

DOCUMENTS

The Editors will publish in this section of Leonardo, from time to time, documents that may cast a new light on significant aspects of contemporary fine art. Such texts may be in the form of manifestos, 'conversations' between artists, reprints of articles long out of print, translations, etc. Readers are invited to recommend to the Editors material for possible publication in this section.

TOWARD CIVIC ART*

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Individual artistic imagination is neither self-generated nor self-contained; it belongs to the larger environmental field of nature and society. Its role and its strength constantly change, for the artist's responses are in a certain constant relation to the changing human conditions that generate them. The imaginative power of the artist, in its luckiest moments, creates models of sensibility and feeling that will enable all of us to live the fuller, richer life possible at this time in an everchanging world. Today, artists, like the rest of us, face a profound crisis brought about by the increasingly dynamic complexity of our social fabric. Meeting its challenge requires their fundamental reorientation in order to probe, scan, discover, absorb, change and re-edify their surroundings. They must transform themselves as well as the social framework of the creative process. This imperative refers not only to the exploration of new tools and media—creating new idioms—but also to the exploration of new ways in which the work of art and the public can come together.

This necessary process, I believe, is now taking place. Art is outgrowing its traditional limitations. The artistic forms have increased in size. The isolated, sheltered, limited space of a room at home or in the galleries or museums has proven claustrophobic for many dynamic, explosive explorations. Today, the strain is no longer limited to the physical, spatial dimension but includes the conceptual realm as well. Thus, exhibition, the traditional medium used to create communication between the work of art and the public has had to be questioned. It has been questioned in all its implication. An exhibition, as an anthology of individual works of art and spotlighting the quality of individual work and personal achievements, no longer seems to me a force in the new sense of life that motivates creative expression.

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Artists, even more than other men, have been displaced persons in this convulsively changing modern world. Their images, ideas and confidence have been attuned to an older world, smaller, slower, quieter—a world they could deal with directly and endow with meaning and quality. Few have been able to deal with the new world that has burst upon them.

Artists' links with their own past, with other men, and with their environment—the very source and basis of their art—have eroded as the proliferating scientific, technical and urban world transformed society, the physical environment that housed it and the web of folkways, customs, thought and feeling that gave it shape and structure.

It is hard to make contact with this apparently uncontrollable new-scale world, so big, strange and explosive. Some artists with courage made an attempt to do so but few could so much as establish a foothold. The extended world revealed by science exhibited unfamiliar vistas of phenomena and concepts: things too big to be seen, too small, too hidden; ideas too evasive to grasp—subnuclear particles, the indeterminacy principle, computers and transistors, lasers, pulsars, DNA and inorganic crystals that could change into organic viruses and back again. Few of these were accessible to the ordinary human senses or were capable being related to the human bodies that men use to find their bearings.

The wildly proliferating man-made environment shrank living space, polluted air and water, dimmed light, bleached color and relentlessly expanded mass, dirt, noise, speed and complexity. The changing society exploded with problems on an immense scale: ecological disasters, social tragedies, eroded individuality, confused and impoverished human relationships. The expanding vulgar realm of mass communication and commercial entertainment deadened sensibilities and was as inane in meaning as it was sophisticated in technology and aggressive in its destruction of privacy and leisure. Life and art were separated from each other; and both seemed torn loose from their common social foundations.

Aldous Huxley's comment that by mistreating

nature we are eliminating half of the basis of English poetry is an understatement. The world around us—the luminous, mobile wonders of the sky, the infinite wealth of colors and shapes, of animals and flowers—is the core of all our languages and is basic to our sensing of quality and meaning in life.

It is symbolic of our situation that in the 1968 meetings of the United Nations the subject discussed with the deepest concern was the devastation produced in our precious earth, sea and air by reckless manipulation of technological power.

Some artists were like distant early warning systems of the human condition today. They read the signs of coming ecological and social disasters early and with full grasp. They saw the illusion and the degradation at the height of complacency in the last century over what was believed to be the best of all possible worlds. Their confident understanding of the sensed qualities of living structure would not permit them to accept the nineteenth-century mechanical models of scientific analysis as an adequate framework for the breadth, freedom and self-variation of life and art. We were not unwarned about the lethal consequences of the wholesale devastation of the natural landscape. With the first blows of industrialization in the opening years of the nineteenth century and the appearance of belching chimneys and mountains of slag, the poet Blake cried out against the 'dark Satanic mills' that had defiled 'England's mountains green' and 'pleasant pastures'. He was joined by fellow artists and poets in a chorus of angry protest but light in the industrial landscape continued to gray with soot and rivers to turn brown with sewage.

William Morris summed it up over a century ago by writing: 'It is only a very few men who have begun to think about a remedy for it in its widest range, even in its narrower aspect, in the defacements of our big towns by all that commerce brings with it, who heeds it? Who tries to control their squalor and hideousness? . . . Cut down the pleasant trees among the houses, pull down ancient and venerable buildings for the money that a few square yards of London dirt will fetch; blacken rivers, hide the sun and poison the air with smoke and worse, and it's nobody's business to see to it or mend it: that is all that modern commerce, the counting-house forgetful of the workshop, will do for us herein . . . Yet there are matters which I should have thought easy for her; say for example teaching Manchester how to consume its own smoke, or Leeds how to get rid of its superfluous black dye without turning it into the river, which would be as much worth her attention as the production of the heaviest of heavy black silks, or the biggest of useless guns' [1].

Yet only now, at what may well be the very last moment, have we begun to turn our minds toward solutions. There are more tragic and more hurtful aspects still. Who with clear eyes and honest mind can deny the urgency of resolution of the inhuman

blight of our contemporary cities? Some of us hardly dare to walk with our heads up, knowing and seeing how men mistreat men. Many of us are tortured by our impotence to act to counteract the destruction of what is best in man. The aborting of the quality and sometimes the very basis of lives because of narrowness, prejudice and vested interests is the shame of all of us. Though people in increasing numbers recognize the urgency of finding means to redirect our collective suicidal life, for the time being we are carried along by the momentum of our situation. We continue to develop ever more powerful tools and equipment without having the sense of values that tell us how to use them.

The problems of our time compel us to question all the basic assumptions of the previous generation. Current history calls upon us to adjust ourselves to change faster than men have ever needed to in the past. Each new phase of development, each new bit of knowledge, each new technological power has intensified the continuing struggle between the old inherited guiding concepts, feelings and attitudes, and the new requirements of reality. Dickens began his tale of the French Revolution with the following sentence: 'It was the best of time; it was the worst of times'. This comment fits no better time than our own. Every age, no doubt, has an option between a good and a bad life. Every age has a spectrum that ranges from suffering to fulfilment but none has presented these options with so sharp a contrast as our own. Like the men of every age, we have alternative potential futures. But today these alternative futures range from a concrete promise of richness, quality and security of life that men could never have dreamed of before to the menace of a destruction that could wipe out everything mankind had accumulated, everything that it values.

We seek equilibrium, the optimum condition possible in our circumstances. Individually and collectively men are self-regulating systems. In order to achieve our goals we must learn to proportion our efforts or flow of efforts to the flow of return information. In order to achieve these goals, we need an understanding of the reality of the goals and must allow our sensors or abilities to scan life's circumstances and to gather the data required by our recognized tasks. An engineer who designs a self-regulating system must learn to synchronize error and correction of error in order to avoid 'hunting'—excessive oscillation about his target point. Every purposive movement is composed of two processes, not one; their symmetry in action is the measure of the success of the process. Central to a self-regulating system is the notion of feedback, or to express it more generally, interdependence. We have not found the right method of self-regulation. The good life, the maximum realization of the intensity, quality and gross potential of individual lives to which all of us aspire, is achieved when we find a balance with minimum hunting—a minimum of human suffering and wasted energy with a maximum of helpful relevance

for all of us. For this we need an acute awareness of interdependence. In other words, we need a social standard based upon full cooperation between man and man, and between man and nature.

The most eloquent display of our frantic search for a resolution may be found in the antics of twentieth-century artists. The vehement, erratic, continuous transformation of artistic idioms, the changing morphological dimension, the continuous shifting of the rules of the game in expressive artistic form-making are characteristic of the contemporary arts. What is most significant is that the artist's search is not only characterized by the repeated redefinition of artistic idioms but also involves basic changes in the artist's frame of reference, his existential stance and his basic assumption concerning the meaning, the role and the purpose of art. After thirty or forty years of soul-searching concerning the language of art, the artists of today are questioning more than the means by which to express themselves. Today there are not only art *isms*, there is also a basic confrontation between art and antiart or no art.

But the forces that are rending art and society are, I believe, not less than the forces that are bringing them together. Artists are key men in a reorientation that seems to be taking place; they seem to be regaining their long lost role of cultural leadership. Paradoxically, the displaced persons of yesterday are beginning to look like Moses figures who will lead us into a Promised Land. After a long period of 'hunting', their homeostatic processes of automatic regulation have shifted to relationships in which they are beginning to regulate; the artists will indeed find solutions to their problems provided they base their rich responses firmly on an uncompromising sense of life as a whole—a passionate solidarity with humanity and with the natural and man-made environment.

During the past two decades, some of the more speculative minds among scientists have focused fresh attention upon the old idea that biological and social evolution are closely linked, with intercommunication playing the same role in social evolution that interbreeding once played in biological evolution.

Today we are in a critical stage of the human phase of evolution. Evolution is becoming self-conscious and we have begun to understand that through social communication it is within our intellectual and emotional power to come to better grips with our existential reality. Our future, good or bad, depends upon how clearly we understand and how well we control the self-regulating dynamic pattern of our common existence as it moves into the future.

To coordinate our efforts it is necessary to agree on objectives. To agree on objectives it is necessary to reach a better common understanding of 'reality'.

What I call reality here is neither absolute nor final. Rather, it is itself an evolutionary process, as Charles Sanders Peirce had recognized some seventy years ago: 'What anything really is, is what it may finally come to be known to be in the

ideal state of complete information, so that reality depends upon the ultimate decision of the community; so thought is what it is only by virtue of its addressing a future thought, which is in its value a thought identical with it, though more developed. In this way, the existence of thought now depends on what is to be hereafter; so that it only has potential existence, dependent on the future thought of the community'[2].

Awareness of the dynamics of evolutionary continuity and our capacity for self-transformation by inter-thinking has opened up rich wide new perspectives. Our potent new tools, both conceptual and physical, contain within themselves an important aspect of these perspectives. For, the more powerful devices we develop through our scientific technology, the more we are interconnected, interacting, interwoven with each other, with our machines, with our environment and with our own inner capacities. Each new tool of vision that science and technology prepares for us opens up a new landscape that compels us to see in its inter-connectedness that the farther we can travel and the faster we move, the more we see, understand and learn about other parts of the world and other people's lives. The more sensitive and embracing our feelers of vision, hearing and thinking become through radio, television and computer technology, the more we are compelled to sense the interaction of man and his environment. Our new tools of transportation, communication and control have brought a new scale of opportunities to inter-thinking and inter-seeing; the condition of a truly embracing participatory democracy.

The 'common' realm, as we may name our shared body of thought and feeling, is a generator of human creative powers. The vital artists of this moment of time are converging upon this realm. They are guided by a growing new sense of the structural principle of interdependence. They are beginning to accept interdependence personally, professionally and ecologically—which is to say, in a balance that modern man so urgently needs to establish with the total of his environment. The artists' current work—it is not too much to assert in consequence—exhibits growing optimism, strength and authenticity. It looks toward a future art scaled to the expanding scientific-industrial-urban world and revealing its latent richness.

Artists are finding in our environmental landscape a new material of plastic art, a potent source for creative objectives. Some of them dream of molding gigantic artistic structures carved from the earth, resting on the ground, flying in the sky, floating in the ocean, that are themselves environments.

Cutting through suffocating cultural isolation, many of them have crossed disciplinary lines and joined hands with scientists and engineers. This collaboration has made available to them the creative tools for imposing technical sophistication: computers, lasers, complex electronic devices and also the tools for tasks of gigantic dimensions. A

centuries-old discarded framework for the artistic process has thus been revived in the newest evolutionary step in the development of the artistic community. In becoming a collaborative enterprise in which artists, scientists, urban planners and engineers are interdependent, art clearly enters a new phase of orientation in which its prime goal is the revitalization of the entire human environment—a greatly-to-be-wished-for climax to the re-building of our present urban world.

This developing, embracing vision of artists, we may hope, is prophetic of a new world outlook pervaded by a sense of continuity with the natural environment and oneness with our social world. This oneness is something we long for, a lost paradise of the human spirit. Some of us, at rare lucky moments, have had the feeling that everything fits together and makes sense, that the world is right and full of promise.

Contemporary anthropology, psychology and applied science all bring us converging messages that the evolutionary key to the resolution of major disturbances in our individual and common lives rests in achieving a harmoniously functioning human ecology, a state in which we recapture on the high level of today's advanced cultures something of the union of man and his surroundings achieved by earlier and more primitive cultures. We know that the new unity to be sought between man and man, and between man and his environment and to which we may hopefully look forward will need to be fundamentally different from that of the Taoists, preclassical Greeks and Hopi Indians. It may well be, however, that through correct reading of our current situation we can make effective and realistic use of our scientific competence to project the creative insights that will midwife a new human consciousness and weld the converging fragments of a possible future into a satisfying and enduring reality. That reality can take on the aspect of an 'ecological climax', a dwelling for the human spirit not unlike the dimly remembered Garden of Eden from which advancing knowledge once expelled us and to which advancing knowledge now beckons us to return.

Anthropologists, in studying early cultures, have reawakened our senses of ecological harmony. Early man, like a modern primitive, saw himself as an inseparable part of his group or society and his society as an indivisible aspect of all-embracing cosmic surroundings. Natural phenomena existed only as directly perceivable human experiences that were, nevertheless, aspects of natural cycles or cosmic events. Each sign coming from the outside had meaning in human terms; and each human act was considered to be an inevitable and irreversible consequence of the happenings or events in the surrounding natural world. In this interwovenness, there was no consciously discerned subject-object confrontation. For us the subject-object separation is paramount; without it no scientific knowledge would be possible. It became central to our thinking when the ancient Hebrews demoted the Sun, Moon

and forces of nature to mere ornaments of a transcendent God who had made everything and was above everything.

The outside world appears to us in a hierarchy of organizations, beginning with the higher animals and descending through plants to inanimate physical, chemical, atomic and subnuclear processes. For the primitive man there was no break in the spectrum of life. Life was everywhere, in men, beasts, plants, stones and water. For the Australian Bushman, the pearly iridescence of sea shells, the sparkling of a crystal, the phosphorescent glow of the sea at night and the sunlight caught in droplets above a waterfall are all signs of an embracing, living thing, the basic link seen as the great snake whose body arches across the sky in the rainbow. Everything is permeated by life. Everything seems in contact, interacting, interliving. In the simpler stages of human existence, on the level of children and the primitive world, the connection with the environment is almost as intimate as the unity of the body itself.

The experimental evidence of modern psychology gives further support to this view. Our reactions to the environment are not those of independently functioning discrete systems but of a total organism. Whenever outside forces impinge upon our sensors, a relative equilibrium tends to be established through the mobilization of our entire self, regardless of what sense organ is immediately involved in receiving and registering the impacts from the outside. There are no separate sense modalities; all levels of sensory function are interdependent and blend together. They are furthermore in a fundamental union with motor processes. A dynamic perception theory in which sensory processes are apart from motor functions is not even conceivable in modern psychology.

Applied science, too, provides us with thought models of dynamic interconnectedness and basic complementarity of disparate processes and systems, particularly in such fields as computer technology, electronics and communication networks. Such technologies seem almost to plead to be integrated with life and to clarify ecological disorder. For this is the realm of the new-scale tools by means of which the making of things is automated, astronauts rendezvous precisely in the vast ocean of space, facsimile pictures are sent over telephones, sound becomes light and light sound, and the cycles of nature are reversed, the darkness of night becoming another day. The capacity of this realm to guide us, mold us and transform us is beyond calculation.

A report published by the National Academy of Sciences in 1967 hints at the awesome symmetry of the promises and menaces inherent in our potent technology. Contracts were awarded to some aerospace companies for studies of the feasibility of orbiting a huge satellite to reflect light from the sun onto the dark side of the earth. Among the possible uses listed for such a solar mirror were to provide artificial lighting levels greater than full moonlight

for night-time illumination of search and rescue operations, recovery operations, security areas and polar latitudes.

Critical reaction came immediately from astronomers concerned that the lighting of any large area of the night sky to a brightness several times that of full moonlight could jeopardize observational astronomy. Other scientists pointed to the possible harmful affects on the daily and yearly rhythms of plant and animal life.

The complementarity of technological and social awareness can be fused into unity if we face squarely our present urgent social needs to combat ecological disasters, further develop consciousness of social interdependence, and build the sense of living freely according to ways in which everything fits together.

The artists are in a strategic position to help to bring all these issues together in a living focus. There are signs that they are ready to take on this important role. First, they have reached out to make effective use of the new-scale tools. Second, they are ready to participate in new-scale tasks, to take leave of the small, suffocating spaces of rooms and exhibition galleries and to participate in a bigger environment on a bigger scale than before. Third, they begin to open their eyes to the present ecological tragedies. A sensibility that subsumes a highly developed ecological consciousness will find the way to expression of ecological tragedy, just as the sensibility of a previous day could engage itself with great human tragedies. In one and the same form, the tragedy of the environment can be dramatized and means can be provided to recycle unsightly waste and convert a scene of

ecological regulation into a stirring focus of civic art. The sense of beauty and the sense of purpose—the patrimony of the artists—can be conveyed to others who do not quite understand these things but who do understand almost everything else. The great-scale tasks to be performed with the new tools need urgently to incorporate the deepest qualities of human consciousness. This can not be done without artists.

No doubt, we are approaching an epic age in which the emphasis will be placed on major common obligations. There is a need for those who have the imaginative power to discern the essential common denominators of this complex late twentieth-century life. There is a need for those whose loyalty is undivided, who can devote their abilities to the epic tasks. But whatever emphasis we wish to and must put on our common goals, in the final reckoning both the beginning and the end of action lie in individual experience. As individuals, all of us live on many levels and experience diverse life qualities. We work, we play, we cry and laugh, we sleep and dream, we fear and hate, we make love and, on rare occasions, we feel the single climactic glow that comes when the distilled essences of our experiences are amalgamated into a unified understanding. This process can occur only within the individual. But great things would emerge if the optimum of individual experience—the artist's poetic insights—would become an integral part of our common life. Only the realization of a dynamic complementarity of the personal and civic can offer the possibility of living up to our immense potentialities.

REFERENCES

1. *The Collected Works of William Morris* (New York: Russell and Russell, 1966) Vol. 12, p. 24.
2. *Collected Papers of Charles Sanders Peirce*, ed. C. Hartshorne and P. Weiss (Cambridge, Mass.: Harvard University Press, 1931–1935).