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Introduction

The articles in this issue explore the broader connections of design to aspects of our cultural, political, and social worlds. The opening article by Nicola Morelli, "Social Innovation and New Industrial Contexts," takes Victor Papanek's early alarm bell signaling designers' responsibilities for major social and environmental needs as a starting point for a new design agenda. He goes on to demonstrate how recent work in social studies has removed the distinction made by Papanek between market-based and non-market-based interventions. In search of an "operating paradigm" he draws upon Victor and Sylvia Margolin's contribution to design action for social responsibility and their articulation of six intervention steps. Morelli proposes that attention to these may help break the link between designers and product design that was possibly at the heart of the disabling approach that characterized the old industrial paradigm challenged by Papanek.

In "Showing a New World in 1942," Paul Stiff observes that modernity as a social project should be distinguished from the look and feel of modernism, the style. He goes on to discuss how some of the stylistic elements of modernism, such as the integration of typography and photography, may have seemed at odds with the Puffin Picture Books' use of an "English tradition of gentle illustration" but that the Puffin project did, however, have modern aims. Stiff describes how Puffin books projected the spirit of modernity to a near-bankrupt nation, sharing common and recurring themes of "learning to see" — how they affirmed that the civic world could be planned, designed, for the good of all citizens, and that a prerequisite for this was a public educated in visual judgment.

In "Anxiety, Wonder and Astonishment," Richard Buchanan ponders the similarities and differences between art and design and their sharing of an emergent concept of rhetoric. He observes that although art and design have a common engagement with the public and with social and cultural issues they employ rhetoric in different modes and in different ways for communication. Buchanan also emphasizes that wonder and astonishment are the beginning of work in art and design and we should take this as a starting point for a better understanding of how each of these important forms of cultural communication unfolds in concrete work.

In "The Studio: Photomechanical Reproduction and the Changing Status of Design" Gerry Beegan describes how, under the editorial direction of Gleeson White, The Studio set out to use reproduction technologies to distribute images that would make everyday and ephemeral artifacts worthy of equal consideration to those of fine art. Also how White tried to open up new areas of design practice as valid domains for the collector with The Studio's launch issue containing one of the first important articles on Posters: Charles Hiatt's "The Collecting of Posters: A New Field for Connoisseurs" with poster collecting becoming a rage in the 1890s and exhibitions, books, magazines, and dealers all being devoted to preserving these ephemeral advertisements.

In "Hiding Lack of Knowledge," Jorge Frascara offers a wise and direct reflection on design education. He draws a clear distinction between jobs and careers, between training and education, in order to set the bar higher for education by challenging its reliance on fuzzy terms such as "intuition" and "creativity." Frascara suggests that an inability to evolve greater precision in the use of such terms, or to articulate empirical knowledge verbally, leads to the acceptance of mediocrity in the university, and to the promotion of the designer as an illuminated magician in the practice. He suggests that, in design education, we suffer from a "master-apprentice" model where instructors who are extremely good at doing something, may be unable to articulate the principles guiding their actions. Overall, Frascara advocates a learning experience in which students and instructors are co-partners in fostering the acquisition of fundamental skills and independent judgment.

In "The Etymology of Design," Kostas Terzidis distinguishes design (conceptualization, imagination, and interpretation) from planning (realization, organization, and execution) to focus on design as the act of sparking an idea and forming a mental image—its role being to capture, conceive, and outline the main features of a plan and, so, always precede the planning stage. He further distinguishes Western design as a process of steps into the future—emphasizing novelty and innovation—from earlier Greek traditions in which design steps into the past, being linked indirectly to a loss of possession and a search into an oblivious state of memory.

In her review of "Modernism 1914–1939: Designing a New World" exhibited at the Victoria & Albert Museum, London, Harriet Atkinson underlines the fact that politics and design remain an unpalatable mix to Britain's establishment. In her review of Bruce Mau's Massive Change: The Future of Global Design exhibition at Chicago's Museum of Contemporary Art, Lauren Weinberg asks if Massive Change was aiding corporate "greenwashing" instead of exploring the latest ideas in industrial ecology; she also recognizes that the project itself should serve as a model for curators who want their exhibitions to have both local relevance and a global reach. Nico Macdonald's review of John Maeda's book of essays, Creative Code, celebrates the philosophy and works it contains and Deborah Sugg-Ryan's review of Christopher Reed's Bloomsbury Rooms: Modernism, Subculture, and Domesticity observes how issues of sexuality and the domestic sphere have been brought to center stage to demolish the "rough and masculine work of modernism."

> Bruce Brown Richard Buchanan Dennis Doordan Victor Margolin

Social Innovation and New Industrial Contexts: Can Designers "Industrialize" Socially Responsible Solutions?¹ Nicola Morelli

Footnotes begin on page 20.

Background

Almost thirty-five years ago, Victor Papanek pointed out the designers' responsibilities with respect to major social and environmental needs.² Papanek's call perhaps was the earliest alarm bell ringing for a change in the design profession. His call drew responses that ranged from blind adulation to cursory indifference, but had less impact in the mainstream industrial production, consumer culture, and on development policies. The polarization proposed by Papanek, between industrial production in developed countries and local production in developing countries, did not help design to become a critical element of development policies. This polarization, in fact, reflects the general view of design—associated with industrial production, and therefore not suitable for the implementation of development policies (although Papanek is clearly contrasting this view).³

For several years the majority of designers interpreted their social role as complementary to business strategies. This approach was very critical of any design initiative that was not based on the traditional market-driven approach. It is true that a small group of designers was proposing interesting, albeit isolated, design contributions for the solution of social or environmental problems,⁴ but the logic of economic rationalism seemed unbreakable, and it did not contribute to any exploration of the middle ground between pure market-based industrial logic and socially responsible design.

Yet much has happened in recent decades. Twenty years after Papanek, a study of sustainability promoted by the Dutch government⁵ offered a more substantial argument for change: a model using some projections of critical environmental factors suggested that a ninety-percent reduction of the global ecological impact (*factor 10*) is needed by 2040 to preserve a significant amount of resources for the next generation. The study sparked a debate about how to work towards that reduction,⁶ and it most likely was one of the references for setting the target of the Kyoto protocol. Furthermore, it issued a strong warning against expanding the Western development model to developing countries. The expansion of markets to new regions is based on the expansion of Western resource-intensive consumption patterns and lifestyles. From an environmental point of view, this implies catastrophic medium- and long- term consequences of a continued and increasing use of natural resources, while a socio-economic perspective suggests the uninteresting scenario of a global society flattened on the Western countries' consumption models. Many corporations, though, have preferred to pursue short-term and market- oriented strategies, and continue to ignore such warnings.

More recently, globalization added a new dimension to the debate started by Papanek. For several years, globalization was only a potential (and not necessarily desirable) future. In the last few years, the rise of a few sleeping economic giants, such as China, has focused the debate about globalization on more tangible questions, including the relocation of work activities and the emergence of evident social inequalities.

Huge differences in labor costs, together with a decrease in transport costs, encourage the relocation of industrial production to developing countries. For some years now, Western companies have been relocating manufacturing activities, and are now moving service activities as well.⁷ Anti-globalization movements have emphasized the social inequalities caused by the relocation of work,⁸ but such inequalities are not solely related to different geographical areas of the world. Even within Western countries, the high level of unemployment caused by this phenomenon is increasing the gulf between social classes, in addition to generating new or more serious social problems.

The risks suggested by the most pessimistic interpretation of Papanek's warning are being realized, and it is now time for the design profession, together with other professions, to address these problems. While scientists and technologists focus on the physical aspects of social metabolisms, with the aim of driving future developments away from environmental catastrophes, other social actors, including designers, are urged to work on the major social, cultural, political, and economical instances brought about by globalization.

By shifting the perspective of design action towards those problems, however, this paper will emphasize interesting elements of change which may lead to less-pessimistic scenarios. If mainstream industrial production is moving towards the most aggressive models of globalization, the operative strategies of global companies often are forced to pay more attention to local contexts. Competitive advantages for companies consist of generating innovation at the local level, and for individual people. Furthermore, it is based on a different interpretation of the relationship between industry and customers, according to which the customer is no longer a passive receiver (a *consumer*) of the output of industrial production, but rather an active co-producer of his/her own values.⁹ When shifting the perspective in this sense, new opportunities emerge which also are supported by existing methodological contributions from research projects and academic activities that may help designers play a central role in innovation processes with relevant social implications. This paper will explore this area and explain the entity of the ongoing shift towards new models, suggest new focuses and new methodologies for designers' activities, and finally reframe this contribution within the debate started by Papanek and recently revived by others.

Market-driven Models and Social Quality

Although the debate on globalization requires a wide perspective on global problems, a real understanding of the present situation is only possible when focusing on local instances. Market and production are becoming increasingly globalized, but new problems are emerging at the local level. In Western countries, for instance, the relocation of jobs is creating mass unemployment; but at the same time substantial immigration flows are changing the labor market and the socio-cultural patterns. Finally, unemployment is eroding the economic basis of the welfare systems, which also are challenged by the aging population and the emergence of new cultural patterns. The new situation is generating a demand for solutions of high social and cultural value. This is an opportunity that the mainstream of globalized production often is unable to seize.

In social studies, where these instances became clear quite a long time ago, the distinction suggested by Papanek between marketbased and non-market-based interventions on social processes has vanished. De Leonardis¹⁰ notices that market-driven initiatives are progressively expanding to cover social services, thus taking over the space made available by the reduction of public intervention in connection with social problems. However, the same author observes that the quality criteria on which market-driven initiatives are based do not always match the criteria related to social quality. The question that arises in this area is to what extent the traditional marketdriven approach can generate high-quality social services.

The traditional market-driven approach is based on the idea of *relieving* people of the many tasks of everyday life. This idea, which shaped the idea of *comfort*¹¹ and the social role of industrial production, has changed the most common private and public aspects of our life. Tasks that, in the past, we could handle by ourselves or within our social and family networks (our informal economy) are now performed by something (a product) or someone else (a service). These functions have shifted to the formal economy.¹² This relieving logic is leading to a progressive "passivization" of customers, i.e., given the problem (washing clothes rather than finding a boyfriend), a solution is offered for a price, thus relieving the customers of any physical work or responsibility. Customers, in this logic, represent problems expressed in the form of a set of needs. Often, their involvement is not required for the definition of a solution: very little participation and very few skills are needed. This logic, although comfortable, is very expensive; not only because it requires monetary transactions, but also because it compromises the customers' future capability of finding their own solutions to everyday problems. This logic is, in fact, *disabling* people,¹³ because it deprives them of the capability to solve problems in the future. What customers now save in physical effort or time will be paid in the future in terms of lost knowledge and skills. People will need more and more services and products to find solutions they could easily find by themselves.¹⁴ This logic sometimes undermines social relationships as it replaces personal links and social networks with technological products or services.

Therefore, the problem of shifting to a new logic has wider implications since it requires a new approach to social problems that empowers social and individual capabilities. The revision of the traditional market-driven logic must, in other words, be carried out parallel to the revision of the idea of social quality. De Leonardis defines social quality as the "measure of citizens' capability of participating to the social and economic life of their community in conditions that improve both their individual wealth and the conditions of their community."15 This definition emphasizes two aspects of social quality. The first aspect concerns the citizens' capability to be an active part of a process of value production: social quality increases when more citizens are able to participate and contribute to the creation of value in terms of the needs of the individual as well as the community. The second aspect concerns the citizens' capability to be an active part of the community: social quality increases when more citizens are able to participate and contribute to the development of their own community. Thus social quality implies the inclusion of those parts of the society (especially in developed countries) that otherwise are excluded by social life, and those communities (mainly in developing countries) whose consistency is undermined by poor socioeconomic conditions, which limit the individual's range of possible actions to a mere fight for subsistence.

Beyond Papanek

The debate opened by Papanek has been revived in recent years. At the "Common Ground" conference in 2002, Butenshon stressed the need for a design agenda that addresses these problems.¹⁶ This call was echoed at the same conference by Margolin,¹⁷ who suggested a new paradigm in which the role of designer is clarified. Margolin¹⁸ also provided some examples of designers' contributions and some methodological suggestions based on the experience of interventions in social work. On the basis of those contributions, I proposed a shift of designers' activities from products to systemic solutions. In order to support this shift, I suggested exploring the possible convergences between industrial logics and social instances.¹⁹ Following this line of argumentation, this paper aims at contributing to the debate about a new design agenda on two points:

- A. The emergence of new contextual conditions in industrial production and business companies, and
- B. The possible utilization of industrial logic in the solution of social problems (i.e., the "industrialization" of socially responsible solutions).

The first point relocates the design activity to a new industrial context in which the success of global industries is linked to their ability to solve local problems. The second issue is related to the ability of designers to contribute to the solution of local problems by using, and adequately adapting, models and criteria borrowed from industrial production.

Design in a New Industrial Context

Although a shift of paradigm is advocated by many of the authors, a nodal point that would support such a shift usually is not discussed: the link between designers and industries. When talking about this link, designers (and design schools) implicitly refer to a *client* for design services whose profile often corresponds to the traditional product manufacturer. Globalization has not changed this link: designers still think of their profession as related to the production of products. Globalization is causing a shift in the location for manufacturing, while technology is causing an increase in the flexibility of production processes and client management; but none of those phenomena are believed to bring about radical changes in the design profession.

If we cast our sight beyond this link, we would observe that the social and economic role of business companies is undergoing a radical change. The same advanced technological infrastructure that allows for the relocation and management of manufacturing activities also makes offerings from business companies more and more complex. In fact, globalization corresponds to a fragmentation of market segments in order to respond to a very sophisticated demand pattern, which sometimes is very localized and personalized. While trends towards globalization seem to reduce the distinctiveness of local and regional contexts, the local capability of generating contextrelated solutions is the source of differentiation for socio-economic contexts and competitive advantages for companies.²⁰ Local and contextual solutions are only possible if global companies become an active part in local networks of actors as well as institutions, companies, and final customers. Global businesses are challenged to develop their capability to differentiate the final offering (not just a product) beyond mass customization, towards the definition of individual segments. All these phenomena are signs of a change towards a different conception of the social role of business organizations. The

first, relevant shift is from the provision of products to the organization or support of local networks of stakeholders. A second shift is from the provision of finite solutions (products), which often *relieve* people of their own tasks and responsibilities, to the provision of semi-finished platforms, including products and services, that will *enable* people to create value according to their individual needs.²¹ In other words, business companies are becoming *organizers of value creations*, shifting their role from principal or sole actor in the production system to co-producer of value.²²

Norman suggests IKEA as a typical example of value organizer. The company provides part of the solution (the furniture, the exhibition, and the catalogue), and final customers provide the rest of the work for the production of the solution (collection of the furniture, transport, and assembly). Remarkably, the catalogue is a powerful tool for customers to learn how to design their own, ideal home.

This contextual condition would address the design agenda towards a different role for the designer: the new clients the designers will work for include local networks of small companies, local institutions (banks, libraries, hospitals, and local administrations), associations, cooperative groups, and individual customers. For these people, designers will no longer be required to produce finite solutions but rather scenarios, platforms, and operative strategies to enable them to co-produce their own solutions.

The revision of the link between designers and their clients therefore is based on two main instances:

- 1. The *industries* to which designers are talking have a different social role, which is not limited to the production of products, but is extended to the definition of solutions.
- 2. Designers should consider new referents for their activities including local institutions, service providers, associations, local groups, and even individuals.

Although the demand for new solutions becomes more and more pressing, the new actors have very little knowledge of the designers' skills (the usual image of the designer as a creative decorator is the dominant reference), and they rarely have considered the possibility that designers may contribute to addressing the new demand. The public perception of the design agency in society should be revised but, at the same time, industrial designers must learn a new language and acquire new operative tools in order to function in the new context.

Social Instances and Industrial Logics

The second relevant point in the new design agenda concerns the way designers can contribute to the new solutions. The most evident social problems usually are characterized by a sense of urgency and a complex plot of critical conditions. They often emerge in areas that are not covered by market-driven policies. Even public intervention often is unable to provide valid solutions to such problems. In this context, it seems quite difficult to talk about industrial design, especially when the design activity is framed in the traditional industrial context.

The industrial culture, however, has generated an *operative paradigm*²³ to operate production and consumption processes within the traditional industrial production paradigm. This culture can provide several interesting insights regarding how to produce solid and sustainable solutions, i.e., solutions that are not only addressing an individual need, but also are empowering individuals and other social actors (service providers, institutions, etc.) to generate new social quality.

As mentioned before, the solution to problems that cannot be addressed by global production must be solved by mobilizing individual knowledge and skills. Several examples can be given in which innovative solutions have been produced by the creative attitudes of local communities.²⁴ Although such solutions are intrinsically *placed* in their geographical and cultural context, the design discipline can help to distill indications about organizational structures, products, and services that can be used in different contexts to solve similar patterns of needs.

We are facing an epochal shift similar to the shift from handicraft to industrial production. At that time, the craftsman's work was the result of implicit knowledge and a sequence of actions and events which, albeit not written, were clearly defined in the craftsman's mind. The design process supporting industrialization consisted of disassembling the production process into simple components that then could be reassembled into a new production system. The craftsman's production was based on implicit knowledge, while industrial design made such knowledge explicit and clearly transmittable across time and space. Industrial manufacturers therefore were able to create an economy of scale, an optimization of resources, and a clear subdivision of roles. A similar process of industrialization applied to the complex system of interactions at the local level could capture and transform part of the tacit knowledge at the local level in order to activate this knowledge in a *platform* that can support a set of systemic solutions that address individual needs.

At this point, however, some critical differences emerge between the early industrialization process and the logic of coproduced individual solutions. Such solutions are not processes that can be totally described and controlled through codified sequences of actions. They are based on social interactions and a systemic nature. Any prescriptive description of such complex solutions easily could be demolished by the arbitrary or unplanned interference of individual behavior. The new solutions are based on people rather than machines. Furthermore, these people use different languages and cannot communicate by means of a transcendent and unequivocal language.

The *platforms* that designers should work on support and organize modular structures in which the competences and roles of different actors are specified. On the basis of such platforms, different combinations ("architectures") will be possible, and which will allow each single actor to generate an economy of scope. Designers are in a privileged position to work within this context because of their attitude towards planning interactions (objects, services, or events) and finding a balance between the technologically possible (an engineering approach) and the socially desirable (a user-oriented approach).

In Search of an "Operative Paradigm": Mapping Existing Contributions

The new contextual conditions require a new methodological approach on the basis of which a new *toolbox* for designers is defined for designers to operate in the new context. Arbnor and Bjerke²⁵ suggest that such a tool box is generated by importing methods from different professional areas ("methodical approach") and adapted into methods to be used for solutions in specific problem areas ("methodics"). The same authors define such a toolbox as an "operative paradigm."

Victor and Sylvia Margolin's contribution to design action for social responsibility goes in this direction, borrowing a procedure from social work practice that articulates intervention in six steps: engagement, assessment, planning, implementation, evaluation, and termination.²⁶ In order to be part of the designer's operative paradigm, Victor and Sylvia Margolin's proposal should be adapted through designerly methods in order to provide concrete methodics. Although the procedure they describe has a solid methodical foundation in social work studies, when translated into the design discipline, it may prove too rigid. Design processes usually are less linear, and have tended to alternate between phases of analysis and design from the very beginning of the process. Designers, for instance, are more and more interested in using the analytical methods used in ethnographic studies. This-results in a wide range of methods, from video ethnographic studies²⁷ to cultural probes.²⁸ All of these studies, however, use the analysis of target users as a quasi-design phase in which users often are directly or indirectly engaged to provide suggestions and contributions to the design process. In other words, a designerly approach often shifts from the logical space of problem definition to the solution space. The assessment and evaluation of scenarios or possible solutions is a way to work in the engagement and analysis phases.

Instead, the contributions in the following sections are examples of methodics derived from the designerly adaptation of methods from different disciplinary areas (e.g., from the social sciences to information science). Although these examples are not necessarily related to the solution of social problems, they may provide interesting methodological insights into this area.

Identifying Actors and Motivations

Local systems of innovation are defined by networks of actors directly or indirectly participating in the development of solutions. The identification of the actors is critical to explore the system of interests, skills, and (tacit and explicit) knowledge that can be mobilized. Social construction studies suggest mapping tools to identify such actors and to qualify their interaction with the system. Figure 1, for instance, analyzes the actors, services, products, and infrastructures interacting with a traveler during a train trip.

A design-oriented version of such maps consists of a series of models of the interaction between stakeholders on the basis of different innovative scenarios (Figure 2). The design contribution in this case consists of the adaptation of an analytical tool (the actors' map) into a modeling tool to analyze various potential scenarios.

Another very powerful tool for managing the cooperation within local innovation systems is the motivation matrix. By filling in such a matrix, the stakeholders have the opportunity to clarify their expectations about their own participation in the system, and about their cooperation with each of the other actors involved in a given initiative (Figure 3).







In the motivation matrix, each actor will define the expectations from his/her involvement in the system (diagonal cells) and from the other actors in the system (columns).²⁰

gives to	organic food manager	meal producer	appliances producer
organic food manager	. find and move to new prospectives to develop activities and services in the field of organic food	. organic brand identity differentiation . organic food expertise . selling channel	. organic brand identity . organic food market expertise
meal producer	. food processing expertise . catering management expertise	. find new areas of business as: - new contexts of use - better fit of special customer's needs	. food preparation expertise . dedicated recipes and processing
appliances producer	. competences in food processing	. new competences in food processing . set up criteria for designing new convenience food	. find new application fields for advanced cooking and preserving solutions

Design Orienting Scenarios (DOS)

DOS have been introduced in the EU-funded SusHouse project. They are a typical application of this designerly approach. The aim of DOS is to generate visions of the future that are subsequently orienting operative design decisions. Manzini and Jegou³¹ emphasize the difference between DOS and the more commonly used "policy orienting scenarios" (POS). According to the authors, POS tends to characterize the effects of various political decisions on a plurality of individual choices by using one or more global visions of society. DOS, on the other hand, tends to show the effects of single decisions of a group of actors on the focused system through one or more visions of this particular focused system. POS tends to be used by the public or private sector to assess and show possible effects of different policy alternatives. DOS are used by single social actors or a small group of actors to orient their own future and build appropriate business solutions.

DOS are aimed at generating a plurality of hypotheses involving local actors, possible users, and other stakeholders in the development of the scenarios. The use of a narrative structure supports communication between stakeholders with different cultural and technical backgrounds. A structured process based on brainstorming sessions with all of the actors and some well-defined evaluation criteria enables the stakeholders to generate a set of semi-finished solutions that can be further developed through the use of other methods (such as platforms or use cases).

Industrializing Innovation: Platform and Solutions Architecture

While the previous methods aim at catalyzing actors' knowledge and participation around systemic innovation at the local level (they can be used in Margolin's engagement phase of the design process), the following methods support the planning phase and are fundamental tools for the industrialization of innovative initiatives in the new context. When talking about industrialization in a context of social innovation, not all the characteristics of the industrial logic can be considered. Mass production, for instance, is far from the scope of social innovation. But, as mentioned in a previous section of this paper, the evolution of the concept of industrialization in the last decades has largely abandoned the focus on mass production; shifting the attention to other characteristics of the phenomenon of industrialization. Recent studies of industrial districts, for example, emphasize the strong link between the production of goods and the reproduction of the material and human assumptions from which the productive process itself springs. Beccattini, for instance, suggests that, in industrial districts, the production of goods "includes the social reproduction of the 'productive organism': a really complete productive process should co-produce, together with the goods, the values, the knowledge, the institutions, and the natural environment."32 This brings the debate about new forms of

industrialization very close to the issue of generating economically, socially, and environmentally sustainable social innovation. Many industrial districts, however, have grown on the basis of unplanned natural or social characteristics. This raises the question of whether similar cases of social innovations can be generated as a result of a planning activity.

Several research works³³ suggest that a planning activity to support social innovation could use industrial logics to generate organizational structures, to capture codified and (to a certain extent) tacit knowledge, and to generate economy of scope. This planning activity is far from being considered as prescriptive as the traditional planning in the old industrial context, but can solidly support the generation and reproduction of social innovation. The new solutions are not finished articles, but rather semi-finished platforms meant to organize material and immaterial flows, specify roles and competences, and possibly generate new knowledge that some actors (such as service providers or institutions) may add to their existing competences. The generation of a solution platform therefore is the basis for the design process.



Contemporary designers are very familiar with the concept of product platforms in product design. Industrial production often is structured by platforms which organize production systems around subsystems generating flexible configurations from which different products and families of products can be generated.³⁴

When used in the new context and for generating new coproduction systems, platform architectures can be observed from different perspectives. An overall view, for instance, may provide indications of the front and back office of a system (i.e., the parts of the system that are visible or invisible to the final customers), as well as describe flows of information, goods, and money (Figure 4).

A progressive focus on the system may specify flows and define some solution lines (Figure 5).

Finally, the platform can be analyzed in its subsystems to understand their articulation and combination (Who does what? For which result?) (Figure 6).

A Detailed View: User and Use Cases

The overall view provided by platform architectures corresponds to the general view of a product in product design. More detailed views are necessary to have a closer insight of how a social system will behave during the use phase. The analysis at this level should consider a wide range of possibilities generated by user-behaviors. Short stories about possible use modes can be generated, which can be described step by step, as in a storyboard. Information technology introduced a similar procedure to define the requirements for new software. Information system architects generate *use cases*³⁶; i.e., a description of a user's behavior. Information architects use plain language and basic illustrations, while designers who have borrowed the same procedure to work out indications about movement in space and time, context, and interaction used more figurative techniques³⁷ to generate a more understandable representation language.

The behavior of the system can be described for each photogram of the use case. This allows for a detailed structure of the system components and the actor's role.

Concluding Remarks

The contribution offered by this paper to the redefinition of the design agenda can be synthesized in three points:

- Why should designers look at different perspectives focusing on social problems;
- 2. What are designers supposed to do in the new system; and
- 3. How are designers supposed to work in the new context?

In order to place this contribution in the debate started by Papanek, this paper should be able to address the criteria proposed by Victor and Sylvia Margolin³⁸ for the revision of such an agenda. More



Figure 5 (above)

Solution platform for the same system as Figure 4. Here material and immaterial flows are specified in relation to different sets of solutions.

Figure 6 (right)

Solution platform: analysis by subsystems.

Figure 7 (below)

User/use case for the same system as in Figure 4. The user's behavior is described in the upper part, while the lower part describes the corresponding behavior of the different components of the system.



		GETTING INFO	ORDERING	CONFIRMATION & PAYMENT	DELIVERY	COOKING INFO
		a a a a a a a a a a a a a a a a a a a		f		
Use case	User case	b	e	g		
Phone - A secretary working for De Purpose: Taking and giving informa	elightAssist ation about/to Delight Assist		 Using a phone net and a structured service that can handle ordring. 			
Post order - By advertising agency Purpose: Easy to overview and ord database. Marketing - By advertising agency Purpose: Giving info about prices, p	y der, and registrates the order in the y oroducts, selling values etc	a A distributing system and info material to a brochure b Astructure and info	d A order blanket, which is easy to use and to put in a database	f A system registrating orders and answers with a send confirmation bill G Online confirmation of payment.		
.ogistics - Transport of product between user & system Purpose: Personal apperance of the system for the user, delivery of orders.		material to homepage.	e An online ordering system.		h Transport system, invovling cars, deliveries, and public roads.	
Foodbox - By a producent of foodboxes Purpose: Contain and represent Delight Assist products and values					h Packing system that keeps the product at it's best.	Packing system that keeps and show the product at it's best.
Recipes for food packages - By advertising agency Purpose: Indication of possibilities for preparation of ingredients and now to effectuate the the recipe. Food product - DelightAssist & Grossist						i A system that creates instructions for preparation and suggests variations.
Purpose:To give the user quality, flexible and personal minded products.						

specifically, Margolin proposes that such revision addresses the following criteria:

- A. Public and agency perceptions of designers
- B. The economics of social interventions
- C. The value of design in improving the lives of underserved populations
- D. A taxonomy of new product typologies
- E. The economics of manufacturing socially responsible products, and
- F. The way that such products and services are received by populations in need.

Public Agency and Perception of Designers

The role and perception of designers is changing in relation to the radical shift in the social role of industrial companies. The new condition implies a genetic change in the role of the industrial system and, consequently, a genetic mutation of designers' role and activity. Both companies and designers will no longer be proponents of a set of products and services to passive users, but rather the facilitators of a system of value co-production. Therefore, they will loose the central role they had in the previous contextual condition, and become catalyses in a networked system. This requires that the public perception of designers' role is changed, and that designers learn new methods and languages to operate in the new context. This paper offers some insight about such new design competences.

The Economics of Social Intervention

The new perspective for social intervention is based on social participation. Social actors who were passive receivers of services in the past will become active co-producers and co-designers. Even if the economics of this new situation can only be evaluated case by case, the intrinsic characteristics of enabling solutions imply that actors are mobilizing hidden or sleeping skills, competences, and capabilities, which, once activated, can generate new solutions. Furthermore, an approach that borrows methodological criteria from industrial production, as suggested in this paper, could generate the conditions for a better use of resources within the local system, and generate new knowledge and economy of scope. Finally, it also is clear from the crisis of welfare systems in the most industrialized countries that the traditional approach to social intervention is economically unsustainable, and that new solutions must be found to address this structural crisis. This approach could open a window to a territory ripe for exploration in order to address the challenges of welfare systems.

The Value of Design in Improving the Lives of Underserved Populations

Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime. (Chinese proverb)

The traditional disabling (and product-centered) approach offers very few opportunities to improve the living conditions of underserved populations. In the traditional industrial context, designers were working on gaps or deficiencies in social groups. When the result of the designer's work was a product, the efficacy of the solution depended on the product's lifespan. In the new context, designers rather should work on the customers' (residual or full) capabilities, and consider customers as a resource rather than a problem. In this sense, design also becomes a facilitating tool for suggesting to people ways of satisfying their own needs, thus providing solutions for a lifetime.

A Taxonomy of New Product Typologies

The new approach should break the link between designers and product design. This link is possibly at the heart of the disabling approach that characterized the old industrial paradigm. By breaking this link, designers should open their competence to the definition of solution platforms, which are a support to co-production, rather than a range or typology of finished products.

The Economics of Manufacturing Socially Responsible Products

The argumentation in this paper shifts the focus from product manufacturing to co-production of solutions. Therefore, it cannot shed any new light on this point.

The Way that New Products and Services Are Received by Populations in Need

Once again, the new approach breaks the barrier between the producer and the user of a product or service. Rather, it changes the role of the customers from *consumers* (i.e., those who *consume* the value accumulated during the production chain, from manufacturing to final sale) to co-producers. Customers are no longer actors external to the value chain, but instead part of a value-creation constellation.

The time has come to review Papanek's recommendations from a new perspective, which reduces the distance between marketbased and socially oriented initiative. The challenges proposed by global issues, such as sustainability and the relocation of jobs, bring about radical changes in industrial production, as well as in public institutions and welfare systems. Hopefully, this paper has demonstrated that, if the question of social sustainability is framed in this context, new opportunities emerge that could propel us towards new territories to explore with a design-oriented approach.

- This paper is a revised version of the paper presented for the Design Research Society International Conference, Wonderground, Lisbon, Nov. 2006.
- 2 Victor J. Papanek, *Design for the Real World: Human Ecology and Social Change*, 2nd, completely rev. ed. (London: Thames and Hudson, 1985).
- 3 In a recent contribution, Victor Margolin, "Design for Development: Towards a History" (paper presented at the WonderGround—2006 Design Research Society International Conference, Lisbon, Nov. 1-4, 2006) notes that this logic explains the lack of interest of development organizations in design. Margolin, instead, emphasizes a different and less known path in the history of design for development; from the Ahmedabad Declaration in 1977 to Gui Bonsiepe's call for a more complex involvement of designers in different stages of industrial development.
- An overview of such contributions is 4 proposed by Victor Margolin (Margolin, "Design for a Sustainable World" in The Politics of the Artificial: Essays on Design and Design Studies, Victor Margolin, ed. (Chicago and London: The University of Chicago Press, 2002). Another relevant contribution in this sense came from Ezio Manzini (Ezio Manzini, Artefatti: Verso Una Nuova Ecologia Dell'ambiente Artificiale (Milano: Edizioni DA, 1990) and Ezio Manzini, "Prometeus of the Everyday: The Ecology of the Artificial and the Designer's Responsibility" in Discovering Design, Exploration in Design Studies, Richard Buchanan and Victor Margolin, eds. (Chicago: University of Chicago Press, 1995). Manzini considered environmental problems as a question concerning the ecology of the artificial word. With this proposal, Manzini was in fact overcoming Papanek's approach by proposing an approach that, instead of contrasting industrial production, proposed a change of its intrinsic logic.
- 5 R. A. P. M. Weterings and J. B. Opschoor, "The Ecocapacity as a Challenge to Technological Development" (Advisory Council for Research on Nature and Environment, Rijswijk, The Netherlands, 1992).

- 6 Leo Jansen, "Towards a Sustainable Future, En Route with Technology" in The Environment: Towards a Sustainable Future, edited by the Dutch Committee for Long-term Environmental Policy (Dordrecht, Boston, London: Kuwler Academic Publisher, 1994); Ezio Manzini, "Designing Sustainability Leapfrog: Anticipations of a Possible Future," Domus 789 (1997); and Ernst Von Weizäcker, Amory B. Lovins, L. Hunter Lovins, and Club of Rome, --- Factor Four: Doubling Wealth—Halving Resource Use: A New Report to the Club of Rome (St. Leondards, N.S.W., Australia: Allen & Unwin, 1997).
- 7 So far, designers in Western countries have rarely been affected by this phenomenon. Because of its strategic role, design services have not migrated yet; but the growth of the new market is likely to require local design expertise, which will cause a massive relocation of design centers to developing countries.
- 8 The book *No Logo* by Naomi Klein was possibly among the most significant explorations of the landscape of social injustice and human rights violation due to an unscrupulous use of outsourcing agreements when moving production from Western countries to developing countries. Naomi Klein, *No Logo: Taking Aim at the Brand Bullies* (New York: Picador, 1999).
- 9 This perspective is suggested by the works of Richard Norman and Rafael Ramirez. See Richard Normann, *Reframing Business: When the Map Changes the Landscape* (Chichester, UK: Wiley, 2001); Richard Normann and Rafael Ramirez, *Desiging Interactive Strategy: From Value Chain to Value Constellation*, 1998 Ed. (New York: John Wiley and Sons, 1994); and Rafael Ramirez, "Value Co-Production: Intellectual Origins and Implications for Practice and Research," *Strategic Management Journal* 20 (1999).
- Ota De Leonardis, In Un Diverso Welfare. Sogni e Incubi, Elementi (Milano: Feltrinelli, 1998).
- Ezio Manzini, "Enabling Solutions for Creative Communities," *Designmatters* 10 (2005): 64–68.

- 12 Richard Normann, Service Management: Strategy and Leadership in Service Business, 3rd Ed. (Chichester, UK and New York: Wiley, 2000).
- 13 Ezio Manzini, "Enabling Solutions for Creative Communities."
- 14 In his Development as Freedom (Amartya Kumar Sen, Development as Freedom, 1st. Ed. (New York: Knopf, 1999), Amartya Sen argues that capability deprivation is more important as a criterion of social disadvantage than is the lowness of income, since income is only instrumentally important and its derivative value is contingent on many social and economic circumstances. Even if Sen's perspective is focused on more radical forms of capability deprivations, his approach-based on the consideration of human beings as active, rather than passive, receivers-provides an interesting point of view for revising the approach to social problems also within the most industrialized countries.
- 15 Ota De Leonardis, *In Un Diverso Welfare.* Sogni E Incubi.
- 16 Peter Butenschon, "Worlds Apart: An International Agenda for Design" (paper presented at the Common Ground, London, September 5–7, 2002).
- 17 Victor Margolin and Sylvia Margolin, "A 'Social Model' of Design: Issues of Practice and Research." The paper was published in *Design Issues* 18:4 (Autumn 2002): 24–30.
- 18 Victor Margolin, *The Politics of the Artificial: Essays on Design and Design Studies*—(Chicago and London: The University of Chicago Press, 2002).
- 19 Nicola Morelli, "Design for Social Responsibility and Market Oriented Design: Convergences and Divergences" (paper presented at Techné: The Design Wisdom, Barcelona, April 28–30, 2003).
- 20 Giacomo Becattini, *Industrial Districts* (Cheltenham, UK: Edward Elgar, 2004).

- 21 This condition possibly contradicts Margolin's statement that "While the world's design needs are evident, reinventing the design profession is not." (Victor Margolin and Sylvia Margolin, "A 'Social Model' of Design: Issues of Practice and Research" (paper presented at the Common Ground, London, September 5–7, 2002). When demand patterns come to individual segments, in fact, the world's design needs become less evident, but the designer possibly will have a different role in addressing them.
- 22 Richard Normann, *Reframing Business: When the Map Changes the Landscape.*
- 23 The term "operative paradigm" was introduced by Ingeman Arbnor and Bjørn Bjerke. Ingeman Arbnor and Bjørn Bjerke, Methodology for Creating Businesss Knowledge, 2nd Ed. (Thousand Oaks, CA and London: Sage, 1997). The term is clarified in the next section of this paper.
- 24 A recent EU-funded project called EMUDE collected a series of cases of social innovation generated by a bottom-up approach to social problems. Creative communities have been spotted that, instead of waiting for government support, have solved some social problems (e.g., child care, isolation of elderly people, and problems in socially disadvantages areas of big cities) by using their own social network and mobilizing their own, individual skills. The collection of cases has been published on www.sustainable-everyday.org.
- 25 Ingeman Arbnor and Bjørn Bjerke, Methodology for Creating Businesss Knowledge.
- 26 Victor and Sylvia Margolin, "A 'Social Model' of Design: Issues of Practice and Research."
- 27 Jacob Buur, Thomas Binder, and Eva Brandt, "Taking Video Beyond 'Hard Data' In User-Centred Design." (paper presented at the Participatory Design Conference [PDC 2000]) and J. Buur and Astrid Soendergaard, "Video Card Game: An Augmented Environment for User-Centred Design Discussions" (paper presented at the Designing Augmented Reality Environments [DARE 2000], Helsingør, 2000).

- 28 Bill Gaver, Tony Dunne, and Elena Pacenti, "Design: Cultural Probes," Interaction 6:1 (1999).
- 29 Dennis S. Jepsen, Max V. Nielsen, Claus Rantzau, Andreas H. and Martin S. Thomsen, "My Way: Project and Process Report for the 7. Semester ID" (Aalborg: Aalborg University, 2003).
- 30 Solution Oriented Partnership: How to Design Industrialised Sustainable Solutions, Ezio Manzini, Luisa Collina, and Stephen Evans, eds. (Cranfield, UK: Cranfield University European Commission GROWTH Programme, 2004).
- 31 Ezio Manzini and Francois Jegou, "The Construction of Design Orienting Scenarios. Final Report. Sushouse Project" (Delft, The Netherlands: Faculty of Technology, Policy and Management, Delft University of Technology, 2000), 36.
- 32 Becattini, Industrial Districts.
- 33 The most relevant research works in this case are EU-funded projects such as HiCS (Manzini, Collina, and Evans, Solution-Oriented Partnership: How to Design Industrialised Sustainable Solutions) and EMUDE.
- Olivier L. de Weck, Eun Suk Suh, and David Chang, "Product Family and Platform Portfolio Optimization" (paper presented at the DETC'03 2003 ASME Design Engineering Technical Conferences, Chicago, Sept. 2–6, 2003) and Karl T. Ulrich and Steven D. Eppinger, *Product Design and Development*, 2nd Ed. (New York: McGraw-Hill, 2000).
- 35 Source Sinne Nilsen, Maja Schou Ohana, Sinja C. Svarrer, Nanna Gram Thomassen, and Jens Vestergaard, "Delight Assist. Project and Process Report 7. Semester ID," (Aalborg, DK: School of Architecture and Design, Aalborg University, 2006).
- 36 Daryl Kulak and Eamonn Guiney, Use Cases: Requirements in Context (New York, Boston, and London: ACM Press, Addison-Wesley, 2000) and Dean Leffingwell and Don Widrig, Managing Software Requirements: A Unified Approach, The Addison-Wesley Object Technology Series (Reading, MA: Addison-Wesley, 2000).

- Nicola Morelli, "Designing Product/ 37 Service Systems: A Methodological Exploration," Design Issues 18:3 (2002); Nicola Morelli, "Product-Service Systems, a Perspective Shift for Designers: A Case Study: The Design of a Telecentre," Design Studies 24 (2003); and Nicola Morelli, "The System around the Product: Methodologies and Experiences Focusing on Material and Immaterial Aspects in Design Solutions" (paper presented at the Futureground **Design Research Society International** Conference, Melbourne, Nov. 17-21, 2004).
- 38 Victor and Sylvia Margolin, "A 'Social Model' of Design: Issues of Practice and Research."

Showing a New World in 1942: The Gentle Modernity of Puffin Picture Books Paul Stiff

In Evelyn Waugh's first novel, Decline and Fall, published in 1928, the society hostess and dope fiend Margot Beste-Chetwynde demolishes King's Thursday, "the finest piece of domestic Tudor in England" and in its place commissions "something clean and square" from her architect Otto Friedrich Silenus, a man who had "first attracted her attention with the rejected design for a chewing-gum factory which had been reproduced in a progressive Hungarian quarterly." "The problem of architecture as I see it," Silenus told a journalist visiting the King's Thursday site to report on the progress of his surprising creation of ferro-concrete and aluminum, "is the problem of all art-the elimination of the human element from the consideration of form. The only perfect building must be the factory, because that is built to house machines not men." One of Waugh's characters then speaks enthusiastically of this caricatured husk of modernism: "'I saw some of Otto Silenus's work at Munich,' said Potts. 'I think that he's a man worth watching. He was in Moscow at one time, and in the Bauhaus at Dessau. He can't be more than twenty-five now.""

Waugh was certainly up to date: the Bauhaus had moved from Weimar to Dessau in 1926, just two years before his book's publication. And although he exhibits an extreme species of the well-known British antipathy to modernism, he cannot be accused of the ignorance which some radical British designers attributed to their contemporaries in later generations. Their testimony is in striking contrast to Waugh's early intervention in the politics of design. Anthony Froshaug, writing of his studentship in the London County Council's Central School of Arts and Crafts between 1937 and '39, recalled "only one person-a student-who had heard of the Bauhaus."1 This was a recurring motif: he already had written that "In 1944 ... few had heard the magic 'bauhaus' word, of transient Gropius and Moholy."² And Froshaug's close friend and collaborator, Norman Potter, writing almost a generation later, was equally clear that "Very few people had heard of the Bauhaus, even. (It was amazing to see thousands of them, including many teachers, boning up on what was obviously a new experience in the Royal Academy exhibition of 1968.)"3 Perhaps that benighted generation had never read Evelyn Waugh, or even—as we shall see—noticed popular children's books of their time.

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- Froshaug's words, of April 1977, appear in his appreciation of "Jesse Collins" in Anthony Froshaug: Documents of a Life, Robin Kinross, ed. (London: Hyphen Press, 2000), 99–103.
- 2 In Froshaug's fourth review (1967) of J. Tschichold's Asymmetric Typography, which was first published in Anthony Froshaug: Typography and Texts, Robin Kinross, ed. (London: Hyphen Press, 2000), 194–5.
- 3 Norman Potter, Models and Constructs (London: Hyphen Press, 1990), 67.

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As familiar as stock British horror at the modernist canon is the enthusiasts' observation that it took a short sharp continental shock to breathe life into insular architecture and design between the wars. In the mid-1930s, Serge Chermayeff, Eric Mendelsohn, Marcel Breuer, Walter Gropius, and László Moholy-Nagy all passed through London; the last three even lived briefly in the same apartment block at Lawn Road, Hampstead. By contrast with these émigrés, British by which usually is meant English—designers were slow, naïve, at best pragmatic, but still reflexively doffing their hats to authority, and all unnerved by the seriousness, the sheer bloody toughness, of the European moderns. Although a few stayed—including Berthold Lubetkin and Ernö Goldfinger—before long, most of them moved on to better prospects in America or hopes in Palestine.

The cost of their loss to British design may have been considerable; or it may be simply not measurable. One émigré who stayed, historian Nikolaus Pevsner, tried a measure in his 1937 report that: "When I say that 90 per cent of British industrial art is devoid of any aesthetic merit, I am not exaggerating ... the aim of any campaign for better design can only be to reduce the percentage of objectionable goods, from 90 to 80 or perhaps seventy-five per cent."⁴

So far, so conventional. In Britain, this is an often-told story. In what follows I will show, against this familiar tale, that modern design was not at all an arcane topic available only to a contemporary elite connoisseurship. I also will suggest that modernity as a social project should be distinguished from the look and feel of modernism, the style. I end with a few words on the virtue of gentleness in design.

The war did not halt book publishing: despite paper rationing, imposed in March 1940, and the limits on formats imposed by their War Economy Agreement of 1942, publishers stretched to meet an unprecedented demand for stuff to read. The newcomer Penguin Books was more fortunate than most publishers in its large allocation of paper, based upon its sales of nine million books in the



The long-anticipated war came in September 1939. In its third full year, 1942, architecture itself became a target of the airborne attrition against the life of cities: in March, Air Marshal "Bomber" Harris's experimental fire raid on Lübeck—half of that fine Hansa city was destroyed—brought quick springtime retaliation in the so-called "Baedeker raids" on Exeter, Bath, Norwich, York, and Canterbury, small cities with historic centers of architectural merit. That bleak year ended with two lights of optimism. Churchill's "end of the beginning speech" in November summarized hope on the war front. At home, Sir William Beveridge's "Report on Social Insurance and Allied Services," proposing a universal scheme of social security and health care, was published on December 1,³ laying the foundation for what would be called the "welfare state."

⁴ Nikolas Pevsner, An Inquiry into Industrial Art in England (Cambridge: Cambridge University Press, 1937).

⁵ The Beveridge report and its shorter summary version together sold 635,000 copies.

year leading up to war. So during 1942, ten new titles appeared in its recently launched series of illustrated factual books for children, Puffin Picture Books. They were envisaged for readers aged from seven to fourteen, and offered an encyclopedic range of topics—the War, natural history, human social life, science and technology, transport, and crafts.

At first glance, nothing in the appearance of these Puffin Picture Books suggested modernism in design. On the contrary, their look epitomized the handmade, the rough provisionality of brush, pen, and chalk, and what has been called "the English tradition of gentle illustration."⁶

This Puffin project did, however, have modern aims. Its founder and editor, Noel Carrington, had identified a need and so a potential market for "simply written and well illustrated books in which children could find for themselves what they wanted to know; to have them in their nursery or at bedtime, and the books so cheap that they could be easily replaced."⁷ Allen Lane, Penguin's founder and boss, to whom Carrington proposed the project early in 1939, seized the chance: "If you can show me that you can produce such books in colour and which can be sold at sixpence, it's on." The outbreak of war only encouraged Lane, who reckoned that "evacuated children are going to need books more than ever."⁹ The first Puffin Picture Books came out in 1940 at sixpence, the price at which Penguins had first appeared five years earlier to justify Allen Lane's hope that books would be bought "as easily and casually as a packet of cigarettes."⁹

In the plan for Puffin Picture Books can be heard an echo of Jan Tschichold's words of 1930, summarizing the aims of the new movement in typographic design which had grown up in central and northern Europe during the previous decade: "Standardization, instead of individualization. Cheap books, instead of private-press editions. Active literature, instead of passive leather bindings."10 Color printing was expensive, so the venture depended on a very low unit cost of production. Authors received a royalty payment of just one farthing (a quarter-penny, the smallest denomination of currency) for each book sold. Puffins were priced in pennies, not guineas, and their production was driven by the imaginative use of an improving technology. At first, the author-artists worked by autolithography, drawing in reverse directly onto large zinc printing plates, one plate for each color, a tricky and laborious task of color separation and registration. Puffin authors Margaret and Alexander Potter described the task which lay behind the innocent rubric-"Drawn direct to the plate by the author"—which appeared as part of the colophon of many early Puffin Picture Books:

The zinc plate reached the illustrator as one piece 38 by 33 [inches], a large area to stretch across: for each colour there would be a separate plate, usually blue, red, green and

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- 6 Robin Kinross, "Emigré Graphic Designers: Their Reception and Contribution" in Unjustified Texts: Perspectives on Typography (London: Hyphen Press, 2002), 305.
- 7 Carrington had been impressed by the French Pere Castor children's books and by a series of color lithographed educational books for children produced in the Soviet Union, shown to him by the artist Pearl Binder, a founder of the Artists International Association.
- 8 Allen Lane's words appear in Ian Rogerson's Noel Carrington and His Puffin Picture Books (exhibition catalogue) (Manchester: Manchester Polytechnic Library, 1992), xi-xii.
- 9 Six pence was roughly equivalent to £2.85 (U.S. \$5.50) at today's prices or, according to Geoffrey Grigson in 1937, the price of a packet of ten Gold Flake.
- 10 Jan Tschichold, "Was ist und was will die neue Typografie?" in *Eine Stunde Druckgestaltung* (Stuttgart: Wedekind, 1930), 7 (published in English in modified form as "New Life in Print," *Commercial Art* 9:49 (July 1930): 2–20.

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- 11 Cited by Jeremy Aynsley, "Fifty Years of Penguin Design" in *Fifty Penguin Years* (Harmondsworth, UK: Penguin, 1985), 111 n.
- 12 Cited in Rogerson, Noel Carrington and his Puffin Picture Books, xii.
- 13 In News Review, January 9, 1941; cited by Linda Lloyd Jones, "Fifty Years of Penguin Books" in Fifty Penguin Years, 40.
- 14 Among the first fifteen titles, starting in 1940, were: War on Land, War at Sea, War in the Air, On the Farm, A Book of Insects. Flowers of the Field and Hedgerow, Animals of the Countryside, Great Deeds of the War Pond and River Life, A Book of Trains, A Book of Ships, A Book of Rigmaroles or Jingle Rhymes, and Hamish: The Story of a Shetland Pony. The twenty-third in the series was USA: The Story of America. Gordon Russell, later to be chair of the Council of Industrial Design, contributed the 50th volume, The Story of Furniture. Of the one hundred and twenty projected titles, a handful were never were published. The series came to an end in 1965.

yellow, possibly grey for tone. Occasionally the illustrator would follow a poster-colour dummy. Also a pattern sheet from the printer would help the illustrator choose the particular tone and strength of lithographic colour most suitable for illustration. The plates, completely lithochalked, were then returned for printing and in usual fashion attached to an offset machine.¹¹

In 1946, this work was considerably eased by the innovation of transparent, grained plastic sheets, which allowed illustrators to see separation and registration, and which could be used as film positives. Later, when Lane and Carrington were more confident about both the unit costs of manufacture and likely sales, photolithography was more often used. Each book, including its covers, was made from one sheet of paper, printed color on one side, black on the other. When folded to make thirty-two pages, and imposed such that color and black-and-white spreads alternated, the landscape-oriented gathering measured the same depth as a Penguin but double its width; thus warehousing and packing bookshop orders were simplified. Each double-page opening allowed the artist a spread of eighteen inches (Figure 1). Carrington's recollection is that "print runs for each title were in the region of twenty thousand or more."12 This seems too modest and, already in 1941, he had declared greater ambitions: "I count on the series having a big sale here and a big sale in America. By big, I mean millions, or fractions of a million, rather than thousands."13

Among these new Puffin Picture Books of 1942,¹⁴ the author and illustrator of the sixteenth in the series, *Village and Town*, was Stanley Roy Badmin (1906–89), now remembered, if at all, as an

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Figure 1

Openings from three Puffin Picture Books: A Book of Insects (no. 5, 1941); A Book of Trains (no. 10, 1941), and Building a House (no. 60, 1949).



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S. R. Badmin's *Village & Town* front cover (Puffin Picture Book No. 16, 1942). The separations for the full-color illustration, like all the others in the book, were made by the author, by hand, in reverse, and "blind" (see p. 24–25 for explanation).

- 15 Chris Beetles, S. R. Badmin and the English Landscape (London: Collins, 1985).
- 16 This kind of innovation still is almost completely ignored in public discussion of printed text design. The best introduction to the subject is restricted to an unpublished Ph.D. thesis: Robert Waller, "The Typographic Contribution to Language: Towards a Model of Typographic Genres and Their Underlying Structures" (University of Reading, 1987).

illustrator of trees, a ruralist, and visualizer of an idealized English country life and landscape.¹⁵ The surface style of modernism was absent from the interior of Badmin's as from all Puffin Picture Books: no asymmetry, no sans-serif typefaces, no bold, no heavy rules, no red and black, and above all no photographs. Instead, handmade pictures and unreformed trade typesetting (Figure 2).

The book's content and underlying form tell a different story. Badmin's history of settlement in Britain is presented verbally and visually. Pictures are on the same page as the text, not separated as "plates." The pictures are not enclosed within rectangular boundaries. The argument is developed through topics—"The first houses," "What they built with," "The new style," and so on—assigned a page each, more or less. In this sense, the book plan is radical: design derives from the artifact rather than being led by conventional norms of serial text composition. In simple terms, topic boundaries coincide with page breaks and, in other titles in the series, with double-page spreads.¹⁶ The plan is thus a precursor of today's popular illustrated encyclopedias. I think that this is one of Noel Carrington's innovations, and one possibly not fully appreciated even at high levels within Penguin Books. Here is Margaret Clark, working in Penguin's

production department, writing to a Puffin author-illustrator, Paxton Chadwick, in April 1957: "Mr. Schmoller suggests that it would be best to get the text written first, so that you would know exactly how much space will be available for your drawings." Chadwick replied within a few days that "this is the type of subject and book where the text and drawings must be planned as one." Later that year, he reinforced the point: "This may seem a curious way of working, but I find it works better to do the text and drawings alongside each other as they are so closely inter-related."¹⁷ Hans Schmoller, Penguin's typographer and later production director, was used to separate plates sections; he was not conversant with the design of what came to be called integrated books.

Badmin's pictures document a civilization—the growth of its built environment, its regional and local building materials, the village church, the cathedral ("magnificent feats of engineering in stone"), and the townscape of limestone country. His words tell the other side; a tale of barbarism. To be sure, his verbal text, fewer than 4,000 words, is not all social criticism. But of London's fine eighteenth-century squares in Bloomsbury and Islington: "The bad thing about these houses is the quarters for the servants. They worked in the basements and slept in the attics, and they had many stairs to run up and down." Of "The Other England," the nineteenth-century industrial towns, their legacy of squalor: "All the owners and builders thought of was how to manufacture things more cheaply and how to make more profit.... In England we still have too many of these houses and towns left. We now call them slums." Next, the swinish rich: "The men who made money in trade or manufacture did not live in these ugly cities. They built themselves houses outside.... It was the age of fancy dress building. England is full of fancy dress houses built in the last hundred years." The garden suburbs were an ineffectual response to these ills: "The trouble is they grow further and further from the centre where the offices are, so that men and women spend several hours a day travelling to and from work. Is that a good idea?"

Stanley Badmin describes solutions to these social problems new forms of building for the world after war—in his last five pages. They merit some detailed description (Figure 3).

Page 28 is given to "A new material," reinforced concrete. Because of its strength, "new ways of building are possible.... Homes can be balanced on... pillars, so raising them into the light and air. ... In building in this new material the architect and builder need the help of a third person, the engineer. They consider carefully the use to which the building they are planning is to be put." ¹⁸ Badmin illustrates the penguin pool not at Regent's Park, but at Dudley Zoo, 1937–38, both designed by the Tecton partnership, the principal of which was Berthold Lubetkin: "Here is the kind of building suit-

- 17 The three letters are dated, respectively, April 12, 1957; April 15, 1957; and October 19, 1957. They are given by Steve Hare in *The Life History of "Life Histories"* (Penguin Collectors' Society, 1995), 8.
- 18 On the penguin pool job at Regents' Park, Lubetkin had collaborated with two structural engineers who would revitalize their discipline: the Dane, Ove Arup, and Felix Samuely, a recent arrival from Berlin employed by the site contractor.

27

Village & Town "A New Material," p. 28. One of two penguin pools designed in concrete by the Tecton partnership. This one was built in 1937 for Dudley Zoo in the English Midlands. Badmin's text reads: "The curious shapes representing ice floes could only be constructed in reinforced concrete. How comfortably the grown-up leans on the top parapet, while the child easily looks over the lower wall."

19 Sir Peter Chalmers Mitchell, biologist, anarchist, and secretary of the London Zoological Society, had commissioned Lubetkin to design the London penguin pool. It opened in 1933. Two years later, after a meeting devoted mainly to finding a name for a new publishing venture, the pool was visited by Edward Young, hot from that meeting with sketchbook in hand. Chalmers Mitchell later would become an advisor to Allen Lane for the Pelican series. See Jeremy Lewis, *Penguin Special: The Life and Times of Allen Lane* (London: Penguin, 2005), 91 and 119.



able for penguins in a zoo. The curious shapes representing ice floes could only be constructed in reinforced concrete. How comfortably the grown-up leans on the top parapet while the child easily looks over the lower wall."¹⁹

On the next page, "Concrete houses." Tall blocks of flats can prevent urban sprawl: "The best ones have been built to look beautiful and to be convenient to live in ... there is plenty of room for gardens and trees. The service lifts, central heating, communal restaurant, nursery, club-rooms, and sports facilities in them make daily life pleasanter and easier." (Figure 4)

Badmin pictures the city on a hill; a high-density block which probably is Highpoint 1 (London N6) of 1933–5, another Tecton-Lubetkin project. This was built for Sigmund Gestetner (head of the office equipment firm), but its apartments, on seven stories, in a double-cross plan, were never used by his employees as originally planned. Instead, it became, in the words of architectural historian Henry Russell Hitchcock, "one of the finest, if not absolutely the finest, middle-class housing projects in the world."

The new materials also could be used for rich men's houses: in front of Highpoint, Badmin places what must be "Miramonte," built 1936-7 in New Malden, Surrey, for the property developer Gerry Green. Its architect was Maxwell Fry, then in partnership with Walter Gropius until the latter left for America and a job at Harvard (Figure 5).

Badmin's closing words address "the future" and questions which will be answered by "design," "planning," and, by implication, political decisions.

> In rebuilding our houses and replanning our cities how can we use and develop our new, clean, thoughtful ways of building so that everyone will benefit? Do you know we could have much better houses than we have, if they were





Village & Town "Concrete Houses," p. 29. Badmin shows "Miramonte," a luxury house built in 1936-7 in Surrey for a property developer. Its architect, Maxwell Fry, was then in partnership with Walter Gropius. In the background is Highpoint 1 (London N6) of 1933-5, another Tecton-Lubetkin project.

Figure 5

Miramonte, a rich man's house in Surrey, designed by Maxwell Fry 1936–7, as shown in Lionel Brett's Houses (Penguin, 1947). Photograph of Miramonte © *The Architectural Review*.

20 Badmin does not identify any of the buildings which he illustrates, but his final words give a source for some of his pictures: "Some of the drawings in this book are from photographs in J. M. Richards's *Miniature History of the English House.*" He then recommends his young readers to find out more: "If you would like to read more about building here are two other good books for you—*Our Inheritance*-Architectural Press and *Living in Cities* by Ralph Tubbs, one shilling each."



well designed and better use was made of standardised doors, windows, cupboards, and stoves? Do you know we could have towns which were clean and smokeless, which were easy to get about, which had plenty of playing grounds and no slums? And we could keep the country as real country for farming and holidays, instead of eating it up with bungalows. We could do all that and more if we made plans in advance, instead of muddling along as we do now, allowing people to build more or less where they fancy whether it is ugly or not. Is it possible for planning to be carried out when so many people own so many different pieces of land? Look at your own home town. Surely something better must be built next time?

Finally, on the back cover, Badmin presents another view of Highpoint 1, a simplified version of that shown earlier on page 29 (Figure 6).²⁰ In the right foreground, structural steelwork is being erected. In between, there is a London Underground station, here apparently given the name "St John's Wood" (Badmin had taught at the St John's Wood Art Schools) but, in fact, based on the Piccadilly Line stations built 1930–33: Acton Town, Park Royal, Sudbury Town, Southgate, and the elementally modernist Arnos Grove, all designed by Charles Holden and his collaborators (Figure 7a and b).

A bit more about Stanley Badmin. In 1936, encouraged by James Holland, he joined the Artists International Association. Around that time, meetings of the Left Book Club were held at his studio in Clapham, and fundraising for the Spanish republicans: "We got the money together for a magnificent yellow ambulance.... It was captured in one week by Franco's forces." In 1940, he participated in an AIA "Art for the People" scheme: "Everyman Prints" were printed by offset lithography, but from plates worked on directly by



Village & Town back cover. Badmin illustrates a simplified view of Highpoint, structural steel, and, in between, a London Underground station based on the Piccadilly Line stations built by Charles Holden in 1930–33; especially the elementally modernistic Arnos Grove.



Figure 7a and b

30

Arnos Grove London Underground station and Highpoint, as shown in J. M. Richards's *An Introduction to Modern Architecture* (Penguin, 1940).





Margaret & Alexander Potter, *The Building* of London front cover (Puffin Picture Book 42, 1945).



the artists. His contributions included "Barrage Balloons on Clapham Common" and "Skating on Dulwich Park Pond"; one shilling in black-and-white, and one shilling and sixpence in two colors.²¹ In 1941, while preparing his text and pictures for *Village and Town*, Badmin worked for the Ministry of Information (Misha Black had fixed this employment) on plans for traveling exhibitions. From 1942, called up by the RAF, he made operational models of the north coast of France, including huge models for the Normandy landings.

Badmin's *Village and Town*, which remained in print for at least twelve years, was followed in 1945 by another children's text of reconstruction, *The Building of London*, which came out as Puffin Picture Book 42. Like Badmin, the wife and husband team of Margaret and Alexander Potter end with a question, one then—in the year of Labour's landslide election win—being asked throughout the capital: "Shall we have the courage and patience to plan a better London which will be more convenient and healthy than the old London, and more beautiful?" (Figure 8).

The Potters already had pointed to the means—new materials and also industrial methods: "The buildings on this page are of new construction made possible with recently discovered materials. Such buildings are made up mostly of things mass produced in factories. They are designed for light, airy, smokeless cities, and for an age when war is made impossible. You can see how important it is that everything made in factories is of the right type, if thousands or millions of each type are to be used." Recent buildings in London shown in their sketches (Figure 9, top right, clockwise) include, as their example for "*Flats*," Highpoint 1, which Badmin had shown us; and also, under "*Stations*," Arnos Grove.

21 Among other artists to contribute to the scheme were Vanessa Bell, Helen Binyon, James Boswell, James Fitton, James Holland, Rowland Hilder, Henry Holzer, John Piper, and Carel Weight. "The proven demand for inexpensive books, picture magazines and gramophone records of high quality is the best guarantee that Everyman Prints will supply a real need in the modern home." (AIA, 1983): 56.





32

The Building of London p. 29, "New Building in London." From top right, reading clockwise: for "Flats," the Potters show Highpoint 1; and for "Stations" Arnos Grove. For "Clinics," the Finsbury Health Centre in what was one of London's poorest boroughs; a Lubetkin and Tecton project of 1938 (see Figure 10). For "Offices," probably Gilbey's offices and warehouse in Camden, designed in 1937 by Serge Chermayeff, with the engineer Felix Samuely. For "Shops," the Peter Jones department store in Sloane Square, SW1, of 1936–8, designed by William Crabtree (see Figure 11). For "Clinics," here is the Health Center in Pine Street, EC1, in the then socialist borough of Finsbury, and the first local authority commission for a modernist architect: Lubetkin and Tecton, 1938, their last project in that optimistic vision of "the new architecture."

Under "Offices," these probably are Gilbey's offices and warehouse in Camden (Jamestown Road, NW1), designed in 1937 by Serge Chermayeff, collaborating with the consulting engineer Felix Samuely. For "Shops," the Potters show the Peter Jones department store in Sloane Square, SW1, of 1936–8, designed by William Crabtree, and probably inspired by Eric Mendelsohn's Schocken store in Berlin ten years earlier.

The Potters' back cover (Figure 12) shows the building of a prefabricated house which "may be a solution to some of London's problems." Winston Churchill lost the general election to Labour in June 1945 on the issue of housing above all; and Clement Atlee's administration, 1945–51, failed on that same issue. But prefabrication also would offer a solution to the urgent problem of school building, as was shown by the pioneering Hertfordshire program of 1946–50.



Figure 10 Finsbury Health Con

Finsbury Health Centre, front. Photograph © James Mosley, 2005.

Figure 11

Peter Jones department store, as shown in Ralph Tubbs's *The Englishman Builds* (Penguin, 1942).

22 By the same token, Allen Lane, founder of Penguin Books, was neither a socialist nor a modernist, but a businessman who grasped the moment-an extraordinary public demand for good, cheap booksand rode his luck by hiring good people and giving them the reins. An incidental connection between Puffin Picture Books and modernism is worth exploring: the author of the tenth in the series (A Book of Trains), the nineteenth (Marvellous Models and Models to Make), and the thirty-second (Waterways of the World) was Wenman Bassett-Lowke, owner of a firm of engineering model-makers. In 1924, he commissioned Peter Behrens to design a house-"New Ways" in Northampton ---now widely regarded as the first real example of the European modern movement in Britain (reported in Architectural Review, November 1926).

I should clarify: this is not a call for a return to the verbal and visual styles of the 1940s. And I am not suggesting that the Puffin Picture Books series was a nursery of modernism, let alone socialism.²² The standard of illustration of several Puffin Picture Books was not uniformly high, and some books in the series were unimpressive. The work of Stanley Badmin is one among an outstanding handful, although it might in passing be noted that his book was made without the benefit of Jan Tschichold's famous fussing.²³ The two books which I have picked out here from the series of almost 120 are part of a larger family of what one could call "reconstruction books"—for which a slogan might have been "publish for victory and beyond"—about planning, architecture, design, the education of vision, and the place of these things in a generous and encompassing view of democratic citizenship.

These books, all projecting the spirit of modernity to a nearbankrupt nation, share common and recurring themes of "learning to see." They affirmed that the civic world could be planned, designed, for the good all citizens, and that a prerequisite for this was a public educated in visual judgment. Penguin published a good handful of such books: Living in Cities (1942) and The Englishman Builds (1945), both by the architect Ralph Tubbs; Town Planning (1940) and The Anatomy of the Village (1946), both by the planner Thomas Sharp; and E. J. Carter and Ernö Goldfinger's concise version of the County of London Plan (1945). Penguin also published "The Things We See" series, supported by the Council of Industrial Design, which included Alan Jarvis's 1945 visual primer Indoors and Out,24 Lionel Brett's Houses, and Christian Barman's Public Transport (1949). Penguin, however, was by no means the only participant in this notable moment of publishing history-at the intersection of publishing, design, planning, and politics-which certainly merits further investigation (Figure 13).







The Building of London back cover. The building of a prefabricated house, which "may be a solution to some of London's problems."

Figure 13

E. J. Carter & Ernö Goldfinger's *County of London Plan* (Penguin, 1945), front cover.

- 23 This episode in design history has been reported unconvincingly by Richard B. Doubleday in Jan Tschichold. Designer: The Penguin Years (New Castle, DE: Aldershot, Lund Humphries/Oak Knoll Press, 2006); the book has little of interest to say about Puffin Picture Books. In his autobiography True to Type (New Castle, DE: Oak Knoll Press, 2000), 51-4. Ruari McLean recalled his time at Penguin as "production manager" for PPBs, with tight lips and a hint of sourness: adjacent to each of his few mentions of Noel Carrington are the words "wrong" and "faults." In his own various accounts, Carrington never mentioned McLean.
- 24 Jarvis's prefatory "Note to the Reader" makes the point. "This is not a book of words illustrated by pictures. It is a book of pictures with a verbal commentary. If the reader spends three-quarters of his time studying the pictures and one quarter reading the accompanying text, he will fulfill the author's intentions."

34

I now briefly return to an opening theme. My suggestion is that there is a widely held conceptual misfit between modernity as a social project—epitomized here by Puffin Picture Books—and the look and feel of graphic modernism, the surface style: san-serif type, decorative heavy rules, the clutter of geometric shapes, and so on. To elaborate, I'll offer just one example: combining pictorial images with verbal text.

It is widely held that combining typeset text with photographic images-what Laszlo Moholy-Nagy called "typo-photo"25was the signal attribute of modern typography after 1925. So, for Ken Garland: "The integration of type and photo is one of the prime functions, perhaps the prime function, of the graphic designer."26 And Robin Kinross sees this as "the enduring discovery of graphic modernism" which, in turn, "gave birth to what in the years after 1945 began to flourish as 'graphic design."27 To an outside observer, this may seem an excessively modest achievement when compared with what might be taken to be the more pressing challenges of modern design practice such as: devising forms of graphic configuration appropriate to readers' probable needs, and the circumstances in which they will use the designed object; accurate, comprehensive, and usable specifications for manufacture; and effective project planning and management. However, in the literature of graphic design, it is nearly a commonplace that, while photography signifies "modern" and "contemporary," so handmade illustration stands for "old world," or "pre-modern."

The displacement of illustration by photography, of course, had begun before graphic modernism—in newspapers and the periodical press. And where the new designers had a say, it happened fastest in advertising; and then came slowly, when at all, in books. But there still always would be reasons for preferring handmade pictures. Thus, Herbert Read, writing in wartime about the "Recording Britain" scheme of 1940–3, tried—I think unconvincingly—to explain why paintings and drawings were preferable to photographs. This is his gist: "Photography can do much, but it
cannot give us the colour and atmosphere of a scene, the intangible genius loci." In his next breath, he came close to echoing Badmin's and the Potters' expositions for children: "the real fight-against commercial vandalism and insensitive neglect-goes on all the time. There will be little point in saving England from the Nazis if we then deliver it over to the jerry-builders and the development corporations."28

In 1942, the brute economic facts of popular illustrated book production in Britain offered a simple choice: either black-and-white photography and photogravure printing, or handmade color pictures by lithography. For Puffin Picture Books, there was no contest. Photography's peerless documentation of human activity could not operate at the fine-grained levels of observation and focused selectivity required for explaining the world to children. Even if such ambition was technically feasible, there was not yet the accumulated body of design and editorial intelligence to realize it. And reaching for a moment beyond the local and temporal limits of this study, it is surely self-evident that in any well-founded approach to visual explanation, both positions-the ideologically photographic and the ineffably handdrawn—are unduly limiting. For example, it is inconceivable that popular science or statistics, geography or townscape, and engineering or architecture could be adequately illustrated without photographs and drawings and diagrams.

In Britain, these things began to be learned during the war by exhibition designers working for the Ministry of Information, as Badmin had done in 1941. And just such combinations of explanatory tools were explored after the war in books such as Cave Painting to Comic Strip and booklike periodicals such as Future and Contact, for which the models were as much American (Fortune and Life) as central European (the Illustrated Presses of Munich and Berlin). And if one thinks a few decades further back to the pioneers in modern visual explanation, the team of writers, editors, and designers gathered under the name "Isotype." What made its "Vienna method" so modern, before the war and after, was not the marvelous vocabulary of pictograms developed by Gerd Arntz, and still less the adoption of Paul Renner's dysfunctional typeface "Futura"; but its trial and error development of a mixture of prefabricated modular elements and language-like attributes: clearly-articulated rules for the combination of these elements, segmentation, and reduced iconicity-a reasoned pragmatics for communication planning. Much the same could be said of the emblematic public-sector information design project in post-war Britain, the planning by Jock Kinneir and his assistant, Margaret Calvert, of the national road signing system. Here modernity is projected not by a surface feature, the san-serif letterform,29 but rather by the fact that what they designed was a system for designing. Kinneir's modular system of configuration for directional and other signs could be implemented by the thousand across the country, not by them-the designers-but by local traf-



- 25 In his contribution to "Elementare Typographie," the special issue of the printing trade periodical Typographische Mitteilungen (1925), edited by Jan Tschichold.
- 26 "Typophoto" Typographica 3 (NS) 1961; reprinted in A Word in Your Eve (Reading, UK: Department of Typography & Graphic Communication, University of Reading, 1996)
- 27 Robin Kinross, "The Bauhaus Again: In the Constellation of Typographic Modernism" in Uniustified Texts: Perspectives on Typography (London: Hyphen Press, 2002), 255.
- Read's words on "the real fight" are cited by Gill Saunders in her "Introduction" to David Mellor, Gill Saunders, and Patrick Wright: Recording Britain: A Pictorial Doomsday of Pre-war Britain (Newton Abbot, UK: David & Charles, 1990), 7
- 29 The starting point for this is Ole Lund's article "The Public Debate on Jock Kinneir's Road Sign Alphabet," Typography Papers 5 (2003): 103-126.

fic authorities and sign manufacturers, simply by following their specifications. To emphasize the primacy of design process as the test for modernity in these cases does not minimize the importance of people's everyday visual experience, including the look of our urban fabric; the style and manner of those telegraphic statements which guide us from one end of the country to another.

And now, finally, a concluding note on gentleness in design. Stanley Badmin's work, like that of other Puffin artists, could be taken as one representative of "the English tradition of gentle illustration." "Gentle" seems right here, just as its slide into the sarcastic variant is wrong; for example, in Rick Poynor's dismissal of "genteel illustrations by graphic artists such as Barnett Freedman, Edward Bawden, and Lynton Lamb"³⁰ and, decades earlier, the art critic Richard Cork's of the "risibly genteel" film posters made in the 1940s by John Minton, James Boswell, Edward Bawden, Barnett Freedman, and others for Ealing Studios.³¹ (Of the five set up here for ridicule, only Edward Bawden made book illustrations for Puffins and also film posters for Ealing Studios.) (Figure 14)

Why "wrong"? If one thinks of this field of human endeavor—designing factual books for children—less as the production of "graphics" and more as the purposeful shaping of communication, and likewise if one thinks of style less as a designer's personal thumbprint and more as an index of the publisher's view of their readers, then to be "gentle"—to be pleasant, kind, agreeable, without harshness or violence—may be thought to be a proper attribute, in mediated dialogue as in public life. It should not need arguing that gentleness is a positive virtue in books for children. And it is hardly a difficult next step to suggest that adults also might benefit from gentleness in their everyday encounters. The more interesting question then becomes: when and why—and in whose interest—did such a desirable attribute become a matter for sarcasm?

One banal answer could be that, for such critics, the priority is visual style, and that at any given time some styles are fashionable while others are not. The critics may even assume universal stylistic solutions to design problems: one style fits all. Another answer, perhaps more plausible, is that since their designing experience is limited, so they rely upon undeclared criteria, usually drawn from art criticism, which elevate marks of authorship and originality. Another is the romantic criterion that the products of art work should offer the opposite of gentleness, that they should unsettle, surprise, or shock their audiences. Such critics have not yet discovered that designers can rarely be confident about optimal solutions to the problems they face. By extension, they have not grasped the consequence, an emerging principle for decision-making in design: designers need to be sensitive to different circumstances of reading;

 Rick Poynor, "The Spirit of Independence" in Communicate: Independent British Graphic Design since the Sixties, R. Poynor, ed. (London: Laurence King, 2004), 14.

31 In a review of "British and American Film Posters 1890–1976" (a Welsh Arts Council touring exhibition); *The Guardian* (September 6, 1977).

36

Figure 14

Edward Bawden's publicity poster for the Ealing comedy of 1953, *The Titfield Thunderbolt*. It is hard to imagine a photographic image that could better conjure up the film's whimsical, if defensive, eccentricity. © Estate of Edward Bawden.



to readers' different aims and expectations, and to different kinds of readers. It is a fair bet that the challenge of designing factual, illustrated books for children would help them to understand these things.

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Anxiety, Wonder and Astonishment: The Communion of Art and Design

Richard Buchanan

These remarks originally were presented as a keynote address at the Third International Conference of the Centre for Learning and Teaching in Art and Design (CLTAD) held in Lisbon, Portugal in April 2006. The proceedings of this conference, edited by Felix Lam, are available from the Centre, located in London.

In 1966, well-known American art critic Harold Rosenberg published a small collection of essays in The Anxious Object. In the foreword, "Toward an Unanxious Profession," he argued that a new form of anxiety had entered the art community. It was no longer an anxiety of alienation-the psychological state of anxiety that often characterizes the outsider, struggling with loneliness, in a society and a culture that does not appreciate his or her contribution to human experience. That form of anxiety, he argued, had been overcome by the professionalism that settled over American artists in the 1960s, and by the apparent acceptance of art as a regular part of the daily lives of many people. Instead, the new anxiety was a philosophical anxiety, born of the "lightning speed" with which art is appropriated by commercial media and popular communications. "The anxiety of art," he argued, "arises not as a reflex to the condition of artists, but from their reflection upon the role of art among other human activities."1

> It is an objective reflection of the indefiniteness of the function of art in present-day society and the possibility of the displacement of art by newer forms of expression, emotional stimulation and communication. It relates to the awareness that art today survives in the intersections between the popular media, handicraft and the applied sciences; and that the term "art" has become useless as a means for setting apart a certain category of fabrications. Given the speed and sophistication with which the formal characteristics of new art modes are appropriated by the artisans of the commercial media and semi-media (archi-

Harold Rosenberg, *The Anxious Object* (Chicago: The University of Chicago Press, 1966), 16.

tecture, highway design, etc.), the art object, including masterpieces of the past, exists under constant threat of deformation and loss of identity.²

Lacking a secure identity, the art object, itself, becomes "an anxious object" whose nature, as art, is now "contingent upon recognition by the current communion of the knowing."³

The anxiety that Rosenberg identified in the 1960s continues today in the complex relationship between art and design. The only change is the growing stature of design as a cultural art, and the development of that art in a wide variety of new forms and expressions. Indeed, one feature of the complex relationship of art and design is the tendency of some artists to explicitly characterize their work as a form of design, where the work often becomes an expression of the artist's opinions about social or political life presented to provoke emotion and thought in its audience. Aside from any intellectual or philosophical justification for regarding art as a form of design-that is, recasting art from a more traditional, poetic grounding in aesthetic expression to a rhetorical grounding in persuasive or confrontational communication-it also is pragmatically expedient. For example, without being fully conscious of the shift in thinking, some art departments and schools of art around the world are promoting their affinity, if not their identity, with design; perhaps hoping in this way to attract more students and claim some portion of the current recognition of the importance of design for them. However, the complexity of the relationship of art and design also is evident in the opposite tendency: a rearguard action by some art schools intent on denying any relationship with design. This is particularly curious in the case of some traditional craft programs that obviously have design origins yet promote their craftwork as a form of art, devoid of design associations.

Ironically, as art has sought (or been driven to) a closer connection with design, design, itself, has moved in other directions. This began with a clearer identification of the purpose of design—not the aesthetic "self-expression" of art, but a practical service directed toward enhancing the dignity of human beings in their daily lives, with all that this entails in social and economic matters. Then followed a growing clarification of the methods of design thinking, with recognition of the need for designers to understand how their products function in contexts of use and, closely related to this, recognition of the need to understand the nature of human beings through research and careful observation. Finally, from this came the new movements of design as we observe them today. First, there is a closer alignment with engineering, computer science, and the natural sciences—generally a movement toward the new technologies. Second, there is a closer alignment with psychology, anthropology, and the other human sciences-a movement toward deeper understanding of the behavior of human beings. Third, there is a closer alignment with business, management, and

² Ibid., 17.

³ Ibid., 18.

organizational science—a movement toward collective behavior and economic influence. Fourth, there is a closer alignment with the humanities—a movement toward communication, information, and narrative. Gone is Rosenberg's loose characterization of "popular media, handicraft, and applied sciences." Gone, too, is his characterization of "the artisans of the commercial media and semi-media." We speak of design and designers, whatever the specific area of their creative work.

One consequence of the movement of design into relationships with other disciplines and professions is a quiet anxiety in the field of design, similar to the anxiety that Rosenberg identified in the art community. As design finds closer alignment with other disciplines, it also is forced to contend with jealous guardians, each seeking to characterize design in its own terms, and as an application of its own knowledge and practices. Thus, it remains a problem for design to explain itself among new friends and acquaintances, resisting attempts to appropriate design by other disciplines while, at the same time, resisting the simpleminded identification of design with art that many people still assume.

Beginning in the 1990s, the complex relationship of art and design—and the anxiety of both forms of human activity—found subtle expression in the problem of research. On the one hand, artists in universities found it necessary to compete for funding and promotion through the vehicle of research, without appearing to compromise artistic vision. To this end, a common argument emerged in this form: the production of a work of art or a body of work-perhaps accompanied by a brief textual description, little more than an artist's statement suitable for publication in a catalogue of the artist's work—is the equivalent of research in other fields, and thus deserves the granting of a Ph.D. and receiving all of the recognition of research accomplishment that research in other disciplines receives, including government funding. This is a questionable argument on many levels; not the least because of the damage it does to the stature of artistic creation, itself a highly valued human activity without need of justification through the traditional means of other disciplines. It is an argument that eventually must be addressed within the academic art community, as well as by researchers in other fields including design, through asking what the difference is between disciplined artistic inquiry and the disciplined inquiry of formal research.

On the other hand, designers in universities began to recognize the need for research to advance practice, develop theory, and, generally, build an academic discipline on stronger and more rigorous foundations than the intuitions and rules-of-thumb of designers involved in commercial practice. And they also faced the need for funding and promotion as part of the academic culture. To this end, a common issue of debate focused on the role of practical design work in the process of research—famously located in discussion of the real or imagined differences between "practice-led" (or "practice-based") research, and other forms of research (empirical, critical, theoretical, scholarly, philosophical, or speculative). It appears that anxiety still exists in the research efforts of both art and design, particularly after the initial development of their research efforts and, today, an emerging concern for assessing the quality of research in art and design, and its specific contribution to knowledge.

In the current situation of anxiety, it may be useful to consider the communion of art and design: to reflect on what they share in common and how they explore their common ideas and emotions even though they pursue them in different directions and for different purposes. A good place to begin, once again, is Harold Rosenberg. In his foreword that we already cited, he shifts attention toward the problematic nature of art, and away from art criticism that focuses merely on the final product. It is a shift that many in the design community also urge—a shift away from design competitions and museum exhibitions that merely celebrate the formal qualities of the final design product—toward deeper understanding of the problematic situation of the product and the processes of design thinking.

> With regard to the destiny of the artist's freedom, the current integration of the arts into our society of specialized functions is far from reassuring. The closing of the gap between artist and public has not come about through an expansion of freedom in American occupations generally. On the contrary, it is occurring under conditions in which work and the practice of the intellectual professions are being constantly narrowed and more strictly disciplined. In this environment the present emphasis in art criticism on the end product, rather than on the problematical nature of the art undertaking, opens the way to art produced under direction, as in related professions. Today's socially accepted vanguard already responds to paintings and sculptures executed according to formulas suggested by critics, dealers or collectors without any more surprise or revulsion than is aroused by a TV drama composed to fit the story line of a program producer. Indeed, efforts are continually under way, both here and abroad, to establish "project" art as the ruling principle for the art of tomorrow.⁴

Rosenberg's perspective on problems in art deserves further consideration by artists as well as designers and design critics. He regards painting and sculpture as "a web of problems and contemporary artists as engaged in a dramatic struggle with those problems."⁵ (For example, he points toward Arshile Gorky's struggle with the problem of identity, and Barnett Newman's struggle with the problem of the absolute.) Unfortunately, too many designers and design critics at the beginning of the twenty-first century are so concerned with technical problems and with the economic implications of design

- 4 Ibid., 18–19.
- 5 Ibid., 19.

work that they fail to discuss—or perhaps even recognize—the deeper, substantial problems that lie behind individual visions of design, the problems that drive and guide individual innovation and creativity. Even in design research, the problems most often are technical and empirical, without explicit connection to the problems of purpose and value that lie at the heart of the best design think-ing. Design, it seems, has become thoroughly professional and, at the same time, merely pragmatic and technical. From the literature of design, what we see is essentially the quieting of the designer's anxiety and the quieting of the general philosophical anxiety of the field, much as Rosenberg observed the renunciation of the "intellectual and emotional ingredient in twentieth-century art" in the 1960s, leading to the quieting of art's anxiety: "The quieting of art's anxiety is bound to suggest the cheerfulness of a sick room."⁶

What made Rosenberg's critical writing important, and what gives it value today, is his recognition that the most significant product of art is not the work of art, itself, but the quality of the artist's mind that emerges from engagement with substantial problems.

> Instead of solving his problem—"his" because he has chosen it—the artist lives it through the instrumentality of his materials. By fixing his idea in matter he exposes either the crudeness of his thought or the clumsiness of his art; thus he is led to experiment and refinement. In time he becomes so adept in materializing his hypotheses, and in manipulating his materials as if they were meanings, that the problem itself is transformed. He has transformed it into a unique set of terms; besides, he, the investigator, has through his efforts remade himself into a different man.⁷

The quality of the artist's mind is what gives "intellectual gravity" to his or her work, without reducing art to the terms of formal research. The artist does not "solve" the problem of identity or the absolute or any other substantial problem in the manner, say, of the philosopher or the psychologist. Instead, the artist lives it through materials and technique, enabling the audience to live it, too, in the immediacy of the work—in what Dewey calls the audience's act of reconstructive doing and making.⁸

If we follow Rosenberg's idea, the communion of art and design lies in the quality of mind that both the artist and the designer share in the beginning of their work. One aspect of this quality of mind is the capacity for wonder or astonishment. It is also the quality of experience that is engendered in the mind of the audience when one encounters their best products—when one appreciates the problem that lies at the beginning of the artist's or the designer's engagement and struggle. "Apart from that," as Rosenberg says, "every kind of excellence can be copied."⁹ And, indeed, the excellence of new and well-known designs also are copied in products that represent no new insight, but merely replicate the form and style of an original insight made by others.

9 Rosenberg, The Anxious Object, 20.

⁶ Ibid., 19.

⁷ Ibid., 19.

John Dewey, Art As Experience (New York: Capricorn Books, 1958), 52–54.

For all of their differences in direction and purpose, art and design share an intellectual gravity in their beginnings. In the contemporary world, where gravity is easily lost or submerged in the crosscurrents of popular media and economic pressure, we find the instant copying that appropriates art to mass communication or that reengineers a successful product in the imitative products of competitors. However, intellectual gravity remains in the best and most original works of art and design, and it is the source of wonder that we feel when we first experience such works.

There is little talk of wonder or astonishment in contemporary art and design. Both disciplines are more concerned with creating other kinds of emotional reaction in their audiences. Yet wonder and astonishment deserve greater attention than they currently receive, because these emotions are the both the sign and the source of creativity and originality. Consider, for example, the insights of Descartes and Spinoza when they explore wonder and astonishment in the context of other emotions. For Descartes, wonder signifies surprise. It is the primary human passion, and it marks the beginning of desire in the human soul, giving the first indication that an object before us merits our attention and further exploration because it may be important for us. Wonder has no other significance than this, but it is the beginning of our creation of meaning—meaning which gradually will unfold through prolonged engagement.

> When the first encounter with some object surprises us, and we judge it to be new or very different from what we formerly knew, or from what we supposed that it ought to be, that causes us to wonder and be surprised; and because that may happen before we in any way know whether this object is agreeable to us or is not so, it appears to me that wonder is the first of all the passions; and it has no opposite, because if the object which presents itself has nothing in it that surprises us, we are in nowise moved regarding it, and we consider it without passion.¹⁰

Wonder does not tell us whether we are dealing with mere novelty or true innovation, but it is a beginning because it is a differentiation in our perception. That is Descartes's perspective.

However, Spinoza provides a deeper and subtler analysis—as he does in most of his discussions of the emotions. Though he does not provide a definition of wonder, the equivalent of wonder for him is astonishment. With characteristic brevity, he defines it in this way:

Astonishment is the imagination of an object in which the mind remains fixed because this particular imagination has no connection with others.ⁿ

We are astonished when our mind focuses on an object precisely because it has no connection with anything else that we can imagine. The object is truly new to us, though we may discover connections with other things through prolonged engagement.¹²

- 10 Descartes, "The Passions of the Soul" in *The Philosophical Works of Descartes*, trans. by Elizabeth S. Haldane and G. R. T. Ross (Cambridge: Cambridge University Press, 1972), 358.
- Benedict De Spinoza, *Ethics*, James Gutmann, ed. (New York: Hafner Publishing Company, 1949), 175.
- 12 For a useful discussion of wonder, thought, and aesthetics, see Philip Fisher, Wonder, the Rainbow, and the Aesthetics of Rare Experiences (Cambridge, MA: Harvard University Press, 1998).

It is true that wonder and astonishment are seldom lasting qualities. They fade as the familiarity of the object grows, and as one moves on with interpretation and the fixing of meaning through disciplined development of connections with other aspects of experience, memory, thought, and passion. But in that brief period at the beginning of experience, wonder and astonishment provide the power for sustained engagement—they are the source of passion and curiosity. Thus, they accompany the beginning point of inquiry, whether it is the disciplined "common sense" inquiry of the artist or the disciplined formal inquiry of the researcher: they signify the initial moment in inquiry when a new idea emerges.

Unfortunately, most education in art or design, in the haste to prepare a suitable professional, does little to cultivate the sense of wonder or astonishment in students. Problem solving takes priority over problem finding. Interpretations abound, and little time is given to the free play of invention and discovery. Thus, invention and discovery appear to be a matter of chance rather than disciplined artistic and intellectual exploration. Only the best teachers understand that time and silence are needed by the student to open imaginative space for finding the problems that are most important for their creative work.

The uneasy relationship of art and design will not soon be overcome. Indeed, it may become more strained in the future as each continues to seek its proper place in social and cultural life, and as the similarities and differences of art and design are increasingly blurred. However, there is a common ground—a communion—that should be further explored. It is the emerging concept of rhetoric that is shared by both art and design today.¹³ It is this concept that one finds implicit in Rosenberg's critical writing, and it is the concept that he struggled with as he tried to understand the anxiety of art that emerged in the second half of the twentieth century. Both art and design are deeply engaged with the public and with social and cultural issues. However, they employ rhetoric in different modes and in different ways for communication. Nonetheless, wonder and astonishment are the beginning of their work, and we should take this as a starting point for a better understanding of how each of these important forms of cultural communication unfolds in concrete work. This line of investigation will elevate our appreciation of the contributions made by art and design to our cultural life and perhaps lead to the proper reconciliation of art and design that should take place for the benefit of both communities.

¹³ Richard Buchanan, "Design and the New Rhetoric: Productive Arts in the Philosophy of Culture," *Philosophy and Rhetoric* 34:3 (2001): 183–206.

The Studio: Photomechanical Reproduction and the Changing Status of Design

Gerry Beegan

Footnotes begin on page 59.

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The 1890s marked the beginning of a new era in visual representation. It was during this decade that photographic images were first successfully incorporated alongside written texts in illustrated weekly and monthly magazines. Photo relief reproduction processes, which had been developed over the previous decades, were refined to a level where they became commercially viable and culturally acceptable. Line methods had been in use since the 1870s. They produced an image which was fixed onto a sensitized metal plate, and etched to produce a type-compatible relief block. The halftone techniques first developed in the 1880s transformed the continuous tones of an original into tiny dots, which then were etched in much the same way as photo relief line methods. Halftone techniques could duplicate photographs, paintings, and wash images, while line methods were widely used for the printing of pen and ink drawings. Collectively, these photographic approaches were known as "process." These techniques were able to challenge the existing reproduction technology of wood engraving, which had dominated the illustrated press up to this point. This essay looks at one particular aspect of this shift in the mass-produced image: the depiction of art and design. It examines The Studio, a monthly art magazine which was launched in London in April 1893, and which used only photomechanical methods to visualize an extended range of artistic practice. I examine the meanings and effects of the reproduction processes as they relate to the status of design.

Clive Ashwin has suggested: "The Studio was the first visually modern magazine to the extent that it adopted the reproductive medium which would dominate art publishing, indeed publishing in general, for the century to come."¹ Certainly, around this time, a number of English magazines were applying this new imaging technology. The Sketch, the first middle-class, photographically reproduced weekly was launched in February of 1893, just before The Studio. By the early-1890s, most magazines, including the specialist art monthlies, were using a mixture of reproduction methods including wood engravings and photographic halftones. So why did The Studio switch entirely to this new method? I will examine the early days of the magazine in some detail to analyze the significance of its image reproduction decisions.²

© 2007 Massachusetts Institute of Technology Design Issues: Volume 23, Number 4 Autumn 2007 Although Walter Benjamin famously suggested that the increased circulation of images of art resulted in the weakening or removal of the aura of the original, an examination of the art publications of this era reveals a complex situation in which reproduced images actually added to the allure of the real thing. The widespread diffusion of inexpensive mass reproductions was an element in the creation of a mystique around original paintings or sculptures, objects which often had not been visible at all up to this point. In addition, I would argue that the change in reproduction methods itself served to heighten the standing of the original. The wood engraving retained a status and a function independent of the original: it was clearly a translation into another medium—a medium with its own, long-established symbolic language. The halftone, on the other hand, was essentially a simplified, lesser, monochrome version of something superior, unaffordable, and apart.³

Yet, in the early days of *The Studio*, photomechanical reproduction operated in an egalitarian and inclusive manner since the fine and applied arts, both high and low, were reproduced in an identical way. In other art magazines, status was inscribed within the printed image by the reproduction method that was used. The more important the artwork, the more elaborate the reproduction techniques which were employed to produce a printable matrix. *The Studio*, on the other hand, treated all forms of art in the same way: a sculpture, a painting, a chair, a tapestry, a photograph, or a bungalow would be shown in an identical manner. This radical approach was associated with the magazine's founding editor, Joseph Gleeson White, who was one of the major figures in the discourse around decorative art and reproduction in the 1890s.

Early in 1893, Gleeson White was approached by his friend, Lewis Hind, regarding a new monthly magazine that intended to take an innovative approach to the depiction of art. The periodical would provide international coverage of contemporary developments in modern art and design, and it would do so using only photographic reproduction methods. Hind's project was being financed by Charles Holme, a wealthy businessman. Holme, having made a fortune in the textile trade, had retired at the age of forty-four to promote the new movement in design. Hind already had begun to commission articles when he was poached by Lord Astor to oversee his revamped process illustrated weekly, the *Pall Mall Budget*. Hind offered to find a replacement, and persuaded Gleeson White, an experienced writer and editor, to take over the job on short notice.⁴

The proposed magazine would be a radical, pioneering publication at variance with the conservative art world and established art periodicals. It intended to take a different approach from these existing monthlies in price, audience, content, and reproduction method. Although heavily illustrated, it was relatively inexpensive at sixpence per issue. Some of the established art monthlies cost three times that amount. Its price brought it within the reach of a younger



readership, an audience not of connoisseurs and collectors, but of practitioners, students, and middle-class enthusiasts. *The Studio's* intention was to visualize a wide spectrum of artistic practice. Its title referred not only to the painter's studio, but to the studio of the textile designer, the poster designer, the illustrator, the potter, the furniture maker, the architect, and the photographer. The magazine was intent on establishing art as a modern, everyday activity in which its readers could participate. Rather than dealing with the art of the past, it would show the work of its own time and deal with contemporary concerns. It also proposed to highlight younger artists, who might not yet have established a reputation. From the beginning, it was international in its scope: its aim was to spread awareness of developments in the English decorative arts through Europe and North America. To this end, *The Studio* printed an American edition as well as a bilingual French version.⁵

Established art magazines such as the *Art Journal* and *The Magazine of Art* catered to an affluent, upper-middle-class readership. They were expensive and conservative in their content, and featured much academic and historical art. By the early nineties, the mainstream magazines had adopted photo relief halftone technologies, but these were positioned at the lowest level of the hierarchy of reproductive techniques deployed within their pages. Halftones were used to depict paintings and sculpture, although mainly as small images documenting artworks within articles. These photographic images not only would have been cheap to replicate, but the "Old Masters" would have been copyright free.⁶

For its full-page images of paintings, The Magazine of Art often used highly finished wood engravings based on photographs. This approach to reproductive wood engraving had emerged through the American "New School" engravers who, from the 1880s, had produced increasingly fine tonal reproductions which captured the surface qualities of paintings in a pseudo-photographic manner. Photographs of paintings were fixed onto woodblocks and then painstakingly engraved using a small number of tools to produce an even tonal effect. As the "New School" aimed for mimesis rather than translation, why not simply use photo relief halftones to reproduce the originals? First of all, halftone processes were still unable to capture the subtleties of an original without considerable, expensive retouching. Second, and even more significant, the halftone image erased the handwork which still was an important element in the assignment of status to a printed image. The "New School" approach combined the factuality of photographic facsimile with the visible artistic labor of the engraver.7

In *The Magazine of Art*, the "New School" style reproductive prints were credited to their engravers. These wood engraved images were spatially separated from the editorial text. They occupied full pages rather than being placed within the text like the halftones. The fact that they were allocated an entire page was an indication of their

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importance—these were freestanding objects framed by the white margins of the paper in a manner similar to a painting. However, they still were subordinate to the text and were used as examples of a particular artist's oeuvre. They also were linked to the editorial text by being printed on the same paper stock.

At the top of the image hierarchy in the art press were the etchings and photogravure inserts, which were on thicker stock than the rest of the magazine.⁸ These images, unlike the wood engravings or halftones, were not printed at the same time as the letterpress text, but were run off separately and then bound in. In order to emphasize their value, these inserts often appeared on stock which had colors and finishes that did not match the rest of the journal. In *The Magazine of Art*, each insert's subject matter and artistic merits were discussed in an essay on the facing page. The halftones and wood engravings illuminated the texts they accompanied, while, in the case of the etched or photogravure inserts, the written texts were subservient to the images.

The old-fashioned wood engraving and the high-class reproductive etching, which were such a feature of art magazines, were to be excluded from *The Studio*. Its radical modernity and democratic intentions were asserted by its commitment to using only photo relief processes. This signaled that the art which appeared in *The Studio* was to be less precious and more accessible.⁹ As a shrewd businessman, and an outsider to publishing, Charles Holme also would have appreciated the economic advantages of photographic reproduction. He could not have afforded to bind in etchings if he hoped to sell his magazine at sixpence a copy. Photomechanical techniques helped to keep the price of his new venture relatively low, while providing readers with large numbers of images. *The Studio* contained the same amount of illustration as the existing art monthlies, only it did so at a greatly reduced cost.¹⁰

Although he had not been Holme's first choice, Gleeson White proved to be the ideal editor for his new venture. Gleeson White originally had been a bookseller by trade, but he combined this with literary editing and freelance writing on the decorative and fine arts. A progressive cosmopolitan critic, Gleeson White had a broad knowledge of the contemporary art and design world. Not only had he written on art, crafts, and illustration, he also had a strong interest in photography. Moreover, unlike his fellow English journalists, he had editorial experience on an art magazine illustrated mainly by process. Many of the innovations that appeared in The Studio had been anticipated by The Art Amateur, an American magazine on which Gleeson White had worked in 1890. The Art Amateur was a large-format, heavily illustrated popular magazine of decorative and fine arts. It used modern techniques of image reproduction with many line and halftone illustrations and large, lithographic supplements. Gleeson White moved to New York to work as its associate editor, and although his stay in the United States turned



out to be short-lived, he gained invaluable editorial experience on a magazine which illustrated the spectrum of arts in an accessible and contemporary fashion.¹¹

In 1892 after returning to England, Gleeson White engaged in the energetic promotion of modern illustration and decorative arts. His main employment was as art editor of George Bell and Sons. Here he wrote, commissioned, and designed many important books on illustration and reproduction. His "Ex Libris Series" on the art of the book included both Joseph Pennell's Modern Illustration (1895) and Walter Crane's The Decorative Illustration of Books (1896). Other titles in the series included books on bookplates, printer's marks, and bindings. Bell was highly regarded as an art publisher. In 1895, for instance, The Art Journal's annual review of notable books on art and design concentrated almost entirely on works by George Bell.¹² Gleeson White also continued his freelance journalism, writing on photography in The Photogram and interviewing illustrators in The Idler.13 He was deeply involved in issues of reproduction; he attend the meetings of the Royal Photographic Society's process section, and sent his son to study printing and process.14

The Studio's launch issue in April 1893 under Sir Gleeson White's direction was a dramatic demonstration of the possibilities of photographic reproduction. Within its forty pages were forty-seven illustrations in line and halftone. The two major articles dealt with Frederick Leighton's sculptures and Aubrey Beardsley's pen and ink drawings, both of which were ideal subjects for demonstrating what modern imaging processes could achieve. The Leighton article was illustrated by halftone photographs, while the Beardsley article used line processes.



Figure 1

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"The Artist as Craftsman" The opening page of *The Studio's* launch issue with an article on Sir Frederic Leighton. *The Studio* 1:1 (1893): 3.

The opening article started at the apex of the art establishment by way of an interview with Leighton, the president of the Royal Academy.15 The piece was illustrated by nine large, retouched halftone photographs of his clay maquettes.16 By launching its premiere issue with an interview, the epitome of new journalism, The Studio made its modern editorial stance clear. The conversation with Leighton begins: "You are early," were his first words. "I have so many engagements I am compelled to keep punctually to the exact time." 17 The magazine's interviews with artists in their studios emphasized the specific circumstances of the encounter between the interviewer and the subject. This was typical of the press interviews of the day, which included a great deal of information on the site in which the encounter between the subject and the reporter took place. This approach was particularly appropriate for a magazine of decorative art in which there was a strong sense that the individual and his or her surroundings were one.18

After the photographs of Leighton's sculptures, the next images the reader encountered were two Beardsley line drawings. This marked a dramatic transition from the most respected academic artist of the day to a totally unknown young illustrator. The Studio was demonstrating both its intention to spotlight emerging artists, as well as its commitment to a broad spectrum of art practice. At the foot of page ten was a one-and-a-half by six-inch Beardsley drawing of Joan of Arc. It formed the end piece to an article entitled "The Growth of Recent Art," which defended contemporary art against charges of eccentricity, decadence, and morbidity, the very accusations that soon would be leveled at Beardsley. The caption to the Joan of Arc illustration promised that a large seven inch by thirty inch lithographic reproduction would be included as a supplement in a later issue. This image demonstrated the ability of process to produce images in many sizes, and also underlined the magazine's commitment to the young Beardsley. The few supplements which appeared in the early years of The Studio often were lithographs, a process which had been associated up to this point with the commercial poster, but which was being established as a medium of artistic expression.19

Facing the Joan of Arc drawing on the recto page was a full-page image captioned "Siegfried, Act II. By Aubrey Beardsley (Reduced from the Original Drawing in Line and Wash.)" The caption underlined again the ability of photography to change the scale of images. Although there was a huge gulf in experience and reputation between Beardsley and Leighton, in terms of subject matter, these images were rather harmonious. Beardsley's *Siegfried* echoed the earlier images of Leighton's draped or naked mythological figures, particularly the *Andromeda* on page three, who also was shown with a winged dragon.²⁰ These images were just a foretaste, since they were followed not by the article on Beardsley but by a piece on sketching in Spain illustrated by Frank Brangwyn's tonal



Figure 2 "Siegfried, Act II. By Aubrey Beardsley" The Studio 1:1 (1893): 11.

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wash illustrations.²¹ It was common in *The Studio* for illustrations to overlap into adjoining articles. Image and text were not always in step. Another Beardsley pen drawing *A Frieze from Malory's Morte d'Arthur* was dropped in at the foot of page thirty-three, in the middle of an article on the newly reopened Grafton Gallery. In all, the novice illustrator had thoroughly infiltrated the launch issue. Including the cover design, there was a total of nine of his images in *The Studio*, five of which were full-page.

The Beardsley article was evidence of *The Studio's* commitment not only to new talent, but also to its new imaging processes. Both visually and textually, the article was a powerful demonstration of photomechanical reproduction. By removing the interpretive hand of the engraver, the photographic processes emphasized the artist's individual vision in a more intense way. The early years of the decade saw an explosion of pen and ink illustration reproduced by photo relief line techniques, from the realist social cartoons of Phil May to Beardsley's decorative fantasies. Before his departure, Lewis Hind already had commissioned Joseph Pennell, "the most vocal of critics," to write the piece on Beardsley.²² Pennell, an acerbic American illustrator, was the acknowledged expert on pen and ink

drawing, and a fervent supporter of photomechanical methods. The article he created was as much to do with process reproduction as it was with Beardsley. In fact, the essay was rather noncommittal on Beardsley's talent and his potential as an artist. Although Pennell often was credited with discovering Beardsley, he saw him as a young man very much at the beginning of his career, and he was unsure of Beardsley's future prospects or direction. In his three, short columns of text, he said surprisingly little about the illustrator himself, and made only a brief, surface analysis of his work. As Haldane Macfall, the art critic of St. Paul's and a friend of Beardsley's noted: "Pennell was writing for a new magazine of arts and crafts: and his fierce championship of process reproduction was as much part of his aim as Beardsley's art-and all of us who have been saved from the vile debauching of our line work by the average wood engraver owe it largely to Pennell that process reproduction won through—and not least of all to Beardsley."23 As Macfall's comments make clear, the eventual success of process was a struggle, not a foregone conclusion, and the opinion of critics was necessary in the promotion of this new technology.

Pennell's article "A New Illustrator: Aubrey Beardsley" begins in the second column of page fourteen with a huge initial letter "I" drawn by Beardsley. Pennell launched his text: "I have lately seen a few drawings which seem to me to be very remarkable." The piece makes it clear that the drawings were as remarkable for their method of reproduction as for their content. He went on to say:

> It is most interesting to note, too, that though Mr. Beardsley has drawn his motives from every age, and found his styles-for it is quite impossible to say what his style may be—on all schools, he has not been carried back into the fifteenth century, or succumbed to the limitations of Japan; he has recognized that he is living in the last decade of the nineteenth century, and he has availed himself of mechanical reproduction for the publication of his drawings which the Japs and the Germans would have accepted with delight had they but known it. The reproduction of the Morte d'Arthur drawing, printed in this number, is one of the most marvelous pieces of mechanical engraving, if not the most marvelous, that I have ever seen, simply for this reason: it gives Mr. Beardsley's actual handiwork, and not the interpretation of it by someone else. I know it is the correct thing to rave over the velvety, fatty quality of the wood-engraved line, a quality which can be obtained from any process block by careful printing, and which is not due to the artist at all. But here I find the distinct qualities of a pen line, and of Mr. Beardsley's pen line, which had been used by the artist and reproduced by the process-man in a truly extraordinary manner.24

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Figure 3

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Page spread with Pennell's article inserted within Beardsley's illustration. "From the Forthcoming Edition of Malory's *Morte* d'Arthur," *The Studio* 1:1 (1893): 16–17. For Pennell, the Morte D'Arthur image proved that process could match the visual richness of wood engraving. Pennell's argument was particularly compelling because this section of his text was inserted within Beardsley's borders. As he wrote of the "velvety, fatty" line, his words were encircled by just such lines, reinforcing his point that these effects were possible with process. In fact, Beardsley's Morte D'Arthur designs were ersatz wood engravings. The book was a cheap photo line relief imitation of William Morris's hand-engraved and hand-printed Kelmscott Press books.25 In the mid-nineties, there was a dramatic proliferation of books such as Morte D'Arthur which were inspired by the Kelmscott style, but which were reproduced by line process and printed on simulated handmade paper on mechanized presses. Their illustrations appeared to be wood engravings, but were pen and ink drawings in the style of woodcuts reproduced by much cheaper photographic methods.26

Not only could process match the richness of wood engraving as Pennell noted, what was crucial for him was that it could directly convey the artist's "actual handiwork." Beardsley was an ideal example of this claim. The images demonstrated that he was working with a number of styles. The "distinct qualities" of his pen line varied considerably from image to image in the illustrations that



Figure 4 "J'ai baisé ta bouche lokanaan" (detail), *The Studio* 1:1 (1893): 15. The Studio printed. In fact, this eclecticism is what was distinctive about Beardsley. His appropriation of styles was, paradoxically, an indication of the individuality of the person choosing and combining these various disparate approaches. The Morte D'Arthur image showed him using Burne-Jones's mock medieval tropes, but in "J'ai baisé ta bouche Iokanaan" Beardsley already was experimenting with the stylistic mixture that would become known as "art nouveau." Photographic reproduction allowed image makers this hybrid freedom to mix and quote from other styles and other periods for the first time. Indeed, with its emphasis on the authorial hand, the move to process reproduction heightened an awareness of style. The individual was free to produce highly personal "grotesque" or "eccentric" work that ignored the principles of the Academy and the conventions imposed by wood engraving. Beardsley's work, which was constantly in flux, created an awareness that style is a choice and a construction.

The images in *The Studio* demonstrate Beardsley's move from using process to imitate wood engraving to his staking out a new territory for this technique, a new photomechanical aesthetic. The sinuous line that Beardsley used in his illustration for Wilde's *Salome*, which became typical of art nouveau, would not have been possible in wood engraving, or at least would not have been think-



able. Process gave Beardsley the freedom to extend his line in length and contract it in width to a degree that wood engraving would not have encouraged.

Pennell's article ended on a typically aesthetic elitist note, although it may have been an appropriate remark, given The Studio's intention of appealing to an artistic readership: "Certainly, with the comparatively small amount of work which Mr. Beardsley has produced, he has managed to appeal to artists-and what more could he wish."27 The article launched the young illustrator's career. The Studio claimed that Beardsley was known in Paris two weeks after the publication of its first issue, and that this was the most rapid international fame of any English artist. Paul Greenhalgh sees the publication of "J'ai baisé ta bouche Iokanaan" as the first seminal moment in the art nouveau movement, and notes its rapid international diffusion. Will Bradley, a young illustrator in Chicago, saw Beardsley's work in The Studio and immediately was inspired to take a new direction in his own illustration. With process reproduction, illustrators were able to see the work of their peers very quickly and directly. In the case of paintings, halftones were unable to convey the colors, scale, or subtleties of the distant and inaccessible original. But the pen and ink drawing was made with the intention that it would be mass-produced in books or magazines; the printed images were not lesser objects, but final pieces.28

From the first issues, The Studio's readership was assured of the suitability of process as a means of reproduction by regular comments on the subject. Articles, book reviews, and editorials all dealt with the replication and printing of imagery.29 Almost all of these texts supported photomechanical reproduction as an accurate and modern imaging method, and characterized wood engraving as old-fashioned and intrusive. Wood engraving's true role was now as a medium of artistic expression, as in the wood cuts of Lucien Pissaro.30 In the second issue of The Studio, Gleeson White insisted that process reproduction was the only truthful way of showing artistic photographs. In an interview with H. H. Hay Cameron, the photographer son of Julia Margaret Cameron, Gleeson White requested some photographs for reproduction. "May I take some of them to show (in the paraphrase which photo-engraving alone offers) to the readers of The Studio, a proof that the praise I mean to set down is based on solid facts?"31

The Studio continued to feature reproduction and illustration extensively as part of its reporting on the decorative arts. The magazine included pen and ink process illustration as one of a range of modern image- making and image-reproduction practices which included photography, etching, poster illustration, and lithography. The common thread in this coverage was the individuality that the imagemakers brought to their task. In *The Studio's* discourse on

artistic value, the defining quality assigned to the artist/designer and his or her products was that of uniqueness. Speaking of the French poster designer Théophile Steinlen, Gleeson White asserted that "... in art, especially in design, personality and individual feeling are the chief things."³² Furthermore, this personal quality was an innate aspect of the artist and designer himself or herself, rather than being something that could be instilled through education.³³ Photomechanical reproduction was praised for its ability to directly communicate these distinctive personal characteristics.

With the success of *The Studio*, other art magazines attempted to follow its lead, both in terms of content and reproduction techniques. However, any claims to modernity that these other magazines made were compromised in a number of ways. By 1896, the fine reproductive wood engravings which had been common in *The Art Journal* disappeared, and their place was taken by large, retouched, photographic halftones. However, the editorial support for new artistic developments was undermined by the highly conventional and sentimental nature of the majority of these photomechanical images.³⁴ *The Magazine of Art* continued to employ a reproductive hierarchy so that a range of techniques including halftones, etching, and wood engraving might all be used within the same article.³⁵ The various images that the publication printed using these different methods remained maudlin and trite.

Meanwhile, *The Studio* itself was changing and, ironically, becoming more like these conventional magazines. Fine art took an ever more prominent place in its pages. In its first volumes, the magazine reproduced halftones of three-dimensional pieces in preference to paintings. When it did feature two-dimensional work, rather than showing chromatic paintings, it preferred line images and pen and ink sketches or objects such as tapestries which had strong surface patterns. Volumes one to three covering 1893 and 1894 contained only a handful of paintings.³⁶ However, in 1895, a total of ninety-five appeared. By 1896, the fine arts had become the most visible element in the magazine. This change could be explained by the increasing sophistication of halftone techniques as finer screens produced images with sharper contrast. But this presumes that only technical considerations governed the content of the first years and, I believe, there are other explanations for the change.

Gleeson White stepped down as editor in 1895 to pursue his other publishing ventures, and Holme took over as both editor and publisher.³⁷ Although Gleeson White continued to contribute important articles to *The Studio* up to his sudden death in October 1898, he was no longer in charge. The subjects that he was particularly interested in promoting: black and white illustration, reproduction, and photography became less prominent. They continued to be covered, but with a much less-intense focus than in the first few

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years. Between 1893 and 1901, *The Studio* printed approximately 850 paintings, 60 posters, 144 illustrations, and approximately 90 photographs. Most of the photographs and the articles on photography appeared in the first five volumes, when Gleeson White was still exerting editorial influence.

As *The Studio's* content subtly changed, so did the format through which it was expressed. Each issue now opened with an extended article on an artist, illustrated by large halftones of his or her work and occasionally by photographs of the artist in his or her studio.³⁸ The vast majority of *The Studio's* articles were now on artists rather than designers. The magazine also became more conventional in that it established an imaging hierarchy. It did not change its reproduction methods, but photographically reproduced inserts of prints or sketches became a regular feature in the magazine. As in the established magazines, these were printed on thicker paper stock and blind-embossed to enhance their status and make them look like handmade autographic prints.

During his tenure, Gleeson White had promoted modern illustration not just as a valid art form, but as the most vibrant of the contemporary arts. His "Lay Figure" columns form a sustained argument for poster, book, magazine, and newspaper illustrations as the equals of painting. In a piece from "The Editor's Room" in 1895, the writer, most probably White, argued: "To those whose art domain is bounded by picture galleries and éditions de luxe, the mere mention of posters, daily newspapers, and current periodicals as new regions wherein it lurks, comes as almost treasonable laxity."39 Gleeson White tried to open up new areas of design practice as valid domains for the collector. Indeed, poster collecting did become a rage in the 1890s with exhibitions, books, magazines, and dealers all devoted to preserving these ephemeral advertisements. The Studio's launch issue contained one of the first important articles on the subject: Charles Hiatt's "The Collecting of Posters: A New Field for Connoisseurs."40 However, there was clearly no commercial value in the collecting of contemporary newspapers and magazines. Decorative art, particularly furniture and other domestic and personal objects, for which there was an established market, retained an important place in the magazine. However, despite The Studio's achievement in carving out a space for design, the superior position of fine art was, within a few years, reasserted through the editorial structures of the magazine itself. Indeed, the publication of halftones of paintings in magazines became a crucial aspect in the marketing of artists and their works. In contrast, Joseph Gleeson White's hope that process reproduction might make the everyday and the ephemeral worthy of equal consideration as art did not prevail.

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- Clive Ashwin, "The Founding of *The* Studio in High Life and Low Life: The Studio and the Fin de Siècle," *Studio International* Special Centenary Number 201.1022/1023 (1993): 5–10, quotation 8.
 On *The Sketch* and for more details on
- 2 On The Sketch and for more details on photomechanical reproduction, see Gerry Beegan, "The Up-to-Date Periodical: Subjectivity, Technology, and Time in the Late- Victorian Press," *Time and Society* 10 (2001): 113–134.
- 3 James Parton, writing in the Atlantic Monthly in 1869, suggested that reproduction would enhance the value of the original. See Mary Warner Marien, Photography and its Critics: A Cultural History 1839-1900 (Cambridge: Cambridge University Press, 1997), 178. Walter Benjamin's ideas about mechanical reproduction and the death of the artistic aura have been questioned by many commentators. See Jaquelynne Baas, "Reconsidering Walter Benjamin: The Age of Mechanical Reproduction in Retrospect" in G. P. Weisberg, The Documented Image: Visions in Art History (Syracuse, NY: Syracuse University Press.1987), 339-340, Elizabeth McCauley argues that the copy adds to the aura of the original in a cult of celebrity in Industrial Madness: Commercial Photography in Paris 1848-1871 (New Haven, CT: Yale University Press, 1994).
- 4 Hind was the editor of Pall Mall Budget for three years, during which time he employed Beardsley as an illustrator. See Haldane Macfall, Aubrey Beardsley: The Man and His Work (London: John Lane, 1928). Some of the Beardsley's drawings appeared in The Pall Mall Budget before The Studio's profile. They had little impact.
- 5 The French edition featured an insert, which translated the text. Clive Ashwin suggests: "For *The Studio*, the central purpose of art was to make life more comfortable, convenient, and pleasant; not to challenge assumptions about the nature of experience or the facts of perception." Clive Ashwin, "*The Studio* and Modernism," *Studio International* 193 (1976): 103–112, quote 104. I think this interpretation misses some of what was genuinely new about *The Studio* and its agenda.

- 6 Harper stated that, although The Magazine of Art and The Portfolio used to show good work, by 1894, they were filled with photographs of paintings; especially old paintings because they weren't copyrighted. Charles Harper, A Practical Handbook of Drawing for Modern Methods of Reproduction (London: Chapman and Hall, 1894).
- In the early 1890s, retouching costs 7 ranged from one shilling and six pence per square inch for standard images to seven shillings and six pence per square inch for the retouching of paintings. The reproduction of the block itself cost one shilling and six pence per square inch. British Printer 4:24 (1891): 7. By 1896, a block that cost ten shillings to engrave might require retouching by hand costing 50 shillings. The elaborate hand engraving on a block in Harper's could cost £15. See W. Cheshire, "On the Touching of Half-tone Process Blocks," Photographic Journal N.S. 20:7 (1896): 181-186.
- 8 The photogravures were by the Berlin Photographic Company and by Goupil.
- 9 On the destabilizing effect of the introduction of photomechanical reproduction into art publishing, see Tom Gretton, "Signs for Labour-Value in Printed Pictures after the Photomechanical Revolution: Mainstream Changes and Extreme Cases Around 1900," Oxford Art Journal 28:3 (2005): 371-390. Gretton notes the conflicts in slightly later magazines such as The Connoisseur (1901-1992), which tried to add artistic value and status to photomechanical images through various strategies involving color printing, special paper stock, and finishing. These tactics attempted to combine the old with the new but, in Gretton's view, were unsuccessful. At this point, as he notes, The Studio also was engaging in similar tactics, including the use of tipped-in prints and blind-embossing
- 10 The Magazine of Art cost one shilling and four pence.

- 11 "My Note Book," The Art Amateur 23: 3 (1890): 109. This piece testily records a piece in The Boston Globe that stated Gleeson White was now the editor of The Art Amateur. Montague Marks insisted that he was still the editor, but affirmed: "It is a pleasure to add that Mr. Gleeson White is Mr. Mark's valued associate." Simon Houfe describes The Art Amateur as "a low-priced, rather brash production filled with line blocks and half-tones" in his Fin de Siècle (London: Barrie and Jenkins, 1997), 54. It appears, on the contrary, to have been a well-informed and progressive magazine, albeit aimed at a middle-class audience.
- 12 "Some Art Books of the Year," The Art Journal NS 47(1895); 376.
- 13 He also was very active in photographic criticism. He wrote for *The Amateur Photographer* and *The Photogram*. In *The Photogram*, as in *The Studio*, he promoted the homoerotic work of Wilhelm von Gloeden. On his involvement with *The Photogram*, see "In Memory of Gleeson White," *The Photogram* 5 (1898): 371–374.
- 14 Ibid.
- 15 Although The Studio generally was critical of "academic art," the London art scene in the 1890s cannot be simplified into oppositions between the avant garde and the Academy. There were many connections between the arts and crafts movement, the aesthetic movement, and the Academy. On the complexity of the art scene, see Alan Staley, The Post-Pre-Raphaelite Print: Etching, Illustration, Reproductive Engraving, and Photography in England in and around the 1860s (New York: Columbia University Press, 1995).
- 16 "Artists as Craftsmen No. 1 Sir Frederick Leighton, Bart, P. R. A., as a Modeller in Clay," *The Studio* I: I (1893): 27.
- 17 Ibid., 5–6.
- 18 For examples, see "An Interview with Charles F. Annesley Voysey, Architect and Designer," *The Studio* 1:6 (1893): 231–237; "Afternoons in Studios: A Chat with Mr. Whistler," *The Studio* 4: 21(1894): 116–121; and E. B. S., "A Chat with Mr. And Mrs. Nelson Dawson on Enamelling," *The Studio* 6:33 (1895): 173–178.

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- 19 The lithograph appeared as a supplement to the May 1893 issue, after which there were no further supplements for that volume. The use of supplements and tipped-in prints was something that became more common in *The Studio* from its third volume, but for a while, the use of supplements remained an ad hoc, occasional oromotional technique.
- 20 It was, it must be admitted, not a very good reproduction; the black areas were very mottled. This and two other Beardsley line and wash images were reproduced by a gelatin process which yielded poor results, compared to the line zino images. Beardsley, at first, had been unsure of the requirements of drawing for process reproduction, and in some images used a combination of wash and line that would have been very difficult to reproduce.
- 21 Frank Brangwyn, "Letters from Artists to Artists—Sketching Grounds. No. 1—Spain," *The Studio* 1:1 (1893): 12–14. The tone of this piece also is very much in a new, journalistic mode; taking the form of a chatty, anecdotal letter to a friend about a trip to Spain. This type of material continued to be used in the magazine.
- 22 Haldane Macfall, Aubrey Beardsley: The Man and His Work (London: John Lane, 1928).
- 23 Ibid., 36.
- 24 Joseph Pennell, "A New Illustrator: Aubrey Beardsley," *The Studio* 1:1 (1893): 14–18, quotation 15–17.
- 25 See Matthew Sturgis, Aubrey Beardsley (London: Harper Collins, 1999), 107–114, on the genesis of the Morte d'Arthur project.
- 26 Much of this was traced in *The Studio* itself. "The Editor's Room New Publications," *The Studio* 4 (1895): xix, noted that decorative books were surprisingly popular in an age of music halls, trains, impressionism, and capitalism. "The Editor's Room New Publications," *The Studio* 4 (1895): xxxi, argued that decorative illustration had been creating a sensation with European artists. "The Arts and Crafts Exhibition," *The Studio* 9: 46 (1897): 262–285, suggested that the Exhibition demonstrated the popularity of decorative illustration.

- Joseph Pennell, "A New Illustrator: Aubrey Beardsley," *The Studio* 1:1 (1893): 14–18, quotation 18.
- 28 "The Lay Figure at Home," The Studio 3 (1894): xxii. In 1895, Charles Hiatt noted Beardsley's immediate influence on Will Bradley in the U.S., and on illustrators in England. Charles Hiatt, Picture Posters; A Short History of the Illustrated Placard (London: Bell, 1895): Paul Greenhalgh, Art Nouveau 1890–1914 (London: V&A Publications, 2000), 24. Also see Houfe, Fin de Siècle (London: Barrie and Jenkins, 1997): 79–81 on the rapid international spread of Beardsley's influence.
- 29 Gleeson White contributed a monthly column "The Lay Figure Speaks," later retitled "The Lay Figure at Home." that dealt with current art topics in short paragraphs. The column invariably commented on illustration and reproduction. A selection of other important articles from the early volumes include: "Drawing for Reproduction: Outline Work and Tint Boards," The Studio 1:2 (1893): 65-72; Charles Harper, "Drawing for Reproduction by Process: Lithographic Chalk on Various Papers." The Studio 2:9 (1893): 99-100; "New Publications," The Studio 2:10 (1894): 143-146, which is a criticism of the use of wood engravings in G. H. Boughton's Rip Van Winkle illustrations, "Some Recent Volumes on the Printed Book and Its Decoration." The Studio 2:10 (1894): 140-142: "Afternoons in Studios: A Chat with Mr. G. H. Boughton, ARA," The Studio 3: 17 (1894): 131-136: Joseph Gleeson White. "Decorative Illustration, with Especial Reference to the Work of Mr. Paton Wilson," The Studio 3:18 (1894): 182-184; review of Henry Blackburn's The Art of Illustration in "The Editor's Room: New Publications," The Studio 3 (1894): xxxiv; and J. M. Bullock, "Charles Dana Gibson," The Studio 8:40 (1896): 75-80. It also is worth noting that many of The Studio's competitions, which were a popular feature of the magazine in its first decade, were for drawings reproduced by photomechanical process. On the competitions see Barbara Morris, "The Studio Prize Competitions: The Early Years 1893-1900" in "High Life and Low Life: The Studio and the Fin de Siècle." Studio International 201:1022/1023 (1993): 80-84.
- 30 See "Reviews of Recent Publications," The Studio 6:34 (1896): 258, on Lucien Pissaro's The Queen of the Fishes. On wood engraving as an expressive art form rather than a reproduction method, see "Reviews of Recent Publications," The Studio 14:63 (1898): 10–16, review of A. L. Baldry, The Future of Wood Engraving, Gabriel Mourey, "Auguste Lepère, A French Wood Engraver," The Studio 12:57 (1897): 143–155; and Joseph Gleeson White, "The Coloured Prints of Mr. W. P. Nicholson," Studio 12: 57 (1897): 177–183.
- 31 Joseph Gleeson White, "Photographic Portraiture: An Interview with Mr. H. H. Hay Cameron," *The Studio* 2:8 (1893): 84–89. quotation 89.
- 32 Joseph Gleeson White, "The National Competition: South Kensington," *The Studio* 8:42 (1896): 224–237, quotation 224.
- 33 "The Work of Miss Ethel Reed," The Studio 10:50 (1897): 230–236.
- 34 Tevor Fawcett suggests that the opportunities that cheaper reproduction and printing opened up led to a "visual anarchy" in most of the art magazines of the time. Across Europe, from Jegend to The Studio, to The Connoisseur, they became "overfilled with disparate illustrations, graphic and photographic, coloured and plain, originals and reproductions." Trevor Fawcett and Clive Phillpot, The Art Press: Two Centuries of Art Magazines (London: The Art Book Company, 1976): 57.
- 35 An example of this approach is an article on W. Dendy Sadler's sentimental "Georgian" genre pictures of monks and coaching inns. This is one of the first occasions on which *The Magazine of Art* featured a full-page reproduction of a painting by halftone rather than wood engraving: "The Widow's Birthday" facing page 267. But the magazine also illustrated the article with a full-page wood engraving of "A Hunting Morn" facing page 268. To add to the variety, "The Top of the Hill" facing page 272 is an etching printed on thicker stock. *The Magazine of Art* (1896): 265–273.
- 36 There are four wall paintings reproduced in Volume 1, and only three paintings reproduced in Volume 2.

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37 These projects were more adventurous than The Studio. One of his major achievements was The Pageant, a beautifully illustrated and designed book that was published as an annual in 1896 and 1897. Contributors included Verlaine Beerbohm Whistler Millais Watts, Burne Jones, Housman, and Shannon. The Magazine of Art described it as "a genuine delight to those who take a vivid interest in the most modern manifestations of art and literature." The Magazine of Art 20 (Nov. 1896-April 1897): 341. Gleeson White had been very involved with key members of fin de siècle homosexual culture from early in the decade including Charles Kains Jackson, Henry Scott Tuke, and Frederick Rolfe. On the homosexual content of The Pageant, see Laurel Brake, "Gay Discourse" and "The Artist and Journal of Home Culture" in Nineteenth Century Media and the Construction of Identities. Laurel Brake, et al., eds. (Basingstoke, UK: Palgrave, 2000), 271-291. In 1898 on a long-planned trip to Italy with members of the Art Workers' Guild, Gleeson White caught typhoid. A couple of weeks after his return to London, he died on October 19 at the age of 47. His activities as a writer, editor, designer, and publisher had not been financially rewarding; the profits from the sale of his bookshop had dwindled, and his estate yielded only a few thousand pounds. His friends got together to contribute to a fund to support his widow and children. A glowing eulogy in The Studio praised him as hugely knowledgeable, energetic, and influential on an international scale. "His death not only removes a man of conspicuous importance in artistic circles, but deprives numerous branches of aesthetic energy of their controlling spirit and their active leader," "The Late Mr. Gleeson White," The Studio 15:68 (1898): 141.

38 The Index to the first twenty-one volumes listed monographs on two architects, nineteen illustrators and printmakers, fifteen designers, and eighty-four painters and sculptors. The painters began to dominate from volume 7 onwards. The Studio included two women painters in its lead articles on individual artists: Evelyn De Morgan and Marianne Stokes. Walter Shaw Sparrow, "The Art of Mrs. William De Morgan," The Studio 19:86 (1900): 221–232 and Harriet Ford, "The Work of Mrs. Adrian Stokes." The Studio 19: 85 (1900): 149-156. An earlier piece on Elizabeth Stanhope Forbes showed her in her studio and also painting outdoors. E.B.S., "The Paintings and Etchings of Elizabeth Stanhope Forbes," The Studio 4:249 (1895): 186-192. Luise Hagen, "Lady Artists in Germany." The Studio 13:60 (1898): 91-99, notes the prejudice against women artists in Germany, and records work by Bertha Wegmann and Jenna Bauck. Women were featured more often as designers and illustrators than as painters. Examples include: "The Work of Miss Ethel Reed," Studio 10: 50 (1897): 230-236; E. B. S., "Eleanor F. Brickdale, Designer and Illustrator," The Studio 13:60 (1898); 103-08; and Walter Shaw Sparrow, "Some Drawings by Mrs. Farmiloe," The Studio 18:81 (1899): 172-179. Women were particularly well represented in the discussions and surveys of decorative design. Gleeson White's article on The National Competition South Kensington illustrated twelve pieces by women students and five by men. Gleeson White, "The National Competition South Kensington, 1895." The Studio 6:31 (1895): 42-50. On the complexities of gender roles in the arts and crafts movement, see Anthea Callen. "Sexual Divisions of Labour in the Arts and Crafts Movement," 151-164, and also Lynne Walker, "The Arts and Crafts Alternative," 165-173, in A View from the Interior Women and Design, Judy Attfield and Pat Kirkham, eds. (London: The Women's Press, 1995).

- 39 "The Editor's Room New Publications," The Studio 4 (1895): xvii. Not only are the sentiments very much in line with Gleeson White's, the piece was a review of a book Pennell, with whom Gleeson White worked closely on a number of publishing projects.
- 40 Charles Hiatt, "The Collecting of Posters: A New Field for Connoisseurs." The Studio 1:1 (1893): 61-64. W. S. Rogers in The Book of the Poster (London: Greening and Co., 1901) claimed that Gleeson White was, in fact, the author of the article, and noted the importance of The Studio in focusing attention on posters. Rogers recorded Gleeson White's involvement in the first English poster exhibitions at the Royal Aquarium in 1895 and 1896. Gleeson White also lectured on posters in a series of talks at the Bolt Court School in 1896, which featured the key figures in contemporary printing and illustration; William Morris. Joseph Pennell, T. R. Way, Cobden Sanderson, and Emery Walker.

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Reflection

Hiding Lack of Knowledge: Bad Words in Design Education Jorge Frascara

This is a personal view of the nature of ignorance and intellectual laziness as they affect design education today. It is a frontal encounter with the culture of imitation, as well as a call to set the bar high when it comes to planning the education of future designers.

There is a difference between training students for entry-level positions in design offices, as happens in junior colleges, and educating designers for advanced practice and lifelong learning, as should happen in universities. This discussion is about design education in universities.

Hiding Behind "Intuition"

In the design environment, we suffer from the abuse of fuzzy words such as "intuition" and "creativity" that help to hide the inability of some university instructors to articulate concepts and to deliver actual instruction. Not being able to articulate empirical knowledge verbally leads to the acceptance of mediocrity in the university, and to the promotion of the designer as an illuminated magician in the practice.

Visual knowledge, when it exists, is evident and unique; but the reasons for its quality always can be described verbally. In some extreme cases, the attitude of the instructors is such that they let their students know that, even though they possess knowledge, they are unable to communicate it: this knowledge has to be discovered through the insistence on making things over and over again. The students are left wondering just how they are going to find and retain the Holy Grail of design knowledge. Julio Le Parc, an artist friend of mine and a schoolmate in my early years, was annoyed at how his instructors in printmaking graduate studies hid everything in locked drawers when he showed up at the studio. Eventually, he realized that those who were hiding their work did it because they did not have anything to hide.

Because universities require staff to develop research activity, it has become common to add the term "research" to the practice of design. Design instructors, hiding behind myths that exist in popular culture about art, describe their run-of-the-mill design practice as "design research." The ordinary practice of design, however, is not necessarily research.

Real visual research, when it exists, is visibly evident; and the reasons for its quality can be described verbally. It involves knowledge, craft, sensitivity, and innovation. This is the case, for instance, with Leonardo's anatomical drawings or, just for a specific example, with the orange tree in Cima da Conegliano's *The Madonna of the Orange Tree* (Gallerie dell'Accademia, Venice), where every leaf makes sense where it is. This is not just a generic visualization of the concept "tree." Examples of similar sophistication in visual communication design abound. They can be found in visual and methodological aspects of projects in information design, graphic interfaces, advertising, teaching aids, and social marketing. However, routine practice in graphic design is not research.

It is possible that an experienced designer could work in a way that appears to be intuitive to an outsider. An experienced designer can develop a wonderful concept in a short time, but this is not intuition at work. Similarly, experience allows a professional pianist to play a concert, not only ordering his fingers and memory to carry out what would be an impossible feat for any "normal" person, but also dealing with musicality and interpreting the intentions of the composer. Of course, there are people who have more ability than others from the outset: those who are better at reasoning, accumulating knowledge, thinking fast, and executing with dexterity. But this is not intuition at work: this is a combination of knowledge, skill, sensitivity, experience, and a lot of work. This is an expression of several modes of intelligence driven by an extraordinary will. It is neither easy nor just "talent."

In the design education environment, we suffer from the "master-apprentice" model. Instructors who are extremely good at doing something, but unable to articulate the principles that guide their actions, treat students just like Pavlov's dogs. I have seen instructors judge the quality of their students' work by saying: "This one is too busy" or "This is better, it is simpler." They suggest that "busy" is bad and "simpler" is better in every situation. Context and content are alien dimensions for design instructors who work simply as "dog trainers." The students are trained to please the masters through slavish imitation, and this is the worst thing that an instructor can do to a student. Dogs and horses can be trained, but students should be educated. I will return to this later.

Imitating is easy, and the majority of people live by imitation. They walk upright, and they dress like humans, but they could never in their lives have invented culture. Many people are able to consciously adopt cultural mores, as well as intensely understand and enjoy cultural productions, even if they are not able to create them. Then there are the likes of Plato, Leonardo, Michelangelo, Shakespeare, Kant, Mozart, Kafka, Marx, Herzog, Bergman, Chaplin, Brecht, Einstein, Sartre, et al.: the culture builders. Such a list might vary from designer to designer, but I recognize people such as these within the communication design culture; whose work opened up new possibilities and created new paradigms for me to extend my understanding. Although they do not abound, many designers belong in this category.

Visual imitation is drastically different from visual research, as well as from learning by observation. Learning by observation should hinge not on copying and imitating, but on understanding the underlying principles that lead to admirable results. Early in life, around my mid-twenties, I took the annual graphic design books I had, and decided to select the pieces that I liked best. I marked the pages of a dozen or so designs, and then I engaged in an analysis of the common features that they shared. I wanted to understand why I was attracted to these works, so that I could improve mine. I learned quite a few things, and my work-at least in my judgment-took a turn for the better. This required looking closely, finding similarities, recognizing the motivations for differences, and reformulating the visual information into verbal propositions. Of course, this was a matter of aesthetic preference that only skimmed the surface of what I understand as design today! It is unfortunate that, even today, the teaching of design often concentrates almost exclusively on the visual aspect of things-worse still, without its reformulation as propositional knowledge. Proof of this is the ubiquitously exclusive use of the portfolio requirement for admission into professional programs in visual communication design.

I am not suggesting that everything should be turned into words. Visual information has been used in our culture for a long time as a complement to verbal information. Moreover, for hundreds of years, architects and engineers have recognized the limitation of verbal communication when programming the construction of objects, and therefore have used drawings to communicate information to builders and manufacturers.

This proves the existence of at least two different kinds of knowledge: one articulated verbally, and another articulated visually. There are then two ways of researching knowledge, and two ways of communicating knowledge. In surgery, for example, there are texts to be studied, as well as a great number of drawings and pictures; but no one has jumped from texts to surgery without having watched a surgeon operate. Surgery always has used the master-apprentice model as *part* of the training of student surgeons. The same is true for design today. But watching alone does not do the trick, because articulated information also is indispensable. The problem is that it is easier to imitate styles than to exercise judgment. It also is easier to show designs than to explain the principles that underlie good visual decisions. This is, however, the only way that one can empower others to understand design: recognizing and articulating the principles that lead to appropriate visual design criteria. I say "visual design" and not "visual communication design" because here I am referring exclusively to the visual aspect of design. In visual design, the main principles are no mystery. To a great extent, they are Gestalt theory applied with intelligence and sensitivity. It is necessary to understand how perception works, how esthetic

pleasure can be generated, how esthetic preferences are formed, how esthetic preferences are culturally conditioned, and how aesthetic choices in design are situated, functional decisions.

In my long experience as a reflective practitioner, I have never had a case in which the decisions I made in design could not be articulated verbally. In my most recent professional project, which involved the design of an information leaflet, I made nineteen typographical decisions based on fifty bibliographical sources, and my final report to the client listed thirty-nine recommendations, all supported by specialized literature. The design prototype was used as an example of implementation and as a testing tool, and proved the validity of the recommendations made. The prototype complemented the verbal articulation, and it involved, of course, more information than what was provided verbally, because there is a point where verbal articulation is less efficient than visual presentation, and there are details that are not of interest to the client. It is one thing to conceptually frame the design decision to use a particular blue in a corporate identity, but another different and impossible thing is to communicate verbally how the blue exactly is.

I do not believe that recognition of the value of empirical knowledge escapes our culture today: it has its place in many fields, including design. Nevertheless, promoting empirical knowledge to the detriment of verbal articulation is undesirable, not only in the development of design, but particularly in design education at the university.

Hiding behind "Research"

I have discussed the use of the word "research" to refer to activities devoid of method that more appropriately could be called "explorations." Without method, there is no research. But without social relevance, however watertight the method is, research is useless. Hiding behind empty research is as bad as calling visual exploration "research," or hiding behind "intuition."

There is a move today to create doctorates in design. I have seen the promotional materials of one institution, which carried the title: "We do research!"—as if it were "We do drugs," "Elvis was here," or "We sell Ferraris." In a culture filled with imitators, however, if some institutions have doctorates in design, others will want them as well. Consequently, there is an interest in the development of formalized research. But one major flaw in this interest is the lack of ability in many people to identify just what to research. In the quest for research problems, people get engaged in impossible tasks such as defining words, as if it were possible to define them in a universally valid way. Long theses are developed about the "real" meaning of a word such as "knowledge" or "design." In other cases, theses based on field-test studies measure all kinds of useless differences. I am not opposed to the discussion of language and meaning, but these topics should be developed in a design department in an operational sense only, and not in an absolute sense. I can choose to understand design in a given way, and act accordingly as a professional and as an educator. But if I want to engage in the problem of defining words in an absolute way, I should do it well. And that can only happen in philosophy and linguistics, not in a design department. In a philosophy department, appropriate thinking tools are discussed, and knowledge of the rich Western tradition is required. Designers doing abstract philosophy run the risk of being uninformed, opinionated, and simplistic. Reading these poor attempts at rational arguments about totally abstract problems, I feel as though I am back in medieval times, attempting to determine the sex of angels or trying to prove the existence of God by using Aristotle's syllogisms. We should recognize the limits of our territory in design education, and we should do the best we can within it. We are oriented to action and construction: reflection and conceptual discussion are necessary but, as tools, not as ends in themselves.

In my view, there are three conditions that must be met to develop useful advanced research in design: the problem should belong in the design discipline, the methods used should be a model for the profession; and the topic should be socially relevant. Sometimes this can extend the field of practice, developing interdisciplinary ways of working; however, interdisciplinary work must be based on disciplinary competence, that is, on specialized knowledge. In some cases, interdisciplinary work leads to paradigmshifting results that make us rethink the nature of designing. This, I think, is the ideal outcome of important research in design, but it can only happen in the context of social and professional relevance. Meaningful research addresses specific problems but, at the same time, it contributes to the collective knowledge pool in visual communication design. Effective strategies developed for one problem can be extrapolated to assist future action in other situations.

I learned to do field research from a conversation with Herbert Spencer about his research on readability, and in a review of his reports on the studies. I enjoy theory that is anchored in action and oriented to action. It is not my priority to dedicate time to defining the word "design" when every ten minutes, day and night, thirty-five people are hospitalized in the United States as the result of a traffic accident. This is a country in which 500 million working days are lost to injuries every year. The cost is staggering. The human suffering is unthinkable. Good communication design oriented to deal with problems that affect the whole of society is urgently needed. Whether dealing with safety, nutrition, ecology, literacy, health, discrimination, unemployment, social justice, tolerance, administration, business, peace, training, education, or whatever other human need, design has a role to play. This is not just adolescent romanticism: everything that does not work well in society costs lots of money. Traffic injuries cost the health care system in North America (excluding Mexico) 150 billion dollars a year. One

day, governments will note the staggering cost of having done nothing about this, and will then invest resources in public education. But simply identifying the problems is not enough. When opportunity knocks, designers will need to have the knowledge and the skills to produce successful communication strategies.

What is design education doing about this?

Educating or Training?

Educating requires a partnership between instructor and learner, and it aims at total personal development. Education should create intelligent, integrated, sensitive, and productive members of society.

Teaching is based on transmitting information; learning on searching and discovering. Teaching and learning are both fundamental in the educational process. Students should be instructed, but they also should be taught how to learn on their own, both from others and from their environment. Education should be oriented to fostering the acquisition of fundamental skills and independent judgment. Without forming, informing does not make sense. Informing prepares people to know *how* to do something, but not *why* or *what for*. Informed people are followers and imitators: they do not contribute to the development of knowledge or to a new understanding of existing knowledge.

There is a primary learning aspect in education that is both connected to the acquisition of information and conscious; and there is a secondary learning aspect (technically called "deutero-learning") that relates to the development of skills, but it is an automatic and unconscious effect of primary learning. If I learn how to plan a project carefully, I also learn how to plan anything carefully: if I learn a foreign language, I also become better at learning foreign languages. This concept of secondary learning should serve as a focus for educational programs. It is necessary to identify the skills that the students should develop, and to plan the projects for studio courses to support that development. The opposite of this is to mechanically line up a series of projects just because they have been done before and students liked them. Thus, we have "the page layout project," "the expressive typography project," or "the identity project": all mini-representations of the exterior aspects of professional practice. This is done instead of dealing with problem areas such as understanding the reading comprehension process; understanding the language of the public to be addressed; understanding the human factors involved in relations between people, things, and environments; understanding working methods; developing planning and visualization skills; and so on. In sum, the aim of design education should be to foster the development of thinking, judging, collecting information, organizing it, managing resources, and producing visual communications that are effective and sensitive to users, contents, and contexts. The design projects should not be the focus, but rather the means to achieve these goals.

To instruct relates to training. To educate is to foster the development of judgment, personal initiative, and the conscious adoption of values. This distinction is essential. To be a good designer in the broadest professional sense, in addition to the technical knowledge, one has to be a good citizen, that is, a socially responsible person. For this, technical instruction, however good, is insufficient, let alone faith in intuition.

Personal Style/Personal Expression

Personal expression and style are unavoidable, but they are not to be sought. Nor should style be forced to be different. One is who one is; not who one wishes to be. In a profession grounded in interpreting the communicational needs of a client in relation to a sector of the public, the client and the public form the two poles that must be integrated by the designer in a communicational act, with the aim of generating a desired response. Any recognizable presence of the designer in the middle of that point of encounter between client and public is "noise," and thus detrimental to the purpose of the effort. Leonardo Da Vinci was expressing himself when he did his scientific illustrations, but he also was pursuing his keen interest in understanding how things work. He was promoting a value system that guided his life; demonstrating his extreme sensitivity to nuances of form, and using his best ability to store knowledge and to communicate it visually. Was he trying to express his feelings? No. This was not the type of activity in which this could be entertained. Was he trying to be unique? No. He was unique. For better or worse, everyone is unique. The majority of people create the norm; however, some people move away from the norm. These people include the misfits and the culture builders. Most people are imitators. In an education dominated by imitation, it is understandable that many young people develop an urgent need to be different. The lack of intellectual tools, however, reduces these attempts to the superficial aspects of design, and results in different "looks," but in useless learning results. The form of the language is important, but only when it is sensitive to context and content, and only when the content has significance.

A Final Word

Either for a commercial purpose or for any other type of need, the problem of design education remains. Hiding behind the abuse of words such as "creativity" and "intuition," and perpetuating the master-apprentice tradition, will neither help society nor design. Perfectly careful and methodical research, without relevance, will not help either. We have to set the bar high enough that we abandon the idea of training designers, and get on with the practice of educating them, even if, in the end, they begin to think differently than us. At least they will think, and will not just copy, like trained monkeys, the miserably superficial look of things.

The Etymology of Design: Pre-Socratic Perspective¹ Kostas Terzidis

Design is a term that differs from, but often is confused with, planning. While planning is the act of devising a scheme, program, or method worked out beforehand for the accomplishment of an objective, design is a conceptual activity involving formulating an idea intended to be expressed in a visible form or carried into action. Design is about conceptualization, imagination, and interpretation. In contrast, planning is about realization, organization, and execution. Rather than indicating a course of action that is specific for the accomplishment of a task, design is a vague, ambiguous, and indefinite process of genesis, emergence, or formation of something to be executed, but whose starting point, origin, or process often are uncertain. Design provides the spark of an idea and the formation of a mental image. It is about the primordial stage of capturing, conceiving, and outlining the main features of a plan and, as such, it always precedes the planning stage.

Etymologically, the verb "design" is derived from the prefix *de* and the Latin verb *signare*, which means to mark, mark out, or sign. The prefix *de* is used not in the derogatory sense of opposition or reversal, but in the constructive sense of derivation, deduction, or inference. In that context, the word "design" is about the derivation of something that suggests the presence or existence of a fact, condition, or quality. In Greek, the word "design" is $\sigma\chi\epsilon\delta\omega$ (pronounced *schedio*), which is derived from the root $\sigma\chi\epsilon\delta\omega$ (pronounced *schedio*), which means "nearly, almost, about, or approximately." Thus, from its Greek definition, design is about likelihood, expectation, or anticipation. In its largest sense, design signifies not only the vague, intangible, or ambiguous, but also the strive to capture the elusive.¹

Traveling further back into the origin of the Greek word $\sigma\chi\epsilon\delta\delta\sigma$ (pronounced *schedon*), one may find that it is derived from the word $\epsilon\sigma\chi\epsilon\iota\nu$ (pronounced *eschein*),² which is the past tense of the word $\epsilon\chi\omega$ (pronounced *eho*), which in English means to have, hold, or possess. Translating the etymological context into English, it can be said that design is about something we once had, but have no longer. The past tense in the Greek language is referred to as indefinite ($\alpha\delta\rho\iota\sigma\tau\sigma\varsigma$) and, as such, it is about an event that did occur at an unspecified time in the past, hence it could have happened anytime between a fraction of a second and years ago. So, according

- Precisely, the root of σχεδόν (pronounced schedon) is derived from έσχειν (pronounced eschein), which is the past tense of the verb έχω (pronounced eho), that is "to have." Therefore, design literally is about the reminiscence of a past possession, at an indefinite state, and at an uncertain time. Similarly, the word "scheme" from the Greek σχήμα means "shape" and also is derived from the root σχεδόν.
- εσχειν (pronounced *eschein*) is also the root of the English word "scheme."

to the Greeks, design is linked indirectly to a loss of possession and a search into an oblivious state of memory. This linguistic connection reveals an antithetical attitude towards design, one that, in the Western culture at least, is about stepping into the future, as a search for new entities, processes, and forms, frequently expressed by the terms "novelty" or "innovation." Before venturing any further into this Greek paradox, it may be useful to examine the notion of innovation and novelty within the context of design and, specifically, architectural design.

Innovation is a term amply used in association with the process or products of design. It is defined as "the act of beginning or introducing something for, or as if for, the first time." Surprisingly, there is something strange about this definition. It appears to be a semantic twist within the definition of innovation itself. It involves the conjugation "as if," which means literally "in the same way that it would be if," asserting the possibility of an equivalence between existence and the perception of existence. While the adjective "for" is a definite indicator that connects an object, aim, or purpose to an action or activity, the conjugation "as if" involves a hypothetical conjecture posed over the truthfulness of the statement. Such a definition is, to say the least, paradoxical, contradictory, and problematic in the sense that, while the definition itself is supposed to lead towards a definite assertion, it also involves the possibility of negating the same assertion. If the assertion is that innovation indeed is about the first time, then it is contradictory to also assume that such uniqueness also can be perceived as such, because it then implies that something that may not be "first" also may be assumed, presented, or perceived as "first," which is an apparent contradiction. In other words, the definition of innovation involves the possibility of a deliberate, unintentional, or accidental flaw: if something is perceived as such, then it must be such. This syllogism brings up an important hypothesis about perception: that it is possible that something can be constructed to appear as such, or that an audience may be conditioned to perceive something as such. In either case, the definition of innovation seems to suffer from the lack of two of the most fundamental principles of every definition: clarity and truthfulness.

Because of its pioneering nature, innovation frequently is associated with originality. Originality is defined as the quality or state of preceding all others in time. Innovation also is defined as the act of introducing something new (i.e., something that comes into existence for the first time). However, unlike innovation, originality is about a point of departure, a source of knowledge, and an archetype. It is a primordial mark at which something comes into existence, an ancestral origin whose genetic material transcends throughout the following generations. Unlike innovation, the
importance of originality is to be "first in order," and this quality is not a matter of perception but rather a matter of necessity. While the intention of both processes may be similar, their logical directions are antithetical. If innovation leads towards one direction, then the search for originality leads towards the opposite. Innovation may be seen as a process of adding one more leaf to the tree, while originality can be seen as the process of adding one more root.

In tracing back to the origin, one is forced to travel from the leaves backwards towards the roots. This process involves at least two modes of thought: reduction and reversion. While the notion of reduction can be associated with decrement, lessening, or diminishment, it also can be associated with abstraction, simplification, and idealization. Similarly, reversion is about regress, setback, or recall, yet it can also be about return, reassessment, and reconsideration. The reason for this is that the prefix "re-" is used here not in the negative sense of backward or regress, but rather in the positive sense of again or anew. Interestingly, the term "innovation" is commonly associated with progress, advancement, growth, and expansion: terms that ironically also are considered to be the opposites of reduction and reversion.

In architectural design, the notion of innovation has been a founding, axiomatic, and guiding principle. Within the modernist tradition of novelty, the search for innovation may have become a misguiding rather than a guiding factor in design. While, in the early twentieth-century, the shock of the new may have provided an escape from the traditions of the past, its constant use in the world of fashion today and the everlasting struggle to introduce something new for, or as if for, the first time defies its original purpose. Novelty is a primordial fascination of the human mind, yet its perception seems to be highly illusory, conditioned, and influenced. As Wes Jones points out, "We believe that newer is better. Not because it is a fact in each individual case, but because it is an inevitability in general." While many theorists are concerned with the value of newness, it also may be useful to explore the question: "What is new?" Just because something appears to be new, or is labeled as new, does not mean that it is essentially new. Like a magician's show, the appearance or disappearance of objects in a scene generates a primordial fascination from the viewpoint of the audience; yet not from the magician's viewpoint.3 Novelty requires more than just appearance. As in the case of innovation versus originality, novelty usually is about the striking, different, or unusual; but it also can be about the first, seminal, or original. A difference in appearance does not necessarily justify novelty. If something is seen from a different angle, is rotated upside down, or a piece is added that does not mean that the result is new, yet it may appear to be new. In contrast, an original concept involves newness in a productive, seminal, and influential way.

³ Similarly, in the game of peek-a-boo, a baby is mysteriously fascinated by an appearing/disappearing face.

- 4 The Socratic analogy of shadows in a cave illustrates the illusion-prone nature of the senses, and the inability to distinguish reality (light) from its representation (shadow). The feeling of sensory illusion is so comfortable that attempts to reveal their deceptive nature is met with fierce resistance (*The Republic*, book VII). While in Plato's dialogue *Parmenides* there is a clear distinction between the Socratic theory of ideas and Parmenides's existential philosophy, both are in agreement on the deceptive nature of the senses.
- 5 To paraphrase a paradox by Zeno, a student of Parmenides, it can be argued that novelty resembles an arrow moving forward in time and, as a moving arrow, either it is where it is or it is where it is not yet. If it is where it is, then it must be standing still, and if it is where it is not, then it can't be there; thus, it cannot change position. Of course, the paradox is just a metaphor to show the inability to achieve something out of nothing (i.e., to create something new).
- 6 Alternative versions of the word ύπαρξη (i.e., "existence") in Greek are υπόσταση, which is equivalent to *ex-sistere* and το ωντι, which literally means "this which is." Óν (pronounced *on*), which is the root of the word "ontology," is the present participle of the verb ειμί (i.e., "I am").

As mentioned earlier, the notion of design, according to the Greeks, is associated with the past instead of the future. Such an assumption appears almost antithetical to the predominant notion of design as a process that leads towards the derivation of novelty. How can the past be of such significant importance, especially as a recollection of past, lost thoughts? If, according to the Greeks, design is about something that we had but do not have any more, then it is lost somewhere in the past. But then what is its connection to something that is about to become in the future (i.e., a novelty)? Why would they offer such an unexpected and obscure relationship? Is it possible that, according to the Greeks, novelty, in the sense that we understand it today, does not exist per se and anything new is just *an illusion*?

If we look deeper into pre-Socratic philosophers such as Xenophanes, Parmenides, or Zeno, one of the common agreements between them was the assumption that nothing comes out of nothing and nothing disappears into nothing (i.e., nothing can just pop up or vanish without a trace). Such an assumption is very important to understand their reluctance to conceive, accept, or understand the concept of novelty in its modern sense. If everything is indestructible, then change is nothing but a transformation from one state to another; the appearance or disappearance of parts is only phenomenal; nothing is added or subtracted. Therefore, if something emergences, appears, or claims to be new, then it must be nothing but an illusion because, if it is not, it would contradict the initial premise of preservation. Such logic, while it may appear to be simplistic or absolute, it also is very powerful because it does not allow thoughts to be affected by sensory phenomena. What is most significant about this logic is that it sets a paradigm in which knowledge about reality is based upon reason, and therefore strives to be truthful, while human opinion of appearance is based upon our senses, which are not only unreliable but also misleading.⁴ According to this logic, design as a mental process of creation can be seen as bounded by the limits of preservation: any newly conceived thought, process, or form is nothing but a reordering of previous ones. However, if we consider this possibility, then we are confronted with the problem of origin. Since every "new" idea is depended on a previous one, then there must be an origin, a starting point, a root of roots out of which everything spurs, tangles, and multiplies, offering glimpses of what occasionally appears to be "new." Thus, we are led to the conclusion that the origin, like its material counterpart, must be fixed, eternal, and indestructible. And since novelty involves the negation of existence (i.e., something that did not exist before), novelty is impossible. It is only a sensory illusion.⁵

In English, the word "existence" is derived from the prefix ex (i.e., forth) and the verb sistere, which in Latin means to cause to stand up or come to a stop. Thus, etymologically, the meaning of the word "existence" can be associated with the action of appearance or arising. In Greek, the word "existence" is $\dot{\upsilon}\pi\alpha\rho\xi\eta$, which is derived from the prefix υπο (hypo), meaning "under, below, or beneath," and the noun $\alpha \rho \chi \eta$ (arche), meaning "beginning, start, or origin." Thus, similar to design, existence is not only about the distant past, the beginning of things, but also even further because it involves a step beyond, below, or beneath the starting point. But how is this possible? How can something lay beyond the beginning? Wouldn't that result in a new beginning which then should be displaced again *ad infinitum*? Such a train of thoughts may appear paradoxical because it is interpreted as a sequential linkage in the context of a beginning and an ending point. As established earlier, in the pre-Socratic spirit, the notion of a beginning (as well as that of an end) must be rejected. Things exist before their phenomenal starting point and, therefore, the use of the prefix hypo declares the framework, structure, or platform out of which starting points can be observed. Similar to a river, its origin is not the spring itself but rather lies far beyond, beneath, or below its phenomenal emergence.

The verb "to become" is used in English to denote the action of coming into existence, emerging, or appearing. In language, as opposed to formal logic, existence is a predicate rather than a quantifier, and the passage from copulative to existential can be misleading. The action of coming-to-be or becoming does not necessarily have to be associated with creation, beginning, or emergence, but rather may denote a process of derivation, transformation, or transition from one state to another. Indeed, transition is the act of becoming, except that its connotation is problematic because, as Evans points out, "...whatever is subject to the transformation must already be complete in all its parts." 7 This notion is antithetical to the traditional view of design as an accumulative process. For example, the subtraction of one point from a square may result in a triangle that, in turn, can be perceived as an action in which "a square became a triangle." In this case, the action of becoming results from an operation of subtraction. Furthermore, the action of subtraction itself also is an action of becoming, where "a point became nothing." Such an action involves the existential operation of instant becoming. The pre-Socratic philosophers rejected such a notion as absurd, because nothing can just come into being or suddenly cease to exist. As they rejected traditional explanations for the phenomena they saw around them in favor of more rational explanations, they also set the limits of human imagination. According to Parmenides, if something came into being, it is not (εί γάρ εγέντ, ουκ έστιν); i.e., something that pops out of nothing cannot really exist.8 Not surprisingly, even today,

- 7 See R. Evans, "Not to Be Used for Wrapping Purposes," AA Files 10 (1985): 70. In this article, Evans makes an elegant distinction between design, as an accumulative process, and transformation as a different type of design where only relations alter.
- 8 Along the line of pre-Socratic thought, the prefixes a-, un-, and in-, when used in the sense of negation, opposition, or contrast to reality, are absurd, confusing, and pointless. Either something exists or not. The preposterousness that is inherent into the negation of existence is very apparent in two linguistic constructions namely the words "unknown" and "unreal." Both are terms that, while they exist as words, are both preposterous.

- 9
 Beginnings and endings represents change and transitions such as the progression of past to future, of one au condition to another, of one vision to another, or of one universe to another.
 get but the progression of past to future, of one to another, or of one universe to another.

 New or old do not have existence of their own, but rather are seen as transitions from one state to another.
 te set the set to another.
- 10 Perault, the architect of the peristyle of the Louvre, argued that architecture is a fantastic art of pure invention. He asserted that architecture really exists in the mind of the designer and has no connection to the natural world. In addition, architecture as an imaginative art, obeys its own rules which are internal and personal to each designer, and that is why most creators are vaguely aware of the rules of nature and yet produce excellent pieces of art. A similar point also is argued by Giovanni Battista Vico. In his work The New Science (1744), Vico argues that one can know only by imagining. The twisting of language and meaning can lead one to discover new worlds of fantasy. He argued that one can know only what one makes. Only God can understand nature, because it is his creation. Humans, on the other hand, can understand civilization, because they made it. The world of civil society certainly has been made by humans, and its principles therefore are to be found within the modification of our own human mind.

there is no word in the English language or, for that matter, the Greek language that can denote the instant becoming of an object out of nothing. While the verb "become" is the closest word, it implies a moment of time in order for something to originate. The same is true for the terms "emergence," "genesis," "birth," "rise," "derivation," "start," and "beginning," for which time is always involved.⁹ Similarly, the word "appearance" cannot be equivalent to the word "become," because it involves the subjective interpretation of the existence of an object. Appearance is about the visual interpretation of the existence of something that is coming into sight. Surprisingly, the most common word used by people to denote sudden appearance or disappearance is the word "magic," but this also carries an illusionary, unreal, and perhaps deceptive connotation—a connotation associated with the belief that it is the result of a supernatural event.

It can be argued that "coolness," fashion, style, the unapologetically fashionable, desirable, and ephemeral are not about the new, but instead are deceptive, obfuscating methods of establishing an authority on art, architecture, and design without offering the means to truly lead towards novelty. In contrast, theories, experiments, or technologies that point out the potential limits of the human mind seek to identify novelty as a quality that exists beyond the limits of the human mind. If there is novelty, in the existential sense, it must be sought beyond, below, or beneath its phenomenal appearances as an already existing entity that is outside human knowledge.

True novelty, therefore, must be the result of discovery. While knowledge about the lack of existence is impossible, the lack of knowledge about existence is possible. In other words, the discovery of the existence of something indeed is new, as it pertains to the body of knowledge that it adds to. It is about the existence of something that was, until it was discovered, outside human knowledge. Unlike the mere compositional rearrangement of existing elements into seemingly new entities, a discovery is a revelation of something that existed before, but was not known.

Discovery is the act of encountering, for the first time, something that already existed. In contrast, invention is defined as the act of causing something to exist by the use of ingenuity or imagination: it is an artificial human creation. Both discovery and invention are about the origin of ideas and their existence in the context of human understanding. These two intellectual mechanisms result from a logic which tends to argue whether the existence of certain ideas, notions, or processes is one of the following: either a human creation or simply a glimpse of an already existing universe, regardless of the presence of humans. The most paradigmatic example of this polemic is that of geometry itself. The existence of geometry can be regarded as either a descriptive revelation of properties, measurements, and relationships of existing forms or as an arbitrary, postulate-based mental structure that exists only in the human mind. For instance, Euclidean geometry originally was developed to measure distances on the surface of earth and yet, in Euclidean geometry, platonic primitive shapes such as squares, circles, and triangles do not exist per se in nature, yet they represent idealized approximations of natural objects. Likewise, architecture can be regarded as either a simulation of the laws and structure of nature or as a world of fantasy and imagination.¹⁰

The notion of an origin is important when discussing the process of design. Because of its investigative nature, design always is associated with a starting point or a pivot out of which style, fashion, or mannerisms result. That starting point is important for at least two reasons. First, and most obvious, it serves as a pivotal point of reference that identifies, categorizes, and determines a wide range of similar products. Second, and less obvious, is the fact that an origin belongs to the distant past and, as such, it involves the reminiscence of something that was once lost but whose consequences are still present. While memory usually is about mundane, common, and ordinary past events, it also is about that which is lost in the distant past—the primordial, archaic, and primitive. The origin, as such, is elusive, evasive, and indefinite, yet it is always present in the form of a sign that points out at the increasingly distant past. While the struggle to seek for the latest new "new thing" may be fascinating, seductive, or thrilling, it is only because it builds upon a primordial human weakness, that of the vulnerable nature of the senses. In contrast, the search for original, universal, and ideal forms of existence which serve as prototypes, archetypes, or models is a glimpse into an already existing world whose rules are derived from entirely different principles than those that govern the world of senses.

Thus, in searching for the origin, one is challenged to seek the basic, archaic, and primitive qualities of the first encounter. The process of recollection is a search for the truth, while the act of concealing eventually will lead to false assumptions.¹¹ The search for truth leads to facts that will be remembered for a long time, while falsity leads to facts that, while impressive at the moment, will pass into oblivion. Memory is an associative mechanism for reproducing past experiences and, in its primitive neural level, is governed by logical operations. Yet, while the primitive connections that reproduce a past event may be logical, the higher-level entities that are to be remembered are not necessarily so.

Memory relies on a concept called feedback that is the output of something being fed back into itself as input. The minimal definition of feedback involves at least two consecutive moments of time as a measure of comparison is established so that an event can be

11 In Greek, the word "false" is $\lambda \dot{\alpha} \theta \sigma_{\varsigma}$ (pronounced lathos), which is derived from the word $\lambda \eta \theta \eta$, which means "oblivion." In contrast, the word "truth" is $a \alpha \lambda \eta \theta \epsilon \iota \alpha$ (pronounced *aletheia*), which is derived from the negative prefix a and the word $\lambda \eta \theta \eta$, therefore denoting the negation to forget. Thus, the connection is that truth is unforgettable and falsity is oblivious; or rather that truth leads to facts that will be remembered for a long time, while falsity leads to facts that, while impressive at the moment, will pass into oblivion. The word $\lambda \eta \theta \eta$ is translated by Heidegger as "concealment," therefore reinterpreting the act of forgetting as one "sunk away into concealedness." See M. Heidegger, Parmenides (Bloomington: Indiana University Press, 1992), 71.



	S	R	Qa	Qb
_	0	0	0/1	1/0
	0	1	0	1
	1	0	1	0
	1	1	0	0

locked and therefore "remembered." In electronics, the basic element for storing binary information is termed as a "flip-flop." It consists of two cross-coupled NAND gates, as shown in figure 1.1. If R and S are opposites of one another, then Qa follows S, and Qb is the inverse of Qa. However, if both R and S are switched to 0 simultaneously, then the circuit will return what was previously presented on R and S. Thus, this simple logical circuit constitutes a memory element, or flip-flop, that locks or "remembers" which of the two inputs S and R was most recently equal to 1.¹²

Time therefore is "captured" by reversing its order so that an event can be revisited. The configuration of a memory unit reveals a geometrical relationship, where two parallel lines representing time are connected by establishing a cross-coupled, zigzag path. This simple geometrical relationship reveals a strange paradox: while "before" always knows what comes after, "after" never knows what lies before it. In other words, in order to know what will happen, one needs to be where nobody can go (i.e., in the future). However, future is relative to where the past starts. If the future of one observer is observed from the past of another observer, then the past of the first observer becomes the future of the second. Time, therefore, can be momentarily reversed to collect fragments of time that are called "memories."

See C. Hamacher, Z. Vranesic, and S. Zaky, *Computer Organization* (New York: McGraw-Hill, 1984), 520–1.



Symbolically, according to the Greeks, it was Chronos (time) who ruled first, and what was produced, the children of Time, were devoured by time. It was only when Time was conquered that an origin was set to its passing. That origin, the origin of human thinking, was established out of the emergence of two, newly acquired fundamental abilities: that of memory (attributed to Epimetheus) and that of prediction (attributed to Prometheus). As a consequence, it was the realization of the inevitability of death that initiated history (i.e., the preservation of memory and the explanation of time as a passing phenomenon). The ability to make logical syllogisms (i.e., to see the connection between the notions of before and after) is one of the main characteristics that distinguish intellectually humans from animals. Without logic, there is no ability to foresee events and therefore make sense out of time. One moment has meaning only in its relation to other moments: otherwise they are just fragments deprived of meaning if they are not related to other fragments. Historically, as the distinction between the emotional and logical side of the human mind started to become clearer, humans started to differentiate their nature from that of animals. Hybrid creatures that exist in various mythologies such as the Minotaur, Sphinx, Centaur, and Medusa represent a symbolic struggle to identify, differentiate, and demarcate human nature from that of an animal's establishing its superiority through slaughter. George Bataille, in his work Le Labyrinthe, offers a deeply existential interpretation of the diacritical couple man/animal and the desire to set free man's animality. According to Hollier's interpretation, Bataille sees as the origin of painting in Lascaux's caves the desire of man to represent his triumph over the animal, and not as a narcissistic pictorial urge.¹³ Similarly, in Aesthetics, Hegel interprets Oedipus's answer to the Sphinx's riddle as man's answer that eliminates any trace of animality-an answer that makes "know thyself" the unique and differ-

See G. Bataille, Visions of Excess: Selected Writings, 1927–1939,
A. Stoekl, ed. (Minneapolis: University of Minnesota Press, 1985), 171–7.
See also D. Hollier Against Architecture: The Writings of Georges Bataille (Cambridge, MA: MIT Press, 1989), 57–73. entiating principle that identifies the human species. Parmenides's distinction between truth and opinion is both an evangelism and a warning as it sets a departing point away from the animal logic and identifies a new path of truth but, at the same time, warns that this newly discovered world will be hunted by the other logic it leaves behind.

The primitive, eternal, and universal nature of archetypes serves not only as a point of departure, but also as a point of reference. Aldo Rossi refers to this nature as archaic, unexpressed, and analogical.¹⁴ Yet he also made a distinction between history and collective memory. As the relationship between form and function erodes over time, there is a disjunction in meaning that results in a twist in the flow of history: where history ends, memory begins.¹⁵ The form, empty of meaning, engulfs its own individuality and stands alone, away, orphaned, and rootless. Yet it is then that remembrance becomes the only way back. Ironically, souvenir is about the act of remembering, and yet it is only by forgetting that one can see again things as they really are. The act of forgetting is not a submersion into oblivion, but rather the erasure of false connections and the return back to the umbilical origin.

- 14 See A. Rossi "An Analogical Architecture" in Architecture and Urbanism 56 (May 1976). Also in Theorizing a New Agenda for Architecture, Kate Nesbitt, ed. (New York: Princeton Architectural Press, 1996), 348–52.
- See A. Rossi, *The Architecture of the City* (Cambridge, MA: MIT Press, 1984),
 7.

Designing a New World: Modernism at the V&A Harriet Atkinson

The Victoria & Albert (V&A) Museum's exhibition *Modernism* 1914– 1939: Designing a New World, held from April to July 2006, was an exuberant reassessment of a much-used word but little-understood idea. Following in a series of recent major V&A shows reassessing the roots and impact of nineteenth- and twentieth-century movements in art and design including Art Nouveau 1890–1914 (2000), *Art Deco* 1910–1939 (2003), and *International Arts and Crafts* (2005); *Modernism* 1914–1939 set itself the ambitious project of assessing and redefining the impetus behind, and manifestations of, modernism.

In the process, curator Christopher Wilk's show and accompanying catalogue swept aside a sea of stylistic "isms"—constructivism, suprematism, futurism, purism, dadaism, surrealism, etc.—so often adopted as a lazy shorthand in art and design histories to create artificial distinctions between closely related ideas. Asserting modernism as "a loose collection of ideas," not as a style, the exhibition succeeded in bringing together a rich grouping of objects to advance its thesis.

A central intention of the exhibition, according to Wilk, was to put the politics back into modernism. Reintroducing the complex patchwork of political and ideological alignments of designers, whose oeuvres too often in scholarship have been discussed purely in formal terms; their works instead were shown as a series of reactions principally to the horrors of World War I and to the inspiration of the Russian Revolution. By positing these moments as the central cause, the pre-1914 genesis of works termed "modernist" was not tackled in any detail within the exhibition. Although understandable in the context of the hugely complex and potentially contradictory body of material, with roots in a plethora of conditions and contexts, it raised a question that only partially was clarified with reference to Tim Benton's catalogue essay "Building Utopia," which discussed "modern" building programs in the context of longer architectural traditions.

Exhibiting items from Germany, Poland, Russia, Switzerland, and beyond side-by-side in the exhibition was useful—allowing for all sorts of fresh linkages to be made around issues such as the shared interest in the possibilities of spatial abstraction—but at times the show's lack of regional specificity became confusing. How did the circumstances of designers living under Mussolini differ from

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Figure 1 Entrance to the exhibition, showing graphic design by David Hillman of Pentagram.

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their contemporaries living under Hitler or Stalin, or, indeed, governments that cannot be categorized as dictatorships, whose work also was displayed here? These distinctions were addressed by Christina Lodder's informative catalogue essay "Searching for Utopia," and by David Crowley's enlightening essay "National Modernisms." Both sought to draw contrasts, as well as parallels, within the geographies of modernism.

The show posited three phases of modernism that produced a structure for distribution across the three generous galleries that housed it. These phases, which broadly can be characterized as utopianism, application, and dispersal, brought together a delightful collection of items to explicate their modernism. Paintings, sculptures, architectural models, photographs, furniture, clothing, film, and music were shown in and out of each other, in what, at first, appeared to be an overwhelming rough-and-tumble. Le Corbusier's model of Maison Citrohan II (1922), for example, was shown beneath a quick-fire series of film excerpts illustrating the aesthetic of speed and mechanization; adjacent to the primary colors of Katarzyna Kobro's construction Spatial Composition [4] (1928), a comparison that produced striking visual parallels. Visitors were able to navigate through the exhibition's seemingly chaotic spaces with the help of the careful choreography of architect Eva Jiricna's sympathetic installation. This worked particularly well in the first gallery devoted to utopianism, where complex media, colors, and forms produced a heady feast for the senses that subtly mirrored the frantic exploration of ideals by its protagonists, helped by the striking graphics of David Hillman of Pentagram, which offered a direction in text and arrows through the show.

An ingenious integration of lighting, sound, and theatrical partitioning by Jiricna was achieved in the "Performing Modernism" section, with its black walls, red and white graphic arrows and text, and red stage lighting, contributed by DHA Design. Broadening our definition of "performance" to include not only film and theatre, but ideas of performativity more widely-described as central to "the modernist enterprise of creating a new world"—this represented a particularly enjoyable element of the displays, as well as tackling a subject largely overlooked in histories of modernism in design. It was further illuminated by Tag Gronberg's catalogue essay on the same subject, which discussed how the performing arts began to be seen as a key vehicle for influencing contemporary society. The mesmeric appeal of Oskar Schlemmer's diver and disc costumes for The Triadic Ballet (1922) were more fully understood by being shown, as here, juxtaposed beside a lithographic advertising poster for the ballet, Schlemmer's sketched costume designs, and a film extract of the ballet being performed.

The energy and tension of the first gallery, dedicated to modernist dreams and aspirations, was lost a little at the start of the second section, dedicated to putting these ideas into practice, where the intensity of sound and light gave way to a high-ceilinged gallery space containing more widely dispersed objects. In addition, greater dependence on black-and-white photographs and architectural models in order to show the early utopian ideas' translation





Figure 2 Photographs by Carlo Draisci, © 2006 V&A Museum.

into a building and social program, was less visually arresting than that of the first. But the discussion nevertheless was illuminating and coherent. A star attraction of the exhibition appeared in this second section: designer Grete Lihotsky's *Frankfurt Kitchen* (1926–7), built into 10,000 flats by Frankfurt's Municipal Building Department. Saved and restored by the V&A for the exhibition, it was truly thrilling to peer through the doorway of this small, fitted kitchen to see the sleek innovation of compact storage drawers, built-in cupboards, and drop-down ironing board.

The third, and last, exhibition section was dedicated to the dissipation of these ideas in the 1930s both through designers' increased attention to nature as an influence in their work, and through the adoption of modernism outside of its historical center. It was only at this point that works from the U.S., Britain, and Scandinavia were brought into the frame. For example, Finnish architect and designer Alvar Aalto-who has become centrally positioned within popular histories of modernist design—was assimilated into the exhibition's story through a walk-through film of his Villa Mairea at Noormaarkku (1937-9), as it looks today, and his Savoy vase, designed for the 1937 Paris International Exhibition. Choosing five case studies to describe a sample of "National Modernisms," the exhibition demonstrated successfully within a restricted space that the reach of these ideals went far beyond the scope of a single exhibition. The tardy regard in Britain for things "modern" was summarized, for example, by a neat discussion that focused around Georgian-born Berthold Lubetkin and Tecton's work at Highpoint 1 (1933-5) and Highpoint 2 (1938-9) in London's Highgate, showing his cowskin, wood, and steel seat designed for the Penthouse, alongside building perspectives.

To literary critics in Britain and the U.S., modernism perhaps has become synonymous with the output of writers such as James Joyce, Ezra Pound, T. S. Eliot, and Virginia Woolf, whose work represents a formal avant-garde, while they themselves represent gradations of cultural conservatism. Similarly, recent histories of the decorative arts in Britain have discussed groupings such as the Omega Workshop and Bloomsbury Group within the frame of modernism (Christopher Reed's Bloomsbury Rooms, for example).1 None of these were the focus of this exhibition, however, which consistently defined "modernism" as the series of ideas born out of a direct response to World War I and the Russian Revolution. For this reason, the U.S. played a marginal role in the earlier sections of the exhibition, except as an influence on production values via the export of the ideas of Frederick W. Taylor and Henry Ford. It was brought back into the story at its end, when modernism hit the mass market through its popular adoption into, for example, the "American Modern" tableware of Russel Wright and films choreographed by Busby Berkeley such as Gold Diggers (1933). The exhibition's final

 Christopher Reed, *Bloomsbury Rooms* (New Haven,CT, and London: Yale University Press, 2004).

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Towers designed by Eva Jiricna in the exhibition's section dedicated to *Building Utopia*. message was that, by the start of World War II in 1939, the world would continue to be shaped by the fragmented impact of these ideals and practices indeed well after 1945.

The exhibition's saturated color palette forced the viewer to discard any preconception of modernists as single-mindedly obsessed with perfecting the functional white cube. The passion and sensuality, for example, of Giacomo Balla's patchwork of colored woolen prisms, his Futurist Suit (c. 1920), intended to be worn in the buildings of Antonio Sant'Elia's Futurist landscapes (1914), took this far from being a collection of humorless austerity. The freneticism of visionary activity from 1914 to the mid-1920s was powerfully evoked by the ensemble, which allowed absurdity to be part of our understanding of modernism proper. Indeed, humor was tangible at several points in the exhibition. From the overt comic playfulness of Charlie Chaplin's parody of the madness of mechanization in an excerpt from Modern Times (1936), in which Chaplin is seen trapped on a conveyor belt and stuck in the cogs of a machine, to the unintended comedy of followers of Rudolf Laban experimenting with the contortions of his notation in the "Healthy Body Culture" Section, viewers were given pause to smile, even to laugh out loud, in reaction to the particularly energetic excesses of the pursuit of the modernist ideal. The exhibition used film and music well in this respect, controlling the mood of the exhibition by both lightening and, at times, darkening it, and providing an exceptionally powerful tool for creating uneasy juxtapositions. For example, from a brief film



clip showing the seemingly innocent exuberance of Laban's disciples, pursuing their physical communion with nature, we were suddenly confronted with the altogether more sinister, less palatable masschoreography of Leni Riefenstahl's films. Her account of the 1936 Berlin Olympic Games, *Olympia* (1938) was shown alongside footage of the *10th All-Sokol Gymnastics Festival* in Prague (1938), depicting tens of thousands of gymnasts performing sequences at the moment when Hitler was threatening to invade Czechoslovakia.

The show's catalogue is a particularly indispensable addition to the literature on modernism in art, design, and architecture; carrying, as it does, eleven essays accompanied by well-researched and detailed entries cataloguing each of the exhibition's exhibits.² In adopting a thematic approach through its essays, which followed the exhibition's sections but contextualized them in some detail, the catalogue differed from predecessors such as *Art Deco* 1910–1939 (2003).³ Edited by Charlotte Benton, Tim Benton, and Ghislaine Wood, *Art Deco* set up the stylistic basis of art deco in European craft traditions, as well as from Ancient Egypt and Meso-America, for example, before tracing its impact and dispersal. This made it more difficult for its essays to move away from stylistic analysis to wider, contextual issues.

Modernism 1914–1939's merchandisers managed to stock the shops with an appealing assortment of products that are now the familiar accompaniment to blockbuster shows in major museums, including t-shirts sporting the logo "Modernist," towels carrying reproductions of Antonin Kybal's textile prints, and branded stationery, along with the ubiquitous stuff of European design museums—miniature versions of Aalto's iconic chairs, for example. These nestled beside academic books touching on a range of subjects relevant to visitors keen to further their detailed knowledge. Similarly, the show's extensive Website succeeded in treading a difficult line, being both informative and entertaining.⁴ It offered a bibliography, a preview of exhibition objects and text panels, and a timeline showing the activities of designers at various points during the exhibition's chronology, as well as offering appealing prizes from the fashionable home design store (and exhibition sponsor) Habitat.

- Modernism 1914–1939: Designing a New World, Christopher Wilk, ed. (London: V&A, 2006).
- 3 Art Deco 1910–1939, Charlotte Benton, Tim Benton, and Ghislaine Wood, eds. (London: V&A, 2003).
- 4 The exhibition Website is still accessible at: www.vam.ac.uk/modernism.
- 5 Simon Jenkins, "For a Real Exhibition of Modernism, Skip the V&A and Go to Manchester," *The Guardian* (April 7, 2006).

Aside from the exhibition's significant intellectual achievement in forcing a reevaluation of this much-referenced, but scantily analyzed, area of design; *Modernism 1914–1939: Designing a New World* achieved something rare for an exhibition of British design and decorative arts. It sparked a furious debate in the national press about whether or not modernism had been "a good thing." The antis, led by columnist Simon Jenkins, with his high-pitched assertion in *The Guardian* that "[*Modernism 1914–1939*] is the most terrifying exhibition I have seen, because it is politics disguised as art," were soon answered by the pros, who sought to demonstrate the continued

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importance of the modernist inheritance in key examples of today's design and architecture.⁵ Bizarrely reminiscent of the polarized reception of modernism in Britain before and after the Second World War, it was a fascinating reminder that politics and design remain an unpalatable mix to Britain's establishment.

Modernism 1914–1939: Designing a New World was at the V&A, London from April 6 to July 23, 2006, and then at MARTa Herford, Herford, Germany until January 2007. It then went to The Corcoran Gallery of Art, Washington, DC, March to July 2007. The exhibition's catalogue is available online from the V&A at: www.vandabooks.com.

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Massive Change: The Future of Global Design Lauren Weinberg

Massive Change: The Future of Global Design greeted visitors to Chicago's Museum of Contemporary Art (MCA) with a giant banner that asked, "Now that we can do anything, what will we do?" According to Bruce Mau and his students from the Institute without Boundaries (IwB), who organized the exhibition, we will use design to solve every problem facing the world today.

It should have been refreshing to encounter such a powerful belief that the glass is half full, particularly because *Massive Change* presented compelling proof that design really could bring an end to famine and global warming; not to mention the accumulation of disposable diapers in landfills. Moreover, the book (published by Phaidon) and Website (www.massivechange.com) produced by the "Massive Change" team to accompany the show are replete with useful content. But when I saw "Massive Change" at the MCA, its failure to acknowledge the factors perpetuating the problems design is supposed to solve led me to conclude that this blockbuster exhibition was half-full of it.

The *Massive Change* three-month stint at the MCA in the fall of 2006 concluded a tour that had begun at the Vancouver Art Gallery in October 2004. (The Vancouver Art Gallery's senior curator, Bruce Grenville, and its director, Kathleen Bartels, were the ones who commissioned Mau to create a show about "the future of design.") In 2005, the exhibition traveled to the Art Gallery of Ontario in Toronto, where Bruce Mau's firm and the IwB are located.

Greg Van Alstyne served as director of the IwB—a one-year graduate design program that Mau co-founded in association with George Brown College—during its involvement with *Massive Change*. He notes that the fifteen students in the IwB's classes of 2003 and 2004 spent countless hours in Mau's own studio researching and coordinating the project. Once one knows that it primarily was organized by students, *Massive Change* seems like an impressive achievement despite its flaws. And when the exhibition, book, and Website are considered together, they succeed in two crucial ways:

1 The first statement in *Massive Change*, the book, is: "For most of us, design is invisible. Until it fails." Many people have no idea what designers do all day. At best, they recognize design when it is used to hawk overpriced teakettles or justify controversial real estate developments. Instead of dividing the exhibition into restrictive, outmoded

Installation view of Massive Change: The Future of Global Design. Photo © Museum of Contemporary Art, Chicago.



categories of design such as "graphics" or "architecture," *Massive Change's* curators decided to emphasize "systems of exchange—design economies—realms in which design is a driver." This structure demonstrates that design shapes every aspect of our lives, from the food we eat to the wars we fight. It also accommodates a diverse array of objects. It is difficult to think of another show that could encompass Niki Dun's ingenious "bicycle ambulance"; ZENON Environmental's ZeeWeed membrane, which is enabling Singapore to extract potable water from raw sewage; and a featherless chicken bred by scientists at Hebrew University.

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Massive Change reminds us that we *all* have a stake in the "design of the world," although it could have done more to prove this point. The "Living Economies" gallery that contained the featherless chicken also featured a transgenic salmon, soybeans modified by Monsanto, and other "engineered" plants and animals. The wall text outlined the advantages and dangers of each solution, and asked, "Should we be doing this?" Visitors could express their opinions by inserting slips of yellow paper into clear plastic boxes labeled "Yes" and "No," which Van Alstyne says were inspired by Hans Haacke.¹

Massive Change often faltered by favoring style over substance. When the exhibition addressed "image economies" by covering a gallery with pictures from floor to ceiling, the curators insisted, "We will make visible the as yet invisible," but they left visitors feeling overwhelmed. The truly amazing innovations in "Massive Change," such

Greg Van Alstyne, interview with author, January 19, 2007.



Chicken Installation view of Living Gallery. Photo © Museum of Contemporary Art, Chicago. as the windup "Freeplay" radio, which can bring vital information to regions with no electricity grid; or the "Aerotecture Aeroturbine" a small, versatile wind turbine invented by University of Illinois at Chicago professor Bil Becker, tended to disappear among a flood of lesser material and breathless wall text.

The exhibition design reached its nadir in the "Urban Economies" gallery, which purported to examine solutions to housing shortages and sprawl. *Massive Change* responded to these issues with a video that covered many of the right topics, such as the growing popularity of prefabricated housing and China's efforts to avoid triggering an environmental apocalypse. None of these subjects received more than two seconds of screen time, however, turning the video into a string of incoherent sound bites. An over-reliance on catchy slogans such as "Everything=City=Design=Hope" reflected a more serious underlying problem: *Massive Change* ultimately did not expect much from its audience.

The exhibition alluded to sprawl, but did not link it to the MCA's many suburban visitors. It promised: "We will enable sustainable mobility," but public transportation barely rated a mention in the "Movement Economies" gallery, which was dominated by electric cars unavailable in North America, and prototypes for Dean Kamen's "Segway" personal transporter. (When I mentioned this omission to Van Alstyne, he pointed out that mass transit was covered in "Urban Economies." The exhibition did celebrate Curitiba, Brazil's famously efficient bus system, and the book contained an interview with Jaime Lerner, the mayor who implemented it. But Massive Change should have addressed the problems caused by our demand for "personal" vehicles.) Massive Change touted Nike's "Considered" footwearmade with locally sourced materials and vegetable-based dyes, and using as few toxic adhesives and solvents as possible-without questioning the manufacturer's historical exploitation of foreign workers. It praised the Australian company BIOTA's "compostable" water bottle-made from Cargill's NatureWorks PLA, a corn-based polymer-without considering the catastrophic impact of industrial agriculture. It displayed Ford's Model U concept SUV—a hybrid vehicle designed for easy disassembly and recycling-without acknowledging that it is nowhere near production. In Massive Change's" future, we will somehow save the world without altering our buying habits, lifestyles, or the economic inequities that made the project necessary in the first place.

The *Massive Change* book explicitly refuses to embrace any one economic system, but the exhibition seemed to have a feel-good capitalist slant epitomized by its inclusion of American architect William McDonough. McDonough and his business partner, Michael Braungart, a German chemist, are the co-authors of *Cradle* to *Cradle: Remaking the Way We Make Things*. Published in 2002, the book promotes a "cradle-to-cradle" design paradigm that would yield infinitely recyclable products. Unlike their "cradle-to-grave"

Installation view of Image Economies Gallery. Photo © Museum of Contemporary Art, Chicago.



predecessors, such items would never wind up in a landfill, so the very concept of "waste" would disappear, along with the need to reduce consumption.²

Nike, Ford, and Herman Miller are among the companies that loved McDonough and Braungart's pro-market, anti-regulation message so much they hired them as consultants. Several products that resulted from McDonough and Braungart's collaborations were featured in *Massive Change's* "Manufacturing Economies" gallery. (So was their book.) They surely have helped the environment by convincing executives that sustainable business practices are compatible with profits. But no matter how many hemp sneakers Nike sells, our society still lacks the infrastructure to support cradle-to-cradle design. Since the exhibition implied that the market has caught up to the most radical aspects of McDonough's and Braungart's vision, it seemed as though *Massive Change* was aiding corporate "greenwashing"³ instead of exploring the latest ideas in industrial ecology, which Van Alstyne says was the students' intention.

The failure of the "Market Economies" gallery to recognize the power of small, independent businesses; buying local; or unionization was equally distressing. The gallery presented videos about various businesses, and audio recordings of interviews with Bill Gates; Muhammad Yunus, founder of the Grameen Bank in Bangladesh; and other people who presumably agreed with the wall text: "The power of markets, brought to bear on the world's real problems, is the power to change the world."

One expected to find Yunus, whose bank has helped fight poverty by granting "micro-loans" to millions of people, in this part of the exhibition, but the inclusion of Wal-Mart came as a surprise. A video about the mammoth retailer lauded its hyper-efficient system of distribution. As the camera zoomed in on the American flag rippling above a store, the narrator remarked that Wal-Mart, "saves consumers \$20 billion a year." He did not mention how much the retailer's employees must appreciate its low prices, given that Wal-

- 2 William McDonough and Michael Braungart, Cradle to Cradle: Remaking the Way We Make Things (New York: North Point Press, 2002), 104.
- 3 Webster's New Millennium Dictionary of English defines "greenwashing" as "the practice of promoting environmentally friendly programs to deflect attention from an organization's environmentally unfriendly or less savory activities." SOM's Zero Energy Tower, which the MCA included in its concurrent show "Sustainable Architecture in Chicago," is a blatant example: the building is designed to consume no more energy than it can generate on-site, primarily through wind power-but it was commissioned by a Chinese tobacco company.

Installation view of Energy Gallery. Photo © Museum of Contemporary Art, Chicago.



Mart bitterly opposed the "Big Box Living Wage Ordinance" passed by the Chicago City Council in July 2006. (It was promptly vetoed by Mayor Richard M. Daley.) Along with its competitor, Target—which sponsored "Massive Change's" stop at the MCA—Wal-Mart said it would rather abandon plans to open more stores in Chicago than agree to pay its employees at least \$10 an hour and give them \$3 an hour in fringe benefits by 2010.⁴ (This gallery contained no ballot boxes.)

However problematic *Massive Change* may have been, the project should serve as a model for curators who want their exhibitions to have both local relevance and a global reach. Mau and the IwB students made the *Massive Change* book and Website compelling enough to attract people who were unable to see the show. At the same time, the MCA succeeded in tailoring it to a Chicago audience. The Museum invited local designers and activists to participate in public programs, and posted a significant amount of information about the City's environmental initiatives on its own Website. In November 2006, the MCA coordinated the "Massive Change and the City: Global Visionaries Symposium" with the City of Chicago Department of Environment. The speakers at this event, including *Wikipedia* creator Jimmy Wales and Stewart Brand, founder of the *The Whole Earth Catalog*, were given awards by Mayor Daley himself.

In addition, MCA Chief Curator Elizabeth Smith organized the concurrent show *Sustainable Architecture in Chicago: Works in Progress,* which highlighted seven "green" projects by local firms. "I wanted to present a companion show that provided an in-depth look at how some of the ideas in *Massive Change* were being developed and applied in our own community," Smith explained.⁵

Chicago has a reputation for being environmentally progressive: Mayor Daley has pledged to make it the "greenest city in America." It already contains the largest number of green roofs in the nation—including one atop City Hall—with more than two

- 4 Erik Eckholm with Shia Kapos, "Chicago Orders 'Big Box' Stores to Raise Wage," *The New York Times* (July 27, 2006), (www.nytimes.com/2006/07/27/us/ 27chicago.html).
- 5 Elizabeth Smith, e-mail exchange with author, January 26, 2007.

Figure 5 Car: Twike. Courtesy www.twike.ca



million square feet planted or under construction.⁶ The Chicago Center for Green Technology, which offers educational programs and resources, was the first municipal building to receive a coveted LEED (Leadership in Energy and Environmental Design) Platinum certification from the U.S. Green Building Council. The City recently passed an ordinance demanding that all new public buildings achieve a minimum of LEED Silver. During the eighteen years Mayor Daley has been in office, Chicago has planted hundreds of thousands of trees and cleaned up more than one-thousand acres of land contaminated by industrial pollutants, also known as "brown-fields."⁷

Sustainable Architecture in Chicago illustrated the ways in which a commitment to green design is influencing the entire Chicagoland region. For example, the Aurora Master Plan by UrbanLab promotes transit-oriented development in nearby Aurora, Illinois; which would increase density in the small city and offer residents more opportunities to walk, bike, or use public transportation. One of the exhibition's most intriguing projects was Studio Gang Architects' Ford Calumet Environmental Center, which will educate visitors to the Calumet Open Space Reserve; comprising thousands of acres of marshes, wetlands, and prairies that Chicago has preserved in a bleak industrial section of the City's far southeast side. The Center will be completed in 2008, and run by Chicago's Department of Environment. Its green features-which include construction materials salvaged from the surrounding area, as well as wind turbines and a geothermal heating system to minimize its usage of nonrenewable energy-are expected to garner LEED Platinum certification.

- Sustainable Architecture in Chicago should have been thoroughly inspiring. The projects it assembled were not only great examples of green building, since most of them will be completed within the next few years; they represent realistic solutions to the
- 6 Lisa Chamberlain, "View from the Bridge," *Metropolis* (September 2006), (www.metropolismag.com/cda/ story.php?artid=2293).
- 7 Lisa Chamberlain, "Mayor Daley's Green Crusade," *Metropolis* (July 2004), (www.metropolismag.com/html/content_ 0704/chi/index.html).

challenges of sustainable development. Smith notes that she only presented "public buildings and spaces, or housing intended for low-income residents" to match Massive Change's emphasis on social responsibility: she selected works in progress "to best embody a sense of possibility, experimentation, and innovation." Yet the design of the exhibition itself sent MCA visitors a mixed message. Except for the Zero Energy Tower proposed by Skidmore, Owings & Merrill (SOM), the projects were tucked away in a remote gallery. Most of the display consisted of renderings in poster form and small, dull models. A table in the middle was piled with plans and specifications that would be difficult, if not impossible, for non-designers to understand. Since Smith says she wanted Sustainable Architecture in Chicago to help visitors explore an issue from Massive Change in greater depth, it would not have been appropriate to make it as flashy as the larger show. By going so far in the other direction, however, the MCA may have kept Chicagoans from taking an interest in the green technologies and planning decisions that affect them.

Now that we can do anything, what *should* we do? We could start by expanding our definition of "sustainability." The idea that it should address social as well as environmental issues is not new. In his 1888 essay "The Revival of Handicraft," William Morris linked environmental degradation to the oppression of workers and dwindling consumer choice.⁸ Concerns about the latter recently motivated Andersonville, a neighborhood on Chicago's North Side, to consider banning chain stores and big-box retailers. What would the future look like if *Massive Change* emphasized the power of smart legislation? What if the MCA suggested that visitors urge their political representatives to increase funding for public transportation and recycling?

Almost every statement in every incarnation of Massive Change begins with the personal pronoun "We." Van Alstyne explains that it refers to, "We, the people." He adds that, if his students were to curate the exhibition now, he would hope to see more space devoted to "people economies" or "human economies," because it was the IwB's communal effort that made Massive Change possible. Massive Change and Sustainable Architecture in Chicago do offer great cause for optimism: the former seems to have given the public new respect for designers' problem-solving abilities; and the latter demonstrates that a major metropolis is supporting cuttingedge green building. Both claim the museum as a crucial forum for debates about social responsibility and sustainability. But future exhibitions about these issues need to "speak truth to power" and recognize who has an interest in stifling change. Now that we can do anything, what if the MCA spurred all of its visitors to collective action?

8 William Morris, "The Revival of Handicraft" (1888), in *The Theory* of Decorative Art: An Anthology of European and American Writings, 1750– 1940, Isabelle Frank, ed. (New York: The Bard Graduate Center for Studies in the Decorative Arts and New Haven, CT: Yale University Press, 2000), 171, 174–175.

Reflection

Catastrophe Chic: A Commentary Julie Wosk

Today's designers are grappling with a daunting task: how to create designs to help people combat a range of man-made and natural catastrophes including bioterrorism, nuclear holocaust, hurricanes, earthquakes, floods, tsunamis, fires, and more. For many of these designers, their work has an added dimension: not only are they creating highly functional designs for dire situations, but also designs that are visually appealing and attractive—that have elegance of form as well as ease of use.

These designs raise a provocative question: what is the role of aesthetics in designing for disasters? At what point does concern for visual appeal run the risk of trumping or trivializing very real safety concerns?

The issue was highlighted at the Museum of Modern Art's seminal exhibit "SAFE: Design Takes on Risk" held in New York in 2005. Writing about the exhibit, its curator Paola Antonelli noted that the intention was to include objects not only because of their functionality and economy of materials, but also because they were "beautiful." Alluding to some of the exhibit's designs for protecting personal property, she wrote: "designers suggest we turn objects that we need because of our anxiety into something beautiful, sublime, uplifting, delightful." Well-designed objects for safety, she argued, catch our eye: "Whether they are injection-molded with advanced materials or assembled with found parts and powered by a hand crank, they are arresting." 1

The curator's language was startling. Gas masks, smoke hoods, and body armor that are "sublime" and "delightful"? The idea of balancing form and function is usually axiomatic in any discussion of design, but exhibits such as SAFE—with its range of historical examples—raised the central, though not often discussed, question: how to factor in formal considerations when looking at designs for protection and security.²

Some designs for safety are indeed arresting, such as Stephen Armellino's molded, bullet-resistant mask (1983) with its totemic look and the Stop Thief! Ply Chairs (prototype 2000) designed to keep women's handbags safe with their useful seat cutouts for holding handbag straps are witty riffs on Thonet and Arne Jacobsen Series 7 chair designs (Figure 1).

- Paola Antonelli, "Grace Under Pressure," catalogue essay in SAFE: Design Takes on Risk (New York: The Museum of Modern Art, 2005), 96, 9.
- 2 The discussion of the aesthetics of safety has been underway for several years. Antonelli in MOMA's "SAFE" exhibit catalogue cites Eric Howler's "Anxious Architecture: The Aesthetics of Surveillance" in *Archis* 2:3 (2002): 9–23, which talks about "the awesome idea of 'Paranoid Chic' style." (Antonelli, "Grace Under Pressure," 15).



Jackie Piper, Marcus Willcocks, Lorraine Gamman, Design Against Crime Research Initiative, Central Saint Martins College of Art and Design. Stop Thief Ply Chair, Smart Antitheft Furniture Range. Prototype, 2000. Laminated plywood. Photo by Marcus Willcocks, courtesy of the Museum of Modern Art.

3 Paola Antonelli, 9. Another kind of detachment was, inadvertently, found in the exhibit's section of designs for everyday needs—needs that included helping with bad breath, breaking bones, car accidents, unsanitary conditions, diseases, and wasting water. The wall text noted that, "There is no end to this list of fascinating anxieties." Here, the idea of anxieties being "fascinating" suggests an odd sense of detachment, as though visitors were being introduced to an ethnography of strange behaviors. There are other designs, however, in which aesthetic considerations seem to top their functionality. The NoGo building barriers (2004) made of bronze, concrete, and steel look sculptural rather than effective for security or survival. They seem like apt examples of what could be called "Catastrophe Chic." (The barriers, which were used in the financial district in Lower Manhattan, apparently also had other functions: in the MoMA exhibit's SAFE catalogue, there was a photograph of a man in white shirtsleeves casually sitting on one of the barriers as he talks on his cell phone.)

In a discussion about the role of "beauty" in designing for safety, one might well wonder whether it might be inappropriate, superficial, and even frivolous to care a great deal about aesthetics when it comes to an exhibit of objects intended to help ease some of life's more pressing dangers and fears. There is, for example, a big risk of detachment. As Antonelli herself wrote, "We may bristle at the exquisiteness of these morbidly attractive tools for emergency situations because we do not have any overpowering need to use them."³

Two contrasting designs for heart defibrillators point to the problematic nature of "morbidly attractive" design. The Lifeline AED Semiautomatic External Defibrillator (2002) is described on the manufacturer's Web site as "a blend of art and lifesaving technology in one box." With its bright black and yellow curvilinear case and red, green, and yellow buttons, the lifesaver may be ergonomically easy to use, but also could pass for an old-fashioned, portable beach radio. On the other hand, the outer case of the Philips HeartStart OnSite Defibrillator (2002) is clearly meant for emergencies with its square, bright red shape, prominent 911 number, and prominent heart graphic (Figure 2).

Exhibits such as SAFE offered several rationales for factoring in attractiveness and beauty when designing for danger and safety. One was suggested by the title Antonelli gave to her SAFE catalogue essay: "Grace Under Pressure." In a world fraught with risk, anxiety, and stress, why not make our designs for safety goodlooking as well?

Another rationale presented by the SAFE exhibit was that attractive, sometimes witty designs help us "embrace our fears."⁴ Nuclear cataclysm is surely one of the world's most profound fears, and one way to embrace our fear of this catastrophe is to make light of it—to cloak it in the cute and cuddly. The large, red, stuffed "Priscila Huggable Atomic Mushroom," a prototype created in 2004 by Design for Fragile Personalities in Anxious Times Project, is one such example. This whimsical, oversized, mushroom-shaped bomb cloud could easily be a bit of pop art or a child's toy, but in a world confronting unimaginable and frightening dangers, this warm and fuzzy approach is cute but hardly comforting.

The use of aesthetically-attractive designs and ornamentation to reduce anxieties about safety, however, actually is nothing new. In the nineteenth century, new developments in technology were often seen as dangerous and in need of camouflaging. In an era of steam boiler explosions and what seemed like fast-moving machines, ornament was used to ease people's fears. In England and America, industrial steam engines were sometimes designed as classical temples of antiquity, their cast-iron frames in the form of fluted classical columns and elaborate entablatures. Early sewing machines and typewriters were at times decorated with colorful stenciled flow-



Figure 2

HeartStart OnSite Defibrillator case, 2002. Philips Medical Systems. Photo courtesy of Philips Medical Systems.





Southern Pacific Railway Disaster, January 19, 1883, in *Frank Leslie's Illustrated Newspaper* (February 3, 1883).

ers and ornamented frames. By camouflaging new machines with ornamental motifs, manufacturers not only drew on the love of ornament during the period, but also helped ease public anxieties about unfamiliar new technologies. Industrial steam engines designed as classical temples evoked an aura of stasis and calm in an era of rapid technological change.⁵

There is also nothing new about turning anxieties about disasters and safety into works of art. In the nineteenth century, American and European newspapers were filled with stories about train wrecks and steamboat explosions. Capitalizing on the public's interest in these sensationalized catastrophe stories, periodicals including *Harper's Weekly* and *Frank Leslie's Illustrated Newspaper* in America illustrated their stories with large engraved images of disasters, and Currier & Ives produced lithographed color prints of catastrophic fires and explosions as wall decorations for comfortable American middle-class homes (Figure 3).

Turning disaster into display is still with us today. In the months after 9/11, several New York galleries exhibited large-scale digital photographs of the World Trade Center disaster that obviously had been manipulated and made self-consciously artful, including moving buildings closer together or enhancing the color of the explosions to lurid lavenders and orange. Here, the introduction of art and artifice into this world of disaster seemed deeply

⁵ See chapters on nineteenth-century industrial design in Julie Wosk, Breaking Frame: Technology and the Visual Arts in the Nineteenth Century (New Brunswick, NJ: Rutgers University Press, 1992).

out of place. Five years later, Michel Gondry's surrealistic film *The Science of Sleep* (2006) spoofed the young graphic artist's exhibit of "disasterology" prints (an exploding plane and a tsunami) to admiring visitors.

Artful designs such as those seen at MoMA's SAFE exhibit in many ways reflect this culture of catastrophe, with the urge to create beautiful or attractive objects addressing the dangers and safety concerns of our age. These latest manifestations of Catastrophe Chic leave us with important paradoxes and questions. In a world with life-or-death survival issues at stake, what role does art play in helping us cope with danger? Can artful designs help us dwell in a world of risk without themselves running the risk of seeming effete and detached?

Perhaps "Grace Under Pressure" does offer the best rationale after all. The phrase comes from Ernest Hemingway who, in a 1929 conversation with the writer Dorothy Parker, defined "guts" or courage as "grace under pressure."⁶ Today, in a world of ever more lethal risks, designers can take heed of the characters in Hemingway's novels and stories who confront danger not only with courage, but also with elegance and style. The nature of that style—and its role—is still ours to debate.

⁶ Dorothy Parker asked Hemingway: "Exactly what do you mean by 'guts'?" Hemingway replied: "I mean, grace under pressure." "The Artist's Reward," New Yorker 5 (November 30, 1929): 28–31.