

Art and Technology: The End and the Future

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In the early Socratic dialogues Plato raises some of the first questions in the Western tradition about the nature of artistic work. In the *Ion*, for example, Socrates asks Ion, a young rhapsode, about the nature of his skilled expertise. Ion is not able to convince Socrates that he has genuine knowledge of the things about which he speaks, and as a result, the sources of artistic production are relegated to some sphere beyond rational understanding. In the *Protagoras*, Socrates poses a similar question when he asks, "In what wise things are painters knowledgeable?". On this occasion he provides an answer, saying that the wisdom of painters is concerned with the making of likenesses. We know, however, that Plato is deeply critical of the role of such likenesses in coming to a true understanding of the nature of reality.

My purpose in perversely talking about the Ancient Greeks in opening an essay on art at the Twentyfirst Century is twofold. First, I want to bring Socrates' original questions about the nature of artistic knowledge or expertise to bear on the visual culture of our own times. Socrates was not talking about art in the modern sense. He was talking about artistry, such as the skilled ability to make such things as recognisable images of things in paint or stone. But as is evident from Plato's interest in these activities, the visual culture of any society plays a significant role in articulating and shaping the ideas and values of that society. In our present century developments in mechanical technologies of visual representation, such as photography and film and the distributive technologies of television, have had a major influence on contemporary culture, not only in the technologically advanced societies of the world, but also on a more global scale. As we advance into the next century the developments in electronic technologies of representation face us with a philosophical question about art which, I maintain, might most helpfully be tackled through this original Socratic question.

The question is this: what are the conditions of a technology of representation which enable it to be used as a technology and medium of art? Socrates' question helps us to focus this issue by inviting us to attend to the distinctive skills and expertise required in using particular technologies and media, not merely to make images for diverse purposes, but to make an image which is a work of art. A brush, a camera, a computer, for example, are used to make visual images for many purposes. Some of these images are made or regarded as works of art, though in the case of the mechanical technologies, the issue is significantly contentious. Thus we can ask about these various technologies, what is distinctive about their use when they are used to produce images which, in some important sense yet to be elucidated, have some intrinsic interest and value? For in that way we shall learn what is

particular to the skill or expertise of the artist and may thereby be able to recognise ways in which new electronic technologies might make a contribution to art.

My second reason for turning to Socrates' question is that the answers given in those early dialogues have continued as influential and problematic ideas in Western theorisation about art. The two answers, the first that art is beyond rational understanding and is thereby a matter of creative inspiration and of feeling and imagination, and the second, that art is an important means of representing to ourselves what we take to be real, have been in continuous tension throughout the tradition of Western art. At the close of this century there is debate about the End of Art. It is a debate within and about this Western tradition. But as the new century opens, new technologies of interactive and multi media systems seem to offer possibilities for the construction of visual imagination which go far beyond anything we have experienced before. What, if anything, in art is at an end, and do these technologies take us any radically different directions? I do not offer a simple yes or no to these questions. Rather, my aim is to show how these sorts of questions are central to our interest in art in our common future.

Danto and the End of Art

In his major contribution to the End of Art debate Arthur Danto distinguishes the question of whether art has a future from the question whether art will continue.¹⁾ The question of whether art has a future is, for Danto, the question of whether art can sustain any sense of historical direction. Art may continue to exist as decoration, self expression or entertainment, says Danto, but it may no longer be a historically progressive practice with its own internal factors of linear development. The question whether art has a future, he says, thus has a profound philosophical implication, for it requires that we recognise that there is an internal connection between the way we define art and the way we think of the history of art. Arthur Danto thus raises his question about the future of art in the context of a particular progressive theory of the history of art and a related account of the nature of art. His claim is that art, in terms of this particular progressive account of its history and nature, has come to an end.

It is clear from Danto's writings that his views about the progressive nature of art have affinities with political ideas about a progressive liberal culture and scientific ideas about the progress of human knowledge. The End of Art debate is thus intimately connected with other debates characteristic of the end of this millennium to do with more political claims about the End of History and criticisms of an absolute conception of scientific knowledge. These political and epistemological issues have a wide but important bearing on our questions about art at the Twentyfirst Century. Nevertheless, in the scope of this essay, I shall confine myself to the more immediate issues of art, and shall proceed by outlining those

1) Arthur Danto *The End of Art and Art, Evolution and History*, in 'The Philosophical Disenfranchisement of Art', (New York, Columbia University Press, 1986.) Page numbers to these two essays indicated in this text respectively as EA and AEH. Also *Approaching the End of Art* in 'The State of the Art', (New York, Prentice Hall Press, 1987.) Indicated in the text as SA

parts of Danto's account which are salient to our enquires about art and technology, before subjecting them to what I hope is constructive criticism to our purpose.

Although Danto speaks about the End of Art he pays little attention to its beginnings other than alluding to Vasari as a source for the progressive model of Art History. Vasari's *Lives of the Painters* of 1550 is, in a significant sense for Danto, the first text of Art History in the Western tradition of art, for it aims not merely to describe different artists and their work but to give a progressive account of the development of Italian painting in the Quattrocento. Vasari presents a narrative of painting, from Giotto to Michelangelo, as a steady progress towards visual verisimilitude. Danto has pointed us to the internal relationship of a historical account of art to the definition of art. On this particular account therefore, painting is an art of mimesis aiming to make an image perceptually equivalent to the way things in the world are seen, and its historical development is governed by "increasingly refined technologies for furnishing visual experiences effectively equivalent to those furnished by actual objects and scenes." (EA p.86) He points to the introduction of pictorial perspective as a major contribution to this development.

We should perhaps note from the outset here that the system of pictorial perspective, unlike the telescope or the microscope, is not a technology of sight but of the representation of things seen. Danto does not confuse this point, yet he does talk of painting as though it is just like looking. It is true however, as Danto indicates, that the introduction of perspective into Western art is closely connected with developments in the science of optics and can be made complicit with scientific ideas of progress towards a more complete account of the nature of reality. The demonstrable progress between Cimabue in the Thirteenth century and Ingres in the Nineteenth, says Danto, is parallel to a progressive idea of science in its aim to achieve an isomorphically exact representation of reality. Thus, he says, this progressive model of art can have, as an ideal, a state of art in which everything could finally be shown, parallel to an ideal of science in which everything could finally be known. (EA p.87) What Danto means by this notion of somethings being completely shown becomes evident when we see how Danto views the relationship between developments in art and advances in technologies of representation.

Danto claims that it is precisely because there can be advances in the technologies of representation that there can be progress in art. It is on this basis that he makes a distinction between Representational and Expressionist theories of art. (SA p 101ff). An account of art as Expression, even though it might chart changes and differences in modes and subjects of expression, cannot be progressive. His claim is that as there is no mediating technology of expression, there is no reason to think of art as having a progressive history. Danto develops his argument by saying that although there are developments in technologies of representation, the medium of art to which it is applied may have its own internal limitations. The art of painting is limited by the fact that there are things discernible to sight, such as movement, which cannot be directly represented in paint. Danto contrasts this notion of direct representation with the representation of things which we might perceive to be the case on the basis of inference. In a painting, for example, perspective allows us to see directly,

he says, that some figure is further away than another. But to see in a painting that something is moving has to be based on an inference from what is, in the nature of the medium, something still. The advent of photography, he claims, presented the painter with an ideal of still two-dimensional representation beyond which painting could not go. It is Danto's point however that through further technological development in film the inherent limitations of the media were transcended, and direct perception of movement was now possible. It is on the basis of this sort of account that Danto says that, "it has always been possible to imagine, at least grossly, the future of art based on representational progress." (EA p.97)

Danto himself mentions holography as a future development of an art, since it enables to see more of an object than is possible with a camera. We might notice however, that holography has so far only succeeded in presenting images as visual curiosities, as though its only artistic function was as a means of the technological reproduction of sculptural form, parallel to the way in which photography as an art form might have been limited to the photographic reproduction of paintings. In the case of photography however, we see and know that it can be used as a medium of art in its own right. It is not yet evident that holography can be developed in this way. Anyone persuaded by Danto's account of the progressively representational nature of art however, might now be thinking of the ways in which the technologies of Virtual Reality might transcend the limitations of film. I shall be suggesting however that the pertinent question of art is not a question about the degree to which such a technology enables us to make representations which advance us towards some ideal of a complete match with experience, including movement, sound and even touch, but a question about the manner and purpose of such artificial experiences.

Danto's account of the progressively representational nature of art is, however, only a prelude to his main idea. The idea of art as a steady progress to more and more direct representations of perceptual reality is, he says, what makes it possible to think of art as a progressive discipline. But, he says, if art is to be a means to the further evolution of mankind, its essence cannot be mimesis. (AHE p.199) The central idea of Danto's claims about the End of Art is that through the advent of photography and film, art was released from its representational function and was free to pursue the more intrinsic aim of self understanding through the exploration of the conditions of its own practice. And in this final stage of art, says Danto, art has depended more and more on theory for its existence as art. In its Conceptual Moment art finally approaches the philosophy of art through making quasi-theoretical statements alluding to its own identity into its own form and subject matter. "The historical importance of art", he says rather startlingly, "lies in the fact that it makes philosophy of art possible and important." (EA p.111)

Danto makes it clear in several places that what motivated his thought was his experience of art in America since the late 1960's. The work of Andy Warhol provoked him to philosophical reflection about the identity of an art object. For there was no perceptually discernible difference between a commercial product such as a box of Brillo pads and Warhol artwork consisting of boxes of Brillo pads. Ignoring all the other ways in which we might reflect on Warhol's work, Danto generalises from this case to produce his theory of

the disenfranchisement of art through philosophy.

In the essays on the End of Art Danto stages his argument in terms of Hegel's philosophy of history. For Hegel the world in its historical dimension is the dialectical revelation of consciousness to itself. In all three of his main essays concerning the End of Art Danto puts his account of the progressive development of art into this Hegelian framework. Hegel's theory of history is a narrative of cognitive progress towards self understanding of the Spirit. Art has played its role in the development of this process, but, in Hegel's famous words, "Art no longer counts for us as the highest manner in which truth furnishes itself with existence." (See Danto, SA p.202) Thus, for Danto, as art progresses it approaches the state of self-reflective cognition. "It began to seem," he says, "as though the whole main point of art in our century was to pursue the question of its own identity." (EA p.110) Danto presents us with an analogy. (EA p.107) Our personal histories, he says, have a similar structure to the development of art, in that they end with maturity, where maturity is understood as knowing — and accepting — what or even who we are. This analogy I find significant and gives a clue to the unrest which I feel with Danto's whole account.

There is certainly an important analogy between a personal *Bildungsübersicht* and the cultural self consciousness of a tradition of art. In both cases self knowledge is, partly at least, a matter of how we understand our own past. Richard Wollheim tells us, rightly I think, that the unity of art which traditional aesthetics misleadingly tries to capture in a definition, lies in the fact that the objects which centrally belong within the category of art have been produced under the concept of art. But this does not mean that they have been produced with the definition of art in mind, rather, that they have been produced with more or less awareness of a tradition or precedent. Even naive or so called primitive painters have some local idea of the traditions and conventions of the practice within or against which they shape their work. The sophisticated art at the end of this century has, as a result of the educational processes of art and the plethora of representations of art from many times and places, been done in the context of more information about art than ever before. Such knowledge, once acquired is impossible to forget. Thus contemporary art must, as Danto says, in some way be a function of that knowledge. But under the influence of his appropriation of the Hegelian model of development, Danto does not take sufficient account of how neither knowledge of the self nor knowledge of the tradition of art can have as its final state some pure transparent vision of the self or that tradition. As in his account of the progressively representational development of art and of science, in this account of the self understanding of art Danto seems to be subject to a misleading notion of a final goal of pure reflective understanding.

Knowledge of the self is both structured and motivated through certain values and aspirations. As we well know reflection on one's past is vulnerable to all the subterfuges and vicissitudes of the human psyche. Reflection on one's past, if it is to result in self knowledge, requires a certain probity and integrity of purpose. Such probity is not something at which one can aim. It is, hopefully, a disposition with which one struggles to align an understanding of what has happened and what one has done, intentionally or otherwise, with

a sense of what truly is of value. Neither in art nor life is there any end point at which all is finally clear. But the most important point is that a search for identity which excludes recognition of the way in which who one is is given in the attitudes one has to other people and things beyond the self, is a pathological state of self reflection. If there is a parallel with art here, then the blinkered way in which some contemporary Conceptual Art has disassociated itself from the wider themes of life to concern itself only with the internal conditions of its own identity, is also a form of cultural alienation. To identify this alienated crisis of some contemporary art with a state of mature self awareness is surely not what Danto intends to do.

Danto's analogy between the historical nature of art and that of the self is perhaps better placed not within the development of art but within the development of particular artist's work. The work of some artists, significantly those we regard as the greatest artists of the tradition, reaches a maturity which is the result of a reflective process not unlike that of the growth of a person. One of the reasons why Rembrandt's late self portraits, for example, are often cited as a paradigm of the maturity of artistic work, (which may or may not coincide with the maturity of the man), is not because they show a man progressively becoming wiser, in the way that the portrait of Dorian Gray in the story by Oscar Wilde became progressively the image of a man hideously more debauched, but that they progressively show a reflective understanding of how the person who Rembrandt was and became for himself, was to be depicted. In the sort of work however, which is merely a theoretical articulation of the conditions of its own identity, there is no content for mature reflection: it is, certainly, an End Game. What has been lost here however, is not simply a sense of direction, of where to go next, but a sense of artistic style, not as a capitalisable feature of a work but as function of the ways in which the technologies and media of the work are used to engage with some concern beyond the work itself.

Danto's account rests upon two very important notions: that art is progressive and that art is self reflective. In questioning these ideas I do not intend simply to reject them, for I agree that they each have an important role to play in our understanding of the contemporary situation of art. What I do claim however is that Danto's presentation of them is too simple in ways I shall now explain, and that this hinders our enquiry into the conditions of any future art.

The scope and focus of the concept of art

A very obvious point about Danto's account is that he is speaking about art. By this I do not simply mean that art is his topic, but that the assumptions of his debate delimit the concept of art in significant ways. For example, in his initial distinction between what is at an end and what will continue, he contrasts art which is progressive with what might continue to exist as 'decoration, self expression or entertainment'. Thus what is coming to an end is not art, in its most general or widest sense as a concept with some equivalence in most other cultures, but a very particular conception of art against which other similar and related

practices are relegated to some sphere of decoration or entertainment. I wish to locate the beginnings of this concept of art differently to Danto however, and to suggest first that what distinguishes this concept is not its progressiveness but its differentiation from other related concepts. And secondly to acknowledge, with Danto, that the concept is crucially given its identity through processes of self theorisation, but to draw a different conclusion than his from this fact.

It is true that a certain dominant conception of art, as a domain of objects and activities with their own intrinsic value and with serious and elevated purpose had quite specifiable historical beginnings in European culture, and that some central elements of that concept of art may be losing hold on our thought as we move into the next century. Yet I do not locate the self conscious beginnings of this concept, as does Danto, in the writings of Vasari, but in those of his predecessor Alberti. Leon Battista Alberti's *Treatise on Painting* is the first theoretical text on the art of painting. Hitherto there had of course been manuals on various sorts of painting and illumination, but Alberti's work is theoretical in that it attempts to give a foundation for painting upon which to make its basic intellectual principles explicit.²⁾ Through his introduction of the method of artificial perspective and his explication of the conditions relating composition and subject matter in terms of the concept of *istoria*, he explicitly aligned the work of the painter with the intellectual skills of the mathematician and with scholarship and learning within the liberal arts. Thus he laid the intellectual foundations for distinguishing between the work of the craftsman or artisan and the *artist*, as someone creating works with elevated and distinctive cultural purpose. The concept of Fine Art, which was developed on the basis of these foundations, is thus a concept grounded in the various polemics throughout the subsequent European tradition defending the demarcations between art proper and the decorative or applied arts. Thus I see the modern concept of art arising from a theorisation and refinement of a craft practice which leads to a gradual separation of art from other artisanal practices and eventually, because of its intellectual ambitions, to philosophical theorisation about the scope and nature of that practice. This philosophical reflection has indeed, as Danto emphasises, come to have a substantial influence within the art of this century.

There are several features of the development of this concept of art within Western culture which are significant for our understanding of the present condition of art. One is that the concept of Art formed through these distinctions is peculiar to the Western tradition. Yet not only has the Western concept of art come to dominate in the contemporary commercial world, but it is also a concept which has appropriated artistic works of other traditions into itself. At the end of the last century, for example, Japanese woodprint, and at the beginning of this century the sculptural objects of African ritualistic practices were each appropriated for purposes to do with the Modernist transformation of pictorial space and form and as a means of challenging stale academic conventions of art no longer appropriate to the modern world. But such appropriations were brought within the boundaries of the

2) Leon Battista Alberti *Della Pittura*, 1436, translated into English by John R Spencer, Yale University Press, revised edition 1966.

Westerns concept of art. Any challenge they offered was subdued through theorising art in terms of some notion of aesthetic form divorced from other salient features of the work relating it to wider social and contextual concerns. At the end of this century, the art work of other cultures, such as Australian Aborigine art or Native American Navaho sand work is similarly being brought within the sphere of the Western concept of art. I am not myself clear whether this is merely play within the Postmodernist romance with the exotic appearance of preindustrialised cultures, or evidence that the sites and social roles of art are already constructively undergoing radical change.

A second very general feature of the Western concept of art is the prestige of the art of painting within this tradition. For through the writings of Alberti, Leonardo da Vinci and subsequent authors, not only the status of painting in relation to the other arts, but more importantly its role within different debates about the nature of reality became pertinent within the intellectual development of European culture. But, as I shall discuss shortly, this is not simply because painting was an art approaching nearer and nearer to some direct representation of reality. I have to acknowledge however that painting is no longer central and prominent in the public visual construction of imaginative thought and feeling. Yet it is important to remember that paintings, from many different periods, are still very much in our present. As such they continue to have value not merely to record the sensibilities of people from other times, but in contributing to an accumulated understanding of the scope and depth of our own such sensibilities, even though, in the nature of things, that understanding is unstable and contested.

The Western concept of art is, I agree with Danto and others, breaking down or being challenged. For example, as part of the radical political shifts in Modern societies and as a result of the immense developments in media technologies, academic distinctions between High Art and popular culture are being challenged and eroded. Another distinction is that between Art, design or craft. In other cultures, such as those of Japan or Korea for specific example, there was, and perhaps still is I believe, an important continuity between such things as making images for pleasure and contemplation, organising an interior, designing a landscape and designing a utensil or domestic object. Certain ideas of simplicity and order, suitability and honour of materials, combining with the meaning and significance of the objects and places, run throughout these various practices. Aesthetic concepts focussing on appropriate economy and fittingness of means, methods and materials maintain connections with social and moral codes. In the West the classical concept of beauty, as a sensible and intelligible order and harmony of things continuous with moral, civic and even spiritual concerns, was central to the concept of art in its initial formulations. But it is now an impoverished concept. It has been replaced within theorisation about art with the concept of the aesthetic, a concept which willfully severs connections between art and other values of life. My point in making these contrasts is not to say that the West should seek to adopt such wider and more comprehensive aesthetic concepts. It isn't after all, a matter of choice, and the rigid social categorisations which are part of the social codes of taste are not something to which we should seek to return. Rather, I am suggesting that the breakdown of the

Western differentiated concept of art is opening up the possibilities for more comprehensive categories of the aesthetic, with wider relevance to our relations with both our natural and artificial environment. A less restrictive concept of art, marking common sensibilities between art and things we handle, enter, or socially organise, would be a concept which would literally bring us to our senses about our physical sense of being in the world. The place for such a concept is already emerging in the debates about the politics and aesthetics of the environment. Although the Western tradition of High Art is already rich in examples of non-narrative works of art which make things sensibly immediate. (I am thinking not only of the tradition of Still Life but also the austere pleasures of the best Minimalist painting or sculpture.) But these have been confined within some increasingly socially inaccessible realm of experience of art separated from awareness of our immediate environment. I am suggesting therefore that we might learn from other cultures to expand and refocus the concept of art so that it re-engages with *material disciplines of presence* possessed also by the craftworker and the designer.

Art and progress

It is important, however, to address Danto's claim about the progressive nature of art directly. In doing so I want first to make two general points. The first is that his claim that there is an internal connection between the history of art and the definition of art is of course in a broad sense true. How a tradition and its continuities are described has to relate to ways in which particular things which instantiate that tradition are identified. But a history of art is a theoretical construction of patterns of connection and lines of continuity, and to that extent is subject to familiar and general philosophical problems about relationships between theory and experience. Since theory abstracts and generalises from experience it not only risks oversimplification of a complex process but overgeneralisation from just one element. Although it is evident since at least Hegel, Marx and Freud that explanation in history can reveal determinations beyond the direct or avowed experience of agents within it, it has to make some link with how that experience is understood by those agents. Thus there is an empirical question of the extent to which artists themselves saw the main motive of their work as a progressive movement and, in so far as they did, how they understood the nature of the progression. This question is not best resolved however by looking at what artists might say, for their own verbal articulation is often fraught with theoretical distance, but to note salient features in what they do. Nevertheless, I do concede that to a large extent what art is at any one time, and how an artist sees his or her tradition and their place within it is shaped through the various critical, historical and philosophical discourses of art. But Danto has, I shall show, taken just only strand of this complex field.

The second general point is related to the first. Danto gives a progressive account of art. What I think is more plausible is an account of art with a profoundly complicit role within a progressive culture. Western culture has been progressive in at least two senses, both of which characterise the projects of Modernity. First, a conception of scientific en-

quiry has developed which has enabled increasing understanding of how the world is independently of the peculiarities of human psychological interest. The technological advances consequent on scientific method and enquiry have enormously advanced human abilities to move, see, communicate and think, and also to heal, further life, dominate and kill. This is very clearly progress in knowledge and in power. Secondly, in complex relation with this scientific development has been a gradual change in political and social organisation towards the autonomous responsibility of the individual within a Liberal Democratic framework. This is, much more contentiously, presented as progress in freedom. Both these progressive ideals, in knowledge and in freedom, are of course what have been under issue in the intellectual chaos of Postmodernity.

As we have seen, both these elements enter Danto's account, but he attributes progress in cognitive understanding and in freedom directly to art itself through his story of the eclipse of a representational theory of art by the moment of art's philosophical self reflection. In contrast I want to tell a more complex story of the development of art, which does not make art in itself a progressive discipline, but suggests that it has been fundamentally intertwined with the scientific and political aspects of the progressive culture.

In his account of this concept of art Danto starts with Vasari. Starting points in any narrative or enquiry, as Aristotle tells us, are very important. In beginning instead with Alberti I begin with an account which at the same time as it lays the foundation for a modern conception of pictorial representation, also problematises the correlative notions of 'reality' and 'nature'. In his account of the progress of artistic representation in terms of perceptual equivalence, Danto makes explicit the fact that he is thinking in terms of the optical correlation between a painted image and the purely optical features of the look of things in the world. I do not deny that there is clear sense in which Ingre's paintings are more realistic than the images of Cimabue and that this has to do with the spatial and figurative cues of Ingres' work being more replete and ordered in terms of a visual coherence comparable to looking directly at things in the world. Yet it is misleading to see visual verisimilitude as the central aim of the work; wrong to think that there is some ideal of complete equivalence or verisimilitude; and wrong to think that technologies of representation add to this development in the ways Danto describes.

In his *Treatise on Painting* Alberti introduces the system of artificial perspective as the proper means for the construction of pictorial space. It is true that he speaks of a painting as a window onto reality and that he emphasises that his method is a method whereby a painter can and should take from nature in his work. But Alberti's use of the concept of nature in that *Treatise* is ambiguous. It is both the sensible appearance of the material world and the underlying structure of natural, civic and cosmic order. Artificial perspective bridges these two conceptions for it is a mathematical method for producing a coherent structure within which the empirical appearances of things can be situated. From this auspicious beginning therefore painting is implicated both with the scientific development of optical geometry and with political ideals of social order. The painted image under these new principles itself constitutes one criterion of a new objective notion of reality. It is one idealisation of the

real, an ideal central to the Western philosophical tradition. But it is not the only one.

The conception of art built upon Alberti's writings is an explicitly theoretical conception complicit with complex philosophical and scientific theorisations about the structure of reality. But contemporary with it, the art of the Northern European countries was also developing a tradition of representation which had a different relationship to the emerging scientific culture of the West.³⁾ The link between pictorial depiction and natural knowledge in Northern Europe was not based on mathematics or systematic theory, but rather on observation and experimental procedure. It was not the technology of representation of Artificial Perspective, linking art with cosmology and with theories of vision, which furthered the development of painting, but the representational technologies of topography and the technologies of sight, such as the microscope. This means not only that the art looks different, but that its thematic concerns are different. Whereas the concerns of the Classical tradition are to do with themes located in but transcending time and place, to do with ideals of heroism, elegy and beauty, the concerns of Northern art are more quotidian and temporally located, concerned with the mapping of a terrain and the diverse qualities and textures of the surfaces of things. These two traditions are focussed upon a different sort of visual attention, and are differently realistic. Although we might say that Classical art is Realistic, whereas Northern art of that same period was Naturalistic, they are both arts of the real, yet they involve different conceptions of verisimilitude. In perception there is no simple or general account of 'how things look' outside of some particular context and purpose and method looking. Furthermore, there is no one method of looking for the purposes of art. Different technologies of representation enable different sorts of attention to what can be seen.

Neither should we overemphasise the role of ambition towards verisimilitude in the artists work. For Realism, in its different forms, is not the aim of art, but a means whereby different thematic interests might be realised. Just one example might make this point apparent. In Titian's painting *The Venus of Urbino*, there are two distinct pictorial spaces, the naked figure of Venus reclines on a couch across and dominating the space immediately in front of the picture plane, but behind to the right, two clothed women are busy with domestic affairs involving the furniture. Both of these spaces are visually coherent and the figures placed intelligibly within them are solid and substantial. But the visual relationship between the two spaces is not clear. And this visual *aporia* serves to distinguish the private, abstract and idealised nature of the naked female figure. Although she is both pictorially closer than the other two figures, and engages the spectator more directly and intimately, she is nevertheless in some other ontological space. Titian, as any great artist, exploits his representational expertise for subtle purposes. Danto tells us that in looking at examples of Japanese art which do not use single point perspective or model form with shadows, we have to decide whether the Japanese had a different pictographic culture or were simply retarded by technological slowness in achieving similarities. (EA p.91) But this pejorative way of presenting the alternatives detracts from how the pictographic conventions of

3) For a rich account of this view of Northern European art see Svetlana Alpers, *The Art of Describing*, (Chicago, University of Chicago Press, 1983).

Japanese art enable us to see things not so easily apparent through the more visually replete methods of Western painting. The economy of line and plane, and absence of shadow, for example, make expression of countenance and gesture more fluid and mobile. It is in this way more akin to the pictorial resources of the cartoon, which in the West have been largely restricted to entertainment for children.

The difference between Realism and Naturalism in Western art however is only one part of the story of Western art. In different ways, in both these lines within the tradition of Western art, art and science are in partnership within Western philosophical debates about the nature of reality. The Classical tradition, with its notion of an ideal observer and rational space is coincident with the Rationalist philosophical thought, whereas the Naturalist Schools of art are more coincident with Empiricist thought. Constable famously described his close observations of cloud studies as 'experiments after nature'. But there is a third dominant mode of thought within modern Western art and philosophy which positioned itself strategically in opposition to these other two, namely Romanticism. In the Romantic philosophical tradition art itself was made the supreme model of all that could subvert dispassionate and calculative reason through the mysterious, passionate and transgressive forces of unreason. This idea of art is not only at odds with the dominant rational and scientific culture, but a *rival* in the pursuit of a progressive culture. The Classical concept of art was used both to uphold and legitimate social authority. The Romantic tradition challenged not only scientific but also political structures of thought, in and through art. In particular the creative processes of art, as self reflective and innovative processes, were used in the philosophical tradition of German Idealism to make manifest and alternative conception of Nature, not as a meaningless mechanical system explaining change and appearance, nor as an immutable and perfect order behind changing appearances, but as a dynamic creative striving force.

The modern Western European concept of art is thus not a theoretically unified concept. It is characterised by conflicting internal dynamics used in the service of wider intellectual, social and cultural interests. The historical dynamics of Modernism are fraught with such conflicting elements from the history of the Western concept of art. Whilst rejecting the academic and literary traditions of Classicism, the discourses of art within Modernism sought to perpetuate the idea that art is in some important way connected with high distinctions of reality and to maintain the ideal of seriousness and elevated purpose over other forms of entertainment and pleasure. From the Romantic tradition however, Modernism inherited the idea of an artist as someone with the creative ability to see deeper and further than others, and the ability to give expression to such feelings, in virtue of which they have the right to explore the limits of experience and transgress social convention. Thus it is that an artist with the moral seriousness and passionate intensity of Van Gogh, becomes an icon in the popular image of the modern artist. When his work is so vividly evocative and his subject matter so accessible, it is not surprising that his work is so easily commodified and excessively valued in the international marketing of art.

In this alternative account of the history of Western art I am claiming that art was not it-

self centrally progressive in the way Danto described, in relation to some single notion of 'reality', but that it was intimately bound up with mutually contested philosophical, scientific and political notions of nature and reality. It is this, I believe, which gives art its seriousness. However, I have myself described a dialectical momentum within the development of the Western European concept of art which is itself, even in a minimal Hegelian sense, progressive. For Modernism is a sort of uneasy sublation of Realist and Romantic conceptions of art through which the political notion of the avant-garde is appropriated for purposes of the self reflective developments in the culturally autonomous realm of Twentieth Century art. Yet, despite the discourses of some Formalist critics and Danto's views about the philosophical disenfranchisement of art, this self reflectiveness is not best understood as the pursuit of ontological self understanding.

Art and technologies of representation

Danto claims that advances in technologies of representation in photography and film realised an ideal of verismilitude beyond which painting could not go and thus became free to pursue self reflexive enquiry into the nature of its own internal identity. I want to say that developments in technologies of representation play a different role in relation to art. This will finally return us to Socrates' question about the nature of the skilled expertise of the artist. For what is the special expertise required to use the technology as a technology of art?

A change in the technologies of representation is not just a difference in the means of producing and distributing or transmitting of images; it involves the manufacture of different sorts of images. For each technology requires different sorts of attention to things and makes it possible to make different sorts of things visible. The introduction of artificial perspective was, as I have already suggested, particularly suitable for the construction of a coherent secular space for depicting events, yet was also, at the same time, a way in which actions and appearances could be idealised. Photography, in contrast, was, in its early uses, a startling way of bringing the modern world to attention of itself. But to think of photography as trying to do the same things as painting, as it was in early ideas of 'art photography', is an ignorant view of photography.⁴⁾ Photography was not a limiting ideal of pictorial depiction. To see it in this way is to privilege a particular method of looking which masks the ways in which a photograph can construct judgment about the realities of the physical and social world. Things are not only made visible but visualised differently in paint than in photography and thus the imagination can be used differently in these media. It is not that there is a realm of things to be seen or a realm of things to be imagined and the various media and technologies of representation depict these things more or less ably, but that different forms of visual representation extend our notions of what can be seen or imagined in different ways. The limits of depicting conditions within any medium are not limits which

4) For a development of this opinion see Abigail Solomom-Godeau, *Photography After Art Photography*, in 'Art After Modernism: Rethinking Representation', edited by B. Wallis and M Tucker, (New York, New Museum of Contemporary Art, 1984) This volume also contains essays debating the End of Painting relevant to the topic of my own essay here.

might be progressively transcended by further technological development, but limits which give sense and shape to different representational possibilities of a medium. Thus developments in scientific technology do not merely cause a shift in the media of art, rather, they offer a challenge for new ways of visualising and imagining things.

Relations between developments in representational technologies and changes in social formations on the one hand and developments in art on the other are not merely causal relations or relations of reflection. Through making different sorts of things visible, art is partly constitutive of changes in social relations. Thus the role of art in political struggles for cultural hegemony, in articulating differences in experience and in making evident competing and contrasting values is crucial. Current developments in electronic technologies of information and communication are forcing us to recognise these issues of cultural hegemony, global competition of interest and pluralities of value. The outcome of the political and economic struggle for domination of these technologies — who is going to win in the race for the standardisation and regulation of a fibre optic network, for example — will be a major factor in global cultural hegemony even greater than the powerful influence which American cinema has had on the culture of the Twentieth Century. But the question of art will remain. For such a network is not itself a medium, it is a means of transmission and distribution. Neither is computer-generated imagery itself yet clearly established as an art form in its own right. But if and when it is seen how such a technology of representation distinctively makes things visible to us, these technologies will be a very powerful way of constructing public imagination, of refining and extending pleasures and of authorising and contesting values.

When I ask, then, what are the conditions under which a medium or a technology becomes an art, I am not asking about the social, economic and commercial conditions under which they will be identified, distributed and received as art. For although these are important questions which have bearing upon the ways in which any art made through their use will develop, (for example, as cinema as a commercial industry has born upon the development of film), they are different from the questions about the intrinsic resources of the medium as a medium of art. In the present century for example, although the technologies of art have been the traditional ones used by the painter, sculptor or printmaker the mechanical technologies of photography and film, which were developed in the Nineteenth Century for diverse purposes, have extended and transformed what we think of as art. Of course some will insist that photography is not an art or that film is merely entertainment. And indeed it is instructive to learn from such exclusions and distinctions what the concept of art can be used to do and with what range of values it can be associated. But it is a very heroic notion of art which rejects film and photography wholesale. Yet it is not enough to say that to be identified as art objects they must be made or received as such within some particular institutional context, nor that they have to be viewed 'aesthetically' in some narrow autonomous sense. For insofar as these media are incorporated into the existing institutions of art, their distinctive qualities are ignored. Just as photography is not an ideal form of painting, so narrative film is not an ideal form of theatre supposedly expanding previous 'limita-

tions' of time and place. Similarly therefore, if Virtual Reality Systems are to be used as technologies of art, they must be more than films which we can walk into.

My main point is that different technologies such as painting, film, photography, or new electronic technologies, have their own intrinsic conditions of representation which make different things possible for artistic effect. A technology is, in its Classical sense, a means for the production of something and an able technician has skill and knowledge in using the technology in making things and expertise in making it well. For example, painting is a relatively simple technology useful for the decoration of all sorts of surfaces. On Danto's account of painting as an art however, it is as though the expertise of the artist consists in knowledge of what things look like combined with the skill to represent them. But I have suggested that this is a misleading way to present the case; the looking that goes into the making a painter is a process of judgement and discernment about what is seen as it is guided by the method of the art. Thus the *virtue* of the painter, what constitutes the excellence of the craft is connected to an appropriate discipline and precision of attention. The peculiar virtues of painting consist in an attention to the appearances and surfaces of the world in relation to the surfaces of the work. It is in the condition of painting that the sensuous body of the work itself stands in exemplary and metaphorical relationships with the things it depicts. This point is misconstrued by Formalist critics simply as an attention to surface. Paintings attend to the surfaces and appearances of things, including the relationship between the qualities of the painting's own material surface and the qualities of the things depicted in the painting, or, in abstract works, qualities of things resonant with those surfaces. It is this obvious feature of painting which makes the craft of making likeness into an art through which we are able to focus attention in various ways on distinctions between appearance and reality; not only on shadows, reflections and vistas, but, in many different senses, on differences between surface and depth, between what is hidden and what is apparent, between absence and presence, or between emptiness and plenitude. All these obvious aspects of the many surfaces of a painting are material to what, in any deeper sense, we might see in the work. Whatever it is that each of these works is about is revealed through this interplay of different surfaces. This is what is distinctive about painting.

In contrast, photography, in arresting a moment from time, differently engages attention to the temporal dimensions of experience. In holding forever a moment long gone, for example, a photograph can engage a sense of pathos. Photography can even arrest a moment that is not experienceable in normal perception, such as the moment in which a bullet smashes through the apple, a moment so still that we can see its shiny, clean metallic detail as it seems to glide through the white flesh of the fruit. Differences in the kind of arrested moments invite reflection in different ways; but in each case, the mode of representation is what structures the reflection. Thus the lack of movement is not a limitation of the medium; it is a very particular condition of the medium making certain sorts of reflective experience possible. This is what makes the experience of the photograph an experience of art, even though there is maybe, in mechanical photography, a merely causal relationship between the image and its object, for the artistic expertise of the photographer consists in the

ability to exploit technical knowledge of the potentialities of the medium for such reflective purposes. Thus even a photograph can have discernible style. And it is this facility for *discernible style* which makes any technology open to use as a technology of art.⁶⁾

Film is a more complex multimedia of image, sound and language and the resources of meaning in film are not exclusively visual. The visual resources of the technology of film however, through which imagination and meaning can be constructed, do not arise merely from the fact that, as Danto says, a camera can be used to depict movement, but that the camera itself can move. Thus there are particular sorts of attention peculiar to film, structured through different camera devices, which are exploited in novel and characteristic values for narrative purposes. It is misleading to see painting, photography, film or Virtual Reality Systems as historical or technological competitors for some more complete or realist presentation of the visual world. For although it may be true that photography is better than painting for forensic purposes, as media of art or entertainment, painting, photography and film have a far more complex and formative relations to our conceptions of reality. For these media themselves partake in the construction of different and challenging conceptions of what is real and what is possible, and artistic expertise consists in exploiting the visual effects specific to each for inventive, expressive and reflective purposes.

My point in collating all these observations about painting, photography, and film is not to enter into any debate of *paragone*, nor to endorse any Formalist idea of the pure conditions of the medium, but to draw attention to various different characteristics of these modern media in order to reject the idea that they supplant each other in any collective endeavor. In doing so I am arguing that we need to ask similar sorts of questions about any new technology of representation if we are interested in its potential for art. In what particular or special ways can new or electronic or interactive visual technologies be used to focus attention to things? Will new objects and fields of visual attention be created through their use? In what characteristic ways will they engage sight and imagination? What new conception of pleasures of sight will emerge through any new medium? In what ways will they challenge the proprieties of looking? How might they give significance to hitherto unnoticed things? And in particular, we can ask, what conceptions of human agency and human relationship they promote?

It is already evident that video engages modes of attention different to film, and that multi media systems can collate and exploit different conjunctions of meanings. Electronic animation makes constructions of the imagination visible in ways which other media do not and demands its own conditions of visual sense. Yet cartoons and animated imagery have a reputation for poor characterisation; the motivation of characters is often crude and simplistic. A picture of human action is irresponsible when the context of action, motivation and relationships between characters is crude and subject to simplistic ideas of purpose and

6) There are several points in this essay at which I am indebted to my colleague Andrew Harrison, with whom I have discussed this work. In particular this central point about style is also developed, in different ways and in a different context in his own work. See, for example, his paper *The Terror of Aesthetic Presence*, published by the University of New South Wales, College of Fine Art, in their Occasional Seminars in Art Education 5, 'Reconciling Art and Objectivity in Art Education', 1993.

power. There are broad sociological and even spiritual questions about the role and effect of such popular art forms within society. But a prior philosophical question concerns the intrinsic conditions of the medium. Are limitations in characterisation and plot intrinsic to the medium of animation or not? For animated film has its own potentialities. Ever since the first days of filmic animation, with *Felix the Cat*, animation has been able to visualise morphological transformation and to make vivid the fantasies of emotional projection. Thus visual humour is a special aesthetic effect of animation. Fantasy, however can in its very nature, be not only anarchic, sometimes a virtue of art, but also morbid or destructive. At the end of this century, computer-generated animation, interactive systems and ever increasing technologies of distribution are combining together to dominate the visual culture of the younger generations. Can the resources of animation be harnessed not just to innovate new forms of visual fantasy, but to structure fantasy in ways which enrich experience?

There is already of course a body of computer-generated work described as art, typified by the ubiquitous examples of biomorphic forms generated from principles of fractal geometry. Since such images are made purely for the pleasure of looking at them, they must be, in a minimal sense, works of art. Yet they do not yet have artistic authority. For each one could be like that or like another; it doesn't matter. The work has not yet freed itself from the model of abstract painting, against the best of which they seem arbitrary, without idea of any specific task leading to their production other than the purely technological. If my account of the matter is correct, what would be required of the technology for it be used as a medium of art would be the ability to identify the peculiar stylistic resources of the medium in ways which invite the user of it to reflect on what is represented though the ways in which it is represented. Style is a function of the way in which something is done; it is deliberative process manifest in the work. In artefacts which are works of art, this process is of interest in itself, and the way in which something new or familiar is revealed is itself a source of pleasure. The expertise of a computer artist would lie in the use to which they put their self-reflective awareness of the representational conditions of the the medium. Technological understanding of the medium is merely a precondition of this expertise.

I have agreed then, that self reflexivity about the intrinsic conditions of a medium or a technology of representation is, as Danto says, a defining condition of artistic work. And it is, as many writers in the German tradition, including Hegel, have said, a condition of freedom. Just as personal self reflexivity is an enabling condition for responsibility and change, art is a means of social and cultural self reflexivity. But it is a very abstract and impoverished notion of freedom which realises itself in some notion of pure self awareness in isolation from those things constitutive of social life which give content to motivation and purpose.

Art making is a creative process in which the deliberative organisation of the medium involves reflexive and interactive play between conception and material effect under the normative discipline of the imagination. Painting is still our main model of this process. For painting is not just a gradual process of matching the work with some external observation or, worse still, with some internal mental idea. It is an orchestration of many different

observations which are modified reflectively as the material work gradually assumes its own authority. Thus the Platonic dichotomy between creativity, expression and imagination on the one hand, and rational or deliberative thought on the other, which has beset the tradition of Western European art, is a false dichotomy. A painting is an expressive construction of the imagination making ideas effectively sensible and intelligible through the deliberative organisation of sensuous material. A work of art such as a painting is thus both a model of freedom in process and a site upon which the values and beliefs of society can be authorised or challenged. For any technology of representation or medium to become a medium of art, a similar process must be possible. Painting is clearly not the only medium of art and, as I have stressed, different media enable different sorts of reflective awareness. With different media and different technologies some things are lost but other things are gained. What is special to painting is the sensuous material embodiment of thought. But it is pointless to seek an ideal point from which to balance these gains and losses. What is important is that there must be creative artistic activities within any future society to militate against processes of alienation.

Summary

Danto has identified the sense of crisis in art at the end of the Twentieth Century. I have suggested that his account of that crisis is unduly pessimistic. I have not however attempted to predict what art will be like in the next century. For not only is art in its very nature unpredictable, but speculations about the future on such a scale are liable to be quaint, like science fiction drawings, which carry with them features of their own times, so close as to be unnoticed, and which construct a vision of the future on the unreliable basis of the fears and enthusiasms of the present. As Danto himself puts this point, nothing so much belongs to its own times as an age's glimpses into the future.

What I have attempted to do in this essay however is to identify some features of the present condition of art which I think are important in our present thought about the future of art. The first is that the domination of a peculiarly Western concept of art, with its defensive separations of art, design and craft, may be breaking down, and that the aesthetic ideas and practices from cultures which have not traditionally made such rigid distinctions may influence the course of art, with beneficent effects on our sensibilities towards our personal and social environment. Secondly, and perhaps more fundamentally, I have pointed to ways in which the Western concept of art has been a means whereby complex and competing views about reality, nature and human nature have been visualised and contended. In any self reflective culture I believe that art, in whatever form, will continue to play this role. And the last and most particular point is that the separation of art from other more moral, political or spiritual concerns in the Modernist period of Western art may now be over. Ideas of both social organisation and spiritual value, and processes of moral deliberation require imagination. Artistic representations are one of the ways in which the imagination is constructed and made reflective. Thus if any new technologies of

representation are to be technologies of art, they must be able to be used in ways which enable us to reflect upon the relations between the content and themes of the work and the manner or style in which that content is revealed. Plato asked about the knowledge or expertise which artists have about that which they speak or show. His question is still relevant to those who seek to use mechanical or electronic technologies to make new forms of art. For the knowledge of an artist lies in knowing how a technology or a medium might be used not merely to represent the world, but as a means of seeing the world and its human concerns, and thus reflecting upon it.

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