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Art as a Human Behavior: Toward an Ethological View of Art

IT SHOULD BE a matter of some interest and concern to those who teach and contribute to humanistic studies such as the philosophy of art that their work is founded on a heritage of philosophical speculations about the nature of knowledge and the mind that was formulated by men who had no reason to suspect that human consciousness and mental activity have had a long evolutionary history. Although modern linguistic philosophy postulates inherited predispositions for language and hence for mental functioning, most branches of philosophy continue their investigations without regard for the implications of recent palaeo-anthropological discoveries which imply that the human mind is of a remote antiquity or that it has evolved (and is evolving) within certain biological limits and that its varied abilities have necessarily and primarily been of importance to man's survival as a species.¹

Aesthetics is one of the branches of Western philosophy that has generally, even resolutely, held itself aloof from scientific encroachment or scrutiny. In Western thinking art resists methods of science such as categorization, definition, or precise measurement. Its complex workings whether of construction or appreciation are private, unobservable and usually fleeting, and therefore do not lend themselves to scientific perusal.

Viewing art from the perspective of biological evolution, as in the present paper, is not quite the same thing as subjecting it to scientific analysis. More accurately, it is a *way of looking*² at art as a human behavior, based on the assumption that human beings are a species of animal like other living creatures, which further implies that their behavior like their anatomy and physiology has been shaped by natural selection. Such a viewpoint may suggest new avenues for thinking about some of the problems with which aesthetics has traditionally been concerned: the nature, origin, and value of art, not as an abstraction, not *sui generis*, but as a universal and intrinsic human behavioral endowment.³ As this is, as far as I know, the first attempt to examine art closely in this way, my effort is in the nature of a preliminary inquiry, with the hope that others will be encouraged to modify, refine and extend the ideas presented here.

Ethology and Art

I. *Ethology and Art*

The biology of behavior—or as it calls itself, ethology—is a relatively new science that is concerned with what living creatures *do* in their normal, everyday existence. General and specific activities, particularly those that contribute to the unique way each animal fits into its larger world of natural environment and other creatures, can be defined and observed. Recognizing that be-

havior is as characteristic of and dependent on an animal's way of life as his anatomy and physiology, ethologists observe (and compare, in order to better understand an individual species) universal behavioral phenomena and tendencies such as courtship and mating, territorial maintenance and spacing mechanisms, or communicatory behavior.

It is possible to view human beings from an ethological perspective if one accepts—as seems undeniable—that man is an animal species who has evolved and whose behavior as well as his biological organs and systems has had adaptive or selective value in that evolution. Human ethologists propose that certain ubiquitous behavioral features or tendencies in man's life are an intrinsic, relatively unchangeable part of his nature and have arisen and been retained because they contribute positively to his evolutionary success, his survival as a species.

Those who attempt to view humans ethologically are often dismissed as being sensationalists, reductionists, or mechanists. They are accused of being slipshod, or simplistic, or spinning theories heavier than the facts will bear. It is easy to find counterexamples that appear to refute broad, speculative theories, particularly where man is concerned, who for the last 25,000 years has—unlike any other animal—displayed a prodigious *cultural* evolution whose amazing variety of manifestations has tended to obscure the more broadly-based limits of biological evolution on which they are undoubtedly based.

Yet limits undeniably exist, and in order to understand these it is necessary to collect and compare examples of universal human behaviors from many societies. Accounts from anthropological studies of a wide variety of human groups show that in spite of wide lability in details, human beings universally display certain general features of behavior that ethologists have identified in most animal societies as well. For example, both human and animal societies tend to form and maintain some kind of social hierarchy. Both humans and animals (including reptiles, birds, and even insects) use ritualized nonverbal communicatory signals that

formalize emotional responses, channel aggression, and reinforce social bonds. Like many young animals, all human children play. Fundamental universal human patterns and behavioral sequences have been observed in courtship and mating practices or in the mother-infant association, although these are overlaid with individual cultural variations. Similarly, in both animals and humans, an individual zone of physical distance from others is maintained, and relaxed with certain intimates or in certain situations.⁴

There are in addition behaviors that seem unique to the human species. Among these is art.⁵ No human society has been discovered that does not display some examples of what we, in the modern West, are accustomed to call "art." It is worth investigating whether we can identify a universal "behavior of art" and, if we can, attempting to determine what its selective value has been in human evolution. Such an approach may seem distasteful or irreverent: the field of thinking about art, now that the subject matter of theology is usually handed over to the social and behavioral sciences, remains the last bastion of those who assume that man and his works are "above" or at least unconcerned with biological imperatives. One may argue, however, that regarding art as a fundamental manifestation of human nature with its roots in biological processes is not to reduce it to these roots, or to denigrate it, but rather to better appreciate its essential value. Awareness of man's connectedness with all life need not mean a denial of his uniqueness. Indeed it indicates more clearly where that uniqueness lies.

The paper will address three aspects of an ethological view of art: (1) the setting out of fundamental assumptions that such a view demands; (2) the attempt to identify a "behavior of art"; and (3) a discussion of the posited contribution of art to human evolutionary success.

II. Assumptions

1. The ethological view of art presumes that the history of art as a behavior predates

by far what is today considered to be the history of art. Chipped stone tools, cave paintings, and fertility statues may be the earliest artistic artifacts that are extant, but they are not the beginning of art as a behavior, whose origin must be at least in the pre-palaeolithic phase of hominid evolution. Art is a manifestation of culture and in that sense is a concern of anthropologists, but one can claim that like other specific cultural behaviors such as language or the skillful making and use of tools it will have its roots in earlier, less differentiated, genetically determined behavior and tendencies. An ethological approach should attempt to examine and delineate these.⁶

2. Another assumption, alluded to in the introduction, is that the behavior of art has (or has had) selective value, that it in some way enhances the survival of a species whose members possess that behavior. Such an assumption appears to controvert the premiss that generally obtains in modern views of art since Kant, i.e., that it is "for its own sake" and has no practical or extrinsic value. An ethological view generally assumes that any widely prevalent behavior has a function and is the way it is for a reason. Art would not exist universally if it did not possess positive selective value, and we must ask ourselves what it could be about art that is essential to the survival of the human species or to individuals in it, or to the genes of individuals.⁷

3. Although the qualifying features of a behavior of art remain to be identified and discussed in the next section, we must mention here that the concept of art as a behavior does not refer only to specific artistic acts of making and enjoying artworks. Instead it comprises a broad general phenomenon which (like other general "behaviors," e.g., aggressive behavior or sexual behavior) is characteristic of all human beings, not just the special province of a minority called "artists."

4. Similarly, all human societies will have art, although it is accepted that no society need demonstrate or emphasize equally all the kinds of manifestations of this behavior.

5. Concern with the nature, origin, and history of the behavior of art does not in-

clude any assumption about the value (other than "selective value") of its result. "Art" does not, as in so many discussions of aesthetics, presuppose or mean "good art."

6. The manifestations of a universal behavior in one human group in one spot in time and space are certain to be limited. Art in our Western view will have to find its place as one of a number of manifestations that have existed and do exist.

7. Making art and recognizing (or "appreciating") and responding to art are more easily considered separately, although they are related and must each be understandable within the ethological purview.

III. Art Viewed Ethologically

The Problem

At one time discussions of art by philosophers and critics assumed that it was defined by a quality (e.g., beauty, harmony, proportion, representational accuracy, significant form) inhering in an object that was recognized by a kind of predisposition in the attitude of the beholder. As aesthetic theory has developed, the number of apparently undeniable qualities or characteristics of art that have been suggested and must somehow be incorporated into any definition has become decidedly unwieldy,⁸ and today it is generally agreed that definitions of art, if one desires them at all, must be either injunctive or open-textured.

Although the attendant problems and difficulties are of a different kind, an ethological approach to art is perhaps no less complex or daunting—at least initially—than a philosophically-based inquiry. To begin with, the assumptions listed above must not be contravened. What we call art must be universally applicable to all men (not only "artists") and societies past and present (not only modern Western society), and must have plausible adaptive value. At the same time we must hope that what we eventually choose to regard as artistic behavior will be neither so labored nor so broad that it is meaningless.

Secondly, one who proposes an ethological view of art is as it were breaking new

ground.⁹ To be sure others have made suggestions about the origin of art and about its significance or necessity to mankind. However, these offerings have rarely come from evolutionists or biologists (who tend to omit art from their speculations), but from writers on philosophy, history, criticism, and aesthetics. On inspection they turn out to be of little use to an ethological inquiry, for they are not based on the essential premise that art is a behavior that is the handiwork of biological evolution, and therefore they do not meet the assumptions listed above.

Regarding art's origin, for example, quasi-evolutionary views in the past have tended to trace it to one source: to play,¹⁰ to body ornamentation,¹¹ to a "configurative urge,"¹² a creative or expressive impulse,¹³ to sympathetic magic,¹⁴ to relief from boredom,¹⁵ or to motives of self-glorification¹⁶—any one of which can be shown to be inadequate to explain the genesis of more than a few of the varieties of art. Attempts to decide what art is, not by speculating about its origin but by isolating some essential X-factor that art provides to human life (e.g., adornment or decoration; "practice" for real life, "escape" from real life; sensuous or "aesthetic" satisfactions; order; disorder) have been made, but on inspection are partial and thus inadequate as well.

It is art's stubborn and irrepressible variety—of objects, activities, attitudes, effects—that causes grief to ethologists in search of first principles no less than to hapless philosophers of art. This variety is so in other human societies no less than in our own.

When we survey primitive societies in the Americas, in Africa and in Oceania we discover a wide variety of artistic and aesthetic conceptions.¹⁷ For some societies art is extremely important and in others it has little or no importance. In some groups artists are specialists; in others art is considered to be an ability of everyone. Art may be in the service of specific communal ends or performed as a personal expression of feeling. Art objects may be carefully looked after or casually discarded; they may be considered sacred and valuable in themselves, or their value may reside in the supernatural power they embody. Value may accrue to novelty or to conventional formulaic repetition of

tradition. Depiction may be abstract or representational. The artist may be admired or revered, or he may be regarded as deviant or socially inferior. Some groups consider that art comes from a special or divine realm, or that it is widespread, occurring gratuitously. Although usually one person creates one work, in some groups several persons may work on the same object.¹⁸

Our own Western notion of art is far from uniform or clear. When one examines writings on art he finds that, depending on the author, the word refers to a bewildering array of meanings. Art may be viewed variously as *artifice* (both in the sense of skillfulness or craft and of artificiality); as *fantasy* (make-believe, wish-fulfillment, illusion, the ideal, play); as *creativity* (exploration, invention, innovation, self-expression); as *form or order* (the psychological, perceptual and mental need to discover or impose a formal order on experience; pattern-making; recognition of beauty as order); as *heightened existence* (emotion, ecstasy, extraordinary experience, entertainment); as *disorder* (deviance or dishabituation); as *sense* (the immediate fullness of sense-experience as contrasted with abstract thought, or the sensuous qualities of things such as color or sound); as *revelation* (or innately-compelling symbols, of God, of reality); as *adornment or embellishment* (the wish or tendency to beautify, a decorative or configurative urge); as *self-expression*, as *significance or meaning* (interpretation) and as combinations of two or more of these.

It is evident that art is somehow concerned with all these things, but when they are more carefully examined from an ethological standpoint, the concept "art" tends to evaporate. Each of the above-mentioned aspects of experience can be subsumed under another psychological or biological need or propensity, without invoking a special behavior, "art," at all. For example, the well-studied behavior of play is able to cover all nonutilitarian making, as well as fantasy, illusion, make-believe, ornamenting and decorating. Exploratory and curiosity behavior can account for instances of innovation and creativity, if they are not simply called problem-solving behavior. Sensory experiences can be studied as examples of per-

ception. All animals require formal order and predictability: cognition cannot occur without them, and some would say that cognition *is* perceiving or imposing order. Similarly, all animals require disorder and novelty: behaviors that include or provide these need not be called art. Heightened existence is frequently sought and obtained in experiences few would call artistic or aesthetic—e.g., sexual orgasm, successful acknowledgement or exercise of power, achieved ambition, sporting events, catastrophes, carnival rides, even childbirth. Revelation and a sense of significance are components of religious experience, or of loving and being loved—not only of art.

It would seem that by assuming any of these is art or is provided by art, a specific identifying feature still eludes us. To say that art is any of these one must say what it is that is *different* about “artistic” play, “artistic” order, “artistic” perception, “artistic” significance. In other words, one must still determine what is artistic about art.

Identifying a Behavior of Art

If there is such a thing as a “behavior of art” we must assume that it developed in human evolution from an ability or proclivity that our pre-palaeolithic ancestors could have shown. I should like to suggest that this root proclivity is the ability to recognize or confer “specialness,” a level or order different from the everyday.

In every case, even today, when giving artistic expression to an idea, or decorating an object, or recognizing that an idea or object is artistic, one gives it (or acknowledges) a specialness that without one’s activity or regard it would not have. One renders it special, recognizes that it is extraordinary. This characteristic of art has been referred to by other names by other thinkers, e.g., transformation,¹⁹ aesthetic transposition or promotion.²⁰ It is a sort of “jacking-up,” a saltation or quantum leap²¹ from the quotidian reality in which life’s vital needs and activities occur, to a different order, an “aesthetic order”²² which has its own kind of motivation or intention and a distinctive attitude or response.

This root proclivity may also be identified in two other kinds of behavior whose simi-

larities to art have indeed frequently been noted: Play and Ritual. For example, in most instances both play and art²³ use make-believe, illusion, and metaphor; neither is directly concerned with primary ends of direct survival (like eating, fighting, escaping danger) but is performed “for its own sake”; as behaviors they are labile and relatively unpredictable; they make use of novelty, incongruity, surprisingness, complexity, change, variety; they have an inherent dynamic of tension and release, arousal and relief, deviation and recurrence or restatement.²⁴

As behaviors, ritual and art²⁵ are similar in that both formalize and shape emotion; communicate in a symbolic “language”; and for expressive effect make use of out-of-context elements, of exaggeration, and of repetition. Many rituals are expressly concerned with another level or realm from the ordinary, and art is used by ritual as a means to the end of revealing this special, extraordinary reality.²⁶

The close relationship even today between art and play and art and ritual suggests that in human evolutionary history they were once intimately related if not indistinguishable. Acted upon by different evolutionary requirements and molded by different emergent physical and mental endowments, the root proclivity of making special could diverge into related but usually distinct currents: play, ritual, and art.

Art as we are accustomed to think of it, then, should be considered as an instance of the broader proclivity of making special. In our ethological view, *artistic behavior shapes and/or embellishes everyday reality with the intention²⁷ of constructing or manifesting (or recognizing) what is considered to be another “level” from quotidian practical life.*

Yet, although according to this view all societies and people have art, we cannot assume that all societies and people regard works of art with the distinctive aesthetic attitude that is usually presupposed by modern Western theories of art. The usual human responses to art, to things made special or the act of making special, are reactions such as being impressed by power or size or opulence or skill or monetary value; sharing the excited reactions of a crowd; feeling

satisfaction at the carrying out of a known practice or observance; sensuous or kinaesthetic pleasure; vicarious enjoyment; catharsis; and so forth.

Although these may be ingredient in our Western response to art as well, we usually insist that there be an added "aesthetic" regard—that the work of art be experienced not only as it has been translated into another plane, set apart from the everyday world, but by an awareness and acknowledgement of the *way* in which this has been done. Although non-Western peoples are certainly capable of making such judgments (e.g., recognizing that a tale is not only a good tale, but that it is "well told";²⁸ agreeing that a dispute is not only settled, but "settled artfully,"²⁹ and some persons of leisure and cultivated taste in all higher civilizations have most likely been able to appreciate the "art" in art), such discrimination is in general not observably a widely-held ability or proclivity.

In other words, we can propose that it is the behavior of making things special and appreciating that some things are special which is fundamental, universal, and which has had selective value, but not the ability to appreciate how this specialness is achieved. Appreciating "how," the *way* something is done, demands a cognitive awareness—a more or less self-conscious discriminating, relating, recognizing and following manipulations within an acquired code. This type of awareness is of course biologically useful in human communication and in the processes of cognition and perception generally. But it seems safe to say that when developed to the degree necessary to appreciate a Bach fugue or Cézanne landscape, such an ability is biologically irrelevant.

IV. *The Value of Art*

Although it has just been stated that art as we are accustomed to understand the term—the fine arts—is not biologically necessary, there are those who would claim that art is still in some sense vital. Apart from biologists who might attribute a general adaptive value to art, poets and philosophers have often expressed their conviction that art is

necessary, that it makes a qualitative difference to human life.

Let us examine some of the ways in which art has been said to have functional or selective value to human societies, and thus presumably to the human species.

Anthropologists frequently claim that art contributes essential social benefits to primitive societies: it expresses or relieves or canalizes feelings, reiterates social values, mirrors the social code, provides an avenue for shared experience, and the like—all of which are socially useful activities.³⁰ In historic times in the West, too, art has served social ends such as documentation, illustration of precepts and stories that are significant to society, pictorial reinforcement of traditional beliefs, distraction and entertainment, impressive display of wealth and power, facilitation in a group of a dominant mood, and so forth. Even today with much of art existing ostensibly for its own sake, art has socially observable practical and social as well as aesthetic consequences.

Yet there arises a difficulty with attributing the selective value of art to these or other social functions that it serves. The ethological view of art is not surprised that art is socially useful. But it is interesting to note that in some instances the socially significant function of art is to represent custom and tradition, that is, to uphold the status quo and maintain concord; in others, art provides an "escape valve" through license and heightened or diverted feeling. Art may be orderly and disorderly, immanent and ideal, emotional and intellectual, Apollonian and Dionysian—which suggests that it can be all things to all social and individual requirements.

Additionally, the biologically adaptive functions that have often been proposed for art (like the oft-cited characteristics of art that were mentioned above) refer upon closer examination not to *art*, but to characteristics art shares with other behaviors or to these behaviors themselves. Thus, for example, when people suggest that art is therapeutic,³¹ or gives us direct unselfconscious experience,³² provides paradigms of order,³³ trains our perception of reality,³⁴ gives a sense of significance or meaning to life,³⁵

and so forth, it is arguable that what is being referred to is not what is "artistic" about art, but rather what art shares with play, exploration, ritual, order-giving, and so forth.

It might be suggested that although other behaviors may contribute to our practical life, our sense of fulfillment and meaning, our psychological or social integration, it is the *degree* to which art embodies and communicates experience that makes it unique³⁶ and irreplaceable. For those who are receptive to works of art in the modern sense this is probably so. Yet, as we have implied, great numbers of people appear to get along psychologically and practically without assistance from the more complex and refined arts, and in addition they seem to find their greatest emotional sense of significance to come from nonaesthetic experiences such as parenthood, achievement and successful practice of a skill, power, recognition, being praised and needed, and so forth.

It has been only a very short time, speaking in evolutionary terms, that art has been detached from its affiliates, ritual and play, and that its various components have coalesced to become an independent activity. Until less than a hundred years ago the primary tasks of artists were not to "create works of art" but to reveal or embody the divine, illustrate holy writ, decorate shrines and private homes and public buildings, fashion fine utensils and elaborate ornaments, accompany ceremonial observances, record historic scenes and personages, and so forth. The artist, in our terms, made these things "special," but specifically aesthetic considerations were no more important to most observers than other functional requirements—although it is not to be denied that artists of all times have been highly skilled in marrying the two.

Although space does not allow a detailed reconstruction of the way in which the behavior of art could have originated and evolved, it is my contention that only in historic times did the behavior of art become increasingly detached from the rest of life, regarded and valued primarily for its own sake. Although today in advanced Western society we acknowledge that it is possible to shape and embellish other human behaviors

—sex, eating, communicating by word or gesture—in order to make them special, and the relationship of art and life can be said to be a major preoccupation in advanced contemporary thought,³⁷ it is not often appreciated that in a quite unselfconscious way art actually appears to inform all of life in some traditional societies.³⁸

It would seem that in its rudimentary beginnings, the activity of giving shape to and embellishing life was not an impractical, leisure-time activity, but the way the human mind worked: it was a way of prehending and comprehending the world. Looked at in this way it was not separated from the activities of formalization (embodied in such activities as cognitive orientation, conceptualization, cognitive structuring, systematizing, giving narrative relationship in time or perceptual shape in space) and of the propensity—inherent in the ability to symbolize—to recognize or imagine an order other than the mundane. Such a proclivity demonstrates simply that man cannot bear, individually or as a species, senselessness or lack of meaning.

Our minds still "work" the same way. We still need a sense of meaning. But rather than finding this meaning exclusively in explanations provided by traditional social institutions (e.g., tribe, clan, family, caste, religion, a body of tradition, language, rituals) that are expressed and reinforced in symbols which have been given artistic form and embellishment, as have most human beings throughout the ages, many of us in the modern world are in a position of not accepting traditional meanings, or finding that they are inadequate.

The ways in which meaning was apprehended by our ancestors were not divided into separate entities called "art," "science," "metaphysics." Our attribution of the name "art" to tribal singing or dancing or to cave paintings is artificial and misleading. More simply, these are ways of finding meaning in life or giving it, making it special, ways that were inextricably bound to social institutions and practices whose fundamental assumptions are no longer accepted unquestioningly. By looking back and identifying elements, activities, and artifacts that suit

our categories of what is artistic, we are in danger of giving an interpretation that was not known to the people who used these elements, engaged in these activities, and produced these artifacts.

Is there any reasonable way in which we can assign selective value to a behavior—making special—that was not independent? Only by acknowledging that what *has* had selective value is “giving meaning” so that aesthetic elements, activities, and artifacts, insofar as they have accompanied and reinforced meaning-giving have themselves had selective value.

Another way of looking at it is to recognize that *meaning is aesthetic*. Ordinary day-to-day life is formless, incoherent. When shaped and embellished or transformed as in ritual or play or art it takes on a greater or more significant reality so that when we find something to have coherence it seems to be “aesthetic.” When we feel something to be aesthetic we recognize that it is coherent. This seems such a fundamental part of man’s nature that the question of its “selective value” is beside the point. What is unprecedented today is that for modern man aesthetic meaning, bracketed, and removed from everyday life, does not invariably reflect a reality shared by his fellows, as it has for most of the human species throughout human history. In large part modern man must be his own artist and find or create his own meanings, meanings which do not necessarily cohere with other meanings.

It is my suspicion that the widespread Western axiomatic notion of the incompatibility of art and life, as well as the more recent concern with the shared boundaries and interpenetration of the two, are symptoms or results of this broad and gradual change in the locus of human meaning. Although their congruence with the concerns and values of human life remains an important consideration in our response to works of art, some persons in the twentieth century in the modern West have nevertheless been able to accept self-contained objects or events, isolated from the rest of experience, as art and to respond to them “aesthetically.”

Indeed, this attitude—that detached self-containment is a defining and even universal feature of art (at least “great art”) and that one’s response to works of art is primarily or preferably a detached one—seems to be strongly embedded in contemporary advanced Western thought. I would like to suggest that although writing and theorizing about art in this sense may well be a fascinating and satisfying endeavor, it is however likely that like its subject it is a self-referential activity performed for its own sake and ultimately has no bearing on the wider consideration of art as a universal human behavior. We must be aware that our pronouncements about the nature of art derived from the culture-bound preconceptions of modern Western aesthetics may apply only to art produced and appreciated by persons of an infinitesimal number in both time and space, who appear in their conceptual framework and way of life to be unprecedented and without parallel in human evolutionary history.³⁹

¹ J. Z. Young, *Programs of the Brain* (Oxford University Press, 1978).

² J. H. Crook, “Social organization and the environment: aspects of contemporary social ethology,” in C. L. Brace, and J. Metress (eds.), pp. 100-115 *Man in Evolutionary Perspective* (New York, 1973), p. 112.

³ This paper does not address the fascinating and important question of the possibility of innate “biological” propensities for considering certain things to be beautiful. Investigations of preferences for certain proportions, colors, musical intervals and the like suggest that there may be some very broad, general innate or universal bases for taste and judgment, but these are not likely to illuminate our understanding of “aesthetic” responses to works of art which seem to be responses to subtle complexities that inhere in specific or even unique circumstances and that do not lend themselves to precise analysis and measurement. What is generally called “aesthetic” response seems to be based upon at least tacit acquaintance with a “code” of symbolic representations—i.e., requiring an intellectual learned or cognitive element—which in itself suggests that reflexive or innate actions would be of limited significance in the total response, though they may well influence its general outlines.

⁴ These and other fundamentals of human behavior can be found described, with an extensive bibliography, in L. Tiger, and R. Fox, *The Imperial Animal* (New York, 1971). Also see D. Morris, *Manwatching* (London, 1977) for a compendium of universal human gestures and signals.

⁸ Whether or not animals make art is, essentially, a matter of definition. Some have claimed that the decoration of his nest by the bower bird, or bird-song itself, are examples of a rudimentary artistic sense. But see below, note 27.

⁹ There is not space for such an endeavor here, though in a still unpublished manuscript I have attempted to identify and draw together art's antecedents.

¹⁰ Resolution of the current controversy concerning the basic unit of evolution—gene, individual, or species—will not affect the theory presented here of the selective value of art.

¹¹ See, e.g., H. Kreidler, and S. Kreidler, *Psychology of the Arts* (Duke University Press, 1972). Definitions of art usually include at least some of the following elements, claiming that art: is the product of conscious intent; is self-rewarding; tends to unite dissimilar things; is concerned with change and variety, familiarity and surprise, tension and release, bringing order from disorder; creates illusions; uses sensuous materials; exhibits skill; conveys meaning; conveys a sense of unity or wholeness; is creative; is pleasurable; is symbolic; is imaginative; is immediate; is concerned with expression and communication. None of these, however, is characteristic only or primarily of artistic behavior. Monroe Beardsley's insistence on the presence of elements such as these "to an unusual degree" in a work of art (see M. Beardsley, *Aesthetics* [New York, 1958], p. 528) seems to me the only way to include these ingredients, which art shares with other human activities and attitudes, in a definition of art. The present analysis of artistic behavior does not deal with such traditionally ascribed attributes of art.

¹² Others have treated art from bio-evolutionary perspective but do not attempt to identify what their subject includes, or to treat it within a specifically ethological framework. See, e.g., A. Alland, Jr., *The Artistic Animal* (Garden City, N.Y., 1977); R. Joyce, *The Esthetic Animal* (Hicksville, N.Y., 1975).

¹³ Authors who have espoused "play" theories of art include F. Schiller, *Letters on the Aesthetic Education of Man* (1795), E. H. Wilkinson and L. A. Willoughby, eds., (Oxford University Press, 1967), 14th Letter; H. Spencer, *Principles of Psychology*, 2nd ed. (London, 1870-72); S. Freud, *Creative Writers and Daydreaming* (1908) (London, 1959); J. Huizinga, *Homo Ludens* (London, 1949).

¹⁴ A number of authors who hold this view are listed in O. Rank, *Art and Artist* (New York, 1932), p. 29.

¹⁵ H. Prinzhorn, *Artistry of the Mentally Ill* (1922) (New York, 1972), p. 13.

¹⁶ See O. Rank., op. cit., and Yrjo Hirn, *The Origins of Art* (London, 1900).

¹⁷ This view is espoused by numerous investigators of Upper Palaeolithic cave painting. See the discussion in P. Ucko, and A. Rosenfeld, *Palaeolithic Cave Art* (London, 1967).

¹⁸ P. Valery, *Aesthetics* (London, 1964), p. 214.

¹⁹ Proposed by W. Perceval Yetts, *The Cull Chinese Bronzes* (London, 1939), p. 75.

²⁰ Many primitive societies have no word for or concept of art, although many others do. Until art is defined ethologically we have no recourse but to look at their activities and artifacts and identify what we in the West are accustomed to call works or kinds of art: e.g., carvings, paintings, decorated vessels, dancing, singing, theatre, and the like.

²¹ A provocative discussion of philosophical and other questions raised by considering the manifestations of art in primitive societies can be found in Richard L. Anderson, *Art in Primitive Societies* (Englewood Cliffs, N.J., 1979). Accounts of various non-Western attitudes towards and practices of art may be found in Carol F. Jopling, (ed.), *Art and Aesthetics in Primitive Societies: A Critical Anthology* (New York, 1971); Charlotte M. Otten, (ed.), *Anthropology and Art: Readings in Cross-Cultural Aesthetics* (Garden City, N.Y., 1971); and in Warren L. d'Azevedo, (ed.), *The Traditional Artist in African Societies* (Indiana University Press, 1973).

²² A., Alland, Jr., op. cit., p. 32 et seq.

²³ G. Charbonnier, (ed.) (1961) *Conversations with Claude Lévi-Strauss* (London, 1969), pp. 123-24.

²⁴ My use of the terms "up" and "leap" and "more" does not imply that I consider this different order to be higher in the sense of more exalted than everyday reality. It means, really, "removed from" everyday reality.

²⁵ P. Valery, op. cit., pp. 148-49.

²⁶ In the Gola of northwest Liberia, one word is used to designate the two kinds of activities that we call art or play. To the Gola, the distinguishing feature of this activity is to be an end in itself, and they include play, festiveness and entertainment, display, pastime, the making of images, elaborate decorated personal adornment, and a strongly desired but frivolous object as instances of this word. See Warren L. d'Azevedo, "Sources of Gola Artistry," pp. 282-340 in Warren L. d'Azevedo, op. cit., p. 306.

²⁷ E. Dissanayake, "A hypothesis of the evolution of art from play," *Leonardo* 7: (1974) 211-17.

²⁸ In most primitive and traditional societies art objects are usually not even to be seen or considered apart from their ritual context.

²⁹ E. Dissanayake, "An ethological view of ritual and art in human evolutionary history," *Leonardo*, 12 (1979) 27-31.

³⁰ According to the present view, art is never produced unintentionally. For this reason as well as others we will not attribute art to animals.

³¹ J. H. Vaughan, Jr., "ankyangung as artists in Marghi society," in W. L. d'Azevedo, (1973) op. cit., pp. 162-93.

³² J. W. Fernandez, "The exposition and imposition of order: artistic expression in Fang culture," in W. L. d'Azevedo, (1973), op. cit., pp. 194-220.

³³ This point of view is called "functionalist" and has been criticized as being tautological. The controversy need not concern us here.

¹¹ E.g., A. Stokes, *The Image in Form* (New York, 1972), pp. 80, 86, 96, 105.

¹² S. Burnshaw, *The Seamless Web* (New York, 1970).

¹³ A. Storr, *The Dynamics of Creation* (London, 1972), p. 139.

¹⁴ H. Read, *Icon and Idea* (London, 1955); H. Read, *The Forms of Things Unknown* (London, 1960); J. Dewey, *Art as Experience* [1932] (New York, 1958), p. 200.

¹⁵ J. Z. Young, *An Introduction to the Study of Man* (Oxford University Press, 1974), p. 360; E. Cassirer, *An Essay on Man* (Yale University Press, 1944), Ch. IX.

¹⁶ H. Kreitler, and S. Kreitler, op. cit.

¹⁷ For some examples of this preoccupation see

A. Berleant, "Aesthetics and the contemporary arts," *Journal of Aesthetics and Art Criticism* (Winter, 1970), 155-68.

¹⁸ See, e.g., L. Thompson, "Logico-aesthetic integration in Hopi culture," *American Anthropologist* 47: (1945) 540-53; C. Geertz, *The Religion of Java* (Glencoe, Ill., 1960), pp. 233-34.

¹⁹ For a discussion of the "cognitive structures" underlying the making and appreciation of much of twentieth-century Western art, see S. Gablik, *Progress in Art* (London, 1976).

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