Design Issues, Volume 22, Number 4 (Autumn 2006)

Introduction

This issue of the journal presents a range of articles representing design history, theory, and criticism. We hope that the reader is struck by the interdependence, rather than the isolation, of these major modes of inquiry in design research. History, the theory of history, the history of theory, the history of practice and theory in conflict and cooperation, theory of practice, and the critical investigation and reporting of contemporary practice—these are the interplay of past, present and future that one typically finds in *Design Issues*. However, we hope that readers will also begin to reflect on the genres of writing that characterize design research. The genres are becoming clearer today as more and more examples of excellent research are published. We believe that better understanding of the rhetoric of research will lead to greater quality of work in the design research community. There is a pattern of inquiry that shapes design research, and there are several forms in which that research is presented to readers. We believe that *Design Issues* is one of the best places to see that pattern and the forms of expression as they are emerging.

We begin with an article by Carma R. Gorman on a neglected topic of design history, the role of industrial design during World War II and the subsequent effect of wartime experiences on the development of a career in industrial design. The subject is Henry P. Glass, an Austrian-American industrial designer who came to New York in 1939 and worked in Chicago during the war years. Gorman traces the career of Glass and his activities during World War II. Then, she explores the directions of his work following the war, discussing the principles that emerged in the war years and guided his career in the following decades.

If the period following World War II represented a resurgence of design in the United States, the same period in India saw the establishment of design as a modern discipline directed toward the advancement of a new nation. The interplay of Western and Indian concepts of design and history is the subject of H. Kumar Vyas's article, "Design History: An Alternative Approach." Drawing on ancient, traditional concepts of "*kalaa*" and "*itihas*" as well as the concept of "types" from Siegfried Gideon's *Mechanization Takes Command*, Vyas presents an interesting account of the teaching of design history at the National Institute of Design in Ahmedabad. This article suggests the subtle interplay of dialectic and design science that one often finds in Indian design thinking.

The theme of postwar design thinking continues in the next article by Barbara Predan on design theory in Slovenia. The account begins in 1951 with the first publication of the journal *Arhitekt* and continues through the 1990s, presenting the interplay of ideas from designers such as Papanek and Sottsass and from a wide variety of Slovenian writers and designers from the former Yugoslavia. The article is important on a variety of levels, not least of which is the subtle insight it gives into the emerging Europe of today, where the division between Western and Central Europe that dominated postwar thinking is giving way to a common enterprise.

The theme of history and theory continues in Roxane Jubert's "Typography and Graphic Design," discussing the conflicted reception of Bauhaus typography in France. Jubert argues that France "largely avoided the graphic design revolution, the new typography movement, and the Bauhaus experiments," and she investigates why. Her account of the interplay—and, often, the lack of interplay—between French graphic designers and typographers and their counterparts in Germany (and other countries) offers insight into the French tradition of graphic design.

While several articles in this issue of the journal deal with design history and theory, we also have two articles that shift attention toward contemporary design practice in unusual and neglected areas. In "Design, Poverty, and Sustainable Development," Angharad Thomas discusses designing for the alleviation of poverty, particularly in the southern hemisphere. She presents a variety of design interventions that have taken place and discusses their contribution to the reduction of poverty and support of sustainable development in countries such as Brazil. The article helps to raise awareness of the potential of design to effect change, and it is important both for the professional design community as well as for students of design who seek an alternative to conventional commercial production.

Finally, we present a personal report and reflection by David Stairs on his experience at the 2005 ICSID (International Council of Societies of Industrial Design) Interdesign, held in Rustenburg, South Africa. He discusses both the 2005 ICSID Interdesign and the ICSID Interdesign concept in general. It is a literate, amusing, and insightful story of design in unusual circumstances. The accompanying photographs and sketches add a further quality that supports the text quite well.

Design Issues is primarily a forum for the presentation of writing about design, but from time to time we also offer visual essays that explore the human and natural environment. In this issue, we are pleased to present a visual essay by the Venezuelan designer Álvaro Sotillo, best known for his book designs. We conclude with a book review by Matthew Soar, who writes about *Metro Letters: A Typeface for the Twin Cities*, edited by Deborah Littlejohn

and published by the University of Minnesota's Design Institute. The book presents the story of a competition to design a typeface for Minneapolis and St. Paul, the Twin Cities of the great northern plains of the United States.

Bruce Brown
Richard Buchanan
Dennis Doordan
Victor Margolin

Henry P. Glass and World War II[1]
Carma R. Gorman

Introduction

The Art Institute of Chicago's 2005 exhibition *1945: Creativity and Crisis, Chicago Architecture and Design of the World War II Era* posed the question: What effects did World War II have on American architecture and design, both during the war and afterwards? Though the show's focus was on Chicago, this is a question one could and should ask more generally about U.S. design but, as exhibition catalog contributor John Zukowsky has noted, "Although the sociopolitical impact of these war years has been the subject of numerous books, lectures, films, and television shows, the contribution to the war effort by visual artists and professionals—artists, architects, and industrial designers—has barely been touched upon."[2] Indeed, in the acknowledgements to the catalog, Zukowsky goes so far as to call the 1940s the "forgotten forties, a decade that has been eclipsed by books and exhibitions on Art Deco modernism of the 1930s and International Style modernism of the 1950s."[3] Zukowsky speculates that this scholarly neglect may be a result of attitudes that make it "difficult for us to imagine creative individuals involved in work that supports the destructive side of human nature," or perhaps an effect of visual arts professionals' desire "to leave their horrific memories behind."[4]

The dearth of literature on the war seems especially acute in the field of industrial design (as opposed to architecture or graphic design), perhaps because much of the work that American industrial designers did for the government during the war was classified (and thus difficult to find out and write about), and/or because historians may have considered the restrictions on materials and production for the civilian market to have cramped designers' creative opportunities and freedom of expression. Whatever the cause of the lacuna in the literature on industrial design, however, its effect is that we now have little sense of what industrial designers (other than a few superstars such as Henry Dreyfuss, Raymond Loewy, and Walter Dorwin Teague) did during the war, and—perhaps more important to the history of design—how their wartime experiences shaped their subsequent careers.

This article, which is based on a lecture I gave at the Art Institute of Chicago in conjunction with the *1945* exhibition, is my attempt to answer the question of how World War II influenced the career of Henry P. Glass, a prolific Austrian-American industrial designer who settled in Chicago during the war years. Glass makes

a particularly good case study not only because a large portion of
his personal archives is publicly available in the collection of the
Art Institute of Chicago, but also because the effects of the war
on his personal life and design career are relatively easy to trace.
Although there have been a number of articles and essays about
Glass published recently, including a brief essay in the *1945* cata-
log, none of them systematically attempts to explore the effects of
the war on his career.[5] In this article, then, rather than surveying
Glass's career as a whole, which other writers have already done, I
will focus on the years immediately before, during, and after World
War II, and propose four respects in which I believe the war signifi-
cantly changed Glass's design practice. Doing so, of course, does not
answer the larger question of what effects the war may have had on
American design as a whole, but it does at least provide a starting
point for future scholars who wish to explore the broader context of
the "forgotten forties."

Before the War: Vienna, 1911–1939
Henry Glass was born in Vienna in 1911 as Heinrich Glass under
the monarchy of Kaiser Franz Josef.[6] In an interview with Victoria
Matranga, he noted that "I had a good upbringing in a middle-class
household."[7] "My father was an M.D. general practitioner; my
mother was a homemaker, a devoted mother. I had one sister, three
years younger than I am."[8] He further noted that "My father was
a great admirer of art and architecture, played the violin, [and] my
mother displayed exquisite taste in her wardrobe and purchases of
home products, such as Biedermeier furniture."[9]

Although he felt some pressure to become a physician like
his father, Glass said that "he had no interest at all in medicine,"[10]
and was more interested in architecture. "I loved to sketch buildings
and landscapes in my hometown and traveling as a boy scout and
I always had good grades in my drawing classes at high school,"[11]
he noted in a 2001 interview. He also joked: "I wasn't interested or
gifted enough [at drawing] to become an artist."[12] So rather than
attending "high school" at a *Gymnasium*—which was the training
ground for physicans, lawyers, and the clergy—Glass attended a
Realschule, which was where one prepared for a career in architecture
or engineering. It meant not having to study Greek and Latin, but
rather two modern languages (one of which, fortunately for his later
career, was English, although he emphasized that he only learned
a little[13]).

Upon graduating from the *Realschule*, Glass enrolled at the
Technische Hochschule, or Technical University, of Vienna in 1929.[14] He
noted that schooling as an architect at that time included "design for
furniture, interiors, products, cars, storefronts, posters, exhibits, and
display[s]."[15] During his school years, Glass's "admired mentor"[16]
was Professor Siegfried Theiss, the head of the Masterschool that
Glass attended and "the designer of the first *Hochhaus* (tall build-

ing) in Vienna."[17] Glass said that during his time at University, "Our great heroes of the profession were Otto Wagner, Adolf Loos, Peter Behrens, Clemens Holzmeister and the Bauhaus luminaries [Walter] Gropius and [Ludwig] Mies van der Rohe."[18] Since Vienna had an especially rich architecture and design tradition in the early twentieth century, it is not hard to understand why so many of the names he lists are Austrian, or—at their most remote—German. Although Glass does not mention Michel Thonet in the same breath as these architects, it is clear from his later writings that he also was very impressed with this nineteenth-century Viennese furniture designer's work, particularly because some of Thonet's chairs could be shipped knocked down into six pieces and assembled with the use of just ten screws.[19] The influence of these earlier Austrian and German architects and designers—blended somewhat with elements of Art Deco—comes through strongly in Glass's student work. As one would expect, given the curriculum at the *Technische Hochschule,* his designs are not just for the plans and exteriors of buildings, but also for their interiors. Like earlier Viennese architects, he was trained to think of the architectural work as a *Gesamtkunstwerk,* a total art work, and not to leave the interior to a decorator.

In December 1933, Glass passed the *Ingenieur* exam, and received his degree in late 1933 or early 1934.[20] He then reenrolled at the *Technische Hochschule* in the master's degree course. Even before he finished that second degree, he got his first job, which involved converting warehouses into apartments.[21] Glass noted that, in those days, anyone who could afford it had his furniture made to order by craftsmen, which meant that Glass had good opportunities for designing custom work. Some school drawings from that period (figure 1) provide a glimpse into the kinds of interior spaces and furnishings he recommended to his clients.[22] In general, his furnishings from this period are modern in form, but not aggressively so. They appear to have been constructed in a traditional fashion out of familiar materials. There is no evidence in this early work of the concerns with folding, stacking, knock-downability, and economy of materials that characterized Glass's wartime and post-war work. In contrast, these furnishings convey a sense of bourgeois solidity and permanence.

Glass earned his master's degree in architecture in October 1936 with *sehr guten* (very good) grades, and continued to design private homes and interiors.[23] He had enough work that, though he considered earning a doctorate, he did not pursue it very far.[24] However, despite a promising career and a steady girlfriend— Eleanor, whom he married in 1937—all was not well in Glass's life.[25] The Nazi party had ascended to power in Germany in 1933, and as Glass and his classmates surely knew, one of the things the Nazis did that year was to shut down the Bauhaus, a hotbed not only of avant-garde architecture and design, but also an institution that was known for the many Jews, foreigners, and communist sympathizers

on its faculty and in its student body. Glass, who was a Catholic of Jewish descent, was also, he noted: "...a student activist of sorts. I joined the Socialist Students Group ...the Socialists were the only ones that really fought the Nazis actively, and so I wanted to join them."[26] He was involved in scuffles and fights at the University, and was blacklisted. When the Nazis arrived in Vienna in the spring of 1938, Glass was one of the first to be picked up. He spent the next nine months in concentration camps. From May to September of 1938, Glass was at Dachau; on his birthday, September 24, 1938, he was transferred to Buchenwald. Fortunately, his new wife was not arrested, and was able to work for his freedom. At this stage in the Nazi plan, it was possible for prisoners to arrange for release, on the condition that they left the country within three weeks. Eleanor went to the Gestapo in Berlin to try to arrange his release by pretending to wish to divorce him. Meanwhile, Glass's wealthy engineer uncle in Switzerland put up an affidavit at a New York bank in order to get an immigration visa for Glass to go to the U.S., and also hired a Netherlandish lawyer who was able to arrange his release in January, 1939.[27] Glass arrived in the United States in February, 1939; Eleanor followed in May.[28] The rest of Glass's family was not so fortunate— ultimately sixteen of his relatives were murdered by the Nazis.[29]

In a familiar tale, then, Glass's work as a designer—and his entire life in Vienna—came to a screeching and violent halt as a result of the Nazi occupation of Austria. This is the first of many ways in which World War II had a direct impact on his career and his life: It forced him to uproot himself and his wife to come to the U.S.

The Build-up to War: New York, 1939–1941
When Glass arrived, by himself, in New York in February, 1939, he was not totally without resources. He had had a little high school English, and though he retained a distinct Austrian accent until the end of his life, he seems to have fairly quickly picked up enough English to make his way in the city, though he struggled with such things as currency and slang.[30] He also had some help from a fellow student-colleague from Vienna named Felix Blitz, who had arrived in New York the year before. Blitz helped Glass get established.[31]

Glass began looking for work by knocking on architects' doors and showing them his drawings. He recalls that Gilbert Rohde—the designer credited with transforming the Herman Miller furniture company in the 1930s from a conservative company making period reproductions to a cutting-edge manufacturer of modern design—was only the second or third designer he approached for a position, and that it was his Viennese portfolio that helped him get the job, which paid $25 a week (which Glass considered "princely," given that the U.S. was still in the grip of the Great Depression).[32] Rohde's modernist sensibilities and his connections made him a very useful employer for Glass, since he had the opportunity to work on designs for Valley Upholstery; on "details for the first line of modern

Figure 1
Henry P. Glass, American (born Austria), 1911–2003. *Entwurf fur ein Wohnzimmer* (sketch for a living room), 1929–1936. Ink on paper. Gift of Henry P. Glass, 1994.556.1, The Art Institute of Chicago. Photograph by Robert Lifson.
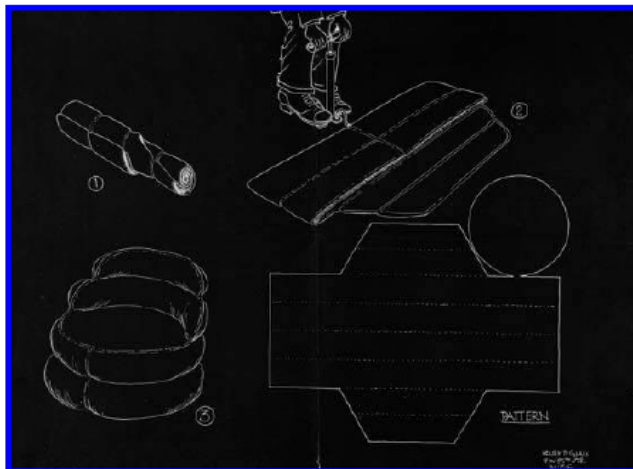Photography © The Art Institute of Chicago.

Figure 2
Henry P. Glass, American (born Austria), 1911–2003. Air Filled Furniture, Steps showing Air Filling Process, c.1939–40. Blueprint, 37 x 36.3 cm. Gift of Henry P. Glass, 2004.715.31, The Art Institute of Chicago.
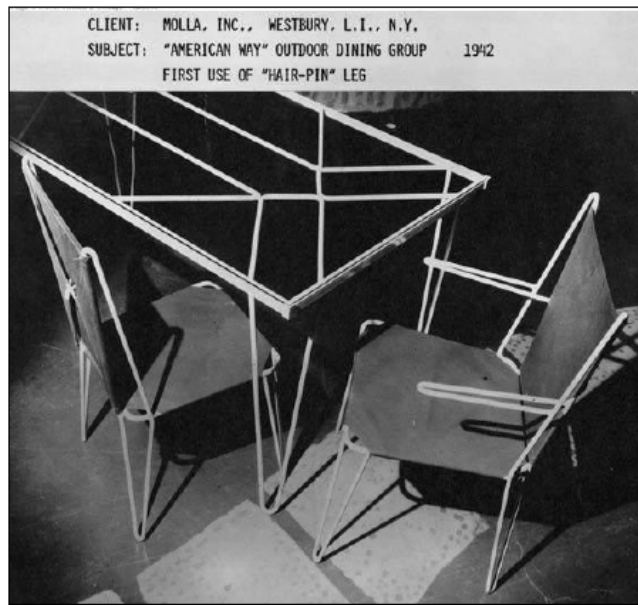Photography © The Art Institute of Chicago.

furniture for Herman Miller"; and on some of Rohde's designs for the 1939 World's Fair, including the Anthracite Pavilion (as a result of which he also got to meet some of the giants of the industrial design profession including Raymond Loewy, Donald Deskey, and Henry Dreyfuss).[33] Glass recalls that working for Rohde was something of a turning point in his career. He recalled, "At my first job in America, at the office of Gilbert Rohde, I found that I am more interested in designing things that will be used by innumerable people than to work for some individual architectural client. Industrial design became my main focus. There was also another reason for this: at that time, I could be an independent practitioner in this field without a license. As an architect, I would have to work five years in an architect['s] office before I could become independent."[34]

During this time, while living in his first apartment in New York, Glass started making drawings on his own for furniture that he might sell to manufacturers. One of the "wild ideas" (his words)

CLIENT: MOLLA, INC., WESTBURY, L.I., N.Y.
SUBJECT: "AMERICAN WAY" OUTDOOR DINING GROUP   1942
         FIRST USE OF "HAIR-PIN" LEG

that he had was for a line of inflatable furniture, which it is tempt-
ing to see as a response to his own rather unsettled and mobile life
at the time (figure 2).[35] Inflatable furniture usually is thought of as a
product of the 1960s, which is what makes these designs so startling.
They were never produced, but they show both how cutting-edge
Glass was at his time of arrival in the States, and also that this must
have been within a month or two of his arrival in the U.S., when
rubber stockpiling has not yet begun, since presumably these designs
would have been made from rubber.

Though the job in the Rohde office seems to have been
relatively lucrative and personally satisfying from Glass's point of
view, after the rush of the Fair was over, he lost the job and subse-
quently worked with several other New York designers, including
Morris Sanders.[36] While working for Sanders, Glass met Russel
Wright—best remembered today, perhaps, for his American Modern
dinnerware—and Wright commissioned Glass to design a line of
wrought-iron outdoor furniture for his American Way line (figure
3). The "American Way" line was a project dreamed up and spear-
headed by Wright and his wife Mary. It was an extremely ambitious
project that involved nearly one-hundred American designers and
seventy-two manufacturers.[37] Wright's objectives were to develop
"U.S.-made household products of 'inherently modern design' for
both mass and craft production"[38] priced to appeal to buyers with
a family income between $2,000 and $5,000,[39] and to "overcome
what he saw as America's cultural inferiority complex; a mission
he would accomplish by demonstrating the quality and vitality of
American design."[40] Since Glass had only been in the country for a

year or so when he got this commission, he could only by a stretch be considered an "American" designer. However, the kind of "livable modernism" that Glass had perfected in Vienna—and his economical use of materials—made him a perfect fit for the project.[41]

Though the line was not a great commercial success, it was a boon for Henry Glass.[42] Not only did it place him in an elite circle of American designers who had been commissioned to participate—including Raymond Loewy, Walter Dorwin Teague, and Gilbert Rohde—thus helping to establish his reputation in this country, but it also gave his outdoor furniture group a great deal of national exposure. If imitation is the sincerest form of flattery, then Glass should have been quite happy, because the distinctive "hairpin" legs that he used in this furniture group became extremely popular after the war when materials rationing ceased. Designers such as Florence Knoll imitated the hairpin legs in their own furniture, as did many lesser-known furniture designers whose works were made for the lower end of the furnishings market.[43]

Despite this good publicity, however, during 1940 and 1941, when Glass and his wife were living on Central Park West, Glass was still shopping around designs when he was between jobs, which was frequently. He made a couple of trips to Chicago during this period for the biannual furniture markets, where he made contact with furniture manufacturers including Thonet, for whom he designed a Bent-Ply chair around 1940 or 1941.[44] But during this time, he also began creating much more materials-conscious designs that could be produced economically and shipped and stored compactly—designs that made a great deal of sense given the needs and limitations of the day.

It is important to understand that as early as the summer of 1939, two and a half years before the U.S.'s official entry into the war in December, 1941, materials stockpiling and rationing became a factor in design and manufacturing. The first baby steps toward a full-blown rationing system came in June, 1939—just four months after Henry Glass arrived in New York—when Congress and the Roosevelt administration passed legislation authorizing the stockpiling of "rubber and other strategic imports."[45] Thus, well before Pearl Harbor on Dec. 7, 1941, and even well before President Roosevelt gave his famous "Arsenal of Democracy" speech on December 29, 1940, American industry was shifting slowly into a wartime mode.[46]

But it was not until 1941 that materials rationing really began to put the squeeze on designers and manufacturers of consumer goods. On March 22, 1941, the Office of Production Management's (OPM's) Division of Priorities issued its first priority order, called M-1, which required aluminum producers to prioritize defense orders over civilian ones (and there also were rules about how to prioritize the civilian orders). Soon thereafter, the OPM issued priority orders for copper, iron, steel, cork, chemicals, nickel, rayon, rubber, and silk.[47] And eventually, of course, almost every raw material and food
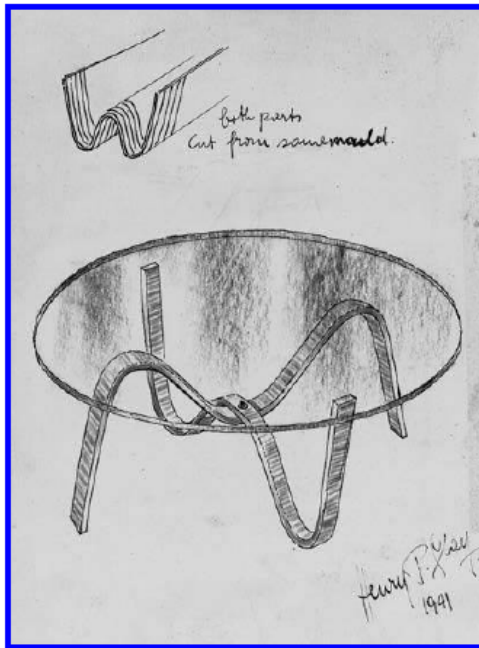
Figure 4

Henry P. Glass, American (born Austria), 1911–2003. Design for a bent plywood and glass table, 1941. Pencil and colored pencil on tracing paper. Gift of Henry P. Glass, 1999.547.1, The Art Institute of Chicago. Photograph by Robert Lifson.
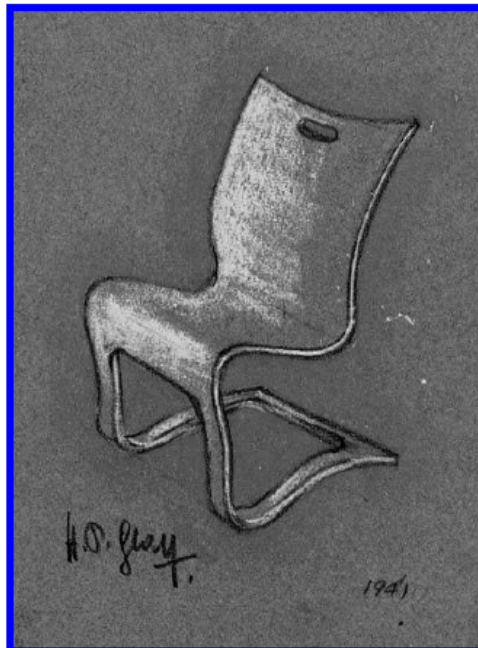Photography © The Art Institute of Chicago.

Figure 5

Henry P. Glass, American (born Austria), 1911–2003. Design for a molded plywood chair, 1941. Colored pencil and olive green and yellow pastel on tan laid paper. Gift of Henry P. Glass, 1999.548.5, The Art Institute of Chicago. Photograph by Robert Lifson.
Photography © The Art Institute of Chicago.

item was rationed, and most civilian production was suspended or severely curtailed for the duration of the war, as factories of all descriptions were switched from civilian uses to military ones.[48]

When he was between jobs in 1940 and 1941, Glass recalled, "I made furniture sketches, usually at night, [and] in the daytime I walked criss-cross through Manhattan hitting all [the] little cabinet-makers and upholsterers I found in the yellow pages of the phone book and sold my sketches where I found interested parties."[49] Some examples of the kinds of sketches he meant may be figures 4 and 5, which are small presentation drawings in pastel on heavy, colored paper.[50] These drawings are notable for at least four reasons: first, they show his skill at draftsmanship, which was clearly a real selling point for him; second, they show his interest in the economical use of materials, which was, perhaps, a response to stockpiling and rationing (note the annotation on figure 4); and third, they are surprisingly adventurous and modern in form and materials for the U.S. in 1941, given that the country was still quite conservative in its tastes in furnishings,[51] and that period reproductions were still the most popular form of furnishings. But—and this is my fourth point—they do entail a compromise from the kind of avant-garde Bauhaus modernism that Glass apparently admired. There is no chromed steel tubing in Glass's work of this period. Although Glass does make use of adventurous forms such as the cantilevered chair (figure 5), he usually executes them in wood and fabric, or at his wildest, cowhide or pony skin. After two years in New York, he had abandoned the more fanciful and cutting-edge designs such as
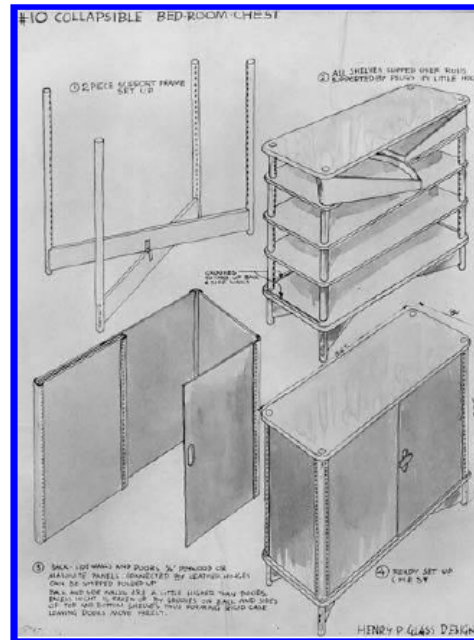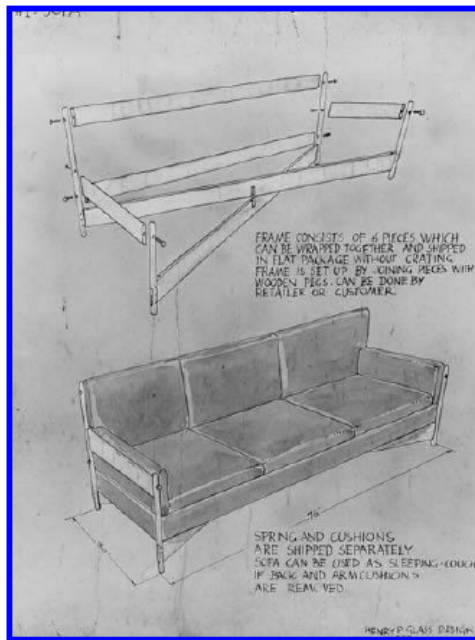
the inflatables—clearly he had picked up a sense of the American market, and realized its essential conservatism.

More evidence of the effects of the war on Glass's thinking can be seen in his designs for defense housing. As the war in Europe continued, the necessary migrations of workers from rural areas to port cities and industrial areas where defense jobs were available resulted in terrible housing shortages—rents were outrageous, housing was hard to find, and conditions were so bad that the Navy Department censored all housing news at its stations around the country.[32] It probably was these conditions that led Glass to create a handbound booklet in 1941 that shows how he envisioned the task of building defense housing furniture. The cover notes that Glass's plans were for a housing project in Mobile, Alabama. Mobile was one of the fastest-growing cities in the U.S. during this period, due to its shipping and shipbuilding industries. In particular, it was home to Alcoa's fleet of bauxite carriers, which meant it was an essential port for the aluminum industry, and of course aluminum was an essential war materiel.[33] Glass said that he got the program for this project from Eliot Noyes at the Museum of Modern Art, New York, but that he did the project entirely on his own initiative—in other words, he did not have a client, and apparently did not draw the plans with the intention of entering them in a competition, either.[34]

The first thing to note in this project is that Glass did not limit himself only to furniture. He started by planning an efficient, minimal house that could sleep as many as seven people, if necessary—and in Mobile, it probably was necessary. The plan of the

house was a compromise between wartime necessities and traditional bourgeois ideals of what a family home should be. It had a living room and a dining room, two bedrooms and a bath, but the living room was furnished in such a way that it could be converted to a bedroom at night. The furniture was designed with this cramped housing situation in mind: Glass designed sofas and daybeds that were convertible to single beds, and regular single beds that could be bunked (figure 6). Much of the furniture also could be folded up when not in use, such as a gate-leg dining table, or could serve more than one function, such as side and coffee tables with removable trays. Glass also designed the furniture to be lightweight and easily knocked down for inexpensive and space-efficient shipping (figure 7)—an important consideration in an era when freight charges, due to gasoline shortages and military commandeering of railroads, were quite expensive, and when the armed forces placed weight limits on the amount of possessions they would ship for free when military families needed to relocate. Furthermore, the furniture was made largely of materials such as plywood and Masonite—there are no metal beds here—and the hinges on the case goods were made of wood or leather rather than metal (see annotations to figure 7). This furniture also is typical of Glass's approach to style during these and subsequent years. Even more so than the other furniture sketches from 1941 discussed above, these designs are a compromise between modern and traditional styles. There is no inflatable furniture; no cantilevering; no pony skin. Instead, the furniture is made of familiar (and still relatively available) wood, with some limited upholstery and/or the suggestion of upholstery in the form of detachable cushions and fabric slings. The overall effect thus is more traditional than avant-garde. Although these designs apparently were never produced, they seem like a highly efficient solution to the problem of how to furnish the thousands of new housing units being built by the government in response to the increase in industrial and military activity, and give us some hint of what the defense work Glass did during the war was like.

If moving to the U.S., then, was the first way in which World War II had a significant impact on Glass's design career, materials rationing and the defense effort constituted the second. Both factors seem to have encouraged Glass to work at finding design solutions that made economical use of materials, that could be easily knocked down for storage or shipping, and that could be stacked, folded, or converted for use in tight quarters. These were interests he maintained throughout his later career. Although in the 1950s and 1960s, Glass necessarily bowed to the taste for large, upholstered, "luxurious" furnishings that were what his clients and consumers wanted (and for which he got a great deal of professional recognition"), he also continued to work on other projects that were more similar in spirit to his wartime designs. These included projects such as the Beau Fer group for Stuckslager, which made efficient use of modern

Figure 8
Stux Beau Fer Group for Walter N. Stuckslager
Inc. Henry P. Glass, designer. Henry P. Glass
Papers, Ryerson and Burnham Archives,
The Art Institute of Chicago. Digital file
© The Art Institute of Chicago.

Figure 9
Henry P. Glass, *The Shape of Manmade Things*
Northfield, IL: E.C.G. Publishers.
Cover. Henry P. Glass Papers, Ryerson and
Burnham Archives, The Art Institute of
Chicago. Digital file © The Art Institute of
Chicago.

materials and which could be easily folded, stored, and shipped (figure 8), and also outdoor furnishings, a category in which consumers valued compactness and light weight more highly than they did in living room or dining room furniture. In fact, two of the three designs that Glass singled out as being the best of his career—the American Way outdoor group (figure 3) and the Cricket chair (figure 9; at lower right)—were for outdoor furniture, a category in which he had freer reign to explore the kinds of design problems in which he was interested (the third design Glass singled out was the Swingline children's furniture line [figure 10, discussed below].[36] And, indeed, the 1978 Cricket folding chair for Brown Jordan of California is truly an amazingly efficient design. As the sales brochures note, it folds up to a thickness of only one inch, and unfolds cleverly to become a comfortable armchair. It was light; it was compact; it was made of virtually indestructible materials; and it was pirated immediately by other manufacturers and produced in inferior versions for a lower price, so it never sold as well as Glass and Brown Jordan might have hoped. But it was in this elegant, efficient design—which Glass considered one of his best—that the legacy of World War II really shows in Glass's work. Even as late as 1996, he argued, "...there are ways to save space in shipping and storing of all kind of items made of wood or other materials. They can be folded, nested, or stacked, eliminating the necessity of consumer assembly. The more compact the result of such methods, the better the design."[37] In other words, Glass clearly never lost his interest, fostered by the exigencies of the war, in creating furniture that was not only beautiful and comfortable, but also efficient to ship, assemble, and store.[38]

Designing for the War Effort: Chicago, 1942–1945

As a result of the monumental changes in American industry and consumption habits during wartime, much of the work available to designers such as Glass, who had worked primarily on residential and commercial furniture design, disappeared. Glass recalled that "After Pearl Harbor, the chances for designers in New York dried up almost completely." [59] So Glass and his wife moved to Chicago in 1942,[60] where he worked as Chief Designer of the Architectural Department at a display company called W. L. Stensgaard for the duration of the war.[61] Glass got the job at Stensgaard as a result of one of his prewar trips to Chicago, when he was recommended to W. L. Stensgaard, probably by Eliot Noyes.[62] Stensgaard, at least before the war, was a company that specialized in retail display, which included everything from signage to merchandising vitrines to store architecture.[63] And this commercial work continued, albeit at a slower pace, during the war years. Glass noted that, in the four years he was there, he worked on "countless merchandising and display units and store layouts for such companies as Ekco, Kelvinator, Textron, and a rather prestigious traveling exhibit for the Pullman Company." [64]

Stensgaard, however, wanted to move into the defense furnishings market, and Glass notes that he showed W. L. Stensgaard his plans for the Mobile, Alabama housing project and was hired because of them.[65] One of his first projects at Stensgaard, Glass recalled, was for "a group of low-cost defense housing furniture, made of nonessential materials, namely plywood and bent Masonite," a production technique for which Stensgaard was "well equipped." [66] This was almost certainly the "Structural Bends" Victory Series, which was a suite of furnishings for home and office that was made of plywood and Masonite. Many of these pieces—as you might expect from Glass—folded up or stacked, and of course were both strong and lightweight (figure 11). They got their strength not only from the inherent properties of hardboard, but also from the fact that Glass and his colleagues bent thin sheets of it in cunning ways, much like a sheet of paper or cardboard can be bent in order to support a surprising amount of weight. To demonstrate these properties, Glass and some of his colleagues performed a stress test that was charming in its simplicity (figure 12).

It is worth pausing here to talk briefly about Masonite, since it is difficult to say if Glass would ever have used it in his furniture designs if it were not for the war, and for his association with Stensgaard. Masonite—or, as it is generically known, "hardboard"—became an extremely popular product during the war, because it was made from sawmill waste and forest thinnings—materials that previously would have been considered waste products—and was bonded through heat and pressure with naturally occurring lignins, which meant that no synthetic glues or resins were needed.[67] Although it had not been a particularly popular or prestigious material for furniture construction prior to the war, it was virtually "swept off the market by the military 'for the duration'" because it could be used in place of metals for some applications, including some types of ship

and airplane construction. It also was used in huge quantities for Army and Navy housing (most notably in Quonset huts) at offshore bases.[68] Glass's association with Stensgaard meant that he not only had access to Masonite during the war, but that he also had access to machines for tooling it and to other staff members who had expertise in working with it, since the company had employed Masonite and other non-traditional materials such as plywood for display design before the war. Thus he became knowledgeable about a material that few other modernists had previously exploited for furniture design, and used that knowledge to great effect after the war.

In addition to the Structural Bends series, Glass worked on other projects between 1942 and 1945 that were directly commissioned by the armed forces, such as "educational devices for cockpit dials in Navy fighter planes and camouflage kits for the Army."[69] Because of this work, Glass never became a soldier. He recalls that "During WW II I was deferred because my draft board decided that I was doing more important work for the war effort as a civilian."[70]

Like Charles and Ray Eames's molded plywood leg splints for the Navy, or Jens Risom's 1941 cotton webbing-"upholstered" chairs for Knoll, or nautical and aviation engineers' wartime designs for ships and airplanes made of plywood and Masonite rather than scarce steel and aluminum, Glass's work for Stensgaard is a good example of the ways in which the war effort changed both the nation's and individual designers' own design priorities, particularly regarding the use of materials.[71] This is the third point I wish to make. World War II, I believe, helped accelerate designers' and consumers' acceptance of materials and construction techniques that they formerly might have considered inferior, such as bent plywood and Masonite, or canvas slings rather than upholstered seating. And the use of these materials, which had different structural properties than their more traditional counterparts, in turn may have helped foster a change in furnishing aesthetics from traditional to modern.[72]

For example, one of Glass's wartime practices that carried over into the postwar years was his use of Masonite as a material for both institutional and domestic furniture. His award-winning 1951 line of "Swingline" children's furniture for the Fleetwood Furniture Company of Grand Haven, Michigan, for example, was clearly derived from the "Structural Bends" wartime furniture that he had developed at Stensgaard (figure 10).[73] Not only did it have similar bends and curves, but it also was brightly painted, just as the earlier furniture line was.[74] The furniture was designed to be easy to maintain, easy to organize things in (Glass believed the color coding would help children learn to put their things away), and sturdy. (The stools were fastened to the table, so they wouldn't tip over or get dragged around the room, and there were no hinges to fail on the case goods. Instead, the drawers hung from the furniture's upright posts.) Glass won the Industrial Design Institute's gold medal in

1952 for this line, which was perfectly timed for the beginning of the baby boom.[73] Glass also used Masonite and plywood in his designs for institutional furnishings, such as the school storage units he designed for Fleetwood, and wrote favorably about Masonite in his books.[76]

Ecological Concerns: 1940s and Beyond
Despite what seems to have been a busy schedule at Stensgaard during the war years, Glass found time not only to take on "moonlight jobs for various clients" designing furniture and products,[77] but also to attend evening courses at the Chicago School of Design—which later became known as the Institute of Design.[78] As Glass recalled later, "I heard lectures by architect George Keck there, which greatly influenced me in designing my own solar house in Northfield."[79] Keck was an important early theorist of passive solar housing. As early as 1933, he and his brother, William, who was then just out of architecture school, began working on plans for passive solar houses, of which they built a number in the Upper Midwest.[80] In 1938, Keck helped found the Institute of Design in Chicago along with László Moholy-Nagy and Gyorgy Kepes. Keck was head of architecture there from 1938 to 1944, during the time when Glass was taking courses.[81] While Keck was teaching there, he made a number of important innovations in housing design, which presumably Glass heard about firsthand in class. For example, in 1940, when Thermopane windows became available, the Kecks began using them in all of their designs.[82] And in 1942, when Keck designed wartime prefabricated homes for the Green Company of Rockford, Illinois, he developed a form of radiant heating for them.[83]

During his first five years in the U.S., Glass also was exposed for the first time to the works of Richard Buckminster Fuller, whose ideas he very much admired.[84] Glass even went so far as to place an order for one of Fuller's aluminum Dymaxion houses when it appeared that a Wichita, Kansas firm would begin producing them in 1945 (the deal fell through, and Glass got his deposit back).[85] In other words, then, during the war era, Glass clearly absorbed many of Keck's and Fuller's ideas about energy efficiency (which were particularly timely given the fact of wartime gasoline and fuel rationing) and their interest in prefabricated and modular homes that could be quickly assembled to meet housing demands (such as for the defense buildup or the anticipated demand for postwar housing). Evidence of Glass's newfound interests—he had shown no interest in prefabricated or modular or energy-efficient housing prior to arriving in the U.S.—can be seen in a project he did in 1944 for an article in *Interiors* magazine called "Guesses on Housing." Glass's wartime plans for "homes of the future" were modest, economical, energy-efficient plans for modern-styled modular and prefabricated houses that were modeled loosely on Fuller's and Keck's ideas (though Glass's houses were somewhat more conservative in appearance).
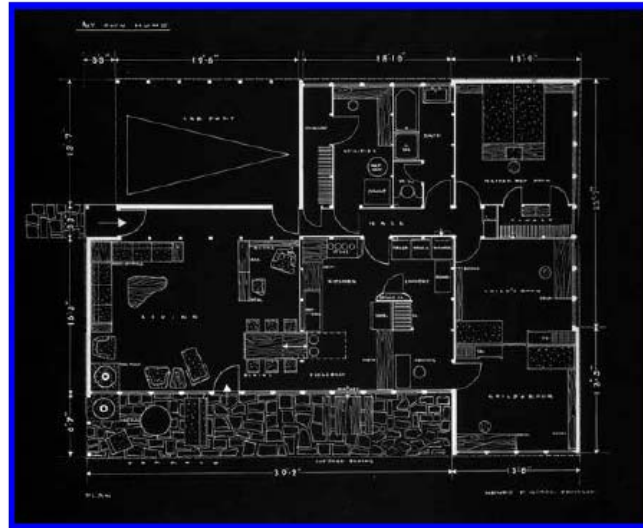
They were meant to address the coming postwar housing short-
ages effectively and equitably, and to be customizable to families
and building sites of different sizes. Unfortunately, they were never
built, and prefabricated and modular housing never really caught
on with the American public, except in a limited way—other than in
the form of mobile homes—until quite recently.[86]

In any case, the 1944 project—and Glass's desire to purchase a
Dymaxion house—shows that either his night classes or fuel ration-
ing, or both, during the wartime years had a profound impact on his
thinking. This is even more evident in his 1948 design for his own
house in Northfield, Illinois (figure 13). It is impressive how many
of his wartime ideas and predictions he followed through on in the
design of this house, which has Thermopane windows through-
out, and which has a roof raked to echo the angle of the sun at the
winter solstice. It has deep overhangs to shield it from the summer
sun, and all the rooms have cross ventilation.[87] The house also had
labor-saving features and many clever built-ins that were meant to
maximize space and minimize housework and clutter.

Unlike some other architects, who recommended small,
modern, efficient homes for *other* Americans, while building them-
selves extravagant pleasure-palaces, Glass actually practiced what
he preached—his own home was truly a model for the kind of hous-
ing that he thought other people should aspire to. My fourth point,
then, is that some of the energy-saving impulses of the wartime
years stayed with Glass after the war, which is made very clear in
the example of his own house, in his subsequent works, and in his
writings, including his lecture notes for the courses he taught at the
School of the Art Institute of Chicago between 1946 and 1968.[88] In
his 1996 book based on those lecture notes, Glass echoed the writ-
ings of Buckminster Fuller when he argued that "In general, great

effects achieved by small means are a crucial prerequisite for human survival. Recognizing the sensible application of these principles in material, form, and structure of manmade articles and the rejection of wasteful abuse of these elements is not only an expression of good taste, but actually the social duty of every conscientious citizen of this planet, plagued by dwindling energy and resources." [89]

Conclusions

World War II had at least four fairly clear effects on Henry Glass's design career: (1) He moved to a new country after personally experiencing the horrors of the Nazi regime and, as a result, the trajectory of his life and career changed totally (in particular, he began to work primarily as an industrial designer rather than as an architect); (2) He worked for the military and the homeland defense effort via his job at Stensgaard, where he learned to create space-efficient, collapsible, stackable, multifunctional furnishings for military and civilian housing projects; (3) Because of materials shortages and rationing, he learned to make efficient use of "nonessential" materials that had formerly been considered inferior, cheap, or tacky, and to exploit their strengths and beauty; and (4) He became interested in ecological issues, either as a result of energy rationing during the war, or due to his exposure during wartime to the ideas of George Fred Keck and Buckminster Fuller.

Unlike many of his contemporaries, who begrudgingly responded to wartime materials restrictions and who gladly returned to designing large and inefficient products and buildings in the postwar period, Glass seemed to see the war as an opportunity for reeducating the tastes and purchasing habits of Americans toward greater restraint and economy and ecology, as well as toward more modern styles. Unlike many of his colleagues, he was not willing to define "good design" as the design that sells best or is most profitable to the manufacturer. Instead, he described himself as a "purist," by which he apparently meant not only that he believed in truth to materials and good form, but also in efficiency and ecology, even if these things were not always valued by consumers. [90]

And Glass did not abandon his principles, even during the "Populuxe" years of the 1950s and 1960s. Not only did he and his family—inhabiting a modest passive solar house and driving an economical Volkswagen Beetle—live the kind of life that he recommended for others in the postwar years, he also continued throughout his life to design and teach according to the principles that he had adopted during the war. His teaching career, I would argue, was particularly significant not only because he became a mentor to many aspiring industrial designers in the Chicago region, but also because it encouraged him to write down in the form of lecture notes many of his principles and beliefs about design. These lecture notes for his classes formed the basis for two very similar book manuscripts: an unpublished one from 1975 called *Design and the*

Consumer, and another that was privately published in 1996 called *The Shape of Manmade Things.* Although Glass did a fair amount of writing and speaking throughout his career—he wrote essays and was interviewed many times for journals and magazines in his field—his books and the lecture notes on which they were based are particularly revelatory about his thinking about the profession of design. They also demonstrate, in the same way that many of his postwar products do, some of the ways in which his experiences during World War II continued to shape his thinking throughout his life.

Although probably few American-born industrial designers had wartime experiences quite as dramatic or life-changing as Glass's—and many of those designers may have been eager to forget the war and its exigencies, rather than to learn from or build upon them—it is surely worth examining the "forgotten forties" more fully to discover in what ways the war shaped or failed to shape the trajectory of postwar American industrial design. In the case of Henry Glass, at least, it is clear that World War II had a profound and lingering effect on his designs and his sensibilities.

1   I'd like to thank everyone who had a hand in pointing me toward and helping me with this project, which began with research I did in preparation for a May 12, 2005 lecture at the Art Institute of Chicago. Many people helped me with this project over the course of 2004–2005 including, at the Art Institute of Chicago, Amy Babinec, Amy Berman, Peter Blank, Lori Hanna Boyer, Brandy Culp, Mary Hess, Kim Krueger, Jeffrey Nigro, Gail Pearson and Jenifer Robertson (both of the Community Associates Program), Martha Thorne, Annemarie van Roessel, Marta Wojcik, Mary Woolever, John Zukowsky, the Ryerson and Burnham Library staffs, and the heroic imaging department staff (none of whom I met, but who worked for a long time on all the images I ordered). Victor Margolin of the University of Illinois, Chicago, suggested my name to the Art Institute for the lecture. Victoria Matranga of the Housewares Association generously offered her personal recollections and her invaluable videorecorded interviews of Henry Glass, which were absolutely indispensable to piecing together the tale of his early life. David Jameson of ArchiTech Gallery spoke with me last year during his show on Glass. Phyllis

Ross, an expert on Gilbert Rohde, shed some light on Glass's work in Rohde's office. AnneKarin Glass, Henry's daughter, offered her assistance in finding information I needed. Nancy Weichert and Leigh Engel in Carbondale, two valiant student workers in art history, both did a lot of running to the library for me. And finally, my thanks to the School of Art and Design's art history program for illustraion subventions.

2   John Zukowsky, "1945: Creativity on the Cusp between War and Peace" in *1945: Creativity and Crisis: Chicago Architecture and Design of the World War II Era* (Chicago: Art Institute of Chicago, 2005), 3.

3   Zukowsky, acknowledgements, "1945," 36.

4   Zukowsky, "1945," 3.

5   Some recent publications on Glass include Adam Katz-Stone, "The Quiet Invasion Continues ... Henry P. Glass, Designer," *Austrian Information* 50:7/8 (1997), available at "Austrian Information," www.austria.org/oldsite/aug97/glass.html (accessed 10/5/2004); *Henry P. Glass: Industrial Design, Interieurs, Architektur* (exhibition catalog; Vienna: Hochschule für Angewandte Kunst in Wien, 1997); Jeffrey Head, "How Things Work: The Inventions of Henry P. Glass," *Modemism* 7:1 (spring 2004): 80–87; and Kay Manning, "Henry P. Glass and the Beauty of Manmade Things" in *1945: Creativity and Crisis: Chicago Architecture and Design of the World War II Era* (Chicago: Art Institute of Chicago, 2005), 22–25. In addition, there are many online resources on Glass, including an obituary (http://new.idsa.org/webmodules/articles/anmviewer.asp?a=1675&z=106) and an interview by Victoria Matranga (www.idsa.org/whatsnew/sections/dh/interviews/glass_henry.html) on the Industrial Designers Society of America website, and a number of pages of biographical/exhibition information on the ArchiTech Gallery site (accessible via www.architechgallery.com/arch_info/artists_pages/henryglass.html).

6   *Henry P. Glass: Industrial Design, Interieurs, Architecktur* (Vienna: Hochschule für Angewandte Kunst in Wien, 1997), 26.

7   Henry Glass, "Henry P. Glass, FIDSA Interview," interview by Victoria Matranga, October 18, 2001. Available at "IDSA Design History Section—Living History Interviews," at: www.idsa.org/ whatsnew/sections/dh/interviews/ glass_henry.html (accessed 10/5/2004).

8   Glass, "Henry P. Glass, FIDSA Interview."

9   Glass, "Henry P. Glass, FIDSA Interview."

10 Henry Glass interview by Victoria Matranga, videorecording, Northfield, IL, November 7, 2001.

11 Glass, "Henry P. Glass, FIDSA Interview."

12 Glass, interview, November 7, 2001.

13 Glass, interview, November 7, 2001.

14 For information about the curriculum of the Technische Hochschule Wien, see Christopher Long, "An Alternative Path to Modernism: Carl König and Architectural Education at the Vienna Technische Hochschule, 1890–1913," *Journal of Architectural Education* 55:1 (September 1, 2001): 21–30.

15 Glass, "Henry P. Glass, FIDSA Interview."

16 Glass, "Henry P. Glass, FIDSA Interview."

17 Glass, "Henry P. Glass, FIDSA Interview."

18 Glass, "Henry P. Glass, FIDSA Interview."

19 Henry Glass, "Design and the Consumer" (1975), unpublished typescript, 18–19. In Henry Glass Collection, Ryerson and Burnham Libraries, Series I, Box 1, 1994.5, Art Institute of Chicago.

20 Glass, interview, November 7, 2001.

21 Glass, interview, November 7, 2001. Glass notes: "I was lucky, even before I finished Masterschool, I had a wonderful client. In Austria, I never worked in anyone's office except my own. My client specialized in converting old warehouses into modern apartment buildings and he entrusted me with these projects. This enabled me to open my independent studio and to start my career most auspiciously, since many of the tenants who moved into these apartments selected me as their interior designer. Several of the most famous Austrian theater personalities were among my early clients, which ensured excellent publicity and media recognition." Glass, "Henry P. Glass, FIDSA Interview."

22 Glass, interview, November 7, 2001.

23 Glass, interview, November 7, 2001; "Genius of Midwestern Industrial Design the Focus of New Art Institute Exhibition. 'Design from the Heartland: Henry Glass, John Polivka, and Richard Ten Fyck [sic].'"

24 Glass, interview, November 7, 2001.

25 Glass met his future wife, Eleanor, in a café where there was a band playing. They danced, and he asked her for a date. Her family was also from Vienna. They dated for four years before marrying in 1937. Glass, interview, November 7, 2001.

26 Glass, interview, November 7, 2001.

27 Victoria Matranga notes: "I asked him how he got out of the Nazi prison camps. He said he was first at Dachau and then Buchenwald. Elly got a Dutch lawyer through Henry's uncle in Switzerland. That lawyer was accredited with the Gestapo, so he was allowed inside the Gestapo headquarters in Berlin. Henry was imprisoned because he had fought the Nazis when he was at the University, and because of his Jewish family background. Elly was quick thinking. She told the Gestapo that she wanted her husband back because she wanted to get a divorce. The Nazi judge told her that she could divorce him without having him in person. She said, "Would you like it if your wife divorced you while you were in prison?" So they let him out, on the condition that he leave the country in three weeks. Elly couldn't go with him because she was in treatment for TB, so he went to NYC in January 1939 and she followed him in May." Matranga, electronic correspondence with author, October 14, 2004 (based on a conversation she had with Glass on June 20, 2003).

28 Eleanor had tuberculosis, which was why her travel plans were delayed. Glass, interview, November 7, 2001.

29 Glass's sister had married an Italian before the occupation; his parents left to stay with the uncle in Switzerland. His father died in Switzerland, and his mother moved to Bologna with his sister. Glass, interview, November 7, 2001.

30 Glass recalls asking a man in the subway what a nickel was, and the man unhelpfully replied, "Half a dime, you dope!" Glass, interview, November 7, 2001.

31 Glass, interview, November 7, 2001.

32 Glass, "Henry P. Glass, FIDSA Interview."

33 Glass, "Henry P. Glass, FIDSA Interview."

34 Glass, "Henry P. Glass, FIDSA Interview."

35 Glass says that 90 W. 95th Street was his first address in New York. He describes the inflatables as some "wild ideas I had." Matranga asks him what the suite was to be made of, but unfortunately he doesn't answer, or his response is inaudible on the tape. Henry Glass, interview by Victoria Matranga, videorecording, Northfield, IL, April 17, 2003 (1:11:30).

36 Other employers included S. J. Campbell, Leo Jiranek, and the Broadway scenic designer Boris Aronson. Of this last job, for which Glass made cardboard models of sets, Glass said, "He had me working day and night—he had a cot that he put up for me in the office." But the pay was only $15 per week, and then got lowered to $10, so Glass quit and began looking for other ways to make a living. Glass, "Henry P. Glass, FIDSA Interview"; Glass, interview, November 7, 2001.

37 Essay on Russel Wright, from "DesignAddict," www.designaddict.com/ design_index/index.cfm/fuseaction/ designer_show_one/DESIGNER_ID/230/ index.cfm (accessed April 22, 2005).

38 William J. Hennessey, *Russel Wright: American Designer* (Cambridge, MA: MIT Press/Gallery Association of New York State, 1983), 48.

39 Hennessey, *Russel Wright: American Designer*, 48.

40 Hennessey, *Russel Wright: American Designer*, 47.

41 The term "livable modernism" is from Kristina Wilson, *Livable Modernism: Interior Decorating and Design During the Great Depression* (New Haven, CT Yale University Press, 2004).

42 The Wrights gave their American Way line as glamorous a launch as they could: Eleanor Roosevelt opened the exhibition at the New York Macy's store. However, only about twenty stores across the country were able to offer the complete American Way line at the outset in 1940, due in part to materials shortages, and in part to the size of the line, which included works from about sixty-five different designers. As a result, sales were not great, and the American Way line became a financial disaster for the Wrights, who had largely financed the project out of their own pocket. See Hennessey, *Russel Wright: American Designer*; also, Donald Albrecht, Robert Schonfeld, and Lindsay Stamm Shapiro, *Russel Wright: Creating American Lifestyle* (New York: Cooper-Hewitt/Harry N. Abrams, 2001), 159.

43 Glass had met Russel Wright while he (Glass) was working in the architect Morris Sanders's office, and remembers that Wright "liked my work and when in 1941 [actually 1940] he launched his campaign 'American Way,['] he honored me with an important assignment: to design a complete line of wrought iron furniture. I created a rather startling group of tables, chairs, sofas, etc. which commanded immediate and favourable attention in the trade press, particularly in the weekly "Home Furnishings'[*sic*]. Its editor-in-chief, Alfred Auerbach, coined the name 'Hairpin Group' because of the shape of the 'steel wire' legs. It was a great success, mainly in the media, I don't know how much of this furniture was actually sold in stores. It certainly created a trend, countless furniture pieces of all kinds were put on 'hairpin' legs for several years." Glass, "Henry P. Glass, FIDSA Interview."

44 Glass, "Henry P. Glass, FIDSA Interview."

45 Eliot Janeway, *The Struggle for Survival: A Chronicle of Economic Mobilization in World War II* (New Haven, CT: Yale University Press, 1951), 29. Hitler had, by that time, annexed both Austria and Czechoslovakia; and though the invasion of Poland did not occur until September 1, 1939, the Roosevelt administration pushed a reluctant Congress to pass a "preparedness" budget in July, 1939 that included a Reorganization Bill and a $525,000,000 defense budget. Janeway, 47.

46 By the summer of 1940, for example, "Manufacturers were being swamped with contracts; the Government was underwriting elaborate expansion programs; and businessmen, understandably enough, were fighting to service their regular customers." Janeway, 180. And on September 16, 1940, Roosevelt authorized draft registration to begin on October 16, with the first 400,000 draftees due to report on January 1, 1941 and the second 400,000 in the spring (he did this during the height of his reelection campaign—a brave move!). Janeway, 176. For example, throughout 1940, just as the Russel Wrights were promoting their "American Way" campaign, there were already some clear shifts toward wartime production that had an impact on what could practicably be produced; notably, "work contracted for the Chase Brass and Chrome Company [for the American Way line] was curtailed due to wartime material shortages, and a planned line of knockdown furniture for Sears Roebuck was never launched." Albrecht et al., 159.

47 Janeway, 218–19.

48 According to Doris Kearns Goodwin, "By the end of November [1942], government regulations extended into almost every aspect of American life. Shortages of iron and steel prohibited the manufacture of a wide range of consumer items, including electric refrigerators, vacuum cleaners, sewing machines, electric ranges, washing machines and ironers, radios and phonographs, lawn mowers, waffle irons, and toasters. The use of stainless steel was prohibited in tableware. Shoe manufacturers were ordered to avoid double soles and overlapping tips; lingerie makers were limited to styles without ruffles, pleating, or full sleeves." Kearns further notes: "To ensure a sufficient amount of cotton and wool to supply the army ... the War Production Board mandated a new 'Victory' suit for civilians, with cuffless trousers and narrower lapels. Reductions in the amount of cloth allowed also led to shorter, pleatless skirts, rising several inches above the knee, and to the creation of a new two-piece bathing suit." Goodwin, *No Ordinary Time: Franklin and Eleanor Roosevelt: The Home Front in World War II* (New York: Simon & Schuster, 1994), 394, 355.

49 Glass, "Henry P. Glass, FIDSA Interview."

50 All of these drawings are signed "Henry P. Glass" and dated 1941, though I suspect that the dates may have been added later, since they seem to be in a different pencil and hand than the signatures. But probably the dates are still accurate, and I would guess that these are the kinds of sketches Glass "shopped around" to furniture makers.

51 Adam Katz-Stone notes that "When he [Glass] first came to this country, in 1939, he found an American public 'still steeped in tradition, much more so than the European public, and they looked askance at the [*sic*] anything new' even in New York, that veritable breeding ground for things new and innovative." Katz-Stone, "The Quiet Invasion Continues ... Henry P. Glass, Designer." *Austrian Information* (Washington, DC) 50:7/8 (1997): www.austria.org/oldsite/aug97/glass.html (accessed 10/5/2004).

52 Janeway, 173.

53 According to an Alabama history website, "Mobile was home port for two important ship lines. Freighters operated by Waterman Steamship Company transported valuable wartime cargoes throughout the world. Alcoa Aluminum Company operated its own fleet of ships to transport bauxite (the ore from which aluminum is made) from South America to the company's refinery on the State Docks. Waterman lost 27 ships and 313 seamen's lives during World War II; Alcoa lost 8 of its own ships and 67 sailors, as well as 13 chartered bauxite carriers. Mobile's two shipyards won contracts to build desperately needed merchant vessels and warships. Alabama Drydocks and Shipbuilding (ADDSCO) built freighters and tankers. Gulf Shipbuilding, a subsidiary of Waterman Shipping, constructed destroyers and minesweepers. More than any other Alabama city, Mobile boomed as a result of wartime production. At the height of the war, the two shipyards and Brookley Field employed nearly 60,000 people. Only cities such as San Diego, California, and Norfolk, Virginia experienced comparable population explosions and accompanying strains on housing, education, and public utilities." From "ADAH: Alabama Moments (Alabama and World War II—Details)." Available at: http://www.alabama moments.state.al.us sec50det.html (accessed April 12, 2005).

54 Vicki Matranga interview of Henry Glass, tape 1, November 7, 2001 (1:46).

55 Glass's designs often were advertised using his name, which usually is a good indication of a designer's reputation. In addition to winning a number of design awards, including ones from the Fine Hardwoods Association and the Industrial Designers Institute, he also became chairman of the IDI's Chicago chapter in 1959–60 and national vice-chairman in 1960–62, and was elected a Fellow of the IDSA in January 1965—an honor that only 132 people have received since the IDSA was formed from the combination of the American Society of Industrial Design (ASID), the Industrial Designers Institute (IDI), and the Industrial Designers Education Association (IDEA) in 1965. Glass, "Henry P. Glass, FIDSA Interview"; "IDSA—About IDSA," available at: http://new.idsa.org/webmodules/articles/anmviewer.asp?a=80&z=106 (accessed April 25, 2005).

54 Vicki Matranga interview of Henry Glass, tape 1, November 7, 2001 (1:46).

55 Glass's designs often were advertised using his name, which usually is a good indication of a designer's reputation. In addition to winning a number of design awards, including ones from the Fine Hardwoods Association and the Industrial Designers Institute, he also became chairman of the IDI's Chicago chapter in 1959–60 and national vice-chairman in 1960–62, and was elected a Fellow of the IDSA in January 1965—an honor that only 132 people have received since the IDSA was formed from the combination of the American Society of Industrial Design (ASID), the Industrial Designers Institute (IDI), and the Industrial Designers Education Association (IDEA) in 1965. Glass, "Henry P. Glass, FIDSA Interview"; "IDSA—About IDSA," available at: http://new.idsa.org/webmodules/articles/anmviewer.asp?a=80&z=106 (accessed April 25, 2005).

56 Glass recalls that "The most successful product in terms of monetary reward was a folding conference table, which I designed for Samsonite Corp. It was patented, but I received royalties for as long as it was manufactured and sold, about 40 years. The products I am most proud of were the Hairpin Group of 1941, the colorful 'Swingline' furniture I designed for Fleetwood Co. in 1952 and the 'Cricket' folding chair that I did for Brown-Jordan in 1978." Glass, "Henry P. Glass, FIDSA Interview."

57 Henry P. Glass, The Shape of Manmade Things (Northfield, IL: E. C. G. Publishers, 1996), 52. Of knockdown furniture, Glass wrote: "Achieving a happy balance between an economical package and a user-friendly assembly job is a test of good design." Glass, The Shape of Manmade Things, 116.

58 In fact, Glass seemed to sum up his career and his design philosophy well in a 1953 address to the Industrial Designers' Institute, when he argued that "'bigger' isn't always 'better' […]." […] "When human ingenuity has figured out ways by which great bridges or tremendous domes can be supported by light weight structures, or if products are being designed which give greater serviceability at a lower price because of material and production economies, these are cases where less is definitely more and I should like to meet the editor, manufacturer, designer, or retailer who disputes this!" Glass, address to the Industrial Designers' Institute, June 25, 1953 (in uncatalogued red binder in Henry Glass Collection at Ryerson and Burnham Libraries, Art Institute of Chicago).

59 Glass, "Henry P. Glass, FIDSA Interview."

60 Although Glass and later writers often say the move to Chicago occurred in 1941, Glass remembers that the move was post–Pearl Harbor, and thinks it must have been early 1942. Glass, interview, April 17, 2003 (1:40).

61 "Genius of Midwestern Industrial Design the Focus of New Art Institute Exhibition. 'Design from the Heartland: Henry Glass, John Polivka, and Richard Ten Fyck [*sic*].'": http://www.artscope.net/NEWS/news111099-1.shtml (accessed 10/5/2004). Job title is from Henry Peter Glass, "Furniture of Today and Tomorrow," *Furniture Manufacturer* (June 1952): 42–46.

62 Glass, interview, April 17, 2003 (~16:00).

63 As W. L. Stensgaard himself put it, "This organization is devoted to the science of 'merchandise presentation.' The purpose is to create a better appearance, arrangement and dramatization of service or product at 'point of sale.' [...] "Yes ... ours is a highly specialized job for the purpose of assisting both the manufacturer, the retailer and the advertising agency. Here you will find broad, practical experience and America's largest and oldest organization devoted exclusively to Merchandise Presentation, Demonstrations, Displays and Exhibits of all types." W. L. Stensgaard in *Merchandise Presentation* (Chicago: W. L. Stensgaard and Associates, 1945), from "Stensgaard Masonite Furniture" folder, Henry Glass Collection, Ryerson and Burnham Libraries, Art Institute of Chicago.

64 Glass, "Henry P. Glass, FIDSA Interview."

65 Glass, interview, November 7, 2001 (1: 46:00).

66 Glass, "Henry P. Glass, FIDSA Interview."

67 "Hudson Timber/Australian Hardboards/Australian Hardboards.": http://www.hudsontimber.com.au/hardboards/default.asp (accessed 10/18/2004).

68 Masonite was so critical a material that "The company was granted three Army-Navy 'E's for its contribution to the war effort" in John M. Coates, *Masonite Corporation: The First Fifty Years, 1925–1975* (Chicago: Masonite Corporation, 1975), 19.

69 Glass, "Henry P. Glass, FIDSA Interview." According to design historian Arthur Pulos, "The U.S. Department of the Navy had a particular interest in the contribution that designers could make to its part in the war effort. Victor Schreckengost was made head of design in its Department of Training Devices, where he was joined by Henry Glass and Paul MacAlister"—presumably through some arrangement with Stensgaard, Glass's employer. Pulos, 24.

70 Glass, "Henry P. Glass, FIDSA Interview."

71 Jens Risom's 1941 collection for Knoll was made of birchwood and cotton webbing, materials that were "not subject to wartime restrictions." Untitled page: http://www.knoll.com/products/brochures/Risomside.pdf (accessed September 1, 2005). On the use of plywood as a wartime shipbuilding material, see Dung Ngo and Eric Pfeiffer, *Bent Ply: The Art of Plywood Furniture* (New York: Princeton Architectural Press, 2003): 40–47. For discussion of wartime uses of Masonite, see Coates, *Masonite Corporation*.

72 For example, Eliot Noyes's exhibition at the Museum of Modern Art, New York (MoMA) in 1941 called "Organic Design in Home Furnishings"—which included Eero Saarinen's and the Eameses' works in bent plywood—*is* often pointed to as a driver of change in the furniture industry, but the war effort was probably equally important, if not more important, in shaping tastes. More people lived in war housing than saw the MoMA show, and thus became familiar with some of the positive qualities (as well as some of the negatives, I'm sure) of these new materials, which certainly must have affected their buying patterns after the war.

73 The 1951 date is from a document called "Department of American Arts Gift Consideration, June 8, 2000" in the Art Institute of Chicago's American Art curatorial files (Item 2000.133). Glass himself speaks of the Swingline line as being from 1952, but given that he won an award for it in 1952, a 1951 introduction date seems more likely.

74 The caption for the Swingline furniture in one of Glass's manuscripts reads: "Part of the award-winning 'Swingline' group of juvenile furniture designed by the author in 1952. Bins and boxes swing practically friction-free on hardwood dowels. This was the first use of bold, bright color on children's furniture." Glass, "Design and the Consumer," 62A (fig. 36). Glass (erroneously) claimed that the Swingline furniture was the first line of children's furniture to be painted in such a way, but Alma Buscher and Ilonka Karasz had both used primary colors on furniture well before that. But perhaps Glass meant that his was the first mass-produced line of furniture that made use of bright colors.

75 "Department of American Arts Gift Consideration, June 8, 2000," 4. From American Art curatorial files on Henry Glass, Art Institute of Chicago.

76 Glass notes that "All hardboards are very useful materials in the right place. They are inexpensive and perfectly correct as drawer bottoms, cabinet backs, and the like." Glass, "Design and the Consumer," 82.

77 Glass, "Henry P. Glass, FIDSA Interview."

78 Glass recalls that he attended classes at the Institute of Design "Later, in 1940 and 1941," but since he did not move to Chicago until 1942, clearly this is a slip of the tongue, particularly since he notes elsewhere in the same interview that "During the war ... I attended classes at the School of design in Chicago ...." Glass, "Henry P. Glass, FIDSA Interview." During the early 1940s, the Institute of Design was called the Chicago School of Design. It was renamed the Institute of Design in 1944, and it merged with Illinois Institute of Technology in 1949. See "History of Illinois Institute of Technology," available at: http://www.iit.edu/about/history.html (accessed April 25, 2005) and "Institute of Design: Profile: History" available at: http://www.id.iit.edu/profile/history.html (accessed April 25, 2005).

79 Henry P. Glass, letter to Annmarie van Roessel, June 17, 1997. From American Art curatorial files, Art Institute of Chicago.

80 The first house the Kecks built that incorporated these ideas was the Wilde Residence in Watertown, Wisconsin, of 1935. The Kecks built other passive solar houses in 1937 in Lake Forest, Illinois, and in 1939 in Menasha, Wisconsin. Amy L. Gold, "Keck, George Fred" in *American National Biography* (New York: Oxford University Press, 1999), 431–432.

81 Gold, 431–432.

82 Gold, 431–432.

83 Gold, 431–432.

84 Glass noted: "Later, in America, I most admired Buckminster Fuller." Glass, "Henry P. Glass, FIDSA Interview."

85 Glass wrote, "In 1945, Beech Aircraft started a tentative production run of the Dymaxion dwelling machine at a cost of $1,800 per unit in Wichita, Kansas. At the time, it was enthusiastically supported by industry, labor, and the public because, at a retail price of $6,500—fully installed, it would have solved the acute housing shortage and would have given employment to 1,000 workers, but when the war in Japan ended, industry and labor went back to their customary pursuits and the new, speculative project was abandoned. This author ordered a unit, but my deposit was returned. This episode led to the great experience of meeting Mr. Fuller personally. Upon my invitation (I was then president of the Chicago Chapter of the Industrial Designer's [sic] Institute) he came to Chicago, gave an inspiring speech to our group and also came for an afternoon of critique to my industrial design class at the School of the Chicago Art Institute. He refused to accept any remuneration. That was typical for Fuller's entire perspective on life, which he devoted to the betterment of the human condition by the optimum utilization of natural resources, without consideration of personal advantage." Glass, *The Shape of Manmade Things*, 160.

86 Glass stated in "Guesses on Housing" that "One of the few good things about the war is the way it speeds up public understanding. This flexibility of imagination carried into the postwar era, applied to the postwar house, may accelerate public acceptance of 'modern' design, or possibly sound the death knell of the whole hackneyed controversy of 'modern' vs. 'period.'" Glass, "Guesses on Housing" in *Contract Interiors*, 103 (Feb. 1944): 35–37.

87 When Glass's house was written up in *Interiors* magazine in 1950, the description of it read as follows: "Designer Glass and his wife and two children live in a solar house. Its whole south wall is Thermopane throughout, and the angle of the roof, parallel to the angle of the December 21st midday sun, admits it to the very rear of the south rooms. An overhang provides summer shade, and all rooms have cross ventilation. The living room, dining area, kitchen, and sewing room are [a] single air space divided by storage units, and the dining table moves in and out of the kitchen for easy serving. A loud speaker and movie screen are housed in the baffle wall between kitchen and living room; radio chassis and projector are built into cabinets at the opposite end of the living room. Black asphalt tile floor and burlap and Kalistron-covered wallboard facilitate servantless housekeeping for Mrs. Glass, who is the lady in the picture above. The side chairs are Armour Institute of Technology's experimental models, black and shiny." "The Year's Work" [1949–1950] [residential and commercial interiors] in *Contract Interiors*, 110 (Aug. 1950): 79. In other words, Glass's house was a very technologically and stylistically advanced home for its day, especially given that—as William Hennessey put it—"With the war safely behind them, American consumers now preferred furnishings that expressed conventional prosperity, conformity, and tradition." Hennessey, 65. In fact, Glass's design was a bit too advanced for some of his neighbors' tastes; Glass recalled: "The neighbor in the adjoining lot, a 'very conservative gentleman,' felt that Mr. Glass's modern construction was devaluing his property, and decided too that the architect with the accent must

of course be some sort of Communist." Adam Katz-Stone, "The Quiet Invasion Continues ... Henry P. Glass, Designer." *Austrian Information* (Washington, DC) 50:7/8 (1997): http://www.austria.org/oldsite/aug97/glass.html (accessed 10/5/2004). (Though Glass made a joke of this frequently, he does seem to have worried at least a little that his neighbors might think he was a communist; probably it didn't help that he'd been a member of socialist groups as a student.)

88 Again, dates vary. Glass says 1945 in one source (Henry P. Glass, letter to Annmarie van Roessel, June 17, 1997, from American Art curatorial files, Art Institute of Chicago), but other people often say 1946 (e.g., "Genius of Midwestern Industrial Design the Focus of New Art Institute Exhibition. 'Design from the Heartland: Henry Glass, John Polivka, and Richard Ten Fyck [sic],'" available at: http://www.artscope.net/NEWS/news111099-1.shtml (accessed 10/5/2004). For the end date, Glass says 1969; other sources (including "Genius of Midwestern Industrial Design"), say 1968. In any case, Glass reached the rank of full professor at SAIC, all the while maintaining his own practice as a designer.

89 Glass, *The Shape of Manmade Things*, 10.

90 Glass noted: "Although a marked improvement in popular taste in the last few decades has been noticeable, although the watchword 'good design sells' has been recognized by producers and consumers, huge quantities of junk products in all fields still are a large part of the market picture. Conversely, there have been many instances when good design was not accepted by the buying public." Glass, *The Shape of Manmade Things*, 169.

Design History:
An Alternative Approach

H. Kumar Vyas

Part 1: Concepts of Modern Design and Design Education in a Newborn Nation with an Ancient Culture.

At the outset, let me say that what follows is based entirely on my personal teaching experience at the National Institute of Design (NID) in Ahmedabad since its founding in 1962. Its unusual but clear mandate was to equip young aspirants with design knowledge, skills, and attitudes to address design problems of a newly independent nation whose lifestyle still drew substantially from ancient cultural traditions.

Besides responsibility for a faculty-training program in industrial design, I was entrusted with the task of formulating curriculum and course content for the proposed Professional Education Program at the undergraduate level. I became interested in design history, and discussions with my colleagues invariably centered on two obvious points. First, what the history of design meant in the Indian context in general and with respect to the NID education in particular. Second, if there was to be a course in design history, how should it be taught, since the new institute was dedicated to new forms of teaching and learning, where teachers created an ambience in which learning took place?

Two developments: Chandigarh as the new capital of Punjab when international modern design arrived in 1952 in the form of Le Corbusier and associates; and the NID, where design education was established based on the proposal by Charles and Ray Eames,[1] eventually helped define modern design in the Indian context. These are only two of many links in a long chain of transition that began with India's independence in 1947, and her resolve to catch up with the rest of the world and to usher in modernity in the best sense of the word. There is an inescapable parallel between two kinds of superimpositions that took place at the same historical time: the imminent mechanization of carefully chosen craft production methods that must function smoothly along with their traditional counterparts, and the concept of modern design introduced with the clear objective of coexisting with traditional design ethos and idioms.[2]

Part 2: Design and History: A Search for Equivalence

The concept of coexistence warrants further evidence. On the one side, we have the idealism and conventions of practice and learn-

1 Charles and Ray Eames, *The India Report* (Ahmedabad: National Institute of Design, 1997).

2 See S. Balaram, "Design Pedagogy in India: A Perspective," *Design Issues* 21:4 (Autumn) 2005: 11.

ing ascribed to modern design since the beginning of the twentieth century. On the other, we have the design ethos and idioms that have been a part of a tradition at least three millennia old.[3] What must not be overlooked here is the fact that the ethos and idioms, unlike their counterparts in Europe and many other parts of the world, still are alive today, and they have functioned all along with the inevitable processes of industrialization. Though mechanized industrial production at a very rudimentary level first appeared in India in the second half of the nineteenth century, it accelerated at an exponential rate immediately after Independence.

The traditional design thinking is rooted in a concept of *kalaa*,[4] which suggests a unity among all human arts, skills, sciences, and techniques. It is known that the last of the four Vedas, the Atharva, has as its more worldly, even scientific, appendage a treatise on *sthapatya*,[5] meaning the science of construction. The treatise discusses developments of objects, built spaces, and images using different materials and methods. This is the very first and obvious source for *kalaa*. This concept of *kalaa*, with its sense of universality and integration, lasted until the European concepts of art and craft as two separate entities were brought to India when the British set up their arts and crafts schools complete with the ongoing debate on the "fine" arts and crafts, and the craft object vis-à-vis the machine-made object. All this diminished the original meaning of *kalaa*, since most people now use it to mean only plastic arts.

Given this experience, can the way one searched for an Indian equivalent to the concept of design also work for history? Examined with enough care and patience, one senses the existence of a peculiarly Indian historical perception, though not immediately obvious nor even relevant. The reason is simple. By now, "modern" Indian historians have comfortably and almost totally adopted the European concepts and practices of history and historiography. Yet buried not so deep under the Indian psyche, there is a perception of history with hardly a parallel in other cultures. Today, the Indian word (of Sanskrit origin) regularly employed to translate the concept of history is *itihas*, which goes all the way back to the great Indian epics. It generally is believed that the essential history, or *itihasa*,[6] is the contents of the two most popular epics: the Ramayana and the Mahabharata.

Even today, the lives of the majority of Indians are directly—or indirectly, depending on the degree of urbanization—influenced by the contents of these two epics. Both essentially profess one thing: *dharma*, which means living one's worldly life in accordance with the cosmic order. Living in this country, one always is aware of a subconscious yet universal feeling that says *itihasas*, more than cold records of the past, have a better and more relevant role to play, that of helping an individual and the society toward this very goal. Hence, it has always proved a meaningless exercise to debate the authenticity and chronology of events recorded in the *itihasas*. On

3   See Lalit Kumar Das, "Culture as Designer," *Design Issue*, 21:4 (Autumn 2005) for further discussion of cultural traditions.

4   H. Kumar Vyas, *Design the Indian Context* (Ahmedabad: National Institute of Design, 2000), 36–38 also for comparison between the concepts of *kalaa* and the European concept of art.

5   R. S. Nathan, *Our Heritage, Book II* (Calcutta: Chinmaya Mission, 1979), 23, chart IV.

6   Ibid., 13–15.

the other hand, there has always been recorded evidence from the post-epic periods that people keep referring to. But it did not seem important, and therefore was not preserved as meticulously as it was in European or Chinese culture.

Here is a rather audacious question: with the concepts of *kalaa* and *itihasa* juxtaposed, respectively, with those of design and history, can any kind of design history in the Indian context afford to ignore them entirely? The question sounds more audacious when one knows that both academic and design learning in modern India hardly ever takes notice of these two.

Part 3: Design History also Explores the Historical Basis of the Design Process
A digression is necessary here in order to appreciate an aspect of design history that can only be described as universal. How would the history of design be perceived from the vantage point of the history of humankind? This way would not allow design history to confine itself in the cocoon of modernity and the modern move-ment.

Imagine backward time travel in the spirit of enquiry to bring us face to face with our primordial ancestor. Arguably, the history of design has its roots in the history of human needs, possibly as ancient as the primeval needs that caused the newly evolved Homo sapiens to innovate the basic tool and the basic language. "Structured" spoken language is a powerful means of communication and "structured" shelter possibly soon followed. These events celebrate the birth of a unique human faculty of innovation for survival. As the story of humankind goes, thus began a chain of innovations that led to an important historical process: that of modifying the natural environment to create what we now call the manmade environment, eventually acting as a counterpoint to nature.

Forward time travel would bring us to a point in history some ten thousand years ago when human beings, following the develop-ment of agriculture, decided to stay put. The multiplicity of human settlements that followed carried seeds that later flowered in several great civilizations on earth: the built spaces and object systems, means of transportation and production, languages, scripts, signs, and symbol systems. All these inform us of the very same primordial instinct, survival of the human species through innovation, with the added imperatives of perpetuation and prosperity of the species.

If we accept the premise that this instinct of survival through innovation has an analogical relationship with the concepts and concerns associated with modern design, then the process by which those devices helped define manmade environments throughout the great civilization was a design process in its own right. Every solu-tion that evolved did so over a period of extended time. Therefore, we would be justified in calling it an evolved design process.[7]

7   Vyas, *Design the Indian Context,* 22–24.

Precisely because of the extended time frame involved, this design process naturally can not be perceived in any separate, well-defined stages. However, at any given point in human history, examining any of the devices is bound to tell us a similar "design story," providing the right questions are asked—such as the kind of questions the Eameses asked in the "India Report" to illustrate the process of designing the ubiquitous Indian pot-form, the Lota.[8]

There still are three more reasons for the "unstructured" quality of the evolved design process. Protracted over a considerable length of time, it also is an organic process seldom employed self-consciously. This makes it impossible to learn in a structured educational environment, except within the time-tested ambience of master and disciple interaction. Last and most important, it is the result of a collective contribution by many anonymous designers representing several generations.

For these reasons, the design solution would involuntarily accumulate the aspirations and concerns of each generation which, in turn, would be most sensitively expressed in the very multiplicity of functions—physical, psychological, socio-cultural, and even spiritual. Undoubtedly, it is the evolved design process that has been speaking to us all these years through the best craft work in all parts of the world. One sees it at work even now as a disguised legacy of *kalaa* in all craft production situations in India and in several other countries where the age-old craft traditions are still alive.

Our acquaintance with the evolved design process cannot be complete without contrasting it with the now familiar, yet comparatively new, process consciously employed by the modern practitioners of design. I would call the latter the learned design process[9] because it is self-consciously acquired by an individual design aspirant within a well-defined time frame. The nature of the learned process is such that, whenever employed, it has to be deliberate and methodical and, unlike the evolved process that may straddle generations, it is time-telescoped and encapsulated. For obvious reasons, it abhors anonymity.

The conclusion here is simple. The history of design cannot afford to exclude as an integral part the history of the design process.

Part 4: Learning Design History: An Unconventional Approach
A conventional course in design history is, by necessity, a linear chronological account of design styles, movements, and schools of thought exemplified by the works of design personalities throughout the ages. One would not expect such a course to discuss designers' problem-solving processes and their historical development as discussed above. Nor would it dwell upon the history of design education and pedagogy, such issues being thought too specialist, and thus often left out.

8   Eames, *The India Report*, 4–5.
9   Vyas, *Design the Indian Context*, 22–24.

I hasten to clarify that I am not ruling out the obvious merits of the conventional method of learning design history. I am quite conscious that a chronological account of design events and designers' works is a very good way of putting developments of such nature in their temporal perspective. But I contend it is possible to learn design history at two levels, that is, in two sequential phases. What I find missing is the first phase, which should help explore the topics mentioned above. But more important, this approach promises to be a vehicle for a discussion of the historical imperatives specific to the design idioms and ethos of a particular culture or community.

The learning method that can be employed with advantage for this first phase is neither periodic nor stylistic, at least not in the conventional sense. In fact, it was recommended as an alternative method by the eminent design historian Siegfried Giedion in his 1948 book *Mechanization Takes Command*.[10] He called it a typological approach, and suggested that the students of history, instead of immediately exploring the design styles and personalities, should initially investigate the history of a preferred "type." Simply defined, a type means a design solution that exists and functions in one's immediate environment. A type should be either an object or an object system, a built space for a specific function, or a communication or transportation device. In short, it includes all of the elements of the man-made environment that designers generally deal with during their careers. But the meaning also could be extended to include a service (e.g., a water supply system) or a human concept that implies a device (e.g., money). Giedion's hypothesis required the students to examine each type from the point of view of its origin and the subsequent changes in its style as it traveled through time, while being subjected to changing technologies and social conditions.

Inspired less by the content than by the spirit of Giedion's suggested approach, I had earlier devised a few exercises that I later developed into a course. It was offered to at least four groups of students at the NID in the late 1980s. Since 1992, in a slightly different, and in my mind improved, format, it is being offered regularly to the students of the School of Interior Design (SID) at the Center for Environmental Planning and Technology (CEPT) in Ahmedabad.

The current course begins with several unstructured discussions on specific topics directly related to the central theme. The topics, as discussed above, include the following concepts: perception of history in a given culture (here, in India); conceptual equivalence to design in the traditional culture of India; primordial human instinct of survival through innovation seen as an analogy to the modern concept of design; the evolved and learned design processes; and the need for an unconventional method to learn design history (i.e., the typological approach). These discussions build a conceptual basis for a major assignment that takes up the second half of the course.

10   S. Giedion, *Mechanization Takes Command* (New York: Oxford University Press, 1948), 10–11.

A small change of name was found necessary almost from the beginning. "Type" was not a familiar word to the students to represent all those elements of man-made environment. Instead, the more familiar and business-like word "device" was adopted. While introducing the major assignment, it was agreed that each of these devices was a solution to a past problem of design. Also, these solutions are likely to be evolved, but not all of them.

Accordingly, each student selects a device which preferably has something to do with a typical Indian environment. The catch here is that all present man-made environments in India rightly represent a mixture of old Indian and new "international" cultures. To my mind, not insisting on only traditional Indian devices makes the selection that much richer. One small condition is that the selected device should have a sense of completeness, that is, not merely be a part of a whole.

The assignment is about doing a speculative investigation into the past life of the device, while moving from one event to the next. The obvious point at which one begins is to identify the original human need. This is not as easy as it sounds. For instance, an apparent need might be for a device to create artificial light. But after a bit of discussion, the real and original human need turns out to be for a device to dispel darkness. This may immediately point to a deep, psychological fear of darkness that goes back to the time of the primordial human.

This is the opportune time to discuss the nature of human need using Abraham Maslow's need pyramid. The point that must be driven home is that a human need often may deceptively look merely physical. The needs of a human user of a device—as well as the functions of the device—could be physical or psychological, intellectual or emotional, literal or symbolic, and material or spiritual. But more often than not, they are a combination of several or all of these.

The identification of the original human need leads to the next step of the investigation: to search for exactly when and how the device was born. It is here that one meets the ancestor that, in turn, is named the first "landmark event," a term emphasized because it is the first time the concept of landmark events is introduced as the core concept. A landmark event is meant to represent a historical breakthrough that causes a distinct change in the total form of the device; not just a change of the visual aspect, but all those attributes that helped to create the complete device. These include the change in the outer geometry, color, and surface texture of the form, the change in those elements—both inside and outside—that give the device its structural integrity, the change in material and method of production, the change in the way the device performs, and last, but most important, the change in its relationship with the user.

Eventually, what is needed is a well-constructed historical scenario with landmark events as high points. To construct a scenario

of this kind, one begins with known facts. While current students, living in the afterglow of the information revolution, have an edge over past generations, this is only a part of the process. The right kind of scenario is created by a judicious mixing of the chronological records of history with a freewheeling process of projection and simulation.

In this process, students are encouraged to imagine the device's past, the way one thought it happened. To start, they are asked to ignore the usual historical sources and to travel imaginatively in time; projecting and simulating the developments that they think led to the first and subsequent landmark events. Naturally, proceeding after such remarks, a certain amount of reinterpretation of conventional historical literature and other sources is likely. What stops this process of projection and simulation from turning a history into a historical fiction? This is more likely if the travel remained a linear progression, the journey going from past to present. But it need not be linear. In fact, it follows a lateral path. What makes it so?

At an opportune moment in the course, the students are introduced to the concept of influencing historical factors, those that cause the periodic changes in the total form of the device while the original human need and the corresponding functions of the device remain the same. These powerful agents of change are responsible for more than one quarter of the result, and generally are grouped into two categories. In the first category are the technological factors that affect the physical aspects of the human environment. Taken together, they represent the passage of time. Typical among these factors are the new discoveries and innovations resulting in change of material or method of making, introduction of a new technology that would change or improve the performance of a device, and change to a new kind of motive power.

In the second category are the socio-cultural and environmental factors, mostly related to place, that is, culture, community, region, terrain, and climate. They also can have a symbolic aspect that may be either overlooked or given less importance if not properly emphasized. A list of typical factors in this category includes a change in socio-cultural conditions causing a favorable climate for scientific and technological breakthroughs (the Renaissance period in Europe is a good example), politico-economic changes resulting in new devices because of the influence from other cultures (for example, India during the Mughal and British rules), and changes in the structure of a community affecting the social status or economic standing of users. For example, in India due to radical changes in the old caste system, devices associated with so-called lowly castes were discarded or acquired new meaning: a sweeper's broom adopted by Gandhian activists as a symbol to "sweep away" inhuman practices. Similarly, an English farm worker's cloth cap became a proud symbol of the Luddites.

The last stage after recording all findings is to visually plot factors from both categories in a lateral relationship with the ancestral and subsequent landmark events in a progressive manner. Among several ways to prepare a graphic presentation of this kind, one appropriate method can be a scroll-like chart on which the historical scenario in its entirety would progress horizontally, facilitating the lateral movement of three (or more) bands of information—each interacting with the others. Those related to the physical environments characterized by technological innovations and discoveries can be plotted in the top band. And the bottom band could consist of developments related to socio-cultural environments.

The middle and the main band, which I would call the highway band of history, would consist of developments laterally influenced, sometimes even dictated by, the events in the upper and lower bands. As they progress, these developments would coalesce at each important point, a landmark event in the life of the chosen device. All three bands would benefit from illustrations. A horizontal format of this kind also provides the necessary facility of beginning at one end and carrying on from one landmark event to another until one arrives at the present. I call it simply a lateral history chart.

Besides employing the method of projection, simulation, and learning the history of design in terms of landmark events in the life of a device, I think the course also teaches students to cultivate a healthy disrespect for so-called historical authenticity and accuracy that is largely based on conventional methods of archaeology and an overly strict adherence to chronology. It is more than a coincidence that one is led to draw a parallel with the *itihasa* method from the ancient works of the Indian cosmology.

Recently, based on previous students' desire to go beyond the confines of past and present, some groups of students were encouraged to take the historical scenario further to predict the future of the device. For this, they imagined the way the device would look and work in the year AD 2100. The method would be the same projection and simulation. They could not only envision the total form, but also write the future scenario that would indicate the likely path the future might take depending on the present developments in the various fields of human endeavor and concerns: technological, cultural, politico-economical, and ecological. Obviously, this concluding requirement of predicting the future of the device also can be interpreted as an indirect invitation to draw on one's learning about the design process (the learned design process at work).

Finally, there is an interesting outcome of the whole endeavor. At an early stage, I realized that, although I had attempted to formulate a course in design history for a group of students with a particular cultural background, it could, with minor modifications, work equally well with other groups with similar learning requirements in many parts of the world.

Design Theory in Slovenia: Mapping the Field
Barbara Predan

English translation: Rawley Grau

In Slovenia,[1] the beginnings of design theory as a professional discipline go back to 1951, with the first publication of the journal *Arhitekt*, which, over the next thirteen years, regularly published texts on the topic of design.[2] In the academic year 1960–1961, at the initiative of architect Edvard Ravnikar,[3] the so-called "B course" in design studies was instituted at the Faculty of Architecture, but it lasted for only two years. In 1964, the first issue of the journal *Sinteza* appeared, continuing the work of *Arhitekt*.[4] That same year, in Ljubljana, the International Biennial of Industrial Design (or BIO, from its Slovene name *Bienale za industrijsko oblikovanje*) was organized for the first time.[5] In 1966, the rise of graphic design in Slovenia received affirmation when the ICOGRADA Congress was held here, only three years after the organization's founding in London. In hopes of reestablishing a design program at the Faculty of Architecture, Edvard Ravnikar, in 1969, wrote the treatise *Design,* a work that today is considered the first scholarly text to treat the issues of design theory in Slovenia in a thorough way. Alongside such developments in the area of design theory, we also can see during this same period the first achievements of Slovene industrial design—the work of the designers Niko Kralj, Albert Kastelic, Oskar Kogoj, and Sasa J. Mächtig are particularly outstanding. But despite such achievements, in his treatise, Ravnikar describes the complexity of the issue when he says, "No one has yet managed to prove that design is something entirely separate — that it is, then, neither architecture nor art nor any other particular form of technique."[6] According to Ravnikar, we can hardly speak of design as a new profession, since this discipline transcends even the basic principles of a profession.[7] From today's perspective, such doubt about design as a profession is surprising, but when we examine the professional writing published at the time, we find regular appeals about the need for strategically incorporating design into the social space.[8]

The present essay reviews a selection of texts on design theory published in the Slovene periodical press since the middle of the previous century. Special emphasis also is given to Ravnikar's treatise. I hope through this research to contribute to the further mapping of the design field, which, as Victor Margolin notes, is one of the important tasks of design studies.[9]

1   On the basis of a plebiscite, Slovenia proclaimed its independence from the Socialist Federal Republic of Yugoslavia on June 25, 1991. In my essay, I examine texts published since 1950 in what was then called the Socialist Republic of Slovenia.

2   Prior to *Arhitekt,* there was another magazine in Slovenia called *Arhitektura,* which was published in the 1930s. It touched on design topics indirectly.

3   Edvard Ravnikar (1907–1993) was an architect, urban planner, designer, teacher, and writer. He is the leading figure in Slovene architecture after Joze Plecnik.

4   After appearing for thirteen years, the magazine *Arhitekt* joined with *Likovne besede* [Art Words] to form a new magazine, *Sinteza.* This magazine ran until 1994.

5   The organization for the Biennial of Industrial Design was founded in 1963. The first biennial was held in Ljubljana in 1964.

6   Edvard Ravnikar, "Design" (unpublished dissertation, Ljubljana, 1969): 75.

7   Ibid., 3.

8   Stane Bernik, "Poskus opredelitve vloge inovacij v oblikovalskem procesu" ["An Attempt to Define the Role of Innovations in the Design Process"], *Sinteza* 36–37 (1976): 131–132.

9   Victor Margolin, "Introduction," in *Design Discourse: History, Theory, Criticism,* Victor Margolin, ed. (Chicago and London: University of Chicago Press, 1989), 6.

The Development of Theory in the Periodical Press

In the first issue of *Arhitekt,* the editor, France Ivansek,[10] published an article entitled "Design in Industry*." The asterisk in the title referred to the note: "Compiled on the basis of foreign literature." [11] In this way, he indicated the terminological problems involved with naming a new discipline that had never before been an object of discussion in Slovenia. In his text, Ivansek, very likely for the first time, explains the concept of design to the professional public:

> When speaking of the design of industrially manufactured objects, we are not talking about toying around with them or aestheticizing them. Rather, we are talking about a study of principles closely linked to the notion of quality, which obliges the designer to understand correctly the purpose of the object and, with this in mind, to design it correctly, using the right materials and handling the materials appropriately, so as to achieve the right solution in actuality (and not just to simulate it) in a formal and a technical respect, and also to provide the object with a pleasing appearance in form and color.[12]

The many pioneering steps taken in the 1950s by the magazine *Arhitekt* are well illustrated, too, in its publication of writings by recognized foreign theoreticians and practitioners in the field of design. Among the most influential foreign theories in the 1950s and 1960s, the reflections of Max Bill are particularly notable. In his text "The Basis and Aims of Aesthetics in the Machine Age," Bill draws a clear distinction between decorators and designers. The word "beautiful" he labels as a "much too vague argument to serve as the starting point in a discussion of 'industrial design,'" a statement he later explains as follows:

> The basis is neither form nor function. The basis is need, human need. The functions that assume forms are defined so as to fulfill human needs. But to attain this fulfillment of needs unity is required in all functions that become form. ... I think that I have sufficiently designated the aim of production by saying that it is the fulfillment of human needs. If we acknowledge this aim to be the foundation of all creativity, does it then become at the same time identical with the purpose and aim of aesthetics? Not entirely. Since in the broader view, the basic goal of aesthetic influence is not merely the "fulfillment of human needs," but rather to provide life as a whole with a more harmonious, more beautiful and more cheerful foundation, with meaning.[13]

One of the more important causes regularly discussed in the pages of *Arhitekt* was the question of the need for professional training. Ravnikar's first attempted to introduce "B course" studies in the area of design at the Faculty of Architecture in 1960. After this

10   France Ivansek is an architect, writer, and researcher in the field of contemporary domestic culture.

11   France Ivansek, "Oblikovanje v industriji," *Arhitekt* 1 (1951): 26–29. The "foreign literature" that Ivansek summarizes in his text is Anthony Bertram's *Design.*

12   Ibid., 26.

13   Max Bill, "Osnova in cilj estetike v stoletju strojev," *Arhitekt* 14 (1954): 20–22.

program had been in operation for a year, Majda Dobravc, in an article entitled "The Training of Industrial Designers," observed, "This experimental year is significant for another reason, as well; it is intended to serve as the basis for the development of a design studies program in architecture, which we have never had before. Even today, the work of an architect extends into various design fields, but there is an extremely noticeable void, particularly in the design of industrial products, which is a consequence of the fact that we have no advanced school of industrial design." [14] The news of the program's termination appeared a year later. Nevertheless, Ravnikar continued to lecture on design in his seminar. He explains in detail his vision and directives for a design studies program in the final chapters of his officially unpublished dissertation *Design.* The result of his lectures is a second postwar generation of architecture students who go on to make a visible and significant step forward in the field (Sasa J. Mächtig and Peter Skalar).

Ravnikar's *Design*

When reading Ravnikar's treatise on design, we cannot help noticing a kind of ambivalence in his treatment of certain key questions. We can deduce the first instance of a double stance in Ravnikar's view, mentioned above, that rejects the idea of design as a discipline in itself. Initially, it seems that Ravnikar sees design as a part of architecture, but this idea soon changes, since as he refers to design as a vast and unsystematic field in which many disciplines tend to, as Ravnikar says, "contribute their own coloring." And he adds: "Architect, artist, engineer, inventor, sociologist, psychologist, salesman, and journalist— all vie with each other for the right to take the lead in this domain so that, increasingly, it looks as if design cannot at all be a distinct discipline in today's sense of the word, but is rather a field of activity for competing forces with a wide range of interests. Any attempt at definition must seem deficient to other interested parties, which means that we are always looking, again and again, for some final solution and definition in regard to questions about the status, working range, and formation of this new profession." Ravnikar concludes his thought with the statement: "Given this, it seems that the only thing still needed is the general recognition of this new discipline." [15] Addressing the question of whether design is an art, he identifies certain ambiguities, which were (and still are) characteristic of both the world at large and Yugoslavia (and Slovenia) in particular. He writes: "In the quite modest (from a comparative perspective) conditions of our country, the empirical or, to put it better, artisan mentality still carries a lot of weight, so that the relationship between art and design is suggested in the common etymological root *lik* [meaning "figure, shape"—Trans.] in the terms *likovna umetnost* ["visual art"] and *ob-lik-ovanje* ["design"]. Although, in this imagined dependency, there is nothing in common between these notions, we persist in cling-

14 Majda Dobravc, "Vzgoja industrijskih oblikovalcev. Ob reformi studija na ljubljanski soli za arhitekturo" ["The Training of Industrial Designers: On the Reform of the Program at the Ljubljana School of Architecture"], *Arhitekt* 3 (1961): 33–35.

15 Ravnikar, *Design,* 8.

ing to them and are always trying to deduce from this relationship some far-reaching criteria for evaluating things and determining their social role."[16] These thoughts remind us of the debates led by William Morris and the Arts and Crafts movement at the turn of the twentieth century, when Morris fought for making crafts equal to art and for putting an end to the distinction between the applied and the fine arts. As Wladyslaw Tatarkiewicz points out, in the nineteenth century, utilitarian products were considered to be lacking a certain intellectual or spiritual element in comparison with a symphony, for example. These objects were viewed more as the work of the hand rather than the mind, and so were not considered to be art, at least not pure art.[17] We still find similar theoretical debates going on today, ranging from the total separation of industrially manufactured products from the realm of art, to their inclusion in the art collections of world-famous museums. Ravnikar, too, in a chapter entitled "The Presence of Psychological Elements in Design," is increasingly inclined to search for parallels between design and art. Among other things, he writes: "Every age creates a specific category of formal relationships, which are sometimes more apparent, sometimes less. The bridge from design to art, and vice versa, has always existed, but it is much easier to recognize it in retrospect than in the midst of the present."[18] He concludes the chapter by saying, "Today, we know ... that the person of today is looking for something else besides mere utility."[19]

In his treatise, Ravnikar often stresses that one of the first tasks facing the field of design is the clarification of terms. Thus, he embarks on the search for a badly needed definition of what constitutes design. While we do not find any such "final" definition in this work, certain formulations do appear, which most often are expressed as a string of examples, or in the conclusion that design is something so diffuse it cannot be described in a few sentences: "Design today is becoming a comprehensive term for the widest range of relations."[20] We find a similar theory of so-called "open" concepts in Wladyslaw Tatarkiewicz's *A History of Six Ideas.* In the first chapter, Tatarkiewicz writes: "[T]here are terms in common use which defy attempts to define them with any degree of accuracy. It is in the nature of these terms that their denotation in each case tends to shift over a wide area, depending on the context in which they are used. The various objects which they are supposed to 'denote' do not, in fact, have any features in common. Wittgenstein, who was the first to take this observation seriously, said that the referents bear, at most, a 'family resemblance.' This category of concepts was referred to as 'open.' Before long all the basic concepts of aesthetics, such as beauty, aesthetic experience and art, were relegated to this category."[21] On the basis of Ravnikar's text, we would have no difficulty, it seems, in including the concept of design in this group of open concepts, since in the very first chapter he writes: "The two examples we have chosen—which are so simultaneously opposed to

16 Ibid., 37–38.
17 Wladyslaw Tatarkiewicz, "Art: History of the Concept" in *A History of Six Ideas: An Essay in Aesthetics* (Warszawa: Martinus Nijhoff PWN, 1980), 25.
18 Ravnikar, *Design,* 43.
19 Ibid., 47.
20 Ibid., 12.
21 Tatarkiewicz, *A History of Six Ideas: An Essay in Aesthetics,* 33.

one another—tell us more than would any long description about the heterogeneity of the phenomena on the basis of which we are trying to orient ourselves in our search for a definition of design. So many different and mutually contradictory images have arisen in the past that our efforts to compile this definition, and any attempt at a definition, can only be provisional." [22] Even today, we can find a flood of provisional definitions as to what constitutes design in almost any popular book from the design field. In his treatise, Ravnikar refers to Gropius's proposal from the period of the Bauhaus[23] as well as to the then-current definition compiled by the International Council of Societies of Industrial Design (ICSID) in 1964.[24] Ravnikar remains critical of both approaches. As for Gropius's theory of design, he writes, "On the basis of Gropius's rational analyses in urbanism and interior design, one can even today build wide-ranging structures; on the basis of his ideology of craftsmanship as only correct way into design creativity, one can develop nothing but misguided pedagogical theories." [25] What disturbs Ravnikar about the ICSID definition is the notion of expanded functionality, with one of the aims based on the definition of the *formal qualities of industrially produced objects*. In Ravnikar's view, this attitude toward formal qualities can lead to the worst possible kind of execution, namely, styling. In response to the pursuit of profit, he turns eastward, to what was then the Soviet Union and to Poland. While aware of the backwardness of the situation there and of the lack of a tradition, he nevertheless believes that design will, in the course of a few years, be able to develop there along correct moral and humane principles. In his ninth chapter (where he again juxtaposes West and East), he detects a socialistic aspect in the Western politics of looking toward the individual; while in the planned socialist economy, he sees the first flashes of a market. In any case, he ultimately is skeptical of both, since each of them, in its own way, reflects the teachings of the Bauhaus. He concludes with a rhetorical question about the sense of seeking the ideal forms of objects in shapes that were interesting in 1925.

Among the main proposals and measures that would need to be implemented for the development of design in Slovenia, Ravnikar singles out the reestablishment of the design studies program. His main concern has to do with preparing for the technological future that awaits us both in the world at large and at home. His forecast for design was that it would move "between cybernetically differentiated serial production and the humanistic expression of culture" and involve "shapes that are ever closer to manifestations of biological form." [26] With such speculations, he goes beyond even today's developments. Today, cybernetics still exists more on the level of scientific research than as a life practice. And in the majority of cases, we still are waiting to see the humanistic expression of culture.

Ravnikar's *Design* touches on most of the major points that concern the discipline of design. From the standpoint of Slovenian design, it represents the first text to tackle the issues of design theory.

22 Ravnikar, *Design,* 6.
23 Gropius's summons at the opening of the Weimar school is well-known: *"Architects, painters, sculptors, we must all return to crafts!"* cited in *Bauhaus 1919–1928,* Herbert Bayer, Walter Gropius, and Ise Gropius, eds. (Boston: Charles T. Branford Co., 1959), 16. His thoughts are presented in greater detail in the program for the school: "But proficiency in a craft is essential to every artist. Therein lies the prime source of creative imagination. Let us then create a new guild of craftsman without the class distinctions that raise an arrogant barrier between craftsman and artist!" Walter Gropius, "Program of the Staatliche Bauhaus in Weimar" in *The Industrial Design Reader,* Carma Gorman, ed. (New York: Allworth Press and Design Management Institute, 2003).
24 The ICSID definition was formulated, at the suggestion of Thomas Maldonado, in 1964 at a seminar in Bruges, Belgium on the topic of the training and education of industrial designers. It states: "Industrial Design is a creative activity whose aim is to determine the formal qualities of objects produced by industry. These formal qualities include the external features, but are principally those structural and functional relationships which convert a system to a coherent unity both from the point of view of the producer and user. Industrial Design extends to embrace all aspects of human environment which are conditioned by industrial production."
25 Ravnikar, *Design,* 10.
26 Ibid., 51.

In fact, so far there has been no other work like it in Slovenia (and sadly, it is itself preserved only in photocopies). We may attribute the absence of such a literature in the Slovene language before 1990 to the small size of the market, since books for the most part were written in, or translated into, Serbo-Croatian.[27] Nevertheless, the Department of Design at the Academy of Fine Arts in Ljubljana has been in existence now for twenty years, so a scholarly work that would define the discipline is desperately needed. Ravnikar's call for a further discussion of design thus continues to be quite relevant today.

The Rise and Fall of Journalism
According to the "Chronoscope of Design," published in the second issue of the magazine *Formart*,[28] after the pioneering achievements of the 1950s, the 1960s may be designated as a period of institutionalization in the design field. The most visible successes were reflected primarily in industry—at least in that part of industry that was able to see the advantages of hiring a trained designer/architect. Despite important achievements in the 1970s, we find in a text by Stane Bernik[29] in the magazine *Sinteza* a warning about the need to address "the strategic question of introducing design into our social space."[30] On the basis of the critical standards set out by ICSID in its definition of industrial design, what we see before us is, in Bernik's words, "an uninspiring picture of Slovene design"[31] (with the exception of graphic design). The selection of industrial design products, indeed, narrows drastically when we consider the last sentence in the current definition of the time: "Industrial Design extends to embrace all aspects of human environment which are conditioned by industrial production." The most recent ICSID definition changes the old formulation as follows: "Design concerns products, services, and systems conceived with tools, organizations, and logic introduced by industrialization—not just when produced by serial processes."[32] From the standpoint of the then-current understanding, such an approach would cause us to lose sight of the original mission of design, namely, the acceptance of industrial design as a cultural asset for the masses. The idea that Ravnikar put forward and Bernik developed was: "Design is, indeed, that 'democratic' creative activity which provides the masses with immediate contact with cultural (artistic) assets which are realized in the most varied ways precisely because they are useful and which thus efficiently connect with other forms of cultural and artistic creation. Because of all this, efforts to introduce design in society also represent efforts to establish a higher, more developed culture of production—especially since the contemporary design process demands total involvement, from planning to realization!"[33] Otherwise, we return to small-scale productions that resort either to elitism or to craftsman guilds, in a retreat to the applied arts. The problem of the relationship between artisan and industrial approaches also was the subject of a seminar

27 Serbo-Croatian was the language of the majority in the former Yugoslavia.

28 *Formart* was the first magazine that devoted itself exclusively to topics in graphic and industrial design. Vesna Terzan was the editor-in-chief. Published from 1991 to 1994, it was financed by the Chamber of Commerce and Industry of Slovenia.

29 The art historian Stane Bernik was, for many years, the editor of *Sinteza*. In his writings, he addresses contemporary Slovene architecture, urbanism, design, and photography. He lectures on the development and theory of design at the Department of Design at the Academy of Fine Arts in Ljubljana.

30 Stane Bernik, "Poskus opredelitve vloge inovacij": 131–132.

31 Ibid., 131–132.

32 "Definition of Design" (August 2004), published on the ICSID Website: http://www.icsid.org.

33 Stane Bernik, "Poskus opredelitve vloge inovacij": 131–132.

34 Goroslav Keller, a Croatian theoretician in the field of design, is the author of *Dizajn/design*, published in 1975 by the marketing agency Vjesnik.

35 Goroslav Keller, "Oblikovanje za izvoz" ["Design for Export"], *Sinteza* 36–37 (1976): 132–134.

36 Ibid., 132–134.

37 Warnings about the excessive purchase of foreign patent licenses in Yugoslav industry occur frequently in texts about industrial design. Discussing the Sixth Biennial of Industrial Design, Goroslav Keller highlights the phenomenon of the "exportation" of designers and poses the questions: "What possibility is there for our economy to extract itself from the web of [patent] licenses, and is it really strong enough to so blithely discard its creative forces?" ("Ljubljanski bienale industrijskega oblikovanja in njegov pomen" [The Ljubljana Biennial of Industrial Design and What it Means], *Sinteza* 36–47 (1976), 37). Peter Vogric had similar thoughts in regard to the Sixth Biennial of Industrial Design when he observed: "The biggest obstacle for our own development and design is the purchase of licenses. This is also the main reason why there are no greater results in our domestic design. Foreign [patent] licenses are, most of the time, already out of date; by the same token, the design achievements that come with them are also out of date" ("Industrijsko oblikovanje kot del delovnega procesa proizvodnje" [Industrial design as part of the work process in manufacturing], adapted by Matija Murko, *Sinteza* 36–37 (1976), 129). The failure to deal with this issue eventually led to an alarming situation, which Janez Jerovsek presented as follows in 1984: "According to some data, we make only 20% of our products on the basis of our own knowledge; certain other data, however, show that our share comes to only between 5% and 7%" ("Inovacije, industrijsko oblikovanje in kvaliteta kot sredstvo preživetja" [Innovations, industrial design and quality as a means of survival], *Sinteza* 65–68 (1984), 192).

entitled "Design in the Promotion of Exports," which was held in Geneva in 1975. Goroslav Keller[34] summarizes the two discussion issues as follows: "Are artisan work, cottage industry and applied folk art those areas of market supply where the so-called developing countries can successfully participate? Or does such a concept of economic development mean, ultimately, stagnation or even regression?"[35] Such thinking clearly indicates the beginnings of postmodernism, which gradually spread through society. At the end of his article, Keller labels Yugoslav design as elitist, and issues a call for "a strategic focus on a higher level of standard production quality."[36] At the time, however, despite many such appeals, the Yugoslav economy took a turn in a third direction, toward the purchase of foreign patent licenses.[37] With the collapse of the country in the early 1990s, the punishment for this lack of competitiveness was reflected most strongly in the economic sector, and resulted in the failure of numerous industrial enterprises. After fourteen years of independence, the situation in Slovenia is changing thanks to a number of small but high-quality efforts in the field of design. Unfortunately, the majority of these efforts still exist only at the prototype stage or as small-scale serial production and, in this regard, the new ICSID definition is more than welcome for an understanding of the concept of (industrial) design.

A further understanding of the concept of design was presented in the 1970s in Victor Papanek's work, *Design for the Real World.* Based on the lectures Papanek gave during his visit to Yugoslavia, Goroslav Keller presented the public with a revised definition of design: "In my book, I wrote that design is the conscious effort to achieve meaningful order. I would like to change that now and say that design is a conscious and intuitive effort to achieve meaningful order."[38] The first tangible results of Papanek's theory were apparent at the Seventh Biennial of Industrial Design (BIO 7). Peter Krecic, however, was critical of the increase in the number of products originating abroad on the basis of Papanek's popularity. In his view, many designers designed products for the Third World solely to alleviate their conscience. He labeled this approach as superficial, inasmuch as designers had, in Krecic's opinion, reinterpreted the various levels of Papanek's theory "as if 'design for the real world' was just a minor technical invention, embodied in the use of available (waste) resources."[39] After this, we see fundamental changes taking place in the approach to industrial design. Previously, the modernist understanding of industrial design had prevailed in Slovenia. Design always had been, above all else, a response to human needs and, consequently, approached the issue of function through Sullivan's dictum: "Form follows function." At BIO 7, changes in the thinking about and understanding of design received full expression. Krecic writes: "Through its exhibition of "designed" products, which attempt to solve all sorts of everyday problems, BIO has made a determined case for design as an artistic, aesthetic

category in the real world of ethical needs and ethical responses to these needs. In the view of the organizers, the conceptualization of industrial design begins not with artistically quite awkward, even primitive products (inventions) for (poor) Indians, indigenous blacks, and the inhabitants of the outskirts of South American cities; but rather with thinking on new, nonfunctional levels, which are closer to artistic ones—but with the brain of an industrial designer, as was done by Ettore Sottsass. His exhibit…was not a random addition to the biennial's program, but instead was a well-considered, meaningful supplement to it; a rather theoretical superstructure." [40] In a single move, the concept of design was reduced to the level of a superficial aesthetic category, the visual appearance of the product—the new stylism, which the postmodernism of the 1980s had introduced through the work of the Italian Memphis group and the movement's father, Ettore Sottsass. From a historical perspective, the Memphis group represents a turning point in design and, within the context in which it originated, it continues to be one of the milestones of its era. Unfortunately, however, this movement, whose very creators began to doubt its continued survival as early as the mid-1980s, spawned a sea of imitators who brought nothing to the field of design but a superficial approach. In the early 1990s, in an interview with the magazine *Ars Vivendi*,[41] the Italian designer Richard Sapper, when asked for his thoughts about postmodernism, responded:

> I believe that postmodernism, when viewed as a whole, has done great harm. At the beginning it was fun, but before long that which people expected from postmodernist design methods turned out to be extremely superficial. All that is left of it are formal details, and almost nothing else.[42]

Ten years before Sapper expressed his views on postmodernism, Matija Murko, in *Sinteza,* on the occasion of the Ninth Biennial of Industrial Design, labeled the principle of privileging function over form as a purist practice in industrial design that impaired stylistic development. According to Murko, the revised approach allowed for "a rather wide range in the stylistic identity of an individual manufacturing organization as well as recognition for a different design approach within the broader regional or national scope. … Contemporary design, then, has finally begun to approach the consumer not only in terms of functionality, but also in an emotionally less alienated regard." [43] Another show opened at the same time as the Ninth Biennial—an exhibition of the work of Dieter Rams, one of the major representatives of modernism in design. About this exhibition Murko writes, in the same text: "Products that originated nearly a quarter-century ago, for instance, the SK4 radio-gramophone, are still today remarkable for the freshness of their design, which proves that design, just like other forms of art, can also stand the test of time." [44] This "freshness of design" is far from the emphati-

38 Goroslav Keller, "Oblikovanje v spreminjajocem se svetu. Ob obisku Victorja Papaneka v Jugoslaviji" ["Design in a Changing World: On the Occasion of Victor Papanek's Visit to Yugoslavia"], *Sinteza* 30–32 (1974): 132–136.

39 Peter Krecic, "Sedmi bio — novi koncepti, stara in nova vprasanja" ["The 7th BIO—New Concepts, Old and New Questions"], *Sinteza* 43–44 (1978): 34–39.

40 Ibid., 34–39.

41 The magazine *Ars Vivendi* (1987–1997) regularly published interviews with designers, and monitored achievements in the practice of design.

42 Melita Zajc, "Richard Sapper, Clovek Tizio" ["Richard Sapper, the Tizio Man"], *Ars Vivendi* 14 (1992): 23.

43 Matija Murko, "Deveti bienale industrijskega oblikovanja" ["The 9th Biennial of Industrial Design"], *Sinteza* 55–57 (1981–1982): 39–44.

44 Ibid., 39–44.

cally artistic style of the 1980s and yet, despite Murko's earlier designation of modernism as a purist practice, it was a distinctive part of the public image of the Braun company, recognizable not only in Germany but also around the world. It is, indeed, very interesting to observe how theoreticians, depending on the time in which they are writing, will take the same idea and turn it to their own advantage. They all share Max Bill's thesis that the main task of industrial design is the fulfillment of human needs. During the period of modernism, this fulfillment of needs derived primarily from function; in the 1980s, the approach is inverted. The understanding of pure forms becomes the domain of experts and the educated connoisseurs of painting and sculpture. It follows, then, that the profession increasingly subordinated itself to the taste of the masses out of a desire to reach the greatest number of consumers. To put it another way, the market economy assumed the initiative over professionalism. The Italian designer and artist Enzo Mari recognized a similar predominance in a lecture he gave at the Belgrade studio ArtAvangarde. Jesa Denegri[45] summarized Mari's discussion for *Sinteza*:

> The utopia of industrial design has lost the battle. ... It lost the battle because it tried to realize utopia by means of the system of commerce. ... Just like other people, we too work on an assembly line. There is no other alternative.[46]

Such statements indicate the changes that had begun to be reflected in society and, consequently, in design as well. This leads us to the question of society's influence on design. Theories about design are, for the most part, directed toward design methodology, while social influences tend to be overlooked. The importance of society's role, however, can be seen in Victor Margolin's assertion: "Since we don't agree on a single theory of society, it is equally impossible to postulate only one theory of designing."[47] The 1980s brought fundamental changes to society, a reality that also was clearly expressed in design. One of the main criticisms leveled at modernism was that it neglected traditional values—a neglect reflected in impersonal products that failed to take account of the society and culture in which they originated, and so could not really fit into that culture.

Slovenian design in the early 1980s was influenced by the creation of two important institutions. In 1981, the Design Information and Documentation Center began operations at the Chamber of Commerce and Industry of Slovenia, and three years later, the design profession finally saw the establishment of the long-awaited Department of Design at the Academy of Fine Arts in Ljubljana. After decades of functionalism, postmodernism now introduced a much-needed playfulness. Unfortunately, however, this playfulness too often turned into stylism and an art-for-art's-sake philosophy. According to Stane Bernik, this moved us further away from the desired goal of "using well-considered good form to address the urgent problems of the ever-increasing visual and

45 Jerko ("Jesa") Denegri is an art historian, critic, writer, and the author of numerous books on various trends and phenomena in contemporary art. He lives and works in Belgrade.

46 Jesa Denegri, "Dvomi sodobnega oblikovalca: med zavracanjem in povezovanjem. Enzo Mari v beograjskem Studiu ArtAvangarde" ["The Doubts of a Contemporary Designer: Between Rejection and Connection. Enzo Mari at Belgrade's Studio ArtAvangarde"], *Sinteza* 83–86 (1990): 191–192.

47 Victor Margolin, "Introduction," 7.

physical pollution of the environment." [48] Despite such pessimism, in 1992, thanks to the initiative of Sasa J. Mächtig, Ljubljana hosted an important international event in the field of design—the 17th ICSID Congress, which bore the meaningful title "At the Crossroads."

In the area of journalism, *Sinteza* was the only journal, right up to the second half of the 1980s, that regularly raised questions and suggested answers in the field of design. It was joined, in the middle of the decade, by the magazines *Ars Vivendi* and *Media Marketing* (today called *Marketing Magazin,* or *MM*), and later, in the early 1990s, by *Formart,* which was the first journal to devote itself exclusively to design issues. From today's perspective, these magazines serve as the main indicator of developments in the theory and practice of design in Slovenia. Without these publications, the only additional source would be occasional exhibition catalogues which, for the most part, only give us a picture of design practice, alluding to theory merely in a few introductory sentences. In this regard, the situation today is cause for concern. *Sinteza* ceased publication in 1994, and a year later, the Chamber of Commerce and Industry stopped funding the magazine *Formart,* while *Ars Vivendi* appeared for the last time in 1997. The only publication that has managed to survive is the monthly *MM,* which, however, is primarily an advertising medium and its design articles do not appear on any regular basis. From what was already a poor situation for design theory in Slovenia, we have now moved into a situation where there is virtually no theory appearing in the media. The main problem seems to be the apathy of the profession, which—despite the social situation in which we find ourselves and the lack of understanding on the part of the state (the two most typical explanations for the profession's lethargy)—should summon up sufficient strength to begin publishing a magazine that would present practical and theoretical developments in the profession. Already in the early 1990s, many designers, in interviews, drew attention to the urgent problem of the lack of criticism and theory. The designer Ranko Novak, in *Ars Vivendi,* made the statement: "A problem for our profession is also that it has no criticism; it doesn't even have its own publication and therefore remains without any feedback. In fact, there are a few people who write about design. These are the ones who write about architecture and the visual arts, and who think that design belongs to the latter. But this is not true since, above all, design is not art." [49] The designer Vladimir Pezdirc, in another interview, agreed with this last assertion. But unlike Novak, who advocated a professional design criticism, Pezdirc wanted to leave criticism to the public: "The criticism of design is, indeed, represented by the consumer or the marketplace; in our country, however, design takes place entirely in galleries and in the sphere of art." [50] In the same issue of *Ars Vivendi* in which Pezdirc's interview appeared was an interview with the architects Metod Prijatelj and Peter Vezjak. In introducing the two architects, Nada Vodusek stated an opposing view to that of the designers:

48   Stane Bernik, "BIO kot zrcalna podoba. Komentar in anketa ob jubilejni razstavi" ["BIO as Mirror Image: Commentary and Questionnaire at the Jubilee Exhibition"], *Sinteza,* 65–68 (1984): 99–101.

49   Nela Maleckar, "Ranko Novak. M2 angleske trave v Sahari" ["Ranko Novak: A Square Meter of English Grass in the Sahara"], *Ars Vivendi* 11 (1991): 60.

50   Nela Maleckar, "Vladimir Pezdirc. Tudi vetrosemenka je lahko izhodisce" ["Vladimir Pezdirc: Even Windseed Can Be a Starting Point"], *Ars Vivendi* 12 (1991): 40.

"The first [Prijatelj] is perhaps more of an architect, while the second [Vezjak] is perhaps more of a designer. Although there's no point in making this distinction since the fields of contemporary design are, indeed, so closely connected and intertwined. And this, undoubtedly, is the doing of the media and mass culture. And technological reproducibility, which has shaken up the traditional concept of art, at least to the extent that design and other current art forms are still defined by it." [51] This and similar contradictory comments clearly indicate a dearth of design theory and a diverse understanding of the concept of design. The problem can be seen even in attempts to name the discipline. These attempts began as early as the 1950s, with France Ivansek, but the problem remains unresolved even today, due to a reluctance to deal with the terminological issues. Currently in Slovenia, alongside the Slovene term *oblikovanje,* people also regularly use the English borrowing *design.* To make the situation even more confusing, many people ascribe a fuller meaning to the foreign word, thus resulting in greater misunderstanding. Nearly everyone thinks of himself or herself as a professional with enough training to establish a theory and operate in the practice of design. According to François Burkhardt, who spoke in an interview with Brina Svigelj-Mérat, a similar problem could be seen in the world at large in the early 1990s:

> I'd like to mention primarily that until the sixties, theory existed parallel to design, as did the method of applications, criticism and history, which worked alongside each other and collaborated among themselves, while today we are witnessing the phenomenon that people simply do what comes to mind and go on in all possible directions, but they don't know why. ... This matter becomes significant here because we mustn't forget that design is, nevertheless, not the same as art or visual art. In design there are limitations which one should recognize and which have nothing to do with morals, truths, or nontruths as modernity comprehends them, but it's a question of how to better understand differences where things stop and where they begin. [52]

Design as a Responsibility

In the last issue of *Sinteza,* which came out in 1994, Lenka Bajzelj commented on the design congress that took place the previous year in Glasgow. In the conclusion of her article, she drew a clear picture of the end of postmodernism, as it was understood in the 1980s: "Thus, after a long period of mannerism, which encompassed fashion, design, architecture, and the visual and verbal arts, in which more or less everything was allowed, the Glasgow congress outlined a path of sobriety an effort to achieve a general economic, cultural and ecological balance, to achieve a clear distribution of tasks and responsibilities—in a word, design not only as a response but as a responsibility, and not in the sense of some dispersed social respon-

51 Nada Vodusek, "Metod Prijatelj, Peter Vezjak. Filmska perspektiva interiera" ["Metod Prijatelj, Peter Vezjak: The Cinematic Perspective of Interior Design"], *Ars Vivendi* 12 (1991): 65.

52 Brina Svigelj-Mérat, "François Burkhardt. Evropa, postmodernizem in Eifflov stolp" ["François Burkhardt: Europe, Postmodernism, and the Eiffel Tower"], *Ars Vivendi* 14 (1992): 38.

sibility, but rather as the responsibility of governments, of the appropriate institutions, and also of each and every designer."[53] The end of "metaphor" had, already in the mid-1980s, been announced by the father of the Memphis group, Ettore Sottsass. His statement that he "does not design for eternity and that Memphis will be forgotten in five years" was summarized in *Ars Vivendi* by Brane Kovic, who added, "This may indeed be an extreme position, but changes have truly arrived, and arrived first among the very members of the group. Andrea Branzi has proclaimed that a certain period is obviously over, that he is done with radicalism, that metaphors are all used up, and that the time has come for a new modernism, a new and more stable scenario of taste."[54]

At the beginning of the twenty-first century, old traumas have been revived in Slovenia in the area of understanding design. In magazine interviews, one still encounters such questions as, "What, in your view, is the task of industrial design?"—to which the younger generation of designers, quite understandably, respond with more than a hint of impatience. In an interview with the magazine *Hise,* the designer Bojan Klancar provided a didactic answer to the above question, but at the start of his answer he first made the interviewer aware of the ignorance that continues to exist in regard to the profession of industrial design: "This is a rather standard question, which the media always ask. But there is, obviously, still a need to answer it. Nobody ever asks, after all, what is the task of the fashion designer, the architect, the lawyer, and so on. But industrial design is still rather hazy, unclear; companies don't understand the role of design, and so on ... Nevertheless, I have to answer your question by saying that the task of industrial design is a noble one; it attempts, through the nature of the product, to simplify a person's everyday life—whether at home, creating, having fun, or studying. Industrial design is well-considered, precise, creative, and intentional action that, in the hands of a successful company, can become a strategic tool for transforming ideas into reality, stimulating innovation, and making goods more distinctive."[55] The noble intentions and tasks of industrial design, like those of design as a whole, provide a foundation for every professional designer. Unfortunately, in some cases, designers miss their goal right from the outset. This is a problem also noted by the designer and theoretician Petra Cerne Oven: "Designers used to be revolutionaries who sought to change the world. But today, many of them merely strive to create imaginary worlds instead of helping to improve the one that exists. Designers have not stopped dealing with problems, but they have stopped trying to solve them. Instead of solving them, they wrap them in trendy flourishes, all depending of course on what they have on their shelves among their design books."[56]

The transformations and issues in regard to design thus are being passed on to the younger generation. The visible results are seen, above all, in practice, through the participation and shifts in

53   Lenka Bajzelj, "Oblikovalski kongres v Glasgowu" ["The Design Congress in Glasgow"], *Sinteza* 95–100 (1994): 232.

54   Brane Kovic, "Design ob koncu osemde-setih: iztrosenost metafor?" ["Design at the End of the Eighties: The Exhaustion of Metaphors?"], *Ars Vivendi* 5 (1988): 78.

55   Ivan Ferjancic, "Bojan Klancar," *Hise* [*Houses*] 18 (2003): 120.

56   Petra Cerne Oven, "Orientacija oblikovanja in oblikovanje njegove orientacije" ["The Orientation of Design and the Design of Its Orientation"], *MM* 271 (2003): 42.

attitudes toward design on the part of the proverbially uninterested industrial companies. Changes also are evident in the area of theory. In any case, it is important to acknowledge the groundwork in design theory that has been laid in Slovenia since 1951. The first points on the map have been charted, but for a discipline as young as design theory is in Slovenia, it is unquestionably essential that the process continue.
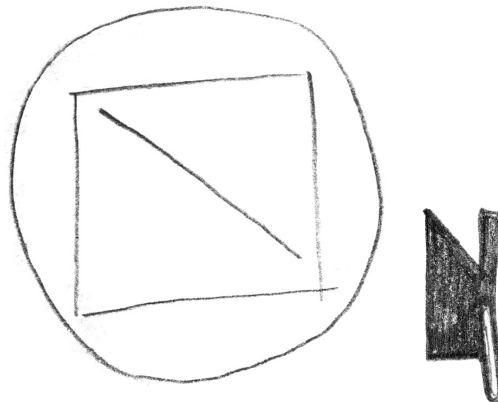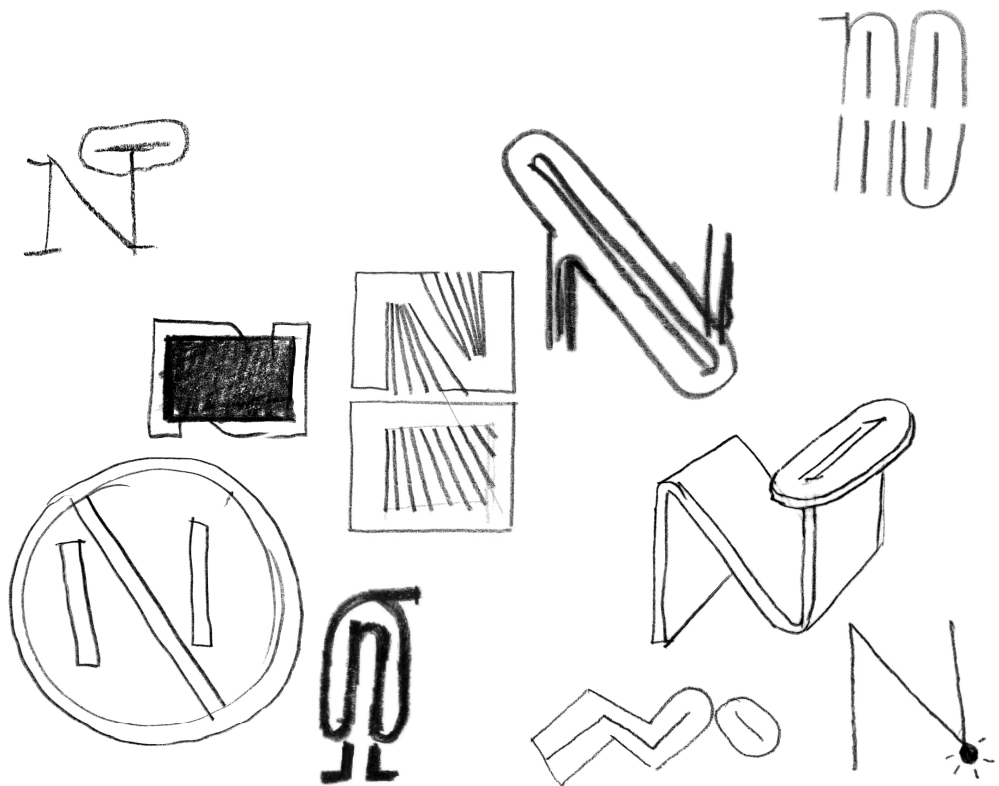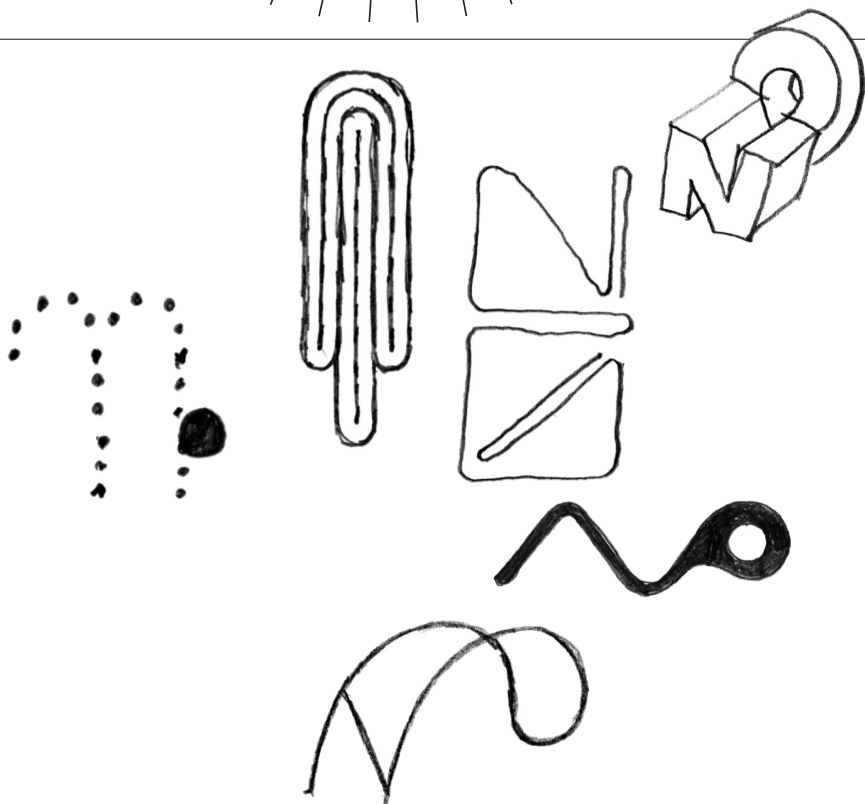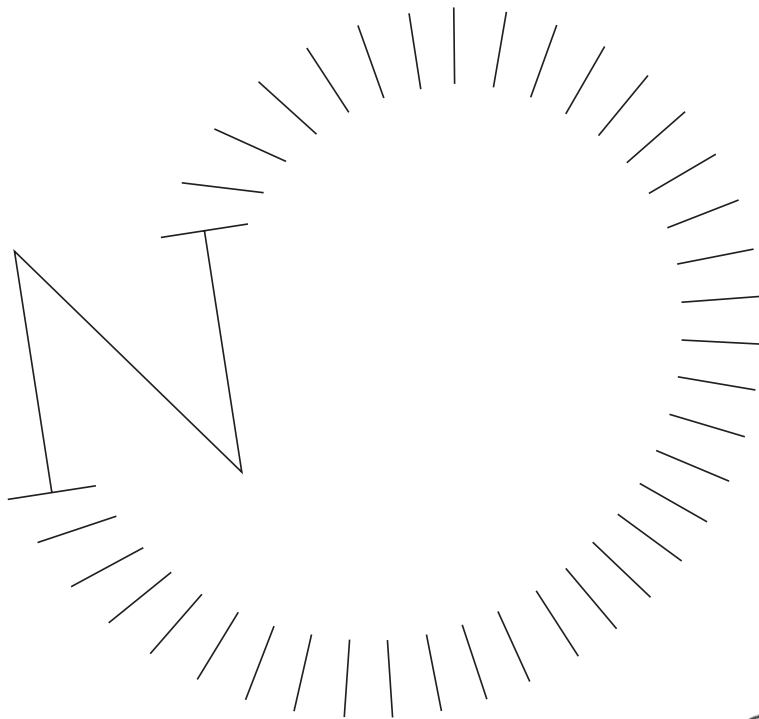
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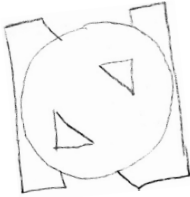
In 1974 during the demolition of an old building used for cultural purposes, I discovered a ripped and broken up sign with the name of the institution. In the same rubble I found two pieces of metal with the letters N and O, which form the syllable "No." From that discovery have arisen distinct graphic variations of the word "No," which have now reached 3,000. With a selection of this material, I am now preparing a book.

The powerful and significant charge of a word so brief— hardly a syllable—has always held a great fascination for me. At the same time, the formal weight is no less suggestive and polyvalent, in presenting this word a synthesis of the two universal forces expressed in the straight and the round, the angular and the curve, etc. It is perfectly understandable, therefore, that for a designer interested in typography, this minimal linguistic unity with waves or resonance in all their aspects, gives rise to a succession of re-creations that is almost infinite.

In this manner, the task imposed on me daily since 1979 has become an excellent excuse to discover the infinite interpretations of the same image. And that is for me, perhaps one of the best lessons: The great variety of solutions that always exists for the same problem.

Design, Poverty, and Sustainable Development
Angharad Thomas

1   The poorer nations of the world are given various labels: underdeveloped, less-developed, less-industrialized, developing, and the Third World. Like all labels, these mask huge differences between countries and within them; and, as Southeast Asia and China industrialize and develop at such a pace; they become increasingly misleading.
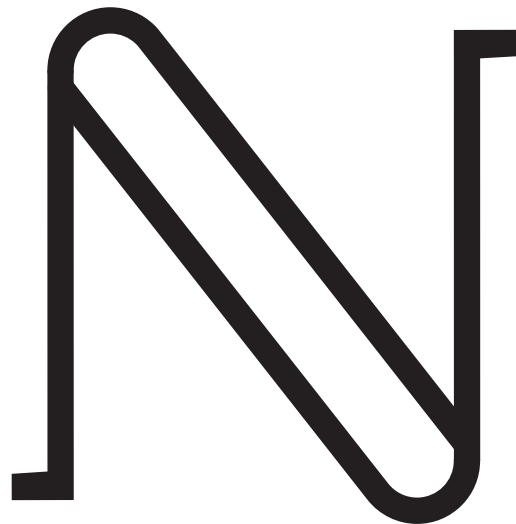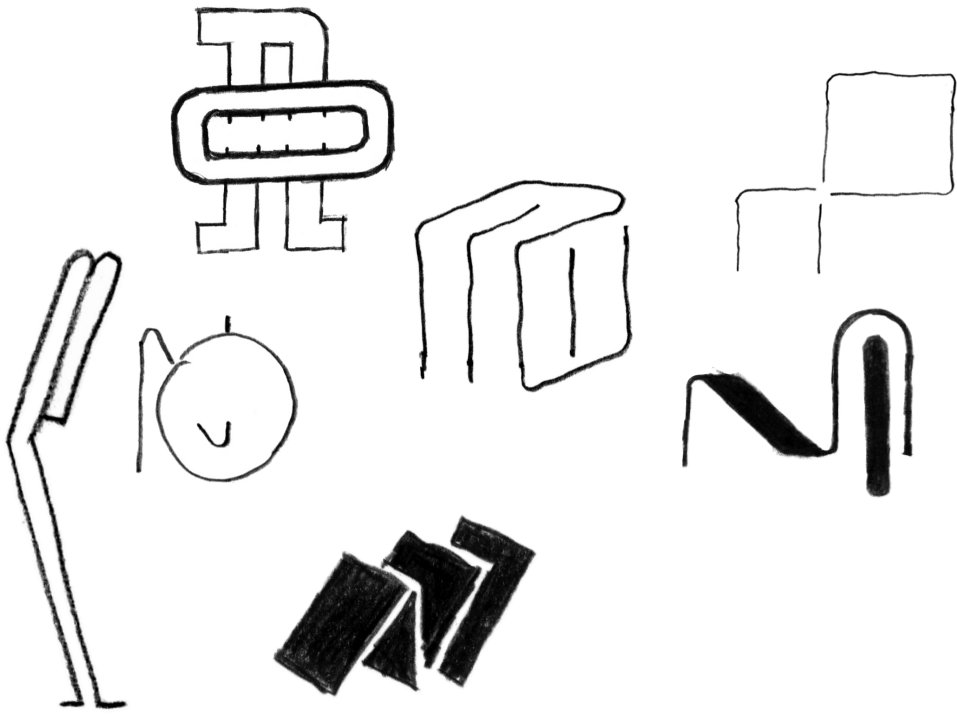
2   Poverty: the facts. The Child Poverty Action Group Website: http://www.cpag.org.uk (accessed July 27, 2004) has clear definitions. *The Chronic Poverty Report 2004–05* (Manchester, UK: Chronic Poverty Research Centre, 2004) is a comprehensive source of information about the very poorest people in the world. Available online at: http://www.chronicpoverty.org.

3   World Commission on Environment and Development, *Our Common Future* [The Bruntland Report] (Oxford: Oxford University Press, 1987) is considered to be the source of the concept of sustainable development.

4   Ian Moffat, Nick Handley, and Mike Wilson, *Measuring and Modeling Sustainable Development* (Carnforth, UK: Parthenon Publishing, 2001) includes a useful discussion of the meanings of the term.

5   Design, in the context of this paper, is the design of products and things that are used in everyday life including tools and equipment, textiles, and other consumer products such as clothes.

Introduction and Context

Design in a poor context, or for the alleviation of poverty, has received little or no attention. An informal discourse analysis shows that design and poverty have not been linked, the two being seen as mutually exclusive. This paper aims to examine the relationships between design and designers, poverty and the poor, and sustainable development, which aims to alleviate poverty. On the face of it, there would appear to be little that links them; however, this paper aims to identify specific design initiatives that relate to poor people in the southern hemisphere as producers and consumers of designed goods.[1] It briefly outlines definitions of poverty and sustainable development, then describes selected design interventions. It analyzes the contribution that these initiatives make to the reduction of poverty, and to the different aspects of sustainable development.

Defining the Key Terms: Poverty and Sustainable Development

Both of these terms are contested, and their meaning and the problem of defining them has been discussed extensively elsewhere. [2,3] In the context of this paper, poverty is defined as living on less than $1 dollar a day, a state affecting about 1.2 billion of the world's six billion people. Sustainable development is that development that considers social, environmental, and economic factors together in a systemic way over a period of time.[4]

Design in Poor Contexts: Some Examples

What is design's contribution[5] to poverty reduction? I want to separate the discussion of design in poor economies into two parts: the *production* of goods that provide income and generate wealth for poor producers, and the *consumption* of goods in poor markets.

Production

Craft goods made for export are handicrafts made as part of income-generating or poverty-reduction schemes. The products, of all kinds, but typically such things as textiles, clothing, jewelry, pottery, paper goods, and the like reach developed world markets through several routes: first, by tourists visiting "Third World" countries; second, through expatriates temporarily living in the developing countries;

and, third, when exported directly. Examples of these craft goods are found across the developed world in fair trade catalogs and shops, such as Oxfam shops or other fair trade importers.[6] The design element often consists of "traditional" emblems or motifs, but often adapted by developed world designers or advisers for the developed market. An example of these goods is the Tripura Tribal Scarf from the People Tree Catalog (Winter 2004–05), "a stunning lightweight scarf handwoven by the Tripura tribe in the hills of Bangladesh."[7] People Tree is a London-based fair trade fashion company that sells a wide range of clothing, accessories, and household goods through its Website and a mail order catalog. Other goods are designed or commissioned by importers, such as the line of jute bags made for People Tree by Action Bag Handicrafts in Bangladesh. "Their aim is to create long-term job opportunities for poor women, to develop business skills, and to produce high-quality goods using ecologically-sound materials."[8] Poor producer groups often do not have design capabilities in the conventional sense, and little or no knowledge of the market demands of the developed world. Producers, especially if female, usually have had little formal schooling and may be illiterate. This raises problems about communicating design and production requirements, and quality control issues. Despite the small size of this market in comparison to more mainstream trade, the money earned by poor individuals from participating in such schemes can be life changing, and much anecdotal support is given to this in the catalogs selling their goods. For example, the winter 2004–05 People Tree catalog provides information about the producers of their goods, including one of their knitwear suppliers, a school in Nepal that provides employment and other support.[9] However, it must be noted that this market is precarious, since it largely is fashion-driven and dependent on the sale of ornamental or other nonessential goods. Therefore, it is vulnerable to wide market fluctuations. Design input often comes from the producers, themselves, who have an indigenous knowledge of their particular kind of production. But for continuing marketing success, especially for the export markets, external design input is needed— usually from an aid worker or NGO. The author's work with the Kusona Kwemadzinai embroidery producer group in Zimbabwe showed that design innovation and product development, as well as market development, came from the foreign aid worker assigned to working with the women. Unfortunately, this was not sustainable despite efforts made to transfer skills, knowledge, and information to the members of the group.[10] Design and product development, as well as marketing skills, for producers who often are illiterate probably is unrealistic but the long-term sustainability of this type of production must be considered. A systematic assessment of the economic benefits of these craft activities is difficult, and other forms of economic activity such as selling vegetables might be more profit-

6   For example, in the UK, the Natural Collection catalog and Website: http://www.naturalcollection.com; or People Tree: http://www.peopletree.co.uk.

7   People Tree catalog (Winter 2004/2005), 17.

8   Ibid., 56.

9   Ibid., 68.

10 Angharad Thomas, "Zimbabwean Embroideries: An Income-generating Project for Mothers of Disabled Children" in *Text: For the Study of Textile Art, Design, and History* 25 (Winter, 1997): 12–15.

able and sustainable, particularly for female producers.[11] However, under certain conditions, craft production can make a significant contribution to poverty alleviation.

Design and Production of Goods by Poor People for Poor People
The poor people of the undeveloped countries produce goods for consumption within their own communities. Goods of all kinds are made in the informal economies of poor countries, including furniture and household goods. Many producers have no design capacity, and copy from existing products. Sometimes, designs are imported, as in the case of baskets seen by the author in Zimbabwe made to a design from the UK. Copying, although a useful way of producing goods, does not allow the makers to develop design skills to improve their products.

In Brazil, the Grupo de Desenho Industrial e Desenvolvimento Sustentável (GDDS) at the Universidade Federal de Campina Grande, led by Dr. Luiz Guimarães, has worked with poor communities on several initiatives, which involve producers and consumers in the design process. The group's philosophy is:

> We understand that designers should discard their peculiar presumptions if they are really serious about improving the low-income populations' situation. The experiences described show that we have to commit ourselves with these people because we have much to contribute with the solution of their problems. However, we have to be humble and recognize that we have much to learn by interacting with this community.[12]

The group, which includes academics and students from the University's product design course, works with the poorest of the local population in the region. The first case study reports on a project with washerwomen to develop a pedal-powered machine to ease the physical burden of their job.[13] The project is unusual in its participatory approach to a low-status group of users doing manual work. Important insights were gained by working closely with the user group, and the washing equipment was redesigned in consultation with the washerwomen: "... with the users suggesting modifications and improvements related to the utilization of the equipment ... the washerwomen's involvement in the design process revealed problems that the [outside] investigation alone would not. Economic benefits were considered more important than health benefits ...."[14]

The second case study shows participative design using waste materials with waste collectors and sorters. In this project, in its early stages as reported,[15] students from the University worked with low-income groups that collect rubbish to design goods that will add to the income of these people.

11 Personal communication from an aid worker in Zimbabwe, 1999.
12 Luiz Guimarães and Wagner Batista, "Industrial Design for Excluded Communities in the Northeastern Region of Brazil" (paper presented at the Conference of II Congresso Internacional de Pesquisa em Design, Rio de Janeiro, October 15–18, 2003).
13 Ibid.
14 Ibid.
15 Luiz Guimarães and Wagner Batista, "Education for Citizenship: Training Product Designers in Northeast Brazil" (paper presented at the Conference of International Council of Societies of Industrial Design, Hanover, Germany, 2003).

These Brazilian projects demonstrate that designers, design academics, and design students can contribute to the well-being and income-generating capacity of poor people, and contribute to poverty alleviation if their involvement is managed in an appropriate way.

Design for Poor Markets

The next two examples involve products designed for sale in poor or marginalized markets, and in which the design was initiated by designers/organizations in developed countries.

The clockwork radio is a landmark product,[16] and a good example of design for a poor, rural market. It was developed from an idea by Trevor Bayliss[17] in the UK. It resulted from a series of fortuitous meetings both in the UK and South Africa between people who believed that it was a product that would make a difference in poor people's lives. In this situation, the inventor, Trevor Bayliss, the financier, and the manufacturers acted as change agents. The radio is manufactured by a company employing disabled workers. The innovative technology made the windup radio an appropriate communication tool for reaching a rural audience the South African government needed to alert to the AIDS epidemic. The technology has been refined, and now is in use in many situations where power supplies are not available or unreliable. The technology also has been extended and applied to powering flashlights and battery chargers.[18]

The second example of a company making products for a "Third World" market is the ExpLAN computer company, a UK firm making computers and power systems targeted at low-income economies. These are designed in the UK, but eventually will be manufactured under license in the consumer countries. According to the company's literature:

> Intended Market: Developing Countries in Africa, Southern Asia and South America. Objectives: To provide a computer technology appropriate for the majority of needs within the Third World, using renewable energy resources and promoting sustainable development ideals.[19]

The company is developing a range of computers for use in remote locations with the specific objectives of encouraging trade, enabling enhanced communication both from and to the community, fostering educational links with schools in developed countries, and providing access to medical data including AIDS awareness.

The ExpLAN "Solo" computer is powered by a specially designed power source and storage unit, the "SPSU," which can use renewable sources as well as whatever electricity may be available. It can be used for other equipment in addition to the Solo computer. According to the company's literature: "The SPSU enables the use

16 "Clockwork Radio" (video recording) (QED) (London: BBC, 1996 videocassette).

17 Website: http://www.windupradio.com/trevor.htm (accessed January 6, 2005).

18 Website: http://www.simplyfreeplay.co.uk (accessed July 14, 2004).

19 Website: http://www.explan.co,uk/solo/index.shtml (accessed January 6, 2005).

of low-wattage electronic devices in remote areas that are not served by a mains electricity distribution network." [20] The company plans to assemble the equipment through a series of "cottage industry-style manufacturing bases." These will partner with ExpLAN for technical support. The ultimate goal of the project is to provide a "facilitating technology rather than one that controls or restricts opportunities." [21]

Other products designed specifically for consumption by a poor market are those developed by the Intermediate Technology Development Group (ITDG),[22] a UK-based nongovernmental organization (NGO) that promotes the development of enabling and sustainable machines and tools. Two of ITDG's development projects are for fuel-efficient stoves and solar-powered lanterns, both in Kenya, and are documented in Design Without Borders's "Experiences from Incorporating Industrial Design into Projects for Development and Humanitarian Aid." [23]

The design of the stove was developed in a participatory way with local users to ensure "that community-level needs are incorporated, and indigenous knowledge is used to full advantage." [24] It has advantages for both its users and producers. Users need less fuel, and so save time and effort in collecting wood. The stove can recoup its purchase price in less than two months, depending on installation costs. It is safer and easier to use in the kitchen, and therefore contributes to family health because less smoke is produced than with a conventional stove. The risk of accidents also is lowered. The stove is produced by local women potters who have benefited both economically and socially, since they are able to make "decent incomes" from stove production. They also have received social benefits such as better family relationships because of the income gained, and increased self-esteem from taking part in activities associated with stove production such as training other potters and hosting visitors, national and international.[25]

The second ITDG-led project is the design and development of a solar lantern.[26] This project arose from the need across the globe, for self-powered electric light sources, since one-third of the world's population has no access to electricity from utilities.[27] In Kenya, where the solar lantern was researched and pilot-tested, ninety-six percent of households use paraffin for lighting. Solar-rechargeable lighting was identified as an appropriate source of low-cost and flexible lighting, so the solar lantern project was started. The design specification for this product was drawn up after consultation with rural communities about their needs, and their opinions of existing solar-powered lights and how they could be improved. Suitable technologies were chosen for manufacturing, and a number of prototype lanterns made. These were distributed to households for testing. The consumer reaction to the solar-powered lantern was very positive, and it now is in production. Although users were not

20   Ibid.

21   Ibid.

22   Recently renamed "Practical Action," http://www.itdg.org (accessed August 31, 2005).

23   *Design without Borders,* A. K. Haugeto and S. A. Knutslien, eds. (Oslo: Norsk Form, 2004).

24   Rob Aley, "Appropriate Technology and Sustainable Human Development" in *Design without Borders,* A. K. Haugeto and S. A. Knutslien, eds. (Oslo: Norsk Form, 2004), 51–60.

25   Ibid., 53.

26   Ibid., 54.

27   Ibid., 54.

directly involved with the design of the lamp, their needs were taken into account when the specifications were drawn up, and again in user testing of the product. The designers were able to fulfil the needs of a poor market.

Analysis: How Is Design Making a Contribution to Poverty Reduction and Sustainable Development?

This section analyses the contribution made by each design intervention to poverty reduction and four aspects of sustainable development: economic, social, environmental, and institutional. Comments on each of these are tabulated below.

Table 1
Table showing each design intervention and its impact on poverty reduction and aspects lof sustainable development.

Example and design source	Benefit to poor people	Economically sustainable	Environmentally sustainable	Socially sustainable	Institutionally sustainable
Craft goods made for export External design input	Enables income generation	Dependent on fashion, and difficult to please consumers in distant markets. Non- essential goods	Yes, in some cases. May use available natural resources, may recycle, or may be very light on resource input.	Also social development and support can be given between group members: a meal may be produced at the workplace.	Probably not. Depends on the design of the project itself. Often reliant on a single person whose input and leadership is necessary to drive the project.
Craft production, informal economy Internal design input	Income generation	Depends on local market	Elements of environmental sustainability (e.g., if re-cycled materials are used)	Social development between group members	Possibly, if no NGO or donor- funded involvement, but reliant on personal organization.
GDDS, Brazil. Design input external, but participative	Income generation; health benefits	Yes	Yes, this is considered in the design of the goods.	Social development	Depends on specialist input of design academics and students
The clockwork radio External design input	Income generation for producers. Access to information.	Yes	Makes a contribution to environmental sustainability, by not needing batteries.	Contributes to social development: media can act as focus for communities.	Commercial production linked with institutions supporting disabled workforce
ExpLAN computer External design input	Access to computing and information	Yes	Yes	Aims to encourage social development	Will depend on how the setup is done at the user end
Stove designed participatively	Income for producers	Yes, producers make a living	Reduces wood consumption	Social benefits for producers	Producer groups set up
Solar light External design input	Improved light at reduced cost	Tension between development/ commercial needs	Uses solar technology	Allows for increased social interaction	Depends if it goes into commercial production

Throughout these examples, the design input is either from an external source or, if it is from a local source, is of low quality since local design capabilities are not developed. This is because there is little design education or training available in poor countries, and especially to the rural poor.

Comment: Craft Goods Made for Export

Craft production has been shown as a first step in development that is linked to the industrialization of the manufacturing process,[28] although it can be argued that it is a sustainable means of production for many types of goods for mass markets.[29] Craft production is strongly favored by the fair trade sector, which often is supported by local or international NGOs, but can be susceptible to changing market and fashion trends. Most of these goods are nonessential ornamental or gift items that are dispensable or able to be made elsewhere at a lower price. To be able to compete, a good design input—ensuring that goods are produced in colors that will sell, or of appropriate sizes—is very important. This market also is typically oversupplied with far more poor producer groups wanting to supply goods than the market will support.[30] Although both the producer groups and the organization importing them both aim for sustainability, particularly economic sustainability, it is unlikely to happen in the short term because the design and market input usually comes from single individuals who champion the work of the group. When the champion moves on, the organization can find itself in decline. Examples of this are common throughout southern Africa.[31] Therefore, this type of activity very often is unsustainable, both economically and institutionally. Some projects set themselves up with environmental sustainability as a goal, and these may succeed on this criteria—paper- making from the bark of a shrub that has to be pollarded to encourage biodiversity,[32] projects that reuse materials in their production, and those that use organic or non-environmentally damaging dyestuffs will succeed here. With an appropriate design input, many more goods could be designed to integrate elements of environmental sustainability.

Craft Production in the Informal Economy

This type of production also can bring benefits to poor producers; allowing them to have a livelihood while producing useful goods. Craft production in the informal sector without any donor or NGO support may be economically sustainable if a market is available; say for shopping baskets or for household goods and implements. It also can contribute to environmental sustainability if materials are recycled, such as those used in the production of the Zimbabwean shopping baskets. Institutionally, this sort of small-scale enterprise is sensitive to individual inputs, and may be completely informal. Socially, as with any group activity, interpersonal relationships can hinder or stop production. A design input can give goods a market advantage in terms of appearance, functionality, or price if it enables, for example, fewer materials to be used in their manufacture. There have been examples of professionally-trained designers working with producer groups in the informal economy. One such collaboration produced stylish and fashionable furniture that sold well in Zimbabwe in the 1990s.[33] This type of input is hard to maintain

28 Gavin Kitching, *Development and Underdevelopment in Historical Perspective* (London: Methuen, 1982), Chapter 1.

29 John Ballyn, independent consultant on craft production, Network of Development Researchers Gregynog Colloquium, University of Wales, argues that craft or artisan production can make a large contribution to manufacturing output (personal communication, May 2004).

30 Author's own experience 1994–1999 bringing goods from Zimbabwe to UK Fair Trade organizations.

31 Weya and Kusona Kwemadzimal women visited by author in Zimbabwe in late-1990s.

32 For example, Mountain Giftwrap from One Village: http://www.onevillage.org/cards-giftwrap.htm (accessed August 21, 2005).

33 Author's observations in Zimbabwe, 1996.

since the arrangements for collaboration often are only temporary and voluntary. It also is very difficult to, and unreasonable to expect that, design skills can be transferred, in a limited period of time, to otherwise untrained workers.

Work of Grupo de Desenho Industrial e Desenvolvimento Sustentável, Brazil
The work of this group is specifically aimed at benefiting the poor communities with which it works. Projects aim to be economically beneficial, because income comes from selling the goods, so this is built into the design of the project. Wherever possible, and this is an economic decision as much as an environmental one, materials are recycled or reused, making the production environmentally sustainable. Since the projects are dependent on a particular group of staff and students from the local university, they are, at this moment in their development, unsustainable. These links will need to be strengthened and institutionalized to ensure sustainability and continued development. To help ensure this, the authors recommend a participatory approach to any intervention and the identification of local innovators in order to develop or create the community's innovative capability.[34] A range of skills will have to be learned by the producer groups before these activities are sustainable without an external input but, at the same time, the designer must be prepared to have a "wider understanding of the socio-economic context and of human relationships." [35] The same is true for many poor producer groups, but if a process of education and capacity-building is undertaken, then this might be feasible. The GDDS is aware of these longer-term problems of sustainability, and makes comprehensive recommendations about how design interventions with poor communities should be approached, some of which have been mentioned above.

The Clockwork Radio
This has had obvious benefits for many people, including those employed in its manufacture and those who are able to receive radio broadcasts without having to use unreliable or expensive sources of electricity.[36] The development of the clockwork radio depended on several fortuitous events—the inventor learning that there was a need for radios in rural Africa, as well as the acceptance of the project by a sympathetic manufacturer. It is now economically sustainable and in commercial production. It is environmentally sustainable in use because of its wind-up technology, but the environmental impact of its manufacture it is not clear. The role of design in the form of invention, innovation, problem-solving, and manufacture has been crucial in making the clockwork radio a reality, although only a part of the overall picture. Design continues to contribute to the sustainability of the project, since new models of the radio have been produced that are smaller and lighter than the original and

34 Luiz Guimarães and Wagner Batista, "Industrial Design for Excluded Communities in the Northeastern Region of Brazil" (paper presented at the Conference of II Congresso Internacional de Pesquisa em Design, Rio de Janeiro, October 15–18, 2003).

35 Ibid.

36 Ibid. and QED video, "The Clockwork Radio."

available in different colors. The product line also has been expanded to include other clockwork equipment such as flashlights and cellular phone chargers.[37] Design input is enabling the Baygen Company and its associated nonprofit, the Freeplay Foundation,[38] to contribute to sustainable economic growth and to social and humanitarian outcomes for producers and consumers.

ExpLAN Computers Ltd.

For the users, the ExpLAN computer will not make a direct contribution to poverty reduction. It will, however, enable poor people access to communication and information via the personal computer. However, plans call for production of the units in the countries where they will be used, and this will generate local jobs. For the users, having access to the ExpLAN computer therefore should contribute to sustainable development. The ExpLAN computer has sustainability designed into it. It will be economically sustainable, use energy sources that are sustainable, and have sustainable social development built into the project.[39] Plans are in place to ensure that production is local and sustainable, and institutionalized in local production units. However, it is run by a company with a desire for equitable social change that perhaps makes it vulnerable to personnel changes. It appears to be sustainable in every aspect, although longer-term evaluation will be needed to see if this is the case. Ironically, there is no formal design input because the company does not employ or use a designer. All of the personnel involved in the project come from the technical side of personal computing.[40]

Work Done by the Intermediate Technology Development Group

The fuel-efficient stove development, led by the ITDG, fulfils all the requirements of sustainable development. It has led to its producers earning viable incomes, thereby contributing to poverty reduction and therefore is economically sustainable. And it has reduced wood consumption and uses local materials, so it is environmentally sustainable. The project is socially sustainable since the producers work in groups, and also have received significant social benefits themselves from being involved in the stove production. The production has been institutionalized in the setting up of formal producer groups. Since a participatory approach was used in the development of the design and manufacture of the stove, the benefits to users have been maximized and the project seems to be making a real contribution to sustainable development.[41]

> The participation of communities in (appropriate technology) development initiatives can help ensure that results will be sustainable after external agencies withdraw—economically and in terms of human capacity and commitment.[42]

37 Website: http://www. freeplayenergy.com/index.php?section =products (accessed August 31, 2005).

38 Website: http://www.freeplayfoundation. org (accessed November 8, 2005).

39 Information from company Website.

40 Personal communication, 2005.

41 Rob Aley, "Appropriate Technology and Sustainable Human Development" in *Design without Borders,* A. K. Haugeto and S. A. Knutslien, eds. (Oslo: Norsk Form, 2004), 53.

42 Ibid., 54.

The solar light, also led by the ITDG, is now in production with "demand growing rapidly."[43] It appears to economically sustainable, although a conflict has been noted between the needs of the development and the commercial sectors in terms of production methods. Over the long term, the institutionalization of the production may be jeopardized if this is not resolved. In environmental terms, it uses solar technology and thus reduces environmentally-damaging battery usage; although other aspects of its manufacture have not been environmentally assessed for their impact. Industrial designers were able to make a significant contribution to the development of the lamp by drawing up a comprehensive design brief in consultation with potential users, by studying existing solar lamps, and by using this data in designing their lamp. Subsequent feedback from test users was very positive. Designers have been able to contribute to an aspect of sustainable development.

Designing for Sustainable Development and Poverty Reduction

I now want to look across these examples at each aspect of sustainable development: economic, environmental, and social in order to assess the potential challenges facing designers who wish to make a contribution to sustainable development and poverty reduction. For designers to have an impact on reducing poverty, the goods they design must be *economically* viable. In many small-scale ventures, this is the hardest criterion to meet. Comprehensive knowledge of markets and lifestyles is needed when designing goods for export markets. Large commercial organizations have the resources to provide this information at the point of design and manufacture. The fair trade or NGO sectors often do not have this capability, and products from this sector can reflect this lack of input. However, many of the organizations involved in designing for poverty reduction have *environmental* sustainability at their heart. All of the seven examples given have at least an element of environmental sustainability, and several have more than that. Most projects do not have the benefit of measured environmental impact or life-cycle analysis, even though this would be the ideal. All of the design initiatives documented have social benefits for the participants. It is impossible to tell, without a long-term study, what the effects of this will be, and whether or not it will be sustainable over the longer term, say ten to fifteen years. Designing for *institutional* sustainability is harder to measure, and it seems that many of the examples may not be institutionally sustainable because they depend on a particular person or group of people for their existence and continuation. These people are value-driven, and believe strongly in what they are doing. Unless there are plans for the future, organizations can become vulnerable if these driving forces are no longer available to work with them.

43   Ibid., 57.

Conclusions

Apart from the few exceptions documented, the extremely poor do not constitute a market for designed or designer goods. To live on $1 a day, which I take as the definition of absolute poverty, and on which 1.2 billion people currently are surviving globally, precludes any choice of goods. Contrast this with someone of means in the developed world where it is possible to have all sorts of material goods designed to one's personal desires: houses, clothes, appliances, automobiles, and all types of luxury consumer goods. The very poor may work to produce goods that are designed for consumption in the developed world. They also may use goods that have been designed and discarded by the developed world. And they may, through the actions of an NGO, use tools that have been designed to alleviate their poverty. The poor are not without design and designed goods, but their choice of them is severely curtailed. The examples given in this paper show that, used in appropriate ways by designers and others, as agents of change, design can be brought into the lives of poor people and improve their livelihoods by increasing income and making available to them better goods, products, and equipment.

Recently, there has been an articulation of awareness that the poor can form a significant market for goods and services. This argument is made by C. K. Prahalad in *The Fortune at the Bottom of the Pyramid*.[44] Although design is a component of many of the case studies presented by Prahalad, such as the development of the Jaipur Foot, a prosthetic lower limb that is provided and serviced free to those who need it, design inputs are not identified or included in the analysis, although design must have taken place during its development. There is a need for design to be recognized and identified in these situations, so that it can be credited for what it enables people to do, and applied again in other contexts as in the Brazilian example quoted earlier in this paper.

Although not in the majority of the "design world," some designers are prepared and interested to take on work for minorities or for social good. In graphic design and advertising, sectors of the design world most highly commercialized, there has long been a tradition of *pro bono* work in which design for charities or campaigns is done free of charge or at reduced rates. In "The Weaving of Design and Community," Julie Baugnet[45] gives examples of designers in the State of Minnesota in the U.S. working on projects that benefit a variety of local communities. Other interventions have been documented in *Conscientious Objectives: Designing for an Ethical Message*,[46] although only one of the examples given is directly relevant to the global alleviation of poverty, and that only of historical interest.[47] However, there is the general sense that the world is facing very massive problems, and that the design community is not addressing them in the way that it might. There are both UK and global groups interested in design in a developmental context, as well as active constituencies of eco-designers. If these groups can raise awareness

44 Coimbatore Krishna Prahalad, *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits* (Upper Saddle River, NJ: Wharton School Publishing, 2005).

45 Julie Baugnet, "The Weaving of Design and Community" in *Citizen Designer: Perspectives on Design Responsibility*, S. Heller and V. Vienne, eds. (New York: Allworth Press, 2003), 95–99.

46 John Cranmer and Yolanda Zappaterra, *Conscientious Objectives: Designing for an Ethical Message* (Mies, Switzerland: RotoVision, 2003).

47 The example of a birth control campaign for illiterate people in Bangladesh dating from the 1970s is presented by Studio Dunbar, Holland.

among the global design world, and especially at a design education level, the dominant consumer culture of design could be challenged. Within the context of global capitalism, there are niche markets and means of production that can alleviate the lot of the extremely poor; and the existence and growth of the fair trade[48] initiatives is evidence of this. Although activity in this sector is mainly in foodstuffs, there still is an opportunity for design input, for example, in packaging. Designers who do work in these niches are far removed from the "designer as star" world of design-driven consumption.[49] Designers who are value-driven need to link with each other to share their experiences and projects. This is happening in the UK with the formation of the Cardiff Group,[50] and on the Internet in discussion groups such as the designindevelopment one hosted by Yahoo, and Think Cycle, Open and Collaborative Design,[51] and in Norway with the nongovernmental organization Norsk Form.[52] There will be a UK seminar series during 2005–07 entitled: "Educating Designers for Global Citizenship," in which design educators and practitioners from Brazil, Southern Africa, India, the U.S., and the UK will be able to network and share ideas about the role of the designer in enabling sustainable development; and how design education can contribute to raising the awareness of design students of global challenges. The author's own work in design education indicates that students are interested in the ways in which design can contribute to the common good.

Schemes such as the RSA Design competitions in the UK, in which student designers are challenged with briefs for designing around social issues including climate change and emergency relief, indicates that this is the case.[53] Value-driven designers need networks and support mechanisms in the design industry so that they can share their ideas and work more effectively in support of the ideals in which they believe.

48   Fair Trade Foundation: http://www. fairtrade.org.uk (accessed August 31, 2005).

49   Typified by the London Festival of Design, September 2005: http://www.london designfestival.com (accessed August 31, 2005).

50   Website: http://www.thecardiffgroup. org.uk.

51   Website: http://www.thinkcycle.org/ home (accessed November 8, 2005).

52   Website: http://www.norskfoorm.no (accessed August 31, 2005).

53   Website: http://www.thersa.org.uk/ rsadesign/designdirections/index.html (accessed November 8, 2005).

The Bauhaus Context: Typography and Graphic Design in France
Roxane Jubert

This essay on the reception of Bauhaus typography and its environment in France was originally published in French under the title "Typographie & Graphisme: Dissemblances, Dissonances ... Disconvenance? La France en Marge de la Révolution Typographique" in *Le Bauhaus et la France, 1919–1940,* edited by Isabelle Ewig, Thomas W. Gaehtgens, and Matthias Noell (Berlin: Akademie Verlag/ Centre allemand d'histoire de l'art, 2002), 163–188. [Collection of essays in French or German]. See Roger Chatelain's review, "Précieux éclairages sur 'le Bauhaus et la France,'" in *Typografische Monatsblätter* 3 (2003): 5–8.

English translation by John Cullars.

1   Roland Barthes, "Erté ou A la lettre" in *Erté* (Parma: F. M. Ricci, 1972), after-wards cited in: *Œuvres completes* (Paris: Eds. du Seuil, 1993–), vol. 2, Paris 1994, 1222–1240; 1228 and 1231 for the first citation, 1239 for the second.
2   Herbert Bayer, "On Typography" (1967), cited in Arthur Cohen, *Herbert Bayer* (Cambridge/London: MIT Press, 1984), 350–352, and 350; and for the second citation, Herbert Bayer, "Typography and Design at the Bauhaus" (1971), cited in Cohen (1984), 352–354, and 352.
3   Roger Chatelain, "Si l'École Estienne m'était contée ..." in *Typografische Monatsblätter/Revue Suisse de l'imprimerie* 3:2001: 10–11. It should be noted that Roger Chatelain, former Editor-in-Chief of the journal *Typografische Monatsblätter/Revue Suisse de l'imprimerie*, endeavored to throw light on Franco-German relations in typography, notably launching some broadsides and pointing out disagreements in the journal.

[...] for the letter is the site where all graphic abstractions converge.

[...] since humankind began to write, what sort of games has the letter not been the point of departure for! Take a letter: you will see its secret become deeper [...] throughout its [...] infinite associations where you will find everything, the whole world: its history, yours.

[...] an art, the typographical art, abandoned by our grand culture.
Roland Barthes[1]

Previously used above all as a medium intended to make language visible, typography revealed its own visual qualities and disclosed the possibility of a specific expression. [...] moreover, the typographical revolution was not an isolated event: it took up the cause of a new socio-political consciousness and, in fact, accompanied the foundation of a cultural renewal.

[...] the typographical choices [of the Bauhaus] [...] appear as unique and revolutionary in the history of typography. [...] the new typography [...] is anchored in a new conception of technology, in its own functions as a medium for communication, in its social and humanistic role, and in its relations to the other arts of the period.
Herbert Bayer[2]

And it is well known that France [...] did not play a vital part in what may well be called the "typographical revolution," related to the movement known as the Bauhaus.
Roger Chatelain[3]

As the visual inscription of language and the imprint of thought, typography conceals the stakes that are overlooked by the whole question of design. Roland Barthes's epigraph well expresses that state of existing in a singular world, warily loaded with meta-meanings. That knowledge of the fundamental nature of the letter and the forces at work in it permit a view of typography in the work of artists from the first decades of the twentieth century as something other than a radical aesthetic phenomenon exciting fascination or repulsion. Doubtless, one must first of all consider the frenzied pursuit to express the *Zeitgeist,* and appreciate the interactions of an artistic scene that was quite out of the ordinary. With its spatio-

4   In the Netherlands, the USSR, Poland, Germany, and Czechoslovakia; then in Switzerland and Italy.

5   De Stijl and constructivism had significant repercussions in Germany, as on the Bauhaus. Beginning in 1922, Théo van Doesburg proposed De Stijl courses at Weimar, which were attended by most of the students of the Bauhaus. Elsewhere, the first Russian art exhibition was held in Berlin in 1922.

6   *Bauhaus* 2:3 (1928): 29. See also note 40.

7   Far from the Bauhaus's ambition for internationalization, one finds the expression of typographical nationalism in Germany with Rudolf Koch, Fritz Helmut Ehmcke, and even with Paul Renner. See Koch, cited in Hans Peter Willberg's "Fraktur and Nationalism" in Peter Bain and Paul Shaw, *Blackletter: Type and National Identity* (New York: Princeton Architectural Press, 1998), 40–48, 43: "German script is like a symbol of the inherent mission of the German people who, among all civilized races, must [...] act as a living model and example of its unique, distinctive, and nationalistic character in all manifestations of life." Ehmcke, cited in Yvonne Schwemmer-Scheddin's "Broken Images" in Willberg (1998), 50–67, 59: "Just like Gothic design in other arts, Gothic lettering appears primarily wherever virile German manhood is symbolized by fighting, creating nations and building."; Renner, cited in Roger Chatelain's "Paul Renner sous les feux de l'histoire" in *Typografische Monatsblätter/Revue Suisse de l'imprimerie* 5 (2000): 9: "Each people [...] has the typeface that it deserves [...]. And what should our typeface be if not the expression of the true, the authentic German soul?"

8   An important figure in the world of typography in France, Francis Thibaudeau was in charge of composition services at the Peignot foundry. He penned many classic works on typography.

temporal situation and its goals, the Bauhaus was able to imbue itself with European "isms" and set itself up as an experimental laboratory. Typography, graphics, and photography experienced visible developments there which were indissoluble from their exceptional flowering within the Weimar Republic. Carried away by the utopia of universality and by a communicational ideal, these practices became the object of an unprecedented craze throughout the heart of Europe, to the rhythm of strong and constant shared activities.[4] Thus, many external dynamics sprang from the Bauhaus typography and related activities—the influences of De Stijl and of constructivism were notably decisive in the early 1920s.[5] Enthusiasm spread well beyond the borders of Central and Western Europe—the typographers themselves were dreaming of transnational forms. "Come and study at the bauhaus!" [*sic*] was a slogan displayed in eight languages, including French ("*venez étudier à Bauhaus*!"[*sic*]) in the school's journal.[6]

Off to the side of that Central European effervescence spread by the changes in graphic design and typography, France followed the experiments with a certain reserve. Was it straightforward aesthetic differences? Inertia? Reticence? It is hard to find an answer without invoking yesterday's enemy—"the four Peignot brothers," died on the battlefield during World War I, and Cassandre's elder brother, Henri, died in 1914 at the very beginning of the war—the ascendancy of Germanophobia, and visceral nationalism. In France, some of the most important names in typography effectively defended a strong patriotic approach throughout the twentieth century (and some German typographers between the two world wars did the same.)[7] Here are a few samples. In 1901, Francis Thibaudeau evoked the "French style in modern typography."[8] He explained that: "Once again, one must define the French spirit: all joy and beauty, clarity and elegance [...] is in this manner assured for the future." Thibaudeau published his *Manuel français de typographie moderne* [*French Manual of Modern Typography*] in 1924. There also was Marius Audin's *Le Livre français* [*The French Book*] in 1930. At the same time, in the east, typography largely was considered in terms of exchanges beyond national boundaries. Other French fragments, later but in the same vein: Maximilien Vox and Ladislas Mandel calling upon "Latin graphic arts" and "Latin writing." Charles Peignot evoked "the glory of French typography." Vox again: "The typographic fireworks [in France] that illuminated the 1920s and 30s." In a work published in 1982, Georges Bonnin, then director of the Imprimerie Nationale, envisioned "a constructive reflection upon a new 'defense and illustration' of French typography." Lure's *Rencontres internationales* [*International Encounters*] would publish *Défense et illustration de la typographie française* [*Defense and Illustration of French Typography*] (conference papers from 1993). Everything went on as if the word "typography" in France should naturally be qualified by the epithet "French." From this nationalistic defense,

chronic isolationism was born, leading to minimal exchange across the French-German border. Why did such a situation exist when exchanges among the Soviets, the Dutch, the Hungarians, Germans, or Poles spread so readily? The geopolitical situation and relations with Germany can only partially explain the phenomenon, since many Dutch, Russian, or Czech graphic innovations also did not make much of a splash in France.

Big Deviations and Little Echoes

A comparative survey of the principal figures of graphic design and typography in France and in Germany between the two world wars shows a strong disproportion and marked divergences. Graphic artists, designers, poster makers, typographers, or those in the fine arts followed very different trajectories in the two countries. At the Bauhaus, three figures distinguished themselves by their teaching as much as by their practice: László Moholy-Nagy, Herbert Bayer, and Joost Schmidt. Let us mention in passing some of the numerous figures then active in Germany: Jan Tschichold, Kurt Schwitters, the dadaist Raoul Hausmann, El Lissitzky, Paul Renner, Walter Dexel, Max Burchartz, Johannes Canis, Rudolf Koch, Jakob Erbar, Friedrich Vordemberge-Gildewart, César Domela, and Théo van Doesburg. Most of them were multifaceted artist-designers who were not trained in typography—the works of Moholy-Nagy and of Schwitters are emblematic of that singular richness inherent in the age.[9] Moholy-Nagy and Joost Schmidt, who were very involved with the Bauhaus visual communication, also directed the metal and sculpture studios.

In France, the situation was radically different. Exceptional French graphic artists at the time can be counted on the fingers of one hand, and must be considered somewhat isolated figures.[10] Their work primarily was on posters. Here one finds "the 3 Cs"— Cassandre (Adolphe Jean-Marie Mouron being the dominant figure), Jean Carlu, Paul Colin—and Charles Loupot. In a parallel development, the type foundry Deberny & Peignot supported typographic creation (fonts and publications).[11] Charles Peignot, who took on the artistic direction of the establishment in 1923, notably used some experimental type fonts by Cassandre and founded the journal *Arts et Métiers graphiques* [*The Arts and Graphic Professions*] in 1927.[12] The foundry particularly benefited from the active contributions of Maximilien Vox (the pseudonym of Samuel Monod, who published Maurras's *L'Avenir de l'Intelligence française* [*The Future of French Intelligence*] in 1942 in *Nouveaux Destins de I'Intelligence française*).[13]

The French and German typographical scenes seem to have had very few things in common. Their links, while perceptible, are suggested but never asserted. Here and there, nonetheless, some traces of reciprocal reception can be seen: furtive exchanges, brief meetings, and a few trips. On the French side, Cassandre and Charles Peignot discovered the Bauhaus and German graphic artists.

9   See Herbert Bayer's "Typography and Design at the Bauhaus" (1971), cited in Cohen (1984), page 353, where he himself explains that retrospectively "It was much easier to undo traditional concepts since most of us had not received professional training as typographers and thus were not limited by received ideas."

10   Cassandre and Charles Loupot worked together beginning in 1930 under the name of Alliance Graphique, but the partnership did not last.

11   The main foundry for letters in France, founded in 1923 and closed in 1972, becoming part of Girard & Company foundries—formerly the Deberny Foundry—and Peignot & Company. Balzac, once a printer and editor, bought the J. G. Gillé Foundry, which later was renamed Deberny & Company, in association with the type-founder Laurent.

12   Charles Peignot managed the foundry from 1939 to 1972.

13   See *Un homme de lettre,* Maximilien Vox et al., eds. (Paris: Agence culturelle de Paris, 1994), 140.

14 See A. M. Cassandre, *Publicité* (Paris: Charles Moreau, 1929) (L'Art international d'aujourd'hui, vol. 12).

15 In his introduction, Cassandre underlines the new presence of publicity: "The language of publicity has barely been born, but it has been born. [...] The goal of this work is not to give a complete image of contemporary international publicity. [...] We have simply tried to gather together some of the most representative works that have come our way."

16 His article does not specify a visit to the institution, but Lionel Richard specifies in his *Encyclopédie du Bauhaus* (Paris: Somogy, 1985), 247, that "Charles Peignot [...] visited the school." Moreover, document 6-F-0073-77, preserved in the Stiftung Bauhaus Dessau, Schriftenarchiv, Nachlass Mies van der Rohe, mentions Peignot's visit, among those of other Frenchmen in 1931/32. We thank Elke Mittmann for this information.

17 Charles Peignot, "L'enseignement professionnel," *Vu (L'énigme allemande)* 213 (1932): 546–548 and 580.

18 Fernand Baudin reports that Maximilien Vox was in a position to pressure Charles Peignot to go to Frankfurt concerning the purchase of the rights for Futura at the Bauer foundry. See Roger Chatelain, "Réactions relatives à Paul Renner et au Futura," *Typographische Monatsblätter/ Revue Suisse de l'imprimerie* 1 (2001): 14–16.

19 Maurice Thireau, *L'Art Moderne et la Graphie* (Paris: Bureau de l'Edition, 1930), 101–102. The publisher of this work, Le Bureau de l'Édition, also published Francis Thibaudeau's *La Lettre d'Imprimerie*. See below.

20 See Jan Tschichold, "Qu'est-ce que la nouvelle typographie et que veut-elle?" *Arts et Métiers graphiques* 4 (1930): 46–52.

Their reception was enthusiastic. Many publications now forgotten testify to this. In 1929, Cassandre published an edifying panorama of European avant-garde publicity that reflected the "new typography." [14] Of the forty-nine documents included, seventeen were by artist-designers working in Germany; among them Moholy-Nagy, Bayer, Tschichold, Baumeister, Molzahn, Dexel, and Burchartz. Included were posters, ads, covers, photomontages, and even examples of graphic art applied to architecture. Other documents illustrated what was being done in Poland, Czechoslovakia, France, Austria, Switzerland, Great Britain, and the United States. More than one-third of the chosen examples came from Germany: Cassandre certainly took an accurate measure of what had been taking place there since the late 1920s. His publication, which consisted mainly of a collection of images, limited prose explications to a brief introduction. (It seems likely that little information was available to Cassandre; otherwise, he probably would have taken advantage of it.)[15]

The second testimonial was published somewhat later. Charles Peignot, who had met and conversed with Gropius, went to visit the Bauhaus in the early 1930s.[16] In the magazine *Vu* [*Sight*] in 1932, he devoted several paragraphs to the "Dessau school" in an article on professional education in Germany[17] in which he succinctly introduced the Bauhaus in its totality with no reservations. He also evoked the "elevated standard of current production with our neighbors," and concluded by discussing the relative inadequacy of such teaching in France. "The design of type fonts," "typography," "letters," and "the poster" then figured in the details of the program for his course. His initial apprehensions about the trip to Germany did not prevent Peignot from having a positive and perceptive view of the school.[18] Yet, he did not make the case for the Bauhaus's typographical experiments, which would have been a challenge to the eyes of the French. There is more evidence that the new typography was known and appreciated in France at that time. In a 1930 publication, Maurice Thireau made the case that "The Germans everywhere now practice so-called 'elementary' typography, that is, typography restored to its basic elements. Jean Tschichald [*sic*] of Munich is the spokesman for that school and for the numerous disciples who espouse its theories in Holland, Czechoslovakia, Russia, and France. [...] In France, 'elementary' typography made [...] its appearance, and the apostles of Jean Tschichald [*sic*] are represented by Théodore [*sic*] Van Doesburg and Tristan Tzara." [19] The same year, the journal *Arts et Métiers graphiques* published Tschichold's text, "Qu'est-ce que la nouvelle typographie et que veut-elle?" ["What Is the New Typography and What Does It Want?"], which was adorned with reproductions of works by Moholy-Nagy, Lissitzky, Tschichold, Domela, etc.[20]

Also in 1930, *Cahiers d'art* made the case for "a school of modern art," where "there are classes on publicity (J. Schmidt) [and] on photography (Peterhans)."[21] In 1929, the same journal published an article by Moholy-Nagy, illustrated by his photographic investigations. It mentions, in passing, the influence of cubism. (He expresses an admiration for Cézanne's work[22], as does Renner). Later, in the same number of *Cahiers d'art,* Christian Zervos—the editor of the journal—mentioned the exhibit of Bayer's paintings at the Parisian gallery Povolozky: "He is a young artist, whom I met on my visit to the Bauhaus at Dessau, where he teaches typography, who is exhibiting for the first time in Paris."[23] These diverse testimonials prove that France was well aware around 1929–30 of the experiments at the school in Dessau—as well as Central European New Typography. However, none of the publications offered a genuine explanation of this foreign typography, as if the phenomenon had been noticed but not truly appreciated.

Typography from beyond the Rhine found some other ways of entering France. The works of the Bauhaus were presented for the first time in France in the German Section exhibit of the Deutscher Werkbund at the Grand Palais in 1930.[24] The exhibit was assigned to Gropius, assisted by Breuer, Bayer, and Moholy-Nagy; and the catalogue, which was printed entirely without uppercase letters, was conceived by Bayer. That work, like the exhibit, presented its "system of unique characters" (*einheitsschrift*). Interestingly, we find at the end of the catalogue that Bayer lived on Paris Street in Berlin. Along with the publications, the German presence in French exhibitions remained sporadic. In 1937, one found Paul Renner on a jury for the selection of fine books, organized along the plan of the International Exhibition.

The different indications of reception are limited most often to a few bits of information or exchanges of specific information, which manifestly did not foster any strong influence. However, it seems clear that French sensibility was ready to accept the new typography. As proof, Futura type, merchandised under the name "Europe" by the Deberny & Peignot foundry in 1930, enjoyed some success. Futura, designed by Paul Renner and marketed in 1927, turned out to be an emblematic typeface for the aesthetic ideals of the Bauhaus. Renner was not a member of the Bauhaus, but the first sketches of his alphabet revealed preoccupations that were very close to those of its members; geometric forms constituted the first visible structure of its character, just as with the then unpublished experimental alphabets of Bayer (Universal), Josef Albers (stencils and combinatory writing [*Kombinationsschrift*]),[25] and Joost Schmidt. Strongly criticized by the advocates of designed rather than constructed typography, Futura nonetheless represented a synthesis of the aspirations of the moment that were sufficiently toned down to communicate with the masses.

21 Will Grohmann, "Une école d'art moderne: Le 'Bauhaus' de Dessau: Académie d'une plastique nouvelle," *Cahiers d'art* 5 (1930): 273–274.

22   See László Moholy-Nagy, "La photographie, ce qu'elle était, ce qu'elle devra être," *Cahiers d'art* 4 (1929): 28–33.

23 Christian Zervos, "Herbert Bayer ß(Galerie Povolozky)," *Cahiers d'art* 4 (1929): 56.

24 See the chapter devoted to that exhibition in *Le Bauhaus et la France, 1919–1940,* Isabelle Ewig, Thomas W. Gaehtgens, and Matthias Noell, eds. (Berlin: Akademie Verlag/Centre allemand d'histoire de l'art, 2002).

25 *Kombinationsschrift* [combinatory writing], composed of modular forms, constitutes an example of montage work that is visible as three geometric forms.

Though it may seem heretical to those who think of the letter as exclusively the issue of natural movement and knowing gesture, Futura nevertheless may be seen as the realization of social ideals: on the one hand, the fierce will to simplify the letter by removing all its particularity or historical connotations to facilitate the daring production of an "elementary" archetypical form; and, on the other hand, the desire, distinctly expressed by some, to come up with a transnational alphabet.[26] Upon crossing the border and becoming "Europe,"[27] Futura lost the expression of its projection into the future—the reflection of utopias and Central European experimental fumblings that France kept at a distance. One may then advance the hypothesis that this indirect reception of a typography that resonated with the Bauhaus presupposed a certain aesthetic appreciation, but that it rested first of all on a commercial plan, confirmed by the success of "Europe" type, which remained a type that sold particularly well for three decades at the Deberny & Peignot foundry. How can we explain the fact that the aesthetic-commercial value of Futura could triumph at the same time as a specific (typo)graphical phenomenon, in which Futura played a central symbolic role, was overshadowed?

The graphic arts and typography of the Bauhaus, and a fortiori, the new typography, probably did not find truly favorable reception in France. On each side, the border was palpable. Cassandre, for example, in the 1930s received commissions from England, the Netherlands, Italy, Switzerland, and the United States; but apparently not from Germany. The monograph devoted to Charles Loupot pointed out that "... in the 1920s (and well after that) everything that was German or, by extension, Germanic [...] was considered suspect."[28] How can one explain such a reservation when the German scene, so near at hand, was overflowing with unheard of richness, and with the principle of exchange flooding through Europe? The French graphic arts culture then did not seem too disposed towards an encounter with that doubtless disconcerting modernism. As early as 1930, Maximilien Vox showed the first signs of panic: "The shadow of Dr. Caligari is reaching out from Germany. After having momentarily played with the rare dissonances and the cocktails of lowercase, French typography, in sure hands, is following its true course."[29]

Inversely, from France to Germany, it appears that the transfer of knowledge and practices did not go any further. Symmetrically, one finds here and there in Germany a few small influences of French graphic design in exhibits and in the press. As for the Bauhaus itself, Charles Peignot's visit would be the only point of contact attesting to a French typographical presence. But it was this school as an entity that caught his attention. At the moment that he made his case in the magazine *Vu*, the Bauhaus's typography and graphic design already had been conceived in their essentials. With its own printed production (stationery, books, posters, magazines, etc.), as well as

26 See Christopher Burke, *Paul Renner* (London: Hyphen, 1998), 105, according to which "Renner tried to design a type linked with the concept of universality but always had in mind the particular needs of the German language [...] and described Futura as 'an eminently German letter.'"

27 See Chatelain 2001 (*Réaction*), 15, where he made the hypothesis that the French name of Futura, "Europe," served to "mask its Germanic origins."

28 Christophe Zagrodski and Charles Loupot, *Loupot* (Paris: Cherche Midi, 1998), 18.

29 Maximilien Vox, "Dix ans de publicité," *Plaisir de bibliophile* 22 (1930), cited in Fernand Baudin, Dossier Vox (Association des Compagnons de Lure, Belgium: R. Magermans,1975), 104.

external commissions to fill, it would have been hard to overlook the school.[30] In fact, one could well be astonished at Peignot's discretion on this subject because, in one way or another, he would have been aware that something special was going on at the Bauhaus. Moreover, it would have been surprising if some discussion of the typography from Dessau had not taken place, given Peignot's professional network in France (Cassandre, Vox, etc.) On his part, Vox, from 1929 on, proclaimed the new role for typography, though always associated with his patriotism: "As to type fonts, a new internationalization is taking place [...]. It is not impossible that France, with its innate sense of proportion, will see the birth of twentieth century type [...]."[31]

Other links could be shown between France and Germany, and other areas of interest indicated, but they always were just as tenuous. Thus, one finds Cassandre among the members invited by the *Ring neue Werbegestalter* [Circle of new advertising artists] in 1928 and 1929, and he participated in this way in the new typography exhibits in Magdeburg, and in Berlin, in 1929. (The few writings devoted to Cassandre seem reticent on this subject.) His name occurs just below that of Bayer on printed material of that time, and the symbolic proximity of the two names hardly makes up for an encounter that did not really take place. (Also mentioned are Moholy-Nagy, Dexel, Burchartz, Tschichold, etc.) The information available on Cassandre does not make the case for a possible trip across the Rhine. The word "Bauhaus" appears here and there, and Cassandre would have been aware of the activities of the school since 1919. If he seems to have been the first with a lasting German interest, his French peers, for their part, apparently held little place in the German press. Thus, in 1929, *Die Form* (*Form*) published "Das Plakat in Paris" ("The Poster in Paris"). Here one found reproductions of posters by four main figures of the era (Cassandre, Loupot, Carlu, and Paul Colin), as well as an instructive commentary on their work.[32]

Simultaneous Dissonances

Corroborating the weakness of the reception, French and German typographic practices show many divergences, in spite of chronological proximity. In the early 1920s, a (typo)graphic renewal took place simultaneously on either side of the Rhine, with the year 1923 as a symbolic threshold. First of all, that year marked a profound reorientation of the first Bauhaus, which departed from its expressionistic and artisanal attachments to adhere to a new motto, "Art and Technique: A New Unity." (The Bauhaus would integrate its own typographic printing office two years later, at which time graphic expression would truly find its place.) The year 1923 equally marked the beginning of a renewal in France. A young generation of graphic artists began to stand out in the affiliation of painter-poster makers from the end of the previous century.[33] Cassandre owed the beginning

30   With the reservation that hypothetical archives offer proof of the opposite view.

31   Maximilien Vox, "Typographie," *Art et Décoration* 56 (1929): 172.

32   See Roger Ginsburger, "Das Plakat in Paris," *Die Form* 4 (1929): 583–585, as well as the article by Jean-Louis Cohen in the same volume.\

33   The Frenchman Jules Chéret, active from 1866, is considered to be the father of the modern poster.

of his renown to his poster, "Au Bûcheron" ["To the Woodcutter"], which dates precisely from 1923. Loupot's career in France equally took off in 1923 with his "Voisin" posters for the eponymous automobiles. Both were surprising. Moreover, the "Bûcheron" graphics[34] attracted ferocious criticism from Le Corbusier: "An uproar is in the streets. [...] When one falls 'into the modern,' one can fall very low."[35] In such a context, how can we imagine that the much more radical experimentation of the Bauhaus movement could find a favorable reception in France? Where the French poster makers perpetuated a pictorial, designed tradition; the Bauhaus was eager to break with pre-existing codes. The school adhered to new (typo)graphic orientations shared by German, Russian, and Dutch professional graphic designers.

Just as abstract art investigated the formal qualities of painting—color, line, surface, etc.—so too, typography tackled directly the concepts of contrast, tension, asymmetry, proportions, etc. French graphic design, which only skirted these concepts, did not grasp them in as direct a manner. Sometimes, designers even seemed not to know them. The divergences can be specified. For the European actors of the new typography, the association of type and photography offered new perspectives. Moholy-Nagy forged the notion of the "typophoto" in 1925, having begun to experiment with the two modes of expression in the early 1920s.[36] In Berlin, publicity and photography studios of the Bauhaus were united. In this new approach, manual illustration was assimilated to a skill that the machine age had rendered obsolete. The French, far from these revolutionary orientations, reinvented the design tradition. Cassandre only very rarely used photography.[37] His fellow poster makers also were attached to design, often generating text and image in the same gesture. It is, perhaps, the introduction of photography, a body alien to the text, that promoted the consciousness of "white space"—or, more precisely, the space that was not imprinted—in Germany, Russia, and the Netherlands, thus affirming the break with the pro-symmetrical equilibrium. At the Bauhaus, graphic artists touted asymmetry, breaks in scale, the hierarchy of reading levels, effects of contrast, etc. Seeking clarity and effectiveness, they sought to translate a new textual *mise en scène*, attached to the expressivity of the mute "image."

Such iconographic choices reflect two different conceptions of typography. There are other disparities still to be noted. On the French side, these arise above all from the graphic and typographic creation of a large number of posters and some type fonts—notably Cassandre's; among them Bifur, Acier, and Peignot.[38] Moreover, Cassandre would be "the first poster maker who was interested in this subject."[39] In Germany, at the Bauhaus as elsewhere, the heat of the moment and interdisciplinary research stimulated the approach to all kinds of graphic and typographic objects: visual identities, books and journals, posters, the alphabet, experimental composi-

34 Cassandre produced several variations of the poster *Au Bûcheron,* the first dating from 1923.

35 Le Corbusier, cited in Henri Mouron, *A. M. Cassandre* (Geneva/New York: Rizzoli, 1985), 26.

36 See László Moholy-Nagy, "Typo-Photo," *Typografische Mitteilungen* Special Number (October 1925): 202–205, where he explains: "The typo-photo is the most precise image of information [...]." In *Photographie et société* (Paris: Eds. du Seuil, 1974), 187, Gisèle Freund describes Moholy-Nagy as "The great theoretician of photography, the first who understood the new creative paths that it was opening"—conceptions that would have the greatest influence on graphic design and typography.

37 The use of photography is extremely rare in Cassandre's work. His 1932 poster "Wagon-Bar" shows a montage uniting design and photography.

38 Dating, respectively, from 1929, 1930, and 1937, the typefaces Bifur, Acier, and Peignot were produced by the Deberny & Peignot Foundry. These inventions came slightly later than the Bauhaus experiments, which did not go beyond the planning stage and of Futura type. Let us mention here the presentation pamphlet for Bifur type, which contained a text by Blaise Cendrars ("Seule une lettre n'est rien [...].")—reviving the combined typographical-literary experiences dear to the Cubo-futurists.

39 Sylvia Colle-Lorant, "A. M. Cassandre affichiste," thesis, University of the Sorbonne, Paris I, dir. Marc Le Bot, Paris, 1982, 94.

tions, and other aspects of typography such as the inscription of text in space (volume, perspective, architecture, etc.). From 1925 onwards, the members of the Bauhaus took up the concept of experimental alphabets, which transformed their ideals. Bayer conceived the Universal Schrift as a unique alphabet composed only of lowercase letters. At the same time, the Bauhaus affirmed its predilection for lowercase letters. Bayer caused this radical choice to be accepted; inscribing on the school's letterhead in the fall of 1925, *"Wir schreiben alles klein, denn wir sparen damit zeit."* ["We write everything in lowercase, so as to save time."][40] Presented as an economy—the Bauhaus's printing house adopted DIN formats at the same time[41]—that decision just as perfectly reflected the utopia of the essence of the letter, of an Ur-form, of a letter that was, to a certain degree, anonymous, ahistorical, and astylistic.

At virtually the same moment in 1926, Cassandre opted for another alternative: "I don't know if experimental science has just decided against capital letters in favor of 'lowercase' [...] But I remain resolutely attached to capital letters. My architectural conception of the poster must necessarily orient my preferences [...] toward the primitive letter, the lapidary letter, [...] the true, the substantially monumental." [42] The French/Bauhaus divergence was as explicit as possible, though it should be more nuanced. Cassandre was thinking, above all, of the poster (though his Peignot type, conceived as type for text, tends to be made of shapes of capital letters), and some German graphic artists such as Walter Dexel or Max Burchartz also had a predilection for capital letters. Is it not always the case that such choices with their latent meanings are as much indicators of socio-cultural, even ideological, views, as of aesthetic ones? The capital letter is a monumental inscription: constant, imposing, sometimes dominating, and authoritarian.[43] The cursive lowercase letter is supple, homely, more legible—one is tempted to say more democratic. These hierarchies are inscribed in the very words themselves—the Latin *majus et minor* [more and less]. Is there not a kind of endorsement here of the French concept of typography that is linked to the past and concerned with grandeur?

Other significant examples confirm the Franco-German dichotomy. In the 1920s, the Bauhaus and new typography opted for sans serif type, which was felt to be the best expression of the moment. In 1921, Francis Thibaudeau brought out *La Lettre d'Imprimerie* [*The Letter of the Printing Office*] in Auriol, a 1901 type that was emblematic of art nouveau. The author, full of patriotic enthusiasm, ended his introduction with the following words: "May this work of popularization [...] inspire interest in the nature of the printed letter and then in the art of its use and applications, [...] for the greatest profit of the national industry and the triumph of French art." [44] *La Lettre d'Imprimerie* remains a very instructive work. It includes some of the first classifications of letters that are still alluded to even today. Oddly enough, the will to organize the mass of letters

40. "We write everything in lower case to save time." The proposition was initially formulated by Bayer and accepted by Gropius. It was a matter of suppressing all capitals in the school's print production. We can still read on the header of the school's letterhead: "Why two alphabets for a single word [...]?" and "We write exclusively in lower case, since we do not speak in upper case." This aspect of the Bauhaus's typography had an important influence on the typographic work of Max Bill. The choice was all the more radical for Germany, since all nouns had been capitalized since the beginning of the sixteenth century. Questioning the omnipresence of the capital letter in the German language goes back to 1822 with Jacob Grimm's *Deutsche Grammatik* and other proposals of that nature—including the proposal of a single alphabet, suppressing upper case—were made at the beginning of the twentieth century, before the experiments of the Bauhaus.

41. The DIN (Deutsche Industrie Normen) format, which sets norms for the paper industry and stationers, was established in Germany in 1924. The A4 format is a DIN norm.

42. Cassandre, cited in Mouron (1985), 20.

43. See the slogans, "Liberty, equality, fraternity," "Post no bills," etc.

44. Francis Thibaudeau, *La Lettre d'Imprimerie* Vol. I (Paris: Bureau de l'édition, 1921), xxv.

fits in with specific Bauhaus preoccupations. For example, Albers was careful to specify that his *Kombinationsschrift* was not "meant to add to the 18,000 typefaces that already exist."[45] It was customary in Germany at the time to introduce typographic reforms in print. Literature on the subject abounds. Books, essays, and articles can be counted in the hundreds; doubtless even the thousands.

At the Bauhaus, the ferment of ideas, the exchange—sometimes the dissent—of ideas, and the will to establish a new theoretical foundation generated a quantity of reflections on graphic design, typography, and photography. The lists of publications by Moholy-Nagy or Bayer runs to many pages, with publications appearing regularly in the foreign press. This phenomenon is not peculiar to the Bauhaus: Jan Tschichold and Paul Renner also left a considerable number of publications.[46] As for France, we can mention the creation of the journal *Arts et Métiers graphiques* (1927–39) by Charles Peignot, but particularly the rarity of writings on the graphic arts. Cassandre, who gave some instructive interviews, left notes and letters behind. More modest still, Charles Loupot left only scattered citations and probably never taught. In Germany, the push for publications cannot be separated from the professional exchanges and the vigor of collective work. In France, on the other hand, the absence of large networks, schools, or of comparably amalgamated movements explains the relative poverty of writings on the subject. *Die neue Typographie,* [*The New Typography,*] one of Tschichold's major interwar works, still awaits a French translation.

Divergence?

Many things seem to affirm, in one way or another, that France largely avoided the graphic design revolution, the new typography movement, and the Bauhaus experiments. Was this the result of a different sensibility, a resistance to certain aspects of modern art, or perhaps the gestation of nationalist feeling? Throughout the twentieth century, these ideas received a chilly reception in France. In another scenario, one can imagine that the discovery of these works would have fed a lively controversy. (The members of De Stijl did not hesitate to express their disapproval of the early Bauhaus—"expressionist jam" and "a hospital for artists"—on which they were to exert a big influence.)[47] What keeps coming back is the question of why the somewhat negative French reception—after all, the Bauhaus's adventurous typography invited criticism—grew from a general indifference to a foreign phenomenon, to prolonged misapprehension, and later an expression of outright hostility. The postwar French reception, in this respect, is quite inglorious. Some of the biggest names in typography (and partisans of gestural writing) have expressed their opinions on the subject in the past few decades, transforming the reserved silence of the previous generation into a sometimes cutting aversion. Maximilien Vox, ad nauseam:

45   Josef Albers, "Kombinationsschrift 3," *Bauhaus* 1 (1931): n. p.

46   Tschichold is known to have written nearly fifty books and more than one hundred articles; Renner left more than a hundred publications.

47   Vilmos Huszár, *De Stijl* 9 (1922): 136, cited in Magdalena Droste's *Bauhaus* (Cologne: B. Taschen, 1994), 54, and Théo van Doesburg, cited in Ruedi Baur's *La nouvelle typographie* (Paris: CNDP, 1993), 60.

The doctrine in which we believe cannot be other than Latin. [...] Fads pass, they become outmoded, whether Germanizing, Slavifying, Americanizing. All the signs are there: very shortly the purest French gift, grace—served by the most French gesture, design—will flourish again like a rose under the gray skies of the world. And that will be the renewal of the Latin letter.[48]

By 1950, the tone quickly gets shriller. Jérôme Peignot, Charles Peignot's son, will go so far as to write that: "As to what concerns the creation of printing house type, one may not omit the nefarious role of the Bauhaus."[49] In the same vein, Claude Mediavilla declared at the end of his book *Calligraphie* [*Calligraphy*], published by the Imprimerie Nationale, that "If, at first, the Bauhaus adventure seemed a sane and promising reaction, it nonetheless quickly showed itself to be pernicious because of its dogmatism [...]. In many respects, the Bauhaus may be considered an artificial artistic movement." On the subject of the new typography, he added, "Tschichold was able to resist this yoke and was able to dodge these frauds since the year 1933."[50] At the same time, Futura type could be presented as "type appropriate for the Reich's vocation of universal domination," with Paul Renner becoming "the regime's authority on typographical matters"[51]—assertions sharply disputed in the journal *Typografische Monatsblätter/Revue Suisse de l'imprimerie*.[52] One of the most virulent criticisms emanated from Ladislas Mandel, who, in 1998, wrote no less than that "The Bauhaus, preaching the integration of all the arts, [...] mixed typography and architecture. [...] The research of Herbert Bayer at the Bauhaus, of J. Albers, Jan Tschichold, and Paul Renner [...] resulted in the negation of 2000 years of the evolution of Latin writing. [...] Therefore, the arrival of 'sans serif text typefaces,' pared down and soulless, in the first half of this century, represented a certain threat to our cultural heritage."[53] It is hard to believe all this. But it could get even more virulent. This attitude found its ultimate expression with José Mendoza: "The Bauhaus, a fascist school," he exclaimed in 1995, on the occasion of a debate on typography at the Bibliothèque Nationale.[54] This was a rather strange misreading.[55]

Doubtless, French bitterness had to be made explicit to allow for conditions conducive to a sane, objective reception. "Nefarious," "pernicious," "dogmatic," "artificial," "fraud," "fascist," etc.—the language reported here comes from well-known professionals. Should we view this as fear inspired by the tardy arrival of the avant-garde typographical revolution? These unyielding judgments, which moreover were never supported by any evidence, arose as much from quarrels among different schools (most often legitimate quarrels, for that matter) as from fundamental misunderstandings. These considerations really limit typography to the design of letters, which is itself reduced to skillfully drawn writing, the heir of more than three-thousand years of alphabetical writing. Far from this relatively

48   Maximilien Vox, "Pour une graphie latine," *Caractère* 1 (1950): 245.

49   Jérôme Peignot, "L'esprit et la lettre" in *De plomb, d'encre & de lumière* (Paris: Imprimerie Nationale, 1982), 277–307, particularly 290. Jérôme Peignot taught the course at the Sorbonne-Paris I. The rest of the citation follows: "Have we not overvalued it [the Bauhaus] in terms of typography? [...] The typographers of that school; Albers, Herbert Bayer, Laszlo Moholy-Nagy, and Joost Schmidt; threw out corporeal or spontaneous gestures [...]. Now we are biased; they threw out upper case, now they want to suppress serifs." The defensive position is explicit here; the fact of having "dismembered" the letter was the cause of much anxiety.

50   Claude Mediavilla, *Calligraphie* (Paris, 1993), 299–300.

51   "Les folies typographiques du nazisme" in *Étapes graphiques* 60 (2000): 34–35.

52   See Roger Chatelain's "Paul Renner sous les feux de l'histoire," *Typografische Monatsblätter/Revue Suisse de l'imprimerie* 5 (2000): 9 and "Réactions relatives à Paul Renner et au Futura," *Typografische Monatsblätter/Revue Suisse de l'imprimerie* 1 (2001): 14–16. Burke wrote the following in 1998, 15: "Futura did not become the official typeface even if it was used by the Nazis. [...] As much as for his cultural Bolshevism, his [Renner's] arrest was the result of the publication of a little book that contained a bitter critique of the regime."

53   Ladislas Mandel, *Écritures: Miroir des hommes et des sociétés* (Reillanne, France: Atelier Perrousseaux, 1998), 167, 169, and 175.

traditionalist professionalism, the typography of the Bauhaus located its ideas within graphic design, photography, design, Kandinsky's theories (particularly *Punkt und Linie zu Fläche*) [*Point and Line to Plane*] and architecture.[56] Does not a certain rejection of the abstract fit in with French reserve?[57] To look into this more closely, are matters more complex than the opposition between a tradition that considers itself to be beneficial and a radical modernism. Did not Moholy-Nagy refer to the graphic quality of incunabula, in which he found some characteristics of avant-garde typography?[58] Roland Barthes went even further in this other perspective on modernity: "The Middle Ages deposited a treasure of experiences, dreams, judgments, in the work of its uncial letters."[59]

Of that pitiless reception, there remains the curse pronounced upon the incompletion of a dream suspended in flight—without a common measure with the credo and the know-how of those who condemn it—on the establishment of a new textual power, and on the exploration of a disconcerting typographical "space." To castigate these reactions does not keep us from recognizing the know-how or knowledge of those supporting these views. Because they do not occupy the same ground, the objectives of the new typography and the most refined practice of letter design cannot be compared. We must consider what this distracted reception misunderstood; the Bauhaus's typography was, first of all, the work of foreigners— Moholy-Nagy was Hungarian, Bayer was born in Austria, and both left for Berlin in 1920—and it was not carried out by those trained in typography, but rather by particularly wide-ranging artists.

A few observations on Bayer's work help us to better understand the idealist depth of that era's aspirations: "His universal alphabet's goal was not to become typographical letters, but repre-

54   Evening debate, "Y a-t-il un axe nord-sud de la typographie?" at the Bibliothèque Nationale, Paris, 1995. Cited in Chatelain's "Débats à la Bibliothèque Nationale à Paris" in *Gutenberg,* May 10, 1995, under the heading "Reflets techniques" (a complementary publication to *Revue Suisse de l'imprimerie*). See also Chatelain, "Ma typographie," *Typografische Monatsblätter/Revue Suisse de l'imprimerie* 2 (2000): 1–16, especially 2–3, and 14.

55   For anyone interested in the Bauhaus, even nonprofessionals, it was quickly apparent that the year 1933 would deal a fatal blow to the school—the members of the Bauhaus, "cultural Bolsheviks" in the eyes of the Nazis, were accused of propagating a "Jewish-Marxist conception of art." Moreover, a number of German graphic artists and typographers

were dismissed from their teaching positions outside the Bauhaus, such as Paul Renner or Jan Tschichold, who was imprisoned for several weeks. Another fact invalidating the "new typography" with the regime was the March 1936 poster for "Entartete Kunst," which mimicked this kind of graphic design.

56   Such artistic interactions had plenty of antecedents elsewhere. See the body of work of Peter Behrens for the firm AEG at the beginning of the twentieth century.

57   See Kandinsky's response to abstract art in *Cahiers d'art* 7:8 (1931): 350–353. See also Claude Mediavilla, *Calligraphie* (Paris, 1993), 299–300, which include some cutting lines on Kandinsky.

58   See László Moholy-Nagy, "Zeitgemässe Typographie—Ziele, Praxis," *Kritik,* (1925), cited in Hans Maria Wingler, *The Bauhaus* (Cambridge/London: MIT Press, 1962, 2nd ed. 1968), 80–81. Page 80: "The old incunabula, and even the first typographical works, as well, made ample use of the contrasting effects of color and form [...]. The widespread application of the printing process [...], etc., have changed the vital, contrast-rich layouts of the old printed works into the generally quite monotonous gray of later books."

59   Roland Barthes, "Erté ou A la lettre" in *Erté* (Parma: F. M. Ricci, 1972), 1231.

sented the first investigations toward developing a new alphabet." [60] The typography and graphic design of the Bauhaus, if they satisfied a number of internal realizations or exterior commissions and were very influential on their environment, first of all, they were a part of the desire for experimentation. [61] It was a matter of contributing to the renovation of "the language of vision" after a century of Victorian graphic design, after Jugendstil, and after wartime propaganda. [62] Graphic design and typography also expressed the ideals of life. The break with the past and the turn in favor of industrialization could only yield nontraditional forms which, by definition, were subject to polemics. Isn't it astonishing, then, that this should have given rise to a certain concept of "French" typography? But why did it take so long to bring to light rancor that had never been purged?

Symptomatically, the virulence of that reception suggests that the issues at stake go beyond simple questions of form or legibility; hinting at an artistic, cultural, social, political, and/or ideological background, which is much more difficult to get around since typographers in France often are guarded in expressing their opinions on these matters; unlike members of the Bauhaus, who interrogated themselves on their role in society. Why did a collective unconscious go so far as to project the danger of dictatorship onto the Bauhaus? Why this fury? Why make an issue of the Bauhaus's pedagogical experiences? Why didn't they bring such charges against De Stijl or constructivism? [63] This is not a matter of delighting in an openly worn affliction, but of questioning this late tendency to project all the worst qualities on the typography of the Bauhaus or on the new typography. Is not the fear of what the Dessau school provoked the best proof that something really important occurred? If this typography aroused such fear, is it not because of the foreign powers that

60 Arthur Cohen, *Herbert Bayer* (Cambridge/London: MIT Press, 1984), 215.

61 See Herbert Bayer, "Typographie und Werbsachengestaltung," *Bauhaus* 1 (1928): 10, where he reported that a printer in Frankfurt was asked to do half his work in "the style of the Bauhaus."

62 Ellen Lupton, J. Abbott Miller, *The ABC's of △□○: The Bauhaus and Design Theory* (London/New York: Thames and Hudson, 1993), 22. For a different and enriching analysis concerning modernist graphic design, the new use of typography and photography, advertising and the work of the Ring, see Jorge Frascara "A History of Design, a History of Concerns" in *Graphic Design History*, Steven Heller and Georgette Ballance, eds. (New York: Allworth Press, 2001), 13–18;

Paul Jobling, David Crowley, *Graphic Design: Reproduction and Representation since 1800* (Manchester and New York: Manchester University Press, 1996), 137–170; Robin Kinross, *Modern Typography: An Essay in Critical History* (London: Hyphen Press 1992), 85–99: Maud Lavin, *Clean New World: Culture, Politics, Graphic Design* (Cambridge, MA: The MIT Press, 2001), 26–49.

63 Charles Peignot, "L'enseignement professionnel," *Vu (L'énigme allemande)* 213 (1982): 306, who made the same fine eulogy on this topic to "the Constructivists of the 1920s, whose typographical works are the most accomplished ever seen."

64 Cited in Ruari McLean, *Jan Tschichold: Typographer* (London: Lund Humphries, 1975, new ed. 1990), 69.

65 See Jan Tschichold, *Glaube und Wirklichkeit,* 1946, cited in *Typographische Monatsblätter/Revue Suisse de l'imprimerie* 1 (1995): 9–16, especially 10: "The creators of the New Typography and the tendencies that it embodied were, like me, resolute enemies of Nazism [...] I was, along with my wife, held in 'preventive detention,' that is, prison, at the beginning of the so-called Third Reich."

66 Jean Widmer settled in France in 1953. If he knew Itten well, he also had met Max Bill, a Bauhaus pupil. See *Jean Widmer, graphiste, un écologiste de l'image,* Margo Rouard-Snowman, ed., catalogue of an exhibition at Centre Pompidou, Paris, 1995 and *Jean Widmer,* (Villeurbanne: Maison du Livre, de l'Image et du Son, 1991).

67 As for typography and graphic design, it seems that no wide-ranging educational project can be found in France in the first half of the twentieth century, in spite of the role of the poster makers.

68 Originally Atelier National de Création Typographique (ANCT).

69 Georges Bonnin's preface to the ANCT brochure of 1992. Georges Bonnin ran the Imprimerie Nationale from 1971 to 1983.

70 In fact, a number of Bauhaus students came from Hungary, Czechoslovakia, the Scandinavian countries, the United States, and Latin America. When the organization was established in Berlin, it included 168 pupils, of whom thirty-three were foreign.

71 Jérôme Peignot, *De l'écriture à la typographie* (Paris: Gallimard, 1967), 104–106.

72 Maximilien Vox, "Déclin d'une hérésie" in *Caractère* (1965), cited in Roger Chatelain, "Maximilien Vox," *Typographische Monatsblätter/Revue Suisse de l'imprimerie* 4 (1995): 2–3.

73 Charles Peignot, "L'enseignement professionnel," *Vu (L'énigme allemande)* 213 (1932):105.

are held to be unwanted on French soil associated with them? It is possible, but let us be prudent, for Jan Tschichold was able to express himself in the following terms in 1959: "To my great astonishment, I detected the most shocking parallels between the teachings of the new typography, national socialism, and fascism." [64] This makes things more confusing than they otherwise would seem. But this was the reaction of an injured man who, in 1933, had to go into exile after losing his teaching post, being arrested, and imprisoned by the Nazis.[65]

Is there yet another reason for the French reticence? Transmissions from the Bauhaus took place late and indirectly through graphic artists and typographers from the Swiss school, beginning with Jean Widmer, who arrived in France in 1953, after training at the Zurich school then directed by Johannes Itten.[66] Among them, Peter Keller and Rudi Meyer from the Basel school greatly contributed to the foundation and development of design knowledge directly based on the avant-garde spirit, notably through their teaching at the École Nationale Supérieure des Arts Décoratifs beginning in the 1960s. Through them, and perhaps for the first time, Central European modernism of the interwar period found a place in the curriculum in France.[67] As a parallel development on the professional level, an important collaboration took place between Adrian Frutiger and the Deberny & Peignot foundry. There was a new line in teaching—in 1985 a National Institute for Typographic Research was created,[68] with the mission of "[entering its name] into the certain evolution of techniques and tendencies that characterize contemporary typography, while maintaining, of course, the great French tradition in this area." [69] The establishment, rapidly reoriented toward the transmission of Swiss typographic culture (thus linked to the spirit of the Bauhaus) under the direction of Peter Keller, was open to the perspectives of historical avant-gardes and to an internationalist perspective; an international student presence there has since testified to the desire for the cultural interactions characteristic of the Bauhaus.[70]

It is a matter of public record that the arrival of the Swiss typographers was not a cause for rejoicing among the French. Jérôme Peignot wrote, "It is not far from the spirit of Zurich to that of the Bauhaus. [...] The theses worked out by the Bauhaus can be reduced to a single idea [...]. One knows the result: it is a clumsy letter seemingly set between two chairs of history. [...] No doubt, the Bauhaus designers have thought about it for a long time. Too long." (This was published by Gallimard in 1967 in the series "Idées.") [71] For Maximilien Vox, "Swiss typography [...] was, in fact, a totalitarianism of the spirit [...]. The new version of the new typography has failed to meet the goals that the first failed to achieve." [72] Jérôme Peignot, again concerning the typography of the Bauhaus and of the Swiss, wrote: "You do not imitate a typography; it is yours or it is not." [73]

Let us content ourselves with noting one or two vivid historical ironies here. The first printing shop in France, which produced its first printed book in 1470, was run by "three Rhenish typographers (Ulrich Gering, Martin Crantz, and Michael Friburger—apparently of German and Swiss origin), summoned by the University of Paris."[74] Five centuries later, in 1972, the French foundries Deberny & Peignot closed their doors, bought out by the Swiss foundry Haas.[75]

Though more difficult to find, a positive late reception of the Bauhaus did occur. In 1960, an article in *La France graphique* [*Graphic Arts France*] praised it, evoking "the typographic work of the most famous and influential school of modern times: the Bauhaus."[76] For his part, Rémy Peignot, Jérôme's brother, made the case for "that beauty, that purity which characterizes the graphic arts in Switzerland."[77] The Peignot dynasty decidedly did not speak with a single voice. Let us conclude with Charles, the father. In 1957, he founded at Lausanne the AtypI (Association Typographique Internationale) [International Typographic Association]. Some lines from his pen in 1969 eloquently establish a link between the action of the Bauhaus and French reserve, finally illuminating the interior of that dark situation for us:

> After many contacts and numerous conversations [with Cassandre], each one of us influenced by the theories of Kandinsky and the spirit of the Dessau school, convinced that typographic creation could also be refined or purified, we agreed to undertake Bifur [...]. It caused a somewhat scandalous break in an art and in a milieu that were particularly traditionalist, [which] broke some taboos and had the merit of liberating us.[78]

That was put very clearly, which reminds us that the typography of the Bauhaus and the new typography—whether one advocates them or not—are not the monsters that some have wanted to make of them. The monster was elsewhere. And it killed the Bauhaus. Had that not happened, the school undoubtedly would have had a different posterity and a more informed reception in France. The typography and graphic arts of the Bauhaus embodied the ideals and the utopias of its members through their significant form and beyond their role in the industrial era: to create better conditions, to make relations more fluid, to invent new spaces for life, and to dream of human language which is completely other.

Acknowledgment

74 Guy Bechtel, *Gutenberg* (Paris: Fayard, 1992), 18.

75 The Haas Foundry also bought the Olive Foundry in Marseille.

76 Walter Plata, "Typographie moderne allemande," *La France graphique* 166 (1960): 8–14, especially 8.

77 Rémy Peignot (1946), cited in Roger Chatelain, "Le chantre de la 'graphie latine,'" *Typografische Monatsblätter/Revue Suisse de l'imprimerie* 4 (1995): 4–5.

78 Charles Peignot, "Cassandre et la typographie," *Médecine de France* 198 (1969): 38.

One Axle or Two?
An ICSID Interdesign in South Africa
David Stairs

I was back in Africa for the first time since 2002, and for the first time ever in South Africa. The occasion was the 2005 Interdesign for Sustainable Rural Transportation, sponsored by the South African Design Institute, an arm of the South African Bureau of Standards (SABS), a parastatal corporation. It was the second effort in six years for the South Africans, who participated in a multinational Interdesign devoted to water in 1999.

The Interdesign program first got underway in 1971. Since that watershed year, ICSID (International Council of Societies of Industrial Design) has endorsed thirty-seven Interdesigns on subjects ranging from the production of bread (Minsk '71) to unemployment (Northern Ireland '76), and from product design for the handicapped (Maastricht '82) to transportation for the future (Bergslagen '94). Because Interdesigns have occurred primarily in Europe, with a handful scattered across other continents (Asia: 2, S. America: 5, Africa: 1), this was a good opportunity to observe the concept's effectiveness in the developing world.

Actually, I was beginning to wonder whether I'd ever make it to South Africa. There was a time when I swore I didn't want to see Africa's premier economy and most highly industrialized state. Things have changed, but the scars from a long civil conflict are still evident. South Africa's forty-four million people, lopsidedly divided between a minority of whites, Indians, and mixed-race people, and the large majority of blacks (seventy-five percent), has a two-tier economy. As in other parts of Africa, there is the formal sector, the one that registers on government economic records, and then there is the informal one that drives government tax collectors crazy wondering how to tap into it. In South Africa, the distinction is especially pronounced.

Take the highways, for example. South Africa has a primary road system that is the envy of the continent. High-speed and well-maintained, it connects major urban areas and sustains a form of early-morning, rush-hour gridlock that could only be described as quasi-American. Then there also are unusual diversions such as *The Lost City,* Africa's first and most famous theme park, and a booming mall-development culture that seems strangely out of place on a continent specializing in open-air bazaars. On the other hand, the men and boys approaching BMWs at busy intersections with everything from oranges to rolls of plastic garbage bags were not Bowery

bums, and the self-appointed parking lot attendants at the malls did not expect more than a few cents for protecting your car from theft, but they did require something.

Nelson Mandela's ascension to the Presidency and the return of majority rule to the black population narrowly averted national catastrophe in 1994. The decade that ensued was "the South African miracle," a textbook example of how people can cooperate to reverse decades of harm. But there still is much to be done, and this Interdesign was meant to address a particularly challenging problem.

Many rural areas in South Africa are inadequately connected to the primary transportation system. Since half of the nation's population lives in rural areas, the government is committed to addressing this issue. In 2004, the government of one of South Africa's nine provinces asked the Standards Development section of SABS for assistance in the design and development of specifications for a standardized donkey cart for use in deep rural areas. The upshot was to be the focus of the current gathering, with a value-added nod to other forms of transport. Seventy of those who responded to the call for applicants, fully half of them African designers and design students, were sent to the Orion Safari Lodge in Rustenburg, a bustling platinum mining center of the Northwest Province, for two weeks in April 2005 to wrestle with the knotty problems of non-motorized rural transport.

South Africa by bus

Day 1: Top-Down Meets Ground-Up

It was Monday morning, 8 a.m., and I was seated in conference room Jabulani III awaiting the speakers. It had been raining nonstop for two days, and I was beginning to think I'd brought inclement weather with me from gloomy Michigan. Gradually, designers filed in and things got underway.

After brief introductions by Design Institute director Adrienne Viljoen and Workshop Design Director Bart Verveckken of the Cape Peninsula University of Technology (CPUT), we were off and running. The majority of the presentations were expert briefings about the events leading up to this gathering by academics, government officials, and design professionals. By 10 a.m., we already were behind schedule, and the proceedings were hastily concluded so we could leave on a field trip to the villages of Mathopestat and Syferbult.

The journey to Mathopestat in large buses took an hour-and-a-half over paved roads. The rain clouds finally lifted, and now scudded brokenly across a rolling agricultural landscape of 360-degree vistas. This is "The Cradle of Mankind," literally the place where humanity arose, and I was drugged by these views, so typical of vast portions of Africa.

The buses soon pulled to the side of the dirt road opposite the tribal headquarters, and seventy supposedly discrete urbanites piled out; many with digital cameras at the ready. Our charge was to take photos, interview local people, and generally gather data, although the bizarre invasiveness of the scene was too Felliniesque for words.


Village children

Arrival in Mathopestat

This was the first Interdesign jointly endorsed by the new ICSID/ICOGRADA consortium known as the IDA (the International Design Association). As a graphic design educator, I had been placed in the Communication Group, differentiated from the Bicycle Group, Donkey Cart Group, and Two Alternative Modes Groups. My cohorts had decided that our initial mission would be to interview students at the local secondary school.

As we entered the classrooms, there was much giggling at the "outsiders," many of whom were foreigners. But although we had come with native colleagues fluent in the local Setswana language, most of these young people spoke capable English. As we described our design brief, asking questions about the learner's prejudices and preferences regarding transportation, it quickly became evident that none of them really understood what design is all about. We distributed Design Institute publications, and discussed the nature of our profession and the educational opportunities available at South Africa's institutions of tertiary education.

Eventually, we coaxed the students to take the drawing materials we provided and render their own ideas on alternative transport. Few of these kids, if any, had had formal training in art, and it showed. But many of them made an effort, and the results, while not stunning, were whimsical. It always is a joy to work with young African learners, so curious and polite, and ready to burst into synchronous song with the slightest cajoling from their teacher. But we had to move on all too soon.
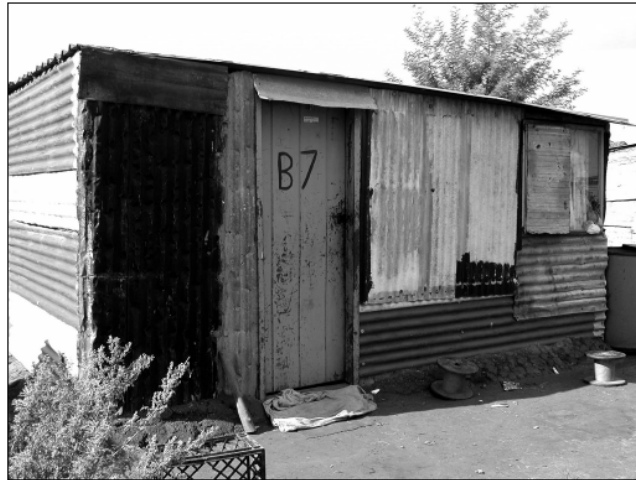
Homestead at Syferbult

At Syferbult, we encountered a very different environment. There the people squatted on the land, and lived in very reduced circumstances. The residents signed a contract with the previous owner ten years ago, but now it had become a sad community, devalued by the residents' fears of eviction threatened by the present owner. The town drunk serenaded us with rock-and-roll tunes on his battered guitar for pennies. School-age children were at home, and there were only one or two vehicles present. Most abodes were made of scrap materials, and working-age men were absent, either at nearby farms or away in the mines. Some of the young urban South Africans with us had never seen such conditions firsthand, and struggled to hide their shock.

Back at the Orion Safari Lodge, we spent the evening debriefing and discussing the day's events with our group leader. The young learners' drawings adorned the walls of our "studio," and the members of other groups drifted in sporadically to look at them. It had been a tiring first day, with twelve more to go.

Day 2: Revolt of the Omnibus Drivers

The next day, we were up bright and early for a much longer voyage to Pitsedisuleyang, a village 120 kilometers east of Rustenburg, and off the main transportation grid. The village's name means "how the horses died," a reference to the fact that the residents were forcibly removed from the Madikwe Game Reserve by the apartheid government in the 1950s, and their livestock perished.

The landscape there was flat, dotted with a few affluent settlements owned by tribal groups with an interest in the platinum mines. After about an hour, we reached the end of the paved road, and began bumping along washboard-style. There was reputed to be about seventy kilometers of this, but the big Volvo buses seemed pretty well suspended. Even as I was still thinking about this, we slowed and came to a halt. After a brief consultation, the drivers decided that they could not proceed without permission from corporate HQ. The buses were not made for dirt roads, and the drivers were afraid the vibrations will damage them. We still were more than an hour from Pitsedisuleyang. The Design Director decided that, in order to keep prior appointments, various group leaders and the Communication Group would continue on in a third minibus, and we were spared the two-hour wait before a disappointing return to Rustenburg suffered by most of our colleagues that day.

In "Pitse" we were greeted by a young, university-educated Chief and his tribal council before dispersing on our various missions. I got an opportunity to drive a donkey cart out to Olefile Senior Secondary School, where we repeated the events of our visit to Mathopestat. There, however, we were informed that learners might travel up to six kilometers each morning on foot to reach the

school. This added another two-and-a-half hours to their average day, an impediment to both extracurricular activities and family responsibilities.

While the students were busy drawing, I had a chance to speak with the headmaster, Sam Sepato. Mr. Sepato had been at Olefile for ten years. Other than an African National Congress poster, there were no visual aids in his classrooms. The teachers lectured at chalkboards and their pupils took notes, but there were no textbooks. Mr. Sepato confirmed what the students had described: many of them traveled long distances to school. There were few taxis, and buses were infrequent. Some families of girl learners, although rich in cattle, could barely justify paying school fees for their daughters. Girls, after all, are a bad investment. They are valuable for house chores and a bridal price, but that's about all.

Ironically, one of our group members, Nomfundo Zibi, a fourth-year graphic design student at the University of Pretoria, was a young Setswana woman from nearby Pitsedisuleyang. The students seemed especially interested in hearing her success story and, as she related it, for a brief moment, she was more popular than a rock star: she was a bona fide role model.

Because of the day's delays, and the fact that our lunches were left back with the main cavalcade, we worked right through the afternoon, returning to Rustenburg at nightfall. Following dinner, those who made it to "Pitse" spent about an hour briefing everyone else on what we found. As Bart Verveckken noted, the day was an excellent example of the limits of one form of transport in rural settings. I am usually a hard worker, but it was obvious that this wasn't going to be a typical safari lodge holiday. In fact, I was beginning to wonder whether I could sustain the pace.
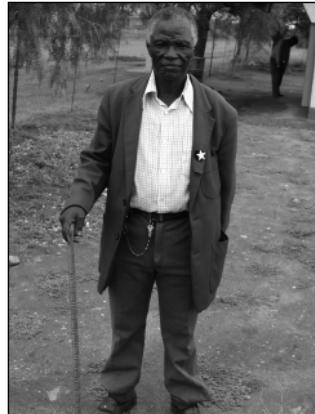
Tribal elder, Pitsedisuleyang
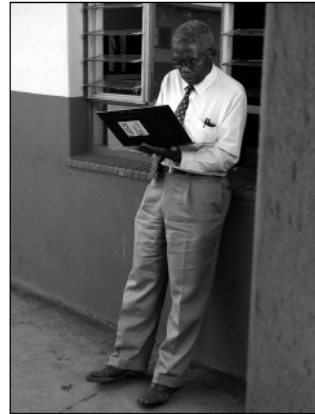
Headmaster Sam Sepato, Olefile SSS

Day 3: Little Known but Often Thought about Aspects of the Donkey Cart[1]

Wednesday morning arrived and I was jealously guarding my breakfast from the ever-present Orion Safari Lodge dining room staff, which hovered over us waiting to pounce on any inactive plate. That day, we were scheduled to take a break from field visits to attend another series of expert presentations. These were to be made by representatives of both the federal and provincial governments, a woman from the SPCA, manufacturers of bicycles and donkey carts, and assorted transportation gurus.

Hour after hour, we were bombarded by a continuous stream of statistics and images regarding South African transportation, much of it repeating government documents I had already perused. It was obvious that the government had a problem trying to coordinate motorized and non-motorized transportation. The two cannot be intermixed on the highways; there already is a high national accident rate. There also are no standards for donkey cart design. Some carts are being manufactured in South Africa, but they currently are too expensive for most people in remote rural areas. As a result, rural people, who have no shortage of animals, improvise their own carts. This type of indigenous knowledge is important, but it must be supplemented. Carts need to be lighter, and easier on animals. Standards need to be developed addressing load limits, braking capacity, all-hours visibility, and so much more. People want carts that are not only affordable, but sharp-looking. No one wants to travel in a clumsy, unfashionable cart that is open to the elements on a rainy day.
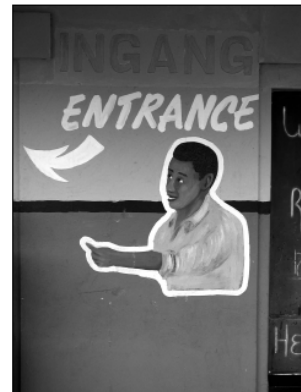
[1] My high school history teacher, Dan Connelly, used to say "Little known but often thought about" whenever he wanted to point out a disparity. It's a clever oxymoron that nicely fits the subjunctive, or contingent mood of the discussion.

Learners at Olefile Senior Secondary School

Locally made donkey cart, Pitsedisuleyang

Entrance to the Baefenge General Store

Just as the donkey cart situation was beginning to look a little desperate, we got a look at the bicycle scene. In rural areas, most schoolchildren walk rather than ride bicycles. Currently available models are heavy, one-speed varieties not easy to pedal even over level ground. According to government statistics, seventy-six percent of South Africa's learners, or about twelve million young people, walk to school each day. The government proposed putting a million subsidized bicycles into the hands of South Africans. To date only four thousand have been distributed. There currently is no bicycle manufacturer in the country. And that is a lot of bikes to import from Zimbabwe, let alone Britain or India.

That afternoon and evening, the Communication Group met to brainstorm. Some of the members were restive. "What exactly are we doing? Shouldn't we be developing branding schemes?" we wondered. But with no products to market, this certainly was premature. We talked animatedly about the ideas we might develop, and I facetiously asked each of my colleagues to come up with five-hundred ideas by the next day. They asked me what planet I was from.

Beneath the humor and bravado, I was troubled by something larger. So far, there had been little interaction between any of the five groups. This seemed like a fatal flaw in the process. We were uncertain whether our group's brief was to do basic communication research, or to assist the other groups with their design efforts. It was decided that we would approach three of the groups the following day, and offer to collaborate. For me, this decision turned out to be one of the galvanizing moments of the entire event.

Days 4–6: Process Is Our Most Important Product[2]

By Thursday, the designers who spent the better part of a day waiting for two recalcitrant bus drivers to decide they couldn't go any further were itching to go to Pitsedisuleyang. A minibus left early in the morning with two of the groups. A couple of our Communication Group colleagues, Nkosi Bongamahlibu and Mo Ramogapi, spoke Setswana and were recruited as translators for the trip, but the rest of us stuck around to attend a morning meeting with the Bicycle Group. This group, the only one composed entirely of men, had been busy developing dozens of sketches for clever new bikes. The trouble was, they had not done any serious field research yet, and could only argue about which sketches seemed best to them.

It immediately became apparent that Roelf Mulder, group leader and co-designer of the "Freeplay" windup radio, was extremely interested in what our Communications Group colleague, Retha Claasen-Veldsman, had to say. Everyone wanted to make sure that women's needs were being addressed, since women in Africa, especially in poorer areas, bear much of the burden of menial tasks

2 The 1960s GE advertised slogan "Progress Is Our Most Important Product" is only slightly altered here.

such as carrying water and foraging for firewood. The Bicycle Group had been focused on materials. Two nice ideas: one for a bike made of sheet metal and another for a scooter had been proposed. The question was, would they be accepted?

One of the problems we had been told to be sensitive to was traditionalism. Some forms of transport are considered appropriate for men, others for women. Social values instilled in childhood carry over into adulthood. New ideas often are rejected out of hand as being too radical. People like to see a thing in use before they accept it as a new possibility and, in the case of scooters, in Africa there isn't really any available precedent. We left the "bicycle guys" convinced that they needed to develop a thorough questionnaire to take to the field with them.

In another room, this one belonging to the Alternative Methods Group led by distinguished Indian design professor and bamboo expert M. P. Ranjan, the air was thick with speculation. Professor Ranjan had asked the members of his group to describe their expectations. Award-winning South African designer Tasos Calantzis politely declined. "I'm not ready to make that commitment yet," he said. Canadian designer Sue Fairburn stood at an easel fielding free associations from her peers as the group slogged through a typical instance of from the "ground-up" design process. In a design situation in which many of the participants are affluent outsiders, there was a good deal of self-consciousness over the top-down, imposed design failures of the past. As Sue coaxed a clarification from the group, she asked: "But what else can we say is important?" Someone sheepishly raised a hand. "Nobody's saying anything about play," he offered. "I like that," she said, and quickly added it to the list.

Platform scooter proposal
(Courtesy Interdesign 2005 Bicycle Group/
Domenic Giuntoli)
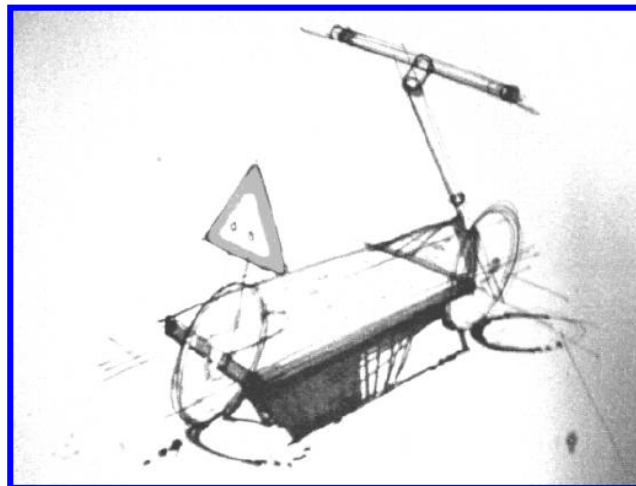
As it happened, every other group was going through the same kind of soul-searching, not so much reinventing the wheel—there actually was a strong bias against that—but learning the group's strengths and weaknesses through wide-ranging discussions. It was a given that this is the nature of the iterative design process, not to have answers going in, but to discover them through inquiry.

Ria van Zyl, the Communication Group leader, was determined that our group was not meant to be merely a midwife for the other groups' ideas. She teaches design management courses at the University of Pretoria, and felt that we needed to make a presentation that took communication theory into account. Although some of us were not certain what this had to do with donkey carts and bicycles, let alone transportation, she was the group leader, so we spent the better part of a day preparing charts, graphs, and a talking-point presentation she felt would not embarrass her in front of our 3-D colleagues.

On Saturday of the first week, there was an interminable, four-hour formal presentation of research inquiries at this midway point. The Donkey Cart Group showed sketches, and discussed its interaction with various experts, including a local cart-building cooperative. The Alternative Groups were still in limbo. One, led by German professor George Teodorescu, seemed to be making more of a presentation about the professor's theories of design education than anything else. The Bicycle Group still hadn't been to "Pitse." All in all, Ria made a good presentation. Although it seemed as though we hadn't accomplished much that week, learning to work together possibly was the greatest hurdle of all. We now took a day's rest, and resumed our efforts the following Monday.

A needs/benefits analysis informational poster (Courtesy Interdesign 2005 Communications Group/David Stairs).

Day 8: "Are We in the Right Direction?"[3]

On the second Monday of the Interdesign, some of us were heading back to Pitsedisuleyang with the Bicycle Group. Armed with a questionnaire that included sketches of prototypes, the guys intended to speak to women, men, and learners to find out what interested them in bicycles. I was on a special mission. I had acquired two wall posters, one of the Earth and another of the solar system, and intend to give them to Headmaster Sepato as instructional aids.

When we arrived after the long drive, we divided into three groups and set about our business. Out at Olefile, Mr. Sepato was not expecting us. It seemed that the village representative knew we were coming, but neglected to notify everyone. This crisis was diminished by the fact that we did not need to disrupt all of the classes; the bike guys had decided they only needed six males and six females for their survey.

These handpicked subjects were separated by gender, and then subjected to a lengthy process of explanation. Some of the questions were not clear, while others were repeated throughout the questionnaire. If I had had doubts about the selection process, or the sample size, I now was amazed at the fact that a translator needed to be in attendance coaxing the subjects each step of the way. Some of those questioned were wondering when their new bikes would be delivered, even though no one had made any such promise.

This event revealed one of the weaknesses of the Interdesign. Although numerous experts in transportation and cart building had been collaborating with us; with Marian Sauthoff, a design educator from the University of Pretoria, even speaking to us about the difficulties of working with semi-literate populations, apparently no one thought to include a social scientist, or at least someone well versed in drafting legitimate surveys. This was a little surprising. Designers do not normally have much experience in such matters, but they do employ subcontractors with research expertise to handle the work objectively.

3   "Are We in the Right Direction?" is African vernacular (the word "going" is elided because it is understood).

Data gathering, Olefile SSS. Boys in one room ...

...and girls in another.

It underscored the complexity of planning an event of this magnitude. Each Interdesign, although endorsed by ICSID, must be planned by groups in the sponsoring country. Tanya Smit, Esmé Krueger, and Mme. Viljoen of the Design Institute had done a marvelous job of juggling the logistics for seventy-plus people. But evidence suggests that, despite the inclusion of communication designers, the Interdesigns need to be broadened to include additional specialized professionals. The matter of local participants also requires careful thought. While some of the stakeholders became too comfortable in their roles, expecting special privileges, others, including the schools, received little compensation for the disruption of their scheduled routines.

Back in the center of "Pitse," we rejoined the other groups. One group with research fellow Hettie du Plessis had encountered some women healthcare providers who were very interested in the project, and made valuable suggestions for practical design improvements to what was being referred to as "the women's bike." That evening, one of our communication colleagues, Botho Maropefela, spent her time translating the questionnaires so that the bike guys could at last have hard data. It was not in vain. Because of these efforts, our group was beginning to be known as the Translator Group.

### Days 11–14: I Donkey NW[4]

The remaining days of the Interdesign, what the organizers politely called "working toward final presentations," were spent feverishly developing drawings, interpreting questionnaires, returning to Mathopestat one final time to user-test some of our ideas, and refining multimedia shows to present to assembled dignitaries and one another. In the crucible of intense design activity, many friendships were born.

The Donkey Cart Group developed both single- and double-axle cart ideas, as well as a new harnessing scheme, working in close collaboration with the SPCA. The Alternative Modes Groups proposed water-carriers, wheeled stretchers, and various forms of replacements for wheels, including an overhead cable network. The Bicycle Guys learned from their eleventh-hour research that no one likes scooters, and instead focused their efforts on a sensible bike for women, and a goods transporter. In the Communication Group, we opted out of talking points and, employing a marvelous illustration by Christiaan Venter, presented a tour of a "virtual village," complete with many onsite suggestions for promotional calendars, informational posters, educational games, and, yes, a donkey cart brand. While only a few listeners caught our homage to Milton Glaser in our "I Donkey NW" logo, the sentiments found true embodiment in a series of vernacular 'Tswana T-shirts.

4 Milton Glaser is justly famous for creating the letter/graphic "I (Heart) NY" for the City of New York. The idea, since having entered the public domain with nearly everyone attempting to use it, was here emended slightly.
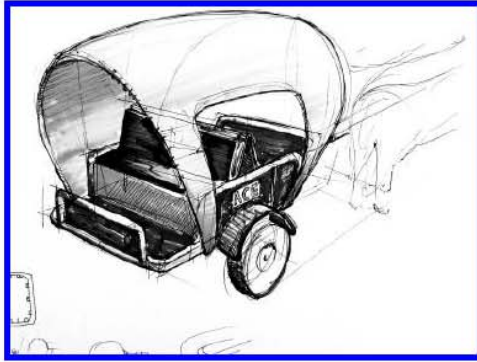
Single-axle donkey cart with canopy proposal
(Courtesy Interdesign 2005 Donkey Cart Group/Marius Botha)
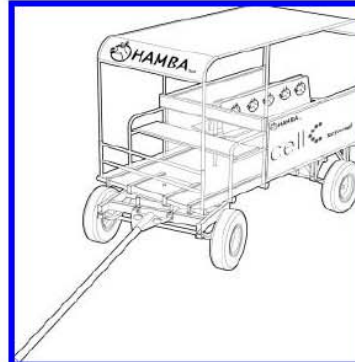
A "Hamba Gx4" double-axle branded donkey cart
(Courtesy Interdesign 2005 Donkey Cart Group and Ukpong E. Ukpong,
Moemedi Ramogapi, and Nkosikhona Bongamehlubi)
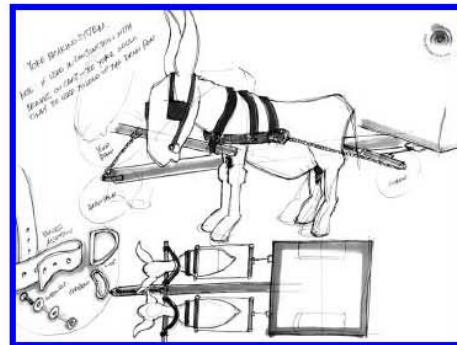
Donkey cart harnessing scheme
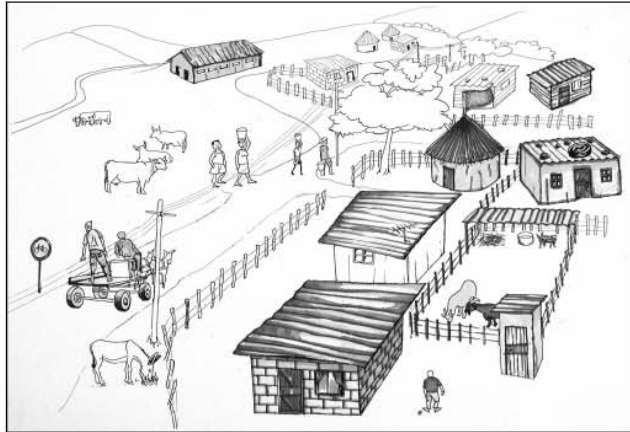(Courtesy Interdesign 2005 Donkey Cart Group/Chris Bradnum)

Alternative Mode Groups' water carrier
(Courtesy Interdesign 2005 Alternative
Methods Group/Tasos Calantzis)
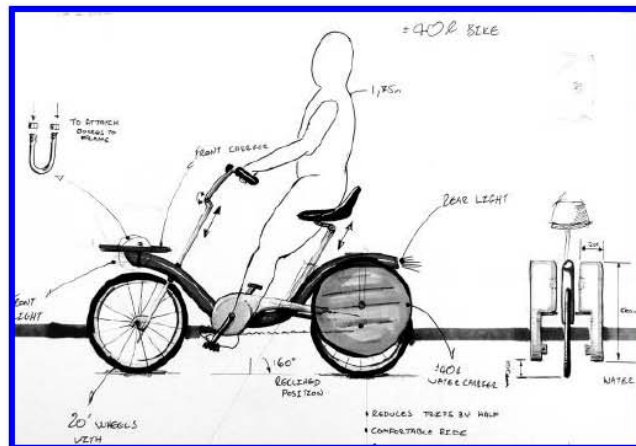
Women's bike with water panniers
(Courtesy Interdesign 2005 Bicycle Group/Simon Kragwijk,
Domenic Giuntoli, Qassim Saad, and Rael Futerman)

The Virtual Village
(Courtesy Interdesign 2005 Communications
Group/Christiaan Venter)

Kid's sheet-metal bike
(Courtesy Interdesign 2005 Bicycle Group/
William (Morafo, Giovanni Toldo, and Martin
Boshoff)

Whenever I miss the
BUS, I NEVER go late to School
with my DONKEY CART ...
I'm COOL!*

Donkey NW (Courtesy Interdesign 2005
Communications Group/David Stairs)

MONTSANAISABOSIGO

"He Guides Me Through the Night" 'Tswana
T-shirt in the vernacular (Courtesy Interdesign
2005 Communications Group/David Stairs)

Schoolroom poster
(Courtesy Interdesign 2005 Communications
Group/Ukpong E. Ukpong)

The most amazing discovery I made during two weeks in Rustenburg was that there are many talented people who spend their vacation time seeking to help others. This included designers from industry such as Simon Kragtwijk of Philips in the Netherlands, and Domenic Giuntoli from Teague in Seattle. Independent researcher Michael Wolf, a German designer from Capetown, studied the communities of Tonle Sap Lake in Cambodia with his wife, and created a marvelous and informative document. Qassim Saad, an Iraqi refugee, traveled all the way from New Zealand, where he currently teaches industrial design. Niki Dunn of Vancouver developed a nonprofit project in Malawi building bicycle trailers for AIDS victims. Ukpong E. Ukpong of Nigeria was present at the World Social Forum in Mumbai, India in January 2004, and Pierre-Yves Panis, who works for Legrand in France, spent eight years heading a nonprofit in Zimbabwe. These, and many others including students such as Nick Monday, Jason Zawitkowski, and Junko Hosokawa from Virginia Tech, who designed a portable cart as a term project, convinced me once again that design can be employed, like food and medicine, to heal the world's wounded.

Among heartfelt dozens, the best farewell I received came from Mugendi M'Rithaa, a design educator from Kenya. As he enthusiastically pumped my hand while I boarded the bus for Johannesburg International, he said: "Thanks, David, for being part of the solution." The implication was that we Americans too often are a part of the problem.

Aftermath: At the End of the Day, Ramp It Down and Roll It Out
As several participants have told me since my return home, for a brief moment in April 2005, our differences were set aside, and a microcosm of the human family worked diligently using design to try to solve human problems. We did not save the world, of course, and, perhaps, only improved it in the sense that we worked hard not to add to its further distress. But sometimes that is enough.

Is the Interdesign concept effective? This is a hard question. Some of the South African veterans of the 1999 Interdesign on water, jointly held in Mexico, Australia, and South Africa, expressed disappointment at the apparent lack of tangible outcomes from that event, and were determined to avoid the same results this time. The South African Department of Transportation is committed to developing at least two prototype donkey carts. On September 21, 2005, a "Day of Discussion" was held in Pretoria by the Design Institute. It was revealed that three bicycle prototypes have been developed and field-tested by CPUT students at Mathopestat, while students at the University of Johannesburg are working on a low-capacity donkey cart and a z-frame child's bicycle. It is clear that the people at the Design Institute are working overtime, following up on the proceedings in various ways, trying to keep the spirit of the event alive and productive. But many other ideas developed during the two weeks

could be left by the wayside. Can change be generated from outside in as brief a time as two weeks? There is only so much a designer can absorb in a fortnight. It is hard enough dealing with problems such as poverty or epidemic AIDS, if one is part of a society. While the influx of capital generated by people visiting South Africa helps to sustain economic growth, the implications of top-down solutions in even a best-case scenario are problematic.

The repercussions of this Interdesign undoubtedly will continue. Personal relations and professional networking definitely were expanded. And in the optimistic atmosphere of a nascent South African design culture, much more may be possible. Personally, I hope to see, on some future day in Africa, a beautiful South African women's bike, or a sharp-sharp Hamba Gx4 donkey cart, or even a spiffy series of Setswana T-shirts in vibrant colors. If the spirit of Interdesign 2005 is any indication, my wish may come true. Success, as it is commonly understood in northwest South Africa, is the nature of heading "in the right direction." One has only to take the time to get one's bearings, and then move ahead.