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Introduction

Design has many purposes. Designers produce goods for the market but they also design to support the activities of social groups and nations. The articles in this issue, though diverse in the historical moments and geographical locations they address, all deal in one way or other with the multiple purposes of design.

Sociologist Ilpo Koskinen looks at design from a marketing point of view, analyzing not individual design objects but the retail environments in which they are sold. He describes his theory of design districts, which is based on his prior formulation of semiotic neighborhoods. Like the French theorists, Koskinen emphasizes the sign value of objects but he discusses design as a marketing tool rather than a component of a larger social theory.

Gennifer Weisenfeld shows how modern graphic designers and photographers in Japan during the 1930s moved between advertising and government propaganda. She describes several well-known advertising campaigns and then explains how some of the same designers and photographers who were responsible for these campaigns contributed to Japanese propaganda efforts, notably through photo murals that were included in Japanese pavilions for world's fairs in Paris, New York, and San Francisco.

Jonathan Chapman returns us to contemporary issues with his article on design for emotional durability, which he relates to products that consumers will want to keep. Chapman presents data that confirms the unsustainability of excessive waste and calls on designers to address the question of how products can be designed to enable more satisfying relationships between consumers and the goods they use.

Rocco Antonucci describes the contemporary interior designs for new cruise ships by Joseph Farkus, who specializes in fantasy interiors. Antonucci makes a distinction between minimalist design, which is based on logic, and cosmetic design, whose intent is to elicit emotion. Cruising, he argues, is no longer a means to simply travel from one place to another but has taken on the added obligation to stimulate the traveler's imagination through emotionally evocative ship designs. Antonucci accounts for this larger social change in cruise culture by describing Farkus' ability to create interiors that help passengers forget their ordinary day-to-day life.

Incorporating the enhancement of human capabilities into a more general statement about the purpose of design, the Kyoto Design Declaration, which we publish here, proposed a set of new design values to enhance the quality of life in an emerging global world.

The Declaration is introduced by Yrjö Sotamaa, then head of Cumulus, the international association of design schools that drafted the document.

The Kyoto Declaration complements an earlier document, Ahmedabad Declaration on Industrial Design for Development, which resulted from an international design conference held in India in 1979. As S. Balaram recounts in his introduction to the Declaration, which we are pleased to republish in this issue, its purpose was to promote the satisfaction of human needs through design. It was also intended to foster a sense of national identity and subsequently became a precedent for a new design policy for India.

Fedja Vukić continues the theme of design and national identity in his article on how design was understood in Croatia during its recent transition from a socialist society to a market economy. He notes that the mass media adopted an oversimplified view of design as a styling technique and he observes that it is yet to be understood as a more significant social process. Design discourse in Croatia, he argues, still lacks a theoretical level that can inform a more sophisticated public debate.

Ilse Oosterlaken's discussion of the capability approach to design for development relates indirectly to the Ahmedabad Declaration in that, like the drafters of the Declaration, she is concerned with how design can meet human needs. She develops the idea of need by drawing on the capability theories of economist Amartya Sen and philosopher Martha Nussbaum. According to their definitions, capability theory is concerned with the potential of the individual to achieve human dignity. Oosterlaken demonstrates how design can play a role in this process. Her article complements several earlier articles on design for development that appeared in *Design Issues*.

Larry Busbea's article on metadesign focuses on an intellectual debate in France about the meaning of design. Thinkers like the Belgian Henri Van Lier incorporated design into theories of structuralism and semiotics, which led to intense debates about its impact on society. Busbea is a careful reader of texts and analyzes a number of different ones to show how design became part of larger discussions about modern and postmodern culture that took place in France around 1970.

Bruce Brown
Richard Buchanan
Dennis Doordan
Victor Margolin

Design Districts

Ilpo Koskinen

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From Semiotic Neighborhoods to Design Districts

Design districts have appeared in several cities under various names during the last twenty years. These districts specialize in selling and manufacturing goods whose retail value is based on their semiotic qualities. These areas are easily distinguishable in cities due to their business population: in these areas, most shops specialize in furniture, art, design, and similar goods; and many people who work there are involved in the art and design industries. Most research has focused on production,[1] and only some on consumption in these districts.[2] This paper looks at how these districts are organized, that is, how they are created, construed, and maintained by organizations that typically charge neighborhood businesses a small fee and, in exchange, take care of branding these neighborhoods.[3] How do these organizations function?

Downtown areas have dominated consumption for much of the twentieth century.[4] Typically catering to the middle classes, department stores offer a wide range of goods and services, some of higher quality than others, but overall, their business is geared towards the middle-income customer.[5] In contrast, exclusive goods have traditionally been available for the rich in streets such as Paris's Rue de la Paix and London's New Bond Street, which have existed for centuries.[6] However, after the postwar reconstruction period, another type of high-end district began appearing. Targeting the new upper-middle classes rather than the traditional upper classes, these districts focused on high-end clothing and fashion, accessories, and cosmetics rather than only watches and jewelry. On a smaller and slightly less luxurious scale, several other districts have followed suit, specializing in high-end goods, if not exactly luxuries. Such streets and neighborhoods flourish throughout Europe, ranging from Passeig de Gràcia in Barcelona[7] to Paris's left bank, to SoFo in Stockholm and the Design District in Helsinki.

In previous work, these areas have been called "semiotic neighborhoods," and they have been described as centers for selling goods and services whose value is mostly based on their sign value.[8] When people and the media begin to recognize an area as a semiotic neighborhood, the area gains an enviable reputation. Circulated in media and folklore, it attracts people to these neighborhoods to browse goods and services, and to enjoy the atmosphere. These cultural constructs shape the cityscape, and direct entrepreneurs' location decisions, as well as consumer behavior. In some cases,

Figure 1 (above)
Example of a logo: The Avenues of Art and Design, West Hollywood. Logo courtesy of Alexander Stettinski.

a virtuous cycle develops. Merchants locate in the neighborhood because they know that consumers go there for design. Consumers, on the other hand, go to the neighborhood because they know there are design shops they can browse in. Representations such as shopping maps are essential elements in this process through which some neighborhoods come to be characterized by the design trade.[9]

However, in some cities, the process has taken a further step and semiotic neighborhoods have come to be managed by organizations established for marketing and running them as specific design districts. These organizations exist in several cities (Figure 1). For merchants, these organizations provide several benefits. First, they provide discussion forums for identifying common interests. Second, for individual shops and merchants, it would not be profitable to promote such an image without facing dilemmas typical of collective action.[10] For a relatively small entry fee, these organizations provide the benefits associated with the design district without burdening any particular business too much. As long as the entry fee is relatively small, the organization can withstand a relatively high degree of free-riding. Third, as juridical persons, the organizations also can make contracts and, for example, take bank loans to fund their campaigns. Fourth, these organizations try to exert a degree of social control over the cityscape. Fifth, they function as pressure groups towards the city and other policy makers. In all, these organizations provide a frame, focus, and leadership; as well as pool resources for creating, running, and maintaining design as a core element in the district's identity.

Three Districts

This paper describes how three art and design districts are organized and how they function. The first district is The Avenues of Art and Design, which is located around Robertson Boulevard between Santa Monica and Beverly Boulevards in the West Hollywood (WeHo) section of Los Angeles. When Pacific Design Center, a huge mall specializing in interior design, was erected in 1975, the neighborhood became the main shopping area for high-end furniture, interior design, and art within the Los Angeles basin. The neighborhood originally was known as an expensive district aimed at the wealthy. For a long time, only accredited designers were able to shop there. Since the 1980s, merchants have expanded their businesses outside the Pacific Design Center into the surrounding streets. Art galleries started to arrive as the neighborhood gained the reputation of being "funky" and affordable. In 1996, a BID—shorthand for Business Improvement District—called "The Avenues of Art and Design" was established in the City of West Hollywood. The initiative came from the merchants. The Avenues primarily is a marketing tool: its main aim is to promote the District. Today, it has about 300 members. Initially, its budget was 60,000€, but it grew to about 175,000€ by 2006.[11]

The board of The Avenues consists of merchants who have shops in the neighborhood.

The second example in this paper is the Design District Helsinki which, like its Californian counterpart, promotes interiors and furniture, but also fashion, the antique trade, art galleries, design jewelry, and restaurants. The District was established as a nonprofit association in 2005 as one of the activities of the national Design Year. Its membership fees vary from 120€ for smaller businesses to 350€ for bigger establishments, and 550€ for supporting members. Originally, the District had about 60 members but, by early 2007, it had grown to approximately 170 members; all located on the rim of the central business district. Although the Design District is a nonprofit association, its coordinator gets a part of her salary from Design Forum, a national design promotion organization. Currently, the District gathers about 40,000€ annually through membership fees. The original initiative came from Design Forum Finland. The Design District has received a measure of success not only in terms of its membership, but also in promoting the four south Helsinki neighborhoods in which it is located as a choice location for a variety of design businesses.

The third example is SoFo, "South of Folkungagatan," located in Södermalm, Stockholm's southern island, which was established in 2002 in a neighborhood that previously was residential. The neighborhood began to change about ten years ago, when it first got a row of restaurants, and then became the hub of independent fashion in Stockholm. A local graffiti artist, Per Holm, coined the name "SoFo" in 2003 initially as an ironic designation, with New York's SoHo as an obvious model. Today, SoFo has about ninety members, each paying 1000 SEK (about 110€) annually (originally, the fee was 300 SEK, or about 33€), but it is growing rapidly, and already has created a profile as the place to go for independent fashion, art, and design in Stockholm.

Data for this paper comes from several sources. First, three expert interviews were done. SoFo's semi-official spokesman, Erik Modin, was interviewed in his studio in Stockholm on May 29, 2007; Alexander Stettinski, Executive Director, The Avenues of Art & Design, was interviewed in West Hollywood, Los Angeles on November 30, 2006; and Aino Vepsäläinen, Project Manager for Design District Helsinki was interviewed on May 15, 2007, in Design Forum Finland. Project Manager Eija Taljavaara provided updated information to me on January 17, 2008. Second, before and during these interviews, I collected brochures, marketing materials, press coverage, action plans, and also the rules of the organizations if such documents existed and were accessible. Simultaneously, I analyzed the Web pages of the organizations. Finally, I spent time walking around in these three neighborhoods, talking to shop owners and customers, and photographing shops, streetscapes, and organizational signs on the streets.

Creating Identity

The three organizations create design-based identities for the districts through many means. All three maintain websites and a street presence that make the districts recognizable both on the street and on the Internet. When you arrive at The Avenues of Art and Design, you see banners on lamp posts telling you where you are. On the Web, searching for design in Los Angeles inevitably leads to the main page of The Avenues. In the case of Helsinki, you can see the Design District's round logo in many shops throughout the District's home neighborhoods. The logo is sometimes integrated into other types of marketing campaigns including Helsinki Design Week, the Design Year, and Design Forum campaigns and marketing. In SoFo, the organization is more informal. Shop owners can freely use the name, provided that Per Holm, who invented the acronym, accepts them.

The organizations provide merchants with a forum for exchanging opinions and finding common interests among the districts' design businesses. Based on these common interests, districts can be given identities; strategies can be created to shape these identities; and resources can be pooled to make the strategy real. For example, in 2006, Helsinki's Design District spent 35,000€ to create a marketing strategy, and took out a bank loan of 18,000€ in order to fund the campaign. It is not in the interest of any individual design business owner to devote such sums to promoting the common good: a design district uses collective action to solve this problem. Identity management extends to the media, street, and virtual presence. In designing the district identities, one of the main drivers has been to make them discreet enough not to disturb the visual face of shops.

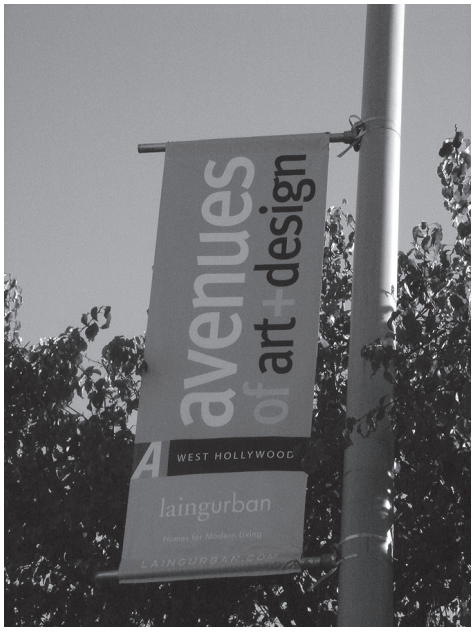

Figure 2
Example of the street image of the districts: Los Angeles. Note that this is The Avenues's old identity. Picture by IK, October 2006.

The dilemma of the districts is that a popular neighborhood with rising property values and rents also attracts shops and activities that do not fit in the design ideal being promulgated by these organizations. A few rowdy sports bars, porn shops, or even worse—high street retailers such as H&M or The Gap—can easily threaten the identity built around classy design.

All of the districts use fairly similar means to manage these threats to the common good. None of them has any formal control on who can do business in the neighborhood. Instead, they exercise more sophisticated forms of control over entry. In The Avenues, anyone can come to the district, but as soon as the BID learns about a newcomer, it educates property owners and merchants about the nature of the district and its value to them. The gist of the argument is that, since the merchants in the neighborhood benefit from its reputation which could be ruined unless it is maintained, everyone has to participate in the identity making.

In Helsinki, the process focuses on informing interested businesses about free locations in the District, which is still in the making. Out of about five-thousand businesses in the four neighborhoods comprising the District, currently only two to three percent are a part of the association; while a few hundred more are design-intensive. In SoFo, the figure is even smaller. Still, all organizations try to influence who gets into the district by giving advice to property owners who might not understand the value of the design district identity. At least SoFo includes information about free business premises on its website, trying to attract businesses that support its identity.

Performing the Identity

Design districts organize various activities to propel themselves into the public's eye. In particular, shopping maps provide detailed help for consumers interested in navigating the neighborhoods. District websites provide directories of shops and other businesses, making searching for specific types of shops easy (Figure 3). Brochures provide information about activities within these districts. For example, Design District Helsinki produces a new shopping map twice a year, and constantly updates its website with new activities. At present, SoFo aims to publish a map four times a year, and updates its website informally as needed.

In addition, all districts participate in developing the physical environment of the neighborhood. For example, Design District Helsinki has participated in the City of Helsinki's planning processes in improving street lighting and in developing plans for the Diana Park quarter in the heart of the District. In West Hollywood, The Avenues supports a pedestrian-friendly policy promoting wide sidewalks and pushing parking away from the streets. In what is perhaps the ultimate car culture in the world, this is a radical policy.

Figure 3
Example of a shopping map from Design District Helsinki. May 2008.

Lacking the stable, well-off membership of The Avenues and semi-government backing of Design District Helsinki, SoFo is still in the process of creating an identity for the neighborhood and growing its membership base.

All districts organize activities to increase awareness of what is in these districts. For example, they educate journalists by organizing tours in the districts, and giving them promotional material. Similarly, walking tours and late-night shopping events are organized for the public (Figure 4). The Avenues of Art and Design, for example, sponsors the “Art and Design Walk” in June. During the Walk, the district becomes a big open house in which about 100 to 150 businesses participate. During the Walk, The Avenues’ BID arranges exhibits and other social activities outside the stores; while individual stores provide wine and food, and organize other events to entertain visitors. One of the centers of global art world,

Figure 4
Example of a design district activity, SoFo, Stockholm. Translation: “SoFo evening. All SoFo shops are open until 9 p.m. every last Thursday of the month.” Picture by IK, May 2007.

The Avenues also gets a lot of media attention from art, fashion, and media world events that include charity auctions, Art Walk VIP tents, and help in organizing such media events as *Vanity Fair's* and Elton John's Oscar parties.

The Helsinki District sponsors design walks twice a week during the summer and upon request in winter, and promotes the District among journalists just like its cousin in L.A. In addition, the District participates in the "Night of the Arts" organized annually in August by the City of Helsinki, when the city center and its neighboring districts gather hundreds of artistic activities and performances. Also, the District participates in the annual Helsinki Design Week. The association also promotes the District whenever there are public events within its boundaries, such as the opening of the refurbished Diana Park in the very heart of the District. SoFo, in turn, organizes monthly shopping nights, when the shops stay open until 9 p.m., and Christmas markets. Unlike its counterpart in California, the two Scandinavian districts have less to do with elites who convene around venues other than art and design.

Design Districts and the Environment

When successfully established, these organizations provide their districts many benefits. Businesses need to advertise less. Small businesses do not have to invest in costly marketing campaigns. And consumers have to invest less time in locating the goods they are interested in. But there are snakes in paradise. If these neighborhoods are successfully transformed into design districts, other areas in the city may want to emulate their success story. Thus, these districts may fall victim to their own success not just by attracting the wrong kinds of companies, but also externally by inviting competition. At least two kinds of environmental factors play a part in the districts analyzed here.

First, design districts face urban competition. In particular, this is the case in The Avenues of Art and Design, which exists in the middle of a vast, rapidly growing metropolis.[12] This strain works in two directions. On the other hand, for a community such as West Hollywood, art and design are handy devices for branding. Internationally, the best-known place in West Hollywood is "Sunset Strip," L.A.'s traditional nightspot; while Santa Monica Boulevard is primarily known for its diverse ethnic mix and nightspots. In contrast to these, The Avenues provides West Hollywood more sophisticated means for branding, but has to compete with other players in the City. In interior design, The Avenues is still the undeniable leader of high-end shopping in Los Angeles. In terms of art galleries, it is strong with dozens of upscale galleries. However, the art world of L.A. has moved away from The Avenues in recent times. Culver City, downtown L.A., and Santa Monica have attracted an impressive number of galleries, and smaller concentrations of art galleries exist in several other places throughout the area. However,

even though The Avenues may have lost ground in the art world, it is winning on another front: fashion. The Avenues of Art and Design is attracting companies that earlier located in Beverly Hills and also younger designers from Melrose Avenue.

Second, organizational environment shapes the districts. Ten times smaller than Los Angeles, Design District Helsinki works in the middle of other kinds of environmental pressures. The District is integrated into a lively design culture that is partly based on private, and partly on public, supply, demand, and promotion. Being parented by Design Forum Finland keeps the District anchored partly in the commercial world of its home neighborhood, and partly in public design programs. The District is networked with Helsinki Design Week, Design Year 2005, and naturally its host, Design Forum Finland. Still, in many ways, this is quasi-competition. Since the District is only partially funded by membership fees, control of the District is partly in the hands of Design Forum Finland, and thus in the design policy makers' hands.

Unlike Helsinki, Stockholm has a traditional upper-class shopping district in the Östermalm neighborhood that caters to the CITY'S rich. This district is located slightly over two kilometers north of SoFo. SoFo attracts an alternative, "hip" culture rather than the international brands and luxury goods typical of Östermalm's main-shopping streets. When compared to Helsinki, SoFo leads a significantly more tranquil life; free of policy pressures.

Discussion

What the sociologists Scott Lash and John Urry once called the "economy of sign and space"[13] has changed the face of some neighborhoods in many cities in many ways.[14] In this paper, my focus has been on how this economy is organized and made visible in the cityscape by one specific category of formal organizations: design districts established to promote certain neighborhoods through design. These organizations provide the means for local businesses to identify common interests, create strategies for promoting the districts; and pool resources to implement these strategies, while avoiding problems typical of creating and delivering common goods.[15]

The focus of this paper has been on how these organizations function in organizing design into the cityscape. Many of the things the organizations do are familiar from branding more generally. For example, all districts studied in this paper have logos that create an identity for them. However, the process of husbanding the districts extends beyond marketing. All three districts try to educate the business population about the value of maintaining the district. Once district organizations are established and able to organize activities, websites, and shopping maps, they begin to attract certain types of customers and businesses; pushing development in an increasingly more artistic and design-oriented direction.

If successful, these districts become virtually self-fulfilling prophecies.

What kinds of consequences do design districts have for design? On the positive side, they provide exposure to design, and make it easier for the media to publicize design, creating markets for design and services around design. They certainly improve the images of their host cities. However, there are problems, too. For example, the district works against many interests of the design community, focusing attention on traditional design objects rather than complex systems and the more higher-paying design specialties. As this conjuncture suggests, design districts may be relevant players in design. A look at Helsinki is informative. As mentioned above, the District was established by Design Forum Finland, a semi-public design promotion organization, which still coordinates it. However, the District's policy connections are informal rather than direct. Most notably, this is the case of the former head of Design Forum Finland, who was the first chairman of the District and also held several expert roles in design policy. However, the members of the District's board are largely business owners, moving its control away from government policy. Thus, a safe inference is that political visions and agendas are no doubt taken into account in its activities. In terms of what kind of image of design the District articulates, its connection to design policy may in fact be enriching. Paradoxically, through involvement in design policy, the District also has to promote the more industrial and system-based end of design through events such as industrial design awards and exhibitions.

There is a growing literature that focuses on how Lash and Urry's economy of signs and space has changed the faces of cities.[16] This paper has focused on one of its more recent developments; namely, how formal organizations have been created to manage this economy in the cityscape. The analysis has been descriptive rather than analytic. However, it shows that design is a real phenomenon in the semiotics of the city. It contributes not just to a city's economy, but also to its look and feel—perhaps not everywhere, but at least in some parts of the urban landscape.

Acknowledgments

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1 For Los Angeles and Paris, see A. J. Scott, *The Cultural Economy of Cities* (Thousand Oaks, CA: Sage, 2000); for London, G. Evans, "Cultural Industry Quarters: From Pre-Industrial to Post-Industrial Production" in *City of Quarters: Urban Villages in the Contemporary City*, David Bell and Jayne Mark, eds. (London: Ashgate, 2004); and for Berlin, M. Mundelius, *The Reliance of Berlin's Creative Industries on Milieus: An Organisational and Spatial Analysis. Dissertation zur Erlangung des akademischen Grades des Doktors der Naturwissenschaften eingereicht am Fachbereich Geowissenschaften der Freien Universität. (Berlin, 2007).*

2 I. Koskinen, "Kulttuurikorttelit," *Yhteiskuntasuunnittelu* 39 (2001): 9–28. [*Culture Blocks*, in Finnish]; and I. Koskinen, "Semiotic Neighborhoods," *Design Issues* 21:2 (2005): 13–27.

3 See G. Julier, *The Culture of Design* (London: Sage, 2000), 117–143; and L. Moore, *The Rise of Brands* (London: Berg, 2007).

4 M. Johns, *Moment of Grace: The American City in the 1950s* (Berkeley: University of California Press, 2003).

5 G. McCracken, *Culture and Consumption: New Approaches to Symbolic Character of Consumer Goods and Activities* (Bloomington: Indiana University Press, 1988); R. Sennett, *The Fall of the Public Man: On the Social Psychology of Capitalism* (New York: Vintage, 1978); M. B. Miller, *The Bon Marché: Bourgeois Culture and the Department Store, 1869–1920* (London: Allen & Unwin, 1981); and S. Zukin, *The Cultures of Cities* (Malden, MA: Blackwell, 1999).

6 L. Mumford, *Kaupunkikulttuuri* (Porvoo: WSOY, 1949), 214; Original: *The Culture of Cities*. For how commerce and traditional *haute bourgeoisie* are connected, not always without problems in Paris, see M. Pinçon and M. Pinçon-Charlot, *Quartiers Bourgeois, Quartiers d'affaires* (Paris: Éditions Payot, 1992).

7 V. Narotzky, "A Different and New Refinement: Design in Barcelona, 1960–1990," *Journal of Design History* 13 (2000): 227–43.

8 I. Koskinen, "Semiotic Neighborhoods," *Design Issues* 21:2 (2005): 13–27.

9 For a view that grants agency to inanimate objects such as maps, see B. Latour, "Drawing Things Together" in *Representation in Scientific Practice*, Michael Lynch and Steve Woolgar, eds. (Cambridge, MA: The MIT Press, 1991).

10 See, for example, M. Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge, MA: Harvard University Press, 1965).

11 Original figures for the Avenues were $85,000 and $250,000, respectively. I have converted currencies into euros using December 7, 2007, as a baseline ($1=0.69€, 1SEK=0.11€).

12 E. W. Soja, *Postmetropolis* (Oxford: Blackwell, 2000).

13 S. Lash and J. Urry, *Economies of Sign and Space* (London: Sage, 1994).

14 Mundelius, *The Reliance of Berlin's Creative Industries on Milieus: An Organisational and Spatial Analysis*; G. Evans, "Cultural Industry Quarters: From Pre-Industrial to Post-Industrial Production"; I. Koskinen, "Kulttuurikorttelit," *Yhteiskuntasuunnittelu*; and I. Koskinen, "Semiotic Neighborhoods," *Design Issues* 21:2 (2005): 13–27.

15 See Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups*.

16 Lash and Urry, *Economies of Sign and Space*.

Publicity and Propaganda in 1930s Japan: Modernism as Method

Gennifer Weisenfeld

Published in French as "Publicité et propagande dans le Japon des années 1930: Le modernisme comme méthode." In Jean-Jacques Tschudin and Claude Hamon, eds. *La société Japonaise devant la montée du militarisme: Culture populaire et contrôle social dans les années 1930*.[1]

Despite the apparent divide between modernism's sometimes recondite aesthetic sensibilities and the more didactic needs of corporate advertising and political propaganda, the modernist artistic movement was integral to the early development of modern Japanese promotional design, particularly in the sphere of photography. As major Japanese corporations emerged in the 1920s, it was clear that they were not just product manufacturers, but arbiters of taste who often worked in tandem with the state in directing consumer life and consumption habits through compelling visual strategies. In the 1930s, when daily life rationalization trends melded into increasingly broad-based social mobilization, these same modernist pictorial strategies began to be deployed concurrently in the dynamic realms of national publicity and propaganda (*kokka senden* or *kokusaku senden*) production, in both the graphic arts and exhibition display design. Through a close examination of the artistic production of some of the foremost commercial artists and photographers of the period, I will explore how the designers' integrative techniques exploited the affectivity of modernist manipulation of the image, effectively blurring the line between publicity and propaganda through the 1930s and beyond.

The burgeoning field of commercial design was profoundly influential in the transformation of Japanese social and cultural practices in the prewar period because the construction of recognizable brand name products helped manufacturers forge a national consumer market by the late 1930s. Print advertisements for a range of newly emerging national Japanese corporations—Morinaga Confectionary Company, Matsushita Electric, and Kaō Soap among others—reveal the extensive use of modernist imagery to promote consumer products.[2] Modernist styles were popular among advertising executives and designers precisely because of their close associations with the modern, the new, the scientific, and the machine aesthetic. Not coincidentally the companies who employed modernist aesthetics were largely (although not exclusively) companies marketing new types of modern consumer products like Western-

1 (Arles: Editions Philippe Picquier, 2007), 47–70.

2 For an in-depth discussion of Kaō soap as a case study, see Gennifer Weisenfeld, "'From Baby's First Bath': Kaō Soap and Modern Japanese Commercial Design," *The Art Bulletin* 86:3 (September 2004): 573–598.

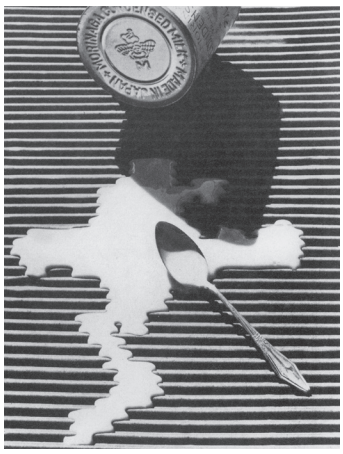


Figure 1 (top)
Cover, *Nihon Kōkoku Shashin*, vol. 3 (Tokyo, Seibundō, 1932).

Figure 2 (bottom)
Shimozumi Henzō, Morinaga condensed milk advertisement, Third International Advertising Photography Competition, *Nihon Kōkoku Shashin*, vol. 3 (Tokyo, Seibundō, 1932).

style foodstuffs and new technologies—all goods that intrinsically reflected the rapidly changing nature of daily life in twentieth-century Japan. These products straddled the line between extravagance and utility. Morinaga chocolates and caramels were marketed as delicious nutritional and healthy food for an undernourished population (particularly children); National's light bulbs not only lit up the night-time burlesques of Asakusa but also promoted healthy indoor light that enabled evening work and study, and was not detrimental to one's eyes; and Kaō high-quality cosmetic soap promoted domestic hygiene through hand and hair washing. Corporate advertising campaigns were often keyed to state policy initiatives tying private sector goals to national interests.

The utility of modernist artistic approaches in the commercial sphere was a topic widely discussed by Japanese photographers, designers, and design theorists writing in *Kōkokukai* (Advertising World) and *Photo Times*. Trade journals such as these played a central role in literally and visually communicating applications of modernism to an expanding readership of professional designers, retailers, manufacturers, and interested amateurs eager for basic "how-to" information on the new fields of commercial design and photography. These trade journals, particularly *Kōkokukai*, continued to publish well into the war years, adding various subtitles such as "industrial art and propaganda," "kokka senden" (national publicity) and "seisan bijutsu" (production art). The overlapping meanings embodied in the Japanese term *senden*—which was often used interchangeably with *kōkoku* to mean advertising or publicity—reveals, however, just how fluid the boundary between advertising publicity and propaganda already was. Both entailed the art of persuasion. It bears mentioning here that advertising professionals in Euro-America during the same period similarly utilized the term *propaganda* as a synonym for publicity, using it to refer more neutrally to the dissemination of information by advocates of a certain cause rather than to the purveying of deliberately misleading information or the exertion of political coercion. These trade journals also continued to employ distinctly modernist aesthetics for increasingly more overtly nationalist subjects. The appeal of modernism was enduring.

From the late 1920s through the 1930s, when modernist commercial photography production was at its height, photographers advocating "shinkō shashin," or "new photography" (as modernist and avant-garde photography was commonly called in Japan) eagerly turned their skills to commercial projects, as evidenced in the hundreds of realized projects and proposals submitted to the yearly competition for International Photographic Advertising (Kokusai Shōgyō Shashin Tenrankai) sponsored by the newspaper *Asahi shinbun* that was launched in 1930.

Modernist photography's radical manipulation of the image in terms of viewpoint, perspective, and scale, not to mention the use of extreme close-ups, dramatic silhouettes, and shadows, provided

Figure 3 (left)
Ueda Bizan, Kikkoman soy sauce advertisement, Third International Advertising Photography Competition, *Nihon Kōkoku Shashin*, vol. 3 (Tokyo, Seibundō, 1932).

Figure 4 (right)
(lower right) Meiji Chocolate advertisement, Third International Advertising Photography Competition, *Tokyo asahi shinbun*, 30 March 1932, 6.

advertisers with a vocabulary of decontextualized formalism and abstraction that inherently communicated urbanity, internationalism (or at the very least cosmopolitanism), rationalism, and technological progress. And by employing integrative photographic techniques like montage and typophotos (photographs combined with innovative typographic layouts), as well as camera-less techniques like the photogram, modernism visually instantiated the technologized experience of modernity.

The winning projects were published in the *Asahi Shinbun* clearly emphasizing the modernist proclivity of the competition. All noteworthy submissions were collected and published in separate volumes, later issued by Seibundō under the direction of *Advertising World* editor Murota Kurazō.[3] The cover design for the third competition volume of 1932 (Figure 1), with the multiple camera-eye images, is reminiscent of Russian director Dziga Vertov's famous film *Man With a Movie Camera* from 1929, in which he self-consciously fused the camera lens with the human eye (the Kino-eye) transforming man into a human camera who records the visual sensations of daily life in an expressionistic montage of unfolding images.

Inside the third volume, the stark image of Morinaga condensed milk is shown frozen dramatically as it zigzags down a corrugated surface, iridescent like a pool of liquid mercury (Figure 2).[4] On another page, the exaggerated monumentalization of a Kikkoman soy sauce bottle shot dramatically from below (Figure 3) demonstrates the marketing affectivity of modernist manipulation of the image, as product photographs were refunctioned into abstract still lifes.[5]

A prize-winning Meiji chocolate advertisement also from the third competition (Figure 4) employs evocative silhouettes and shadows subtly suggesting consumption of the product.[6] The overlapping silhouettes of two school-age figures, a boy and a girl, identifiable by their cropped hairstyles, face in opposite directions while eating chocolate bars behind the ordering grid of a *shōji* sliding door. In one simple visual statement, the image is simultaneously able

3 Asahi Shinbunsha, ed., *Kokusai Kōkoku Shashinten Senshū*, vol. 1 (Tokyo: Tokyo Asahi Shinbunsha, 1930).

4 Murota Kurazō, ed., *Nihon Kōkoku Shashin*, vol. 3 (Tokyo: Seibundō, 1932), 94.

5 Ibid., 36.

6 Ibid., 29. Appeared in the third competition announcement in *Tokyo asahi shinbun*, 30 (March 1932), 6.

Figure 5
(lower right) Morinaga chocolate advertisement, Fifth International Advertising Photography Competition, *Tokyo asahi shinbun*, 2 February 1934, 4–5. Morinaga & Co., Ltd.

to communicate domesticity (*shōji* as a synecdoche of the home), childhood, and modernity (as expressed through style and the use of photography itself). The image needs no copy, it is enough to have the brand name and the floating Meiji chocolate bar at the bottom with its distinctive brand typography and wrapping to reinforce the product connection.

Morinaga was equally aggressive and innovative in its advertising design.[7] The work of entrants promoting Morinaga confectionary and milk products was consistently among the noteworthy submissions selected in the Asahi photography competitions. While many of the submissions remained at the proposal stage, a number were adopted by manufacturers in their print advertisements (having already received some free publicity through the competition itself). Morinaga seems to have regularly incorporated winning submissions into its current campaigns. The paper's announcement of the fifth annual competition in February 1934 included the simple double image of a happy young woman in a smart ski outfit with her cap jauntily cocked to one side placed next to the name of the milk chocolate product rendered in its signature typography (faceted blocky katakana type) (Figure 5).[8] The image reinforces the copy that proclaims Morinaga chocolate as a perfect treat to share with a friend when one hits the slopes to engage in winter sports. It was right at this time that a variety of modern western sports were being intro-

7 Fujimoto Michio and Shiihashi Isamu, *Kōkoku Yarō Gojūnen* (Tokyo: Kaosu Shokan, 1978); Morinaga Seika Kabushiki Kaisha, *Morinaga Gojūgonenshi* (Tokyo: Morinaga Seika Kabushiki Kaisha, 1954); Morinaga Seika Kabushiki Kaisha, ed., *Morinaga Seika Hyakunenshi* (Tokyo: Morinaga Seika Kabushiki Kaisha, 2000).

8 Appeared in the fifth competition announcement in *Tokyo asahi shinbun* (February 26, 1934), 4–5.

Figure 6
Kanamaru Shigene (photographer), Meiji Shobō periodicals catalogue, 1933. Kanamaru Shigene Archive, Nihon Daigaku Collection.

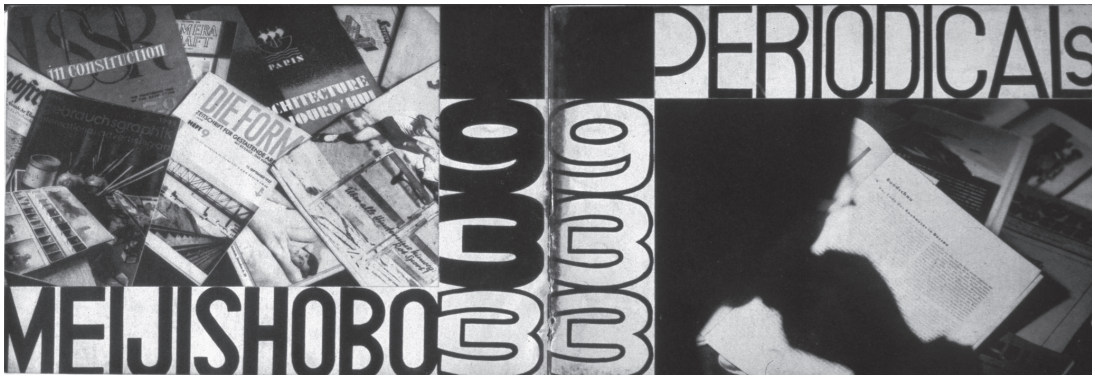
duced to Japan and they were associated with progressive modernity, leisure, and consumption. Combining disparate spheres of consumption, in this case food and sports, was an effective tactic of doubling pleasurable expectations. It is worth mentioning here again that chocolate, and Morinaga's other main product, milk caramel, were both considered in prewar Japan to be nutritional foods, offering much needed healthy calories for the still comparatively undernourished Japanese population. So for contemporary audiences, eating chocolate and skiing were both healthy activities.

The double portrait here also cinematically superimposes a framed close-up of the woman's face over her torso, tripling the leisure connotations by alluding to entertainment in moving pictures.

Perhaps one of the most prominent names in Japanese photography criticism during this time, spanning nearly fifty years from the mid 1920s until his death in 1977, was Kanamaru Shigene (1900–1977).[9] Kanamaru was a practitioner, theorist, and educator, teaching photography at Nihon University for almost his entire professional career. Together with close friend Suzuki Hachirō, he established his own commercial photography studio, called Kinreisha, in 1926, all the while writing widely for popular photography magazines like *Asahi Camera*, *Camera*, and *Photojournalism* (*Hōdō shashin*). In 1931, Kinreisha commissioned an ultra-modern photo studio building in Tokyo. Kanamaru wrote popular books on commercial photography (shōgyō shashin) as well as those on avant-garde and modernist photography (shinkō shashin), publishing *Shōgyō shashin jutsu* (Techniques of Commercial Photography) with Suzuki in 1931 and *Shinkō shashin no tsukurikata* (How to Make New Photographs) in 1932.[10] He was instrumental in bringing these two spheres together for Japanese audiences. Kanamaru also continued to champion the variable applicability of these techniques for commercial and political purposes as he easily moved between the worlds of advertising and propaganda in the 1930s. His work as a photographer covered the full range of commercial services. Kanamaru closely followed developments in European and Soviet photography through a host of international design periodicals, to which he had access through

9 Nihon Daigaku Geijutsu Gakubu Shashin Gakka, *Kanamaru Shigene Sensei Koki Kinen* (Tokyo: Kanamaru Shigene Sensei Koki Kinen Shuppan Jimukyoku Nihon Nihon Daigaku Geijutsu Gakubu Shashin Gakka, 1974).

10 Kanamaru Shigene and Suzuki Hachirō, *Shōgyō Shashin Jutsu* (Tokyo: Ars, 1931), Kanamaru Shigene, *Shinkō Shashin no Tsukurikata* (Tokyo: Genkōsha, 1932).



Japanese foreign book importers like Meiji Shobō. A promotional pamphlet that Kanamaru designed for Meiji Shobō pictures an assemblage of overlapping design journals on the back cover; the titles *Die Form*, *Architecture Aujourd'hui*, and *USSR in Construction* are legible (Figure 6). On the cover is the silhouette of a man reading an open journal on top of the pile. Kanamaru himself had an extensive personal collection of international design publications, most notably the highly influential German design journal *Gebrauchsgraphik*.

The Japanese photography community had exceptionally strong ties to Germany both theoretically and in terms of actual practice, as many Japanese studied there during the prewar period. German modernist photographers who were active in commercial design were regularly featured in Japanese trade journals. Some names that repeatedly appear are: Herbert Bayer, Herbert Matter, Sasha Stone, the German-Dutch collaborative design venture Ring Neue Werbegestalter (NWG; Circle of New Advertising Designers), and Laszlo Moholy-Nagy, the well-known Hungarian-born artist-photographer who worked for many years at the Bauhaus in Germany.

As is widely known, many of these photographers championed the new multiperspectival techniques of montage and photocollage as a means of disrupting the ostensibly seamless representational mode of photography to instantiate new revolutions in visual perception, in what was often referred to at the time as *factography*, or what Moholy-Nagy called his "new vision." Kanamaru avidly pursued the applicability of these experimental approaches to the commercial sphere, as seen in two examples from his small-scale print advertising work.[11] One is a starkly lit image of a young girl, shot from below, holding up a box of Maruwai applied digestive tablets (Figure 7). She is superimposed on a diagonal lattice of mass replicated consumers—each of these miniature figures a bathing suit-clad woman raising her arms in an emancipatory gesture, presumably implying her liberation from stomach discomfort. Another of

11 Both examples come from Kanamaru Shigene's personal scrapbook in the Kanamaru Shigene Archive, Nihon University. Original sources unknown.

Figure 7 (left)
Kanamaru Shigene (photographer), Maruwai applied digestive tablets advertisement, c.1931. Kanamaru Shigene Archive, Nihon Daigaku Collection.

Figure 8 (right)
Kanamaru Shigene (photographer), Daigaku Eye Medicine advertisement, c. 1931. Kanamaru Shigene Archive, Nihon Daigaku Collection..

Figure 9 (top)
Ōta Hideshige (art director), Asuka Tetsuo (designer), Kanamaru Shigene (photographer), Kaō soap advertisement launching the "New and Improved Kaō" campaign (Shinsō Kaō). Run in all major Japanese newspapers, March 1931. Kao Corporation.

Figure 10 (bottom)
National Radio, poster, 1942. Office of Corporate History, Panasonic Corporation.

Kanamaru's advertisement designs is a surrealistic image: a pair of disembodied eyes hovering enigmatically in the middle of a tree-lined road to promote Daigaku medicinal eye drops (Figure 8). In this case, Moholy-Nagy's "new vision" takes on multiple resonances, framing a new vision of commodities as well as daily life.

In the early 1930s, Kanamaru produced some distinctive work for the Kaō soap company, which in 1931 mounted a massive new advertising campaign for "New and Improved Kaō" (Shinsō Kaō) soap, overseen by the newly hired pioneering art director Ōta Hideshige (1892-1982). Kaō's "New and Improved Kaō" campaign entirely revamped the product's packaging and initiated direct marketing nationwide. The shift to direct marketing was very significant from an advertising standpoint because it meant relying even more on consumer recognition of product brand names and manufacturer identity. The full-page newspaper advertisement that kicked off the "New and Improved Kaō" campaign featured a striking photographic image shot from overhead by Kanamaru, showing all of the company employees standing outside the production factory holding up banners and energetically raising their hands in triumph (Figure 9). The copy, reminiscent of Proctor and Gamble's endorsement for Ivory soap, read "Today is the day of New and Improved Kaō, 99.4% pure, net price 10 sen a piece." Bleeding off the edges of the image, the sea of Kaō workers seems to go on indefinitely—a flood of cheerful labor, men and women, interspersed with a convoy of Kaō soap trucks ready to charge out into the streets. The image was a response to Kaō president Nagase Tomirō II's rallying cry (printed in the new company house organ *Nagaseman*), in which he enjoined all employees to be soldiers in the company fight on the battlefield of the consumer market.

Curiously, Kanamaru's photograph seems to allude to triumphal images of social revolution, such as those emanating from the Soviet Union, as much as it depicts production under a capitalist system. This conflation of labor and capital in a burst of revolutionary victory presents the company as the core of an imagined community presumably surrounded by concentric rings of enthusiastic consumer-subjects who constitute the nation.

In 1942, Matsushita (under its national brand) employed a similar dramatic overhead shot of a crowd of enthusiastic young Japanese children waving national flags to promote "the birth of national radio" (kokumin rajio no tanjō)—made possible with the availability of affordable personal radios for individual household use (Figure 10).[12] A revolutionary public communication device, the radio could be used (as the ad copy notes) for transmitting policy decisions from the authorities (jōi no katatsu ni); communicating among regional residents' associations (tonarigumi ni) and city associations (machikai), which were created in the 1940 policies of national control (kokumin tōsei); cultural improvement (bunka no kōjō); and for recreation (rest and relaxation) in rural farm villages

12 Archival records indicate that this advertisement also ran in the Osaka asahi shinbun evening edition of March 1-18, 1941. Matsushita's advertisements are illustrated in Matsushita Denki Sangyō Kabushiki Kaisha Senden Jigyōbu, Dentsū, and Dentsū Purosesu Kikaku, eds., *Matsushita Denki Senden 70 Nenshi* (Osaka: Matsushita Denki Sangyō, 1988).

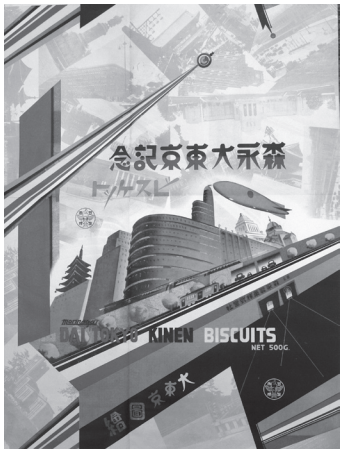


Figure 11
Morinaga Great Tokyo Commemorative Biscuits, wrapping paper, 1932. Morinaga & Co., Ltd.

(nomura no iraku). Like the montage image of the Kaō soap bar suspended over the heads of the company employees, here the radio is superimposed directly over the heads of its young listeners with dramatic arrows pointing them forward and onward. Commerce was never far from politics. Both of these dynamic spheres of visual culture production were dedicated to the act of persuasion and the glorification of iconic symbols—in one case representing political ideology, in the other, capitalist consumption.

Morinaga promotional materials also featured the montage aesthetic. In one example, it appeared in Morinaga's wrapping paper design for tins of biscuits commemorating the theme of the Great City Tokyo (Dai Tokyo Kinen Bisuketto), issued in September 1932 (Figure 11).[13] This was the year that Tokyo was heralded as having finally re-emerged from the catastrophic devastation of the Great Kantō Earthquake of September 1, 1923, almost a decade earlier. The wrapping paper had a colorful graphical image of high-rise department stores, the new National Diet Building, the five-story pagoda at Sensōji temple in Asakusa, a flying Zeppelin, and a modern high-speed train, all superimposed on a faintly printed, topsy-turvy photographic montage of the city. The design echoed the cinematic kaleidoscope in German director Walther Ruttmann's landmark film, *Berlin: Symphony of a Great City*, released in 1927. According to archival records, the company produced 22,500 units of the commemorative biscuits.

Business historians acknowledge that Morinaga was a pioneer in marketing, especially in its development of chain store retail networks. By the late 1930s, the company had nearly 4,000 chain stores, which collectively came to be known as the Morinaga Beltline. Manufacturers found it necessary to be proactive in educating retailers in new promotional tactics, and they routinely delivered truckloads of promotional banners, leaflets, and showcases, and even sent salesmen to teach shopkeepers how to use their materials. The company published several publicity magazines for distribution at these chain stores, one was the *Beltline Graph* (later renamed *Morinaga Beltline*) and another was called simply *Sweetland*. That is not to

Figure 12
Morinaga Gift News, brochure, c. 1937–38. Morinaga & Co., Ltd.

13 In the collection of Morinaga & Co., Ltd.

Figure 13
Morinaga milk caramels advertisement, *Osaka asahi shinbun*, 1 March 1929, 25. Morinaga & Co., Ltd.

mention a host of shorter pamphlets, evocatively titled *Delicious*, *Mother's Choice*, *The Story of Chocolate*, *Candy Clan*, *Morinaga Gifts*, and *How Sweets Are Made*. These magazines cleverly combined advertisements with tidbits of entertainment, cartoons, Hollywood gossip, and practical how-to information generally directed at women. They were also expertly designed in up-to-the-minute modernist graphic techniques.

Politics and current events also directly entered into the Morinaga promotional vocabulary. In a Morinaga gifts brochure marketing boxes of cookies and biscuits (probably dating from around 1937–38), montage techniques simulate images of a pinwheel featuring the national symbols of Japan, Germany, and Italy (Figure 12).[14] This imagery evokes Japan's signing of the German-Japanese Agreement (the Anti-Comintern Pact) in 1936 and a protocol with Italy and Germany in Rome (on November 6, 1937) that would become the basis for the Three-Power Pact (Tripartite Alliance) creating the Axis powers (later signed in Berlin on September 27, 1940). On the front of the brochure, the pinwheel displays the national symbols over the head of a German eagle, all superimposed on a collage of urban maps and cityscapes. Three small figures of young boys with their arms raised in salute are just visible on the lower left. In the center of the brochure, the flip side of the pinwheel is rendered with three collaged images of young Japanese children holding Morinaga sweets, and the back shows floating images of Morinaga's gift products for sale.

Montage aesthetics were employed in a variety of different visual formats. In a full-page newspaper advertisement for Morinaga milk caramels (Figure 13) from the *Osaka asahi shinbun* (1 March 1929), a sea of smiling children's faces fills up the shape of the company logo (a registered trademark), which pictured a naked angel upside down grasping the initials "TM" for Taichirō Morinaga, the founder of the company.[15]

Figure 14
Tōhōsha, interior page, *FRONT*, special issue, *Manchuokuo: An Epic*, nos. 5–6, 1943.

14 In the collection of Morinaga & Co., Ltd.

15 *Osaka asahi shinbun* (March 1, 1929), page unknown.

The simple copy read, "Morinaga milk caramel that I like, that I love . . ."

Designer Hara Hiromu, who was responsible for revamping Kaō's soap packaging for the New Kaō campaign, used a similar montage of smiling figures for an interior spread in the special Manchuria issue of the wartime propaganda journal *FRONT* (Figure 14), published in multiple languages in the 1940s by the design company Tōhōsha. *FRONT* was modeled on the Soviet publication *USSR in Construction*, designed by El Lissitzky and Alexandr Rodchenko (the same models that Kanamaru was referring to).[16] This comparison with Morinaga's light-hearted montage that constructed a community of little angels shows the malleability of this style for promoting a more overtly political message—in this case, the so-called harmonious "quinque racial state" of Manchukuo, or more generally the visionary expansionist ideology of Japan's Greater East Asia Co-Prosperity Sphere. In both images, photo collages of optimistic smiling faces create a sense of community. The arrangement in the shape of a winged angel or a bird-like figure is uplifting and exultant. Hara is subtly able to accentuate this message even further by exaggerating the perspective from below.

The dynamic advertising team at Morinaga was known throughout the larger design community in Japan, particularly because they regularly displayed their commercial work in public "art" exhibitions. They worked under prominent advertising directors Imaizumi Takeji and Arai Seiichirō) who (along with Hara and many other important advertising professionals, were later active in the wartime propaganda production group Hōdō Gijutsu Kenkyūkai (Society for the Study of Media Technology, abbreviated as Hōken) formed in 1940, which in turn worked for the Naikaku Jōhōkyoku (Cabinet Information Office). As historian Namba Kōji has argued, the standard view of the fate of commercial designers under Japan's militarist regime was that with the suspension of private corporate sponsorship their work evaporated, leaving no option but to wait until the end of the war before recommencing their careers. Focusing on the Hōken, Namba clearly demonstrates that this was not the case. Artists were able to redirect their work into state-sanctioned and state-supported areas of artistic production using their carefully honed skills in marketing and advertising to further the ideological objectives of the Japanese regime.[17] I would just add that they were also able to continue their work for private corporations concurrently well into the early 1940s. In fact, as we've seen in the advertising campaigns of the 1930s, the corporate and the national were already tightly bound together, and there was no discontinuity of artistic production—from publicity to propaganda—in terms of techniques, tactics, or personnel, curiously even continuing after the war to support democratic rebuilding. In short, reactionary and progressive modernism in publicity and propaganda were cast from the same mold, and context would prove to be the deciding factor.

16 *FRONT* 5–6 (1943). n.p.

17 Namba Kōji, *Uchiteshi Yaman: Taiheiyō Sensō to Kōkoku no Gijutsushatachi*, Kōdansha Sensho Mechie (Tokyo: Kōdansha, 1998), 146. For a participant's perspective see, Yamana Ayao, Imaizumi Takeji, and Arai Seiichirō, *Sensō to Senden Gijutsusha: Hōdō Gijutsu Kenkyūkai no Kiroku* (Tokyo: Daviddo Sha, 1978). For a recent discussion of the Hōdō Gijutsu Kenkyūkai in the larger context of Japanese wartime propaganda production, see Barak Kushner, *The Thought War: Japanese Imperial Propaganda* (Honolulu: University of Hawaii Press, 2006).

18 Itagaki Takaho, "Hekimen Shashin no Hattatsu to Beikoku Banpaku," *Kokusai kenchiku* 15:5 (1939).

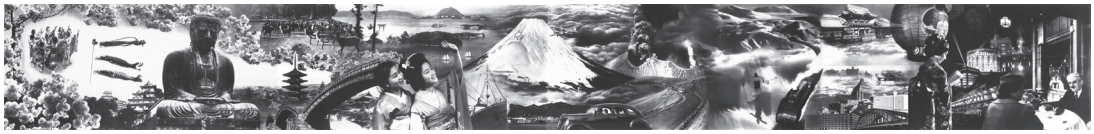


Figure 15
Hara Hiromu (designer), and Kimura Ihee, Koishi Kiyoshi, and Watanabe Yoshio (photographers), Photomural "Tourism Japan," Japanese Pavilion, Exposition Internationale de Arts et Techniques dans la Vie Moderne Paris, 1937

In the realm of the built environment, large-scale photomurals were employed by commercial and state sponsors to spatialize montage promotional aesthetics. And, according to cultural critic Itagaki Takaho writing in *Kokusai kenchiku* (International Architecture) in 1939, they were all over contemporary architectural journals featuring interior design schemes.[18] In the fashionable Kyōbashi area of Tokyo, Morinaga's design team and freelance photographer Horino Masao created a photomural montage of a Spanish flamenco dancer for the back wall of the Morinaga Candy Store, one of the company's dessert and soda fountain parlors.[19]

Horino Masao, now considered one of the most well- known and respected photographers of the period, produced a number of evocative portraits and figure studies for Morinaga advertising, including a famous series of the budding actress Hara Setsuko. Hara's name is now synonymous with images of the loyal daughter and wife in classic Japanese cinema (and she will reappear later in my discussion).

Horino's modernist photography colleagues Kimura Ihee, Koishi Kiyoshi, and Watanabe Yoshio, also well-known for their work in publicity and propaganda, provided images for Hara Hiromu's composite design for the large-scale photomural promoting Japanese tourism, displayed at the 1937 World's Fair in Paris (Figure 15).[20] The photomural was mounted in Japan's award-winning, modernist national pavilion, designed by architect Sakakura Junzō. Promoting the diverse leisure options of tourism in Japan, Hara's montage moves smoothly from timeless images of dancing maidens under cherry blossoms, the medieval fortress of Himeji castle, the spiritual symbol of the Great Buddha at Kamakura, and the iconic volcano of Mount Fuji, to the Japan of modernity, skiing, Tokyo's metropolis, and fine dining in the urbane capital.

The collaborative studio Nippon Kōbō, of which Hara Hiromu was initially a member, was later hired to design the interior displays of both the Japanese pavilion and the Japanese section of the Hall of Nations at the 1939–40 New York World's Fair, as well as the interior of the Japanese pavilion at the Golden Gate Exposition in San Francisco, also in 1939. These spaces were all decorated with stunning monumental photomurals. Many of the photographs used in the photomurals had already appeared in the quasi-governmental, internationally directed promotional journals produced by the same design team, Nippon Kōbō, such as the national tourism board's magazine *Travel in Japan*, and the multilingual journals *NIPPON* and *COMMERCE JAPAN*.

19 Horino's photomural was photographed by well-known photographer Kuwabara Kineo.

20 Nakai Kōichi, *Komāsharu Foto=Advertising Photography* (Tokyo: Shōgakukan, 1986), 22–23.

21 For more on Nippon Kōbō and *NIPPON*, see Gennifer Weisenfeld, "Touring 'Japan as Museum': Nippon and Other Japanese Imperialist Travelogues," *positions: east asia cultures critique* (Winter 2000); Shirayama Mari and Hori Yoshio, eds., Natori Yōnosuke to Nippon Kōbō, 1931–1945 (Tokyo: Mainichi Shinbunsha, 2006).

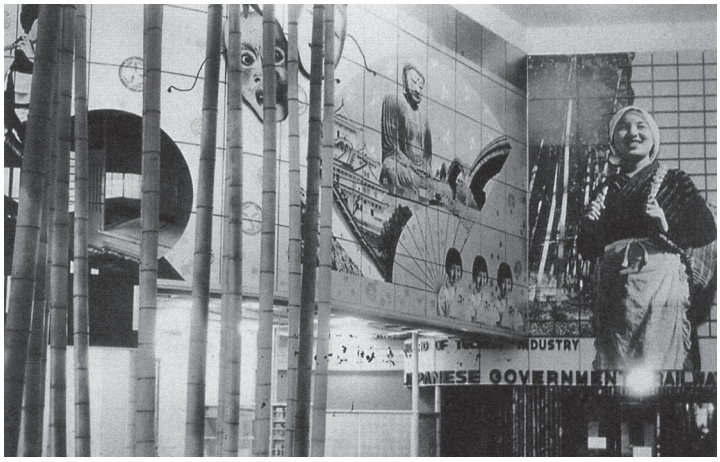


Figure 16
Yamawaki Iwao (designer), Domon Ken (photographer), Japanese Section, Hall of Nations, New York World's Fair, 1939–40.

It is important to note that these journals received a combination of state and private sponsorship. *NIPPON*, for example, had two main sponsors. One was the Society for International Cultural Relations (known in Japanese as the Kokusai Bunka Shinkōkai), the forerunner of the Japan Foundation, a non-profit organization established under the auspices of the Ministry of Foreign Affairs in 1934.[21] The Society's self-described main objective was "the international exchange of culture and in particular the enhancement of Japanese and Oriental culture abroad, thereby to contribute toward the advancement of civilization and the promotion of human welfare." The second sponsor was the textile company Kanegafuchi Bōseki (Kanegafuchi Spinning Company), known for short as Kanebō, whose new president Tsuda Shingo provided a substantial loan to bankroll the launch of the publication. This state and private support is clearly reflected in *NIPPON*'s integrated vision of Japanese politics, culture, and industry, which was similarly true in the exposition displays.

The dynamic use of montage in the display spaces of the expositions provided the sensation of touring, living, interactive exhibits (Figure 16).[22] In the center of the room was a patch of bamboo with illuminated electric blue, yellow, and red globes at the base. The surrounding floor was covered in wisteria-purple silk carpet with circular patterns, like Japanese crests. The double-layered, illuminated ceiling rippled with cloud shapes. A large photomural (20 feet high and 58 feet wide) titled "Tourism Japan" (Kankō Nippon), sponsored by the Japanese Government Railways Tourism office, undulated across the curved space of the information desk at one end of the room near the main entrance, featuring the striking figure of a smiling female farm worker towering over the doorway, her body appearing to almost step off the wall into the viewer's space. Facing the desk on the right was a sweeping, room-size tableau of "sacred" Mount Fuji titled "Radiant Japan" (Shūrei Nippon). On the left was a series of monumental photomural panels sponsored by the International Society for Cultural Relations collectively entitled "Advancing Japan" (Yakushin Nippon).[23]

22 For a firsthand discussion of the project by the designer in charge see Yamawaki Iwao, "Nyu Yoku Banpaku Kokusaikan," *Kokusai kenchiku* 15:5 (1939); Yamawaki Iwao, "Cover[sic]d Space Japan, N.Y. World's Fair," *Kokusai kenchiku* 15:7 (1939); Yamawaki Iwao, "1940-Nen Nyu Yoku Banpaku Tenrankai Kokusaikan Nihonbu (Kaizō) Yamawaki Iwao Sekkei 1940," *Kokusai kenchiku* 16: 8 (1940); Yamawaki Iwao, "Nyu Yoku Shi Yori," *Kokusai kenchiku* 16:6-7 (1940).

23 Itagaki Takaho, "Hekimen Shashin no Hattatsu to Beikoku Banpaku," *Kokusai kenchiku* 15:5 (1939).

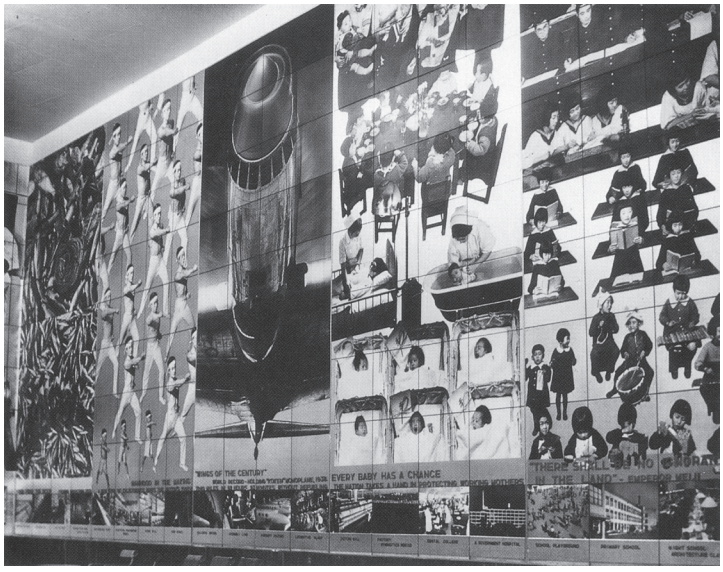


Figure 17
Yamawaki Iwao (designer), Domon Ken (photographer), "Advancing Japan," Japanese Section, Hall of Nations, New York World's Fair, 1939–40.

All the photomural panels were designed by Bauhaus-trained architect/artist and *NIPPON* contributor Yamawaki Iwao (1889–1987), who used photographs in the Japanese Government Railways Board of Tourist Industry collection (many produced by Nippon Kōbō) for "Tourism Japan" and specifically commissioned works by Nippon Kōbō photographer Domon Ken for "Advancing Japan." Yamawaki declared that the photomurals were the culmination of a Bauhaus ideal of fusing photography and space.[24] Each montage panel in "Advancing Japan" was 14 feet high and nine feet wide. The panels (Figure 17) thematized aspects of Japan's social, economic, and cultural advancement such as "physical training" (taiiku), showing group exercises; "manufacturing" (kōgyō), featuring airplane production; "social health" (shakai hoken), showing a children's nursery; "science" (kagaku), featuring a cyclotron; "industry" (sangyō), spotlighting fisheries; and "education" (kyoiku), showing schoolchildren. Yamawaki's designs skillfully integrated the spatial perspective of the viewer by placing a ring of boldly captioned photographs at eye level for close inspection that were crowned by the monumental photomurals, drawing the viewer's gaze upward and across the expanse of the wall. To assure legibility and impact, he gradually increased the size of the figures as they went up the wall and punctuated the series with several panels that spotlighted a single motif such as the commanding propeller and fuselage of an airplane or a massive cyclotron. Domon's masterful modernist-inspired photographs shot from a range of dramatic angles contributed greatly to the dynamism of the compositions. The repeated, yet subtly varied figures convey a powerful impression of national unity and purpose.

When the exposition was extended for another year through 1940, it was decided to change the interior designs of the display. Yamawaki and Nippon Kōbō were again engaged to reinstall the

24 For a detailed discussion of this project, see Kawahata Naomichi, "Fusing Photography and Space: Iwao Yamawaki's Photo Murals for New York World's Fair [*sic*]," in *Kolloquium Über Bauhausfotografie*, ed. Kawasaki City Museum (Kawasaki: Kawasaki City Museum, 1997), 124–33.

Figure 18
Yamawaki Iwao (designer), "Orient Calls," Japanese Section, Hall of Nations, New York World's Fair, 1939–40.

interior decoration. This time, a monumental image (24 feet high and 12 feet wide) of Hara Setsuko (already the face of many commercial products like Morinaga chocolate) anchored the second iteration of the display under the tourist bureau catch copy "Orient Calls" (Tōyō wa maneku) (Figure 18). The renowned gentility and amiability of the Japanese woman here beckons Western tourists to experience once again this ancient and advanced civilization of agriculture, aesthetics, industry, and sport. Looking down toward Hara Setsuko, two new sets of photomurals were installed. The first set, titled "Contemporary Japanese Daily Life" (Gendai Nippon Seikatsu), sponsored by the Asahi Shinbun, features large-scale individual figures (from left to right): a farmer under the copy "fertile furrows," (photograph by Kanamaru Shigene); a pilot with the copy "youth turns skyward"; a mother and child under "growing generation"; a woman in kimono under "traditional charms;" a female diver representing sports competition under "modern activity" (notably extending dramatically beyond the frame of the image—as if plunging into the panel); a business man under "commerce;" and a factory worker under "industry." (Incidentally, the last photograph is also by Kanamaru.) This series formed a curved backdrop to a seating area.[25]

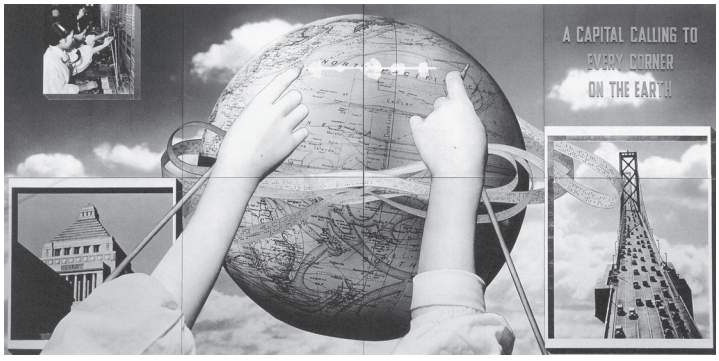


Figure 19
Kōno Takashi (designer), Kimura Ihee, Mizoguchi Munehiro, Sugiyama Kira, and Watanabe Yoshio (photographers), "Communications," from photomural series "Transportation, Communications, Broadcasting," Japanese Pavilion, Golden Gate International Exposition San Francisco, 1939-40.

25 Suzuki Michiji, "Nyu Yoku [character illegible] Banpaku, Kokusaikan Kabādo Spēsu Nihonbu Yamawaki Iwao Sekkei," *Kokusai kenchiku* 15:5 (1939); Yamawaki Iwao, "1940-Nen Nyu Yoku Banpaku Tenrankai Kokusaikan Nihonbu (Kaizō) Yamawaki Iwao Sekkei 1940"; Yamawaki Iwao, "Nyu Yoku Shi Yori." The seven photographs for the "Contemporary Japanese Daily Life" photomural panels (each 12 feet by five feet) were by the following photographers respectively: farmer (Kanamaru Shigene); pilot (Okada Kōyō); mother and child (Kondō Hakuga); young woman (Kumagai Tatsuo); diver (Nakayama Iwata); business man (Watanabe Yoshio); worker (Kanamaru Shigene).

Figure 20
Kōno Takashi (designer), Kimura Ihee, Mizoguchi Munehiro, Sugiyama Kira, and Watanabe Yoshio (photographers), "Broadcasting," from photomural series "Transportation, Communications, Broadcasting," Japanese Pavilion, Golden Gate International Exposition San Francisco, 1939–40.

On the wall across from the information desk, above a shelf of craft displays by Kōgei Shidōsho, the Ministry of Commerce and Industry's Industrial Arts Research Division (established in 1928), was another series of dramatic montages reminiscent of the 1939 set, titled "Contemporary Industry" (Gendai no Sangyō). They were designed by Hashimoto Teruo and clearly sponsored by the Society for International Cultural Relations, Tokyo. The panels highlight Japan's "contemporary manufacturing" such as ship production ("ships for the seven seas"), its handicrafts (an "ever thriving art"), machine-made textiles ("the … grows"), manufacturing technology (represented by "machine age men"), and aeronautics (with "air-minded Japan"). The exposition envisions modern industry, daily life, and the nation-state as all intertwined. It is clear that the aestheticization of commodities through design was an integral factor in the success of many modern, consumer-oriented Japanese corporations. A new generation of professional art directors, artist-designers, and photographers, trained in professional academies and working for corporate Japan, were a major conduit for bringing a broad range of high art aesthetics into the commercial sphere, most notably, as I have discussed here, the cutting-edge modernist visual strategies of abstraction, montage, machine aesthetics, and an array of techniques for formally manipulating the photographic image.

I would like to conclude with some images, from the Japanese pavilion at the 1939 San Francisco Golden Gate World's Fair, that exemplify the use of modernism as a method for promotional publicity and propaganda. Nippon Kōbō member Kōno Takashi, who worked for the film company Shōchiku for many years, designed the photomurals, which were sponsored by the Ministry of Communications, the Ministry of Railways, and the Broadcasting Corporation of Japan.[26] In one panel (Figure 19), Japan's capital—the capital of its burgeoning empire, represented by the distinctive ziggurat-style tower of the Diet building on the lower left (completed just three years earlier in 1936)—calls to "every corner of the earth" through international telecommunications, as tickertape weaves around the globe and operators' hands extend to connect Japan and North America, framing the space of the Pacific. Just as the exposition's organizers in San Francisco were positioning the city as a criti-

26 Reproduced in Kawahata Naomichi, *Seishun zue: Kōno Takashi Shoki Sakuhinshō* (Tokyo: Kōno Takashi Dezain Shiryō Shitsu, 2000), 225–32.

Figure 21 (top)
Kōno Takashi (designer), Kimura Ihee, Mizoguchi Munehiro, Sugiyama Kira, and Watanabe Yoshio (photographers), "Broadcasting," from photomural series "Transportation, Communications, Broadcasting," Japanese Pavilion, Golden Gate International Exposition San Francisco, 1939–40.

Figure 22 (bottom)
Hōdōbu, Kigen 2603, poster, 1943. University of Tokyo, Graduate School of Interdisciplinary Information Studies Library Collection.

cal gateway to the Pacific—and America's own colonial holdings in the region—Japan counters by positioning itself on the other side of the metaphorical Pacific highway, literalized by the extending roadway of the Golden Gate Bridge on the right.

Radio, once again the unifying and information-disseminating technology highlighted earlier in Matsushita's advertisement, is featured in another panel at the fair (Figure 20), bringing "the charming echoes" of Japan abroad. Here Asia is not a recipient, but a transmitter of culture. And the radio gymnastics (rajio taisō) broadcast throughout the country train the body of the youthful and vigorous nation in another panel (Figure 21), and train it to move in unison. So just a few years later in 1943, when designers produced a montage poster to commemorate the purported 2,603rd anniversary of the legendary founding of the Japanese nation (Figure 22), the dynamic aesthetic language of modernist montage was already widely familiar to the Japanese populace, as it was one of the dominant pictorial idioms of publicity and propaganda throughout the prewar period.

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Design for (Emotional) Durability

Jonathan Chapman

Introduction

Sustainable design is maturing. In *The Designer's Atlas of Sustainability*, Ann Thorpe refers to this coming of age as the second stage in a debate[1] in which the role of design in economic and social aspects of sustainability is more fully explored, in addition to the already established focus on energy and materials. The sustainability crisis is a behavioral issue, and not one simply of technology, production, and volume. The behavioral conditions that both drive and influence patterns of material consumption are complex, yet fundamental to effective engagement with a contemporary sustainable design agenda. Indeed, until recently, sustainable design methodologies seldom engaged with the more fundamental questions such as the meaning and place of products in our lives, and the contribution of material goods to what might be broadly termed the human endeavor. New, sustainable products must look to instill new meaning and value in a critical area of human endeavor that, in so many ways, has become directionless and superficial.[2] As Fletcher argues in *Designers, Visionaries and Other Stories: A Collection of Sustainable Design Essays*, we are not looking for mass answers, but instead, a mass of answers[3]. This pluralistic approach leads us toward a more nuanced sustainable design culture, in which essential debate begins to unpack, question, and explore new ways of working with issues of sustainability through design. In this polemical context, design is reinvigorated with a rich culture of critique that directly reinstates it as the central pioneer of positive social, economic, and environmental change, instead of a subservient, end-of-pipe problem-solving agency, as has recently become the custom.

Inefficient Practices

The design, production, and consumption of domestic electronic products (DEPs) is fundamentally unsustainable—new approaches are urgently needed. At present, the United Kingdom disposes of 1.1 million tons of DEPs each year (*electronic products* include laptops, MP3 players, mobile phones, digital cameras, etc., as opposed to *electrical products* which include kettles, toasters, refrigerators, washing machines, etc.), and it is forecast that this will double within the next 15 years.[4] During the last decade alone, the consumption of household goods and services in the UK has risen by 67%, and household energy consumption by 7%.

1 Thorpe, A., *The Designer's Atlas of Sustainability* (Washington, DC: Island Press, 2007), 5.

2 Walker, S., *Sustainable By Design: Explorations in Theory and Practice* (London: Earthscan, 2006), 151.

3 Fletcher, K., "Clothes that Connect" in Chapman, J. & Gant, N., *Designers, Visionaries and Other Stories: A Collection of Sustainable Design Essays* (London: Earthscan, 2007), 118–132.

4 Scottish Environmental Protection Agency, "Producer Responsibility: Waste Electrical and Electronic Equiment (WEEE)," cited on <http://www.sepa.org.uk/producer/weee.htm> (May 6, 2008).

Not only is consumption growing in magnitude, but the throughput of manufactured goods is also developing at a rapid pace.

The urgency of this situation is described in *The Stern Review on the Economics of Climate Change*, which states that if no action is taken to reduce emissions, the concentration of greenhouse gases in the atmosphere could reach double its pre-industrial level as early as 2035, virtually committing us to a global average temperature rise of over 2°C. According to Stern, there would be more than a 50% chance that the temperature rise would exceed 5°C in the longer term. This rise would be very dangerous indeed; it is equivalent to the change in average temperatures from the last ice age to today. Such a radical change in the physical geography of the world must lead to major changes in human geography—where people live and how they live their lives[5]. In 2007, the environmental audit for the United Nations, involving 1,400 scientists, concluded that the speed at which mankind has used resources over the past 20 years has put humanity's very survival at risk.[6]

The human race was fortunate enough to inherit a 3.8 billion-year-old reserve of natural capital, but at present rates of consumption it is predicted as unlikely that there will be much of it left by the end of this century. Since the mid-eighteenth century, more of nature has been destroyed than in all prior history. In the past 50 years alone, the human race has stripped the world of one-fourth of its topsoil and a third of its forest cover. In total, one-third of all the planet's resources have been consumed within the past four decades.[7] Conventionally, industrial activity involves a linear production-consumption system, with built-in environmental deterioration at both ends.[8] In the past 45 years, sustainable design activities have made this waste and inefficiency marginally less wasteful and inefficient.

Product Life, Product Death

Commercial interest in the lifespans of manufactured objects can be traced back to London's introduction of the term *planned obsolescence*,[9] made popular by Packard in his book *The Waste Makers*.[10] Though informed by the work of both London (1932) and Calkins,[11] Packard's dualistic theories of *functional obsolescence* and *psychological obsolescence* assert that the deliberate shortening of product lifespans was unethical, both in its profit-focused manipulating of consumer spending, and its devastating ecological impact through the nurturing of wasteful purchasing behaviors. Today, interest in the lifespans of manufactured objects has become a crucial component of contemporary design discourse.[12] Yet, while the historical discourse is familiar, a tangible and accessible vocabulary is lacking in this context. This lack has contributed to a current state of inertia in both academic and industrial domains, where an absence of language with which to address salient issues of emotional durability and design has inhibited progress.

5 Stern, N., *The Stern Review on the Economics of Climate Change*, New Economics Foundation, London (October 30, 2006).

6 United Nations Environment Programme, 2007.

7 Hawken, P., Lovins, A., and Hunter Lovins, L., *Natural Capitalism: Creating the Next Industrial Revolution* (New York: Little, Brown and Company, 1999), 2.

8 Stahel, W. R., The Product Life Factor, *The Product Life Institute, Geneva*, 1982, accessed at: <http://www.product-life.org/en/archive/publications> (August 10, 2008).

9 London, B., Ending the Depression Through Planned Obsolescence, Pamphlet, US, 1932.

10 Packard, V., *The Waste Makers* (Middlesex: Penguin, 1963).

11 Calkins, E. E., "What Consumer Engineering Really Is," (1932) in *Consumer Engineering: A New Technique for Prosperity*, Roy Sheldon and Egmont Arens (New York: Harper & Brothers), 1–14.

12 Cooper, T., "Durable Consumption: Reflections on Product Life Cycles and the Throwaway Society," in Hertwich, E., (ed.), *Life-cycle Approaches to Sustainable Consumption* (Workshop Proceedings), Austria (November 2002), 15–27.

As Slade explains in his work, *Made to Break: Technology and Obsolescence in America*, disposability was a necessary condition for America's rejection of tradition and our acceptance of change and impermanence. Yet, Slade argues, by choosing to support ever-shorter product lives, we may well be shortening the future of our way of life as well, with perilous implications for the near future.[13] The deliberate curtailment of a product's lifespan has become commonplace today, driven by, for example, a need for cost reductions in order to meet price points, the convenience of disposability, and the appeal of fashion.[14]

As everyday life grows increasingly electronically mediated, it becomes both timely and of growing importance to examine the nature of engagement that we currently encounter with the plethora of DEPs that surround us. Today, empathy is encountered not so much with each other but through fleeting embraces with manufactured—and ever more technologically advanced—artifacts. These *simulations*[15] move away from a sustainable culture of human-to-human engagement, toward a faster culture of human-to-product engagements; contributing to the wasteful and unsatisfactory character of material experience and the lives we construct around it. This shift, away from immateriality and anonymous experience, towards reflexive encounters, is seemingly only the crest of a larger cultural wave that is rapidly imparting greater understanding into the way we perceive, condition, and create the world in which we live. Indeed, the computational and communicative devices that now assist almost every transaction in our daily lives are designed as dull and servile boxes that respond to our commands in a state of neutrality. Stress and technophobia are the result.[16]

Drivers for Change

The search for solutions to these issues are driven primarily by two things: legislative demands brought about by the European Union's Waste Electrical and Electronic Equipment (WEEE) Directive, and the awakening ecological consciousness of consumers and designers who have a growing awareness of our impact upon the biosphere. A significant economic burden will soon accompany this short-term, inefficient model of production and consumption, resulting from legislative breach of the WEEE Directive. This directive addresses concerns about the quantity and hazardous content of electrical and electronic waste going into landfills or being incinerated. It will make it necessary to design products with end-of-life criteria in mind. The WEEE Directive is a significant piece of environmental legislation that requires producers of electronic products to take responsibility for the whole life of their products and to meet given targets for the often prohibitively costly take-back and recycling of all products at end-of-life, at which point it could be argued that the longer life option presents a potentially more economically viable commercial model for industry. Furthermore, the WEEE Directive covers all elec-

13 Slade, G., *Made to Break: Technology and Obsolescence in America*, (Cambridge, MA: Harvard University Press), 2007.

14 Christer, K., and Cooper, T., "Marketing Durability: A Preliminary Review of the Market Potential for Life Span Labels," *Academy of Marketing Conference*, Cheltenham (July 2004).

15 Baudrillard, J., *Symbolic Exchange and Death* (London: Sage Publications, 1993).

16 de Groot, C. H., "Experiencing the Phenomenological Object," in *Closing the Gap Between Subject and Object* (London: Design Transformation Group, 1997), 20–21.

trical and electronic equipment with voltages up to 1,000 AC and 1,500 DC and will affect virtually all producers and manufacturers of electrical and electronic equipment, regardless of company size.

In addition to the legislative demands brought about by the WEEE Directive, an increasingly ethically aware marketplace is also encouraging many producers to review their practices. In the UK, consumers are shopping with a conscience, and determined to buy brands, products, and services that are sustainable, organic, or produced under Fair Trade agreements. According to Raymond and Franklin, 38 percent of male shoppers feel this way, as do 49 percent of female shoppers. And in terms of the brands and products they want to buy, 67 percent revealed that they wanted brands and products that are more trustworthy, value driven (50%), authentic (31%), ethical (31%), eco-friendly (29%) and innovative (28%).[17] In addition, the steady increase in end-of-life legislation and product take-back policies are engaging all corners of the industry[18] in reevaluating the commercial potential for longer lasting DEPs, as a means to deliver ever more sustainable modes of production and consumption. However, amidst this industry-wide push to comply with current and forthcoming environmental legislation, the root causes of the ecological crisis we face are frequently overlooked. Meanwhile, the inefficient consumer machine continues to surge wastefully forth, but now it does so with recycled materials instead of virgin ones.[19] Both the commercial and ecological unrealities of this model must be questioned.

Emotionally Durable Design

Although the need for longer lasting products is widely recognized, practical working methods, design frameworks, and tools that facilitate the development and integration of such emotionally durable characteristics within products are scarce. This may be a consequence of the apparently intangible, ethereal nature of considerations pertaining to psychological function, which cause confusion for the practicing product designer tasked with the design and development of greater emotional longevity in products.

An empirical study, conducted by the author, examined the relationship behaviors of 2,154 respondents with their DEPs during the use phase. Results of this study demonstrated that within the sample frame, value was perceived due to the presence of one of the following six experiential themes; narrative (24%), surface (23%), detachment (23%), attachment (16%), fiction (7%), and consciousness (7%). Of the six distilled experiential themes, narrative was the most common reason given by 526 respondents (24%). It is interesting to note that of the 526 respondents occupying this profile, 341 received their DEP as a gift. Furthermore, although 364 (16%) of the sample population do possess DEPs to which they are emotionally attached, a far greater proportion of the sample frame (84%) perceived value in DEPs for reasons other than emotional attachment.[20]

17 Raymond, M., and Franklin, K., "Endless Possibilities," in *New Design* 44, UK: DWB Associates Ltd. (October 2006), 30-33.

18 Pnueli, Y., and Zussman, E., "Evaluating the End-of-Life Value of a Product and Improving It by Redesign," *International Journal of Production Research*, 35:4 (April 1, 1997), 921–42.

19 Chapman, J., "Modern Life Is Rubbish," *Blueprint* 241 (April 2006) 68–71.

From these results, a *six-point experiential framework* was distilled, providing product designers with distinct conceptual pathways through which to initiate engagement with salient issues of emotional durability and design, and presenting a more expansive, holistic understanding of design for durability—in terms of both the paradigm and the language used to articulate it. The six-point experiential framework (and supporting annotations) is as follows:

Narrative: Users share a unique personal history with the product; this often relates to when, how, and from whom the object was acquired.

Detachment: Users feel no emotional connection to the product, have low expectations, and thus perceive it in a favorable way due to a lack of emotional demand or expectation. (This also suggests that attachment may actually be counterproductive, as it elevates the level of expectation within the user to a point that is often unattainable.)

Surface: The product is physically aging well and developing a tangible character through time and use (and sometimes misuse).

Attachment: Users feel a strong emotional connection to the product, due to the service it provides, the information it contains, and the meaning it conveys.

Users are delighted or even enchanted by the product as they do not yet fully understood or know it, especially with a recently purchased product that is still being explored and discovered.

Consciousness: The product is perceived as autonomous and in possession of its own free will. It is quirky and often temperamental, and interaction is an acquired skill that can be fully acquired only with practice.

The six-point experiential framework presented here generates a grounded theoretical architecture that enables more effective engagement with complex issues of emotional durability and design. By framing specific points of intervention, the six defined pathways facilitate more structured, focused modes of exploration. As a collection of terms, an original territory of inquiry is delineated and defined, while each of the six terms begins to construct an original vocabulary for clearer articulation of the immaterial phenomena that influence product longevity. The six-point experiential framework was presented as evidence at The House of Lords (on February 5, 2008) and examined by the Science and Technology Committee as a part of their "Enquiry into Waste Reduction." The evidence was

20 Chapman, J., "Emotionally Durable Design: Sustaining Relationships between Users and Domestic Electronic Products," PhD thesis (unpublished), University of Brighton (April 1, 2008), 155.

presented within the context of providing product designers with distinct conceptual pathways through which to initiate engagement with emotionally durable design and the WEEE Directive, and examining ways in which products and production processes can be made more sustainable and therefore less wasteful.[21]

Desire and Disappointment

The process of consumption is motivated by complex emotional drivers, and is about far more than just the purchasing of new and shinier things;[22] it is a journey towards the ideal (or desired) self, that, through cyclical loops of desire and disappointment, becomes a seemingly endless process of serial destruction. Material artifacts may thus be described as illustrative of an individual's aspirations and serve to define us existentially. As such, possessions are symbols of what we are, what we have been, and what we are attempting to become,[23] and also provide an archaic means of possession by enabling the consumer to *incorporate*[24] the meanings that are signified to them by a given object. Thus, consumers are drawn to objects in possession of that which they subconsciously yearn to become—the material you possess signifies the destiny you chase. In this way, it can be seen that products are not merely functional, but provide important signs and indicators in human relationships.

Consumer motivation, or the awakening of human need, is unstable—it continually evolves and adapts, whilst the DEPs deployed to both mediate and satisfy those desires remain relatively frozen in time, throughout the product's *use-career*.[25] We become familiar with their greatness and as a direct consequence, our expectation of greatness itself subsequently increases; adoration rapidly mutates into a resentment of a past that is now outdated and obsolete. This common phenomenon of an individual evolving and outgrowing a static product yields intensely destructive implications for the sustainability of consumerism. Furthermore, the dynamic nature of this desire requires a similar approach: the development of dynamic and flexible products.[26]

Conclusions

It is clear that the *design for durability* paradigm has important implications beyond its conventional interpretation, in which product longevity is considered solely in terms of an object's physical endurance, whether cherished or discarded. Perhaps due to the normalcy of innovation, the made world has adopted an expendable and sacrificial persona, rendering its offspring fleeting, transient, and replaceable orphans of circumstance. In the majority of cases, the durability of DEPs is characterized simply by specifying resilient materials, fixable technologies, and the application of product optimization methodologies that reduce the likelihood of blown circuits, stress fractures, and other physical failures. Is this durable product design, or simply the designing of durable waste? Cynically, waste from

21 A full transcript of this session, along with the supporting documentation can be found on: <http://www.publications.parliament.uk/pa/ld200708/ldselect/ldsctech/999/8020511.htm> and the House of Lords Science and Technology Committee's final report, *Waste Reduction*, can be accessed at: <http://www.publications.parliament.uk/pa/ld200708/ldselect/ldsctech/163/163.pdf>

22 Chapman, J., *Emotionally Durable Design: Objects, Experiences and Empathy* (London: Earthscan, 2005), 30

23 Schultz, S. E., Kleine, R. E. and Kernan, J. B., "These are a Few of My Favourite Things: Toward An Explication of Attachment as a Consumer Behaviour Construct," *Advances in Consumer Research*,16 (1989), 359–66.

24 Fromm, E., *To Have or To Be* (London: Abacus, 1979).

25 van Hinte, E., *Eternally Yours: Visions on Product Endurance* (Rotterdam: 010 Publishers, 1997), 53.

26 van Nes, N., and Cramer, J., "Influencing Product Lifetime Through Product Design," *Business Strategy and the Environment*, 14 (Wiley Interscience, 2005), 286-99.

DEPs can be seen as an essential means for us to make way for the new. Neither broken nor dysfunctional, these orphans have been cast aside before their time to make way for newer, younger models in an adulterous swing we call consumerism.[27] Though this may be described as nothing more than a Darwinian process of progress-driven obsolescence, the ecological implications of this practice are grave.

The majority of the products that make up today's electronic waste (e-waste) still perform their tasks perfectly in a utilitarian sense. In an emotive sense, however, these unwanted electronics bear an immaterial form of defect, manifest within the relational space occupied by both subject and object. It is this incapacity for evolution and growth that renders most products incapable of establishing and sustaining relationships with users. The waste this inconsistency generates is substantial, coming at increasing cost to manufacturers facing the policy-driven demands of the EU's WEEE Directive and, perhaps more importantly, the natural world. We must therefore begin to consider the emergent paradigm of *emotionally durable design* to propose new and alternative genres of DEPs that reduce the consumption and waste of resources by increasing the resilience of relationships between consumer and product, presenting a more expansive, holistic approach to design for durability, and more broadly, the lived-experience of sustainability.

27 Chapman, J., "Desire, Disappointment and Domestic Waste," in *Pavillion Commissions Programme* 2007, Pavillion (Leeds, 2007), 4–11.

In the Clouds of Joseph Farcus: The Phenomenology of Going to Sea in the Era of Supermodernity

Rocco Antonucci

In the course of British colonial expansion in the eighteenth century, passenger transport was born with British colonial expansion. It was the cause of a radical transformation of the ship itself: the internal spaces of the ship, which until then had been exclusively organized to follow a largely military logic, were rendered inhabitable. They were adapted, with few exceptions, to the kind of living requirements of the bourgeois house. However, this operation shouldn't be read, as it is often done, as a simple taking over and adaptation of the land habitation to one that floats and moves. The operation hides something more complex: an act of removal, of *transfert*, or transference. The object of removal is the fear generated by the need to cross the ocean using a means of transport that is slow and wind-powered, with claustrophobic spaces and subject to the, by no means, remote possibility of shipwreck. What makes *transfert* possible is the application of a new concept that in the course of the eighteenth century really started to take off: comfort. As Walter Benjamin notes in *Baudelaire and Paris*, comfort isolates, but at the same time assimilates those who benefit from it to the mechanism.

And to that assimilation, which can be regulated by increasing or lowering the level of comfort, resistance is impossible. The level of comfort determines the degree of the *transfert* and the degree of removal. This *transfert* makes the ocean (an environment which ancient myths populated with terrible monsters) inhabitable, and in so doing determines the birth of the passenger ship.

The launch of the *Great Britain* (1843) represents a real moment of change in the history of navigation because it was the first ship constructed out of metal. With the use of this new shipbuilding technique, ships could become much larger, with ceilings reaching a height equivalent to that of a block of flats. Metal offered a structural resistance that made possible the creation of large vertical passages covered at the top with glass, letting daylight into the body of the ship, producing a number of easily imaginable advantages. With the use of metal, the internal spaces of the ship assumed monumental dimensions, so much so that it became possible for the passengers to almost believe they were living in a Renaissance, Baroque, or Rococo palace.

The metal ship is much sturdier than a wooden one and the fears generated by the ocean are lessened, if not completely

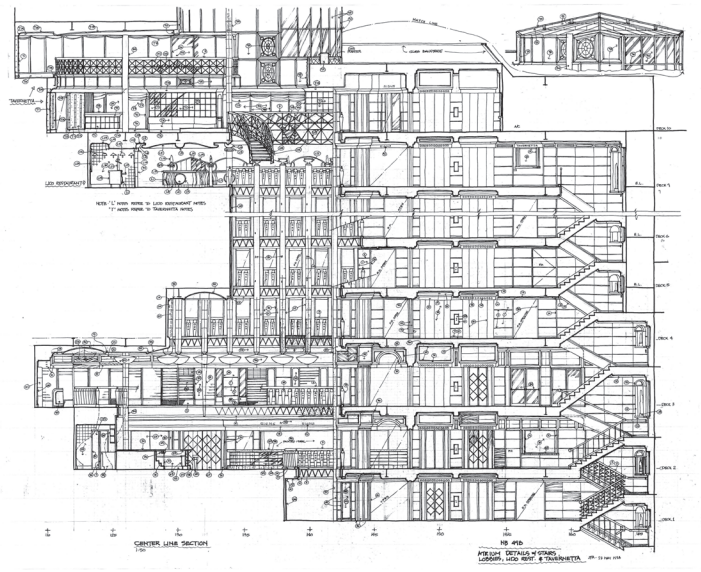


Figure 1
Costa Atlantica, Atrium (August 1998). Image courtesy of Joseph Farcus.

eliminated, so it's no longer necessary to activate a process of unconscious removal like the *transfert*. The effect of self-willed pretense, of make-believe, of living in a monumental palace, is all that is required to tranquillize the passengers and make them more disposed to entertainment and social life. We see, then, that a conscious emotion, the fiction of "pretending," substitutes the unconscious emotion, the *transfert*.

In the nineteenth century, this pretense is given one of its first theoretical statements (valid also today) by Samuel Taylor Coleridge, who defines it as a "willing suspension of disbelief," a conscious intentional act. It was this conscious action that for a long time characterized the environment around the ocean liner and, through the course of history, took on different meanings. In the twentieth century, the tendency to want to bring out the arts and myths of an entire nation was dominant. Thus for the *Normandie* (1932), Art Deco was utilized, while in the turbo-ship *Andrea Doria* (1951), Gio' Ponti produced what he himself called an "annunciation of Italy." Other more or less successful examples of this could be mentioned, but the important thing to note here is that in the modern ocean liner there is only a "semblance of truth sufficient to procure . . . that willing suspension of disbelief for the moment"[1] in such a way that the pretense takes place, but nothing more. The differences between pretense and reality in the ocean liner are evident. Make-believe is kept distinct from function. The reason the ship is constructed is to transport people from one place to another in the sea; the pretense has only an additional, accessory function with respect to the primary function. For example, the first class dining room on the *Kaiser Wilhelm II* (1912), on three levels and decorated in an inflated, redundant, neo-Baroque style and clearly a place where the staging is rather too obvious, isn't an end in itself and for which the ocean liner was constructed, that is, moving from one place to another. The

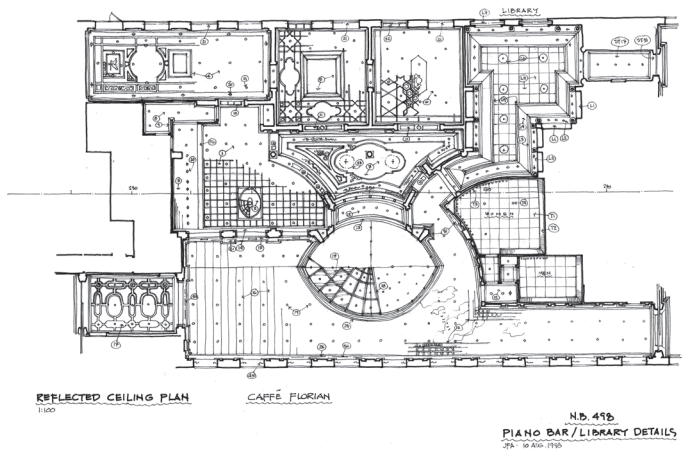


Figure 2
Costa Atlantica, Caffè Florian (August 1998)
Image courtesy of Joseph Farcus.

ocean liner's journey isn't a journey of make-believe, as it will be for the holiday cruiser in the "supermodern" era.[2]

In the era of supermodernity, the distinction between make-believe and function disappears. The holiday cruiser shows an effective, concrete antecedent—a means of transport—transformed into a means of pretending. Today the function of the holiday cruiser fuses with the make-believe.

As Marc Augé notes, the whole world seems destined to become a global *mise-en-scene* and it seems this process will stop only when the whole of the developed world has become counterfeit. When that day arrives, the holiday cruiser won't be able "to do anything but reproduce reality, which is the counterfeit,"[3] Augé was referring to that particular "extension of the urban fabric," the theme park. The present tendency to construct gigantic ships, real "extensions of the urban fabric"[4] that are organized like theme parks, confirms that the argument developed by the French ethnologist can be usefully applied to the holiday cruiser. In the holiday cruiser, the counterfeit invests not only the internal spaces but the actual function of the ship. The cruise is, in fact, a counterfeit voyage: the passengers board and leave the ship in the same place; the cruise itinerary arranges "guided visits" which show the passengers what they already know from television and the tourist agency brochures. There are also passengers who don't make these so-called "excursions," preferring to stay on the ship for the whole voyage. What's the sense in all this? The holiday cruiser market is an integral part of the tourist market, aimed at the tourist who prefers the simulated, counterfeit experience to the real experience, who chooses to visit only those important historical art monuments that are staged with complex illumination or reproduced using various kinds of electronic media. Even minor commemorative architecture and statuary are transformed into set designs, so as to render them more similar to important monuments of art. In this way, the transformation of reality into spectacle is becoming more and more pervasive, reaching even small urban conurbations and the outskirts of cities.

1 Samuel Taylor Coleridge, *Biographia Literaria – Chapter XIV*, 1817.

2 The concept of "supermodernity" is at the base of Marc Augé's anthropological analyses, to which the reader is referred for further study.

3 M. Augé, *L'impossible voyage. Le tourisme et ses images* (Éditions Payot & Rivages, 1997), 71.

4 F. Gambaro, *Parla Augé. Cosa resta dei miei non-luoghi*, *La Repubblica* (31 ottobre 2007), 43.

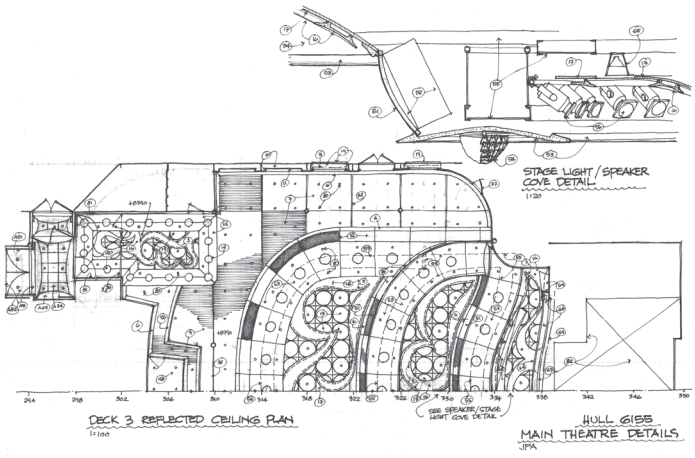


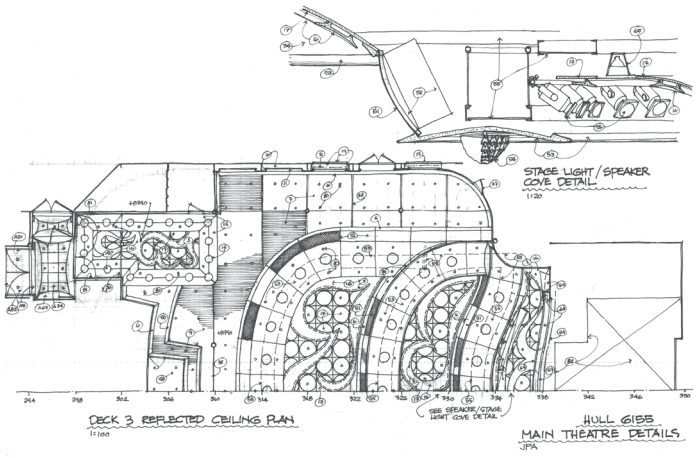
Figure 3
Costa Luminosa, Theatre (February 2007). Image courtesy of Joseph Farcus.

In the developed world, the greatest degree of make-believe is achieved in theme parks, where the spectacle itself is made into a spectacle. The pleasure of visiting Disneyland is in introducing oneself into the "scenes, into figuring next to the actors (the sheriff in the Western or persons out of fable), in identifying the motifs displayed."[5] The Walt Disney Company also built two holiday cruisers that came into service at the end of the twentieth century, and plans to build two more. The Disney Cruise Line ships are floating, moving theme parks that are integral parts of a connected series of resorts of the Walt Disney Company. Recent news in this area is of a theme park inspired by the Harry Potter books, to be constructed in the city of Orlando, Florida. Press releases indicate that it will use interactive technology so that visitors can experience the magic of the boy wizard hero of J. K. Rowling's tales. Perhaps one day someone will decide to build a theme ship inspired by Harry Potter. However, it's important to realize that in the theme parks of today there is a tendency to use sophisticated science technology and electronic media apparatus so as to break through the barriers, which every culture has from its beginnings set up, between reality, dream, and imagination. This can be seen in the case of a ship near completion in the Monfalcone ship yards, the *Costa Luminosa*, the internal spaces of which, planned by Joseph Farcus,[6] are bright surfaces illuminated with LED technology. The internal colors of the ship will be able to change into an infinite number of tones and will be regulated by a computer. With the last frontier opened up by the *Costa Luminosa*, it appears that in the very near future the internal spaces of the ship will include a non-solid surface that can be changed into potentially millions of combinations.

The first environments themed by Farcus are inspired by sequences taken from Hollywood. In the early 1990s, he designed a "promenade" for the *Fascination*, of the shipbuilding firm Carnival. This "promenade" is a real-space transposition of scenes from the David Lean film *Passage to India*. Farcus's transposition is realized through a kind of cutting out of mixed materials, made of neon sign-

5 M. Augé, *L'impossible voyage. Le tourisme et ses images* (Éditions Payot & Rivages, 1997), 28.

Figure 4
Costa Luminosa, Theatre (February 2007).
Image courtesy of Joseph Farcus.



writing and plastic elephants with harnesses of Indian cloth, which move across transparent tracking shots. On the same ship, adjacent to the *Passage to India*, Farcus realizes *Hollywood Boulevard*, where the passenger meets various images of Hollywood film stars: Marilyn Monroe, James Dean, Bette Davis, Gary Cooper, and John Wayne. This game of creating characters becomes wholly explicit when the passenger bumps into the image of Humphrey Bogart sitting at the bar with his beloved Lauren Bacall comfortably seated on the piano, thus completing a picture that is decidedly ironic, ultra-realistic, and surreal. By entering this space, the passenger takes a route that is the inverse of that taken by Jeff Daniels in the film *The Purple Rose of Cairo*. Daniels, bored and tired of the inconsistency of his role, leaves the screen in order to have a romance with a spectator, Cecilia (Mia Farrow). Farcus accomplishes the opposite: the passenger, tired of the role given him by everyday life, enters the screen to inhabit a story which, even though largely already written in the rituals of the cruise, can still have some surprises in store.

This "entering the screen" shouldn't be understood as the induction in the passenger of an unconscious psychological state, which would be absurd. Everyone plays his or her own daily part in the work place, in the office, at home, or travelling through the town. In certain places, the individual is more inclined to play a part, in others less so. There are many studies in this area and from them we learn that the social behavior of individuals and groups can be read as a "dramatic performance."[7]

While a person returning home after a day's work has little desire to put on a pose, he is certainly more inclined to do so in a place of relaxation and in a suitable setting. The holiday cruise ship, thanks above all to a series of rituals that accommodate living on a boat, is a place that, more than others, leads the person to put on a pose, and if the place is created as a film set, as on Farcus's ships, then everything becomes easier.

In the illusion created by film, there is a process of identification with the feelings and emotions of the protagonists. The

6 After taking a degree in architecture, Joseph Farcus worked in the studio of Morris Lapidus in Miami. In 1975, Lapidus's practice was invited to present proposals for adapting the transatlantic liner *Empress of Britain* (1960) acquired by Carnival founder Ted Arison. It was on this occasion that Farcus met Ariston, who in 1977 invited him to present his ideas for the restoration of the *Festivale*. From then on, a fortunate and intense fellowship developed. Almost every day, Farcus presented his ideas to Arison, discussed them with him, and then re-elaborated them during the night. They were free-hand designs done in ink and with all the technical indications needed for their execution already noted. This particular way of working, resulting from an excellent ability in the art of design, will be the distinctive sign of an exceptional professional success story (he has designed an incredible number of ships, about 50 to date) which will transform the way of building the internal spaces of the holiday cruiser.

spectator lives, vicariously, the adventures and misadventures of the heroes of the film. On Farcus's ship, a particular proximic condition persuades the passenger to abandon his vicarious state. A film, too, can persuade the viewer to take that step, bringing him directly inside the screen, but only for relatively brief periods. For example, a sequence made by fixing a camera on the wing of an airplane that dives and twists at an increasing velocity grabs the stomach of the viewer and makes it sink. An emotional tension of this kind can make the viewer exit from his vicarious role, but it can't be protracted for any length of time or it becomes unbearable. On Farcus's ship, passengers are immersed in a make-believe that makes them into actors, not in an actual film but in a reality show. Viewers of a reality show are not spectators but overseers, watchers who take pleasure in exploring other people's life situations. Ship passengers aren't spied on by video cameras (apart from those used by security), and so this could make them think they are taking part in a reality show without spectators. But that's not so: they are fitted into the setting of a spectacle; they observe and are observed, in turn, by other passengers. In this way, they become, through a proximic game of multiple relationships, actors and spectators, overseers and the overseen. Spectacle and oversight aren't contradictory in the reality show, rather one works with reference to the other—one is the excuse for the other. But the holiday cruiser is a reality show without any audience or ratings, and it doesn't make its participants famous. This protects it from the inevitable predictability of a TV spectacle. It is well known that, in order to keep ratings high, it's necessary to create situations that are increasingly degrading for the actors who take part. The idea of starting up a TV channel based on life aboard a holiday cruiser, as recently announced by one large ship-builder, isn't a good one because it would break the proximic equilibrium (described above) that creates the conditions under which a cruiser remains a cruiser, something essentially different from a television reality show.

When the passenger has stepped into the ship, he finds himself in an imposing space, the great atrium where each passenger can observe, and be observed by, the other passengers. By cutting out all of the bridges in the vertical plane, the atrium brings the spectator into a space marked out by a series of circular galleries, as in Elizabethan theatre. From the galleries, and from grand staircases and lifts with transparent sides, it's possible to have an uninterrupted view on all sides. In a counterfeit space, where everyone can observe everyone else, the passenger moves more naturally into taking part in the reality show of the cruise.

On the ship, the theme of the reality show changes from time to time. On Farcus's ships, the theme is usually presented in the grand atrium. On the *Costa Serena*, the usual grand atrium becomes the *Atrio Pantheon*, where classical divinities arranged on plastic clouds function somewhat like those in Correggio's frescoes: they

7 Erving Goffman, *The Presentation of Self in Everyday Life* (Garden City, NY: Doubleday, 1959).

Figure 5
Costa Serena, Lobby Atrium (June 2006). Image courtesy of Joseph Farcus.

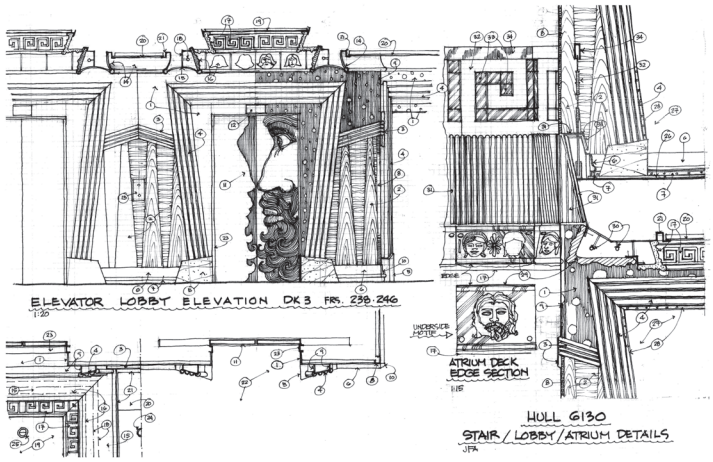


Figure 6
Costa Serena, Caffe Chocolate Bar (June 2006). Image courtesy of Joseph Farcus.

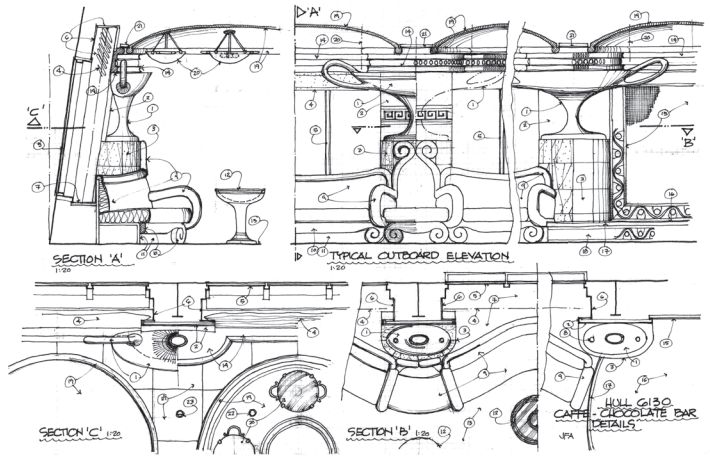
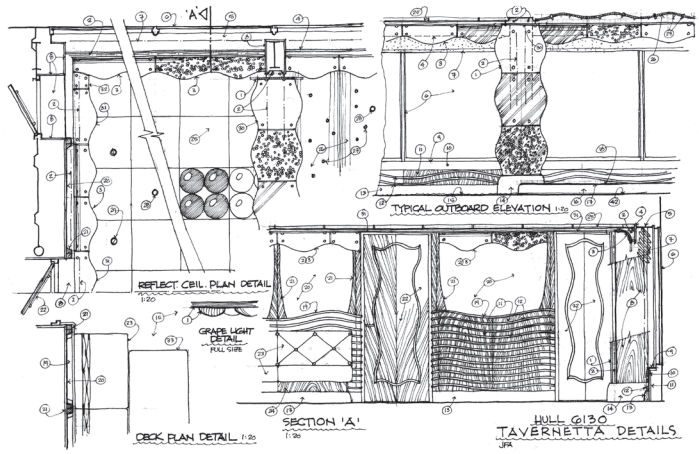


Figure 7
Costa Serena Tavernetta (June 2006). Image courtesy of Joseph Farcus.



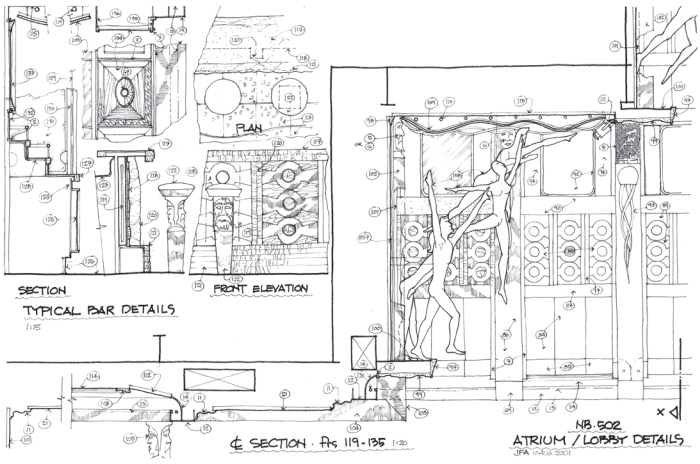
form a sort of indicator system which gives a suitable physical solidarity to the figures suspended in space and places them at a specific point in space. The theme presented in the *Atrio Pantheon* is developed in all the passenger spaces on the ship. On the *Costa Serena*, the reality show theme is taken from history, not from a Hollywood film, even if Farcus's ancient Greece owes a lot to TV programs, which turn history and culture into spectacle to make them more attractive.

Without continual theme change in TV reality shows and on the holiday cruiser ship, there would only be repetition of the same make-believe. If the game were conceived as the repeat of an identical show, it would soon run out of steam. The ship can be built and copied in serial construction with the same tonnage, the same hull, and the same superstructure, but what definitely must change is the make-believe theme.

In order to be realized, the make-believe, or fictional, theme needs a "cosmetic" design. In magazines that deal with the naval sector, a design defined as minimalist is placed above cosmetic design, which makes extensive use of decorative elements. In the pages of these magazines, there are some who support a cosmetic project (the term is not actually used but it's convenient to use it here) and those who, in the name of "good design," think that decorative elements should be used only sparingly. In today's holiday cruiser construction, a decidedly cosmetic design prevails; cruisers built using minimalist designs do not exist. For that reason, in this discussion, minimalist and cosmetic can be taken up only as abstract concepts, as terms in an axiomatic argument. However, this kind of discussion can explain a number of things about the design for the functional and make-believe aspects of the holiday cruiser. It's important, however, to define the character of these two tendencies, or axioms, before discussing the design of the holiday cruiser.

In art, as in design, minimalism is characterized by a dissolving of illusion, by parsimony in the use of signs, and by the exclusion of anthropomorphic and animal forms. With these reductions and exclusions, minimalism obtains a kind of Brechtian distancing which is able to keep the reflective and conscious level alive. Exactly as can be seen in the theatre of Bertolt Brecht, the distancing effect of the minimalist design is educative. In complete opposition to minimalist design, we can understand cosmetic as κοσμητική, the art of beautifying, of adorning. This design procedure isn't something recent but goes back to the first design theorists. Both groups of artists associated with Henry Cole and William Morris speak of ornament to be applied to the object of use. It would appear that the discussion between the two groups was how to realize the ornamentation, or beautifying, of the object: by machine, as Cole and his collaborators wanted, or by hand, as Morris and the numerous representatives of the Arts and Crafts movement sustained. Afterwards, the terms "ornamenting" and "beautifying" were removed from discus-

Figure 8
Costa Mediterranea, Atrium (October 2001)
Image courtesy of Joseph Farcus.



sions of design, and at the same time the term cosmetic," for orthodox rationalists, became a synonym for bad design. The honor of having recovered the "original sense of the cosmetic design goes to Alessandro Mendini, one of the greatest figures in postmodern design. In two designs in particular, Mendini shows his theory of cosmetic design: in the *Poltrona di Proust* (1978) and in *100% Make up* (1992). Discussing the theory of pictorial design, Mendini states that it can apply only to surfaces that can be made immaterial, as in high-tech objects where the practical quality is like "a piece of clothing." It is, however, this "clothing" which makes the object work. A high-tech object lacking this immaterial surface would be completely unusable. Today, the design of the "clothing"—the so-called interface design—allows anyone to use a vast range of products, and it is this that gives the best confirmation to the much discussed theory of "pictorial design."

By applying a minimalist design to the internal spaces of the ship, it's possible to persuade the passenger to reflect on what is outside: the sea, the sky, the coast. The minimalist design makes abundant use of mirror surfaces—mostly created using thin sheets of palladium or gold (as on some large yachts)—arranged so that a part of the outside environment is brought inside. In practice, minimalism uses the mirror for what it effectively is, prosthesis, to help bring the external light, the reflections from the sea, inside the ship. However, in this way the pleasure of staying on the ship has nothing to do any more with "perfectly closing oneself" in an "absolutely finite space" as Roland Barthes says in his book *Mythologies*, but rather consists above all in a reflective, conscious state based on the peculiarity of the environment in which the ship moves, so as to appreciate the smells, lights, and sounds.

The minimalist interior is a geometric, measurable, discrete, and discontinuous space where the only possible illusion is that determined by acceleration and a deceleration of the classical Euclidian environment. Every figure is dissolved and the only ones allowed are in the grain of the wood, designed by a natural, entropic

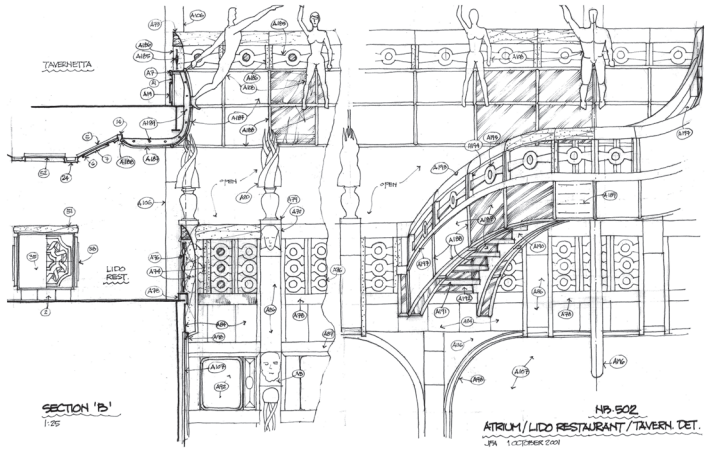


Figure 9
Costa Mediterranea Atrium Lido Restaurant (October 2001). Image courtesy of Joseph Farcus.

process. The internal space, lacking in ornamentation, should lead the passenger to concentrate on the mode of use of the furniture and interior objects. In fact, minimalism still thinks that man uses objects in an exclusively logical manner. This is a false assumption, because as numerous experiments have shown, there's an emotional factor other than the reflective and rational which makes things and tools work well.

But the distancing effect obtained by minimalism has a permanent didactic value: the passenger has a continuous awareness of being on the sea and not in an elegant town salon. This Brechtian distancing effect is, however, planned as a sort of antidote to the make-believe and consequently can be applied with success to the design of a large yacht but not to that of a holiday cruiser, where it is better to use a cosmetic design that can act with maximum effect on the reactive, emotional body systems, as well as the reflective ones. It's not that the minimalist design cannot do it, but one must admit that the cosmetic design has a greater possibility of inducing a certain euphoria in the passenger, making him more ready to enter into the counterfeit, reality show dimension of the holiday cruiser. This needs to be verified experimentally, but the present exponential growth in the holiday cruiser market coincides with the systematic application of a certain type of design that can be defined as cosmetic. This cannot be a mere coincidence; there must be a strong motivation which persuades shipbuilders to prefer one type of design over another, and this cannot be the result of chance, considering the substantial financial investment that goes into the construction of a holiday cruiser. Design researchers could well investigate the reason for this choice.

Neuroscientists attest that the reactive is the first level of emotionality and may be defined as affective interaction. This level acts on the conscious level but it is not possible to control emotional expression in a conscious way—only a few actors manage to suppress their emotional reactivity after many years of preparation.

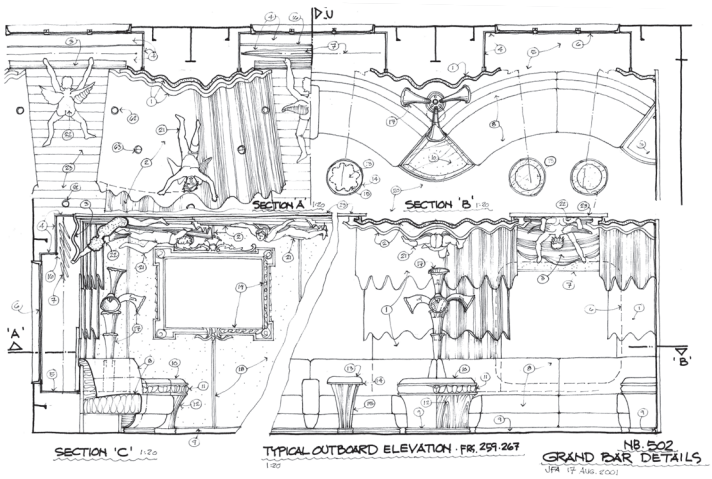


Figure 10
Costa Mediterranea, Grand Bar (October 2001). Image courtesy of Joseph Farcus.

The same process described by neuroscientists, of reactive emotionalism leading to reflectivity, can be analyzed in semiotic terms. Reactive emotionalism corresponds, in semiotic terms, to perception, the icon. This first level of the semiotic process, the iconic, can give rise to an inference that opens in the recognition of a sign referring to a code. The sign, which is the final result of the process of signification, corresponds in the analyses of the neuroscientists to the reflective and conscious level. If we continue in our comparison of the analyses made in neuroscience with those proposed a long time before by Charles Sanders Peirce in the area of semiotics, we see an intermediate phase emerging, an emotionality that cannot be considered unconscious. In semiotic terms, this phase is called *hypo iconic* and it is the stage in which the process that leads to signification has only just started. It's in this border zone that the sentiments take form in the psychic process. Both the process which leads from the icon to the sign and that which leads from the reactive emotion to the sentiment are orientated there. In fact, a perception can bring about an inference but the opposite cannot happen, just as a reactive emotionality can act on conscious thought, but it's unlikely that the opposite will occur. Certainly, the various levels are interactive and one can reinforce the other. For example, when a light euphoria deepens, it transforms into enthusiasm, which, if aroused further, can give rise to an uncontrollable exaltation. In the same way, in semiotic terms, while it's true that perception causes inference, it's also true that a particular signification system or a particular context can influence the way in which the stimulus is perceived.

In the complex psychic processes described above, which for brevity have perhaps been rendered too schematic, cosmetic design relates principally to the reactive level of emotionality—in semiotic terminology, the iconic. In one sense, cosmetic design offers value more than meaning; it places the emphasis on a state of consciousness that is completely unrelated, destined to achieve an inference from which significance is released. This isn't to say that cosmetic design succeeds in acting exclusively at the iconic level (emotional

reactivity), or that minimalist design stimulates exclusively the level of signification (conscious reflectivity). Apart from anything else, the two things would be impossible to realize, and even if it were possible to get them working, each would give rise to an hallucinatory environment in which it would be impossible to live. Rather, the cosmetic action shouldn't be immediately perceived at the reflective level, because if that happened, it would bring about an immediate understanding of the techniques used and, as a consequence, the effect of make-believe would dissolve.

The cosmetic design of the holiday cruiser is a little like a soundtrack, and mustn't be noticed immediately at the reflective level. Any film in which the music and the soundtrack are immediately and critically noticed (prompting a reflection on the acoustic techniques used) is a failure, and impedes the entry of the spectator into the illusory dimension. As in a film, where sound and music carry the spectator beyond the screen into an identification with the sufferings, fears, and joys of the protagonists, so the cosmetics of the ship make it possible for the passenger to act in the make-believe dimension of the holiday cruiser's reality show.

When it comes to the reflective level, cosmetic design—if done well—provokes a conscious emotion. And it is exactly "through feelings—which are inwardly directed and private, that the emotions, which are outwardly directed and public—begin their impact on the mind,"[8] and so influence the decisions of the individual.

A sentiment can be induced by a memory of an experience which is lived directly or vicariously. Places that have been visited leave a mark on the spirit, as does watching a gripping film, or reading of a vividly written book, or seeing a particularly touching situation on TV. All create a feeling that can bring an often strong emotive response.

When Farcus evokes the events in a film or the presence of a Hollywood star, when he evokes the settings which make the passenger relive a past for which he is nostalgic because he imagines them as better than the present, Farcus calls up memories that induce conscious emotions or sentiments that will last for a few minutes or days, whatever is sufficient to reinforce the make-believe element of the ship's environment. Considered from this point of view, Farcus's design is much more functional than other design methods.

The passenger finds himself in an environment that is relatively closed and limited and quickly becomes aware of the emotive states of others, particularly through facial expressions and body language. Reactive emotionalism moves from the internal to the external of the individual and so is directed at the other passengers. But an individual's feelings, which are directed internally, make the passenger more sensitive to emotional reactivity. One factor reinforces the other, maintaining the equilibrium between euphoria and dysphoria at an optimum level and so pushing the passenger into

8 Antonio Damasio, *The Feeling of What Happens: Body, Emotion and the Making of Consciousness*, (Vintage, 2000), 36.

casting off inhibitions that stop him from taking part in the grand reality show taking place on the holiday cruiser.

The inanimate objects in the ship's environment act on the passengers too, as do the other passengers who move about inside the ship. It has been observed that every human being, of whatever cultural extraction, tends to read an emotional state into any object, be it living or inanimate. It is better not to repress this innate disposition, as minimalist design does, if the emotional reactivity is to be kept at a useful level, suitable for the make-believe. One way of ensuring this is to make full use of anthropomorphic and zoomorphic forms, as Farcus usually does.

Working as it does as the reactive level at the start of the semiotic process, cosmetic design can be defined as the art of the immediate, of the now, that has no need of any historical referent. This explains the frequent use of kitsch, which is discernible in every cosmetic design. Kitsch, an aesthetic object, places itself outside the history of art but manages to stimulate the individual history of the passengers. Kitsch acts on the individual's history mostly by playing on the memory. In addition, by not making reference to a specific local culture, kitsch functions well in a globalized market, such as holiday cruising.

Cosmetic design, unlike the minimalist, doesn't create a discrete, discontinuous space, but a dense, saturated one. In minimalist design, it is sufficient to see a particular to be able to reconstruct the complete object in the mind using simple deductive reasoning; in cosmetic design, that's not possible, for the object can only be appreciated a bit at a time by letting the gaze move over the surfaces. Mendini's *Mobile infinito* (1981) is the perfect example of this concept of saturation in cosmetic design. Created as a surrealist game-work—the *cadavre exquis*—the *Mobile infinito* has to be examined in detail to capture the sense, a particular is not sufficient for deducing the whole, while the image of a significant particular is sufficient in any similar minimalist work. It is likely that a dense, saturated setting arouses an increased reactive, feeling emotionalism, just as it may be said that a discrete, discontinuous space leads more to reflection. But here also, research is needed to investigate these hypotheses.

The mirror surfaces of cosmetic design do not transfer that which is outside to the inside of the ship, as happens with minimalist design, but reflect the internal an infinite number of times, so increasing the effect of suspension, or diversion, from everyday life.

In the case of holiday cruises, cosmetic design is suitable from the point of view of industrial production, because it acts on the surfaces and not on the actual structure of the ship. Changing the make-believe means changing the modality of the function of the ship itself, with obvious advantages at the level of product marketing. A make-believe world which is always different is equivalent to a product which is always different.

Minimalist design, working as it does on the ship's basic structures and enclosing them inside it, is a design method wholly opposed to cosmetic design, not only because it has a distancing effect which strongly represses the make-believe, but also because it makes it difficult to create a varied product. It's not by chance that the minimalist design is well suited to the creation of an individualized product. In some minimalist mega-yachts, the complete structure, including the curvatures of the keel, are an integral part of the inhabitable space. This doesn't create a problem, because the mega-yacht is usually a made-to-order product and so unique and not repeatable. When a mega-yacht has some cosmetically designed internal features, as often happens, these are nothing else than projections of the personal drives of the owner. In this case, the designer has very little freedom and must interpret the desires of the owner, translating them in terms of the setting. In fact, in the mega-yacht market, it's possible to trace a minimalist tendency and a cosmetic one, but in the holiday cruiser market, as has already been noted, that's not possible because it lacks terms of comparison.

It's possible to find traces of minimalism in the transatlantic liner, which of course is a different product from the holiday cruiser. That's not in contradiction to what has been said previously, because the transatlantic liner in the twentieth century often exemplified the technical, industrial, and cultural capability of an entire nation and as such had to be a wholly exceptional product. It was exactly because of this uniqueness that the first minimalist attempts were worked out on the transatlantic liner. It was an implementation strongly limited by the need to "pretend," as discussed earlier. An oft-cited example is that of the *George Washington*, where, at the beginning of the twentieth century, Bruno Paul enclosed some of the ship's basic structures in the inhabitable space. Bruno Paul's idea was the rigorous application of a rational principle: putting into effect a formal coherence between the internal and the external parts of the ship. To follow this example, the histories of design usually feature the transatlantic liner *Bremen* (1929). This ship, with very few others, represents another attempt to apply the principles of rationalism and functionalism to the design of the passenger ship. Having traced these first rationalist and functionalist examples, the histories of design usually then move on to connect them with others, which in the formal language used in the discussion, show a vague stylistic continuity to those previously cited. In this way, the more "set design" examples are rigorously excluded from the history of naval design. This way of writing history blocks any possibility of giving an adequate interpretation of the present day phenomenon of the holiday cruiser ship. Indeed, if the element of make-believe that exists in the transatlantic liner is not considered a part of the design, then the holiday cruiser has very little possibility of becoming an object of special treatment today.

With the progressive achievements of modernity, every element of make-believe is removed from the means of transport,

while in the ship, in inverse proportion, it is increased. The achievement of flight in the stratosphere eliminates every trace of make-believe from the inside of the airplane. The same phenomenon is to be seen in another form in the train as it becomes gradually faster and faster and increasingly efficient. As every element of set design is removed from the inside of the train and plane, a new and specific discipline is born: *Transportation Design*. Just because of how the disciplinary limits of transportation design are drawn up, the holiday cruiser's interiors can't become the object of a serious treatment. It's likely that this theme, so important for the era of supermodernity, must be dealt with in the sphere of a wholly different discipline that could be called *Fiction Design*. It isn't, in effect, a means of transport that is being dealt with but a means of fiction, of make-believe.

For too long, there has been a lack of commitment among design scholars on the question of design for the holiday cruiser. It is a disengagement that is unacceptable considering the important economic and social orientations that the holiday cruiser market has. The aim of this paper is to re-launch a discussion which has long remained interrupted. It is a discussion which must be taken up from the origins in order to analyze the present, so bringing into effect the ancient, but always valid, momentary suppression of judgment—ἐποχή—in such a way as to give it an adequate phenomenological account.

Document

The Kyoto Design Declaration: Building a Sustainable Future

Introduction by Yrjö Sotamaa

The time of the birth of Cumulus was marked by the fall of the Berlin Wall, a great euphoria of freedom and the birth of a "New Europe." Cumulus was born to promote the ideals of democracy, equality, and freedom of movement. The Cumulus Association has grown in eighteen years to become the most important international organization of universities and colleges of art, design, and media, representing 140 first-class institutions from all continents.

The history of Cumulus and its various activities tells of a strong mission to make societies and industry aware of the importance of culture, art, and design in building sustainable societies, creative economies, innovative regions and a better everyday life for all people. Cumulus has built a powerful global network of dynamic institutions to develop and promote the talent and creativity of young people.

New Values and New Ways of Thinking

A landmark for Cumulus was the signing of the Kyoto Design Declaration on March 28, 2008, in the same venue where the Kyoto Climate Treaty was signed. Through this Design Declaration the members of Cumulus, representing the global community of design educators and researchers, made a commitment to share a global responsibility for building sustainable, human-centered, creative societies.

The Declaration proposes new values and new ways of thinking. It stresses, that all people now live in global and interdependent systems for living. We continue to enhance the quality of our lives by creating environments, products, and services utilizing design. Design is a means to create social, cultural, industrial, and economic values by merging humanities, science, technology, and the arts. It is a human-centered process of innovation that contributes to our development by proposing new values, new ways of thinking, of living, and adapting to change.

The Declaration is a manifesto of the beginning of a new era. A paradigm shift from technology-driven development to human-centered development is underway. The focus is shifting from materialistic and visible values to those, which are mental, intellectual and, possibly, less material. An era of "cultural productivity" has commenced, and the importance attributed to modes

of life, values, and symbols may be greater than that attributed to physical products. Design thinking stands steadfastly at the center of this continuum. Simultaneously, this development also highlights the importance of cultural traditions and the need to extend and revitalize them. Human-centered design thinking, when rooted in universal and sustainable principles, has the power to fundamentally improve our world. It can deliver economic, ecological, social, and cultural benefits to our society and to all people, improve our quality of life, and create optimism about the future and individual and shared happiness.

Designers have to assume new roles.
Global development, and an awareness of the growth of related ecological and social problems, pose new demands and offer new opportunities for design, design education, and design research. The Declaration challenges design to redefine itself. Designers must assume new roles and commit themselves to developing solutions that lead to a sustainable future.

Kyoto Design Declaration 2008

To forward the ideals of sustainable development, the members of Cumulus have agreed to seek collaboration with educational and cultural institutions, companies, governments and government agencies, design and other professional associations, and NGOs to promote the ideals of, and share their knowledge about, sustainable development. So far, four major international organizations—ICSID, BEDA, AIGA and EIDD—have given their support to the Declaration.

A statement of commitment by the members of Cumulus to sharing the global responsibility for building sustainable, human-centered, creative societies.

Proposing New Values And New Ways of Thinking
All the people of the world now live in global and interdependent systems for living. We continue to enhance the quality of our lives by creating environments, products and services utilizing design. Design is a means of creating social, cultural, industrial and economic values by merging humanities, science, technology and the arts. It is a human-centered process of innovation that contributes to our development by proposing new values, new ways of thinking, of living and adapting to change.

An Era of Human Centered Development
A paradigm shift from technology driven development to human centered development is underway.

The focus is shifting from materialistic and visible values to those which are mental, intellectual and possibly, less material. An era of "cultural productivity" has commenced where the importance attributed to modes of life, values and symbols may be greater than that attributed to physical products. Design thinking stands steadfastly at the centre of this continuum. Simultaneously, this development highlights the importance of cultural traditions and the need to extend and revitalize them.

The Imperative for Designers to Assume New Roles

Global development and an awareness of the growth of related ecological and social problems are posing new demands and offering new opportunities for design, design education and design research. Design is challenged to redefine itself and designers must assume new roles and commit themselves to developing solutions leading to a sustainable future.

Seeking Collaboration in Forwarding the Ideals of Sustainable Development

The members of Cumulus, representing a global community of design educators and researchers, undertake the initiative outlined in this "THE KYOTO DESIGN DECLARATION," to commit themselves to the ideals of sustainable development. Furthermore, the members of Cumulus, have agreed to seek collaboration with educational and cultural institutions, companies, governments and government agencies, design and other professional associations and NGOs to promote the ideals of, and share their knowledge about sustainable development.

From Education to Global Responsibility

In order to fulfil its declared mission to contribute to sustainable social, environmental, cultural and economic development for current and future generations, and to contribute to an environment and culture that makes harmonious and healthy life possible, the Cumulus members make this declaration. Members will commit themselves to accepting their part in the further education of our youth within a value system where each of us recognizes our global responsibility to build sustainable, human-centered, creative societies.

The Power to Make Fundamental Improvements to Our World

Human-centered design thinking, when rooted in universal and sustainable principles, has the power to fundamentally improve our world. It can deliver economic, ecological, social and cultural benefits to all people, improve our quality of life and create optimism about the future and individual and shared happiness.

Document

Design in India: The Importance of the Ahmedabad Declaration

Introduction by S. Balaram

The Ahmedabad Declaration is a crucial document in the history of modern design in India, although time often has overshadowed its importance. It is necessary to quickly touch upon the beginnings of design in post-independence India before one views the events that led to the historic document.

Design as an activity in India is as old as its culture, but as a modern profession it started only in the late 1950s, barely a decade after India became (in 1947) an independent nation and the largest democracy in the world. In 1957, the then Prime Minister of India, Jawaharlal Nehru invited the eminent designer couple from America, Charles and Ray Eames, to advise the Indian government on the appropriate design activity that could help India's vast craft sector and small-scale industries sector in the transition to the era of industrialization. Nehru was strongly committed to the industrial development of India; not in a narrow way of imitating the already industrialized nations, but in a broad way of finding one's own solutions. Without Nehru's foresight and courage at a time when the preoccupations of recent independence were overwhelming, the appropriate viewing of design as an element to improve the quality of life could easily have been lost in the rush towards rapid industrialization.

In "The India Report" (1958), the Eames had recommended for this newly emerging independent nation a change in kind, and a change not merely in degree. They called for "a sober investigation into those values and qualities that Indians hold important to a good life, and for a scrutiny of the elements that make up a standard of living." The report recommended the establishment of a National Institute of Design which could train designers capable of generating "an alert and impatient national conscience that is concerned with the quality and ultimate value of the environment."[1]

Thus, the National Institute of Design (NID) was established in 1961 by the Government of India as a national catalyst for design awareness apart from being an institution for research, service, and training in various fields of design. Notably, it was put under the Ministry of Industries and Commerce to connect it to industrial production, rather than under the Ministry of Education where educational institutions are normally placed.

1 Charles and Ray Eames, "India Report," National Institute of Design, 1958.

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NID was created as an experiment with complete autonomy. This is because Eames stressed that India should conduct its own investigation and find its own solutions instead of copying models of developed nations.

The choice of the City of Ahmedabad for establishing NID, and later for the declaration named after the city is significant. Ahmedabad is a true representation of India in its synthesis of old and new values. On the one hand, it is known for its traditional Mogul monuments, but it also has the rare architectural works of modern master architects such as Le Corbusier and Louis Khan. It is one of the well-known craft centers in India, but it has India's major corporate giants as well. On the other hand, it has the conventional primary schools, but also top research and higher education organizations such as the Indian Space Research Organization, the Physical Research Laboratory, and the Indian Institute of Management. Even more important, Ahmedabad is a city associated with the life and work of Mohandas Karamchand Gandhi, who is known throughout world as Mahatma, the great soul. Gandhi believed that all economic activity must be judged in terms of human values. In this respect, Gandhi's approach is a guide to designers everywhere because it proposes "that designers all over the world today accept as the true measure of their professional worth: the design of products, and systems (and communications) which reflect an understanding of real human needs; which respect the environment in which they are manufactured and utilized; and which can serve to enrich the quality of life for those millions whose needs and aspirations are not served by the dictates of lifestyles founded on the creation of wants, rather than (served by) an understanding of needs."[2]

NID started offering regular undergraduate education in design in 1970. The idea of holding an international meeting in India, a developing country, was born in 1977 at the 10th International Congress and Assembly of ICSID (The International Council of Societies of Industrial Design) held in Dublin, Ireland. It was Ashoke Chatterjee, the third Executive Director of NID, who pointed out that the majority of the ICSID membership represented industrially advanced economies and "at a time when only few developing lands have felt the need for design as a motive force in their economic improvement," ICSID had to recognize that the real test of design lay in its contribution to the development process. He even added in parenthesis that NID's annual membership fee to ICSID was equivalent to the school's entire budget then for research and for fellowships. Until then, ICSID had never held its congress in any developing country.

There are other factors that supported the idea of an international meeting on design in India. In 1997, NID also won the ICSID-Philips award for design for development, which put NID and India in a positive light within the international design community. Earlier, in April 1977, a memorandum of understanding was

2 Babubhai Patel, Inaugural address at the UNIDO-ICSID meeting on Design for Development, 1979.

Figure 1
The figure and logo of UNIDO-ICSID meeting.

signed between UNIDO (United Nations Industrial Development Organization) and ICSID to jointly accelerate industrial design activities in developing countries in order to satisfy urgent needs in this field; and to carry out as extensively as possible the promotional activities necessary to alert developing countries to the advantage of including industrial design in their planning process. These circumstances and Chatterjee's efforts culminated in UNIDO, an organization committed to development, and ICSID, the apex design body; joining hands to support an international meeting in India with the theme "Design for Development." Its sole objective was the promotion of industrial design in developing countries.

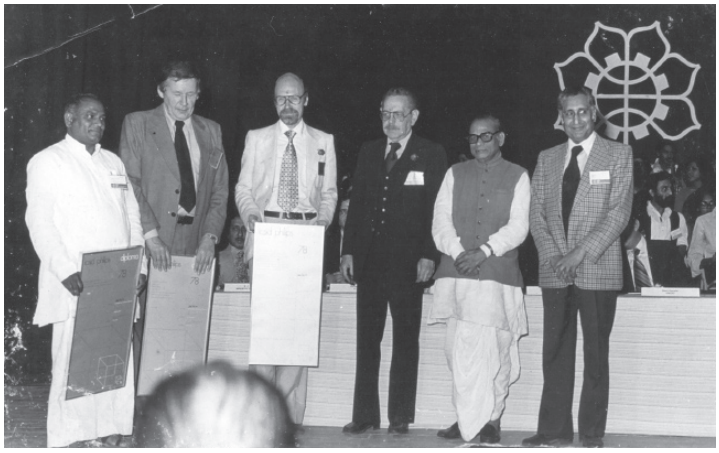
This decision was received with great enthusiasm by the design community in India, particularly at the NID. There was excitement in the small NID community, which was determined to organize this rare international meeting to the best of its abilities. Preparations started a year in advance in 1978. An organizing team was formed and the author, who was then Chairman, Extension Programs, was appointed as the Chief Coordinator of the meeting. In the typical NID way, the whole institute, faculty, and student body, along with outside consultants, worked together on this mega project. Government support both at the centre and the state levels was mobilized because such an international meeting involved national prestige.

NID also extended its hand to the Industrial Design Center (IDC) at the Indian Institute of Technology, Bombay, then the only other design institute in the country, to join the event. The meeting was planned to start at NID and end at IDC. As Chief Coordinator, I was conscious of what was at stake for us internationally, and wanted to make sure that we held our heads high. I formed many groups to undertake the various tasks. Every task had been thoroughly detailed, and every day progress meetings ensured that problems were shared, resolved, and that everyone was involved. Professor S. M. Shah designed the logo for the meeting, and created a special identity for all the stationery and environmental graphics (Figure 1).

Two great men, both now gone, were significant in their advisory support to the event and the teams. These were Professor Ravi Mathai, then Director of the Indian Institute of Management in Ahmedabad; and Romesh Thapar, eminent journalist, thinker, and then editor of the journal *Seminar* in Delhi.

Both Mathai and Thapar were deeply concerned with design not being seen as an economic force and an expression of contemporary values. They wanted the UNIDO-ICSID meeting to underscore this aspect. As a result, long before the meeting there were campus meetings, and a dry-run seminar was held during 1978 by groups of Indian designers, design students, and planners to articulate the Indian experience to be projected at the UNIDO-ICSID

Figure 2
The inauguration ceremony.



meeting in front of eminent international designers. The questions raised at these meetings echoed around the world. They included:

- How does the Indian designer define his/her role in what are his/her priorities?
- How can the Indian designer assist national efforts to improve the quality of life for such vast segment of humanity?
- What is right design for a "real world" full of hunger, illiteracy, and ill health?

Indian experience is full of promise, conflict, and contradiction. India is very new to the concept of the designer as a serious professional, trained in several disciplines and functioning in a variety of work situations. Design is widely misunderstood as patternmaking, styling, or a fine art, or it is confused with engineering design and plant layout.

This misunderstanding is very deep-rooted. Yet India was the first developing nation to take a conscious step towards utilizing design as an important tool in its development.

The UNIDO-ICSID meeting was titled "UNIDO-ICSID INDIA 79." "Design for Development" was its theme. It was a ten-day event, which took place from January 14 to 24, 1979. Since India is a pluralistic society, the UNIDO-ICSID meeting also was designed as a pluralistic event.[3]

Apart from the usual paper presentations and a variety of Indian food and cultural programs, there were field visits to craftsmen's work-homes, to small industrial estates, and to major corporations. There were experiences of village life and village food. There were walks to heritage buildings and visits to museums. The event was planned to begin with an open-to-all, informal kiteflying festival in Ahmedabad, and to end with sightseeing in Bombay.

The deliberations started with an inspiring keynote address by Romesh Thapar on "Identity in Modernisation" and

3 By a "pluralistic event," it was meant that the activities were more than just the deliberations. The meeting was conducted at two venues: cities selected for their differences in the cultures of living and working. There was kiteflying by all, traditional "Garba" dance, visits to craft peoples' homes, visits to small and medium industries, student work presentations, visits to rural homes, eating rural cuisine, heritage walks, workshops by small groups, and sightseeing.

Figure 3
Iswarbhai Patel receiving the first ICSID award for design for development from the Chief Minister of Gujarat, Babubhai Patel.

concluded with a collective "Ahmedabad Declaration and Major Recommendations," which was later published by NID.

The UNIDO-ICSID meeting was attended by delegates from thirty-seven countries. Some of the participating countries included developed nations such as the United States, Russia, Germany, Japan, England, and Austria; as well as developing nations such as India, Pakistan, Sri Lanka, Malaysia, Thailand, Turkey, Brazil, and Argentina. The delegates who attended included noted designers, architects, planners, environmentalists, academicians, and thinkers.[4]

Notable speakers among the Indian participants included Romesh Thaper, Laurie Baker, Rajni Kothari, Ravi Mathai, Pupul Jaykar, Kumar Vyas, and Sudha Nadkarni. Foreign participants included consultants from UNIDO and ICSID, and delegates from the various countries. Eminent design thinkers such as Victor Papanek (United States) and Herbert Ohl (West Germany) attended. Prof. Gui Bonsiepe (Argentina), Yusuf Mazhar (Egypt), and John Reid (England) were included in the UNIDO consultant group, while Yuri Soloviev (Russia) and Carl Aubock (Austria) represented the ICSID consultant group.

Keynote speaker Thapar demanded from the designers a value system that had to underpin the societies they were living in. Arguing for not losing one's identity in the rush for modernization in the global marketplace, he said, "Take this overcrowded land, a complexity human and organizational, still limited by resources, but determined to texture a society which is self- reliant and comparable to the best. Obviously, it cannot be done in imitation. What has been done for populations of a hundred or two-hundred million cannot be done for one-thousand million."

"In terms of a future vision of the good life, we will have to draw upon the great heritage of world knowledge and experience to create a discipline of modernization which dissolves the divisions between the rich and the poor, the contrasts between waste and want, and the repetitive patterns of ugliness and beauty which constitute

4 "UNIDO-ICSID Meeting papers (five-volumes)," S. Balaram, ed. (NID 1979, unpublished).

Figure 4
Arthur Pulas with a young NID faculty member.

the violated environment of our planet. The only weapons we have are our sensitivity and creativity. Let us recognize them, sharpen them, and mobilize them for engineering the societies of tomorrow.

"The problem of identity in the Third World is complicated by the wide gulf between the elites who are culturally at bay, and the people, who have preserved their aesthetic consciousness. And the designer inevitably belongs to the former. The two will have to come together if the quality of our life and environment has to answer our contemporary needs.

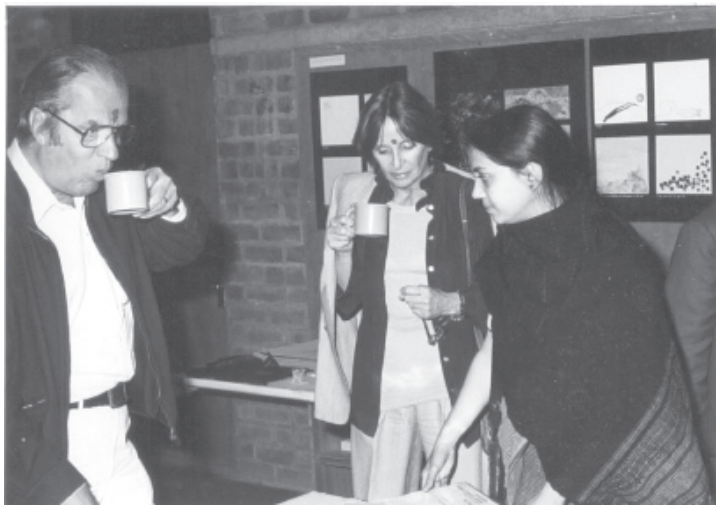
> "Let us design many modern ways of living, each interacting with the other, but self-reliant, with genuine respect for difference."[5]

The other Indian speakers stressed the need for stronger links between design and crafts, a major development issue in India. They also stressed the need for recognition by the major national industries and, most important, the need for a national statement of policy on design by the government, which could provide the basis for a national consensus. It also was felt that there was great dearth of documentation of traditional design in India, and that publications in the field of design were nonexistent. Gui Bonsiepe, in his paper "Industrial Design in Latin America," strongly argued that design must be used as a tool for the reduction of social inequalities. Referring to his work in Argentina, he pointed out that there must be stress on design for product development to serve small industries that cannot afford designers. This capability should come from service centers for product development, which could start a small workshop for this purpose.

Yusef Mazhar, in his paper "Industrial Design at the EIDDC," explained the need for design exposure programs through polytechnic institutions. John Reid, in his "Proposals for Industrial Design in India, Pakistan, Egypt, and Turkey," emphasized the requirement of common facility centers for design

5 Ibid.

Figure 5
Delegates in discussion with a young NID faculty member.



service to small industries, libraries, and publications on Design." He stressed the development of intermediate technology centers for industrial design.

Yurie Soloviev, in his paper "Evolution of Industrial Design in Developing Countries," pointed out that designers in developing countries should not copy designers from industrially advanced nations, but rather take into account their own specific issues of local production and consumption conditions.

Carl Aubock, presenting "The Role of Industrial Design in Developing Countries," focused on preventing "brain drain" in design know-how from developed countries. This could be done through the exchange of experience, and technical assistance on a regular basis. He further said that developing countries must evolve an adequate technology and infrastructure for industrial design that is simple, inexpensive, labor-intensive, and compatible with basic socio-cultural patterns.

Most delegates stressed that industrial design must take place at several levels simultaneously, reflecting a multidisciplinary approach.

It was felt that the education system within these industrial design centers should be geared to bring out "job creators," and not "job seekers." Designers should be resource generators—not resource users.

All of the delegates supported the "service" component of design centers, which would be located in design schools. There was a consensus that these design centers should develop "people with skills," rather than "skills for people."

The UNIDO-ICSID 79 meeting was a significant milestone in the progress of the design profession, since it marked the first design conference ever to be held under the auspices of the United Nations. Most of the papers were country papers explaining their experience with design. The real thinking happened only during the discussions that followed each of the presentations.

The meeting was carefully managed to lead to a tangible document, approved by the international delegates, which could be a powerful tool in promoting design in respective developing countries everywhere in the world. This document was the "Ahmedabad Declaration," following the precedent of the Lima Declaration and World Plan of Action that UNIDO issued in 1975.[6]

The Ahmedabad Declaration's full title was "Ahmedabad Declaration on Industrial Design for Development."[7] It was divided into two sections:

(1) Ahmedabad Declaration, which consisted of (a) a declaration, and (b) a plan of action.

(2) Major recommendations for the promotion of industrial design for development.

These recommendations covered seven important areas of design for development:

1. Recommendations for design policies;
2. For design promotion;
3. For government action;
4. For action by industry;
5. For information requirements;
6. For education, training and, extension in industrial design; and
7. For international cooperation.

Copies of this publication were widely circulated, particularly in the offices of the Government of India.

In Chatterjee's words: "The declaration articulated a global mission for design that designers in every part of the world must work to evolve a new value system which dissolves the disastrous divisions between the worlds of waste and want, preserves the identity of peoples, and attends to the priority areas of need for the vast majority of humankind."[8]

The conference suggested actions essential to the achievement of the Declaration, and these were endorsed by UNIDO. Several national and international institutions used the opportunity to reinforce the thinking that had begun to emerge through Europe's "green" movement, pointing out that the "world of waste" was being rejected by the very societies that spawned consumerism. The 1979 Declaration should have been a watershed event for design in India, inspired as it was by the Indian experience. Yet in India, the "Declaration" remained largely as a statement of intent and less as a thing of achievement. It came at the opening of a decade that was to reject the socialist paradigm, and what many regarded as its Gandhian baggage. Instead, national policy turned towards global and domestic competitiveness, and to measures that could stress international market success as the new hallmark of self-reliance.

6 What is the Lima Declaration? The Lima declaration and world plan of action was issued at the second general conference of the UNIDO in Lima in March 1975. It calls for the redistribution of the world industry so that developing countries would have 25% of industry by the year 2000. To close the gap between rich and poor nations, the developing countries need to grow faster than the developed countries. The Lima Declaration asks the developed countries to eliminate trade barriers and ensure that the economic and social aims of developing countries are upheld by the transnational corporations. The Seventh Special Session of the General assembly September 1–12, 1975. Issues and background, New York, United Nations, 1975, 22–23. <www.gwb.com.all/gwb./news/lima/index.html-4k>.

7 National Institute of Design "Ahmedabad Declaration on Industrial Design for Development and Major Recommendation for the Promotion of Industrial Design for Development," NID 1979.

8 Ashoke Chatterjee, "Design in India: The Experience of Transition," *Design Issues* 21:4 (Autumn 2005): 4–10.

9 Ibid.

Design began to move into the center of corporate strategies, and a profound semantic shift accompanied that movement.[9]

As a follow-up, in 1980, a group was formed under the leadership of Ashoke Chatterjee consisting of members from NID (National Institute of Design), IDC (Industrial Design Centre), Society of Industrial Designers of India, and practicing Indian designers to work on a proposal for a "National Design Council" and related promotional activities by the Government of India. This document was finally submitted to the Planning Commission for its consideration for inclusion into India's five-year plans.

Subsequently, presentations also were made to the then Finance Minister Madhu Dandavate of the ruling party "National Front." These efforts, however, did not yield the expected results mainly due to two reasons: the rapid political changes at the government level, and the Indian business community's perception of design as a peripheral activity.

In spite of the NID efforts from time to time, this perception remained until India in the 1990s gave up its over-protective economic and industrial policies, and allowed liberalization and globalization to bring in the new consumer culture. With this, "Design awareness accelerated at a speed that would have been impossible to even imagine at the time the Ahmedabad Declaration was signed. Designers who had been urging industry for years to acknowledge the centrality of their role now were being challenged to deliver design of quality and at a speed entirely new to their experience."[10]

There were other major changes that affected the design profession in India in an unprecedented way. These included the information technology revolution, the Internet, the gigantic media boom, and the communications revolution initiated by the cell phone.

The value system brought in and aggressively promoted by these changes was quite different from what the Ahmedabad Declaration stood for. Nevertheless, the changes certainly set the stage for an imminent national policy on design.

Such a time was the year 2000, when India started ascending economically, that Dr. Darlie Koshy took over as the Executive Director of NID and started building strong bridges with the government, as well as with Indian industries, through the Confederation of Indian Industries (CII), the country's most powerful industrial arm.

In 2004, *BusinessWeek*, a popular Indian journal, established the NID-CII Awards for the best designs and the best designers in various product categories. The jury members included well-known design professionals from India and abroad. The media coverage for this event gave Indian design and designers a great impetus.

CII with NID also started yearly national-level seminars on design in various Indian cities. The outsourcing boom, which started

10 National Institute of Design, "Ahmedabad Declaration on Industrial Design for Development and Major Recommendation for the Promotion of Industrial Design for Development," NID 1979.

in the information technology sector, gave India great confidence that this phenomenon could happen in the design sector, too.

Harvard Business School Professor Robert Hays stated: "Fifteen years ago, companies competed on price, now it is quality, and tomorrow it is design." This statement impressed Indian industries and the Indian Government. The enormity of demand for Indian design, and the inadequacy of supply in the country became apparent. The huge number of designers trained every year in rapidly growing neighbors such as China and Korea started worrying Indian industry.

It was in this context that the Indian Government seriously viewed the proposals for a National Design Policy, which was drafted and submitted by the National Institute of Design. The draft "Design Policy" was revised on October 7, 2005, and the Ministry of Commerce and Industry released it publicly on October 31, 2005, inviting comments and suggestions by the Indian design community. Subsequently, a national-level seminar was held to discuss the draft, which was drawn up as a multipronged strategy to enhance the competitiveness of Indian industry through design. It clearly laid down action plans, deliverables, and outcomes for the next five years, which is the planning duration in India.

Finally, on February 8, 2007, the Union Cabinet approved the National Design Policy; whose beginnings lay in the Ahmedabad Declaration and major recommendations.[11]

The highlights of the vision for the National Design Policy are:[12]

1. Design promotion and partnerships across many sectors, states, and regions for integrating design with traditional technological resources;
2. Presentation of Indian designs in the international arena;
3. Global positioning and branding of Indian designs;
4. Raising Indian design education to global standards of excellence
5. Making India a major hub for exports and outsourcing of professional design service;
6. Creation of awareness of design among manufacturers and service providers, particularly small, medium, and cottage industries; and
7. Attracting investments in design services and related R&D (Research & Development).

Some design thinkers believe that the policy does not cover many areas and is lopsided. Furthermore, they feel the policy is narrowly focused, and the kind of design India really needs is a design for new changes and new processes.

The policy also does not address the vast craft community, which is facing tough human survival problems. The policy simply

11 Ibid.

12 Government of India, "National Design Policy" (Accessed February 8, 2008: http://www.designindia.net).

copies the kind of design that the developed world practices, without caring for the Indian reality. For example, it does not also adequately address how to cater to the global demand for Indian design in terms of teacher training, textbooks, a research database, and the development of other essential resources.

Currently, the Indian Government is in the process of establishing a Design Council of India (DCI) and a Chartered Society of Indian Designers (CSID). When that happens, it can bring phenomenal change to Indian design. Ahmedabad Declaration on Industrial Design for Development.

Ahmedabad Declaration on Industrial Design for Development

In April 1977 a Memorandum of Understanding was signed between UNIDO and ICSID to accelerate jointly industrial design activities in developing countries in order to satisfy urgent needs in this field, and to carry out as extensively as possible the promotional activities necessary to alert developing countries to the advantage of including industrial design in their planning process. It was to aid such awareness that a Meeting for the Promotion of Industrial Design in Developing Countries was convened by UNIDO in January 1979 in close cooperation with ICSID and the Indian National Institute of Design, in line with the Lima Declaration and Plan of Action and in pursuance of the Memorandum of Undertaking between UNIDO and ICSID. This Meeting was a significant milestone in the progress of the industrial design profession, marking the first design gathering ever to be held under the auspices of the United Nations. This meeting adopted the Ahmedabad Declaration on Industrial Design for Development which set forth a Plan of Action, and made Major Recommendations in support of this action plan.

A. Ahmedabad Declaration

1 The Meeting for the Promotion of Industrial Design in Developing Countries convened by the United Nations Industrial Development Organization (UNIDO) in close cooperation with the International Council of Societies of Industrial Design (ICSID) and the Indian National Institute of Design in January 1979, in line with the Lima Declaration and Plan of Action and in pursuance of the Memorandum of Understanding signed between UNIDO and ICSID on April 26, 1977, to accelerate jointly industrial design activities in developing countries in order to satisfy the urgent needs in this field, and to carry out as extensively as possible the promotional activities necessary to alert developing countries to the advantage of including industrial design in their planning processes,

Adopts

The Ahmedabad Declaration
on Industrial Design for
Development.

2. Having reviewed the situation with respect to industrial design in a number of developing countries,

3. Bearing in mind that design improves function, enhances communication, simplifies manufacture, use and maintenance,

4. Recognizing that the problem faced in most developing countries is that although design is a real need, it is not yet a sufficiently felt need,

5. Noting that design methodology is inadequately known and insufficiently used as an economic resource,

6. Aware that few countries have the organizational, financial and personnel resources which can enable industrial design to assume its proper role,

7. Convinced that design can help raise the quality of life within economic planning and that the designer can become an agent of progress,

8. Recognizing that through design, relevant cultural traditions can be preserved and utilized to current advantage,

9. Recognizing that cooperation between UNIDO and ICSID should not only further the transfer of technology, know-how and information in the field of industrial design, but should help to stimulate self-reliance,

10. Noting that UNIDO and ICSID have agreed to carry out as extensively as possible the promotional activities necessary to alert developing countries to the advantages of including industrial design in their planning processes,

11. Bearing in mind that as a first step towards achieving these objectives, this Meeting was convened to help initiate meaningful cooperation and exchange between institutions and designers concerned with problems of the developing world,

12. Having decided to adopt a common position and a line of action, the Meeting

Solemnly declares

13. Its firm conviction that design can be a powerful force for the improvement of the quality of life in the developing world;

14. Its firm belief that designers must have a clear understanding of the values of their own societies and of what constitutes a standard of life for their own people;

15. That design in the developing world must be committed to a search for local answers to local needs, utilizing indigenous skills,

materials and traditions while absorbing the extraordinary power that science and technology can make available to it;

16. That designers in every part of the world must work to evolve a new value system which dissolves the disastrous divisions between the worlds of waste and want, preserves the identity of peoples and attends the priority areas of need for the vast majority of mankind;

17. That in view of the foregoing, the Meeting adopts the various measures set forth in the following Plan of Action.

B. Plan of Action

Measures

1. Developing countries are encouraged to consider the establishment of design institutions, design centres and/or other design-practising and promotional institutions to spread design methodology, awareness and consciousness.

2. These institutions should develop close and sustained links with industrial activity in government and in the private sector, at every level including heavy industries, medium-scale industries, small-scale, rural and craft industries, as well as with educational and research institutions, and with people who are the ultimate users of design.

3. In developing countries, the establishment of professional design associations which can function parallel to the design promotional institutions should be seriously considered, and such efforts assisted.

4. Design institutions are worthy of financial and other support by their governments, which must be their prime source of succour at this early stage of development.

5. These institutions must work to establish a priority for industrial design through the creation of a national design consciousness. They must hasten the awareness that in all areas of public expenditure, the integration of design in the planning process can ensure optimum quality and utilisation of resources. They must communicate that industrial design is concerned with the improvement of our environment through the appropriate use of raw materials, increased productivity, with the protection of health, human safety, natural and cultural resources, with the enhancement of working environments, and with expanding work opportunities and earnings at all levels, including exports. Therefore design considerations should be incorporated in plans for national development.

6. To achieve these purposes, such institutions in developing countries may consider the importance of articulating a statement on the importance of design which can serve as a national

consensus on the need for creating design awareness and for utilizing design as a discipline for better planning.

7. Such institutions must stress the importance of establishing and improving facilities for design education and training, upgrading design experience, as well as assisting designers to act as trainers and as catalysts for design awareness wherever they work, so that design skills can be disseminated at several levels simultaneously, and thus influence industrial activity on a broad scale in the developing world.

8. The establishment of national design awards, exhibitions, documentation and publication programmes should be encouraged as aids to a wider understanding of industrial design and of design traditions and resources.

9. Systems of active cooperation should be established and promoted between design institutions in the developed and less developed countries, and between these institutions in the less developed world.

10. These cooperative arrangements could be bilateral as well as multilateral. International organizations including ICSID, UNIDO, UNESCO, UNCTAD, WHO, UNEP, IBRD, the Asian Development Bank and the African Development Bank, IADB and others should be encouraged to provide active support to such cooperative arrangements.

Major Recommendations for the Promotion of Industrial Design for Development

A. Recommendations for Design Policies

1. There is a definite need in many lands for an official statement of policy on industrial design which could provide a basis for a national understanding of this profession. Unless such a national consensus is achieved, it will be difficult for the industrial design movement to be quickly accepted and to move ahead with speed.

2. Each developing country would first need to establish its own design objectives before it can select or innovate design policies and programmes appropriate to its needs.

3. The actual needs and the priority interests of government and industry in developing countries should therefore be ascertained before launching industrial design programme in these countries, so as to ensure that this new profession is clearly linked to national priorities.

4. Designers in developing countries, facing the overwhelming needs of their societies, can avoid the danger of spreading their skills too thin by such careful linkages to priority needs.

5. Developing countries must develop their own indigenous capacity for design through emphasis on training, research, development and consultancy services.

6. Designers in developing countries should guard against thoughtless imitation of design from industrially advanced nations, but should rather take into account local needs, traditions, production and consumption patterns.

7. Developing countries should evolve an adequate technology and an infrastructure for industrial design which is simple, inexpensive, easy to maintain, labour intensive and compatible with basic socio-cultural patterns. It must allow popular participation, increase productivity and income, and assist in the distribution of income and power, as well as increase self-reliance.

8. Industrial design is involved with creating not only material but also spiritual values. While the loss of cultural identity and values can seldom be restored, a sweep towards a general culture within a shrinking world is obvious. The industrial designer can help to link a people's aesthetic with modernisation, and thus serve as a force for confidence and identity, both individual and collective.

9. Industrial designers must recognise the need for design solutions which are in harmony with the attitudes, cultures and needs prevalent in their social environments.

10. The search for local skills, local materials and local design know-how, all of which abound in traditional societies, must mark the beginning of any effort to root industrial design in the Third World.

11. Design in its quest for relevance can be a tool for the reduction of social inequalities.

12. Minor, inexpensive improvements in objects or implements of everyday use can have an impact far beyond what is apparent, and aid the process of sensitisation to design as a need.

13. The duration of formal design training in developing countries today is anywhere between two years and five years. Design institutions in developing countries and governments which support them must be encouraged to understand that design learning is a slow process, which extends through experience beyond any specific period of formal training.

14. The education system with industrial design centres should be geared to bring out job creators and not mere job fillers, resource generators and not mere resource users. The training of trainers must be the first priority for countries introducing industrial design to their economies.

15. Adequate funding for equipment and material to assist institutions for design service and training should be arranged through government sources.

16. Industrial design service centres may need to be semi-autonomous institutions in order to function with maximum effectiveness.

17. Industrial design service centres should have salary scales in keeping with those prevailing in industry, if they are to attract and hold the best design talents. Industry should pay for the services of such institutions, as free service tends to invite disrespect.

18. Practical experience from industry should be represented on the teaching faculty of design training institution, which should be identified in every way with industrial activity, and not only with universities. This will enable them to acquire a predominantly industrial culture, which is essential to their success rather than a strictly academic one.

19. Design libraries and reference material facilities must be strengthened, and regarded as absolutely basic to the promotion and use of industrial design.

20. Design publication programmes and research activities require strong emphasis to disseminate information and awareness.

21. Some developing countries may require a system of industrial design implemented through appropriate state level departments and central research and development organizations, which simultaneously act as centres for training designers.

22. There is a need for a national policy in many countries to assist the proper placement of the industrial designer in industry and in planning and/or development organizations.

23. Promotional strategies are particularly important for service to craft and small-scale industries which are often unable to afford their own full-time designers. These strategies will require constant innovation and understanding of the importance of appropriate design, and the application of marketing skills is basic to this exercise.

24. There is a need to understand that design improvement, particularly in the small-scale sector, is a gradual process. It has often to be conducted over several phases, and at intervals.

25. Industrial designers in many developing countries will need to ensure that the requirements of medium and large-scale industries are not overlooked in the effort to serve the widely dispersed design requirements of the small-scale sectors.

26. In some countries, design organizations specifically for export promotion should be considered.

27. In countries with rich craft traditions, the production of handicrafts and the thoughtful mastery of the experience of form accumulated through centuries should be utilized by the industrial designer as a prime resource, integrating the benefits of contemporary technology.

28. Cooperative arrangements for design collaboration should first commence between individuals and institutions within each country, and then extend to countries within a region.

29. The brain drain in design know-how should be prevented at all costs, and the exchange of experience and technical assistance on a regional basis can be a useful aid to building and preserving local expertise.

30. It is necessary to understand and to demonstrate that industrial design is a process, and not merely an end product.

B. Recommendations for Design Promotion

1. Industrial designers will need to demonstrate far more effectively the importance and economic advantages of good design to both industry and Government, particularly in developing countries, if the profession is to receive the priority which it deserves.

2. Promotional strategies are particularly important for service to craft and small-scale industries which are often unable to afford their own full-time designers. These strategies will require constant innovation and understanding of the importance of appropriate design, and the application of marketing skills is basic to this exercise.

3. Minor, inexpensive improvements in objects or implements of everyday use can have an impact far beyond what is apparent, and aid the process of sensitisation to design as a need.

4. The importance of adequate programmes and facilities for documentation and publication cannot be overstressed in the promotion of industrial design.

5. Design publication programmes and research activities require strong emphasis to disseminate information and awareness.

6. Each developing country should compile directories of design institutions and design-oriented organizations, to help contact and exchange. Scientific and technological institutions should be important elements in such an inventory.

7. Design methods must be propagated to people engaged in management and to consumers by organizing promotional activities with this aim in view, utilizing mass media.

8. Industrial design service centres should have salary scales in keeping with those prevailing in industry, if they are to attract and hold the best design talents. Industry should pay for the services of such institutions, as free service tends to invite disrespect.

9. Importance should be placed on adequate coordination between institutions of specialised research which impinge on design with the users of such specialised services and with industrial designers. An example of this need is the packaging industry.

10. Designers must be encouraged to understand that their profession requires them to function in close association with other disciplines, and therefore the concept of teamwork must be in-built to design strategies.

11. Cooperative arrangements for design collaboration should first commence between individuals and institutions within each country, and then extend to countries within a region.

12. Regional associations should be encouraged to facilitate design cooperation and to utilise facilities available among neighbouring countries.

13. ICSID's Inter-design workshop facility can be a useful means of promoting industrial design through the mechanism of intensive problem-solving sessions in major areas of design need, providing a catalyst for design awareness and demonstration.

C. Recommendations for Government Action

1. There is a definite need in many lands for an official statement of policy on industrial design which could provide a basis for a national understanding of this profession. Unless such a national consensus is achieved, it will be difficult for the industrial design movement to be quickly accepted and to move ahead with speed.

2. Designers in developing countries require strong and sustained links with industry and government at all levels. These linkages are required at the outset when design priorities are being investigated and stated and at all later stages so that design solutions are practical and their implementation and demonstration facilitated.

3. The actual needs and the priority interests of government and industry in developing countries should be ascertained before launching industrial design programme in these countries, so as to ensure that this new profession is clearly linked to national priorities.

4. Industrial designers will need to demonstrate far more effectively the importance of good design to both industry and Government, particularly in developing countries, if the profession is to receive the priority which it deserves.

5. Promotional strategies are particularly important for service to craft and small-scale industries which are often unable to afford their own full-time designers. These strategies will require constant innovation and understanding of the importance of appropriate design, and the application of marketing skills is basic to this exercise.

6. Stress should be placed on product design services to serve small industries which cannot afford their own designers. Such facilities could be attached to service centres equipped with designers and small workshop facilities.

7. There is a need for government to understand that design improvement, particularly in the small-scale sector, is a gradual process and often has to be conducted over several phases and at intervals.

8. Early assistance from governments is required to help to reduce the risk of investment in new technologies of design. Incentives for investment in industrial design should be comparable to incentives provided to other research and development activities.

9. To be effective, industrial design service centres may need to be semi-autonomous institutions.

10. Some developing countries may require a state system of industrial design implemented through appropriate state level departments and central research and development organizations, which simultaneously act as centres for training designers.

11. Adequate funding for staff, equipment and materials to assist design service and training institutions should be arranged through government sources.

12. The duration of formal design training in developing countries today is anywhere between two years and five years. Design institutions in developing countries and governments which support them must be encouraged to understand that design learning is a slow process, which extends through experience beyond any specific period of formal training.

13. Importance should be placed on adequate coordination between institutions of specialised research which impinge on design with the users of such specialised services and with industrial designers. An example of this need is the packaging industry.

14. There is a need for a national policy in many countries to assist the proper placement of the industrial designer in industry and in planning and/or development organizations.

15. The brain drain in design know-how should be prevented at all costs, and the exchange of experience and technical assistance on a regional basis can be a useful aid to building and preserving local expertise.

16. Design institutions in developing countries should check existing official agreements between their governments and international organizations, as well as bilateral agreements with other countries, so as to immediately utilise existing arrangements to promote international design exchange.

17. UNIDO facilities for technical cooperation between developing countries, as well as bilateral arrangements which exist between several countries, should be examined so as to facilitate the exchange of industrial design experience between developing countries.

D. Recommendations for Action by Industry

1. Industrial designers will need to demonstrate far more effectively the importance of good design to both industry and government, particularly in developing countries, if the profession is to receive the priority which it deserves.

2. Designers in developing countries require strong and sustained links with industry and Government at all levels. These linkages are required at the outset when design priorities are being investigated and stated and at all later stages so that design solutions are practical and their implementation and demonstration facilitated.

3. The actual needs and the priority interests of government and industry in developing countries should be ascertained before launching industrial design programme in these countries, so as to ensure that this profession is clearly linked to national priorities.

4. Systems for close contact and co-operation between designers and manufacturers are an essential prerequisite.

5. Developing countries should evolve an adequate technology and an infrastructure for industrial design which is simple, inexpensive, easy to maintain, labour-intensive and compatible with basic socio-cultural patterns. It must allow popular participation, increase productivity and income, and assist in the distribution of income and power as well as increase self-reliance.

6. The search for local skills, local materials and local design know-how all of which abound in traditional societies, must mark the beginning of any effort to root industrial design in the Third World.

7. Industrial designers need an adequate understanding of the production technology required to implement their solutions.

8. In countries with rich craft traditions, the production of handicrafts and the thoughtful mastery of the experience of form accumulated through centuries should be utilized by the industrial designer as a prime resource, integrating the benefits of contemporary technology.

9. Promotional strategies are particularly important for service to craft and small-scale industries which are often unable to afford their own full-time designers. These strategies will require constant innovation and understanding of the importance of appropriate design, and the application of marketing skills is basic to this exercise.

10. Product design services to small industries could be attached to service centres, with designers and small workshop facilities.

11. There is a need to understand that design improvement, particularly in the small-scale sector, is a gradual process. It has often to be conducted over several phases, and at intervals.

12. The geographical locations of industrial design service should be selected so that they are within easy reach of the industries they must serve.

13. Industrial design centres for small-scale industries should be established near industrial estate to facilitate extension services.

14. Industrial design service centres may need to be semi-autonomous institutions in order to function with maximum effectiveness.

15. Industrial design service centres should have salary scales in keeping with those prevailing in industry, if they are to attract and hold the best design talents. Industry should pay for the services of such institutions, as free service tends to invite disrespect.

16. Industrial designers in many developing countries will need to ensure that the requirements of medium and large scale industries are not overlooked in the effort to serve the widely dispersed design requirements of the small-scale sectors.

17. Industrial designers require sufficient exposure to tool design, technical processes and plant design so as to serve effectively on industrial teams.

18. Designers must be encouraged to understand that their profession requires them to function in close association with other disciplines, and therefore the concept of teamwork must be in-built to design strategies.

19. Design methods must be propagated to people engaged in management and to consumers by organizing promotional activities with this aim in view, utilizing mass media.

20. Industrial design should be based on defined product demand.

21. Industrial designers must serve entrepreneurs with technical information.

22. When developing their brief for consultancy services and in assisting their clients to develop accurate briefs, designers may need to consult people on the shop-floor and middle-management levels, in order to gather practical information essential to effective design solutions.

23. Importance should be placed on adequate coordination between institutions of specialised research which impinge on design with the users of such specialised services and with industrial designers. An example of this need is the packaging industry.

24. Stringent testing procedures should be applied to all design development and adequate facilities for testing established in industry and at design service centres.

25. The importance of packaging should be recognized by designers and design institutions as a major area of work in developing countries, including the development of packaging equipment.

26. The development of an intermediate technology for industrial design in developing countries is a priority.

27. There is a need for a national policy in many countries to assist the proper placement of the industrial designer in industry and in planning and/or development organizations.

28. In some countries, design organizations specifically for export promotion should be considered.

E. Information Requirements

1. The importance of adequate programmes and facilities for documentation and publication cannot be overstressed in the promotion of industrial design.

2. Design publication programmes and research activities require strong emphasis to disseminate information and awareness.

3. Design libraries and reference material facilities must be strengthened, and regarded as absolutely basic to the promotion and use of industrial design.

4. Permanent collections of every day objects must be organized by design centres as a primary study resource.

5. Each developing country should compile directories of design institutions and design-oriented organizations to help contact and exchange.

6. Industrial design should be based on defined product demand, and therefore will often require the support of market research and information services.

7. Industrial designers must serve entrepreneurs with technical information.

8. ICSID should activate its Data Bank proposals for the exchange of design information, as this would be a major aid for designers and design institutions in the Third World. The Data Bank can serve information needs on design institutions, appropriate technology, product designs, equipment, design standards, and education and training facilities.

9. The exchange of information between design training centres in various countries can assist in selecting and innovating training programmes relevant to each country's needs. UNESCO and UNIDO should be actively involved in this pursuit.

F. Recommendations for Education, Training and Extension in Industrial Design

1. Developing countries must develop their own indigenous capacity for design through emphasis on training, research, development and consultancy services.

2. Each developing country would first need to articulate its own design objectives before it can select or innovate training programmes appropriate to its needs.

3. Adequate funding for staff, equipment and materials to assist design institutions and design training should be arranged through government sources.

4. The importance of adequate programmes and facilities for documentation and publication cannot be overstressed in the promotion of industrial design.

5. Design libraries, sample collections, reference material facilities, and facilities for prototype making and testing must be strengthened. These are absolutely basic to the promotion and use of industrial design.

6. The search for local skills, local materials and local design know-how, all of which abound in traditional societies, must mark the beginning of any effort to root industrial design in the Third World.

7. Design publication programmes and research activities require strong emphasis to disseminate information and awareness.

8. Permanent collections of everyday objects must be organized by design centres as a prime resource for study.

9. Design training must be consciously inter-disciplinary, and designers must be trained to understand, and to draw from, other professional skills.

10. Designers must be encouraged to understand that their profession requires them to function in close association with other disciplines, and therefore the concept of teamwork must be in-built in design strategies.

11. Designs must be subjected to stringent tests, and the discipline of testing ingrained into design training programmes.

12. The education system with industrial design centres should be geared to bring out job creators and not mere job fillers, resource generators and not mere resource users. Design centres should stress developing people with skills rather than skills for people.

13. The duration of formal design training in developing countries today is anywhere between two years and five years. Design institutions in developing countries and governments which support them must be encouraged to understand that design learning is a slow process, which extends through experience beyond any specific period of formal training.

14. Industrial design training must take place at several levels simultaneously. These levels would include school-leavers, graduates, extension courses for professionals (such as engineers, architects, and craftsmen, artists etc.) and should reflect a multi-disciplinary approach. Special attention will need to be paid to

programmes of exposure in industrial design for the profession of engineering design.

15. Design training should be based on constant exposures to real-life problems, to make the problem-solving methodology of industrial design a reality during the learning process.

16. Teaching materials for design training need be drawn from actual industrial situations.

17. Practical experience from industry should be represented on the teaching faculty of such institutions, which should be identified in every way with industrial activity, and not with universities. This will enable them to acquire a predominantly industrial culture, which is essential to their success rather than a strictly academic one.

18. Industrial designers require sufficient exposure to too design, technical processes and plant design so as to serve effectively on industrial teams. Technical and engineering skills and awareness must be ingrained into design training.

19. Industrial designers need an adequate grounding in the production technologies required to implement their solutions.

20. Industrial design service centers should have salary scales in keeping with those prevailing in industry, if they are to attract and hold the best design talents. Industry should pay for the services of such institutions as free service tends to invite disrespect.

21. There is a general need to stress opportunities for design exposure and awareness in existing polytechnical institutions.

22. The importance of packaging should be recognized by designers and design institutions as a major area of work in developing countries.

23. In some countries existing training facilities need to be strengthened and innovative methods evolved, so as to spread design know-how and training at various levels of industrial activity and management. The important role of such extension activities require to be in-built with design training centres so as to ensure the spread of design skills and awareness.

24. Stress should be placed on product design training through extension services to small industries, which cannot afford their own designers. Such facilities could be attached to design service centres with designers and small workshop facilities. The geographical locations of such industrial design facilities for small industries should be selected so that they are within easy reach of the industries they must serve.

25. Some developing countries may require a state system of industrial design implemented through appropriate state level departments, and central research and development organizations which simultaneously act as centres for training designers.

26. The exchange of information between design training centres in various countries can assist this process of innovation. UNESCO and UNIDO should be actively involved in this pursuit.

27. Programmes for regular short-term training assistance to design institutions in developing countries may be considered.

28. The brain drain in design know-how should be prevented at all costs, and the exchange of experience and technical assistance on a regional basis can be a useful aid to building and preserving local expertise.

29. ICSID's Inter-design workshop facility can be a useful means of promoting industrial design through the mechanism of intensive problem-solving sessions in major areas of design need, providing a catalyst for design awareness and demonstration.

G. Recommendations for International Cooperation

1. Cooperative arrangements for design collaboration should first commence between individuals and institutions within each country, and then extend to countries within a region.

2. Regional associations should be encouraged to facilitate design cooperation and to utilise facilities available among neighbouring countries.

3. The brain drain in design know-how should be prevented at all costs, and the exchange of experience and technical assistance on a regional basis can be a useful aid to building and preserving local expertise.

4. Cooperative arrangements for design collaboration should be established between developing and developed countries, between developing countries themselves and/or in combinations of these under "twinning agreements" which are eligible for UNIDO assistance.

5. Design institutions in developing countries should check existing official agreements between their governments and international organizations, as well as bilateral agreements with other countries, so as to immediately utilise existing arrangements to promote international design exchange.

6. Programmes for regular short-term technical assistance to design training institutions in developing countries may be considered, through UNIDO channels.

7. UNIDO facilities for technical cooperation between developing countries, as well as bilateral arrangements which exist between several countries, should be examined so as to facilitate the exchange of industrial design experience between developing countries.

8. Industrial design service centres should be eligible for assistance through UNIDO, UNESCO, UNDP, ICSID and similar channels.

9. Requests for technical assistance from UNIDO should be routed through government channels. Local UNDP offices located in each developing country can assist design institutions with matters of procedure.

10. The exchange of informations between design training centres in various countries should be assisted through UNESCO and UNIDO.

11. An UNIDO/ICSID initiative for exchange of information on intermediate technology should be initiated.

12. ICSID should activate its Data Bank proposals for the exchange of design information, as this would be a major aid for designers and design institutions in the Third World.

13. ICSID's Inter-design workshop facility can be a useful means of promoting industrial design through the mechanism of intensive problem-solving sessions in major areas of design need, providing a catalyst for design awareness and demonstration.

14. ICSID membership fees should be adjusted to accommodate the financial limitations faced by design institutions in most developing countries.

15. ICSID should establish a panel specifically to deal with the problem of its membership in developing countries.

Hybrid Identities and Paralyzing Traditions: Contemporary Croatian Design within the Context of Social Transition

Fedja Vukić

The term "design" defines a series of interrelated, but somewhat different, areas of interest in Croatian culture in the period starting in 1989 when a design program was founded as an interdisciplinary study within the Architecture School of the University of Zagreb. By 2005, this institution had "produced" more than three-hundred designers. This fact has continued to have a major impact on the public discussion of design in Croatia.

It also is important to remember that only a year after the founding of this program, Croatia experienced a significant social change as the result of its first parliamentary elections. This change entailed a shift from the concept of society based on a planned economy to a free market society. In other words, a socialist paradigm was replaced by the concept of liberal capitalism. Thus, 1990 ushered in the "third Croatian modernization," which again placed the local context on the periphery, albeit a periphery that is somewhat different and perhaps even more remote than ever before.[1]

How does the discipline of design function within the transition from one social context to another? We now can discuss "design" as a formal and standard field, as it is listed in the official register of careers and disciplines of the Republic of Croatia, and also is the subject of a program of study at the university level. Nevertheless, it is important to note that design at this level of education still is considered an artistic discipline, and design theory still does not exist as a scholarly field. These two facts indicate the peripheral and specific position of the discipline of design within the local context.

Methods of Discussion

It is possible to discuss "design" in terms of its products which, in turn, can be evaluated through criteria usually borrowed from art history terminology, the goal of which is to emphasize the importance of the field, or the international awards that Croatian designers have received as of late. But the term "design" as a form of signifier is used more today in the mass media as a way of referring to aesthetics or styling. An example of this is when automotive magazines, when referring to the look of a series, use the term "design" (*dizajn*).

1 Ivan Rogic, *Tehnika i samostalnost: Okvir za sliku trece hrvatske modernizacije Technics and Independence: A Framework for the Third Croatian Modernization* (Zagreb: Hrvatska sveucilisna naklada, 2000), 513–603; and Josip Zupanov, "Industrijalizirajuca i dezindustrijalizirajuca elita u Hrvatskoj u drugoj polovici 20. Stoljeca" ("Industrializing and Anti-industrializing Elites in Croatia of Second Half of Twentieth Century") in *Upravljacke elite i modernizacija* (*Managing Elites and Modernization*), D. Cengic and I. Rogic, eds. (Zagreb: Institut drustvenih znanosti Ivo Pilar, 2001), 11–372.

At both levels, design is understood as art (visual art), either as a product of an individual/collective creation in the domain of graphic communication, or as an aesthetic applied to an industrial product.

Very rarely does one find the term "design" used in Croatian cultural context to denote the social formation of an object, a complex strategy for the formation of (or a change in) a specific material culture, or as a way of directing the possibilities of research in contemporary or historical design, either at the general theoretical level, or in the context of a specific analysis of an actual object. It is precisely these characteristics that define the public debate about design in a peripheral context when compared to centers of modernization. Gui Bonsiepe describes this phenomenon when he says: "Peripheral contexts lack a serious discourse about design." Here, Bonsiepe is referring in particular to the lack of a critical density of participants needed to have this discussion, and not about the discussion as a one-sided/directed form of promotional communication, which often is equated with a theoretical discussion in a local context.[2] The position of a motivated researcher in this peripheral context has some resemblance to Foucault's idea of an "observed observer," which is a useful way of describing the multilayered susceptibility of cultural identities being developed in the practice of design, and which the observer/researcher seeks to observe and research within the unfinished nature of the Croatian context and its political transitional process, striving from the periphery to the center. [3]

It is worth mentioning that two years after the publication of Foucault's book, *Les Mots et les Choses*, Matko Mestrovic, one of the leading figures to establish and define the term design in Croatia from the early 1960s on, used the term ("observed observer") in his text describing the new media culture, referring to the dual identity of a consumer and producer of information.[4] While Foucault's observed observer is the subject of historical and scientific incompleteness, Mestrovic's is the subject of media manipulation. Both are protagonists of a complex cultural identity, precisely because they are aware that the issue they are concerned with avoids a fixed theoretical examination. This type of figure could describe the researcher of design in contemporary Croatia as well.

It also is worth mentioning that local modernization, particularly in peripheral, transitional countries, is only one part of a worldwide transition towards a Western model of mass production/consumption, and an economic exchange of technology and work that directly affects design as well. This condition has, within different circumstances, made Habermas's notion of modernity as an "unfinished project" current again, but with different types of production which layer into cultural modernity and social modernization.[5] The centers of modernization are dispersed throughout the globe. This dispersion, both material and symbolic, also is assumed by the term "design," as its meaning, constructed mostly in theory,

2 Gui Bonsiepe, "Cultural Identity and Otherness" in *Interface, An Approach to Design* (Maastricht: Jan van Eyck Akademie, 1999), 116.

3 Michel Foucault, *Les Mots et les Choses: Une archeologie des sciences modernes* (Gallimard, 1966) (Croatian translation: *Rijeci i stvari, Arheologija humanistickih znanosti* (Zagreb: Golden Marketing, 2002), 337.

4 Matko Mestrovic, "Promatrani promatrac" ("Observed Observer") in *Bit International* 1 (Zagreb: Galerije grada Zagreba, 1968): 7–17.

5 Juergen Habermas, "Modernity: An Incomplete Project" in *The Anti-Aesthetic: Essays on Postmodern Culture*, H. Foster, ed. (Seattle, WA: Bay Press, 1983), 3–16.

6 John A. Walker, *Design History and the History of Design* (London and Boulder, CO: Pluto Press, 1989); and John Heskett, *Toothpicks and Logos: Design in Everyday Life* (Oxford and New York: Oxford University Press, 2002).

implies.[6] But at the same time, the broad and layered meaning of the term "design" does not mean that it has become the symbol or term for any form of cultural production, as was noted by Willem Flusser in his reading of the "observed observer."[7] His question suggests an even more relevant issue: what are the particulars of modernization at the periphery today and, perhaps more important, what are the particulars of the center?

According to relevant sources from dispersed centers, design (as a term and practice) has taken the equivalent position as has the English language: while one is a kind of contemporary Latin, and the other is a term that equates all material production without regard for local (peripheral) particulars of culture, religion, or forms of production. Through this semiotic process, hybrid identities appear as combinations of delayed or remaining peripheral/local cultural elements and global elements of cultural material production imposed to periphery. Advertising campaigns of multinational corporations in local contexts are good examples of this. In using local cultural values as semantic codes, advertising promotes newly constructed identities composed of combinations of global and local elements, as a McDonald's ad implies in its "recommended by local Croatian potatoes" headline (Figure 1).

This phenomenon is, on the one hand, a direct result of the restructuring of the world by the news media in the postcolonial period, and the mass media—including graphic design—define globally universal symbols for the purpose of mass consumption.[8] On the other hand, one cannot ignore the fact that the entire realm of design, including everything from "the spoon to the city," ("dal cucchiaio alla citta," as the original Rogers's phrase puts it) was one of the main issues of the discourse of the historical modernist design movement. But the actual realization of that idea does not go further than the commercial synthesis of various cultural identities through the establishment of multilayered signifiers throughout the world, wherever the relation of mass production and consumption can function.[9]

Figure 1
Part of advertising campaign for McDonalds's ketchup in Croatia, Salvia Premium Food, 2006.

7 Willem Flusser, "About the Word Design" in *The Shape of Things: A Philosophy of Design* (London: Reaktion Books, 1999), 17–22.

8 Nikos Papastergiadis, "Restless Hybrids" in *The Third Text Reader on Art, Culture and Theory*, R. Araaen, S. Cubitt, and Z. Sardar, eds. (London and New York: Continuum, 2002), 168–177.

9 Ernesto Nathan Rogers, "Tradition and Modern Design" in *The Aspen Papers: Twenty Years of Design Theory from the International Design Conference in Aspen*, R. Banham ed. (New York and Washington: Praeger, 1974), 78–86. (This paper was originally written in 1957); *Modernism in Design*, P. Greenhalgh, ed. (London: Reaktion Books, 1990); M. Bholey, *Globalization and the Culture of Design, Design Plus, News and Views from NID* (Ahmedabad: National Institute of Design, 2001), 30–31; and G. Julier, *The Culture of Design* (London: Sage, 2000).

Peripheral and Transition

Transition in the local context, however, existed as a method of social change and as an ideological project before the actual transition towards neo-liberal capitalism. What is now known as design discipline in the Croatian context has developed a regional or local character due to the state of permanent social change which distinguishes it from the character that design has in the various countries at the center of modernization.[10] Since, from the center to the periphery, the notion of a strategic orientation to the market has become dominant, most of the local industrial resources dedicated to production have disappeared, and with that the need to create objects for mass production has also gone. Along with this, the term "design" in Croatia during the nineties began to exclusively denote commercial communication. The majority of students, upon graduating from the School of Design, go on to work in the advertising industry, and all local and international awards and honors received by Croatian designers are in the visual arts. As a result, the term "design" in Croatia today has little in common with the meaning that was defined during the 1960s.[11]

In this way, the field of design, as a part of the cultural industry, has contributed to the identity of the peripheral modernization of Croatia in the 1990s. But design is still an elusive process of symbolic appropriation of the material of everyday life. This identity grew out of the continual state of transition in Croatian society, and within which the design process has still not been able to institutionalize itself as a discipline, methodology, or social practice of identifying the relations between the individual and the collective. After the first theoretical foundations of design as a methodology for the process of creating material objects and symbolic values in the human environment, mostly influenced by the Ulm school, more than twenty years passed before an institution of higher education in the field was founded. During those twenty years, the social context (i.e., the self-management socialism of Yugoslavia) has disappeared and been replaced by a new peripheral context of post-socialist transition.[12] During this period, the ideological tasks expected from design also have changed: the state, with large corporations as its primary clients, has disappeared (or is in the process of disappearing) and, in its place, have appeared new types of private commercial corporations. During the earlier period, the tasks at hand focused on the industrialization of material production; while, today, the focus is on quick sales. In the 1950s, the public promotion of industrial goods was the direct communication of the state, then the only corporation, which used cycles of five-year economic plans to feed society (Figure 2). Now, the multinational corporations that own local companies use visual language and semantics that are general and functional on the international level (Figure 3).

10 Dusan Bilandzic, *Historija SFRJ: glavni procesi 1981–1985* (*A History of Socialist Federative Republic of Yugoslavia, Main Processes*, third edition (Zagreb: Skolska knjiga, 1985), 314–317, 385–391, 438–441, 446–453, 474–483, and 484–494.

11 *Od oblikovanja do dizajna, Teorija i kritika projektiranja za industrijsku proizvodnju* (*From Formgiving to Design: Theory and Critique of Industrial Design*), Fedja Vukić, ed. (Zagreb: Meandar, 2003).

12 Fedja Vukić, "Petnaest godina Studija dizajna" ("Fifteen Years of Graduate School of Design") in I. Doroghy, *Radovi diplomiranih studenata Studija dizajna nastali u profesionalnom djelovanju nakon diplome* (*Graduated Students' Works after the Diploma*) (Zagreb: Studij dizajna, Arhitektonski fakultet Sveucilista u Zagrebu, 2004), 8–13.

Figure 2 (left)
Poster from the mid-1950s by New Municipal Zagreb Milk industry (Zvonimir Faist, illustrator), Museum of the City of Zagreb.

Figure 3 (right)
Part of an advertising campaign of Dukat milk industry, BBDO Zagreb, 2008.

The political ideal of material well-being for all has been replaced by the material ownership of the well-to-do. Profit has replaced the former goals of the Communist party. Through this, the local peripheral context hopes to merge into the global exchange of capital, technology, and labor. Meanwhile, it is developing a cultural identity that could be characterized as "peripheral modernity."[13]

In this peripheral modernity, hybrid identities are forming on the basis of paralyzing traditions. These hybrid identities are various cultural subjects formed through the joining of contradictory historical and contemporary social conditions, which affect the discourse and practice of design. The simultaneous existence of multiple identities within the same context is the result of the transitional process from one type of society to another, particularly from the remaining forms of cultural practices and social elements left over from the time of socialist state corporatism, which are being blended with the new elements of neo-liberal capitalism.[14] The simultaneous existence of these two models has a particular effect on the practice of symbolizing identity, as well as on design as a social phenomenon. This hybridity also can be clearly experienced in the simultaneous coexistence of companies at various stages of transition in economic models

Figure 4
Communication in unoccupied architectural space, City of Zagreb, 2006. Photo by author.

13 Tony Fry, "A Geography of Power: Design History and Marginality," *Design Issues* 6:1 (Fall 1989): 28.

14 Josip Zupanov, *Industrijalizirajuca i dezindustrijalizirajuca elita u Hrvatskoj u drugoj polovici 20. Stoljeca* (*Industrializing and Anti-industrializing Elites in Croatia of Second Half of the Twentieth Century*), 22–30.

Figure 5
Croatian national television network symbol (Boris Ljubicic, designer, 1996).

and models of ownership, as they change from public to private. And it can be defined at the level of the change in the communication of personal identity, particularly in conflicts between the individual and the communal—for example, in situations where issues of property in an urban area are still unresolved, or when both legal/commercial and illegal/free use of public space for the purpose of advertising exist simultaneously.[15] In this context, various types of nonregulated public communication appear; most often in urban settings; making functional use of empty spaces (Figure 4).

In this state of hybridity, the concept of the "observed observer" (the researcher of design) also is a type of hybrid state, specifically at the level of discourse on design as defined by Walker.[16] According to his structural model, in Croatia, as a typical context of peripheral modernization, there exists only a discourse on method and a journalistic promotion of design within the domain of the creation of commercial visual messages. Communication on design occurs at the level of commercial aesthetics. The term "design" almost is never used to define the practice of creating symbolic values outside of the mass media, or outside of formally taught aesthetic rules. Furthermore, the proliferation of software has made the manipulation of images and typefaces accessible to all, so that amateurs can create for business purposes communication programs whose symbolic and cultural foundation largely combines local tradition with influences from the mass media. In addition, there has been a significant trend toward expressing the idea of national identity, both within amateur and professional circles, and it penetrates deep and wide in many social areas (Figure 5).

However, the fact is, at the practice level in Croatia, there has been a massive production of symbolic contents that could be discussed in terms of design. This practice especially has developed in small urban and suburban contexts as the result of the needs of small businesses with limited financial resources and—as in the case of Zagreb's alternative nightclub *Klub Močvara*—as the communica-

15 Fry describes a state such as "hybridized modernisms" as the connecting and mixing of cultural codes in relation to the modernization efforts of the center and the resistance of the periphery, by which a "marginal modernity" is formed. Fry, "A Geography of Power: Design History and Marginality," 28.

16 John A. Walker, *Design History and the History of Design*, 14–16.

17 Fedja Vukić, "Educated vs. Uneducated Design" in Papers Summary Book, Design Education: A Dialogue Across Borders International Symposium (Umjetnicka akademija Split Croatia, 2001), 22; and "Korporativni identitet i tranzicija" ("Corporate Identity and Transition"), *Up&Underground* 6 (Zagreb: AGM i Bijeli val, 2003),148–156, 22; and Mochvara Design Team, "Dnevni snovi i nocna stvarnost" ("Daydream and Night Reality") in *Pet godina Mocvare* (*Five Years of Mochvara* A. Kostadinov, ed. (Zagreb: Zina, 2004), 5–7.

Figure 6
Cover of program booklet of Klub Močvara (Mocvara Design Team and Igor Hofbauer, iIlustrator, 2005).

tion of alternative models of cultural practice.[17] Within this context, the rules defined by formally taught design are rarely followed. Instead, simple computer manipulations of images and words are used to create appropriate identity situations. This design approach is operative in reference to either the notion of a national identity or the idea of global culture. In the case of *Klub Močvara*, the aesthetic of the message is built on an ironic (almost camp) redefinition of certain assumptions borrowed from mass culture, in combination with commentary on the current condition of Croatian society. The use of personalized, handmade illustrations within the framework of a computer-generated, verbal message is a kind of alternative to anonymous "softwared" illustration (Figure 6).

This segment of Croatian cultural identity could be defined as "uneducated design," "anonymous design" (Walker's term), or "vernacular design" (Dilnot's term).[18] This lack of education is quite relative, however, in specific cases; but as a term it is meant to denote the difference between this approach and those taught at design school, which tend to be similar to international curricula. This uneducated design takes cues from local and peripheral inspirations, thus developing forms of symbolic meaning peculiar to the local context. These symbols, although outside of the sphere of interest of the local critics and theorists, significantly contribute to peripheral particulars of local culture in the context of transitional modernization. This is the basis of the hybrid identity of design in Croatia, as a term and a practice, in the domain of the creation of visual meanings. In this field, two opposite concepts or identities converge: the trend to denote the idea of national identity, and the concept of alternative urban culture.

18 John A. Walker, *Design History and the History of Design*, 18; and Clive Dilnot, "The State of Design History Part II: Problems and Possibilities" in *Design Discourse, History, Theory, Criticism*, Victor Margolin, ed. (Chicago and London: The University of Chicago Press, 1989), 245.

These two concepts flourish outside of the dominant modernist aesthetic rule of educated design "produced" by higher education.

The Globalization of Design

How does one theoretically approach this phenomenon? The difficulty comes from the paralyzing traditions inherited by the Croatian cultural context from the recent past—traditions which encourage the formation of a hybrid identity. This hybrid identity has developed within the unresolved situations of this past that present themselves in various ways as unexplainable and unexplained traditions, primarily based on the first period of Croatian modernization (before WWII), and the idea of national identity. This idea burdened the actual social transition on various levels: at the level of the idea of the nation, at the level of common identity, and at the level of private ownership.

A comparable situation can be experienced in the spatial transformation of Croatian cities where, under the process of the return of private property to the original owners, chaos reigns in public space; particularly in the contact between private and public property. In this situation, many business premises located in city centers, which would otherwise bring large rents to their owners, are closed, while their shop windows and façades are used only as informal billboard space. Moreover, the development of private housing has respected few, if any, of the interests of the public. Thus the use of communal public spaces always presents a problem. These paralyzing traditions, inherited from the unfinished processes of the past, define hybrid identities in an urban context that are difficult to negotiate among the many competing interests.

In the domain where "design" exists as a term defined by the Croatian language, one way in which it is understood and practiced today is formed at the level of higher education and aspires to satisfy the needs and interests of the newly formed large corporate clients. The other type appears occasionally as a way of defining elements of communication for small and medium-size businesses, or even for subcultural (alternative) social formations. Paralyzing traditions are evident here not only in design practice, of both types, but within discourse about design, starting from the very definition of the disciplinary field. In practice, these traditions appear as a series of methodic rules which need to be followed in order to satisfy an ideal of execution excellence, but without having to engage specialized "tools" for the research of social situations and trends, as well as symbolic values that occur as creative interpretations of the commissioned work.

It is not at all coincidental that design is considered a fine art, at least as it is defined in higher education, and in fine art there is no analysis or methodology, but simply unquestionable personal creativity. A similar aspect can be observed in "uneducated design," but within a different social stratum and with an emphasis on

different symbolic representations. The difference is only in form and technological level. But in both cases, the practice and understanding of design in Croatia is defined by a lack of thought about the discipline and its meaning within the social context. This lack is compensated for by promotional discourse by professional organizations in "educated design," and by amateur work and social activism in uneducated design. In the public discourse which treats design as a form of fine art, the term is losing the original meaning it had in the 1960s in Croatia under the influence of the Hochschule für Gestaltung in Ulm. The contacts among members of the Ulm staff and local theorists were long and fruitful, even after the demise of school, as witnessed in a 1969 issue of the bilingual *Bit International* magazine dedicated to the topic of "design/dizajn" (Figure 7).

In the dynamics of this change, the intended meaning of design as a methodology for the systematic formation of material culture has been changed by the unquestioning formation of symbolic content for public and particularly commercial needs. Within this newly formed semantic field, one can search for particulars inherent in the peripheral context and the cultural identity of transition. However, it is worth noting that a comparison with related terms and their semantic fields in other similar (post-socialist) peripheral areas of transitional modernization suggests similar particular identities within peripheral contexts that are changing from places of mass production to those of mass consumption.

Figure 7
Cover of *Bit International* magazine, 1969 (Ivan Picelj, designer).

Could this hybrid identity be discoursed along with the paralyzing traditions? Adapting and simplifying the methods of art history and formal criticism—in other words, formal analysis focused on the description of an object—will not be enough to identify the specific characteristics of design at the periphery of modernization. This is so largely because, on the level of meanings and symbols, this periphery is nearly saturated due to the mixing of continual local and global transitions, but also because of traditions from the past that could not be solved even in the former context of self-management socialism—not even through that period's systematic planning that was meant to give it some closure. Just as the discipline of design in Croatian society is going through a dynamic change, the semantic field of the term also is shifting. Even though this discipline currently is categorized as within the field of fine arts, a more progressive approach will be needed for its analytic research—along the lines of Stevenson's critique of design history as a formal extraction from the more established methods of art history.[19] This is because the description of design as a fine art, as Dilnot has suggested, is no more than a social myth in which the "past is a simple anticipation and legitimization of the present" and which, according to Barthes, only "creates a world without contradictions … in which things mean something simply because they exist."[20]

Can this kind of historical narrative create an analytical framework for the comprehension of design at the periphery of modernization? Possibly the question should be changed and posed as follows: Could or should theory and history of design, as an eventually conceived academic discipline, be based on and methodologically satisfied by the simple formal registering of products, without an understanding of the reasons for their creation or without the critique of those products in the context of peripheral modernity? Could design history and theory even function as an autonomous discipline in the local context? This is clearly the key question and, as Tony Fry already has suggested for theoretical cultural analysis at the periphery, and with the help of the center, there is a possible research approach which ties art history together with other disciplines including anthropology, sociology, cultural studies, and archeology among others, and which could be useful for the development of design theory as Dilnot puts it.[21]

Towards a Design Theory at the Periphery

In order to establish such a discipline at the local peripheral level, it will be necessary to carry out a critical analysis of the original meaning of the term "design" in Croatian, and its comparison with the later dynamic change of the referential field. Only then will it be possible to discuss methods of interdisciplinary investigation as a framework for research. Prior to that, it seems unavoidable not to return to the theoretical framework which was formative for the very adoption of the word "*dizajn*" (a derivative of the English "design")

19 Greg Stevenson, "Archaeology as the Design History of the Everyday" in *Archaeologies of the Contemporary Past*, V. Buchli and G. Lucas, eds. (London: Routledge, 2001), 51–63.

20 Clive Dilnot "The State of Design History Part II: Problems and Possibilities," 236–237; and Roland Barthes, *Mythologies* (New York: Hill and Wang, 1972), 142–143.

21 Tony Fry, "A Geography of Power: Design History and Marginality," 28; Clive Dilnot "The State of Design History Part II: Problems and Possibilities," 238–250; *Archaeologies of the Contemporary Past*, V. Buchli and G. Lucas, eds. (London: Routledge, 2001); and *The Material Culture Reader*, V. Buchli, ed. (Oxford and New York: Berg, 2002).

into the Croatian language and culture, and that is the idea of environment design as it was formulated by the body of theory at the School of Design in Ulm. The analysis of the original idea and scope of this theory, as well as its reception by Croatian theorists and critics, is an inevitable step towards any future discourse on design at the periphery of modernization for, as Bonsiepe stated, "Design is the motor power of modernity."[22]

Since the conditions defined by the global exchange of capital, technology, and labor have made the relation of center to periphery relative, in the new topography of capital-product ties, it is becoming more clear that the cultural identity of the industrial epoch and the national economies is changing and becoming part of the same problem in the environment. The contemporary map of the world brings into question the modern relation of center to periphery, and it is possible to confirm with Bonsiepe that "Cultural identity, particularly in design, lives in the discourse of the viewer." This is similar to Jameson's "narrative category," even in the perspective of the "observed observer," mentioned earlier—which for the purpose of insight into peripheral modernity resembles more closely Mestrovic's than Foucault's view.[23] If design still has elements of fine art, then this is due to the adaptation of its methods to the wishes of those who commission design intervention. Could designers assume the position of the "observed observer"? Could they, from this position, more realistically examine the situation in which they manipulate meanings, without realizing themselves that they are being manipulated? History and theory of design could possibly, as one type of interdisciplinary "critical dialectic" research, aid in the clarification of the theoretical and practical contradictions of hybrid identity and paralyzing traditions at the periphery of modernization.

22 Gui Bonsiepe, "The Cartography of Modernity" in *Interface, An Approach to Design* (Maastricht: Jan van Eyck Akademie, 1999), 129; Tomas Maldonado, "Kako se boriti protiv samozadovoljstva u izobrazbi dizajnera" ("How to Fight Against Complacency in Design Education") in *Bit International* 4 (Zagreb: Galerije grada Zagreba, 1969): 19–29; Gui Bonsiepe and Thomas Maldonado, "Znanost i dizajn" ("Science and Design") in *Bit International* 4 (Zagreb: Galerije grada Zagreba, 1969): 29–51; Gui Bonsiepe, "Edukacija za vizuelni dizajn" ("Education for Visual Design") in *Bit International* 4 (Zagreb: Galerije grada Zagreba, 1969): 51–61; Fedor Kritovac, *Sto je environmental design* (dizajn okoline) (Zagreb: Covjek i prostor 197, 1969), 8–9; Fedor Kritovac, *Dizajn na putu znanosti* (*Design on the Scientific Pathways*) (Zagreb: Zivot umjetnosti 21, 1974), 63–67; and Matko Mestrovic, *Teorija dizajna i problemi okoline* (*Design Theory and Problems of Environment*) (Zagreb: Naprijed, 1980).

23 Gui Bonsiepe, "Cultural Identity and Otherness," 117; and Frederic Jameson, *A Singular Modernity: Essay on the Ontology of the Present* (London: Verso, 2002), 40.

Design for Development: A Capability Approach

Ilse Oosterlaken[1]

Introduction

Experts seem to agree that in the past decades little scholarly attention has been paid in development and design scholarship to ethics and global justice issues. The subject is sometimes discussed under the heading of "design for development,"[2] "appropriate technology,"[3] or "design in a poor context, for the alleviation of poverty;"[4] but hardly ever receives an in-depth treatment and exclusive attention. Margolin and Margolin, discussing socially responsible design in a broader sense (i.e., not only addressing the needs of the global poor, but also those of the aged, the disabled, etc.), note that there are "extremely well-developed" theories about "design for the market." On the contrary, "little thought has been given to the structures, methods, and objectives of social design."[5] Yet the fact, alone, that several articles on this topic appeared in *Design Issues* in recent years is an indicator that this is starting to change.

In order to further advance this neglected area of design, I suggest a "capability approach" towards designing for society, and particularly, the world's poor. Central in this approach are human capabilities; the effective opportunities that people have to "live the lives that they have reason to value."[6] Capabilities offer an alternative for human dignity and human rights as the grounds for, or first principle of, design as has been proposed by Buchanan;[7] an alternative that may be more appealing at first sight for designers. I will first introduce the notion of the capability approach. Then I will explain its relevance for engineering and design before sketching some directions for future research on design for global justice.

The Capability Approach

The capability approach has been pioneered and developed by the economist and philosopher Amartya Sen and the philosopher Martha Nussbaum.[8] According to this approach, the proper evaluative space in questions of justice, equality, and development is not income, not resources, not primary goods, not utility (i.e., happiness or the sum of pains and pleasures) or preference satisfaction. Its proponents argue that the focus should be on human capabilities. Capabilities have been described as "what people are effectively able to do and be,"[9] or the (positive) freedom that people have "to enjoy 'valuable beings and doings.'"[10] These beings and doings are called "function-

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2 Victor Margolin, "Design for Development: Towards a History," *Design Studies* 28 (2007): 111–115.

3 Dean Nieusma, "Alternative Design Scholarship: Working towards Appropriate Design," *Design Issues* 20 (2004): 13–24.

4 Angarad Thomas, "Design, Poverty, and Sustainable Development," *Design Issues* 22 (2006): 54–65.

5 Victor Margolin and Sylvia Margolin, "A 'Social Model' of Design: Issues of Practice and Research," *Design Issues* 18 (2002): 24–30.

6 Amartya Sen, *Development as Freedom* (New York: Anchor Books, 1999).

7 Richard Buchanan, "Human Dignity and Human Rights: Thoughts on the Principles of Human-Centered Design," *Design Issues* 17:3 (2001): 35–39.

8 See among others: Martha C. Nussbaum, *Women and Human Development: The Capability Approach* (New York: Cambridge University Press, 2000).

9 Ingrid Robeyns, "The Capability Approach – A Theoretical Survey," *Journal of Human Development* 6:1 (2005): 94–114. Unless stated otherwise, this is the publication of Robeyns that I refer to.

10 Sabine Alkire, "Why the Capability Approach?" *Journal of Human Development* 6:1 (2005): 115–133. Unless stated otherwise, this is the publication of Alkire that I refer to.

ings" by Sen. Functionings "together constitute what makes a life valuable"[11] and are "constitutive of a person's being."[12] Examples of functionings are such diverse things as working, resting, being literate, being healthy, being part of a community, being able to travel, and being confident. "The distinction between achieved functionings and capabilities," as Robeyns explains, "is between the realized and the effectively possible; in other words, between achievements on the one hand, and freedoms or valuable options from which one can choose on the other."[13] According to Alkire, one reason to focus on capabilities instead of functionings is that we value free choice:

> A person who is fasting is in a state of undernutrition, which may seem very similar to a person who is starving. But in the one case, the fasting person *could* eat and chooses not to; whereas the starving person would eat if she could.[14]

Moreover, the capability approach recognizes the importance of both "well-being freedom" and "agency freedom." The latter acknowledges that people pursue not only their own well-being, but may also choose to pursue other ends; for example, the well-being of others, living up to religious ideals, or following moral norms.

Why should we focus on these capabilities in our developmental efforts, rather than utility or resources? One example often given in arguing for capabilities rather than resources is that a healthy and a handicapped person would need different amounts of resources to enable them to have the same opportunities in life. Also, for other reasons, the relationship between a certain amount of goods and what a person can do or can be varies according to Sen:

> … a person may have more income and more nutritional intake than another person, but less freedom to live a well-nourished existence because of a higher basal metabolic rate, greater vulnerability to parasitic diseases, larger body size, or pregnancy.[15]

One of the crucial insights of the capability approach is that the conversion of goods and services into functionings is influenced by personal, social, and environmental conversion factors; and that it should not be taken for granted that resource provision leads to increased capabilities or functionings.[16]

The reason why capability theorists prefer these capabilities over utility or preference satisfaction is the phenomenon which Sen has called "adaptive preferences":

> Our desires and pleasure-taking abilities adjust to circumstances; especially to make life bearable in adverse situations. The utility calculus can be deeply unfair to those who are persistently deprived.… The deprived people tend to come to terms with their deprivation because of the sheer necessity of survival; and they may, as a result, lack the courage to demand any radical change, and may even

11 Ingrid Robeyns, "The Capability Approach – A Theoretical Survey."

12 Sabine Alkire, "Why the Capability Approach?"

13 Ingrid Robeyns, "The Capability Approach – A Theoretical Survey."

14 Sabina Alkire, "Capability and Functionings: Definition and Justification" in *Briefing Notes* (Human Development and Capability Association, www.hd-ca.org, last updated 1 September 2005).

15 Amartya Sen, "Justice: Means versus Freedoms," *Philosophy and Public Affairs* 19:2 (1990): 111–121.

16 Robeyns explains this very clearly, including a nice schematic representation of how the conversion of goods and services into functionings takes place.

adjust their desires and expectations to what they unambitiously see as feasible.[17]

The capability approach is increasingly being applied in different areas. In 2006, Robeyns identified nine different types of applications of the capability approach: "(1) general assessments of human development of countries, (2) assessing small-scale development projects, (3) identifying the poor in developing countries, (4) poverty and well-being assessment in advanced economies, (5) deprivation of disabled people, (6) assessing gender inequalities, (7) debating policies, (8) critiquing and assessing social norms, practices, and discourses, and (9) functionings and capabilities as concepts in non-normative research".[18] It has led to lively debates on several issues.

One very important debate is about which capabilities matter and who (how, when) is to decide this. Different visions exist on this issue. One of several differences that Robeyns mentions between the contributions of Nussbaum and Sen is that, "Whereas in Sen's work the notion of capabilities is primarily that of a real or effective opportunity (as in social choice theory); Nussbaum's notion of capability pays more attention to people's skills and personality traits as aspects of capabilities." And while Nussbaum comes up with a concrete and—so she believes—universally applicable list of important capabilities, "Sen has always refused to endorse one specific well-defined list of capabilities," or to set priorities among different capabilities. His reasons are that the proper list of capabilities may depend on purpose and context, and should be a result of public reasoning and democracy; not something a theorist should come up with.

The question of operationalization of this view has, understandably, received quite some attention.[19] How do we expand the capabilities or positive freedoms of people, and how do we measure the results? "For some of these capabilities," says Robeyns, "the main input will be financial resources and economic production; but for others, it can also be political practices and institutions, … political participation, social or cultural practices, social structures, social institutions, public goods, social norms, traditions and habits." Alkire argues that "operationalizing is not a one-time thing," but something that is dependent upon such things as country, level of action and the problem at hand. Both Robeyns and Alkire conceive of the capability approach as interdisciplinary. Alkire especially advocates close collaboration between capability theorists and experts in relevant fields of application; for example, nutritional science or econometrics, to "trace its implications all the way through." She does not mention engineering and design, but she easily could have, as will be explained in the next section.

17 Ibid.

18 Ingrid Robeyns, "The Capability Approach in Practice," *Journal of Political Philosophy* 14:3 (2006): 351–376.

19 Flavio Comim, Mozaffar Qizilbash, and Sabina Alkire, eds., *The Capability Approach: Concepts, Measures, and Applications* (Cambridge: Cambridge University Press, 2008).

Technology as Capability Expansion

From a common sense point of view, adopting the capability approach immediately seems to be strongly compatible with recognizing and improving the contribution of technology and engineering products to development. After all, what is technology for, if not increasing the capabilities that we have as human beings? Just as the wheel enhanced our capability to transport heavy loads; more recently, the computer enhanced our capabilities to make complex calculations. Technologies have grown more complex over time, and are in an increasingly complex way intertwined with society, institutions, laws, and procedures. But ideally, we still intend them to add to our capabilities to survive (such as in the case of medical equipment); and to participate in public deliberation (such as in the case of ICT/Internet applications that facilitate political discussion).

As obvious as making this connection between technology and capabilities may seem, philosophers working on the capability approach so far do not seem to have sufficiently realized the relevance of technology, engineering, and design for capability expansion. For example, it does not figure on the list that Robeyns presents of inputs for capabilities (political practices, social institutions, habits, etc.). It has hardly received any attention in the literature. Some explorative, agenda-setting articles appeared only recently; mainly concerned with ICT.[20] Remarkably, a specific piece of technical equipment, namely a bicycle, has been used on several occasions to explain the approach:[21]

> Take a bicycle.… Having a bike gives a person the ability to move about in a certain way that he may not be able to do without the bike. So the transportation *characteristic* of the bike gives the person the *capability* of moving in a certain way. That capability may give the person utility or happiness if he seeks such movement or finds it pleasurable. So there is, as it were, a *sequence* from a commodity (in this case, a bike), to characteristics (in this case, transportation), to capability to function (in this case, the ability to move), to utility (in this case, pleasure from moving).[22]

However, the bicycle is just used as an example in explaining the *focus* of the capability approach, and nothing more. Robeyns does say that the *characteristics* of the bicycle expand the owner's capability to move around. Yet she also states that:

> We are not interested in a bicycle because it is an *object made from certain materials with a specific shape and colour*, but because it can take us to places where we want to go, and in a faster way than if we were walking. (The emphasis is mine.)

Of course, the point that Robeyns here attempts to make is that what matters in the end is capability expansion, and that the bicycle is only instrumentally important in this respect.

20 See, for example, Jeroen van den Hoven and Emma Rooksby, "Distributive Justice and the Value of Information: A (Broadly) Rawlsian Approach" in *Information Technology and Moral Philosophy*, edited by J. van den Hoven and J. Weckert (Cambridge: Cambridge University Press, 2008); Justine Johnstone, "Technology as Empowerment: A Capability Approach to Computer Ethics," *Ethics and Information Technology* 9 (2007): 73–87; Yingqin Zheng, "Exploring the Value of the Capability Approach for E-development" (paper presented at the *9th International Conference on Social Implications of Computers in Developing Countries*, Sao Paulo, Brazil, 2007).

21 For example, in Robeyns (2005), "The Capability Approach"; and Alkire (2005) "Capability and Functionings."

22 Amartya Sen, "Poor, Relatively Speaking," *Oxford Economic Papers* (New Series) 35:2 (1983): 153–169.

However, Robeyns's remark is still naive regarding the sociology and philosophy of technology, as I will explain in the next section.

The Significance of the Details of Design

Philosophers and sociologists of technology have argued in the past decades that engineering products are far from neutral instruments to be used at will for either good or bad, but rather value-laden or inherently normative.[23] Values such as privacy, autonomy, sustainability, safety, and justice can be realized in our technologies—or these could rather embed and create the opposite: injustice, insecurity, and so on. And many different design options are generally available during the development process of a new technology or product. This means that the *details of design are morally significant*. If technologies are value-laden and design features are relevant, we should—so it has been suggested—design these technologies in such a way that they incorporate our moral values. This thought has led to the emerging research field of so-called "value sensitive design," which initially was limited to R&D in the area of ICT, but is now also gaining popularity in other engineering areas.[24]

Keeping this in mind, let us discuss the bicycle a bit further. Nowadays, we may take it for granted as a piece of equipment that "can take us to places where we want to go, and in a faster way than if we were walking," as Robeyns did. However, the bicycle is not such a simple and straightforward artifact as it may seem. As it happens, it figures in a classical case study in the sociology of technology.[25] In this study, Bijker describes in detail how the development of the modern bike took place, stretching over a period of more than two centuries in which many different design varieties competed with each other. What is especially interesting is that Bijker's analysis has shown that different social groups attached different meanings to this new artifact, and that this influenced developments in its design. Initially, it was mainly viewed as a piece of sports equipment, used for racing contests. This means that the speed that a certain type of bicycle could achieve was very important. In the second half of the 19th century, the dominant model had become the so-called "high-wheeled Ordinary bicycle," which had a very large front wheel in comparison to the smaller rear wheel, and pedals connected directly to the front wheel. Because of the way in which bicycles were viewed, it developed in a direction of less rather than more safety:

> The trend of enlarging the front wheel of the velocipede had continued once speed had become so important, and this made it necessary to move the saddle forward in order to keep pedals within reach of the feet. This implied a reduction of the rear wheel's diameter— partly because otherwise the machine could not be mounted at all, partly to reduce the bicycle's weight, and partly for aesthetic reasons (it set off the grandeur of the high wheel). But these two developments moved the center of gravity of the

23 Langdon Winner, "Do Artifacts Have Politics?" *Daeddalus* 109:1 (1980): 121–136; Bruno Latour, "Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts" in *Shaping Technology / Building Society*, Wiebe E. Bijker and J. Law, eds. (Cambridge, MA: The MIT Press, 1992).

24 Jeroen van den Hoven, "ICT and Value Sensitive Design" in *The Information Society: Innovations, Legitimacy, Ethics, and Democracy*, P. Goujon, S. Lavelle, P. Duquenoy, K. Kimppa, and V. Laurent, eds. (Boston: Springer, 2007); Mary L. Cummings, "Integrating Ethics in Design through the Value-Sensitive Design Approach," *Science and Engineering Ethics* 12:4 (2006): 701–715.

25 Wiebe E. Bijker, *Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change* (Cambridge, MA: The MIT Press, 1995).

> bicycle and rider far forward, to a position almost directly above the turning point of the system. Thus, only a very small counter force—for example, from the bumpiness of the road, but also from the sudden applications of the brake—would topple the whole thing.

Because of the bad condition of the roads in those days, this happened quite frequently. However, this was not considered a problem, nor a sign of bad bicycle design. Cycling was considered to be an activity for young and adventurous men. The difficulty of riding the "Ordinary" and its accident proneness only contributed to the ability of these lads to impress the ladies by participating in cycling contests in the parks. "Falls were such an accepted part of bicycling," Bijker notes, "that producers advertised their bicycles' ability to withstand falls, rather than claiming that they did not fall at all."

Thus, bicycling was rarely undertaken by senior citizens or women, and certainly not considered as a form of transportation. This, says Bijker, only changed "when manufacturers began to regard women and older men as potential bicycle buyers." The realization that there was a business opportunity here led to a whole series of new developments in bicycle design, with safety instead of speed now being a prominent goal. Some design changes were successful; others not. These attempts to reach new target groups led in the end to the dominance of the so-called "safety bicycle," which is chain driven by the rear wheel. The main function of the bicycle had become transportation.

After this bicycle detour, let us return again to the concept of value-sensitive design. A similar perspective may thus be just what is needed if we want to introduce new technologies in developing countries in such a way that it does benefit the poor by expanding their human capabilities. If one is interested in making the introduction of a new technology, such as the bicycle in 19th century Europe, or currently ICT equipment in developing countries, contribute to capability expansion, one should also be interested in its design. As the bicycle example illustrates, the design features of technologies are relevant for their effect on human capabilities. Perhaps we should not care very much about the color of the bicycle—it is hard to imagine how this could be relevant—but shape and material definitely deserve our attention. (Although, I agree with Robeyns for instrumental reasons.) We should not too easily assume that a certain product or technology will do well in expanding people's capabilities. Sen's capability approach, I propose, should be directly applied to the design and engineering of these new technologies and products for developing countries. What responsible innovation for the benefit of the global poor requires, one may say, is "capability sensitive design" of technologies for developing countries.

Capability Sensitive Design

A central question, of course, is what capability sensitive design entails, and whether or not adopting such a new design philosophy will in the end make a difference in the lives of people. This is something that needs further investigation, and the last section will point out some research directions. But first let me say something about why I expect that taking a capability approach is valuable for design scholarship and practice. In the introduction, I referred to an essay by Buchanan. He writes—and I will quote him quite extensive because of the importance and eloquence of his message—the following:

> We tend to discuss the principles of form and composition, the principles of aesthetics, the principles of usability, the principles of market economics and business operations, or the mechanical and technological principles that underpin products. In short, we are better able to discuss the principles of the various methods that are employed in design thinking than the *first* principles of design, the principles on which our work is ultimately grounded and justified. The evidence of this is the great difficulty we have in discussing the ethical and political implications of design.… The implications of the idea that design is grounded in human dignity and human rights are enormous, and they deserve careful exploration.[26]

The grounding principle of design that Buchanan envisions is related to the one I am proposing. Sen himself has declared that human capabilities and human rights are closely connected concepts. For example, he says that "there are many human rights that can be seen as rights to particular capabilities"[27]—because of the intuitively obvious connection between technology and engineering products on the one hand, and the expansion of human functionings and capabilities on the other—it will be easier for designers to incorporate and take into account human capabilities than to deal with human rights. As Johnstone phrased it:

> Because the theory is essentially naturalistic and functionalist in orientation, capability analyses are able to integrate descriptive and normative dimensions in a way that is particularly appropriate to technological domains.[28]

The effects of applying the capability approach to the domain of technology, engineering, and design may be huge. As Buchanan writes about "human-centered design":

> Unfortunately, we often forget the full force and meaning of the phrase—and the first principle which it expresses. This happens, for example, when we reduce our considerations of human-centered design to matters of sheer usability and when we speak merely of "use-centered design." It is true that usability plays an important role in human-centered

26 Richard Buchanan (2001), "Human Dignity and Human Rights."

27 Amartya Sen, "Human Rights and Capabilities," *Journal of Human Development* 6:2 (2005): 151–166.

28 Johnstone (2007), "Technology as Empowerment."

> design, but the principles that guide our work are not exhausted when we have finished our ergonomic, psychological, sociological, and anthropological studies of what fits the human body and mind.[29]

The observation is still valid. Let's illustrate this with two examples. Chalmers University of Technology (Sweden) tells prospective industrial design engineering (IDE) students that "the degree to which a product *satisfies* customers and users is … regarded as one of the most critical factors in product development." New developments mean that "previous values, such as functionality, reliability, and cost are partly to be complemented by, partly to be replaced by, other values, such as *usability*, *comfort*, aesthetics, *pleasure*, and *excitement*."[30] One could argue that there are more fundamental values at stake in design than the ones mentioned here. Likewise, in a proposal for a new IDE research program,[31] Delft University of Technology (The Netherlands) recently claimed that industrial design should contribute to the "well-being" of people, which is defined as "an *experiential* state of people and organizations, which can have many shapes, such as *satisfaction*, fulfillment, support and inspiration, protection, acknowledgement, *comfort*, *happiness*, and involvement." The words chosen by both universities (the emphasis is mine) suggest that it is currently preferences or utility rather than something such as human dignity or capabilities that are at the core of the work of many IDE departments (assuming that these examples are representative). Without denying the relevance of these notions, the concept of human capabilities offers a richer understanding of well-being: one that adds to design scholarship and practice. It certainly accommodates the ideas and preferences of design constituencies which include moral considerations concerning autonomy, privacy, sustainability, accountability, responsibility, etc., as well as the ones mentioned in the most common descriptions of the IDE communities.

What capability sensitive design as an alternative approach entails is a matter of further investigation. Yet we can easily deduct some rough pointers from the capability approach. One of the merits of the capability approach is that it has drawn attention to the existence of immense human diversity; not only in terms of what we value, but also in terms of personal and social/environmental characteristics that influence the conversion from resources into capabilities and functionings. People who have paralyzed legs, for example, will obviously not be able to ride an ordinary bicycle. In this case, a personal characteristic completely blocks the conversion of a resource into capability or functioning. One beauty of technological artifacts, however, is that they are resources whose properties can be moulded. They can—within certain limits—be designed in such a way that they take these conversion factors into account.

29 Richard Buchanan (2001), "Human Dignity and Human Rights."

30 Brochure master's programme Industrial Design Engineering, Chalmers University of Technology, Sweden. To be found at: www.chalmers.se/en/sections/education/masterprogrammes/programme-descriptions/industrial-design (accessed 14 November 2008).

31 "Towards a New Research Portfolio for IDE/TUD" (Delft: Faculty of Industrial Design Engineering, TU Delft, 2007, work in progress). To be found at: www.io.tudelft.nl/live/pagina.jsp?id=e667fbe8-b697-4d5d-a709-f61221558c4c&lang=nl (accessed 14 November 2008). It should be recognized that the document also says that the work of designers should not be "at the cost of others" and should be placed in an "ecological, social, cultural, and economic context." This is mentioned, however, as a limiting condition.

Whatever else it may entail, capability sensitive design takes human diversity into account.

A Case: Tricycles for the Disabled in Ghana

If we consider this aspect of capability sensitive design, the design of tricycles for the disabled in developing countries may be a nice illustration of what I have in mind. The disabled in developing countries have, as Van Boeijen[32] notes, little opportunities "in education, (finding) work and participation in social life," or to shape their own life. She writes:

> The possession of a tricycle can give a large number of them the possibility to travel.… A tricycle is a hand-operated vehicle that is propelled by means of a chain- or crank-lever mechanism and is suitable for driving long distances, under bad road conditions, and for the transportation of goods. All over the world small workshops in developing countries produce these tricycles in many different designs. These tricycle designs need improvements: they are often uncomfortable for the user, not suitable for the local situation, and difficult to produce. Imported tricycles from Western countries are often too expensive and not suitable for use under the average conditions in developing countries. Usually, they also lack spare parts which makes repair difficult or impossible.

At least since the 1990s, if not earlier, industrial design engineers have—in different local contexts—been working on design improvements that address these problems. In this way, they contribute to the expansion of the capability to move for an otherwise socially marginalized group.

In a case in Ghana, a local metal workshop had to stop the production of tricycles due to a lack of financial support. A team of industrial design engineering students did extensive research into local circumstances, the metal workshop, the disabled, and other stakeholders in order to find an appropriate design solution. Their tricycle, for example, has been adjusted in such a way as to enable the handicapped to sell ice cream stored in a cooler in front of the tricycle. Disabled persons are thus enabled to act as street vendors. The financial side of the tricycle production and provision also has been taken care of; among others by getting a company involved whose products can be sold by street vendors.[33] By increasing the income, opportunities, and self-respect of the handicapped in this manner, the tricycles now also contribute to capabilities other than mobility.

Capability sensitive design envisioned in this way bears strong resemblance to the familiar concept of "universal design." As Nieusma explained, this approach is all about "accounting for diversity."[34] It should be noted that, on Nieusma's analysis, my

32 Annemiel G.C. van Boeijen, "Development of Tricycle Production (DTP) in Developing Countries" in *RESNA '96 Annual Conference: Exploring New Horizons … Pioneering the 21st Century* (Salt Lake City, Utah, 1996).

33 Prabhu Kandachar, Jan Carel Diehl, Gabrielle van Leeuwen, and Jaap Daalhuizen, eds., *Design of Products and Services for the Base of the Pyramid; IDE Graduation Projects 2*. Delft: Delft University of Technology, Faculty of Industrial Design Engineering (2007).

34 Dean Nieusma (2005), "Alternative Design Scholarship."

example of the tricycles in Ghana seems rather an example of the more limited accessibility movement, a predecessor of the universal design movement. It is in no way my intention, however, to make capability sensitive design only responsive to differences in physical abilities or to just one, specific user group at a time. Moreover, future research may reveal that capability sensitive design has many more sides to it than has been discussed so far.

Participation in Design

Another feature of the capability approach is that it attaches great importance to agency, free choice, and value judgments. As mentioned earlier, Sen deliberately refrains from specifying and prioritizing a complete capability list. Not surprisingly, public deliberation and participation have thus received attention in the capability literature. It is here that research on capability sensitive design can and should make a link with participatory design which, according to Nieusma,[35] "has developed into a well-articulated, well-justified methodology for user participation in design processes" and is all about "coping with disagreements." He regrets, however, that "increasingly, participatory design methodologies are used to advance the goals of user-centered design without emphasizing the inclusion of marginalized perspectives in design processes." We are reminded here of Buchanan's reflections on the ultimate ends of design, and the contrast with the actual focus of IDE departments.

Interestingly, Frediani,[36] in exploring the connections between the capability approach and participatory methods more broadly, notices something similar. In practice, participatory methods used in developmental cooperation often do not meet the expectations, being "sometimes used merely as a tool for achieving preset objectives" and not as a process for true empowerment and improvement of people's lives. He argues[37] that "participatory methods need to be complemented by a theory that explores the nature of people's lives and the relations between the many dimensions of well-being." This theory, he says, should be comprehensive, but flexible and able to capture complex linkages between (aspects of) poverty, intervention, participation, and empowerment. He feels that the capability approach is able to offer exactly that. In my view, the capability approach may be able to offer the same revival to the ideals of participatory design.

Finally, I will try to identify some issues that definitely deserve our attention and that hopefully will lead to fruitful discussions about the ethics of design and, more specifically, the concept of capability sensitive design.

Some Directions for Future Research

Applying the capability approach to the broad domain of technology, engineering, and design will require research in a wide range of different questions and cases. Research should address issues rang-

35 Ibid.

36 Alex Apsan Frediani, *Participatory Methods and the Capability Approach* (briefing note of the Human Development and Capability Association, www.capabilityapproach.com/pubs/Briefing_on_PM_and_CA2.pdf, accessed 14 November 2008).

37 He bases his argument on a work by Cleaver: Frances Cleaver, "Institutions, Agency, and the Limitations of Participatory Approaches to Development" in *Participation: The New Tyranny?* B. Cooke and U. Kothari, eds. (London: Zed Books, 2001).

ing from design methods to the social and ethical dilemmas that the designer will encounter along the way. More theoretical reflection should go hand-in-hand with case studies of design projects. Johnstone[38] mentions four different focal points for future research into technology and human capabilities: (1) particular groups or individuals, (2) particular capabilities, (3) particular situations or context, or (4) particular interventions (technologies, artifacts). Case studies could primarily address one of these aspects or a combination of them. She discusses this in relation to ICT only. This is a domain in which a lot of design takes place, the outcome of which is relevant for people's capabilities. In a Western context, one could think of reassessing the debate on privacy and ICT applications in terms of how the latter affect capabilities to control personal information flows. In the context of developing countries, it has been pointed out independently both by Selinger and Zheng that the expectations of ICT for development are high, and that critical reflection is rare. ICT in its current form does not necessarily contribute to (for example) the empowerment of women in developing countries,[39] and a capability approach could be helpful in avoiding the "pitfalls in e-development."[40]

The sort of products that industrial design engineers are concerned with offer another domain for application. Again, the context could be Europe or the U.S. However, I would especially like to encourage a capability approach towards design for development, since both the need and the potential impact are high. Such research could, as inspired by the work of business scholar Prahalad, take place it in a business-like context. Prahalad has unleashed new enthusiasm and resources for development collaboration with his plea to the business world to come up with innovative products for the "Base of the Pyramid" (BoP).[41] His hypothesis is that companies can make a profit while poverty gets alleviated. This perspective could lead to more financial sustainability and thus the long-term effectiveness of development efforts. The design of these innovative products, however, is underexposed in the BoP literature, as Thomas[42] has noted. Moreover, one should not too easily assume that the interests of the poor and of companies are always compatible. Ethical and social dilemmas are to be expected in such a context, in which—to use Margolin's terminology—design for the market and social design come together. There is a real challenge here.

How do we proceed with such research? First and foremost, there is a (largely empirical) question of which capabilities can be expanded (or perhaps unintentionally hampered) by new technology and products, and what engineers and designers (can) contribute to this. And how can philosophical reflection on the ultimate objectives of development, as offered by the capability approach, be translated in concrete design practice, including methods and tools? As mentioned in the previous section, another important question—perhaps even more so in a BoP/business context—is who should

38 Johnstone (2007), "Technology as Empowerment."

39 Evan Selinger, "Does Microcredit 'Empower'? Reflections on the Grameen Bank Debate," *Human Studies* 31 (2008): 27–41.

40 Yingqin Zheng (2007), "Exploring the Value of the Capability Approach for E-development."

41 Coimbatore Krishna Prahalad, *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits* (Upper Saddle River, NJ: Wharton School Publishing, 2005). "BoP" refers to the base of the income pyramid, with four billion people living on less than $2 a day. Crabtree has argued that the BoP debate is too focused on income poverty, and should rather take a capability perspective: Andrew Crabtree (2007), *Evaluating the "Bottom of the Pyramid" from a Fundamental Capabilities Perspective* (Copenhagen: Copenhagen Business School, CBDS Working Paper Series).

42 Angarad Thomas, "Design, Poverty, and Sustainable Development."

determine which capabilities and design solutions are relevant in a specific case, and what should happen in the case of disagreement or conflicts of interests.

Capability sensitive design is not something completely new or entirely different from existing "alternative design scholarships," as Nieusma calls it. As we have seen, there is a clear link with universal design and participatory design. But rather than making capability sensitive design redundant, I consider this a strength. It indicates that capability sensitive design is able to integrate lessons learned into a more comprehensive approach which offers a clear philosophical foundation of the ultimate ends of design; is connected to an expanding body of literature in philosophy and the social sciences; and—perhaps even more important—which can provide engineers and designers the inspiration that is needed to advance design for development.[43]

43 I would like to thank Jeroen van den Hoven for his very helpful feedback on earlier versions of this article, and for his support in starting up research on this topic.

Metadesign: Object and Environment in France, c. 1970*

Larry Busbea

Footnotes for this article begin on page 117

Almost as soon as the Francophone world belatedly and reluctantly adopted the word "design" into its vocabulary, a corresponding term also was introduced: "metadesign." If the former term was accepted as a more international and professional way to describe the activities associated with *l'esthétique industrielle* (which connoted only the determination of the stylistic or formal aspects of designed objects), the latter took on a less certain and, in some cases, even somewhat ominous tone. The meta- prefix implied another level of meaning, an alternate reality that transcended—or subtended—the world of useful objects that populated the postwar French urban and domestic landscape. Perhaps not surprisingly, Jean Baudrillard identified metadesign as nothing less than the "political ideology of design" itself.[1] For Baudrillard, metadesign represented a late stage in the evolution of the industrial object; a stage at which the use value of things was giving way to their sign-value, where everything was beginning to partake of the same organizational logic; becoming part of the same combinatorial, commutative milieu—one that was ultimately synonymous with the economic and political system of exchange.

However, there were other theorists and designers in and around France who recognized the shift toward metadesign, and were much more sanguine than Baudrillard. Among them was the Belgian philosopher and cultural theorist Henri Van Lier. Although he was not a historian of design, Van Lier recognized the cultural significance of mass production; and the design of everyday objects came to play an important role in his evolving *weltanschauung* that was premised upon a kind of will to the network, to a world in which all aspects of the post-industrial environment were connected at a deep technological and structural level. In an *Encyclopaedia universalis* entry "Les esthétiques industrielles," rendered in the plural to stress the simultaneous existence of three distinct design "mentalities" that Van Lier described as the "rigorists," the "democrats," and the "technicians." Each group was identified with a respective mode of production: the rigorists with *équipement* (best rendered in this context as specific services or tools), the democrats with items for popular consumption, or kitsch, and the technicians with metadesign:

> These technicians recall that behind the prototypes created by the *designer*, which are messages, there are codes (constructive, plastic, operative, etc.). By perfecting these codes, that is to say by rendering them as coherent and open as possible, one cannot help but make a useful work.[2]

Van Lier's appeal to metadesign as a linguistic or coded system of designed objects reflected the epoch's obsession with language; with structuralism, syntax, communications theory, systems, cybernetics, and semiotics. In this sense, it was analogous to Baudrillard's description of objects as signifiers detached from their function; floating in a combinatorial field. But the two theorists arrived at opposed positions. Baudrillard felt that the convergence of the design of objects and that of cybernetic systems could only signal further social alienation. Van Lier, on the other hand, took an operative view of metadesign that maintained that the greater the technical and semiotic convergence of objects in the built (designed) environment, the more fully man could be a productive part of the system.

The purpose of this essay is to examine both sides of this ideological divide, and moreover to trace the development of these ideas and how they intersected with historical circumstances, and technological and sociological discourses. Although it was hardly in wide use at the time, the word "metadesign" is helpful because it encapsulates these complexities, and signals perhaps the nearest thing we have to a synthesis of object theory and design practice.

It will quickly become clear here that metadesign is an important variation on the methodological use of semiotics (or semiology) in design; ostensibly the recognition that, besides being transparent, functional implements, objects communicate.[3] Typically, this understanding of design semiotics was one in which information was transmitted from object to user, and has traditionally been seen as an extension of functionalism. This application of semiotics would be formulated at the Hochschule für Gestaltung at Ulm by Tomás Maldonado, Max Bense, and others, including the French sociologist Abraham Moles, whom I will discuss at length below.[4]

However, metadesign and its various synonymic formulations signaled another understanding of semiotics as it related to design. As Baudrillard's invocation of "total design" suggests, a truly structural approach to signification implicates not simply individual objects and their "sign value," but the way in which things interact *among themselves* within a given environment. Signification is then a function of the play of differences among the elements of this ensemble—a matter that for some commentators became quite literally about grammar and syntax. Maldonado's student at Ulm, Gui Bonsiepe, would recognize the two modes of semiotics that concern us here:

> The hypothesis that the world of objects and the world of signs are identical in structure may well yield fruit.

> Moreover, the communicative aspect of the user/product relationship—and these are based on sign processes—will constitute the most important part of a theory of industrial design.[5]

If Bonsiepe (and the vast majority of design theorists in the late twentieth century) privileged the communicative, or semantic aspect, to use semiotic terminology, of industrial design, there was in the French context an explicit attempt to come to terms with the other half of his equation: that the "world of objects and the world of signs are structured identically." In considering metadesign, we must take quite literally this idea that the collective ensemble of objects in the world was treated as a kind of "syntactical" field, to use the terminology of Charles W. Morris, to be deciphered and manipulated by the user and perfected by the designer.

That there was a continuum that stretched from the smallest individual object, through the user, to the environment or milieu was a common leitmotif of the postwar European design avant-garde. It is echoed in Italian architect Ernesto Rogers's call for a complete redesign of everything "from the spoon to the city," or Swiss artist and designer Max Bill's similar formula, "from the smallest object to the metropolis."[6] But metadesign was a new phase in the evolution of the modernist *gesamtkunstwerk*—it was not simply a willful crafting of an ideal, aesthetically consistent environment, but also a quasi-scientific approach to the world, not only as designed, but as *found*. Thus, metadesign was an attempt to synthesize the world of objects as projected by design and the world of objects as understood by anthropology: to reform not only the processes of conception and production, but consumption and social use as well.

After all, the brief appearance and sporadic use of the term at the end of the 1960s marked the culmination of decades of object theory in France: the more or less systematic analysis of the making and using of things. Taken together, these theories phased through virtually every discursive mode from the poetic treatments of the surrealists and Francis Ponge in the interwar period, continuing after World War II with Henri Lefebvre's 1947 "discovery" of the epistemological category of everyday life. The fifties were marked by a new sociological awareness of objects, thanks largely to their postwar ubiquity, and several important theoretical statements about technology's effect on society. Between 1954 and '58, a veritable explosion of design and technology-oriented texts appeared, including Pierre Francastel's *Art et Technique*, and two philosophically opposed works that would come to define the period's ambivalent relationship to technological progress: Gilbert Simondon's *Du mode d'existence des objets techniques* and Jacques Ellul's *La technique ou l'enjeu du siècle* (*The Technological Society*). (Incidentally, and not without significance, Claude Lévi-Strauss's *Structural Anthropology* appeared in 1958.)[7] These seminal texts were supplemented by a

slew of other popular and academic works; one of the most important being André Hermant's *Formes utiles*, a pictorial and theoretical summary of the activities of the *Union des Artistes Modernes* and the related *Salon des Arts Ménagers*.[8] Alongside poetic and operative design statements such as Hermant's, a new critical discourse developed as a response to the new consumer society, signaled initially by Roland Barthes's collected series of essays written for *Les Lettres Nouvelles* that appeared under the title *Mythologies*, and culminating with Baudrillard's *System of Objects* in 1968. All the while, popular manifestations including the films of Jacques Tati, and the novels of Georges Perec and Alain Robbe-Grillet, addressed the new ubiquity of commodities with irony and not a small amount of cynicism.[9]

The intense technical and cultural attention paid to objects in France had a very real impact on the culture of design itself. Designers faced an uphill battle to transcend perceptions of their activities seemingly inherited from 1925: the designer as luxury cosmetic stylist, as someone called in during the final stages of the development process to add fashionable appeal to whatever consumer gadget. And if being saddled with the legacy of art deco were not enough, France's diminished cultural standing in the new world order resulted in French design being widely perceived as simply inferior to that of its American, Italian, German, and Japanese counterparts.

Many French designers, especially those associated with Jacques Vienot's *Institut de l'esthétique industrielle* (Institute of Industrial Aesthetics), were keen to reform design and design education in France in the fifties and sixties.[10] This image of the designer as *ex post facto* shaper of object "skins" was combated with various appeals to a deeper conception of what design could be. These were registered in the journal of the Institute, which during the sixties clearly avoided illustrating too many domestic appliances (*les art ménagers*) or consumer gadgets, in favor of constant attention to the design of industrial machines; examples of designers collaborating with engineers at the earliest phases of a project, the designer's role as ergonomist, and as architect of comprehensive design policies like those employed by IBM or Olivetti, whose efficacy was measured in astounding corporate profits. From a more technical perspective, new technologies and materials often were the focus. Applications for plastics were especially appealing, and often culturally controversial.[11]

But the *Instiut* sought to make a case for the relevance of design, not only by appealing to technical and market conditions, but to social conditions as well.[12] It was also for these reasons, certainly, that the names of several high-profile theorists began to appear in the pages of the journal of The Institute, *L'esthétique industrielle*, which significantly in 1966 changed its name to *Design Industrie*. Philosophically minded designers, including Georges Patrix[13] and Jean-Lin Viaud, would periodically contribute theoretical essays;

and then names such as Abraham Moles and the Italian philosopher of aesthetics Gillo Dorfles also appeared.[14] Even a Monsieur Jean Baudrillart [*sic*] participated in a roundtable discussion in November of 1967.[15]

From Technological Coherence to an Object Ecology

The attempt to reform design, design pedagogy, and design's public image in France relied strongly on the theoretical project of describing the activities associated with design as being much more than simply skin deep (thus the many appeals to sociological theory and the importance of new technologies and materials). One theme often encountered in the pages of *Design industrie* and other publications is the attempt to posit a motivated connection between the internal structure of an object and its ultimate form. Thus, there was an overwhelming drive toward integration as a new kind of functionalism; of an object's appearance being an inevitable result of the laws structuring its conception and use.

One of the most important sources for this integrative conception of design was Gilbert Simondon's *Du mode d'existence des objets techniques*.[16] This book was a sophisticated philosophical treatment of the evolution of technology since the industrial revolution. Indeed, it went far in phenomenologically defining technical modalities in what would come to be known as the "post-industrial society" that France had apparently become.[17] But Simondon's was no mere speculative cultural analysis. He looked at the actual mechanics of industrial technologies, and more recent developments such as communications networks to describe a world in which everything was becoming more and more connected—unified, not by physical function, but by relational placement within larger systems (groups of machines, networks, etc.).[18]

But Simondon's text was also much more than a technical guide. It was essentially a new humanism of technology. The book positioned itself against recent technological statements by the likes of Martin Heidegger, Jacques Ellul, and Lewis Mumford.[19] If, in these works, the machine had been viewed as an artificial agent in the environment that separated Faustian man from nature and alienated him from the simple pleasures of artisanal handicraft, the developments described by Simondon would allow these oppositions to find a new kind of resolution; a world in which man was seen as a "permanent coordinator and inventor of the machines that surround him. He is *among* the machines that function [*opèrent*] with him."[20] Part of what necessitated society's recognition of the integral role of machines, according to Simondon, were transformations on the plane of technology. The alienation of technology from the human realm was partly effected by the "abstract" nature of the machinery itself in the nineteenth century. For Simondon, technology in the first industrial revolution had produced insular, highly specialized machines and tools that served singular purposes. These "abstract"

machines would eventually give way to the "concrete" technologies of the twentieth century.

Perhaps the most famous section of the text, and one that illustrates the movement from abstract to concrete, is one in which Simondon describes the development of the internal combustion engine. Here, the progressive development of polyvalent parts helped to unify the functioning of the entire ensemble:

> In the old engine, each element intervened at a certain moment in the cycle (of combustion and compression), then ceased to have any further effect on the other elements: the parts of the engine are like people who each work at a given moment, but who have no knowledge of the work of the others.… The old engine is a logical assemblage of elements defined by their complete and unique function. Each element can best accomplish its own function in so far as it is a perfectly finalized instrument, totally oriented toward the accomplishment of this function.[21]

The progression beyond the "abstract" finality of the engine led to polyvalent, "concrete" elements:

> There thus appear particular structures for each constitutive unit, which can be identified as supporting structures [*structures de defense*]: the cylinder head of an internal combustion engine bristles with cooling fins. These were at first simply an extraneous element, as it were, added to the cylinder and the cylinder head for the sole purpose of cooling. In more recent engines, however, these fins have come to play a mechanical role as well by providing a ribbing that serves to inhibit the distortion of the cylinder head under the pressure of gases.… Now the two functions are no longer distinguishable; a unique structure has thus evolved, one which is not a compromise but a concomitance, a convergence. The ribbed cylinder head may now be made thinner, which allows for faster cooling. The bivalent fin/rib structure therefore fulfills the two formerly separate functions by means of a synthesis—and the result is far more satisfactory in both cases: it integrates the two functions and transcends them.[22]

The process of concretization, for Simondon, was one in which the specificity of component parts gave way to a relational convergence; a synthesis of distinct functions in polyvalent objects and ensembles. While Simondon's account of technological evolution is more complex than the above very limited example (he allows for the influence of "exterior" economic pressures, and special technical circumstances in which differentiation of parts can serve a concrete function).[23] Overall, he describes the trend toward concreteness as a trend toward synergy and interconnectedness.

This integrative system was not limited to the physical components of machines themselves. With the singularity of an object totally de-emphasized, it was no longer a question of individual components fulfilling well-defined functions within the technological object. Instead, Simondon identifies functional "sub-ensembles" within the larger ensemble of the technological object. Remarkably, these concrete sub-ensembles begin to integrate even the incidental byproducts of normal functionality, such as excess heat or vibration. This opens the way for the concrete technological object to supersede its material boundaries in an annexation of the milieu of the object. As an example of this kind of annexation, of the creation of what he termed an "associated milieu," Simondon offers the so-called Guimbal turbine, an underwater generator powered by tidal water movement. In this engine, the mixture of pressurized oil and water drawn from the ocean serves to generate power and dissipate heat simultaneously. But the role of the associated milieu was more complex than this simple example indicated. Simondon saw the environment as a conditioning element that would actually affect the adaptation of functional ensembles. Indeed, the dynamic nature of the relationship between concrete technology and its environment was such that the former "conditions the birth of a milieu instead of being conditioned by an already established milieu."[24] Therefore, the technology placed within an environment transforms that environment, and vice versa.

Thus, Simondon had provided a technical description for what would become an ethical imperative in French design: that no single object could be considered in (aesthetic, social, or technical) isolation. Everything was connected; everything had (or should have) its place in the great grammar of the world of objects.

That the relationships among objects and milieus would be understood in terms of linguistic structures did not simply reflect a metaphorical correspondence. Simondon's text had much about it that was structuralist: primarily his description of the changing importance of individual technical manifestations versus their interrelationships. Later, Baudrillard appropriated Simondon's description of the internal combustion engine to establish his own critical semiotics of the world of objects in which Simondon's term "milieu" became the more highly charged (especially circa 1968) "system."[25] For Baudrillard, there was virtually no distinction to be made between Simondon's description of functional synthesis and language: "we are in effect at the level of language here and, by analogy, with linguistic phenomena; those simple technical elements—different from real objects—upon whose interplay technological evolution is founded might well be dubbed 'technemes'."[26]

That semiotics was essentially forged in the context of design and the postwar proliferation of consumer goods is not simple coincidence. Ferdinand de Saussure's suggestion that his structural analyses could one day be expanded into a science of

semiology, which would concern itself with what he described as the extra-linguistic "mass of anthropological facts" that constitutes daily life, took on a heightened sense of urgency in the postwar economic boom.[27]

One of the most ambitious attempts at this kind of application (although it went far beyond a simple semiotics) is Abraham Moles's *Théorie des objets* of 1972. Moles was a sociologist, whose theoretical interests were incredibly broad. Beginning with formal and technical analyses of electronic and stochastic music, he soon applied his cybernetic method to the visual arts as well as design.[28] Moles was keenly aware of the way in which graphical signs and everyday objects affected the environment at both a structural level, as well as the more subjective level of individual experiences. The first sentence of this text, "The object has become the essential element of our environment," makes it very clear that Moles had very much internalized the object-environment continuum established in French object theory.[29] Indeed, his book would go the furthest in describing in exacting detail its social and psychological mechanics. Moles's project is unique for its time, but also appears in retrospect as utterly symptomatic of the development of metadesign. He incorporates many different ideological strands of the period; from Henri Lefebvre's critique of everyday life, to Maurice Merleau-Ponty's phenomenology; and attempts to reconcile these with a cybernetic understanding of the world adapted from Norbert Wiener, Marshall McLuhan, and presumably also the semiotic theories of Ulm colleagues Bense, Maldonado, and Bonsiepe.[30]

*Théorie des objet*s is one-part exhaustive taxonomy of the types of objects that people interact with on a daily basis (Moles himself calls this "phenomenological statistics"), as well as a theorization of the role of the object as privileged mediator between man and environment. Indeed, Moles saw the purpose of the book as a way to "draw the attention of the citizen of the consumer society, the businessman, the designer, to an important phenomenon, which may well become a defining aspect [of our society]. It is the problem of the object, *universal mediator, revealer of society* in its progressive denaturalization, constructor of the everyday environment, social communication system…."[31] It quickly becomes clear in this instance that Moles is little concerned with the aesthetics of things, or with their individual efficacy or style. Rather, he will engage the social functions of objects, as carriers of messages: "the progressive passage of the *function object* to the *communication* object."[32]

Moles held the object to be the exemplary tool for communication in a culture characterized by "the 'massification' of socialized life and the augmentation of social distance" in which "the human presence is weakened, creating a sort of contemporary *social void* that objects come to fill."[33] Although he was careful to avoid using the Marxian terms "alienation" or "commodity fetishism," Moles described a society in which social and personal life is irrevocably

mediated by things. As we might expect, this involved the way in which objects could connote wealth, taste, and other culturally coded messages. But Moles seemed less interested in these individual messages than he was in the system of communication itself, which he held to be commensurate with the totality of objects and how these were deployed in the environment.

For Moles, the idea that objects transmitted information was inseparable from the fact that objects always are deployed en masse in "structured groupings" as he would call them. Thus, objects when taken together (always in a particular space) have a syntax, and "constitute a set, an ensemble of inter-relations." Moles took this idea of relations quite literally, and sought to apply demographic methods to his analysis thereof: "Here, the objects *know* themselves and others, they cohabit, coexist in a defined space. The population of objects in an apartment, a workplace, etc., respond to this definition. We can therefore establish sociometric distances, of vital spaces and the laws of coexistence (Lebensraum) that tend toward an *ecology of objects* in general."[34]

For Moles, a world of human interaction had largely been replaced by the human manipulation of myriad objects whose functional and symbolic connections constituted the ambience of everyday life. He understood object ecology as the sum of both kinds of interaction: the more or less direct semantic conception of human use, as well as the syntactical correspondences between objects themselves. The latter formed a literally spatial network; a sphere of life in which the postindustrial citizen dwelled. This sphere, in turn, was made possible via the cultural and technical processes of concretization imagined by Simondon.

From Functionalism to Metadesign

But if the object ecology was the new technical milieu of contemporary society, what was the designer's role? At least in *Théorie des objets*, Moles contented himself with a sociological analysis, stopping short of operative design statements. However, some years earlier, he had tentatively suggested in a brief article in *Design industrie* some ways in which his ideas could be turned toward the conception of things. For Moles, design was indeed at a crossroads and faced what he termed a "crisis of functionalism."[35] The crisis arose from a fundamental conflict between Bauhaus doctrine and the accelerated production of goods made for a consumer society: "the contradiction between the neo-kitsch of the supermarket and the comfortable asceticism of function."[36]

How could the reductive, semantic conception of functional design that sought absolute adequation between means and ends compete in a world filled with the semiotic noise of planned obsolescence, high-pressure advertising, and kitschy preciousness? For Moles, the answer lay in an expansion of the conception of functionalism—one that would be entirely compatible with metadesign,

although he did not invoke this term. Functionalism had to detach itself from purely material and ergonomic considerations: "The sociology and psychology of objects, general sociology, political economy, the ethics of the adaptation of the individual to the world, move toward the construction of an enlarged neo-functionalism, which is in conflict with the neo-kitsch of the consumer unconscious."[37]

Within this expanded field of neo-functionalism, the designer had a new world of post-industrial tools at his or her command: "… among others, computers, machines that design automatically, combinatory processes, game theory, and listing."[38] Moles envisioned a new system design based in sociology and statistics that would allow functionalism to encompass not just a rudimentary and directly physical notion of use, but a far more nuanced idea of semiotic function that comprehended the social and communicative uses of things.

Simultaneously with Moles, Henri Van Lier engaged the same social and design questions. Specifically, in an essay published in 1967, entitled "C*ulture et industrie: le design*," Van Lier was more explicit than Moles had been in describing a neo-functionalist program and how such a program had to be conceived as metadesign.[39] For Van Lier, metadesign was an extension of Bauhaus functionalism that transcended the semiotic idea of the object as message (denoting function, connoting value, etc.). It was rather a method of designing or establishing the basic "elements of a code" that could be used to generate specific objects. This metalanguage of design would establish sets of forms, tectonic and ergonomic principles, as well as the possible syntactic links between objects in a given milieu: a kind of grammar of design memes.

Van Lier had taken his cues from designer and theorist, Andries Van Onck, who appears to have been the first to use the term "metadesign."[40] Van Onck (an Ulm graduate) posited metadesign as analogous to a metalanguage—"a language used to talk about language"—and he based his schematization of it on the semiotics of C. S. Peirce and Charles W. Morris, dividing both metadesign and design into linguistic levels of syntax, semantics, and pragmatics; the last being a term to describe the reception of signs by interpreters (or users).[41] Just as Moles would, Van Onck saw great potential in mathematical tools such as systems theory, group theory, and topology as ways of describing syntactical systems to arrive at a "rational formalism," or a "formal language" of designed objects.[42] However, he stopped short of using the idea of metadesign as a way to describe the syntactic links among objects in the world.

On the other hand, Van Lier immediately sublimated the idea into a kind of environmental discourse that encompassed the technological milieu and the object ecology alike. Van Lier's idea of metadesign was one aspect of a much larger cultural project for the theorist. In other writings, Van Lier had attempted to extend the basic lessons of Simondon's notion of concretization to culture as a

whole.[43] He insisted that the *reseau* or network was the exemplary model of the contemporary world, and that no entity (person, idea, or thing) should be considered independently of the system of links between it and the rest of the technical milieu. This idea of the world as network was one in which the individual identity of elements within the network was minimized in favor of the laws governing its structure. Accordingly, this structure was to be a dynamic and evolving entity; a self-regulating cybernetic system constantly honing its technical efficiency and eliminating informational and technical "redundancies" (a term taken from information theory). Culturally and politically, Van Lier's desideratum was a distinctly post-capitalist view of the world: a system that, unlike capitalism, was not based upon the caprice of a market economy, but which at the same time did not resort to the kind of political totalitarianism that he saw in socialism.

Design became a key component in Van Lier's projected system because the objects that people use every day were presumably the material links between them and the larger milieu or network (following Moles). Van Lier deplored the state of contemporary design, seeing it bifurcated into two equally unfortunate models: on the one hand, the world of market-oriented "styling" that attempted to seduce consumers—via coercive advertising—with new coverings for existing technologies; and on the other hand, the system of standardized, state-imposed production—with its own coercive "propaganda"—characteristic of socialism and fascism. The problem, ultimately, with these two alternatives was that both placed undue emphasis on the semantic messages of individual objects, leading to a kind of product-oriented mentality that ignored the all-important rules governing the relations between objects, and that produced a kind of semantic "anarchy."[44]

Beyond these two systems, Van Lier identified an approach that held much more promise: information design. Arising from a postwar necessity for flexible, evolutionary production that relied less on the "brute force" of machines than on their ability to adapt to their environments and to interface with one another (Simondon's concretization), the cybernetic model of information transmission and feedback became key. But information design was not just a new model for industrial technology, it also carried over to a consideration of industrial products themselves: "It became apparent that the product also comprised information, communication even, and one could therefore distinguish in it a code, a message, and a redundancy." Van Lier continued: "But in order to compose his message, the designer had to, more or less consciously, draw out a code from a system of general structures received as references in his milieu. "…The theoreticians of information have proposed making these elements of code the object of a *metadesign*, saving the term *design* for the particular messages."[45]

Van Lier described a world in which specific things always alluded to an underlying system or code; whether it was the ideal prototype as it related to the individual exemplar, or the sets of social relations that linked the individual object to the greater ensemble of objects in a given environment. For him, the ideal system was one in which the underlying code was as carefully designed as possible, so that the specific messages or objects it produced would be as efficient and yet as open-ended as possible.

In *metadesign* the object is perceived as a particular instance of an evolving structure…. Inscribed directly in a family of clearly elucidated curves, a mirror "designed" by Max Bill projects its variations without being obliged to overhaul its initial project; the supports on a seat by G. Rietveld are conceived at a level of generality that already includes their application to different pieces of furniture…. [In metadesign] there exist fewer things than elements, or better yet, operative structures, which are always reorganizable in space and time. It diverts the creator and user from a fascination with the object to the continuity of the network.[46]

While Moles had undertaken the sociological task of describing man's changing and ambivalent place in the object ecology, Van Lier described its utopian horizon: a world, effectively, *without objects*; a world in which, rendered not only as "signs" but as pure information, form would cede its materiality to the network "in which information is in principle more fecund in so far as it is less saturated, more open to other pieces of information."[47] The sum total would be a system that designed objects whose functional specificity melted away in favor of polyvalent spatial connections, and whose value could only be measured in terms of their syntactic openness. Van Lier thus tied everything together, describing a world where forms and functions were less things than dynamic messages transmitted across the pathways of a completely networked environment.

It was precisely this idea of a semiotic/cybernetic totalizing system that chilled Jean Baudrillard and prompted him to attack both Moles and Van Lier. The specific circumstances of Baudrillard's critique of metadesign are significant. It originally was formulated under the auspices of Emilio Ambasz's Universitas program, which the architect had attempted to realize from his position at the Museum of Modern Art in 1971–72.[48] Conceived as a new kind of educational institution, Universitas, according to Ambasz, would have addressed itself to the deepest and broadest conception of designing, not individual objects, but networks and environments—a brief that had direct connections to the idea of metadesign, though in the ideal Universitas, the scope would be much grander.[49] Baudrillard saw the clear connections between Ambasz's thinking and that of the theorists of metadesign I have been concerned with above (in fact, Moles was on the Universitas advisory board), and when invited to participate in a symposium formulating the scope of Universitas

in January of 1972, took the opportunity to condemn this ideological mutation of functionalism under the auspices of the "political economy of the sign."[50]

Baudrillard saw in the Universitas the institutionalization of metadesign that entailed the "universal semantization of the environment in which everything becomes the object of a calculus of function and signification."[51] He saw, just as Moles and Van Lier had, the imminent dissolution of the material and semantic specificity of the discrete object under the pressure of technical concretization, and, more important, an ineluctable evolution toward milieu and ensemble: "An 'aesthetic' ensemble is a mechanism without lapses, without fault, in which nothing compromises the interconnection of the elements and the transparency of the process: that famous absolute *legibility* of signs and messages—the common ideal of all manipulators of codes, whether they be cyberneticians or designers."[52]

Baudrillard considered Van Lier's and Moles's conceptions of metadesign to be the worst kind of naïve neo-humanism: "Having revealed the advent of sign value and its indefinite extension on the basis of rational productivity, [Van Lier] sees in it, without hesitation, an absolute progress for humanity." Baudrillard saw, rather, "a semiurgy and an operational semiology, which are only the developed form of controlled participation."[53] These developments were inscribed in the same modernist historical trajectory used by Moles and Van Lier. According to Baudrillard: "from Gropius to Universitas, there is a continuous succession of stages toward what could be termed a metadesign, a meta-political economy which is to neo-capitalism what the classic liberal economy was to capitalism."[54] Thus, the semiological network of connections between objects was posited by Baudrillard as ideological, commensurate with the economic system of exchange—a literal spatial milieu or ambiance of abstract equivalencies in which man is completely immersed; an inescapable network in which every gesture that is ostensibly a creative act of communicative will is in fact mandated and predetermined by the laws of the network itself.

Metadesign was a crepuscular method. Baudrillard saw in it an ascendant *geist*—an ineluctable, ideological movement toward integration. The theories of Moles and Van Lier, therefore, had the feeling of formulating the foregone; celebrating the inevitable. For them, the attempt to rationalize the "communication object" as Moles described it was a last-ditch effort to stave off the "semantic anarchy" of a global economy in which production was clearly outpacing design.[55] If their utopian dreams posited a world without objects, the opposite was about to come to fruition—a world of the free play of images and things. In this sense, postmodernism and metadesign seem like polar opposites; the latter being theorized just as the former began to dominate culture. But in a much more perverse model, it was not the one that replaced the other, but rather that global integration made the "semiological abuse"[56] of

postmodernism possible, creating a seamless network for the interplay of apparently contradictory signs.[57] In other words, the syntactic network of metadesign enabled the semantic playfulness of postmodernism. The refusal to recognize this relationship is ultimately what lent metadesign its sense of nostalgia. It was, in the end, just another formulation of visionary functionalism; the dream that the means and the ends of design would be synthesized once and for all.

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1 Baudrillard, "Design and Environment or How Political Economy Escalates into Cyberblitz" in *For a Critique of the Political Economy of the Sign* (New York: Telos Press, 1981), 201–202.

2 Henri Van Lier, "Esthétique: Les esthétiques industrielles," *Encylopaedia Universalis* (Paris: Encyclopaedia Universalis, 1968–72).

3 In what follows, I tend to use "semiotics" and "semiology" more or less interchangeably. Traditionally, however, the term semiotics refers to ideas traceable to the work of American pragmatist Charles Sanders Peirce. Semiology, on the other hand, refers to various conceptual trajectories that have a common source in the work of Swiss linguist Ferdinande de Saussure. Peirce was, without doubt, the most important figure in terms of the adoption of semiotic methods in design theory in Europe. His incredibly open and fluid understanding of what constituted a sign was easily applicable to nonlinguistic acts of communication. But even though Peirce provided a basic tripartite schema for the functioning of signs (icon, index, and symbol), it was Charles W. Morris who formulated the essential distinction that concerns us here: that between syntax and semantics. In Germany, Max Bense took up these semiotic ideas in his informational aesthetics, which were incredibly influential at the Hochschule für Gestltung, Ulm, where he taught during the 1950s. In France, however, Saussure's work gained greater traction, and essentially fostered the birth of structuralism in anthropology and cultural theory. Structuralism's attempt to identify underlying organizational structures that determined surface manifestations of cultural meaning obviously had a profound influence on the genesis of metadesign as both a means of generating new design codes or structures, and its status as interpretive tool. In this sense, ironically, it also shares with structuralism a kinship with the Marxian principles of base and superstructure. See: Charles S. Peirce, *Philosophical Writings of Peirce* (New York: Dover, 1955), 98–119; Charles Morris, *Writings on the General Theory of Signs* (The Hague: Mouton, 1971); and Ferdinand de Saussure, *Course in General Linguistics*, trans. by Wade Baskin (New York: McGraw-Hill, 1966).

4 Max Bense was perhaps the leading theorist in Europe to attempt a rigorous quantification of aesthetic information; and his ideas were influential on a generation of artists and designers. For a comparative study of both Bense and Moles's ideas about art, see Claus Pias, "Hollerith 'Feathered Crystal'": Art, Science, and Computing in the Era of Cybernetics," *Grey Room* 29 (Winter 2008): 110–133. On Bense at Ulm, see Herbert Lindinger, *Ulm Design: The Morality of Objects* (Cambridge, MA: The MIT Press, 1991); and Paul Betts, *The Authority of Everyday Objects: A Cultural History of West German Industrial Design* (Berkeley: University of California Press, 2004), 139–177.

5 Gui Bonsiepe, "Gestammelter Jargon: Industrial Design und Charles Sanders Peirce," *Ulm* 8/9 (1963), 71, quoted in an English translation that is provided in the original, but has been slightly altered here to correct aspects of syntax and diction. The essay criticizes the uncritical adoption of Pierce's theory of signs in design discourse.

6 For the Rogers quote, see Giovanni Albera and Nicolas Monti, *Italian Modern: A Design Heritage* (New York: Rizzoli, 1989); and Max Bill, quoted in Betts, Authority, 153.

7 Pierre Francastel, *Art et technique au XIXe et XXe siècles* (Paris: Éditions de Minuit, 1956), trans. by Randall Cherry as *Art and Technology in the Nineteenth and Twentieth Centuries* (New York: Zone Books, 2000); Simondon, *Du mode d'existence des objets techniques* (Paris: Aubier, Éditions Montaigne, 1958); and Jacques Ellul, *La technique ou l'enjeu du siècle* (Paris: Librairie Armand Colin, 1954), trans. by John Wilkinson as *The Technological Society* (New York: Alfred A Knopf, 1964).

8 André Hermant, *Formes Utiles* (Paris: Édition du Salon des Arts, 1959).

9 Many of these themes are discussed in Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture* (Cambridge, MA: The MIT Press, 1996); *passim*.

10 For more on Viénot, see Jocelyne Le Boeuf, "Jacques Viénot and the 'Esthétique Industrielle'" in France (1920–1960)," *Design Issues* 22:1 (Winter 2006): 46–63. See also Le Boeuf's monograph: *Jacques Vienot, 1893–1959, Pionnier de l'esthetique industrielle en France* (Rennes, France: Presse Universitaire de Rennes, 2006).

11 On new materials, for instance, see the entire issue *Esthétique industrielle* 55 (1962). With regard to the cultural reception of plastics, Roland Barthes's legendary essay in *Mythologies* is the main reference, but recent scholarship has broadened the scope of the social response to this new material. See Edward Dimendberg, "These Are Not Exercises in Style: Le Chant du Styrène," *October* 112 (Spring 2005): 63–88; and Douglas Smith, "Le Temps du plastique: The Critique of Synthetic Materials in 1950s France," *Modern & Contemporary France* 15:2 (May 2007); 135–151.

12 See, for instance, the major collaborative article that argued for "socio-cultural considerations" in reforming design education: "Enseignement: considerations socio-culturelles sur le problème des activités dites 'artistique' et esquisse d'une proposition pour une formation conforme à lévolution de notre société," *Design industrie* 96–97 (July-Oct., 1969): 40–50.

13 Patrix is a key figure in the development of metadesign, although the present paper does not seek to explain his role thoroughly. He was a prolific writer, as well as a designer of often-whimsical objects. One of his key areas of practice was the color-coding of industrial spaces for functional and aesthetic ends. See Georges Patrix and Denis Huisman, *L'esthétique industrielle* (Paris: Presses Universitaires de France, 1961); Georges Patrix, *Beauté ou laideur?* (Paris: Hachette, 1967); and Georges Patrix, *Design et Environnement* (Paris: Casterman, 1973).

14 Dorfles was conducting research in Italy at this time that, in many ways, was similar to his French counterparts. He was particularly interested in examining design as a kind of social communication and as an aesethetic phenomenon. That he would explore issues analogous to those of metadesign is apparent in his introduction to Gyorgy Kepes's *The Man-Made Object*, where he posits the industrial object as almost a natural component of the environment: "part of our surrounding scene." Gillo Dorfles, "The Man-Made Object" in *The Man-Made Object*, Gyorgy Kepes, ed. (New York: Braziller, 1966), 2. Dorfles's most complete statement on design is found in his *Il designo industriale e sua estetica* (Bologna: Capelli, 1963). Victor Margolin contextualizes Dorfles's writings on designs within the larger Italian debate in "Postwar Design Literature: A Preliminary Mapping" in *Design Discourse: History, Theory, Criticism*, Victor Margolin, ed. (Chicago: University of Chicago Press, 1989), 277–281.

15 The transcript is published in *Design industrie* 88 (Jan.-Feb. 1968): 69–72.

16 Gilbert Simondon (1924–1989) was a student of both Georges Canguilhem and Maurice Merlau-Ponty. All of his works concern themselves with the dialectic that animated individual elements within the larger context of their connective structures, be they parts of a complex machine or "individuated" human subjects in a collective society.

17 See Alain Touraine, *La société post-industrielle* (Paris: Denoël, 1969). Marcuse relies upon Simondon's book to articulate the kind of alienation particular to an automated industrial society: Herbert Marcuse, *One-Dimensional Man* (Boston: Beacon Press, 1964), 24–28.

18 I have described this phenomenon elsewhere as a "spatial culture." See Larry Busbea, *Topologies: The Urban Utopia in France, 1960–1970* (Cambridge, MA: MIT Press, 2007), 10–31.

19 Martin Heidegger, "The Question Concerning Technology," (1954) in *Basic Writings*, David Krell, ed. (New York: HarperCollins Publishers, 1993), 307–342; Lewis Mumford, *Technics and Civilization* (New York: Harcourt, Brace & World, 1934); and Jacques Ellul, *La technique ou l'enjeu du siècle*.

20 Simondon, *Objets techniques*, 12.

21 Ibid., 21. Simondon's metaphor here that the parts of the machine are like individual people is an interesting inversion of Georg Lukács's description of alienated human labor in which the worker becomes "a mechanical part incorporated

22 Simondon, *Objets techniques*, 22–23. This passage is a combination of my own translation and that of James Benedict from Jean Baudrillard, *The System of Objects* (London and New York: Verso, 1996), 5–6. Baudrillard's quotation of Simondon is a hodgepodge of passages; the gaps of which are not always acknowledged. Baudrillard omitted some of the more technical language from the passage presumably to amplify his conceptual point.

23 Simondon, *Objets techniques*, 23–31.

24 Ibid., 55.

25 Baudrillard, *System of Objects*, 5–7.

26 Ibid., 7.

27 de Saussure, *Course*, 16.

28 For Moles's work on visual art, design, and the environment see: Abraham Moles, *Théorie de l'information et perception esthétique* (Paris: Flammarion, 1958), trans. by Joel Cohen as *Information Theory and Esthetic Perception* (Chicago: University of Illinois Press, 1968). A revised edition appeared in 1972. Also Abraham Moles, *Théorie des Objets* (Paris: Éditions Universitaires, 1972); *Art et Ordinateur* (Paris: Casterman, 1971); *Sociodynamique de la culture* (Paris: Mouton, 1967); *Le Kitsch: l'art du bonheur* (Paris: Mame, 1971); and Abraham Moles and Elisabeth Rohmer, *Psychologie de l'espace* (Paris: Casterman, 1972).

29 Abraham Moles, *Théorie des Objets*, 7.

30 Moles held the title of *Professeur regulier* at Ulm from 1961 to 1968, when the school closed. Here, and less frequently at Max Bense's Semiology Institute at the University of Stuttgart, was where Moles really began to consider the cultural significance of industrial design and the sociology of objects.

31 Moles, *Théorie des objets*, 8

32 Ibid., 21.

33 Ibid., 11.

34 Ibid., 22.

35 Abraham Moles, "La cause philosophique de la crise du fonctionalisme," *Design industrie* 86 (Sept.-Oct., 1967): 10–11.

36 Ibid., 10.

37 Ibid., 11. Moles's invocation of the term "kitsch" is significant—so significant indeed that to include it here would take too much space. It was a concept in which he would invest a great deal of energy, as would so many other semioticians of design, from the Italian Gillo Dorfles to the Americans Robert Venturi and Denise Scott Brown. Moles's treatment of subject was highly ambivalent. His book on the subject is a bit of a Trojan Horse: designed for mass appeal with myriad entertaining illustrations of "bad taste," but with a more serious sociological message. For instance, his conclusion implies that kitsch may be a kind of unavoidable "totalitarianism" (p. 231–2). But, moreover, Moles's view of kitsch fits well into his dual concern with objects as both semantic communicating elements, as well as integrative elements in a larger milieu: *"C'est dans ce réseau de lignes derectrices que nous situerons le problème du Kitsch, rapport quotidian avec l'environnement"* (p. 11).

38 Moles, "La cause …," 11.

39 Henri Van Lier, "Culture et industrie: Le Design," *Critique* 22:246 (November, 1967): 935–952. *Critique* is the famous journal founded by Georges Bataille in 1946 which, by the mid-sixties, was beginning to register the theoretical shifts and transformations of structuralism and poststructuralism.

40 Andries Van Onck, "Metadesign," *Edilizia moderna* 85 (1964): 52–57. Van Onck's essay was one of many Italian efforts at applying the lessons of semiotics to art, design, and architecture. A few years later, Umberto Eco would summarize much of this work in his *La struttura assente: Introduzione alla ricerca semiologica* (Milan: Bompiani, 1968). *La struttura assente* was never translated into English, rather rewritten and greatly expanded as: Umberto Eco, *A Theory of Semiotics* (Bloomington, IN: Indiana UP, 1976).

41 See Morris, *Writings*, 28–54.

42 Van Onck, "Metadesign," 52.

43 See Henri Van Lier, *Le nouvel âge* (Paris: Casterman, 1962). See also Busbea, *Topologies 18-22*.

44 Van Lier, "Culture et industrie," 939–942.

45 Ibid., 943–4.

46 Ibid., 944–5.

47 Ibid., 945. Van Lier here cites Simondon.

48 The collected documents and essays resulting from Ambasz's unrealized project have recently been published as *The Universitas Project: Solutions for a Post-Technological Society* (New York: Museum of Modern Art, 2006).

49 See Felicity Scott, *Architecture or Techno-utopia: Politics after Modernism* (Cambridge, MA: The MIT Press, 2007), 89–115.

50 Jean Baudrillard, "Design and Environment: Or, the Inflationary Curve of Political Economy" in *The Universitas Project*, 50–65; later published as "Design and Environment or How Political Economy Escalates into Cyberblitz," in For a Critique of the Political Economy of the Sign (all subsequent citations are to this version).

51 Baudrillard, "Design and Environment," 185.

52 Ibid., 188.

53 Ibid., 199–200.

54 Ibid., 201–202.

55 A more contemporary model that has some connection to metadesign is found in Ezio Manzini, "Prometheus of the Everyday: The Ecology of the Artificial and the Designer's Responsibility" in *Discovering Design*, Richard Buchanan and Victor Margolin, eds. (Chicago: University of Chicago Press, 1995), 219–243.

56 This phrase is Maldonado's, referring to Venturi and Scott-Brown's *Learning from Las Vegas: Tomás Maldonado, Design, Nature, and Revolution: Toward a Critical Ecology*, trans. by Mario Domandi (New York: Harper & Row, 1972), 60.

57 Fredric Jameson describes this paradoxical state of affairs most thoroughly in his *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham, NC: Duke University Press, 1991).