DE STIJL, NEW MEDIA, AND THE LESSONS OF GEOMETRY

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The simplicity that characterizes de Stijl thinking—and the order that can be traced in Dutch painting as far back as the seventeenth century—suggest conceptually provocative yet surprisingly practical methods for organizing space and for achieving visually engaging solutions in screen-based media. Such a hypothesis suggests that we reconsider the screen as a kind of picture plane: with this in mind, this essay suggests that to challenge the picture plane is to radically adjust our thinking about what a screen is, what a computer is, and what role design plays in the mix.

In his collected essays, Architecture and Disjunction, Bernard Tschumi argues that frames as architectural elements derive their meaning through juxtaposition. "They establish memory," he writes, "of the preceding frame, of the course of events." This idea that a structural element can serve a graphically direct yet intensely personal need is a compelling notion indeed, and recalls the ambitions of earlier twentieth-century visionaries who sought to embrace social order and spiritual harmony through simple, formal means: this is perhaps most true of the de Stijl group, an informal confederation of artists, architects, and designers working in Holland between 1917 and 1931. Strangely, however, while the lessons of modernism in general—and de Stijl in particular—have found their way into contemporary design education and practice, the invaluable formal principles upon which this thinking was based remain virtually absent in the design of new media.

In 1915 and 1916, theosophist M. H. J. Schoenmaekers published "The New Image of the World" and "Principles of Plastic Mathematics." Suggesting that reality might best be expressed as a series of opposing forces—a formal polarity of horizontal and vertical axes and a juxtaposition of primary colors—the author posited a new image of the world, expressed with "a controllable precision, a conscious penetration of reality and exact beauty." In an age in which we are bombarded with frequent, dense, and often contradictory messages about what it is we are saying, meaning, and making, this statement is refreshingly straightforward. Read literally, it also provides an inspirational way of deconstructing the complex role design plays in our increasingly digital culture. Most important, perhaps, to the designer lamenting the intractable restrictions of today's technological climate, the formal language of de Stijl—and its celebration of the purity of the x/y axis—is inspiration indeed.

As the primary theoretical influence behind the de Stijl movement, Schoenmaekers' thinking paralleled the evolution of a reductive visual vocabulary that embraced ideals at once utilitarian and utopian: with this vocabulary, artists such as Piet Mondrian and Theo van Doesberg produced work that, in its spare elegance, has had a lasting effect on twentieth-century aesthetics. Thought to be radical at the time of their initial publication, today these ideas are surprisingly relevant, as they—and the work they influenced—suggest a deceptively simple way to think about the formal, temporal, and cultural phenomena that collectively define new media. In an effort to resolve the relationships between structural form and transient content, between cyclical time and infinite space, and between a message transmitted and a message received, the propositions of de Stijl suggest an ideal paradigm with which to evaluate the role and effectiveness of design in an electronic age.

To practitioners of de Stijl, the reduction of pure form was considered a symbolic translation of complex cultural ideals. While it possessed no notable political cause per se—unlike Malevich and the Russian Constructivists, or Marinetti and the Italian Futurists—it argued for a kind of convergent thinking that links it unequivocally to the culture of new media. The goals of elevating society, of bridging the gap between the collective and the individual, and of gesturing to a kind of utopian ideal were expressed enthusiastically in the work, as well as in the writing of position papers, exhibition catalogs, commercial publications, and other forms of propaganda. These manifestoes are evocative reminders of de Stijl ideology: in their evangelism and rhetoric, they bear a strong resemblance to much of the propaganda espoused by contemporary new media culture. Unlike contemporary media, however, the visual evidence of de Stijl thinking was both surprisingly simple and enormously sophisticated. Perhaps for this reason, it was also quite beautiful. In the wake of such triumphant breakthroughs in the distillation of human thought, why have we veered so far from the lessons of modernism?

Today, as designers struggle to define better ways of representing ideas in two-, three-, and four-dimensional space, Schoenmaekers' ideas, dating from more than a century ago, offer us a way to better understand and clarify these questions. To begin with, the question of "controllable precision" suggests a standard for designers struggling to rationalize their role in the convergent morass of telecommunications commonly known as "new media." Here, the very value of design is in question: as interpersonal exchanges coexist and multiply in a landscape laden with sophisticated electronic options, one might argue that the function of design is marginalized—if not rendered entirely obsolete—or that the role of the designer itself is imperiled. We have perhaps unwittingly ceded control: to our computers, to our audience, to the demands of a new and increasingly global economy. But the opportunity to define—even celebrate—precision lies at the heart of what we can and should do. This elevates and objectifies our role, and redefines our mission as architects of a new visual order.

"Controllable precision" is of course impossible in an environment characterized by such random and perpetual change. What is possible, however, is to think about design as a system of limitations, and to consider the role of the designer as one who articulates that system. Establishing a grid, understanding the permutations of a template as a flexible armature within which information can be delivered, is a good example of the graphical application of such a system, in print as well as on the screen. With the ongoing advances in browser technologies (such as frames, borderless frames, tables, and so forth) a more resolved formal articulation of space is now possible on the screen, making "controllable precision" an eminently achievable goal.

This system—the establishment of the template, its formal attributes, and its compositional potential for iterative recombination—is not only the principal function of design in online media, but its greatest contribution. Conversely, what happens between the frames is not: the indulgent, memory-intensive aesthetic that evidences itself on many proprietary Websites only serves to demonstrate how technical complexity short-circuits "good" design. With error prompts pre-empting any opportunity for theatrical or visual impact, the mood is irrevocably broken, an enduring reminder that a shield of intrusive technology lies between you and your screen. This is the "interface" at its worst: simply stated, this is what happens when design gets in the way.

Alternatively, the simplicity that characterizes de Stijl thinking—and the order that can be traced in Dutch painting as far back as the seventeenth century—suggest a better model for organizing space and achieving visually engaging and functionally successful solutions. In his own work, van Doesberg identified this purist reduction as an attempt to "expel the narrative." In this view, the designer is the director rather than the actor, and design is less about experience, and more about framing the experience. The success of this proposition rests largely in rethinking ways of articulating space, and suggests that we reconsider the screen as a kind of picture plane. To challenge the picture plane is to radically adjust our thinking about what a screen is, what a computer is, and what role design plays in the mix. Central to this is a formal appreciation of modernism and a fundamental understanding of its lingua franca: geometry.

This appeal to modernism, however, has been virtually overlooked in these early days of new media design. Today, the prevailing aesthetic leans away from realism, opting instead for a primitive sampling of poorly rendered, often cartoon-like illustrations masquerading as familiar, habitable spaces. Worse still, with the advent of Virtual Reality Modeling Language (vrml) what was objectionable in 2d now becomes horrifying in 3- and 4d. Here, Schoenmaekers' notion of "penetrating reality" suggests an intriguing alternative to such tiresome examples of forced and phony simulacra. The opportunity to reconstruct reality rejects the overused models and metaphors that currently exist—the faux street scene, the mock desktop—in favor of a simplified and inherently more flexible visual vocabulary—one based on simple geometric form.

The suggestion that geometry can address the human condition lies at the core of classic architectural discourse, and is everywhere present in the ideology and practice of de Stijl. Described as "neoplastic," architecture in this period favored a kind of elementary constructivism evidenced in anti-decorative, asymmetrical, and colorful explorations of spatial displacement. Such experiments—the famous red, blue, and yellow Rietveldt chair (1918), for example—indicated the extent to which simple form could explode with new and provocative possibility. Mondrian's Broadway Boogie Woogie (1926) was an attempt to codify the dynamic pulse of the city through the restrained use of horizontal and vertical lines, the expression of two opposing forces. It is no coincidence that this work gestured to the space beyond the limits of the canvas: indeed, the desire to embrace infinite space was in no small way influenced by Einstein's theory of relativity, which had been published several years earlier.

Like the de Stijl artists, we can identify with the imposed rectilinear parameters circumscribing our work, as we struggle to define the opportunities for creative expression on screen. We can share their pointed fascination with infinite space as we explore the limitless real estate options introduced by the phenomenon of cyberspace. But unlike them, our work today has yet to reveal itself as inspired, informed by their legacy, their thinking, the empirical evidence of their prolific labors. In the end, as reality itself is called into question by the notion of virtual space and the users (read audiences) who dwell there, "beauty" (not to mention "exact beauty") is indeed in the eye of the beholder. This is of course the true goal of interactivity: designers often struggle in particular with the intangible temporal component implicit in these new media, where experience is meant to be customized and mutable. How can design address consistency—of place, of identity, of need—and still speak to the perpetual changes that characterize the transient nature of these phenomena? Of great relevance to new media, de Stijl practitioners concerned themselves with resolving the relationship between the static and the dynamic. Their interest in challenging the formal interplay of geometric elements suggests that the orchestration of components can simultaneously gesture to the fixed and to the flexible, to the precision as well as to the elusiveness of "exact beauty." In this view, the same reductive visual vocabulary cannot only support such seemingly conflicting ideals (static/kinetic, variable/constant, universal/unique) but can perhaps begin to suggest more innovative solutions for structuring new systems, mapping new spaces, and reaching new audiences along the way.