The Arts: A Decent Respect for Taste

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This article includes some remarks that Dr. Oppenheimer made on the occasion of the release, last May, of the volume Coming to Our Senses: The Significance of the Arts for American Education, published by McGraw-Hill Book Company in 1977.

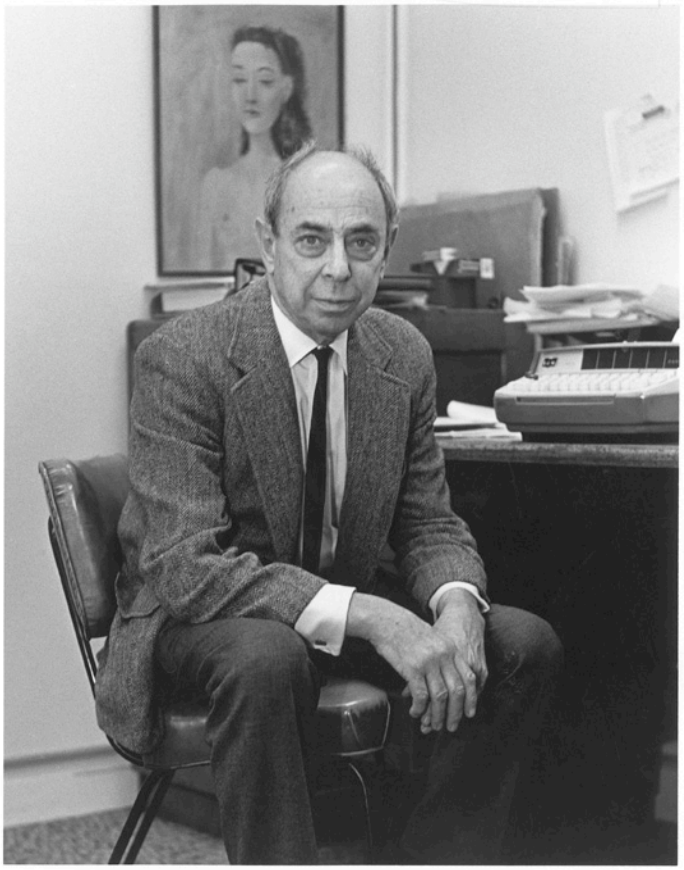
Originally, this position paper was to summarize the discussions that took place during interaction Lab #2, at the 1977 National Convention of the National Association of Elementary School Principals in Las Vegas, Nevada. I had been asked to prepare a set of questions that would get these discussions started. Unfortunately, I picked a number of questions that would more properly have formed the basis for a lengthy series of discussions or in-depth research studies. The questions that follow, however, do reflect my own curiosity about the position of the paper. They were not answered at the NAESP Convention, and I do not know the answers. But I believe that in any consideration of the arts and curriculum reform, they are questions we need to consider.

• Why do some societies and some individuals make art less central to their lives than do others?

• How, if at all, does art expand or define our concept of beauty?

• What kinds of aesthetic experiences are infants and children affected by? Can one deliberately shape the environment of young children to quicken their responses to such experiences?

• Even very young children draw and dance and act and play with the flow of words. Do young children need to develop one or all of these activities as forms of expression? What



is the connection between these activities and the development of aesthetic sensibility in children?

• What is the nature of the initiation process for children into an understanding of the language of the arts? Is the process the same for all of the arts? Does it resemble the process of learning to understand and use speech?

• Why are young children sometimes bored in art museums? Is it because they have been inadequately initiated or because adult art is communicating things that are beyond their experience or comprehension?

• Do children (or adults) who have been exposed to the various arts behave or learn differently than those who have had no contact with them?

• Are adults who keep up with the forefront of the arts more capable of coping with the other kinds of changes that take place in themselves or in society?

It is certainly not necessary to await the answers to these questions before getting started with the discussion. The successful art education patterns that evolved from a panel on Museum Education in the Visual Arts and a panel on The Arts, Education, and Americans* can surely serve as guides to what can be done*. The members of these panels had an extraordinary sense of mission, and they relied on extensive staff work to survey what is happening in the United States with regard to art education.

The reports of the panels document the existence of an incredible array of exemplary, inspiring, and often extraordinarily moving projects. However, the dismal conclusion of both reports is that art education for the most part lies at the bottom of the heap. In all too many art museums, the education programs and staff are inadequately funded, relegated to basement rooms, and play fifth fiddle to the curatorial functions of the museum. The educators have little say about what is collected and about how collections are displayed or used.

In most school districts, art instruction is the first domain to be scratched when funds are short, and even at best it is treated as a separate frill; it is rarely integrated with other aspects of learning, and it is available to only a minority of the students at all levels from kindergarten through graduate school.

** Both panels met repeatedly over a period of several years. They both relied heavily on staff work and witnesses to report on exemplary art education projects as well as deficiencies in art education at various levels. The panel on Arts, Education and Americans was chaired by David Rockefeller with special impetus from Norris Houghton and Margaret Howard. Their report, Coming to Our Senses was published in May 1977 by McGraw Hill Book Company. The panel on Museum Education in the Visual Arts was chaired by Sherman Lee. Their report. The Art Museum as Educator, was edited by Barbara Newsom and Adele Silver and will be published in October 1977 by the University of California Press.*

It is clear that the panelists involved in both of those reports decry the prevalent attitude of contemporary American culture with respect to the arts. Through their studies, they have become acutely aware that art is not valued as either a basic form of knowing and learning or as an essential mode of communication and discovery. If art education is to be considered basic in schools and museums, we will require more than new curricula and improved teacher training. We will require basic changes in societal values. If what is needed is merely better curricula in the various arts, a physicist would not have been asked to write a position paper about art in the schools.

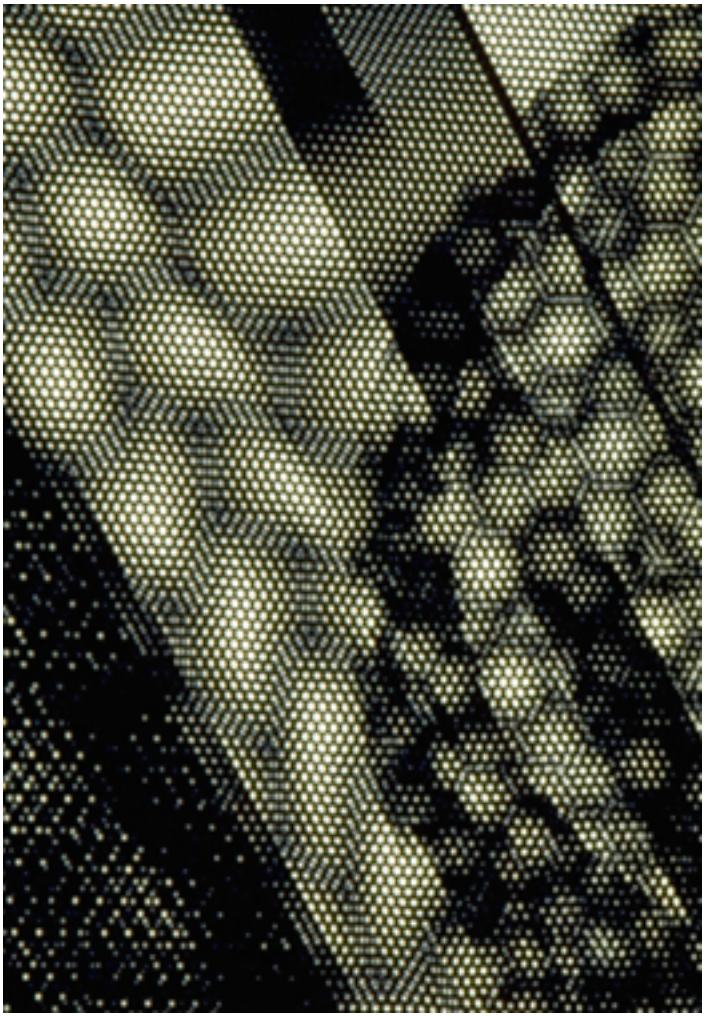
As a physicist, I believe that physics (and other sciences) have enabled us to discover much of what is happening in nature and have helped us to go beyond direct experience by suggesting the kinds of things that are waiting to be discovered.

However, physics is not primarily concerned with the ways in which people react to their experiences with nature, with each other, or with themselves. It enables us to "experience" atoms and galaxies, heredity and evolution, entropy and energy. It does not tell us what we have learned about human experience nor

Students build a geodesic structure on the floor of the museum using only rolled newspaper.

discover what is possible for human experience. Such discoveries, such predictions, such communications, constitute the domain of the arts.

In looking back, both at my own teaching and that of others, I am impressed and saddened at how little of art has been included in science instruction. There are many common bonds between science and art. They both begin with noticing and recording patterns - spatial patterns, patterns in time, patterns of process and behavior. They both elaborate, reformulate, and ultimately link together patterns, in nature and meaning, which initially appeared as unrelated. Both art and science are involved with order-disorder transitions and the creation of tension and the relief of tension. Both endeavors are deeply rooted in culture and heritage; both expand our awareness and sensitivity to what is happening in nature, and in ourselves.



Moiré patterns created by overlapping perforated metal screens was a piece in the Exploratorium's lobby.

These commonalities have not been made use of in teaching and learning. But I now know that they can be linked because, at the Exploratorium in San Francisco, we have managed to let people look at parts of nature through the eyes of both the physicist and the artist. There has not even been the need to announce "this piece is physics" or "that piece is art." We have only just begun, but, lo and behold, learning wonderfully appears for everyone - the youngest to the oldest - the poorest to the richest.

If nothing in our society or our environment ever changed, we might not need the noticings and syntheses of art and science - basic education might truly then become the ability to read directions and to take part in commerce. But things do change, and the growing number of people inevitably contributes to the extent and rapidity of change. Humanity does not adapt to change genetically but only through the reaction of a culture that we rely on in order to make decisions, both technical and social, both private and public. These decisions, if they are to promote humanity, must be made, not only on the basis of what is possible, but also, and crucially, on the basis of the way we feel and react to what is possible.

We can and do look to the scientists to discover ever new possibilities. We need also to learn from the artist for our decision making, for the artist can and does discover what is possible in human experience and what is fine and beautiful and important.

Surely, then, it must be basic to education to be able to "read" the arts - the plays and poems and dances, the paintings and songs and sculpture and films that, each in their own way, can be so moving and so illuminating.

But one cannot learn to read the arts without some experience in how they are made any more than one can learn to read words without first learning to use words to express meaning. If each of us is to use the discoveries of art in our decision making, we must, at some stage in our education, acquire a feeling for making those decisions and participating in them.

Most societies have used the arts for the acculturation of new generations. In ours, to accomplish this purpose, the arts must surely be more firmly rooted in the schools than they are now. The process of rooting and planting will surely cost - but if the arts, by this process, become interwoven with other parts of learning, then the new cost will make each currently spent dollar vastly more cost-effective.

If anything is to change in the schools, they will need help - from museums, community organizations, and the media, as well as from artists, scientists, and parents.

Where to begin. I believe that one must begin with the conviction that art is important despite an accompanying realization that one cannot understand quite why it is important. If art is important, then ultimately, during a lifetime, it must be desirable that people learn to communicate through the various arts - to "read" and to "write" the arts. But this communicative ability is not necessarily the beginning.

If art is important, then it must also be true that the aesthetic choices involved in decision making are important. One must be aware of and respect taste. One must, at the outset, recognize and cultivate, especially in the behavior of children, those activities that form the aesthetic building blocks of the arts. The why of these building blocks is obscure, but many of them have been identified; for example, the crescendos and diminuendos of music, the changes of scale of the zoom lens, the tension and relief of tension in music and drama, the order-disorder transitions of the dance, the appropriate coordination of form with visual and tactile texture in the graphic and plastic arts, the successive reductions and elaborations of theme and pattern in music and in painting, the symmetry and breaking of symmetry in all the arts, and the alliteration and repetition in the refrains of poems and songs.

I have been fascinated in recent years by watching very young children through new eyes, and by perceiving that many of their choices and many of their delights are based on these seemingly sophisticated elements of aesthetics. It is said that travelers in foreign lands see what they expect to see.

During World War II, I lived for some time near Knoxville, Tennessee, and was appalled and horrified to see the state of abandon and disrepair of the farm homesteads in that region. Then I read David Lilienthal's book *Democracy on the March*, in which he pointed out that homes to which electricity had arrived were changing, the houses were being painted, the yards cleaned up, the fences repaired. Thereafter, when wandering around that countryside, I could see a spirit of hope and a building of self-respect.

I think that we need to look at children with new eyes. It is not a matter of building new and more curricula in the arts or of encouraging arts activities and expression. One can recognize that aesthetics enters into the choices and behavior of children at the earliest age, and that it is we who denigrate and discourage their reliance on aesthetic grounds for behavior and decision.

Why do we self-righteously ignore (and even berate) children's intense discrimination among textures and tastes of food or object to their enjoyment of the feel of food on their hands and faces? Why does a group of adults invariably laugh at children when, as two-year-olds, they begin to move in response to music? Why do we refuse to recognize that knocking

down a just built, teetery structure of blocks is a fine example of an order-disorder transition? Why do we admire children when they build a pattern of objects with great symmetry, but then refuse to understand that when they "ruin" it with a misplaced object, they, in fact, have made an aesthetic decision?

We could be cued into the aesthetic sensibility of even very small children by the intense pleasure they express when, for example, the lids to little boxes fit precisely and smoothly. I was alerted to these sensibilities a few years ago when a four-year-old girl uttered a shriek of delight after watching a rather spectacular disorder-to-order transition. At the end of the day, at a lake in Golden Gate Park, a boatman had to remove all the public row boats from the docks and move them for the night under a shed in the middle of a lake. He started by untying them from the dock and tying them together in an impossible looking, random mess of every which way boats. The four-year-old looked on with increasing anxiety. Finally, the boatman attached his puttputt to one of the boats and took off. The fifty or so boats broke out of their tangled web and followed him in two lines that formed a beautifully curved symmetric "V." It was at that point that the four-year-old burst forth with her shriek of aesthetic delight.

Where it ends.

Our unwillingness to recognize and nurture the role of aesthetic choice, decision making, and satisfaction in very young children is not really surprising. It is symptomatic of attitudes that pervade our entire process of social, political, and economic decision making. It is, therefore, also not surprising that art instruction is the first to go when school budgets get tight. Aesthetic considerations and what artists have taught us about human experience are invariably the first to be ignored when we design and build housing developments, supermarkets, barren freeways, topless dance joints, nuclear weapons, and homes for the aged.

A possible step in a new direction.

It will be a while before we can do much about housing developments, shopping centers, and nuclear weapons. But how about beginning with children's toys, and, incidentally, with school teaching materials. Contemporary toys are aesthetically abominable, even when their pedagogy has been creatively conceived. It is true that many of them have wonderful, bright colors and even pretty pictures. But they do not feel nice. They do not come apart and go together neatly. It is impossible to modify them, to use them alone, or in combination in outrageous contexts. One cannot step on them or throw them - and anyway, they do not make a nice sound when they hit the floor. I remember that in 1917, when I was five, I "sank submarines" by hurling a large, marvelously built and balanced screwdriver along the floor to make gaping holes in tin cans. And later, what an exciting thing it was to have a clock spring burst out of its toothed brass container and then to take the time to carefully coil the flat blue steel back into its tight spiral within the brass.

The learning and pleasure of play involves using the props of society, often the finer ones, divorced from the context of their original purpose. If really good toys are too expensive, then toy stores should get around the difficulty by refusing to buy from toy manufacturers and instead stock a carefully selected collection of commercial, industrial, and military surplus items and materials. Even contemporary tricycles, the brightly colored plastic ones, tilted up in front and with small, fat rear wheels, are extraordinarily unpleasant, compared to ones with metal frames, wire-spoked wheels, and bearings that need to be oiled once in a while.

Children are frequently not even allowed to decide who their dolls are because the dolls are constrained to be Snoopy or Mickey Mouse or Superman.

A lot of thought and effort has gone into how to make toys cheaply, and into increasing their safety, but the effort and cost of making them aesthetically satisfying and precious has been woefully and damagingly sacrificed.

To a large extent, the same criticism can be labeled against the instructional materials, including books and maps, that are designed for the school classroom. Even some of the more enlightened curriculum development projects in science, math, and social studies have subordinated aesthetic considerations to the economy of mass availability. Perhaps the process was not as much subordination as it was negligence. It may never have occurred to the people who designed the material that the aesthetics of the learning experience could decisively influence attitudes toward and interest in learning.

The discussion and the line of thought that I have been pursuing lead toward the conclusion that along with the implementation of curricula for art instruction, one must become more aware of and more actively involved in nuturing the role of aesthetic considerations in bringing up children and in providing the props of their pleasure and instruction as respected criteria for their decision making. Even in the so-called "hard" sciences, such as physics, the finest progress is made only when aesthetics combine with reason toward finding solutions and conducting experiments. In the people sciences and in social studies, aesthetics can perhaps be even more decisive in arriving at correct descriptions. Surely, in the use and choice of words, one can frequently be governed more appropriately by the aesthetics of language than by the rules of grammar (although the grammar need not be incompatible with the art). The integration of art with the overall curriculum. does not necessarily mean that works of artists be introduced into every class, although in some instances it may be delightful and instructive to do so. Instruction in art should begin at all levels and situations by making people aware of the aesthetic experience and by allowing such experiences to dominate what happens in all manner of choices; for, unless aesthetic considerations are allowed to influence decisions regarding behavior and thought and design, there can be no sustained conviction that art is important.

Art is much more than making sure that we have decorated the walls and the packages. Furthermore, although it is true that art can, as can conversation, serve as a vehicle for therapeutic self-expression, both art and conversation also serve the much more powerful role of affecting the way we think and live and believe.