

⌘-C, ⌘-V
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Copy-paste, as the most widely used computer command, establishes a unique human-data interaction, unimaginable in a pre-digital era. It is an instant reproduction that takes no time. Rather, it is a timeless reproduction. From a media-historical perspective, it is similar to the shift from orality to literacy in which writing as a technology greatly changed the world (Ong, 2013). As such, it is crucial to consider copy-paste as a metaphor originating in digital technology, which is now infiltrating all aspects of material culture and dramatically impacting the design world.

The logic of industrial design follows well this metaphor of copy-paste in which the ease of reproduction of the assembly line is as important as the novelty of the products. This industrial design logic has now infiltrated architecture. On the one hand, digital workflow, software, and open-source libraries have largely benefited the ease of architectural production. On the other hand, the logic of industrial design is now being applied to the scale of a building, a logic which favors reproducible universal design over novelty or context. This ongoing trend forms a seamless transition between building as a uniquely constructed space versus building as a manufactured object. Apple stores, which are spread all over the world, perfectly exemplify this infiltration - buildings as reproducible spatial objects which embody the identity of Apple Inc. ("Apple") just as well as their products.

Similarity and Apple Stores

Apple clearly demonstrates how copy paste acts not only as a metaphor but as a design logic which translates across scales, from the design of phones and computers to the design of architecture. The means for achieving copy-paste in the built form are conceived through the development of a set of tectonic devices, or architectural scale patents, which are developed and deployed through building. As such, a paradigmatic analysis of the similarities among multiple Apple stores



Opposite: Figure 3. The master plan of new Apple Campus designer by Foster + Partners shows visual similarities with the 2002 version of iPod.

is attempted here. Amongst these product-buildings there Apple commits to developing patents and prototypes, which on their own may seem novel, but as a whole clearly show a teleology toward standardization and replication.

A way of tracking this tendency is to examine the use of glass in Apple's architectural design. A clear trace showing innovation versus inheritance can be seen in an analysis of the Apple stores and their tectonic developments [Fig.1]. The stair of *Apple Store* in *SOHO, New York city* (2002), was a milestone, introducing laminated glass support members which made the whole structure transparent while safe for a heavier load. This innovation was soon submitted for patenting in 2004 (*Glass Support Member, US 2004/0006939 A1*) and was widely used in multiple cases later, including the *Apple Store* in *Regent Street, London* (2004), the store in *Nagoya, Japan* (2005), and the store in *Sanlitun, Beijing, China* (2008), among others.

Another typical prototype is the spiral staircase supported with rod hangers. The first case dated back to 2004 in Apple's *Osaka, Japan* store where *SentryGlas®* technology was applied to the prototype. And this can be seen later in the *Apple Stores* in *Shibuya, Tokyo, Japan* (2005), *Glasgow, UK* (2007), *Carrousel du Louvre, Paris, France* (2009).

Apple's third prototypical element is the elaboration of the spiral stair supported by a central cylindrical structural core. This type was first developed for the *Apple Store* in *5th avenue, New York City*. The technology was soon published as a patent in 2012 (*Glass Building Panel and Building Made Therefrom, US 20120090251 A1*). Like previous cases, this innovation was soon widely deployed in multiple cases, such as the *Apple stores* in *Boston, The United States* (2008), *Pudong, Shanghai, China* (2010), and in *IFC Mall, Hong Kong* (2011).

The cases listed above present a clear relation between the innovative prototypes and the reproduced replicas. However, a detailed analysis also reveals the differences among these cases. The *Apple store* in *Jungfernstieg, Germany* (2011) improved the application of glass-rail stair with separated panels into an integral piece of work. The new design was supported on 12 meter long single spanning glass balustrade beams with proprietary laminated glass. Another example implementing this tectonic can be found in the *Apple store* in *SOHO, New York City*. As a renovation to its previous design, Apple redesigned the stair case to be 30 feet long free-spanning stair with only one single piece of laminated glass. The tectonics of these architectural products reflects the same logic in Apple's design of their hand-held products.

The infiltration of this industrial design logic into architecture has little to do with what is conventionally considered as the function of a building. The architecture is somehow directly transformed into an large object. It is not only an object, but a product, a three dimensional icon, or symbol of Apple's identity.

Identity and "Apple Urbanism"

Without a doubt, the coherence amongst Apple stores is no mere coincidence, but the architectural embodiment of the company's identity. This universal architectural identity ignores context and is compatible with any built environment. Buildings for Apple have become generic spatial agents, or physical interfaces, which exemplify Apple's philosophy just like any of its products or softwares.

Looking back among technology companies who have established a global identity we find Microsoft, along with IBM. In 2006, in order to distinguish its identity against these rival tech giants, Apple rolled out the "Get a Mac" advertising campaign in which Mac was personified as a confident and creative young figure while PC was presented as a nerdy and frustrated goof (Livingstone, 2011). The comparison here reveals how Apple understands that personal technology feeds into the formation of a neoliberal subject. Following the neoliberal ethos, Apple's designs position themselves as streamlined products with simple user interfaces which allow each individual user to explore the system freely and without superfluous knowledge of the mechanisms within the black-box.

Turning to IBM reveals an alternate story of a technology company positioning itself through architecture. At the 1939 World's Fair in New York, IBM company installed a diorama known as "IBM City" (see Harwood, pg 105, figure 3.2) in which different IBM properties (offices, service department buildings, etc.) were modeled as a "city" bringing together IBM's whole international architectural presence in a single, fictional place (Harwood, 2011). Though constructed as a fictional scene, the image appears real as all the buildings involved display multivalent characteristics, different scales and styles, similar to how buildings might be planned in an ordinary urban situation. We can easily picture an Apple version of this: arrays of Apple stores with identical and standardized style. In the architectural perspective, Apple and IBM have switched their personalities: Apple has become the formal and unaltered figure while IBM has become the casual and creative type. The way Apple is developing their buildings as stubborn participants in multivalent urban morphologies shows no alternative possibilities. This aesthetic produces highly

formal architectural propositions which adhere strictly to Apple's design conceits.

One can clearly see this formality in other Apple buildings. Despite collaborating with Foster + Partners for the new Apple campus, Apple proposed a formally simple building, yet a tectonically complex one: a circle on a massive scale. Upon analysis, the master plan shows an identical proportion with the scroll wheel of the 1st generation iPod [Fig. 3]. Though most likely to be a formal coincidence, the similarity still reads as a clear infiltration of Apple's product design into architecture, irrespective of scale or use. It is a pure aesthetic.

Apple's built agents are quite inert - they are deployed in all variety of cultures, climates and politics. The spread of these agents across the world seems to be as easy as copy-paste. Hand in hand with its handled products, the Apple Stores as a global constellation now form a particular kind of urbanism, which relies on the readily deployable image of purity.

Copy-Cat and Paste: The Purity Paradigm

Due to its formal simplicity, Apple's pure image is easy enough to be copied without thorough consideration of the underlying design principles the company holds so dear. Primitive forms, luminescent glass and seamless aluminum are signature, yet also readily available for the taking. Ironically, it is easy to copy-paste the Apple design paradigm to reach the state of the look-alike, despite what might lie underneath the surface. But in this image-oriented purity, what lies underneath the surface is irrelevant.

Following this logic, copycats around the world are producing Apple knock-offs. There are over 30 fake Apple stores in Shenzhen (England, 2015). They form a collage showing different levels of imitation from simply hanging up Apple's logo to identically copying the formal appearance of Apple's interior design. Apart from these cheap knock-offs, tech companies in China like Xiaomi, are also copying and pasting features from Apple. Xiaomi has become a very successful copycat, whereafter appropriating the pure forms of Apple the company has gained huge market shares, even earning themselves the nickname of the "Apple of China" (Pham, 2017). Xiaomi, founded 2010 in Beijing, is now worth 20 billion USD and is the 4th largest smartphone maker in the world.

Apple's purity paradigm is universal, as such it is infiltrating into other fields not commonly subjected to modernist aesthetics. For example, Chinese food

company Weilong applies Apple's pure aesthetic to sell their snack products, such as the "Hotstrip". There is clearly an imminent demand and ease in adapting Apple's industrial aesthetic to all aspects of consumer culture. That universalizing consumer aesthetic, if it is unclear, now includes things as diverse as snack food and buildings. Even food objects are, in this instance, expected to appear as seamless, pure, and as well-lit as an Apple Store. Where does a person fit in this bright new world?

It is not difficult to imagine how Apple's particular form of modernism has infiltrated into all aspects of material culture. This design paradigm aspires to render the world of things--all things small and big--as extracted from time, eternally suspended in white space, out of context, never subjected to dust, rust, or complexity. The purity paradigm jettisons the consumer straight out of history to a place but ever so bright.

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Key to Figures 1A and 1B

1. 2002 - SOHO, New York, NY, USA
2. 2004 - Regent Street, London, England, UK
3. 2005 - Nagoya, Japan
4. 2008 - Sanlitun, Beijing, China
5. 2011 - Jungfernstieg, Germany
6. 2012 - The Grove, Los Angeles, CA, USA
7. 2012 - SOHO, New York, NY, USA
8. 2004 - Osaka, Japan
9. 2005 - Shibuya, Tokyo, Japan
10. 2007 - Glasgow, Scotland, UK
11. 2009 - Carrousel du Louvre in Paris, France
12. 2006 - 5th Avenue, New York, NY, USA
13. 2007 - 14th Street, New York, NY, USA
14. 2008 - Boston, MA, USA
15. 2009 - Upper West Side, New York, NY, USA
16. 2010 - Pudong(Lujiazui), Shanghai, China
17. 2010 - Covent Garden, London, England, UK
18. 2011 - IFC Mall, Hong Kong
19. 2012 - Amsterdam, the Netherlands
20. 2012 - Wangfujing, Beijing, China
21. 2015 - Chongqing, China
22. 2001 - Tyson Corner, McLean, VA, USA
23. 2001 - Nanuet, NY, USA
24. 2002 - Lenox Square, Atlanta, GA, USA
25. 2003 - Ginza, Tokyo, Japan
26. 2004 - Danbury Fair Mall, CT, USA
27. 2005 - Fukuoka Tenjin, Fukuoka, Japan
28. 2006 - Summit Sierra, Reno, NV, USA
29. 2007 - Deer Park, IL, USA
30. 2008 - Colorado Springs, CO, USA
31. 2009 - Friendly Center, Greensboro, NC, USA
32. 2009 - Promenade Temecula, CA, USA
33. 2010 - Eldon Square, Newcastle Upon Tyne, UK
34. 2006 - 5th Ave, New York, NY, USA
35. 2011 - 5th Ave, New York, NY, USA
36. 2013 - Causeway Bay, Hong Kong, China
37. 2012 - Palo Alto, CA, USA
38. 2012 - Highland Village, TX, USA
39. 2014 - Omotesando, Tokyo, Japan
40. 2010 - Pudong, Shanghai, China
41. 2015 - Jiefangbei, Chongqing, China
42. 2016 - Nanjing, China
43. 2015 - Brussels, Belgium
44. 2014 - Zorlu Center, Istanbul, Turkey
45. 2014 - Paradise Walk, Chongqing, China
46. 2015 - MixC, Hangzhou, China
47. 2014 - Aix-en-Provence, France
48. 2015 - Zhoujia Joy, Shenyang, China
49. 2015 - Canton Rd, Hong Kong, China
50. 2015 - West Lake, Hangzhou, China



Figure 4. Chinese food company Weilong applies Apple’s pure aesthetic to sell snack products.

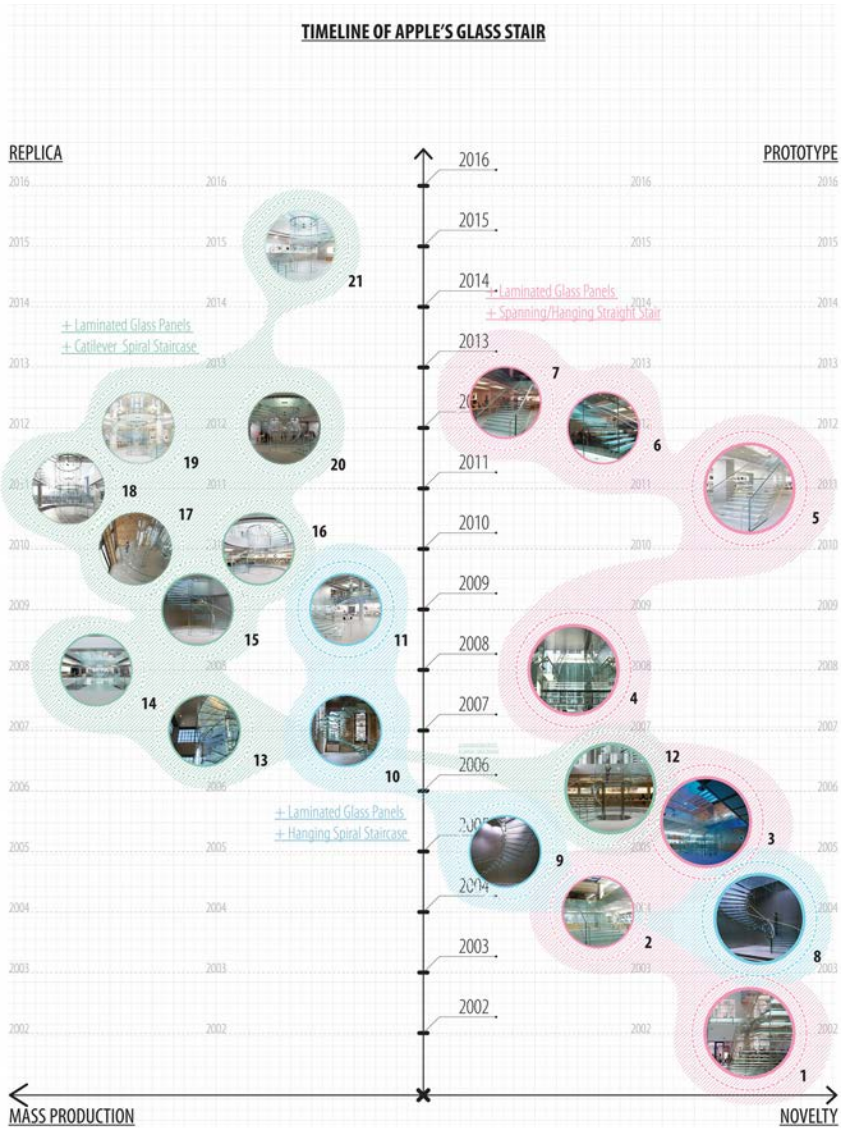


Fig. 1a
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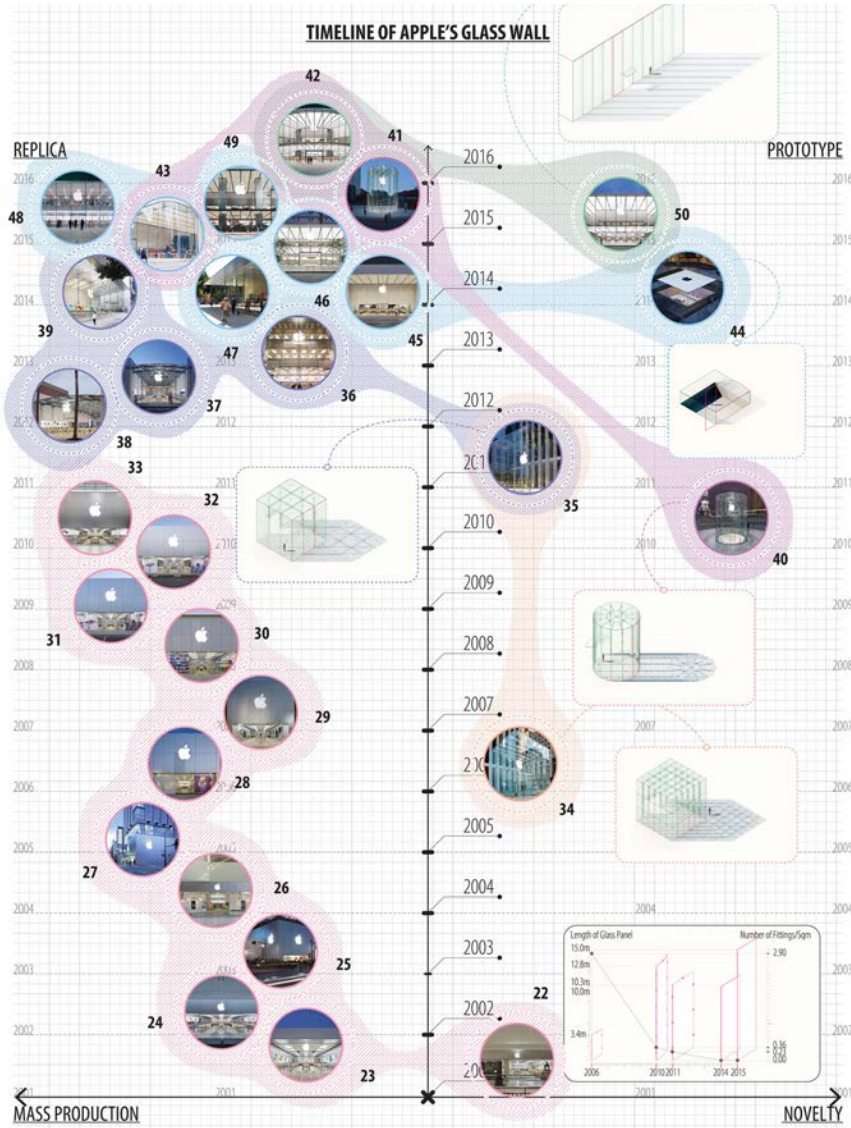


Fig. 1b
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