Form and Function

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GRAFT

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This is the catalogue essay for an exhibition of Los Angeles based architects, designers and artists part of Chapman University's Fine Arts Department's series of events called "Revolutions: Art and Culture between the Wars". The work in the show presents a range of approaches to the material expression of use, commenting on form/function reciprocity as defined by the Bauhaus.

No simple definition of the Bauhaus' legacy is possible since heterogeneity was one of the institution's key characteristics, concentrating competing aesthetic and ideological positions throughout a decade of experimentation in a wide range of media. From sources in evidence in pre-World War I Europe, extending back to the beginning of the Modern era in the late Eighteenth Century the Bauhaus produced a shifting current of ideas. Since the Second World War, some of these ideas, such as the imperative that all art should serve social aims, have been put under close scrutiny and transformed or effectively discarded. Others, like the necessity of overlap between theory and design practice, have been so completely incorporated into current ways of thinking that they go unnoticed.

The overarching concept informing Bauhaus art and design (and the Modern movement in general) still highly relevant today is the Romantic notion of the infinite and universal: the world is seen as made up of abstract elements - actions and processes of use - taking place at various sizes and temporal intervals. Out of this broad idea emerge two more specific principles: Design methods are applicable to every scale - from letterform to city planning - and function has meaning in the same way that matter once had essential, spiritual qualities in early 20th century art movements.

Form and Function examines the legacy of these principles through work at a range of scales - literally spanning from letterform to city-planning. The smallest is Anne Burdick's book design for the Austrian Academy of Sciences' *Fackel Dictionary: Idioms*, based on the writings of Viennese social critic Karl Kraus. The 1,056 page volume is the first of three derived from Kraus' long-running (1899 – 1936) magazine of social commentary, called *Die Fackel*. The next largest is the GRAFT design-collective's remote-controlled inflatable *GRAFTballoons*. Close in size to the human body, thus akin in scale to a piece of furniture, the function of the project is play. Bryant Yeh and Leigh Jerrard's *Folding Structure* is explicitly about indeterminacy of scale. Its formal logic can be carried out at any size and create a multitude of shapes. Durfee Regn Sandhaus' exhibition designs, such as *The World from Here* combine graphic and digital information with architecture and use the metaphor of natural landscape to create panoramic, open, visual relationships. These in turn are overlayed with paths of movement operating at the scale of garden design. The large end of the spectrum is occupied by *The Most Expensive Space in North America* by AUDC with Steve Rowell. This work interprets the phenomenon of downtown office buildings retrofitted to serve as telecommunications hubs, or Telco Hotels. The implications of these kinds of buildings are profound on an architectural and urban level, not just here in Los Angeles but in any city across the globe.

To Divide Correctly

In Paris, pre-war avant-garde artists such as Braque and Duchamp redefined ready-made objects by stripping them of their functional value, while in Vienna, the architect Adolf Loos, along with his affiliates Ludwig Wittgenstein and Karl Kraus (the social critic on whose magazine the *Fackel Dictionary: Idioms* is based), theorized the relationship of form to function in their built work and writings. A colleague praised their efforts by crediting them with the insight to "divide correctly"[1]. For example, Loos divided art, which he defined as inherently useless, from the article of use by distinguishing the tomb or monument from the rest of architecture. Kraus elaborated on the distinction in these terms: "All that Adolf Loos and I have ever meant to say is that there is a difference between an urn and a chamberpot. But the people of today can be divided into those who use the chamberpot as an urn and an urn as a chamberpot"[2]. Kraus not only separates use from form: he reunites them through the notion of *appropriateness*, meaning judgement applied in a social context. Use and form must coexist and, like language, must be perceived within the social realities of their place and time. Their close associate Wittgenstein examined the nature of use as freed from form and found that, just as words have multiple meanings dependent on context, possibilities for use were always shifting. As an example, he asks us to consider all the different things for which you

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[1] Colin St. John Wilson "The Play of Use and the Use of Play: an Interpretation of Wittgenstein's Comments on Architecture", *Architectural Review* 180.1073 (July 1986). p.16

[2] Ibid., 16

can use a knife. Again emphasizing the importance of context, Kraus' magazine *Die Fackel* presented how slang and colloquial expressions seen in action expose hidden truths. Kraus, Loos and Wittgenstein each revealed how the term "use" was divided from "form", and how, when reunited, use occupied the privileged position through its close connection with context - since it was use-in-context that was key to (ultimately important) social significance.

Fackel Dictionary: Idioms

In *Die Fackel*, Kraus presented his ideas about colloquial speech-in-context by giving it typographic form. Anne Burdick's book design for *Fackel Dictionary: Idioms* takes as its starting point the typography of *Die Fackel* and moves outwards from letterform to the operational and diagrammatic structure of page-layout.[3] The language of typographic associations puts the design process into play. Interestingly, Burdick doesn't speak German, the language of the book. Although she had help from translators to understand Kraus' text, this fact suggests a privileging of letterform and typography over other kinds of meaning.

Fackel Dictionary: Idioms functions as a dictionary of interpretations: Kraus presents early 20th century colloquial expressions, puts them in context and they in turn are explained in a late 20th century light. In other words, as Burdick puts it, the project is about "late twentieth century commentary on early twentieth century texts."[4]. The complexity of the book is mitigated by the clear formal expression of its operational structure. Three columns reproduce, contextualize and interpret phrases from *Die Fackel*. The center column contains quotations in the form of actual images of the pages of Kraus' magazine along with quotations that appear in the typographic system of the dictionary in a simple, everyday roman font referencing the typography of *Die Fackel*. On the left-hand side, a "documentation" column in Akzidenz Grotesk - a sans serif typeface published around the turn of the century with an objective, scientific look, places the quotations in context of *Die Fackel* or other reference texts. The right-hand column of editorial commentary explains how and why the excerpts were chosen and is set in a postmodern interpretation of late nineteenth century slab serif typefaces – a close relative of the roman faces used in *Die Fackel*. The resulting pages are light, airy, converting complexity into an appealing texture suggestive of a game. Burdick's project addresses the issue of how designers make something new from a starting point of historical research and interpretation.

[3] Anne Burdick "Graphic Design: Constructing Identities and Mapping Interactions" in *The Fackel Dictionary: Idioms*, by Karl Krauss. (Vienna: Austrian Academy of Sciences, 2000), 1029

[4] Ibid., 1034

GRAFTBalloons

GRAFT begin from a mandate diametrically opposed to Burdick's rigorous assignment but end with a similarly satisfying formal expression. Neither tomb, monument nor architecture, the project by this intercontinental design-collective confounds Adolf Loos' sliding-scale between art and utility with their contribution of three remote-controlled helium-filled balloons. The surfaces of the floating forms are metallic and reflective and bear random photos of, among other things, other GRAFT projects, bringing up the question as to whether these are advertising blimps. The shapes of the balloons speak of arbitrariness itself, with a profusion of limbs and protrusions curling away from the main body. They're a cross between furniture and vehicle, about the size of a sofa but moving around, bearing reflective metallic skins. Maneuverable by remote control like a toy boat or plane, the inflatables focus the viewer's skill on controlling the flight path. The movement in the vertical axis is the most delightful and surprising, and along the ground it offers variability to the gallery space filled with static objects. The main function of the balloons is play, and play is an ultimate Modern use that has, over the course of the last century, been perceived as the most exulted of human activities.[5] With its only objective being delight and pleasure, play invokes sensation with a directness often attributed to the expressive power of pure form. Play has been ascribed utopian, transcendent qualities through experience that is clear and accessible. These *GRAFTBalloons* declare themselves as forms-for-their-own-sake, deploying associative and historical references in a light, offhand way.

Folding Structure

Like *Fackel Dictionary: Idioms* and the *The Most Expensive Space in North America*, *Folding Structure* is an example of design-as-research. A graceful four-foot wide strip made of faceted clear plastic material arcs over the viewer's head in a symmetrical parabolic shape about eight feet high at its mid-point. The *Folding Structure* is somewhere between object and enclosure. It is a prototype hinting at architectural uses, but is also complete in its form and function as an artwork. Yeh and Jerrard's stated intention is purely pragmatic: they are investigating rigid surfaces through folded-plane geometry, be they made of paper, Styrofoam, plywood, plastic or anything else - to create forms that are both structure and skin. These structure-skins imply infinite uses since the folding technique is applicable ubiquitously at any scale. Some of his suggestions for use, presented within a list of categories: lampshades, conference rooms, bus shelters – and some under "military" (the evil cousin of "camping/beach"). Yeh and Jerrard's project resembles experiments carried out at the Bauhaus in which design was inspired by techniques of industrial production. For example, Marcel Breuer adapted the fabrication of non-reinforced steel tubes from bicycle handlebars for use in furniture. But another historical precedent contemporaneous with the Bauhaus has a closer link to the *Folding Structure*: In 1926 Le Corbusier published a new kind of manifesto, one which deferred any literary or philosophical references, making it very different from the polemical writings of Walter Gropius, the director of the Bauhaus. In *The Five Points of Architecture* the Purist painter and architect made an

appeal for the widespread use of reinforced concrete ("to build all of one material"[5]) in the service of five architectural innovations it made possible. Like Yeh and Jerrard's *Folding Structure*, Le Corbusier's reinforced concrete was both structure and skin, presented in idealized, iconic terms. The concrete frame would result in a new way to live, from the scale of the house to the city. But the most interesting thing about *The Five Points* is the unanticipated diversity of results generated when they were implemented in specific projects, for example in Le Corbusier's villas of the twenties. Similarly, *The Folding Structure* offers more as a unique form, within a context and at a particular size, than could be anticipated by the scaleable geometric rules that created it.

The World from Here

In a very different kind of project, the parameters of function in the exhibition design for *The World from Here: Treasures of the Great Libraries of Los Angeles* were highly prescribed, as were those of budget and time. The show, on view last year at the UCLA Hammer Museum, presented unique, rare books full of visual detail in a large open space typically used for art exhibitions. The challenge for Durfee Regn Sandhaus became one of synthesizing viewer movement, vision and information. They present their exhibition design in two panoramic photographs by Joshua White. The ancient and contemporary rare books on a range of subjects were from collections in the Los Angeles area and selected for the quality of their printing, graphics, illustrations and historical significance. Taken from various collections at UCLA, USC and The Getty, among others, they include Piranesi's *Le Antichita Romane*, John Cage's musical notation book and a number of ancient Asian scrolls and scriptures. The designers had to mediate between the large number of works at a small scale and high level of detail - and an audience, on foot. They accomplished this with birch display cases subtly glowing with color inside a dark, quiet, environment. The books on appeared to hover, and all visual attention was directed to the pages. Conceptual aspects of the objects were highlighted by video, audio and interactive sliding panels unobtrusively built into the vitrines. Curving and winding through the gallery, the display cases provided the viewer with a trompe-d'oeuil continuity at a datum-line while mediating the linearity and rhythm of the experience of moving from one book to the next. Handrails served as surfaces for information, allowing the objects on display not to be interrupted with interpretive

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[5] Le Corbusier, *The Five Points* "2. Roof Terraces" quoted in Leonardo Benevolo *History of Modern Architecture, Volume 2* (Cambridge: MIT Press, 1971), 444

graphics[6]. The only vertical element punctuating the panorama was a reading room, glowing from the inside in a manner similar to the lower parts of the display cases. Durfee Regn Sandhaus say they take their cues in mediating the open vistas of exhibition spaces from landscape design and photography.[7] In *The World from Here* the audience always had an overview creating a feeling of openness and freedom, superimposing design elements at close range in the foreground with others at a distance. Formal or graphic conditions responding to programmatic requirements at local levels were extrapolated throughout the space, becoming motifs that gave a sense of order and continuity. For example, the graphic 'X' introduced at the entrance recurred at "vista points" on the floor of the exhibition space suggesting both a marking on a treasure map and the many "here's" referred to in the exhibition's title: "here" as Los Angeles, the library, or the book itself - a point of departure to a world of ideas.[8]

The Most Expensive Space in North America

The Most Expensive Space in North America presents a former office building, One Wilshire in downtown Los Angeles, as a case-study of a phenomenon occurring in other buildings in the city and around the world in which a form and its intended function collide in a new, retrofitted use. Built in 1968 by the San Francisco office of Skidmore Owings and Merrill, One Wilshire was one of among many faded and underutilized towers in the city's downtown core. Resurrected in the late 90's with a new function as rental space housing the hardware of telecommunications companies, these buildings became known as Telco Hotels. The seed for change at One Wilshire was an MCI long-distance micro-wave station installed on the roof that companies sought to connect to from adjacent buildings. The presence of the rooftop construction prompted the installation of a dense infrastructure of conduit through the building that accommodated evolving telecommunications needs. The most significant parts of One Wilshire are designated floors where network hardware from different companies interconnects free of charge in so-called Meet-Me-Rooms (the Telecom industry's genial term). The result is that every square inch leading up to and away from these junction areas becomes staggeringly expensive, albeit de-populated, rental

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[6] DRS promotional material

[7] Mimi Zeiger. "Pioneers of Presentation". The Metropolis Observed. *MetropolisMag.com* March, 2002

http://www.metropolismag.com/html/content_0302/ob/ob01.html December, 2002

[8] DRS promotional material

space. One Wilshire has become the focal point of a little community of thirteen adjacent Telco Hotels all featuring sublimely powerful electrical backup equipment and supremely expensive rooftop cooling systems (supplied by the tenants not trusting the owners to cool their equipment). Once a regular office building, its stairwells and risers are now filled with columns of conduit and its floors and ceilings are a tangle of multicolored wires coming together in enormous clusters of PVC flexible tubing. These emerge underneath the building into a maximum-security sub-grade parking structure, and then under city streets, into adjacent buildings and on to the rest of the world.

What makes the *The Most Expensive Space in North America* so powerful (and funny) is the implication that finally, here, we get to see the inner workings of an invisible technological order - an order, like these de-populated buildings, rumored to run by itself, independent of human agency. It is an ironic commentary on both materialist essentialism and the abstract, technocratic world-view in which information flows are the only "real". Loos, Kraus and Wittgenstein, and indeed the Bauhaus, kept a place open for an extra element in design that went beyond the scope of any one object and participated in some wider cultural or spiritual aspiration. That place, in the 1920's, was most often filled by political goals of *progress* in the realm of social justice. These days, collective belief systems are widely held to be totalitarian, but the notion of progress has endured in our concept of technology. The idea of technology has evolved since the 1920's when the location of "essence" began shifting from the specific material artifact to its function, or to the processes surrounding its manufacture. Reaffirming that shift, the wires, conduit and cabling of One Wilshire are so obviously dirty and irrelevant, the residue of an archaic model of technology. But they are also the residue of something much cleaner and better: of information and data flow. Our current paradigm of technology supercedes past concepts by privileging the technocratic, abstract systems of engineering and management even beyond function or process.[9] In this former office building, old-fashioned, tangible technology is presented as a fragment, not just of the worldwide telecommunications network, but of a new abstract, technocratic constellation from which systems can be extrapolated and must continue uninterrupted in order to keep the entire social order functioning.

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[9] Leo Marx "The Idea of "Technology" and Postmodern Pessimism" *Does Technology Drive History* (Cambridge: MIT Press, 1994), 242 - 249

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Contributors

Begun by Kazys Varnelis and Robert Sumrell as a research unit at the Southern California Institute of Architecture, [SCI-ARC], the Architecture Urbanism Design Collaborative or **AUDC**, occupies an indefinite terrain between a design practice and research organization.

Artist **Steve Rowell** explores sites and landscape through sound and video and is a frequent collaborator with the Center for Land Use Interpretation.

Anne Burdick's interdisciplinary graphic design practice, The Offices of Anne Burdick, does research and development spanning the practical, critical and the theoretical.

Durfee Regn Sandhaus are a collaborative of architects and communication designers, work at the intersection of space, culture, and information.

GRAFT, founded in 1998 in Los Angeles and Berlin, is a label for Architecture, Urban Planning, Exhibition Design, Music and the pursuit of happiness by Christoph Korner, Lars Kruckeberg, and Wolfram Putz, and since 2001 joined by Thomas Willemeit.

Bryant Yeh and Leigh Jerrard are partners in the architecture firm **Yeh + Jerrard**. They do commercial and residential work, and research kinetic folding structures.

Curator **Kati Rubinyi** is an artist and an architect teaching at Woodbury University and at the Art Center College of Design.