washington. Taking a special interest in the topic, Sullivan returned to Europe in 1912 to visit the principal markets of Switzerland, followed by an in-depth tour of Paris, London, and Berlin—cities whose

Wholesale Produce Market, Chicago, ca. 1929

scale and conditions Sullivan found equal to New York. Sullivan was struck by the great popularity of large outdoor markets where wage earners could purchase food that was more fresh and affordable than they could find in the market houses. He was convinced that New Yorkers did not need a ten million dollar wholesale terminal market. Quite the contrary. In his 1913 publication, *Markets for the People*, Sullivan argued that 'New York can have at once a public metropolitan market system, employing the cheapest methods of retailing, without spending a dollar for plant. The system is the one which has surpassed on trial all other public forms of marketing in the great cities of Europe. The plan herewith recommended is simple, direct, practical, costless.' The system of open-air markets 'is at once the most ancient and the most modern. It is the cheapest of all systems—efficient, natural, democratic, rightfully communistic.'[47] Fellow advocate for open markets was S. Walter Kaufmann, who visited markets in Germany in 1914. Kaufmann observed that 'no matter how large or how successful the large market halls may be in these cities, the selling by the producer direct to the consumer

47. Sullivan, *Markets for the People*, quotes from pages 2, 13, 228. Sullivan used the word *plant* to mean a place where industry or manufacturing takes place.

goes on.' Food at the open-air markets, he declared, was noticeably fresh, and the farmers were well treated.[48]

Based on *their* lessons from Europe, advocates for open markets argued against new market buildings of any kind. They recommended greater freedom for pushcart dealers to serve businesses and factories at lunch hour and housekeepers at all hours. They encouraged the establishment of open-air markets in the suburbs. They preached tolerance of private chain stores as healthy forms of competition and as shopping alternatives for the well-to-do. They discouraged construction of new municipal retail market buildings and they advocated improvement in the wholesale trade by expanding the auction system, regulating the commission men in the market houses, and encouraging producers to ship direct to the markets.[49]

The movement took hold in the borough of Manhattan, where much of the New York City's food marketing and distribution was already taking place outdoors—at the railway yards, waterfront, streets, and farmers' markets. Moreover, it was backed by Marcus M. Marks, member of the city's Board of Alderman.[50] In 1916 Jennie Wells Wentworth, speaking before the American Association for Promoting Hygiene and Public Baths, praised Marks and his 'historic venture into the field of free open markets' for the people of New York City, where she noted his establishment of farmers' markets on certain unused city property in poor neighbourhoods.[51] While plans for new wholesale terminal markets lay dormant, New York City had established more than fifty open-air markets by 1923.[52]

The New York City Department of Markets

New York's plan for a wholesale terminal market was difficult to implement under the best of circumstances, let alone in wartime, and its open markets had done little to resolve high food prices. As a result, in 1917, an angry mob

48. 'Europe's Markets as Models for New York, *The New York Times*, 15 September, 1914. Kaufmann's tour ended with his arrest as a German spy in Holland, but he was released.

49. Sullivan, *Markets for the People*, op. cit., p. 4-13.

50. New York (N.Y.), Board of Estimate and Apportionment, Committee on Markets Marcus M. Marks, chairman, *Reports on Market System for New York City and on Open Markets Established in Manhattan*, M. B. Brown, New York, 1915. This includes contributions from J. W. Sullivan, S. Walter Kaufmann, Hon. C. J. McCormack, Ogden L. Mills and William Bondy, with their reports on market conditions in Paris, London and Berlin.

51. Jennie Wells Wentworth, 'Public Markets,' paper presented at the Fifth Annual Congress, American Association for Promoting Hygiene and Public Baths, Baltimore, Maryland, 9 May, 1916, in *Pamphlets*, p.v. 22, no. 11, New York Public Library, p. 1-6.

52. Kenneth T. Jackson, *The Encyclopedia of New York City*, Yale University Press, New Haven, Connecticut, and London, 1995, p. 731.

of 5,000 people, mostly women and children, marched on the Waldorf-Astoria Hotel to demand food.[53] Citywide arrests ensued but the wave of protests and food boycotts continued for weeks. Many people, including President Woodrow Wilson, blamed the price spiral on wartime speculation and other illegal trading practices in the food business. New York State Senator Wicks called for elected officials to go after the 'wizardry of trading in New York City' and to get at 'the evils at the root of the situation.' Wicks was not talking about stock trading but rather the trade in chickens, potatoes and onions.[54] The New York City food riots caught city officials by surprise and in October 1917, with state support, the city established its first Department of Markets. The department had complete jurisdiction and management of all public markets owned by the city and it was authorised, among other things, to establish wholesale markets, terminal warehouses and cold storage plants.[55]

The wartime activities of the Department of Markets were confined to emergency work, such as coal and milk distribution, but after the war it returned to the wholesale market plan, citing once again Paris as a model.[56] The Department of Markets, however, faced a new obstacle after the war, namely the critics who labelled their plan 'socialistic'. Food wholesalers in particular argued that government-built wholesale terminal markets would be in direct competition with private enterprise. The Department dismissed these objections, recalling similar complaints when the city established a municipal water supply and municipal ownership of docks, bridges and other forms of public service. It strongly believed that construction of wholesale markets was the moral duty of the state, and that the public, not private enterprise, should manage the channels of food distribution. Proving its point was a citywide railway strike in the winter of 1922 that left thousands of carloads of food to rot on the sidetracks, while consumers paid the highest price on record for butter, eggs and fresh vegetables.[57]

53. Dana Frank, 'Housewives, Socialists, and the Politics of Food: The 1917 New York Cost-of-Living Protests,' *Feminist Studies*, vol. 11, no. 2 (Summer 1985), p. 255-285.

54. William Frieburger, 'War, Prosperity, and Hunger: The New York Food Riots of 1917,' *Labor History*, vol. 25, no. 2 (Spring 1984), p. 217-239.

55. 'Market Department Reorganized,' *The American City*, March 1919, p. 245.

56. 'New York Citizens Urge Terminal Markets to Reduce Living Costs,' *New York Herald*, 15 January, 1920.

57. Letter from Jonathan C. Day, Commissioner of Public Markets, to Mayor Hylan, 17 April, 1919, Office of the Mayor (John F. Hylan). Dept. Rec'd Files. Public Markets, Dept. of, Box 148, Folder 1585. January-April 1919, NYC Archives; New York City, Department of Markets, *Annual Report*, 1923, and *Annual Report* 1924.

With no public means to distribute large quantities of perishable food, New York City finally appropriated 7,500,000 dollars for the Bronx Terminal Market, whose original plan was now ten years old. On October 25, 1924, Mayor John F. Hylan laid the cornerstone amidst the usual fanfare, and delivered a speech aimed at appeasing the taxpayers. As he declared, 'the purpose of the Municipal Market is to forestall that middleman who profits by the consumer and the farmer … The Market will be profitable to the consumer, and to the farmer who can bring his foodstuffs here. The only one who will not benefit by it will be the profiteer, and I hope he will be driven out of existence.'[58]

The Bronx Terminal Market was the city's most expensive building undertaking, but it was immediately a failure. The first and only building that remained on the site for the next ten years was the cold storage warehouse. Built in the Lombard Revival style the building's plain fortified exterior reflected its practical function as a solid container for the long-term storage of food. Each floor of the six-storey structure was approximately 9,200 metres square. The mammoth and imposing building could be seen from across the Harlem River and from Yankee Stadium, built just a few years earlier north of the market site. The sand-coloured brick building was a hybrid of civic, commercial and industrial architecture. To soften the factory-like appearance, a decorative course of blind arches ran the perimeter and six clock towers surmounted the building. The first two floors were intended for wholesale merchant stores and the remaining four floors were for dry goods, cold storage and freezer space.[59] Although the terminal was supposed to include other buildings and facilities, the city's priority was the cold storage warehouse that promised to assuage fear of food shortages by increasing the food reserve from two weeks to twelve-to-eighteen months. This perceived benefit of cold storage was promoted by F. E. Matthew, a refrigeration engineer for the USDA, who declared that 'it is now generally recognized, by those who stop to think, that cold storage is the keystone of the main arch of the food bridge on which the world is depending to carry civilization over the turbulent and rising flood of Bolshevism.'[60]

The giant warehouse was a constant source of public criticism, because the city took so long to build it, spent far more money on its construc-

58. 'Mayor and Borough President Lay Cornerstone of Bronx Terminal Market,' *Bronxboro*, vol. 2, no. 5 (November 1924).

59. Tangires, *Public Market* , op. cit., p. 271-273.

60. F. E. Matthew, 'Improved Cold Storage Methods a Mean to Better World Provisioning,' ca. 1920. Typescript in RG 83, Series 11, Box 3, National Archives.

Cold storage plant at the Bronx Terminal Market, New York, ca. 1924

tion than it would have cost to build the entire terminal years before, and because it left only a scaled-down version of the original plan. The polite critics called it an 'empty shell' or an 'awful white elephant'. One article in the *Herald Tribune* asked, 'of what use is a gold-plated Bronx Terminal Market where there is neither terminal or market?'[61] The building was constantly plagued by financial troubles, owing to difficulties in securing long-term leases. The city also failed to take into consideration that most of the food transactions were still being carried out with success at Washington Market in lower Manhattan, as well as at other wholesale districts in the city. The Department of Markets of New York City was not able to implement any progressive market reforms until the nineteen thirties, when it expanded the Bronx Terminal Market, established other wholesale terminal markets in the city and designed a series of enclosed retail market houses.

61. 'Bronx Market Lacks Terminals and Buyers,' *Herald Tribune*, 3 December, 1926.

Market Reform Since the Progressive Era

The nineteen twenties were difficult years for public market improvements throughout the United States, not just in New York City. The notion that cities were responsible for maintaining their centuries-old mandate of providing market houses, open-air farmers' markets and facilities for the convenience of the wholesale trade was redefined as a violation of free enterprise. In 1922 the USDA transferred the activities of the Bureau of Markets to the new Bureau of Agricultural Economics, whose focus shifted to agricultural surpluses and away from city markets—until it resumed market activities with fervour during the Great Depression. Moreover, critics used the proliferation of grocery stores as proof to argue that public markets were superfluous. By 1917 dozens of cities already had grocery stores numbering in the hundreds, and at least seven cities had over a thousand stores: New York City (25,000), Baltimore, Maryland (3,197), Cleveland, Ohio (2,575), Washington, DC (2,557), Rochester, New York (2,400), Denver, Colorado (1,250) and Portland, Oregon (1,100).[62] It is no wonder that *The Progressive Grocer,* a new journal for the trade, featured an article entitled 'Let's Scrap the Municipal Market System'. The article slandered every well-meaning public market project undertaken during the earlier progressive years. Cleveland's West Side Market, despite its 'beautiful tile counters,' had meats and other products displayed 'in the open where they were eaten with relish by the flies.' The older markets in New York, Boston, Philadelphia, Buffalo, Washington, Richmond, St. Louis, New Orleans and many other cities 'are a public disgrace.' Readers in the grocery trade would have welcomed the article's description of Center Market in Washington DC, the largest public market in the nation's capital, as 'a rendezvous for bootleggers and thieves.' And finally, the article made fun of the delegations of city officials who toured other cities to examine and observe the markets, describing the trip as 'largely a junketing tour.' The article concluded with the statement that 'if after more than two hundred years of experience with municipal markets they cannot be made a success, the time has come to call a halt.'[63]

Popular opinion was weighted against municipal markets until the Great Depression, when the system's usefulness as a safety net in difficult times was appreciated. During the New Deal, public markets were vital to

62. King, *Public Markets in the United States*, op. cit., p. 31.

63. C. Moran, 'Let's Scrap the Municipal Market System,' *The Progressive Grocer* (June 1922), p. 21-24, 62-66.

government efforts to reduce agricultural surpluses in the countryside and high food prices in the cities. Under the direction of New York's Mayor Fiorello La Guardia (1934–1945), municipal architects working in the Department of Markets developed a series of enclosed market houses to replace several pushcart markets. These market houses were fairly uniform in appearance and readily identifiable by their bold geometric form, broad horizontal bands of glazed and concrete surfaces, absence of pavement obstructions and clear signage that was unambiguous in crediting the city. La Guardia was a major advocate of public markets and used his close ties to President Franklin Roosevelt to secure New Deal support for market construction and revitalisation.[64]

Outside of New York City, the Public Works Administration funded new market construction during the New Deal in Nashville, Tennessee; New Orleans and Shreveport, Louisiana; and Austin, Texas.[65] Government support for improved food marketing and distribution facilities also extended into rural communities, where cooperative markets and Farm Women's markets promoted the direct sale of local produce. Fruits, vegetables, dairy products, poultry and eggs were the most common items handled. Cooked foods, handicraft, flowers and nursery stock were also for sale. These markets had minimal construction costs since they employed the simple, open-air or partially enclosed market shed.[66]

Public market reform resurfaced again in the nineteen seventies, when some cities rediscovered that public markets could stimulate economic and community development. Community action, for example, saved from demolition the Pike Place Market in Seattle, Washington, and Reading Terminal Market in Philadelphia, Pennsylvania, two of the country's most successful public markets still in operation today.[67] Another boost to public markets came in 1977, when the Farmer-to Consumer Direct Marketing Act (Public Law 94-463) was passed into law. At the time, there were only one hundred farmers' markets operating in the United States. According to the USDA, which updates the count of farmers' markets on its web-

64. Tangires, *Public Markets*, op. cit., p. 227-229.

65. Ibid., p. 29-30.

66. Ann McCleary, 'Negotiating the Urban Marketplace: Farm Women's Curb Markets in the 1930s,' *Perspectives in Vernacular Architecture*, vol. 13, no. 1, 2006, p. 86-105.

67. Theodore Morrow Spitzer and Hilary Baum, *Public Markets and Community Revitalization*, The Urban Land Institute and Project for Public Spaces, Inc. Washington, DC, 1995; Alice Shorett and Murray Morgan, *The Pike Place Market: People, Politics, and Produce*, Pacific Search Press, Seattle, 1982; David K. O'Neil, *Reading Terminal Market: An Illustrated History*, Camino Books, Philadelphia, Pennsylvania, 2004.

site (www.usda.gov), there are now over 4,600 farmers' markets operating throughout the United States.

Today's public market campaigns, however, differ in spirit from their Progressive era antecedents, for they consider alternatives to municipal management. Cities that still own their public market buildings and property have elected to lease control and management to for-profit companies—and not always with good result. A few years ago the City of Annapolis, Maryland, for example, invested 930,000 dollars in the overhaul of its 225-year old historic market house by the city dock, and then entered into a contract with Market House Ventures, Inc., the company that operates the historic Eastern Market in Washington DC. Both cities are now embroiled in lawsuits over the company's mismanagement of its market houses.[68] The new privatisation model is a lesson perhaps for other cities in the United States and in Europe as well to reconsider. What is at stake is the fact that the need for municipal participation in food systems planning is greater than ever.[69]

Market reform in the Progressive era, although short-lived, revealed a popular belief that public markets could function successfully under municipal ownership and management. The movement also prompted the earliest effort on the part of the federal government to aid municipalities in strengthening their market systems. Reformers took advantage of the argument that public markets could combat the urban evils of high food costs, lack of fresh food, unnecessary costs in food transport and food safety issues. Whether they realised it or not, they revived the ancient concept of public markets as a responsibility of local government—believing that they were the answer to, not the source of, the city's problems.

68. 'As Market House Withers, Lawsuit Expands,' *The Washington Post*, 20 September, 2008.

69. Don Shakow, 'The Municipal Farmer's Market as an Urban Service,' *Economic Geography*, vol. 57, no. 1 (January 1981), p. 68-77; Kameshwari Potkuchi and Jerome L. Kaufman, 'Placing the Food System on the Urban Agenda: The Role of Municipal Institutions in Food Systems Planning,' *Agricultural and Human Values*, vol. 16, no. 2 (June 1999), p. 213-244.

List of illustrations

Introduction: European Markets as Makers of Cities

17 *The Fish Market*, 1807, Nicholas Condy
Plymouth City Museum and Art Gallery

21 *Collection des marchés de Paris avec projets*, 1813, Louis Bruyère
Ècole Nationale des Ponts et Chaussées

25 Chart of the construction of markets in Great Britain,1751-1950
James Schmiechen, Kenneth Carls, *A Social and Architectural History*, Yale University Press, New Haven and London, 1999, p. 147.

34 Exterior view and ground plan of St John's Market in Liverpool, 1822
Liverpool Record Office

35 Interior view of St John's Market in Liverpool, 1822
Liverpool Record office

38 Les Halles Centrales, París, 1863
Félix Narjoux, *Paris. Monument élevés par la Ville, 1850-1880*, II, Veuve de A. Morel et Cie., París, 1883

47 Market staff at St John's Market in Liverpool, 1885
Liverpool Record Office

54 Plan of wholesalers' homes at El Born market in Barcelona, 1945-1948
Nadia Fava

59 Interior view of Breslau Market with concrete arches, 1906-1908
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* Alfred Kröner, Leipzig, 4, 1909 (3a), p. 403.

62 The covered markets of Barcelona, before and after 1939
Nadia Fava

64 Map of Madrid's Market Plan and its areas of influence, 1944
Mercados de Madrid, labor realizada por el excelentísimo Ayuntamiento. Comisión Especial de Mercados, Publicaciones Sección Cultura e información, Madrid, 1944

69 Renovation of Santa Caterina market in Barcelona, 1997-2004
Museu d'Història de Barcelona – Pere Vives

London and the British Public Market. Urban Food, Architectural Form and Cultural Language

79 Grainger Market Hall, Butchers' Arcade, Newcastle, 1835
Newcastle Library Service

80 Bull Ring Market Hall, Birmingham, 1835
Birmingham Libraries & Archives

81 Kirkgate Market Hall, Leeds,1904
James Schmiechen, Kenneth Carls, *A Social and Architectural History*,
Yale University Press, New Haven and London, 1999

86 Columbia market hall, Bethnal Green, London,1868
Mary Evans Picture Library

90-91 The Metropolitan Meat Market at Smithfield, London,1868
Mary Evans Picture Library

92 Billingsgate Market Hall. Fish market,1850
Mary Evans Picture Library

95 Covent Garden Market Hall, Westminster, London, 1828
Survey of London, English Heritage

97 Leadenhall Market Hall, London. Wholesale poultry market, 1881
Mary Evans Picture Library

100 Kirkgate Market Hall, Leeds, 1904
Leeds Library and Information Service

Market Halls in France

105 Mediaeval wooden market in Arpajon
Philippe Laurent

106 Mediaeval market in Puiseaux
Philippe Laurent

107 Mediaeval wooden market in Lorris
Philippe Laurent

111 Mediaeval market in Mereville
Philippe Laurent

114 Classical market hall in Ambert
Philippe Laurent

115 Classical stone market hall in Saint-Maure
André David

116 Classical market hall in Beaumont-sur-Sarthe
Philippe Laurent
Classical market in Rochefort
Gilles-H. Bailly

119 Market in Carcassone
Philippe Laurent

121 Market in Rennes
André David

123 Iron market in Belfort
Philippe Laurent

124 Iron market in Châlons-en-Champagne
Gilles-H. Bailly

125 Iron market, Sécretan-Paris
Philippe Laurent

127 Eclectic late nineteenth-century market in Saint-Calais
Philippe Laurent

128 Classical market in Givry
André David

133 Covered market and outdoor market in Dijon
Gilles-H. Bailly

135 Farmers' Market in Caen
Gilles-H. Bailly

136 La Villette glass and iron market, converted into a cultural centre, Paris
Philippe Laurent

Les Halles in París

141 Elevation and section of La Halle au Blé, with a cast-iron dome built in 1813
B. N. F Estampes

142 Marché des Patriarches, 1828-1831
Carnavalet Museum

145 The first stone pavilion, completed in 1854
Marville, Carnavalet Museum

146 The district of Les Halles around 1850
Henry Charpentier, *Paris dans sa splendeur*, Charpentier, Nantes, 1861

147 The fruit and vegetable market at the Les Innocents Fountain of Nymphs in 1855, shortly before it disappeared
Hoffbauer, *Paris à travers les siècles*, Firmin-Didot, París, 1875-1882

149 The western body of the building under completion,1855
B. N. F Estampes

150 Map of the area around Les Halles in 1859, showing alignments and planned roads
B. N. F Estampes

151 Plan of the ground floor of the eastern body
Victor Baltard, Félix Callet, *Monographie des Halles centrales de Paris*, A. Morel, París, 1863

153 View of the interior of Les Halles and of the loading and unloading system along the covered halls of the pavilions
Carnavalet Museum / B.N. F Estampes

154 Auction sales pavilion
Félix Narjoux, *Paris. Monuments élevés par la Ville. 1850-188*0, II, Veuve de A. Morle et Cie, Livraires-Éditeurs, Paris, 1883

159 General view of Les Halles, 1890. Drawing by A. Deroy
B. N. F Estampes

161 View of Les Halles facing south from the church of Saint-Eustache. Drawing by F. Benoist and lithograph by J. Arnout
Hoffbauer, *Paris à travers les siècles,* Firmin-Didot, París, 1875-1882

163 The district of Les Halles once completed, 1935
Arts Decoratives Library

164 View of Les Halles in 1971, shortly before it was demolished
Compagnie française d'entreprise métallique, G. M. Lavalette

Covered Markets in Vienna

169 Design for Landstrasse Market Hall, 1857
Archive of the City and the Land of Vienna. Collection of the Former Chamber of Plans and Archives, market halls,104.267/6
Design for Landstrasse Market Hall, 1857
Archive of the City and the Land of Vienna. Collection of the Former Chamber of Plans and Archives, market halls,104.267/4

170 Design for Landstrasse Market Hall, 1857. Architects: Johann Romano and August Schwendenwein
Archive of the City and the Land of Vienna. Collection of the Former Chamber of Plans and Archives, market halls,104.267/32

174 Design for the Zentral-Markthalle, 1863
Archive of the City and the Land of Vienna. Collection of the Former Chamber of Plans and Archives, market halls,104.267/50

175 Design for the Zentral-Markthalle, 1863-1864
Handbuch der Architektur, IV, 3/2. Darmstadt, 1891 (2a ed.), p. 249

176 Exterior view of the Zentral-Markthalle
Vienna Museum

178 Proposals for a retail market at Kolowrat-Ring, 1866
Archive of the City and the Land of Vienna. Collection of the Former Chamber of Plans and Archives, market halls, 105.828/15 and 105.828/14

179 Section of Zedlitz Market, 1869-1871
Handbuch der Architektur, IV, 3/2. Darmstadt: 1891 (2a. ed.), fig. 243

180 Exterior view of Zedlitz Market, 1869-1871
Institute of Art History in the University of Vienna, Ringstrasse Archive

183 Design for a central market hall, 1871
Vienna Library, 3918 B

186 Design for a market on Rudolfplatz, 1878-1880
Archive of the City and the Land of Vienna. Collection of the Former Chamber of Plans and Archives, market halls, 112.440

187 Retail markets for the 4th, 9th and 8th districts, 1878-1880
Allgemeine Bauzeitung, 1885, Bl. 25

189 Interior view of the retail market in Vienna's 8th district, 1878-1880
Allgemeine Bauzeitung, 1885, Bl. 26

190 Design for the retail market on Nussdorferstrasse, 1878-1880
Archive of the City and the Land of Vienna. Collection of the Former Chamber of Plans and Archives, market halls,108.800/12

193 The new meat market, 1898-1899, in front of the Viktualienhalle, 1904-1906
Vienna Museum

Covered Markets in Liberal Italy: a Comparison Between Four Cities

204 Mercato Centrale, Florence, 1870-1874
Photography: Brogi, *ca*. 1890, Alinari Archives- Brogi Archive, Firenze

209 Food provisioning system in Milan highlighting the different markets
Eduardo Grotanelli, 'Un episodio del proceso di construzione della città di Milano: la riorganizzazione dei servizi annonari 1860-1890', *Storia Urbana,* 28, (July-September, 1984), p. 8

211 Design for the Bonaparte Forum Market, Milan, 1870-1873
Collegio degli Ingegneri ed Architetti, *Milano tecnica dal 1859 al 1884*, Hoepli, Milan, 1885

212 Elevation and ground plan of the vegetable Market, Milan
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* Alfred Kröner, Leipzig, IV, 1909 (3a), pp. 369-370

213 General view of the greengrocery market in Porta Vittoria, Milan
Il Politecnico. Giornale dell'architetto civile ed industriale, LIX, 8, (April 1911), pp. 225-235

219 Market on Piazza Emanuele Filiberto (Porta Palazzo), Turin
Postcard, 1919

220 Market on Piazza Bodoni, Turin
Postcard, 1904

Iron Markets in Spain (1830-1930)

234 Location of iron markets in Spain
Esteban Castañer

238 Elevation of Valladolid Market, 1865
Valladolid Municipal Archive. Works 749-955

The Barcelona Market System

267 El Born Market, ca. 1900
Historic Archive of the City of Barcelona (*AHCB*)

275 La Boqueria market before it was roofed, ca. 1910
Frederic Ballell. Collection of the Institut de Cultura de Barcelona, Photographic Archive of Barcelona (*AFB*)

282 Street sellers on Arc del Teatre, 1930
Gabriel Casas, Estate of Gabriel Casas, Arxiu Nacional de Catalunya (*ANC*)

288 Interior view of El Born converted into a wholesale fruit and vegetable market, ca. 1930
AFB

294 La Concepcio Market, 1888. Architect: Antoni Rovira i Trias. Renovated by Albert Pineda, 1998
Glen Fraser

Market Halls and Market Queens: Civic Culture and Gender in Barcelona's Food Retailing Sector

302 Santa Caterina market, 1907
Historic Archive of the City of Barcelona, *(AHCB)*

307 Sant Antoni market, 1880-1889
Antoni Esplugas, Collection of the Institut de Cultura de Barcelona, Photographic Archive of Barcelona (*AFB*)

309 Market queens, 1930
AFB

311 Advertisement of the market parade, 1930
*Diario de Barcelona,*1 June 1930, p. 55. *AHCB*

312 Market cavalcade on the site of Barcelona's Esplanade, 1930
Diario de Barcelona, 6 June 1930, p. 2. *AHCB*

315 Poster advertising the play entitled *La reina del mercat*, 1930
Poster Collection of the Institut del Teatre, Diputació de Barcelona

321 Stall selling olives and preserved foods at La Boqueria, 1929-1932
Josep Dominguez, *AFB*

Covered Markets in Germany: From Iron Markets to Central Concrete Markets

338 Elevation, ground plan and sections of Hamburg Market
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* IV, Alfred Kröner, Leipzig, 1909 (3a)

340 Ground plan of Frankfurt Market, 1879
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* IV, Alfred Kröner, Leipzig, 1909 (3a), p. 412

343 Ground plan of the Central Market in Berlin
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* IV, Alfred Kröner, Leipzig, 1909 (3a)

344-346 Elevation, section and ground plan of Berlin's V Market
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* IV, Alfred Kröner, Leipzig, 1909 (3a), p. 385

348-349 Hanover Market, 1891-1892
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* IV, Alfred Kröner, Leipzig, 1909 (3a), p. 396

353 View of the interior of Stuttgart Market, 1914
Creative commons (maha-online)

Budapest: Food, Cities and the Evolution of the Market Hall

379 Ground plan and interior of the Central Market
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* IV, Alfred Kröner, Leipzig, 1909 (3a), p. 323, 319

380 View of the exterior of the Central Market
Georg Osthoff, Eduard Schmitt, 'Markthallen und Marktplätze', *Handbuch der Architektur. Gebäude für die Zwecke der Landwirtschaft und der Lebensmittelversorgung,* IV, Alfred Kröner, Leipzig, 1909 (3a), p. 382

Market Halls in Scandinavia, Russia and Central and Eastern Europe

411 Meat market in Bergen, 1874-1875
Małgorzata Omilanowska

412 View of the interior of Ostermalm Market in Stockholm, 1885-1889
Małgorzata Omilanowska

413 View of the exterior of Ostermalm Market in Stockholm, 1885-1889
Małgorzata Omilanowska

Lessons from Europe: Public Market Reform in The United States During the Progressive Era, 1894-1922

435 Louisville Market, Jefferson, Georgia, 1934
Branan Sanders, Library of Congress, Prints and Photographs Division, Washington, HABS GA,82-LOUVI, 1-2 [P&P]

454 Wholesale Produce Market, Chicago, ca. 1929
John Vachon, Library of Congress, Prints and Photographs Division, Washington- LC-USF34- 063118-D [P&P] LOT 1076

Notes on the authors

Gilles-Henri Bailly is a town planner and architect who has specialised in architectural heritage. He is co-author with Philippe Laurent of the book *La France des halles et marchés*, Éditions Privat, Toulouse, 1998.

Esteban Castañer is a member of the Centre for Historical Research on Mediterranean Societies at the University of Perpignan. Among his publications mention should be made of the treatise *L'Architecture métallique en Espagne: les Halles au XIXe siècle*, Presses Universitaires de Perpignan, Perpignan, 2004.

Manuel Guàrdia holds a doctorate in architecture from the Polytechnic University of Catalonia and is a lecturer in Composition at the Vallès Higher Technical School of Architecture of the same university. The publications he has edited include *Atlas histórico de ciudades europeas*, Manuel Guàrdia, Francisco Javier Monclús and José Luis Oyón (eds.), Salvat - Hachette, Barcelona, 1994-1996.

Peter Haiko lectures at the Institute of Art History in the University of Vienna. He has published widely on the architects of the Sezession, particularly Otto Wagner, as illustrated by his eminent study *Vienna 1890-1930: Architecture*, Rizzoli, New York, 1992.

Bertrand Lemoine is an architect and engineer, and currently director of research at the National Centre for Scientific Research, known by its French initials CNRS. The author of several studies of iron architecture, Lemoine is also well known for his referential monograph *Les Halles de Paris*, L'Equerre, Paris, 1980.

Montserrat M. Miller holds a doctorate in history, and lectures in the subject at Marshall University in West Virginia. Her research has focused on the social history of markets, the social networks involved in market life and the role traditionally played by women. She has recently published *Feeding Barcelona 1714-1975: Public Market Halls, Social Networks and Consumer Culture*.

Małgorzata Omilanowska is an art historian who has specialised in architecture of the nineteenth and twentieth centuries and in the conservation of heritage. Her Ph.D. thesis focused on market halls in Poland and in other Eastern European countries. Omilanowska was a lecturer at the University of Gdansk, where she also occupied the position of director of the Institute of Art History from 2008 to 2012. She is the current Minister for Culture and National Heritage in Poland.

José Luís Oyón holds a doctorate in architecture from the Polytechnic University of Catalonia and is professor of Town Planning and Territorial Organisation at the Vallès Higher Technical School of Architecture at the same university. His books include *La quiebra de la ciudad popular. Espacio urbano, inmigración y anarquismo en la Barcelona de entreguerras, 1914-1936*, Ediciones del Serbal, Barcelona, 2008.

Hannelore Paflik-Huber is an art historian and lecturer at the Stuttgart State Academy for Art and Design. As a freelance curator she has produced numerous exhibitions on art and architecture.

Filippo De Pieri is an architect and specialist in urban architecture and history of the nineteenth and twentieth centuries, subjects on which he lectures at Turin Polytechnic University. Among his publications are *Il Controllo improbabile. Progetti urbani, burocrazie, decisione in una città capitale dell'Ottocento*, Franco Angeli, Milan, 2005.

James Schmiechen has lectured in the Department of History at Central Michigan University and has published numerous articles in the field of economic history. He is co-author with Kenneth Carls of *The British Market Hall. A Social and Architectural History*, Yale University Press, New Haven and London, 1999.

Allan Siegel is a writer and experimental filmmaker from Budapest who since 2011 lectures at the Intermedia Department of the Hungarian University of Fine Arts in Budapest. He has devoted much of his work to market hall structures, and in 2004 he curated the exhibition *Expiration Date: To Be Determined* at the Ernst Museum in Budapest.

Helen Tangires holds a Ph.D. in American Studies from George Washington University and is currently administrator of the Center for Advanced Study in the Visual Arts at the National Gallery of Art in Washington DC. She has published numerous articles on American market halls and food provisioning in cities, among them the celebrated book *Public Markets and Civic Culture in Nineteenth-Century America*, The John Hopkins University Press, Baltimore and London, 2003.

Barcelona City Council publishing board
Chairman: Jaume Ciurana i Llevadot
Members of the Board: Jordi Martí i Galbis, Jordi Joly Lena, Vicente Guallart Furió, Àngel Miret Serra, Marta Clari Padrós, Miquel Guiot Rocamora, Marc Puig Guàrdia, Josep Lluís Alay i Rodríguez, José Pérez Freijo, Pilar Roca Viola, Albert Ortas Serrano

Institut de Cultura de Barcelona
Board of Directors

Chairman: Jaume Ciurana i Llevadot
Vice-chairman: Mr. Gerard Ardanuy i Mata
Members of the Board: Francina Vila i Valls, Guillem Espriu Avedaño, Ángeles Esteller Ruedas, Isabel Ribas Seix, Pius Alibek, Montserrat Vendrell i Rius, Elena Subirà Roca, Josep M. Montaner i Martorell, Miquel Cabal i Guarro, Maria del Mar Dierssen i Soto, Daniel Giralt-Miracle Rodríguez, Ramon Massaguer Meléndez, Arantxa García Terente

Pòsits Collection

Edition
Ajuntament de Barcelona, Institut de Cultura, Museu d'Història de Barcelona

MUHBA Director
Joan Roca i Albert

MUHBA Editorial Coordinator
María José Balcells

Assistant Editorial Coordinator and Licensing Rights Manager
Caterina Toscano

Translations
Isabel Abdala, Sandra Chaparro, Sara Geloni, Joanna Ruda, Josephine Watson

Design and Layout
Hermanos Berenguer

Digital image processing, Printing and Binding
Nova Era Barcelona

Original title: *Fer ciutat a través dels mercats. Europa, segles* XIX *i* XX

© to the edition: Museu d'Història de Barcelona, Institut de Cultura de Barcelona, 2015
© to the texts, images and translations: their authors

ISBN: 978-84-9850-668-6
DL: B. 7554-2015

No part of this publication may be reproduced in any form or by any means
without the written permission of the publisher

www.museuhistoria.bcn.cat
www.bcn.cat/barcelonallibres