AR+AI = Augmented (Retail + Identity) for Historical Retail Heritage

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Abstract
From the cafés in the dreamlike square in Rimini depicted by Fellini in *Amarcord* to the movie theater in the village of Giancaldo depicted by Tornatore in *Nuovo Cinema Paradiso*, historic shops represent a rich and significant cultural heritage. The protection of historic shops is often the subject of specific dedicated regulations throughout the country, aimed at preserving their compositional identity and preventing the impoverishment of their urban image. In this context, starting from the analysis of future scenarios in the field of retail design, the proposed contribution aims to open new perspectives on the potential offered by the use of AR and AI technologies in the identity enhancement of the architectural heritage of historic shops. The idea, presented through a real case study, is that the concept of Augmented Retail can represent a strategy to achieve an Augmented Identity, changing the retail space from a 'product window' to an 'experiential theatre'.

Keywords
AR–AI, historic shops, retail, heritage, valorisation.
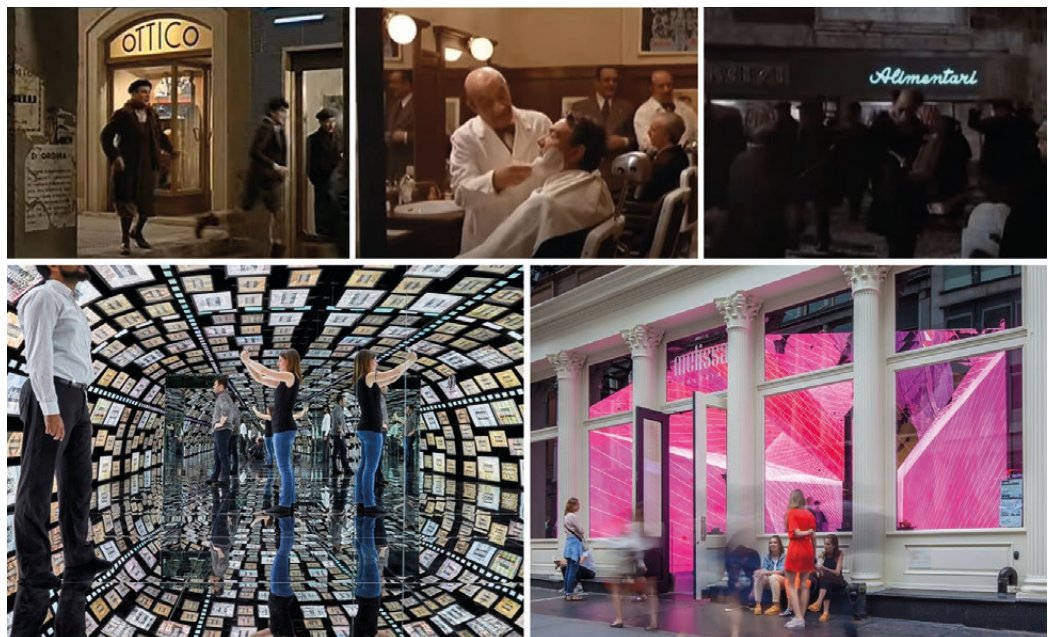
The Shop as an Identity Value

Historic shops represent a cultural heritage with a strong identity value, and this can be seen in the many artistic and cultural expressions in which the image of Italy is portrayed through that of its historic places: interiors, shop windows, overlooking squares and open spaces, urban views, etc., which give vividness with intense colours to the glittering image of the 'Belpaese'. In this regard, the dreamlike narration of the city of Rimini by Federico Fellini in *Amarcord* is emblematic, as is the story of the movie theater proposed by Giuseppe Tornatore in *Nuovo Cinema Paradiso*. The life of the community is marked by the interior and exterior spaces, by the scenery of the square (characterised by the iconographic apparatus of neon signs) and the shops. The identity traits of the shops mark the succession of times and tastes: "it is the shop which best indicates the level of industrial and economic development of a country, and which also best reflects the state of its culture and art" (Sabatou 1938/1984, p. 6, translation by the authors). At the same time, the shop represents the constitutive element of the urban landscape; as Guido Canella affirms, "the 'living pictures' of the shops facing and lined up on the street are breaks of a hoped–for city landscape, where […] objective, symbolic, unifying, deforming intentions, corresponding to an aesthetic feeling, enter each time" [Canella 1984, p. 2, translation by the authors] The historic shop substantiates the very image of the country, determining its perception from the outside and becoming fully part of the collective memory: "If Italy loses its shops, we lose Italy as we know it" [Petrini 2020, translation by the authors]. In the regulatory background, the *Codice dei Beni Culturali* e *del Paesaggio* (D.L. n. 42 of 22 January 2004) is not specific about this type of property and generically includes it among the "immovable and movable property of artistic, historical […] and particularly important interest". The first explicit reference to "historical traditional premises" was made in D.L. 91/2013: it is often the individual regions that enact specific provisions for the protection and enhancement of these assets in the form of regional laws. In recent years there have been many initiatives aimed at raising awareness of the issue and comparing experiences at national level. Many contributions confirm the attention paid by the scientific community to commercial establishments; these are almost always census activities, generally based on the architectural survey and cataloguing of historic shops and aimed at enhancing them in various ways (dedicated tourist circuits, restoration work, protection actions, also in terms of safeguarding their use, etc.).

In this context it is possible to list some significant examples: starting with the cataloguing of Turin's historic shops, begun in 1985 [Tagliasacchi 1985], then systematised [Ronchetta 2001] and extended to the entire Piedmont region [Ronchetta 2008]. The cataloguing work, shared publicly through the *MuseoTorino* portal, makes it possible to consult documentation sheets and digitised materials on the individual businesses recorded, also by locating them on a map. Other examples are represented by the survey and cataloguing of historic shops in Lucca [Pellegrini 2001], aimed at documenting the technical expertise of the artisans and promoting restoration and enhancement actions, the cataloguing of commercial activities in Tuscany [Preite 2007], the census of historic premises in Friuli Venezia Giulia [Regione Autonoma Friuli Venezia Giulia 2010], by the proposal for a *Multimedia Information System* of the commercial activities in Bologna [Bartolomei 2013], by the census of historical premises in the Marche [Regione Marche 2014], which led to a dedicated guide, and finally by the census and photographic guide of the historical places of commerce and catering in the Veneto, from which the app *Veneto su misura* was produced.

Among these initiatives is the activity of the research team of the Department of Civil and Environmental Engineering of the University of Perugia. With regard to the case study of the historic centre of Spoleto, in the context of the initiative *Consulto su Spoleto* (2017), starting from the analysis and highlighting of the critical points of the Building and Town Planning Regulations, the aim is both to draw up a census and typological analysis of the commercial activities present along the streets of the historic centre, and to identify a series of criteria to guide planning choices, also through the promotion of city branding actions. The question as to which instruments today allow for the protection and, above all, the enhancement of historic commercial activities has not yet found an unequivocal answer; in fact, the debate, at times polemical [Adinolfi 2016], on the opportunity of fluid reallocation of protected commercial spaces to new brands, even related to product categories very distant from the original destination, is still open. A controversial case in

this regard is the Santa Maria Novella railway station in Florence, a protected work by Giovanni Michelucci, where the relocation of commercial activities has meant that a brand of underwear has found a home in the former offices of a bank and a supermarket has moved into the space originally dedicated to worship. Although this stratification may create an interesting ambiguity in some respects (in this case, the overlapping of signs does not seem to be a reason for disorientation, but rather highlights the vitality of a place able to update and renew itself over time), the problematic knot of the ephemeral margin between protection and reuse remains open.

The Shop as an Experiential Theatre

In light of these considerations on the identity character of the historical shop, with the aim of its enhancement in contemporary terms, it seems necessary to question the meaning it currently assumes. In other words, it is necessary to acquire a new awareness of the concept of 'shop', a concept that has undergone deep changes over time and is constantly evolving. In this context, it assumes nodal importance to investigate the opportunity offered by the use of New Technologies, with specific reference to AR and AI, also as an evolved strategy for the protection of the material characteristics of places, given the current conception of the physical retail space [van Escha et al. 2019]. Increasingly, the shop is not only a material place to buy products, but it becomes the 'emotional centre' through which communication between the brand and its target audience takes place [Taylor, Zavoleas 2018]. With the spread of e–commerce, in fact, it is possible to buy anywhere and with just a few clicks: the relationship between buyer and product is mediated by a device and, in this sense, requires that the customer's involvement takes place at other levels and through different channels. The physical shop, on the other hand, has to offer a different experience to e–commerce, possibly personalised and user–centred, capable of including those elements of memorability and engagement that determine both diversification from computerised purchasing and an effective support to it. For example, in today's advertising policy, the flagship store represents an investment whose profit is estimated in terms of advertising rather than on–site sales to the consumer. The store becomes almost an advertising space, similar to that available in publishing, television or other media. The objective underlying this dynamic is the evolution of the consumer's role into that of 'consumer–actor', as the user, having identified with the brand and recognised its values, becomes its ambassador and testimonial. The physical shop, both through the architecture of the place, the design of the interiors and of the retail space, and through communication actions and an increasingly advanced use of technology, becomes the scene of a user experience aimed at the progressive discovery of the brand through strategies of engagement, customization and strengthening of the community [Riewoldt 2002, Marchetti 2009]. The objective of engagement is to involve the user in an immersive experience, whose location par excellence is the physical shop: dedicated entrance, shop window and room/corner are the nodal points of the connection and emotional exchange between user and brand. An emblematic example, which embodies this branding strategy through AR applications, is represented by the Nike flagship store in NY, where there is a 'Running Trial Zone' that allows visitors to test the most suitable shoes for jogging and competitive running on a treadmill facing a wall/screen that simulates the immersion of the runner in Central Park. The aim of customisation is to offer the user a personalised and customisable experience; the shop respects and satisfies the diversified needs of a multiplicity of customers, proposing distinct paths according to the type of user. There are numerous examples of this strategy: from the *Fragrance Lab* (multi–sensory interactive areas for personalised fragrance exploration and product customisation) in one of Selfridge's London locations to the *Hunter pop–up* (an interactive and immersive greenhouse designed as a test room to simulate the use of clothing) installed in NY Central Terminal. Finally, the aim of the community is to use the physical location of the shop to build user involvement within a 24/7 connected community through events, gamification, contacts and sharing. The architecture and scenery of the store become a source of wonder and an object of sharing; digital communication makes the spread of the brand, its values and therefore, its products viral through the users themselves. In this sense, the example of the Samsung 837 store NY is emblematic: a multifunctional store, which incorporates, in addition to its usual function as a

shop, those of a theatre, cafeteria, museum, games room and, last but not least, a multimedia tunnel for an immersive experience, whose external transmission is entirely entrusted to the sharing of selfies by users/ambassadors on their social profiles [Galasso n.d.].

The Shop From Identity Value to Experiential Theatre

The proposed reflection intends to focus on the potential offered by the use of the described strategies in historical commercial contexts, where the brand can adopt an approach that allows it to take further advantage in commercial terms of the acquisition of the identity and historical–artistic value of the location. From this point of view, the *'bottega'* becomes an ideal field, in which the combination of tradition and technological innovation can generate innovative commercial methods capable of implementing a mutual and synergic enhancement between brand and physical shop. There are numerous examples of this: just think of the case of the recovery and redevelopment of the former Agip station in Piazzale Accursio in Milan, originally designed by Mario Baciocchi on commission from Enrico Mattei and converted in 2017, by Michele De Lucchi, into 'Garage Italia', a shop that welcomes the new destination by reinforcing its identity connotation. Then there is the case of the 'Starbucks Reserve Roastery Milano', where the brand adapts its image by declining and lowering it into the cultural background in which it is inserted. How can an American coffee be competitive with espresso, a product deeply rooted in the daily life of the '*Belpaese*', whose violation seems almost sacrilegious? The strategy adopted by the international brand in Italy, the home of coffee, is 'to be Italian': first of all, by choosing the historic location of Palazzo Broggi (built in 1901 in Piazza Cordusio, the heart of Milan's financial district, and formerly the headquarters of the Stock Exchange and the Italian Post Office from 1998 to 2011), then by adopting the style of a former coffee roasting and establishing a partnership with the Princi pastry shop, a local excellence, and finally by offering immersive experiences ranging from the inhalation of fragrances to the consultation of content on demand through AR. Another significant case is represented by 'Galeria Melissa' in New York, where the immersive experience allows continuous changes of setting and entertains customers through interactive facades and user profiling through AR and AI. In this case, the importance of the shop window in the operations of 'augmented reuse' clearly emerges: from a simple place of display, it becomes a screen, a portal, an intelligent interface between the brand and the user. The formula AR+AI=Augmented (Retail+Identity) appears in this scenario to be the synthesis of a specific approach, which consists in using AR and AI technologies as a tool to reach a concept of 'augmented historical shop' in its identity connotation. Moreover, with the added value represented by the possibility of implementing a variety of scenarios and installations without materially altering the existing morphology, a particularly virtuous potential in the redevelopment or conversion of historic commercial spaces. In this sense, AR and AI are a vehicle for "a mobilisation that looks to the future and not to the past, which sees the shop as a paradigm of a multifunctionality that only the tools of the contemporary world can offer and of which young people are the main and privileged interpreters" [Petrini 2020].

A Case Study: Barbieria Lolli in Perugia

This is the context for the design proposal to transform Barbieria Lolli (a historic commercial activity on Perugia's acropolis owned by the University of Perugia) into an augmented university store. The interior walls, among the few surviving frescoes in the city, are the first work of the Perugian painter Napoleone Verga (Perugia 1833 – Nice 1916) [*I luoghi dell'Università* 2008; Boco, Ponti 2006], who painted them "in the style of the XIV century" [De Gubernatis 1889, p. 542]. The need to preserve the painted surfaces by avoiding contact and the small size of the shop (which has a single opening on Via Mazzini, a side street of Corso Vannucci, the city's main street) make it an ideal opportunity to intervene with AR tools, assigning an interactive filtering role to the shop window. The idea is to transform this precious historical and artistic asset into an experiential theatre able to convey the renewed identity of the University of Perugia. In line with the relationship between tradition and innovation, which is one of the core values on which the University of Perugia's communication is based, a transparent LED wall will be inserted in the space occupied by the fixed glass surface along the street. Without losing the relationship of continuity between inside and outside,

Fig. 1. Barbieria Lolli in Perugia, the interior of the historic shop (left) and the project of the new interactive shop window (right).
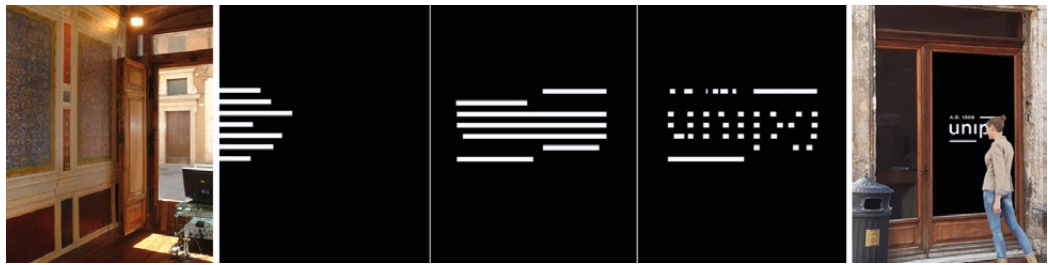
the showcase is conceived as a virtual surface subject to continuous changes thanks to the interaction with passers–by, offering illusionistic experiences in the space of everyday city life (fig. 1). The new shop window is set up on the basis of factors that do not strictly concern the enhancement of the material goods on offer, but as a device for activating the identity value of the University of Perugia (conveyed by the new logo) while protecting the historical character of the place.

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