

Jack Burnham

Systems Esthetics

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A polarity is presently developing between the finite, unique work of high art, that is, painting or sculpture, and conceptions that can loosely be termed *unobjects*, these being either environments or artifacts that resist prevailing critical analysis. This includes works by some primary sculptors (though some may reject the charge of creating environments), some gallery kinetic and luminous art, some outdoor works, happenings, and mixed media presentations. Looming below the surface of this dichotomy is a sense of radical evolution that seems to run counter to the waning revolution of abstract and nonobjective art. The evolution embraces a series of absolutely logical and incremental changes, wholly devoid of the fevered iconoclasm that accompanied the heroic period from 1907 to 1925. As yet the evolving esthetic has no critical vocabulary so necessary for its defense, nor for that matter a name or explicit cause.

In a way this situation might be likened to the "morphological development" of a prime scientific concept—as described by Thomas Kuhn in *The Structure of Scientific Revolutions* (1962). Kuhn sees science at any given period dominated by a single "major paradigm"; that is, a scientific conception of the natural order so pervasive and intellectually powerful that it dominates all ensuing scientific discovery. Inconsistent facts arising through experimentation are invariably labeled as bogus or trivial—until the emergence of a new and more encompassing general theory. Transition between major paradigms may best express the state of present art. Reasons for it lie in the nature of current technological shifts.

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In the emergent "superscientific culture" long-range decision-making and its implementation become more difficult and more necessary. Judgment demands precise socio-technical models. Earlier the industrial state evolved by filling consumer needs on a piecemeal basis. The kind of product design that once produced "better living" precipitates vast crises in human ecology. In the 1960s. A striking parallel exists between the "new" car of the automobile stylist and the syndrome of formalist invention in art, where "discoveries" are made through visual manipulation. Increasingly "products"—either in art or life—become irrelevant and a different set of needs arise: these revolve around such concerns as maintaining the biological livability of the earth, producing more accurate models of social interaction, understanding [the growing symbiosis in man-machine relationships, establishing priorities for the usage and conservation of natural resources, and defining alternate patterns of education, productivity, and leisure. In the past our technologically-conceived artifacts structured living patterns. We are now in transition from an *object-oriented* to a *systems-oriented* culture. Here change emanates, not from *things*, but from the *way things are done*.

The priorities of the present age revolve around the problems of organization. A systems viewpoint is focused on the creation of stable, on-going relationships between organic and nonorganic systems, be these neighborhoods, industrial complexes, farms, transportation systems, information centers, recreation centers, or any of the other matrices of human activity. All living situations must be treated in the context of a systems hierarchy of values. Intuitively many artists have already grasped these relatively recent distinctions, and if their "environments" are on the unsophisticated side, this will change with time and experience.

The major tool for professionally defining these concerns is systems analysis. This is best known through its usage by the Pentagon and has more to do with the expense and complexity of modern warfare, than with any innate relation between the two. Systems analysts are not cold-blooded logicians; the best have an ever-expanding grasp of human needs and limitations. One of the pioneers of systems applications, E. S. Quade, has stated that "Systems analysis, particularly the type required for military decisions, is still largely a form of art. Art can be taught in part, but not by the means of fixed rules...." Thus "The Further Dimensions" elaborated upon by Galbraith in his book are esthetic criteria. Where for some these become the means for tidying up a derelict technology, for Galbraith esthetic decision-making becomes an integral part of any future technocracy. As yet few governments fully appreciate that the alternative is biological self-destruction.

Situated between aggressive electronic media and two hundred years of industrial vandalism, the long held idea that a tiny output of art objects could somehow "beautify" or even significantly modify the environment was naive. A parallel illusion existed in that artistic influence prevails by a psychic osmosis given off by such objects. Accordingly lip service to public beauty remains the province of well-guarded museums. Through the early stages of industrialism it remained possible for decorative media, including painting and sculpture, to embody the esthetic impulse; but as technology progresses this impulse must identify itself with the means of research and production. Obviously nothing could be less true for the present situation. In a society thus estranged only the didactic function of art continues to have meaning. The artist operates as a quasipolitical *provocateur*, though in no concrete sense is he an ideologist or a moralist. *L'art pour l'art* and a century's resistance to the vulgarities of moral uplift have insured that.

The specific function of modern didactic art has been to show that art does not reside in material entities, but in relations between people and between people and the components of their environment. This accounts for the radicality of Duchamp and his enduring influence. It throws light on Picasso's lesser position as a seminal force. As with all succeeding formalist art, cubism followed the tradition of circumscribing art value wholly within finite objects.

In an advanced technological culture the most important artist best succeeds by liquidating his position as artist vis-a-vis society. Artistic nihilism established itself through this condition. At the outset the artist refused to participate in idealism through craft. "Craft-fetishism," as termed by the critic Christopher Caudwell, remains the basis of modern formalism. Instead the significant artist strives to reduce the technical and psychical distance between his artistic output and the productive means of society. Duchamp,

Warhol, and Robert Morris are similarly directed in this respect. Gradually this strategy transforms artistic and technological decision-making into a single activity—at least it presents that alternative in inescapable terms. Scientists and technicians are not converted into "artists," rather the artist becomes a symptom of the schism between art and technics. Progressively the need to make ultrasensitive judgments as to the uses of technology and scientific information becomes "art" in the most literal sense. As yet the implication that art contains survival value is nearly as suspect as attaching any moral significance to it. Though with the demise of literary content, the theory that art is a form of psychic preparedness has gained articulate supporters.

Art, as an adaptive mechanism, is reinforcement of the ability to be aware of the disparity between behavioral pattern and the demands consequent upon the interaction with the environment. Art is rehearsal for those real situations in which it is vital for our survival to endure cognitive tension, to refuse the comforts of validation by affective congruence when such validation is inappropriate because too vital interests are at stake....

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The scope of a systems esthetic presumes that problems cannot be solved by a single technical solution, but must be attacked on a multileveled, interdisciplinary basis. Consequently some of the more aware sculptors no longer think like sculptors, but they assume a span of problems more natural to architects, urban planners, civil engineers, electronic technicians, and cultural anthropologists. This is not as pretentious as some critics have insisted. It is a legitimate extension of McLuhan's remark about Pop Art when he said that it was an announcement that the entire environment was ready to become a work of art.

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Formalist art embodies the idea of deterministic relations between a composition's visible elements. But since the early 1960s Hans Haacke has depended upon the invisible components of systems. In a systems context, invisibility, or invisible parts, share equal importance with things seen. Thus air, water, steam, and ice have become major elements in his work. On both coasts this has precipitated interest in "invisible art" among a number of young artists. Some of the best of Haacke's efforts are shown outside the gallery. These include his *Rain Tree*, a tree dripping patterns of water; *Sky Line*, a nylon line kept aloft by hundreds of helium-filled white balloons; a weather balloon balanced over a jet of air; and a large-scale nylon tent with air pockets designed to remain in balance one foot off the ground.

Haacke's systems have a limited life as an art experience, though some are quite durable. He insists that the need for empathy does not make his work function as with older art. Systems exist as on-going independent entities away from the viewer. In the systems hierarchy of control, *interaction* and *autonomy* become desirable values. In this respect

Haacke's *Photo-Electric Viewer Programmed Coordinate System* is probably one of the most elegant, responsive environments made to date *by an artist* (certainly more sophisticated ones have been conceived for scientific and technical purposes). Boundary situations are central to his thinking.

A "sculpture" that physically reacts to its environment is no longer to be regarded as an object. The range of outside factors affecting it, as well as its own radius of action, reach beyond the space it materially occupies. It thus merges with the environment in a relationship that is better understood as a "system" of interdependent processes. These processes evolve without the viewer's empathy. He becomes a witness. A system is not imagined, it is real.

Tangential to this systems approach is Allan Kaprow's very unique concept of the Happening. In the past ten years Kaprow has moved the Happening from a rather self-conscious and stagy event to a strict and elegant procedure. The Happening now has a sense of internal logic which was lacking before. It seems to arise naturally from those same considerations that have crystallized the systems approach to environmental situations. As described by their chief inventor, the Happenings establish an indivisibility between themselves and everyday affairs; they consciously avoid materials and procedures identified with art; they allow for geographical expansiveness and mobility; they include experience and duration as part of their esthetic format; and they emphasize practical activities as the most meaningful mode of procedure. . . As structured events the Happenings are usually reversible. Alterations in the environment may be "erased" after the Happening, or as a part of the Happening's conclusion. While they may involve large areas of place, the format of the Happening is kept relatively simple, with the emphasis on establishing a participatory esthetic.

The emergence of a "post-formalist esthetic" may seem to some to embody a kind of absolute philosophy, something which, through the nature of concerns cannot be transcended. Yet it is more likely that a "systems esthetic" will become the dominant approach to a maze of socio-technical conditions rooted only in the present. New circumstances will with time generate other major paradigms for the arts.

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But for our time the emerging major paradigm in art is neither an ism nor a collection of styles. Rather than a novel way of rearranging surfaces and spaces, it is fundamentally concerned with the implementation of the art impulse in an advanced technological society. As a culture producer, man has traditionally claimed the title, *Homo Faber: man the maker* (of tools and images). With continued advances in the industrial revolution, he assumes a new and more critical function. As *Homo Arbitr Formae* his prime role becomes that of man the maker of *esthetic decisions*. These decisions- whether they are made concertedly or not-control the quality of all future life on the earth. Moreover these are value judgments dictating the direction of technological endeavor. Quite plainly such a vision extends beyond political realities of the present. This cannot remain the case for long.