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Innovation on the Shop Floor: a Critical Survey of the Late Nineteenth until Mid-twentieth Century Department store, Chain store and Supermarket

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This paper is set up as a survey of the historical development of large-scale retail enterprises and their interiors. Rather than being exhaustive, it is aimed to give a critical and relevant - from an interior designer's perspective - review of the literature. This survey is innovative in a way that it has a two-angle approach: it examines how various typologies have influenced one another during their development, and the role of innovation on the shop floor in their growth. Three large-scale retail typologies are discussed: the department store, the chain store and the supermarket. While the department store and the supermarket were innovative institutions, the chain store type has had an impact on both a managerial and an exploitation level. The department store and the supermarket are described via one archetype per architectural phase. Also, two innovations are explained: one technical, being the escalator, and one conceptual, being the self-service concept. The escalator enabled the department store to develop, while the introduction of self-service in supermarkets drove their expansion and caused a shift in store design. To visualise the rather complex historical development of the three types, a graphic timeline is developed. We conclude with reflecting on retail's history and the importance of the innovations on the shop floor while questioning if retail institutions are still innovative and if the conditions favour innovation today.

Keywords: retail history; innovation; retail interior; large scaled enterprises; survey

Objectives

Designing retail interiors is emerging as a design focus in its own right, whereas before the 80s it was considered as a more intuitive expression of commercial acumen (Fitch, 1990). Important retailers of the 19th century, for example, were primarily commercial entrepreneurs, who are often mentioned in scholarly literature on marketing (e.g., Henderson-Smith, 2002; Mitchell, 2010) and store biography books (review of Samson, 1981). Additionally, there was increased attention from a social, economic, or cultural point of view (e.g., Miller, 1981). Retailing was approached as concept sensitive to its social surroundings (Samson, 1981), or as a mirror of society (e.g., Fitch, 2003; Koolhaas, 1999). These scholarly disciplines have an established tradition in research while interior design in general, and retail design in particular, only started to develop a specific body of knowledge in recent years (Abercrombie, 2000). Research into the history of retail design could prove expedient in this still emerging design speciality.

Literature on the typology of commercial buildings is scarce. Kooijman (1999) and Miellet (2001) set a benchmark on how to combine knowledge of architectural history, marketing and mass communication to get a better understanding of the development of retail architecture. As a first objective we introduce ‘innovation’ as an additional parameter to the descriptive approach of Kooijman (1999) and Miellet (2001). Following Freeman (1991), we understand innovation to be the successful commercial application of an invention, while the invention is only the conception of a new idea. For innovation to be successful, it requires particular conditions that promote this success. Our aim is to identify these conditions and compare them with current conditions.

In the past, commercial spaces have been fertile environments for generating innovation (Koolhaas, 2001), especially the large-scale retail institutions (Moyer, 1962). Following Moyer (1962), we use as case studies the three progressive institutions of the most momentous period in retail history in Western Europe and America—from late nineteenth until mid-twentieth century—namely the department store, the chain store and the supermarket. During this period the developments and dynamics in retail occurred relatively fast. The industrial revolution, city developments, advances in building technology, etc induced the (female) consumer's need to shop. In this period, retailing on large scale was born. The department store and the supermarket are described through the stylistic periods, defined with an archetype, along with the most influential innovation attributed to each retail typology. Furthermore, the introduction of the escalator is associated with innovative design in the department store, and the self-service concept had a profound impact on the development of the supermarket. Finally, the chain store type is described briefly for its significant impact on both aforementioned store typologies.

Our second objective is to visualise the complex historical development in a graphic timeline (Figure 1). It shows the important innovative developments (illustrated with white letters in red boxes), as well as : (1) the architectural and generic characteristics of each typology and archetypes, (2) shopping behaviour and shopping experience (in orange), (3) important evolutions in society that influenced store design, (4) the cross-pollination and influence of the three types on one another (visualised in the timeline by the movement of the 'development lines'). The precursors of the typologies (the bold dashed lines) and the derivatives (the slim dashed lines) are also indicated. Developments in American and Western Europe were distinct from each other

in the period of occurrence and in character, but each exerted a profound influence on the other and are therefore indicated separately. The timeline ends in 1985 when retail as a design discipline became recognised, changing the way stores developed.

The contribution of this paper lies in the development of such a timeline guided with a survey of literature originating from different research disciplines. However, rather than being exhaustive, the literature is critically looked at from an interior design perspective while focussing on innovation on the shop floor.

The Department Store

Department stores were the most popular form of retailing at the end of the 19th century. Henderson-Smith (2002) argues that no other commercial building type better captured the public's imagination. Moreover, no other single type succeeded in fulfilling economic (Jones, 1936) and cultural expression (Miller, 1981; Samson, 1981) so effectively. This success did not come overnight; it was the result of cleverly adopted changes that occurred in society and in industry. Most department stores grew out of smaller businesses and became larger by extending the range of products offered. The store building grew correspondingly, usually by incorporating adjacent structures. It was only by the end of the 19th century that department stores started to construct new buildings that were specially designed as commercial spaces. The approach was more rational and had an efficient layout. Therefore, the definition and typology of the (modern) department store focuses on site-built stores, which became the archetype.

The modern department store was a large, progressive retail institution offering a luxurious variety of products, which were displayed cluttered, in a mix of shopping and leisure. They combined 'new' marketing techniques (i.e. fixed prices, ticketing prices, free entrance, cash payment) with eye-catching product presentations and distinct architecture, grouped on a large scale. Furthermore, they attracted clientele by using three key principles: variety, novelty and service (Dubuisson-Quellier, 2007). The implementation of all these characteristics in one company became the Department Store. However, during and after the Second World War (1939-1945) the department store lost its pioneering role and a diversification of the type occurred.

From the origin till the Second World War

Four factors advanced the development of the department store in the 19th and early 20th centuries. Haussmann's re-design of Paris' medieval urban fabric infrastructure was the first. As Prefect of Paris from 1852 till 1870, he transformed the old city, introducing large boulevards and wide pavements for efficient traffic flow. This made the development of the department stores possible, as they sprang up on these boulevards. Also, socio-economic conditions were favourable as the new city centre attracted the European bourgeoisie, the nouveaux riches and the upper middle class with its art, culture, entertainment, and luxury shops.

Secondly, the economic forces created by the Industrial Revolution (beginning in the United Kingdom in the late 18th century and spreading through Europe in the 19th century) strengthened the success of the department store by providing a supply of mass-produced goods for sale. In turn, the department store supported the manufacturing economy by providing a vital outlet for the sale of these goods (Clausen, 1985).

Thirdly, the change in fashion during the Great War (1914-1918) advanced the department store's development. Clothing that had represented gender and political conviction was transformed to more uniform clothing and more casual wear—effecting a homogenisation of all clothing—because women now had to do the jobs of the men who were fighting at the warfront (Zimmerman, 1946). With this change, the need to keep mass-produced and ready-made clothes in stock arose and the department store—which could hold larger amounts—formed the shell of that stock (Benjamin, 1936, cited in Kooijman, 1999).

Prosperity was the fourth factor to advance the development of luxury retailers like the department store (Benjamin, 1936, cited in Kooijman, 1999). As standards of living rose, shorter working hours and larger salaries created extra leisure time for a large number of people. Shopping became a leisure activity and a new social custom (Clausen, 1985). Shops ceased to merely satisfy basic needs; they began to 'create' needs by selling products that the consumer was not even aware of needing (Grunenberg, 2002). Thus, the rise of the department store was a prominent manifestation of the new consumer culture.

The route to success for the department store, however, was based on the skills of the retailers that managed them (Miellet, 2001). Most department store owners were trained as employees in bazaars and 'magasins de nouveautés'. They cleverly adapted these skills to their own business. They also profited from the art of visual merchandising that was becoming very popular by the end of the 19th century. And, for the architecture of the department store, they hired specialists who were involved in the design of the arcades and the 'magasins de nouveautés'. This resulted in increasingly beautiful and luxurious department stores that made shopping as attractive as possible for the upper social class customers (Miellet, 2001).

They also effected distinct price management. Bulk buying of stock made their prices structurally lower and margins smaller while turnover grew strongly. This renewal was so radical that Miellet (2001) speaks of it as a first retail revolution. Thus, the increased attention for architectural and interior aspects, together with the managerial changes, laid the foundation for the success of the department store.

Europe

Department stores were named 'halls of temptation' by the public (e.g., Rappaport, 1996), designed as monuments to seduction of the senses through colour, material, sound and form (Grunenberg, 2002). They added 'experience' to the store and they created 'atmosphere' to surpass the process of merely purchasing goods. Architectural design was an integrated part of these 'halls of temptation'. The typological development of the department store is complex because the disciplines of architecture and management both influenced the development of the department store during different time periods. But it is possible to distinguish three phases (Kooijman, 1999).

The first one occurred in the 19th century. The exterior of a department store was designed to attract consumers, and the interior intended to keep them close to the products for as long as possible (Clausen, 1985). The newly-built Bon Marché in Paris is an example or an archetype (see timeline). Designed by Laplanche, it was built in Paris in 1872. The exterior has a strong vertical articulation and consists of shop windows and domed corner rotundas. The rotundas, situated at each corner of the building, were elevated and richly ornamented. Signs, integrated into the design of the building's façade, showed the department store's name and departments which made the wide diversity of its products highly visible. This would become a typical feature well into the 20th century. Also Bon Marché's large public entrances were a conspicuous element, which were designed to encourage free access to the space. This design feature was typical for the 19th century department stores (Clausen, 1985). Late in the 1880s, ornamented glass and wrought iron marquees became fashionable at entrances. They offered a protective purpose and eye-catching exterior.

The richly decorated interior was similar to the arcades. It had several galleries around a light court with a round or oval glass roof, revealing an intriguing glimpse to and through all the departments. These galleries were transitional spaces that directed the customers' movements and attention to strategically placed displays in a sequential way (Henderson-Smith, 2002). The light courts were larger than the ones in the arcades because of technical improvements in glass and iron. Majestic staircases connected each floor. The shop furniture consisted of square counters and a cash register in the middle (Miellet, 2001).

The design of the department store was often inspired by iconic buildings. When Louis-Auguste Boileau (1812-1896) extended Bon Marché in 1876 with the help of the engineer Gustave Eiffel (1832-1923), it was modelled after the Paris Opera House, especially its staircase (Figure 2). The luxurious design, which was an elegant construction of glass and iron, was intended to compensate for the relative mediocrity of the mass-produced products offered for sale (Reekie, 1992, cited in Kooijman, 1999). Kooijman (1999) uses the term 'theatre' to refer to such staged wealth. He describes the department store having a societal role as being pleasant to shop in and offering a nice time to spend—in contrast with supermarkets which are designed to be efficient and shortening time spent. Clausen (1985) means the same by saying the department store's building was designed as a stage set, as an elegant theatre for the public.



Figure 2. Staircase in the Bon Marché

During the second phase (1890-1920) ‘Jugendstil’ or Art Nouveau determined the architecture of the department stores (Kooijman, 1999). Modern materials, such as steel, were introduced to create spacious, open façades. Steel had been used previously, but not to such an extent and not as an aesthetical feature for interior and exterior. Horta’s l’Innovation (archetype on timeline, Figure 3) in Brussels (1901) is a paradigmatic example of this style. The large glass windows over the different floors and glassed roof over the central hall are typical characteristics. The glass façade was intended to make the entire store’s interior visible from the outside.



Figure 3. Façade of l'Innovation. Source: Miellet, 2001, p. 168

The third phase occurred in the 1920s. Up to this point most architectural modifications were a consequence of technical innovations, such as the invention of plate-glass and iron that opened up the façade (Davis, 1966). During the third phase, management, emphasised practicality, pulled the strings and a rationalisation of the department store started (Kooijman, 1999). For example, although lighting from the cupolas improved the feeling of spaciousness, they were ultimately closed off because of the need for greater sales display surfaces. The open façades were closed to create more space and shop-windows were created again. The introduction of electric lighting and air-

conditioning made these changes possible. The Bijenkorf in Rotterdam, designed by Dudok in 1927, is an example of such rational architecture (archetype on timeline). Dudok used the metaphor of a ship as a modern social phenomenon (Van Bergeijk, 1995, cited in Kooijman, 1999). In the interior, the floors were like decks of ships with balconies (Figure 4). Dudok wanted to create an atmosphere of being on a cruise, away from the daily grind. The entrances were situated in the corners to connect the flow of people from outside to the inside spaces more easily. The exterior was particularly designed to appeal to the local bourgeoisie (Van Bergeijk, 1995, cited in Kooijman, 1999).



Figure 4. Interior of De Bijenkorf, 1931. Source: Kooijman 1999, p. 71

America and Its Influence on Europe

America had a larger population of wealthy people and a more developed industry than had Western Europe. This created a stronger consumer demand that contributed to the success of the American department stores (Pevsner, 1976). Although Macy's opened the first department store in 1858, it was only in 1904, that a specifically designed department store by Louis Sullivan (1856-1924) was constructed in Chicago for Carson Pirie Scott. However, it was the 'nickel and dime' stores that particularly influenced the development of the department stores at the end of the 19th century. This type of department store featured uniform prices on all products of either five cents (a nickel) or ten cents (a dime). Frank Woolworth founded this type of store in 1879 (Miellet, 2001). Within the first decade, more stores opened and in 1890 Woolworth had 12 stores, 54 in 1899, and by 1919, 1,081 stores are recorded. With such figures Woolworth's can also be seen as a type of chain store.

The difference between European and American department stores rests precisely on this kind of development: European department stores remained large-scale retailers—having only one or just a handful of stores—while the American ones were chain retailers. However, during the inter-war years the department stores of Western Europe considered the American ones to be models of strategy and organisation (Miellet, 2001).

Technical Innovation

The most important innovation on the shop floor during the development of the department store was the escalator. They eliminated the drawback of elevators, which limited the number of people that were able to be transported. Moreover, escalators allowed a continuous flow of customers which blurred the distinction between separate floors (Weiss & Leong, 2001). The first conceptual idea of the escalator is described in the patent of Nathan Ames (New Hampshire, 1826-1865), which was called ‘revolving stairs’ (USPTO, 1859). Though his version was never built, it was designed as a never-ending repetition of steps revolving around three wheels. Jesse W. Reno (Kansas, 1861-1947) produced the first working escalator in 1896 (Weiss & Leong, 2001). He sold his patent to the Otis Elevator Company who commercialised it.

The first department store to install an escalator (Reno’s version) was the Siegel Cooper Department store in New York, in 1896. In 1898 Harrods installed an alternative model—the French stepless escalator of Piat (Figure 5).



Figure 5. Escalator in Harrods, 1898. Source: Koolhaas, 2001, p. 341

This technical masterpiece enabled easy customer access to all floors, increasing the broader store experience. It became a symbol for quick and efficient shopping (Van den Broek, 1948). The success and vast expansion of the physical store space of the department store would not have been possible without the escalator. The opposite is also true; the escalator would not have become so popular and commercialised without the department stores' success.

Other commercial spaces rapidly adopted the escalator around 1910.

Preconditions such as the Industrial Revolution (technical and social condition), the newly built department stores with their theatrical features and exuberant presentations (architectural condition), and the consumers' experience of a 'parade' through the store interior (socio-economic conditions), helped the escalator become an almost indispensable feature.

After the Second World War

During the Second World War demand surpassed supply and the retail industry in Europe and America struggled to survive. Although the retail industry recovered quickly after the Second World War, and consumer demand rose sharply, the department store still struggled. Consequently, it was forced to make a radical return to ‘small profit and quick return’ (Davis, 1996). In other words, a lower profit per product but with higher turnover was traded for the appeal to the cost-conscious and critical consumer. Still, department stores continued to struggle so they lost their pioneering role. With this struggle to survive, the architecture of the department stores continued to become more functional and efficient. Daylight was again used—this time to save on energy and lighting costs—, either via glass façades or with the use of light domes and voids. Most new department stores were built as simple rectangular blocks. In Dutch department stores escalators are placed in the central void of the building. This type of store can be seen as a combination of the 19th century department store with their typical (static) void, and the (dynamic) early 20th century escalator (Kooijman, 1999). The best example of this type of department store is the Bijenkorf in Rotterdam, designed by Marcel Breuer in 1957 (archetype on timeline). The void is no longer an empty space, but a useful place offering store experience by the movement of the escalators and product presentations for the consumers on those escalators.

However, as the department stores adapted to the cost-conscious and critical consumer, a diversification of the type occurred. A first shift occurs when department stores adopted the self-service system (as invented by the supermarket) in response to mass consumption and the demand for increasing staff remuneration. This required a new type of shop furniture, which changed the interior completely (Kooijman, 1999; Miellet, 2001). A second shift occurs with the launch of superstores and ‘Gallerias’ in

the early 1970s (Kooijman, 1999). The superstores combined the product range of a department store with a large variety of food products. The 'Galleria' was a new type of department store that followed the trend of the consumers, who now bought products as an extension of their life-styles (Miellet, 2001). It subdivides its departments based on target groups by creating certain atmospheres that appeal to them. The importance of brands increased and the department stores introduced the shop-in-shop concept. Consequently, there were fewer uniform interiors because the brands were allowed to design their own mini-shop within the store.

Chain Store

Early forms of chain stores can be traced back to the middle of the 19th century in Britain. W.H. Smith, for example, started a chain of small shops selling books, newspapers and magazines in train stations. It was only during the inter-war years that the chain store type came to be fully exploited (Miellet, 2001). In America, as a result of the increased demand for day-to-day commodities in densely populated cities, small chains adopted the modern capitalist strategy of 'small profit and quick return' as was initiated by Woolworth's. To this end, Pevsner (1976) credits the department store as a precursor of the chain store type.

The characteristics of the modern chain store altered gradually over time. In the beginning, the exploitation of multiple stores enabled bulk purchasing, a simple operating policy, the small profit/high turnover idea, and store uniformity formed the essence of the modern chain store. The prices in these large-scale specialised chain stores were lower than other traditional local shops, which increased their popularity during and after World War I when the purchasing power of the middle classes fell sharply (Beattie, 1943). Gradually, the chain store model evolved into a much more diverse type of store, leading to different formats (e.g., flagship stores, convenience stores, boutique chain, etc.), each with their own design characteristics. Around the Second World War period, the supermarket and the department store adopted the chain store's characteristics, which changed them both profoundly.

An example of one of the first modern chain stores is the Great Atlantic and Pacific Tea Company (A&P, archetype on timeline). What started as a small teashop in New York in 1859, soon developed into an enterprise with 200 stores in 1900, 4,000 in

1914, and 16,000 in 1929 (Miellet, 2001). The secret to its success was low costs because the store imported tea directly from China and Japan. Eventually A&P became a grocery shop by extending its range into dry goods products. Its simple working operation, high turnover, bulk stock, and uniform store layout (Figure 6) inspired other merchants to open large multiple-store businesses.



Figure 6: Interior of The Great Atlantic and Pacific Tea Company, 1930s. Source: Koolhaas, 2001, p. 341

Supermarket

Similar to the development of department stores, supermarkets are the result of cleverly adopted alterations to economical, social, technical and managerial evolutions. The shift in population from rural to urban areas, the rising demand for food, and the growth of car ownership helped the supermarket to develop (Appel, 1972; Oi, 2004).

Two main characteristics defining the ‘supermarket’ are self-service (described as an innovation that occurred on the shop floor, *infra*) and a specific product offer

(Kooijman, 1999). Grocers, with their long history of selling foods in the traditional market place, were the creators of the supermarket concept. By implementing self-service and changing their product offerings from commodities and dry food products to a wider variety of items, including fresh food products, grocery stores gradually became worthy of the supermarket name. Fresh foods included bread, meat, and fruit and vegetables. The addition of fresh products enriched the shop experience with their aromas, and, in some cases, the ability to taste products. In the beginning, supermarkets operated out of existing buildings and, just like department stores, expanded by incorporating adjacent buildings. Only later, when the supermarkets relocated to the edges of towns and cities, were new site-built stores created. However, such stores are not seen as generic since supermarkets are located in many different types of buildings on many different sites.

The development of the discount-formula during the economic crisis of the 1930s caused the supermarket to take up a dominant position. One of the forerunners was Michael Cullen, an employee of the Kroger grocery chain. He invented the 'loss leader' system. He suggested selling 300 products, out of 1,100, with no profit and 200 with only 5% profit in a low cost self-service store. The low prices were intended to lure customers to the store where they were then tempted to buy other, presumably, more expensive goods, thereby increasing sales tremendously. Kroger did not agree so Cullen started his own business. He rented a garage in a suburb of New York City and started King Kullen in 1930. The interior was very basic as the products were displayed in their delivery boxes. The formula was a success and Cullen opened fifteen stores in the next five years. The rapid spread of the discount-supermarket was so successful that other

grocers were forced to open similar stores themselves to survive (Miellet, 2001). Also, the chain stores were threatened by these discount stores since they no longer had the price advantage (Appel, 1972). In order to survive, they also had to adopt the strategy of the discount supermarket.

As a result of the stagnant market in the mid-20th century, the significance of both interior and exterior design increased. Consequently, a 'trading up' of the discount outlets occurred, which led to greater investment in equipment and buildings in high-cost locations, which in turn led to the modern supermarket (Appel, 1972).

In Western-Europe, in the early 1970s, on the edges of towns, supermarkets developed superstores (today's hypermarkets) closely resembling those of the department stores. The similarity between both superstores is not a coincidence since the aforementioned basic problems facing retailers were essentially the same (Goldman, 1975/6). The scaling up also generated a countermovement: scaling down. Convenience stores popped up in city centres which resulted in the multi-format supermarket brands that are common today.

Innovation on the Shop Floor

In America, shortly after the Great War, progressive grocers began an innovative concept: self-service. One of the leading innovators was Clarence Saunders who opened a grocery shop in Memphis around 1916 (Regan, 1960). Until then, grocery stores mainly consisted of a low counter with scales and shelves behind. Saunders wanted to give the customers the opportunity to take the products they wanted from the shelves and then make their purchases. In order to realise this, Saunders at first weighed and

packaged everything himself and displayed it in his shop. Later, because of the revolution in the packaging industry, products were delivered to him perfectly weighed, the expiry date was clear and hygiene was assured. This, along with the invention of the shopping trolley, aided the adoption of self-service (Kooijman, 1999; Oi, 2004). The economic conditions (crisis of the 1930s) and the increasing need for more products (new consumerism) caused the self-service concept to also be adopted by other store types, also changing their interior profoundly—serviced counters were replaced by shelving and other types of furniture that support self-service.

Saunders did not foresee that his self-service concept increased theft. To counter this problem, he separated the entrance from the exit. He also placed the cash register in front of the exit. The shelving was placed perpendicular to the cash desk so the shop attendant had a clear view across the store (Figure 7). In principle, this system required only one shop assistant since the weighing of the remaining bulk products was combined with the cash desk, so ultimately high-cost personnel were replaced by relatively low-cost equipment (Kooijman, 1999). On the one hand this revolutionised the relationship between customer and grocer (Du Gay, 2004). The grocer's sales talk became a shopping experience enriched with the ability to touch the products. On the other hand, self-service decreased prices significantly, which became the most preferred benefit for the customers at that time (Regan, 1960). Saunders' formula was such a success that he opened a chain store named Piggly Wiggly (Kooijman, 1999; Mielliet, 2001; archetype on timeline). Adopting the chain store model, he prescribed every chain to be the same including a standardised colour scheme (blue, white and yellow), the size of the store (about 200m²), etc. (Kooijman, 1999). However, only when he completed

his product range with fresh food in the 1920s the supermarket formula was born (Kooijman, 1999).



Figure 7: Self-service interior of Piggly Wiggly

Conclusion

The unique characteristics of each of the three types, innovations on the shop floor—the escalator in the department store and the self-service concept for the supermarket—exerted an influence on the development of the other types. The supermarket emphasised the timesaving experience, while the department store focussed on spatial experience and leisure (Kooijman, 1999). Although the differences between the two became increasingly narrow, spatial design between both types still differed.

While department stores wanted to impress and lure the consumer with their buildings, most supermarkets have put the emphasis on the efficient design of the

interior. Department stores evolved from 'halls of temptation', with the emphasis on intuitive design, to a more functional and rational layout. Its characteristics changed slightly over time, but the core concept remained the same. The supermarket altered from functionally based adaptations to the needs of the consumer. However, it evolved into a store with increased emphasis on design and experience.

Both department store and supermarket were influenced by the development of the chain store. American department stores adopted the chain store concept and eventually became chain stores themselves by the end of the 19th century, while Western European department stores remained rather large-scale concerns that opened chains after the Second World War to cope with the competition of the larger specialised chains. The supermarkets also adopted some of the chain store characteristics after the Second World War. They created different formats (i.e. ranging from small convenience stores to large hypermarkets) to fulfil the needs of the consumer and to increase their market share, leading to the diverse retail chains and strong brands that they are today.

The technical invention of the escalator revolutionised the department store. Bringing a constant and equal flow of customers to all floors, the escalator made it possible to increase the size and expand the experience of the store. The history of the supermarket is one of constant change, innovation and growth, while consistently attempting to serve the customer better. Supermarkets have the ability to react speedily to the demands of the market because of their fast moving products. The introduction of the self-service concept not only increased the growth of the supermarket, it changed the interior from a mainly counter-based design to shelving and shop fittings that were directly accessible to the customers. Also all other store types and their interiors were affected by it. Both the supermarket and the department store with their innovations

show the role they play in innovative retailing. Today, not only department stores take a leading role again by constructing new buildings with distinct architecture, also supermarkets start to implement distinct architecture to attract consumers.

The department store, the chain store, and the supermarket shaped the retail scene into its current form. The influence of the industrial revolution, two retail revolutions and the evolution in consumerism have made shopping and shop spaces what they are today. We have argued how technical and architectural conditions, social and economical developments, and the attitude of consumers, generated innovations. Indeed, retail as a typology propelled innovative interior concepts and it should take care to maintain this privileged role.

One might wonder if the current conditions, as for example the socio-economic conditions, are favourable to innovation. We argue that some conditions are, such as the economic crisis, the need to operate more sustainably, and the digital revolution (e.g., social media, online shopping). The attitudes of consumers can also contribute to innovation, through an interest in materialism and the desire for an entertainment experience. One recent innovation is online retailing. Though still seen as a threat to physical stores, it should be seen as a challenge and an opportunity to engage the customer. With social media, web shops, the ability to provide detailed information anywhere in a store, payment on the spot with a smartphone, etc. the possibilities seem endless to offer good service, to stay connected with the customer and to offer convenience. Online retailing offers the possibility to reduce store space, to only show a grasp of the articles sold, while the rest can be viewed on a large screen for example. When customers buy a product it can be delivered to their home the same day. The retailers (sales) talk could become important again. Their knowledge and advice should

seal a deal. Smaller stores with intense experiences (whether that is the sales talk of the charming vendor or the store's interior that appeals to all senses) could and should be the future of retail. The online revolution may cause a third retail revolution. It changes the consumers' behaviour. It, for example, increased their desire to be 'connected' at all times and their need for 'convenience'. It is up to retailers or retail designers to come up with innovative retail concepts that offer an answer to such needs.

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