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# The Apple story:

# Spatial, functional and cultural parameters in branded architecture

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#### **Abstract**

Numerous scholars from a wide array of disciplines have discussed the way in which flagship stores establish the use of physical space as a marketing device for the embodiment of a branded organisational identity. Apple is a particularly interesting example of the way the consistent and strategic consideration of customers' experiences can be mediated by retail space. Apple is a brand that develops careful, strategic policies to compose unique experiences for its customers and simultaneously achieves constant redefinitions of its retail process in alliance with its marketing intentions. Therefore, this makes for a particularly interesting case study.

Recently, Apple launched a new payment strategy where employees can conduct transactions all over the retail area by using mobile devices. This paper constitutes an attempt to understand the extent to which the new mobile practice has changed the Apple Store's established dynamics and user experiences. The investigation is twofold: First the examination of the Apple Store in Regent Street at two different time periods, in 2009 and in 2014 allows capturing the introduction of a mobile payment strategy and resulting new behavioural dynamics. Second the comparison of two London based cases, the Apple Stores in Regent Street and Covent Garden allows identifying commonalities or variations on how the same organisational strategy is embedded in different configurations. The methodology combines analytical tools of space syntax with on-site observations of space usage.

Results suggest that the functional dispersal of the purchase experience has changed the dynamics within Apple's retail interiors with reflections on functional allocation, space usage behaviours and the layout's performance. The analysis highlights that the functional distribution appears to have an impact on the operation of the recently introduced mobile payment method and that the way in which each retail interior incorporates organisational principles in relation to its spatial configuration affects the generated behavioural patterns. Overall, results revealed the complex interplay between spatial appearance, functional distribution, behavioural patterns, operational properties as well as cultural connotations.

This study introduces a consistent way of analysing branded environments and organisational strategies through a multi-layered and temporal methodological approach that combines analytical tools of space syntax with observations of customers and staff behaviours. Overall, the paper offers a

starting point for incorporating a framework of analysis that can enhance our current understanding of spatially configured branded experiences.

#### **Keywords**

Mobile payment, retail architecture, branded experience, Apple.

#### 1. Introduction

The importance of physical space in shaping customers' behaviours and reflecting a brand's organisational identity is becoming acknowledged by a wide array of disciplines related to space and branding. Brands are significantly investing in their public standing (Arvidsson, 2005), which is considered as the medium through which companies configure *stories* realised in the "life-world of consumers" (*ibid.*, p.236).

The aim of this paper is to examine the performance of the recently introduced mobile payment strategy that Apple incorporated in its retail environments in order to explore resulting behavioural dynamics. Through a syntactic examination of the store's layouts (provided by space syntax methodological techniques and observed behavioural patterns, the discussion concentrates on the operation of the new payment strategy in light of spatial, functional, behavioural and cultural parameters.

The paper starts with a brief review of the existing body of literature relevant to branded spaces and branded experiences in section 2. The concept of the Apple Store design as well as Apple's retail experience reflected by theories of interface, community, spatial solidarities and narrative are then discussed in section 3. Section 4 introduces the selected case studies and research methodology. Section 5 analyses the new mobile payment method and discusses its implications on the store's operation. Section 6 compares the dynamic payment method in two London-based Apple Stores recognising commonalities and variations of the way in which the layout of the two stores shaped the new organisational strategy. Finally, main findings are discussed and suggestions for future work are developed in the conclusions.

## 2. The role of physical space in branded architecture

Sherry (2005) considered that brands both inhabit and generate cultural meaning for themselves via complex, multi-layered sociocultural processes – from the construction of marketing intentions to the personalised interpretation of the branded context by consumers. Sherry discussed his perspective by examining the Nike Town flagship store in Chicago, through which he concluded that the "Nike brand is both embodied in the built environment and realized in apprehension" (Sherry, 1998, p.138).

The flagship store is based on the idea of "an increasingly themed retail environment" (Kozinets et al., 2002, p. 27), a concept which has its origins in the traditional boutique of the 1960s. Boutiques introduced retail space as a symbolic medium of the retailers' – and subsequently, of the consumers' – personal identity (Vernet and De Wit, 2007, p.4). Similarly, brands have grown to promote their corporate identity via their flagship stores, rather than the selling of products *per se*. In turn, marketers increasingly appoint greater significance to the power of aesthetics and retail processes in the construction of cultural meaning mediated by the "physical experience of place" (Kozinets et al., 2002).

Branded spaces "increasingly become the brand" (Sherry, 1998, p.112). Likewise Arvidsson (2005) claimed that physical space has become the medium through which branded stores configure stories and achieve a desirable commercial ambience. Kulkarni and Joseph-Lester (2004) claimed that branded spaces target the creation of embodied experiences, where the customer is 'absorbed into architecture' passing from a process of "a retina experience to one of embodiment" (*ibid.*, p.5). Essentially, branded spaces achieve customers' seduction by incorporating a multi-sensual and multi-

sensory experience associated with a brand's identity, as Sonnenburg and Baker (2013) asserted. This observation meets Schmitt's (1999) concept of 'experiential marketing', a type of marketing that achieves the integration of sensations and feelings that a company generates for its customers. In essence, the *brand experience* constitutes a *lived experience* that becomes a memory that customers can recall in their everyday life (Palaiologou and Penn, 2013, p.18) — a process that achieves what Keller (2001) described as the power of a brand which at the end is what resides in customers' minds.

Palaiologou and Penn (2013), as well as Penn (2005), attempted to understand architecture as a medium for promoting organisational identity through the retail space layout by adopting a space syntax perspective. These studies looked at the ways in which brands achieve to configure culturally defined stories within their physical boundaries through spatial configuration, namely, through the relational properties of the way spaces are linked to each other (Hillier, 1996). By considering architecture as a 'morphic language' (Hillier and Hanson 1984, p.49), the authors specifically suggest that architecture shapes the ways in which the spatial context can be conceived by the user through the spatial configuration in a non-discursive manner. Hillier and Hanson explain that architecture is being realised in the experiential world and thus meaning can be retrieved from its syntax. Palaiologou and Penn (2013) asserted that the usage of "architecture as a communication device" (Dorris, 1997, p.103) appeared to be significantly different for two London based Flagship stores, Nike Town and the Apple Store in Regent Street. The authors discussed the concept of a 'tellable' and an 'untellable' story as stated by Ryan (1991). Ryan considered a story 'tellable' when it is structurally rich to support elements of surprise to a listener as opposed to an 'untellable' story which is one that has a truly linear narrative without any choice. This is applied to customers' experiences in retail environments. The study showed that even though Nike and Apple were pointing towards different directions in terms of branded experience, their retail environments embedded culturally defined information that is in line with their marketing objectives.

In summary, the reviewed literature suggested the potential role of branded architecture as the physical manifestation of organisational identities (Palaiologou and Penn, 2013, p.125). The discussion highlighted the incorporation of architecture as an implicit medium for commercial promotion (Dorris, 1997, p.103) through the construction of "sensory, affective, and cognitive associations that result in memorable [...] brand experiences" (Schmitt, 1999, p. 21).

#### 3. The Apple concept - 'obvious in retrospect'

This section elaborates on the design concept of the Apple Store as well as on the way in which Apple achieves a place-specific marketing policy in the architecture of its flagship stores. Apple intended to create a stand-alone retail store, a completely new type of customers' destination (Eight Inc., 2014) able to reinforce face-to-face relationships and trust between customers and the brand – an Apple community store where users are engaged, with each store section dedicated to different tasks (i.e. products, accessories, services) and Macs set up as task-oriented workstations (Retail Asia, 2014).

Drawing on the company's intentions and recognising the core brand values, Eight Inc., a multi-discipline experience design studio, by adopting a 'think different' (Judge, 2013) approach developed the well-known Apple retail programme; a programme that is "entirely round the customer, where service, learning and products [are] combined" (Eight Inc., 2014). This meant that the first Apple Store opened with thousands of square feet to fill with only four product lines (Fairs, 2013). Therefore, alternative uses which were not directly dedicated to selling – such as a kids area, the Genius Bar (an area where customers could get their Macs diagnosed and fixed) and a theatre (an area that hosts free events to educate and inspire) – were integrated in the store underlying a unique and novel appearance of the Apple brand in the retail market. Essentially, what seemed a radical and potentially mad idea in the beginning – critiqued as "probably the highest grossing retail store in history" (Abell Schwartz and Carmiel, 2009) – soon became accepted as an innovative and successful concept, one that is 'obvious in retrospect' (Eight Inc., 2014).

In Apple Stores, the interaction with the brand occurs on many levels and through multiple interfaces: via the accessibility and interaction with products (customer-product interface); via the personalised shopping and assistance offered (customer-staff interface); via the various events taking place in the stores (cultural activities); and the overall patterns of space usage which – through users' encounter and co-presence – turn the store into a place of social interaction. Visiting an Apple Store can be a purchase ritual, an informal engagement with technology, an instructive educational or social opportunity.

It is of interest to understand how Apple achieves this place-specific marketing policy in the architecture of its flagship stores (Palaiologou and Penn, 2013). The product display is a key feature of the retail interior. Apple products are displayed on tables and they can be accessed and used by store visitors. Effectively, this means that those spots around tables and in front of products are usually occupied by customers interacting with gadgets. Using the products is a characteristic aspect of the Apple customer-product interface that enhances space occupancy and static relationships. Moreover, the product exhibition is organised in mid-height furniture clusters arranged in an openplan interior layout that allows the visual inspection of large areas of the commercial space. In this way customers become easily aware of product locations and of the presence of other people in the store. Functional contiguity and spatial visibility enhance people's encounter and co-presence, creating a strong potential for social interaction and supporting the concept that people in the store share interests while they become part of the 'Apple community'. As Hillier and Hanson described (1984, p.145), such spaces that support physical and visual relationships achieved a spatial bonding among users – a 'spatial solidarity'. In this sense, the Apple concept can be fully experienced only in the Apple Stores. Therefore, it could be argued that Apple established a retail space as a hive of activity, with a high degree of random movement and encounters - what Hillier and Penn (1991) termed weakly programmed in terms of users' probabilistic movement patterns and encounter fields, as opposed to a strongly programmed space, where behavioural patterns are controlled and follow predefined rules and routines, the so called (strong) programme of a building.

Looking at the spatial properties of the Apple flagship store in Regent Street, Palaiologou and Penn (2013) discussed the role of the spatial configuration in creating a generative customer-centric branded experience. The store is organised to enable customers to become leaders of their own 'Apple experience'. The visually integrated and easily accessibly open-plan space is instantly perceived (i.e. quasi-synchronic) and does not predefine specific customer routes within the store. In other words, the product display does not present 'museum-like formalities' (ibid., p.12) which often organise exhibitions following a "sequential unfolding of information" (Psarra, 2009, p.150). The interior furnishing supports visitors' autonomy to decide upon their routes inside the store. Therefore, customers essentially select a spatial narrative – namely, a random way of experiencing the store amongst the numerous probabilities supported by space. Staff and products are on display, visible and waiting to be approached by customers. These types of spaces have been coined a 'probabilistic' spatial model by Hanson and Hillier (1987), describing a space that supports the generation of movement probabilities - and hence, of narratives - which are user-oriented. Such a generative retail model deconstructs spatial formalities and hierarchies, allowing for numerous spatial experiences and cultural interpretations: Apple provides the branded setting, but customers are the ones creating a personal story, a link with the brand.

This raises the research question how the probabilistic and generative open-plan space of the Apple Store is further transformed by the mobile payment method.

#### 4. Case studies and methodology

This study looks at Apple's retail environment over time by examining the Apple Store in Regent Street at two different time periods, in 2009 and in 2014. The timespan includes a shift in the payment method (introduction of mobile payment experience in the retail environment). Additionally, this study compares and contrasts two London based stores, the Apple Store in Regent Street and in Covent Garden in order to decode the performance of the recently introduced payment strategy in two different spatial configurations by considering product placement and space usage patterns.

This paper is based on two individual projects in 2009 (Palaiologou, 2009) and in 2014 (Psathiti, 2014) in the context of the UCL Masters course 'Spatial Design: Architecture and Cities'. In particular, the methodology combines analytical tools of space syntax (Visibility Graph Analysis (VGA) with depthmapX software, Varoudis, 2012; previously depthmap, see Turner, 2010) with on-site observations of customers and staff behaviours, which combined:

- a) *Snapshots* that captured stationary and moving activities of customers and staff members, recorded interactions and counted the number of transactions in each store. The method was applied at 6 different time periods during one weekday and one weekend, for both stores.
- b) Movement traces by following both customers and staff members for 12 minutes each in order to record their precise route in space. In total 56 individuals were observed in the two stores (14 staff members and 14 customers in each case).
- c) *Gate counts* at the store entrance that distinguished customers who have bought something and customers who have just browsed in the store. This method was applied for 5 minutes every hour over two days in total.

By using a multi-layered and temporal approach, this paper aims at examining the dynamics generated in the Apple Stores as a result of the recently introduced payment method in light of spatial, functional and behavioural parameters.

#### 5. The new mobile payment strategy and generated dynamics

"Shops have always been sensitive and responsive to transformations in society, either reflecting them, or offering an environment in which they can be expressed" (Vernet and De Wit, 2007, p.43). Within the new credit card era and the tremendous technological improvements, a few years ago Apple informed their clients that "stores [were] going all 'portable' for payments" (Infoapplestore, 2008) and that no more fixed cashier positions would be offered in their stores. Instead, employees would be able to conduct transactions all over the retail area by using mobile devices, while stores would retain only a few cash wrap positions that contained receipts, cash and bags in drawers at the display tables. With the new strategy each employee became responsible for one customer and could complete a full customer service, from the familiarisation with the product until the transaction.

Therefore, this chapter investigates the implications, if any, of the recently introduced payment strategy on the store's performance in terms of space usage behaviours and the layout's spatial performance.

Effectively the elimination of fixed cashier positions freed space within the store and allowed existing uses to be spread more evenly. Besides the implications of the recently introduced method on the functional distribution, it has also resulted in changes in the distribution of people within the store. Figure 1 shows density maps that highlight the density as well as the location of people within the store before and after the new payment strategy. It is apparent that the new payment strategy resulted in a more equal distribution of people within the store than in 2009.

In terms of space usage and patterns of social interaction construction of an interface, staff-customer interaction increased and the number of moving employees doubled from 2009 to 2014 (Figure 2a). Examining staff distribution within the store before and after the new payment method more closely, it can be seen that in 2014 staff members were more evenly distributed across all the different zones of the building than in 2009 (Figure 2b). In particular fewer staff members were found near the entrance in 2014. Simultaneously, the number of staff involved in the Genius Bar is almost 3 times higher in 2014 than in 2009 highlighting the fact that services like the Genius Bar were gaining popularity and higher public acceptance. However, the number of transactions remained stable.

DENSITY MAPS - DISTRIBUTION OF PEOPLE APPLE STORE REGENT STREET

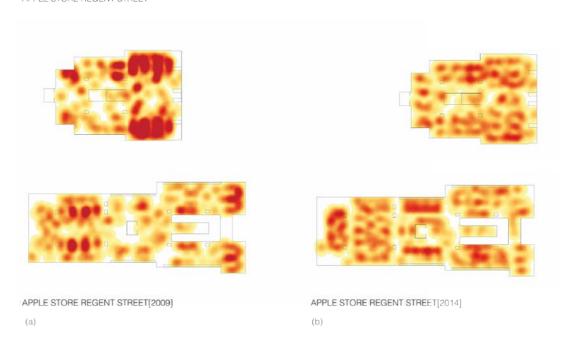
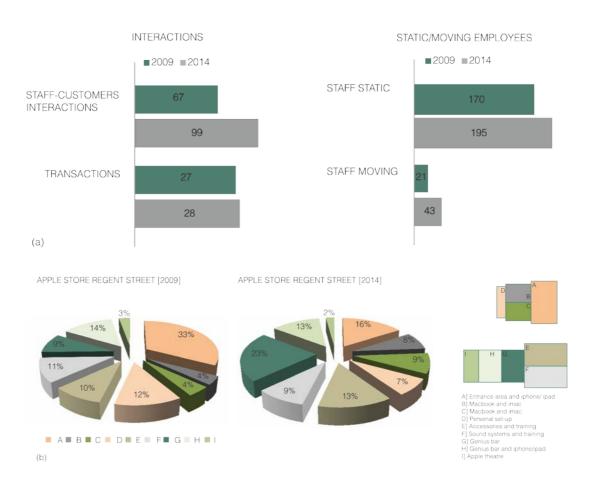
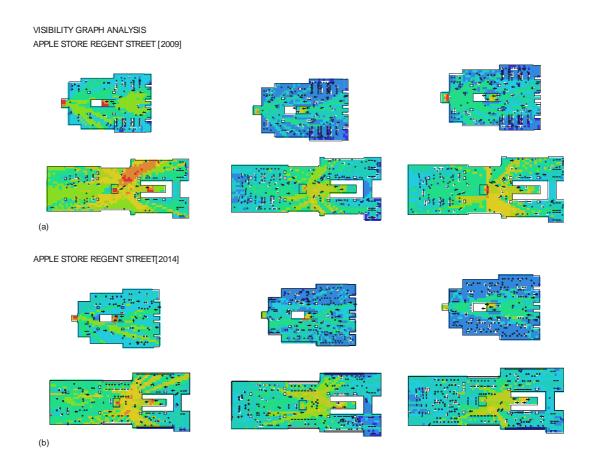


Figure 1: Density maps highlighting people distribution in Regent Street Store in (a) 2009 and (b) 2014.



**Figure 2**: Comparison of (a) behavioural patterns in the Apple Store Regent Street in 2009 and 2014; and (b) the distribution of staff across different zones of the Store in 2009 and 2014.

To understand the interplay between spatial layout and behaviours in the light of the recently introduced payment strategy, a series of VGA's on eye-level were constructed, which modelled both physical elements and the presence of other people as visibility obstacles. This technique allowed combining the spatial analysis with the resulting dynamics in terms of space usage in order to compare and contrast the layout's performance before and after the new payment method. This methodological innovation follows recent contributions aiming to combine social and spatial information in a single representation (Derix and Jagannath, 2014; Koutsolampros et al., 2015) and sees itself in the tradition of devising methods of analysing quasi-synchronic spaces, where traditional space syntax analysis methods become meaningless (Peponis and Bellal, 2010). Figures 3a-b show the results of the VGA series of layout and space usage in 2009 and 2014. As expected, it can be seen that higher people density results in lower integration values both in 2009 and in 2014.



**Figure 3**: Visual Integration (VGA) on the eye level of the observer by considering human presence as additional visual obstacle in the visual field in three snapshots in Regent Street Store in (a) 2009; and (b) 2014.

Changes between 2009 and 2014 can be further understood by analysing the size and shape of the integration core of the layout, the set of the 10% most integrated spaces, before and after the new payment method (Figures 4a-b). Three separate VGA's were combined at each point in time. It is obvious that the integration cores of 2009 and 2014 did not change significantly, however, they transformed rather subtly from a more concentrated structure in 2009 to a more dispersed and spiky structuring in 2014. Table 1 illustrates a comparative analysis of the integration cores in 2009 and in 2014. The analysis investigates the number of separate components formed in each core as well as the length of the core's perimeter. Results suggest that in 2014 the integration core is made up of more different components and a larger perimeter than in 2009. It seems that the transaction dispersal has intensified the usage of spaces located in close proximity to the areas that exhibit the products, since customer and staff member tend to use those spots for the transaction completion (see Figure 3a-b, above and behind the staircase of the first floor). Thus, the additional visual obstacles located in front or around the product sectors create multidirectional visual fields that lead

to a more spiky integration core in relation to 2009. Apparently, the new payment strategy creates even more dynamic and generative behaviours within the store's boundaries as evident in the shifting size and shape of a diversified integration core.



Figure 4: Dynamic integration cores of the Regent Street Apple Store in (a) 2009 and (b) 2014.

	NUMBER OF COMPONENTS		LENGTH OF PERIMETER	
	2009	2014	2009	2014
11:00	9	11	151 m	192 m
14:00	11	12	178 m	185 m
17:00	7	15	123 m	182 m
MERGED CORE	13	18	184 m	243 m

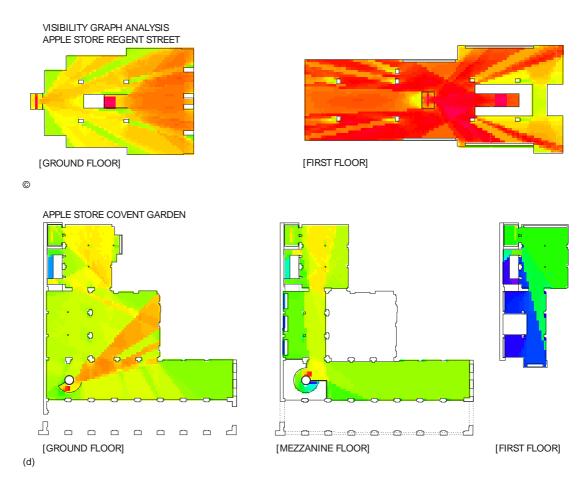
Table 1: Comparative analysis of the integration cores in 2009 and 2014

# 6. The new mobile payment strategy in the London stores - strong or weak programming?

This chapter compares and contrasts the two London based Apple Stores in Regent Street and Covent Garden in order to examine the way in which the two layouts accommodated the new payment strategy and to what extent they generated similar or divergent behavioural patterns. Specific focus will be placed on the question how weakly or strongly programmed the two different stores appear. The analysis will proceed in five distinctive steps and investigate: spatial configuration (1), configuration-in-use (Sailer, 2010), i.e. the strategic top-down usage of a space, in this case the spatial allocation for specific products (2), and finally, usage patterns as realised through movement flows (3), the variation of activities across different spaces (4) and the location of transactions (5).

Firstly, space syntax analysis was used in order to compare and contrast the spatial properties of the two layouts. Figures 5a-b illustrate the VGA on the eye level of the observer. At a glance, it can be seen that the Regent Street Store shows higher levels of spatial integration as a whole, which means that users need fewer direction changes in order to explore all spaces.

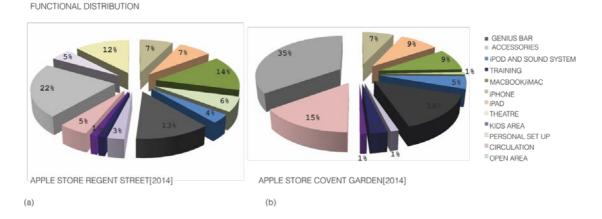
Since higher levels of integration point towards a weakly programmed building (Hillier and Penn, 1991), it could be argued that the Apple Store in Regent Street works with weaker programming than the one in Covent Garden, which might require a stronger programme to function well.



**Figure 5**: Visual Integration of the eye-level VGA in the Apple Store in (c) Regent Street and (d) Covent Garden. Colour ranges are comparable.

Secondly, the idea of 'configuration-in-use' was explored in the particular context of branded retail environments. Sailer (2010) suggested that movement not only evolves from spatial configuration, but also from strategic placement of facilities, the 'configuration-in-use' as she termed it. The study of offices, where attractors such as coffee machines and kitchens were shown to divert movement flows and thus introduced elements of strong programming (Sailer, 2007) could therefore be applied to Apple Stores by conceptualising product placement as a subtle pull of customers towards various attractors.

In an effort to investigate this idea, the proportion of the area used up by each product sector was analysed and compared to its minimum, maximum and average integration values. Results indicated that even though the two retail interiors shared the same organisational concept, the functional distribution across the two stores varies somewhat (Figures 6a-b). Specifically, product sectors in the Regent Street Store are more evenly distributed than in the Covent Garden Store. Additionally, Covent Garden showed a slightly higher percentage of open spaces (35%) and circulation areas (15%) as compared to Regent Street (22% and 5% respectively).



**Figure 6:** Pie charts of proportion of areas used by the different functions in the Apple Store in (a) Regent Street, (b) Covent Garden.

These results are in line with findings from the joint examination of functional allocation and spatial configuration (Figures 7a-b), which plots the range of integration values for each product. Specifically for iPhones, iPads and Macbooks, a larger functional distribution of integration values is found in Regent Street in comparison to Covent Garden. However, in both stores the most integrated parts of the layouts had no specific function, which is interesting in itself.

Essentially, due to the more even distribution of space allocation to certain product ranges and their wider distribution across integrated as well as segregated locations in Regent Street, the picture of a more weakly programmed building emerges, as opposed to a stronger influence of programme and attractors in Covent Garden.

#### FUNCTIONAL DISTRIBUTION ALONG THE INTEGRATION VALUES

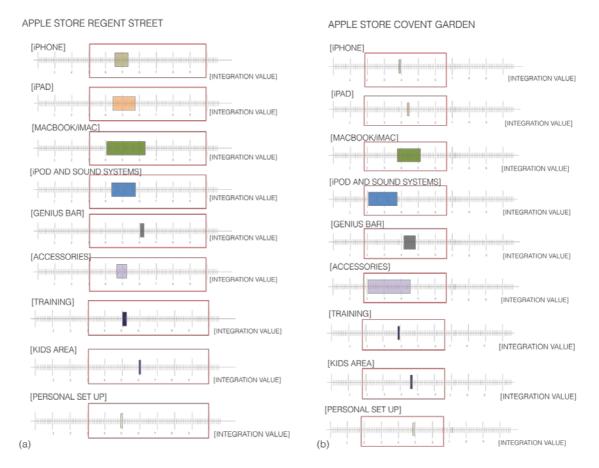


Figure 7: Functional distribution of integration values for the Apple Store in (a) Regent Street, (b) Covent Garden

Thirdly, in an effort to investigate space usage as realised through movement flows, traces (Figures 8a-b) were examined by considering how controlled and programmed the interface between user groups is. In Regent Street a significant and strong correlation of customers and staff movement across all areas of the store (R<sup>2</sup>=0.61) points towards a generative space with weak levels of programming, whereas the analysis for Covent Garden returned insignificant results.

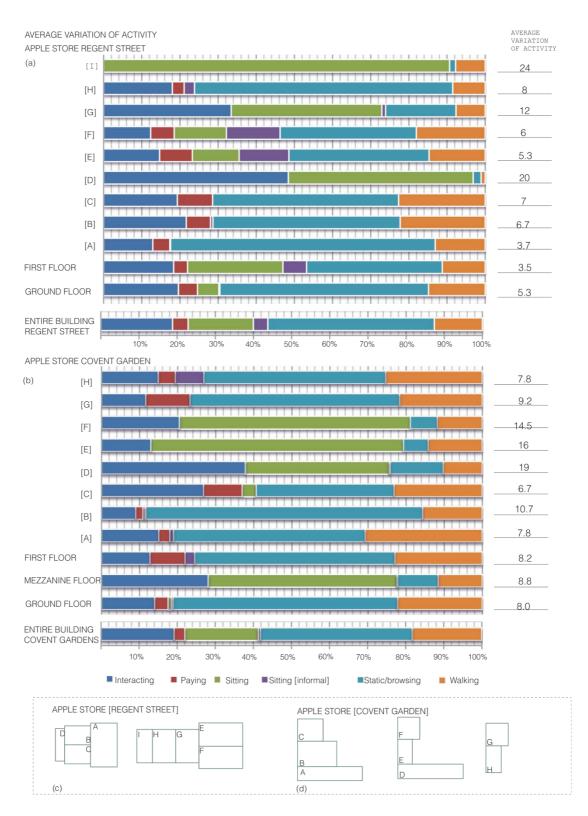
Fourthly, the variation of space usage behaviours across different locations of each store was investigated, following an approach introduced by Capille and Psarra (2013). From the snapshot observations the proportion of each activity (interacting, paying, sitting, sitting informal, static/browsing, walking) in different locations was calculated and compared against the overall patterns of the entire building. By summing up the differences accumulated for each category of activity between each location and the whole, a metric for the strength of the programme is devised. Weak programmes would show low variation across different spaces of the layout, whereas strongly programmed spaces would show higher levels of variation, since the programme determined activities.

It is obvious that both stores showed lower and higher variations across the different floors or functional areas (Figure 9a-b), however, it is also apparent that Covent Garden illustrated higher variation across floors (8.0, 8.8 and 8.2) than the Regent Street Store (5.3 and 3.5). In Regent Street it is only certain parts of the layout that reveal strong programme, such as the theatre in Regent Street [area I] where the vast majority of people sit (90%).

Again, a picture is painted of Regent Street as an overall rather weakly programmed building in contrast to Covent Garden as a more strongly programmed space.



**Figure 8**: Movement traces in Apple Store in, (a) Regent Street, (b) Covent Garden; generated gates for the Apple Store in (c) Regent Street, (d) Covent Garden



**Figure 9**: Percentage of each observed activity in every functional area and the entire building for (a) Regent Street and (b) Covent Garden as well as definition of functional areas for (c) Regent Street and (d) Covent Garden.

Lastly, the functional dispersal of the purchase experience is examined to explore the particular operation of the mobile payment in two different retail layouts. In order to investigate the dispersal of transactions, density maps were produced (Figures 10a-b) highlighting the density and location of transactions in both stores. At a glance it can be seen that distinct patterns emerged in the two stores, since in Covent Garden no single transaction was observed on the mezzanine floor. In contrast, transactions seem to be more evenly distributed in Regent Street. At the same time, in Regent Street the most densely populated areas overlap with the most integrated parts of the layout (see Figure 5) as opposed to Covent Garden, where the most densely populated areas can be found in both integrated and segregated parts of the retail space. By considering density maps in combination with the functional distribution it can be seen that the most densely populated areas are generated in front of the most popular product sector, the accessories area in both stores. Interestingly, the mezzanine floor of Covent Garden recorded no single transaction due to the fact that this floor is accommodated by uses not dedicated to selling. In essence, it can be concluded that the interplay between functional allocation and spatial configuration appeared to distribute transactions. The more even distribution of transactions in Regent Street again highlights a weaker programme than apparent in Covent Garden.



Figure 10: Density of transactions in Apple Store in (a) Regent Street and (b) Covent Garden.

Overall, by taking into account all parameters mentioned above it can be concluded that the organisational rules and principles of the Apple branded experience were incorporated with slightly different focal points in the two stores examined. Regent Street operated in a more weakly programmed manner throughout, whereas Covent Garden showed elements of stronger programming with the functional allocation and attractors having a higher impact on customer and staff behaviour.

# 7. Discussion and conclusions

This paper has underlined the emergence of an open, accessible and easily perceived space with unrestricted exposure to Apple products and with aesthetics that recall Apple's design philosophy. Apple's marketing intentions appeared to be systematically centred on personalised interactions between customers and staff members configured within inviting building settings that created a strong community feeling (Palaiologou and Penn, 2013). Specifically, the company created a generative space by configuring weakly programmed interiors in terms of users' encounters, which supported visitors' autonomy to decide upon their routes inside the store.

In its recent retail strategy, Apple has managed to advance the *deconstruction of predetermined* spatial relationships further with the *functional dispersal of the purchase experience*: with the introduction of mobile payment purchases can occur at random spots inside the stores in a more

informal and discrete way. The purchase process is no longer restricted by the fixed cashier position but potentially can happen everywhere, where a staff member is located. Arguably, the new mobile strategy managed to "blur...the spatial boundaries between buyers and customers" (Vernet and De Wit, p. 20), since customers are no longer obligated to stop their shopping experience and be funnelled into a line in order to buy a product.

At the same time it could be seen that this strategy of a generative environment was implemented in different ways in the two London-based Apple Stores. The store in Regent Street seemed to provide more spatial cohesion, a less controlled interface and a more even distribution of both products and resulting behaviours than the store in Covent Garden, which relied on elements of strong programming.

In essence, this paper highlighted the complex interplay between spatial configuration, functional allocation, and space usage in Apple's retail interiors. Additionally, this paper suggested the conceptual framework, tools and methodology for a consistent examination of branded environments and organisational strategies by examining an Apple Store in two different time periods as well as by comparing and contrasting two London based Apple Stores. The retrieved insights contributed to a better understanding of the complexity and mechanisms that govern branded architecture, while they also shed light on the spatial performance of the recently introduced mobile payment method by revealing its implication on the spatial layout as well as its interrelation with functional and behavioural aspects.

The paper has also contributed by reflecting on and advancing the methodology of studying small quasi-synchronic spaces, for instance by modelling people as obstacles in visibility fields and thus providing a dynamic account of the spatial experiences in those spaces. The space syntax study of small environments, other than domestic spaces, is not very well established and traditional methods often fail to deliver insights in small spaces, hence further research is needed.

Limitations of the study include a limited number of observations. It should also be noted that some of the configurational effects might be biased by the additional floor of the Covent Garden store. Ideally this study could benefit from further comparative analysis of different stores that would take into account the number of floors and the size of retail area.

Overall, small commercial spaces are still an under-researched field and further explorations could shed additional light on aspects of generativity, programming, and spatial and social cohesion across branded contexts and experiences in retail spaces.

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