

Design

for Shopping

New Retail Interiors



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# TECHNOLOGY AND SHOPPING



# INTRODUCTION

Technology has increasingly become a defining element of the shopping experience. With pioneering vision, the Prada Epicenters, commissioned in 2002 in the USA, kick-started an endless discussion about the role that technology has in retail – whether it is about entertainment and/or aiding the act of consumption. While heading the research and concept team at the Office for Metropolitan Architecture (OMA), Markus Schaefer worked closely with architect Rem Koolhaas, Reed Kram from Reed Kram Media Design in Stockholm, Sweden, IDEO and the Prada team on the brand's environment, image and communication.

In 2003, Schaefer joined with Hiromi Hosoya to set up Hosoya Schaefer Architects, a Zurich-based practice that divides its time between creating concepts for clients in field as diverse as politics, university management, integrated regional planning, retail and corporate identity. According to Hosoya Schaefer Architects, digital technologies that provide an alternative to spatial continuity, along with branding and media that affect representation, have fundamentally changed the way we understand and use space. Markus Schaefer talks of the experience of conceiving technology for a retail environment.

## INTERVIEW WITH MARKUS SCHAEFER OF HOSOYA SCHAEFER ARCHITECTS, ZURICH, SWITZERLAND

### Why is technology used in shopping?

'First, it is used for the efficiency it allows. Point of sale systems, customer databases and inventory databases are tools that were generated strictly for the logistical side of the business. Now, many of these systems are created in order to be seen, and sometimes even used, by clients. In this sense, technology simply is part of how shops are currently organized and run. Second, shopping, especially when it is shopping for fashion and trends, is still associated with newness, and technology is a very important signifier of the new. Shops use technology to show that they are up-to-date. Often the communication that is achieved with displays or projections could also be achieved with print or other media, but that would be seen as old-fashioned. The medium is very much the message in a shopping environment.

When Rem Koolhaas began the collaboration with Miuccia Prada and Patrizio Bertelli several years ago, they were interested in something different, a totally new approach to retailing. With a team of fellow students studying with Koolhaas at Harvard University, we had just completed work on the *Harvard Guide to Shopping*, where we analyzed how shopping had invaded all other activities in the city. The citizen had become a consumer in the museum shop as much as in the university merchandising shop, and in areas as diverse as the airport and the church. We also looked at the relentless drive for newness and its modernizing and innovative, yet often frivolous, force. We were interested in using these insights to respond to the classical questions of architecture – use, the role of the collective, representation and space. Technology integrated into space allowed for interactions that were architectural rather than menu-driven. The system was to allow us, next to increasing efficiency and providing a better service, to represent the company and its cultural context in new ways. We were interested in juxtaposing to the hermetic logic of branded space, information and images that were raw, rough, strange, taken from the public domain or taken from the company and presented without the need to turn them into a seamless story. I believe that companies exist in a spectrum between identity and innovation. Identity, a branded image, is dependent on stability and control; innovation is based on accepting the unexpected. We hoped to use technology to do the latter rather than only the former.'

### How do architecture and interaction design relate? How can interaction design bring the whole technological vision together within a retail environment?

'Architecture is the oldest interaction design discipline. Unfortunately, it does not yet have a lot of experience with technology, media and their specific requirements. I strongly believe that digital interaction will increasingly be either constrained to very small devices or become part of environments. I am very interested in using space and movement in space, *i.e.* traditional behaviour understood by architects, as ways of interaction. I think the most successful applications in the stores, the

magic mirror and the Privalite wall in Prada's Beverly Hills Epicenter Store, are based on interactions that only involve body movements and result in a playful, spontaneous interaction. Whenever customers need to interact with a screen, or even worse with a menu, their interest is lost rapidly.'

### The Prada stores, for many, symbolize the marriage between retail and technology. What has been your participation in it and what were the key concepts that you developed? Also, what was the relationship with IDEO?

'Our interaction and collaboration with Prada was very stimulating because of Miuccia Prada's strong desire to develop the brand's store concept and revolutionize the current perception of retailing. I was heading the research and concept team at OMA at the time. After the stores had been conceptualized, our focus turned to the technology and communications aspect of the project. We invited Reed Kram, who I knew from our studies in Boston, to join us. Together with the creative and technical input from the Prada Group, we defined most of the elements of the store scenario.

We found RFID technology very exciting, as it seemed to promise that physical objects and digital information could seamlessly interact. In our scenarios, information would not be carried around. It would, rather, follow customers and staff to wherever they needed it – displays then became part of the environment rather than part of a device. We conceptualized hanging displays, like garments on hangers that would slide in between clothes hanging on a hangbar. They were still connected to the store system and therefore part of an overall scenario. We were interested in going beyond the simple corporate video playing on a screen. Our displays can be activated by a staff device to show movies, fashion shows or information about a specific product. Later on, Clemens Weisshaar gave these displays a beautiful form. Information was to be managed by the staff through a personal device. Only in specific cases would the customer interact directly with it. The dressing rooms, for example, would provide information and have some sort of digital mirror.

IDEO helped in creating the magic mirror with the idea of elastic time even though the first full-scale demo software was written by Reed Kram. They developed the staff device that, in the New York concept, was the mediator between all the different elements of the scenario. And they were instrumental in implementing the RFID technology as that was, at the time, fairly experimental. When we worked on the second store, technology was already so much further advanced that we could work with much more reliable RFID technology. In addition, the application could be reduced to one flexible and versatile piece of .net software, while the New York store was still based on a server system that mediated between different applications. Thanks to the expertise and valuable contribution of Prada Group IT, we no longer needed the support of IDEO.'

A textbook example of how big a media buzz could be generated from the marriage between high-profile architect and fashion brand, the collaboration between Miuccia Prada and Rem Koolhaas' Office for Metropolitan Architecture (OMA) set international press tongues wagging way before any visualization was even rendered 3D. In spring 1999 Prada asked OMA to develop a unified concept for major outlets in New York, Los Angeles, San Francisco and Tokyo. Prada wanted to create a new retail experience for its customers, something that would reflect the company's credo in shopping 'as a singular experience in which culture and consumerism flow together'. Prada also commissioned Swiss architects Herzog & de Meuron and the Japanese Kazuyo Sejima + Ryue Nishizawa to build stores around the globe.

Following the high-profile opening of the New York Prada Epicenter by OMA in 2002 and the Tokyo Aoyama Epicenter by Herzog & de Meuron in 2003, the Los Angeles store by OMA opened in July 2004. All the stores are defined by the integration of retail and performance space, with an innovative employment of technology. Set in Beverly Hills' Rodeo Drive, the favourite hangout for shopping celebrities, the LA store is a total of 2,230 square metres (24,000 square feet) with 1,370 square metres (14,750 square feet) of retail space on three floors. Inside, are housed the ready-to-wear mens and womens collections, the sports line, handbags, shoes, accessories and beauty.

The absence of a façade and of a logo is arguably the LA store's most defining characteristic. The entire 15-metre (50-foot) width opens up onto the street without a traditional, glass-enclosed storefront, which invites the public to enter the building and creates a continuum between the outside and inside. At night, an aluminum wall is raised to hermetically seal the interior. Inside, the store's architecture remains 'uncovered'. Thanks to the meticulous engineering of Arup, the space is



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1 The Prada façade on Rodeo Drive opens up to the street and merges public with commercial space. Invisible security antennas guarantee the safety of the goods inside.



2 Inside the store, a large wooden stair forms a hill-like structure that supports an aluminium box that floats above the entrance. The stair is framed with laminated glass that fades from translucent to transparent.



an interesting mix of column-free space and certain areas where the structure is exposed. Built using a steel brace frame that features special steel trusses, the building has sheer concrete and the floors are steel, framed with composite metal deck and concrete. One of the most notable structural aspects was the design for the roof, which has a steel frame that supports an all-glass, pitched roof. This also doubles as the seismic-resisting diaphragm.

An oval section arch, faced with polished stainless steel, is hollowed out from the double-sided wood staircase at the centre and contains a replica of the first Prada store opened in Milan in 1913, a poignant reference to the company's growth and development. Surfaces are tactile and ingenious – the staircase is framed with laminated glass that fades from translucent to transparent, shoppers sit on gel-like cushions and the aluminium box that floats above the entrance is lined with a spongy, porous material specifically developed for Prada.

Like the New York Epicenter, interactive technology is key to the shopping experience. Each dressing room is a simple 0.74-square-metre (eight-square-foot) booth with Privalite glass walls that switch from transparent to translucent when a room is occupied. Once inside,

the customer can switch the doors back to transparent at the touch of a button, thus exposing themselves to the onlookers waiting outside the room. Different lighting conditions allow customers to view their selections in a warm evening glow or cool blue daylight. IDEO led the design and development of the interactive dressing rooms, working in close collaboration with OMA and AMO, the research branch of OMA.

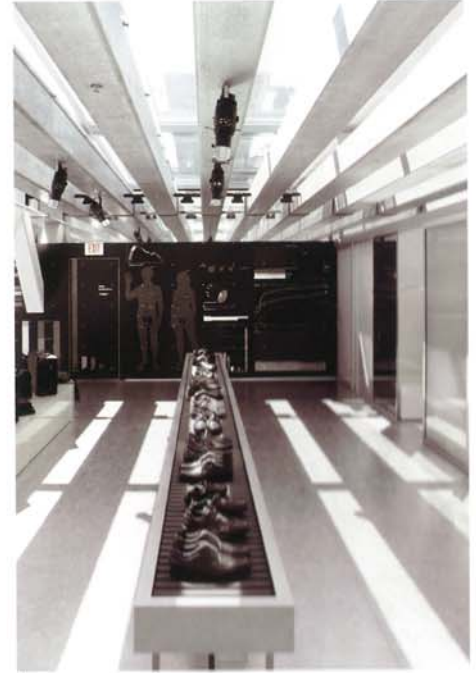
The elevator features a series of small, LCD screens, integrated into the cabin that scan virtual imagery while the elevator travels through the shaft. Ubiquitous displays, plasma screens built into the furniture or hung between the merchandise, show news feeds and stock market data. The technology here is designed to work in a non-obtrusive and functional way, as well as helping Prada portray itself as a brand with a deep engagement in current cultural context.



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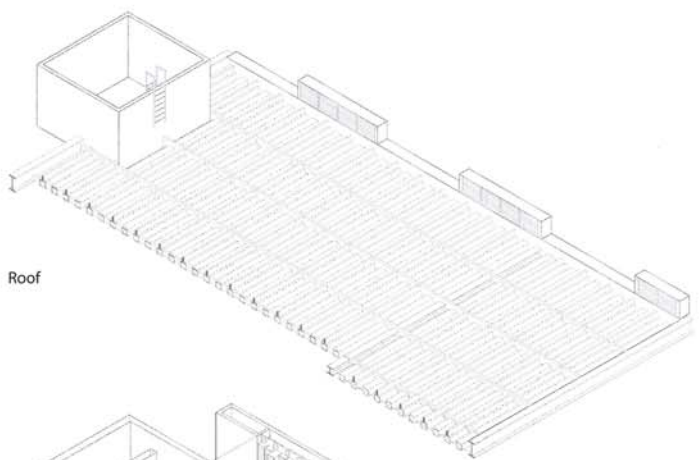
3 Half matter, half air, the spongy material, specifically developed for Prada, provides a porous, artificial background for the merchandise.

4 The wooden staircase is a novel and open-plan means of display. Here, dismembered legs perch on the display boxes modelling a selection of shoes.

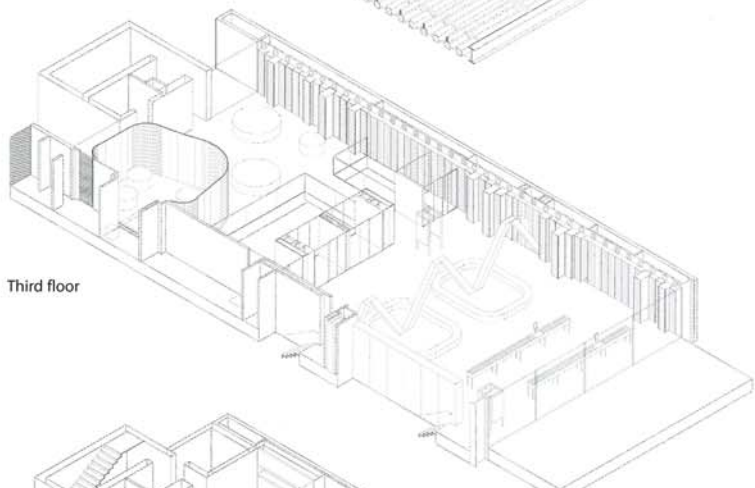


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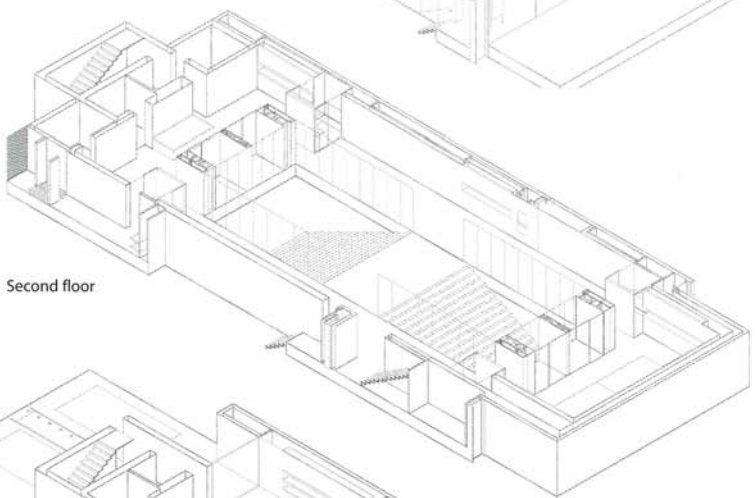
5 The roof structure, spanning the entire floor space, admits daylight to the 'scenario-space', where merchandise is arranged within an open, flexible floor plan.



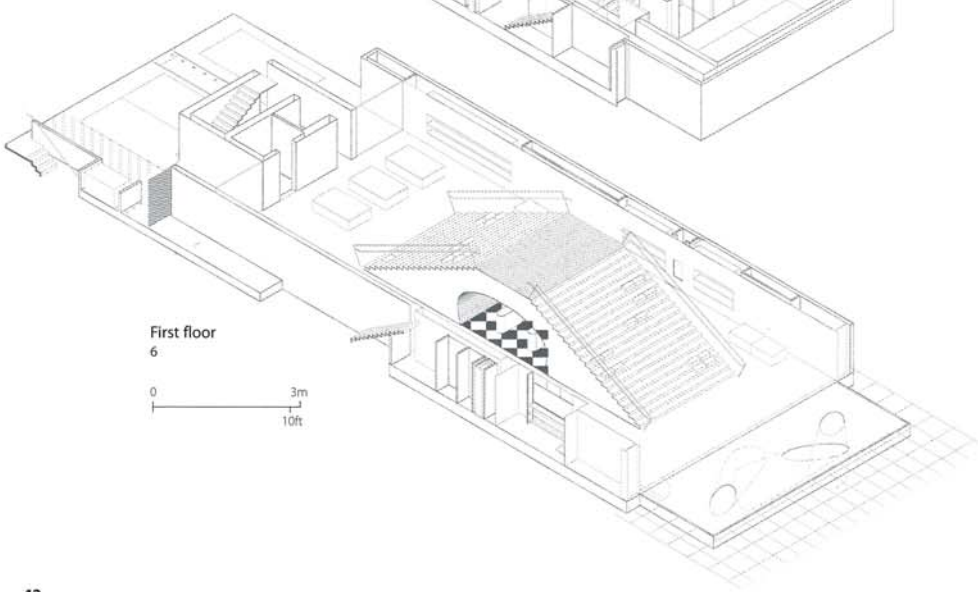
Roof



Third floor



Second floor



First floor



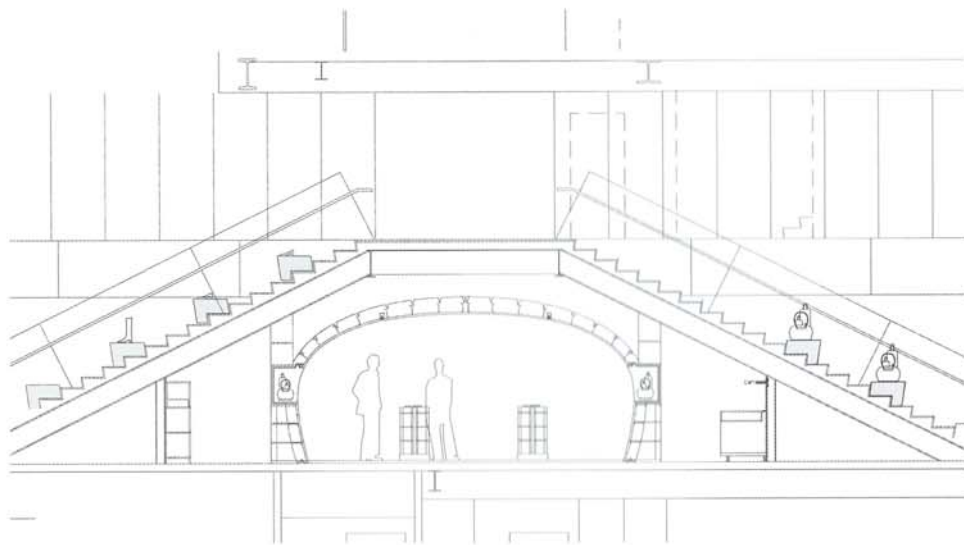
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6 An axonometric diagram of the building, showing the placement of the alcove beneath the stair-hill.



7 In the mirrored alcove beneath the stair-hill, the black and white marble floor and the vitrines make reference to the first Prada store that was founded in Milan in 1913.

8 Section through the alcove, with stairs above.



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