

---

**Roy Ascott(UK)**

Roy\_Ascott@COMPUSEERVE.COM

HTTP://CJLAMIND.NSAD.NEWPORT.AC.UK

**Emergent Mind: Art in the Technoetic Dimension**

In both art and science now, the matter of consciousness is high on the agenda. Science is trying hard to explain consciousness, with distinctly limited success. It seems to pose the most intractable of problems. For the artist, consciousness is more to be explored than to be explained, more to be transformed than understood, more to be re-framed than reported. As for conscious experience in itself, there is nothing we know more closely than our inner sense of being, and there is nothing we can experience with less comprehension than the conscious states of another. It may be that only the profound empathy of mutual attraction, "love" if you will, can break this barrier, but neither reductionist science nor the postmodern aesthetic could possibly countenance such an assertion.

Fortunately there are signs that science is becoming more subjective and postmodern pessimism is on the wain. There is no doubt that both scientists and artists are curious about the ways that advanced technology can aid in the exploration of mind. And advanced technology itself is calling into question our definitions of what it is to be human and what might constitute an artificial consciousness in the emergent forms of artificial life.

I have recently introduced the term *technoetics* into my vocabulary because I believe we need to recognize that technology plus mind, tech-noetics, not only enables us to explore consciousness more thoroughly but may lead to distinctly new forms of consciousness, new qualities of mind, new forms of cognition and perception.

It is my contention that not only has the moment arrived in western art for the artist to recognize the primacy of consciousness as both the context and content of art, and the object and subject of study, but that the very provenance of art in the twentieth century leads, through its psychic, spiritual and conceptual aspirations, towards this technoetic condition. I need perhaps only point to the examples of Duchamp, Kandinsky, Klee, or Boccioni, early in the century, to indicate the roots of this tendency. It is equally clear that the impact on art practice of technology, especially digital and communications technology, has been to reduce art in many cases to a form of craft in which polished technique or skillful programming, leading to dazzling special effects, have come to replace the creation of meaning and values. A resonance with the nineteenth-century Arts and Crafts movement of William Morris springs to mind. There was then the same process of dumbing down from art to craft, in which the authoring of technique took primacy over the authoring of ideas, a pandering to the luxury market covered by a veneer of social conscience.

A more optimistic view is that our concern in digital art with whole systems, that is, systems in which the viewer or observer of the artwork plays an active part in the work's definition and evolution, represents at the very least a yearning to embrace the individual mind by a larger field of consciousness. By this account, the employment of telematic hypermedia is no less than a desire to transcend linear thought by reaching for a free-flowing consciousness of associative structures. It then becomes the artist's imperative to explore every aspect of new technology that might empower the viewer through direct physical interaction to collaborate in the production of meaning and the creation of authentic artistic experience. I would like to return to the theme of interactivity in art at a later stage since I see it as both emblematic of the desire for shared consciousness and problematic in its

assumed resolution of the object/process and observer/participant dichotomies.

But first, I want to address the notion of double consciousness and its relationship to art. By double consciousness I mean the state of being which gives access, at one and the same time, to two distinctly different fields of experience. In classical anthropological terms this is to describe the shamanic "trance" in which the shaman is both in the everyday world and at the same time navigating the outermost limits of other worlds, psychic spaces to which only those prepared by physical ritual and mental discipline, aided often by plant "technology", are granted access. In post-biological terms, this is mirrored by our ability, aided by computer technology, to move effortlessly through the infinites of cyberspace while at the same time accommodating ourselves within the structures of the material world.

To research this apparent parallelism between shamanic space and telematic space, and the double consciousness that seems to be a part of both fields of experience, I have spent time immersed in the virtual reality of advanced computer systems and in the traditional reality of a native Indian tribe, that is under the influence of the computer and of the plant, albeit an extremely powerful computer and a particularly potent plant {ayahuasca, the "vine of the soul"). My access to virtual reality was at locations on both sides of the United States, at the Human Interface laboratories in Seattle and at the University of North Carolina at Chapel Hill. My introduction to the psychic world was in the very heart of Brazil, with the Kuikuru pages (shamans) of the Xingu River Region of the Mato Grosso, and through my initiation into the ritual of the Santo Daime community in Brasilia.

The shaman is the one who "cares" for consciousness, for whom the navigation of consciousness for purposes of spiritual and physical wholeness is the subject and object of living. Consciousness occupies many domains. The page is able to pass through many layers of reality, through different realities. In his altered states of awareness he engages with disembodied entities, avatars and the phenomena of other worlds. He sees the world through different eyes, navigates the world with different bodies. In parallel with technologically-aided cyberception, this could be called "psi-perception". In both cases it is a matter of the double gaze, seeing at once both inward realities and the outward surfaces of the world.

The double gaze and double consciousness are related. In my experience of ingesting the ayahuasca I entered a state of double consciousness, aware both of my own familiar sense of self, and of a totally separate state of being. I could move more or less freely between these two states. Similarly with my body. I was at one and the same time conscious of inhabiting two bodies, the familiar phenomenology of my own body sheathed as it were in a second body which was made up of a mass of multi-colored particles, a million molecular points of light. My visual field, my double gaze, alternated, at choice, between the coherent space of everyday reality and a fractal universe comprising a thousand repetitions of the same image, or else forming a tunnel in space through which I could voluntarily pass with urgent acceleration. I could at any point stop and review these states, moving in and out of them more or less at will.

Many shamanic tribes not only enhance their psi-perception by drinking the ayahuasca on a regular basis, but their culture, by adoption, has given rise to a ritualized practice known as Santo Daime which has spread to most parts of Brazil, not least in its urban and metropolitan areas. In addition to the ritual drinking of the ayahuasca, Santo Daime has precise architectural and social codes. The design of the building that houses the ritual, the ordered placing of participants in that space, the rhythmic structure of the music, the pungency of the incense, the repetitive insistence of intoned phrases, punctuated by extended periods of absolute silence, the recurrent demand to stand or sit, one's own inclination to move into and out of the new field of consciousness that the ceremony and the drink together induce, leads one's awareness to fluctuate between the two realities. It raised the question, of course, of the way in which specific protocols and conditions control or construct a given reality, and leaves unanswered the question of where or how or indeed if a ground of reality might be identified or even be said to exist.

This immersion in a controlled environment, affecting sight, touch, taste, smell, and hearing respectively, conferring on the mind the ability both to induce and create new conceptual and sensory structures (in philosophical jargon new "qualia"), while at the same time giving the freedom to step aside from the visionary experience, back into the "normal" field of experience, is mirrored to an extent in our artistic aspirations using digital technology, as for example in Virtual Reality, hypermedia, multimedia installations and, with its superimposition of cognitive schemas on real world situations, the fast-developing field of Augmented Reality (see for example <[http://www.cs.unc.edu/Researdl/stc/predictive\\_tracking\\_html/azuma\\_AR.html](http://www.cs.unc.edu/Researdl/stc/predictive_tracking_html/azuma_AR.html)>).

In both cases there is a kind of rehearsal of the Sufi injunction to be both in the world but not of the world, although the original context of that phrase is more emphatically spiritual than perhaps many artists would want to acknowledge. Here technology plays an important part in the experience of double consciousness: just as it is clearly integral to our emergent faculty of cyberception and the double gaze. It is as if, through our bio-telematic art, we are weaving

what I would call a shamanic web, combining the sense of shamanic and semantic, the navigation of consciousness and the construction of meaning.

Historically our command of the material world has been such that we have little option but to keep the worlds of our double consciousness in separate and distinct categories, such as the real, the imagined, the spiritual. The advent of the Artificial Life sciences, in which I include both dry (pixel) and moist (molecular) artificial organisms and the whole prospectus of nanotechnology, points to the possibility of eroding the boundaries between states of mind, between conception and construction, between the internalization and the realization of our desires, dreams and needs of our everyday existence. Let me give you an example which can be found in our cyberception of matter at the atomic level. The scanning tunneling microscope (STM) enables us not only to view matter at this level, but to image individual single atoms. However the real significance of this process does not end there. Not only can we select and focus on individual atoms, but we can, at the same time, manipulate them, one by one, atom by atom, to construct from the bottom up atomic structures of our own choosing. An aspect of this process can be viewed at the IBM website <<http://www.almaden.ibm.com/vis/stm/lobby.html>>.

This means that, in an important sense, the prosthesis of vision can be at one and the same time instrumental in constructing what is envisioned. To see in the mind's eye is to realize in the material world. The worlds of the double consciousness, supervenient as they are on the processes of the double gaze, become less distinctly separate. The immaterial and material lose their categorical distinction. Cyberception is as much active and constructive as it is receptive and reflective. As this kind of double technology develops, and it is doing so at an accelerated rate, artists, no less than the philosophers and neuroscientists, must increasingly turn their attention to what I will call 'tedlo-qualia: a whole new repertoire of senses, and to a new kind of relationship between the tools of seeing and building.'

Let me, at this point, return to the question of interactive art. At the moment, by its structure, placement and presentation (which is generally in a traditional museum or gallery space), the work of interactive art presupposes, in spite of itself, an audience of more or less passive observers, just as much as it proposes a participant in open-ended interaction with its interface. In this sense, the total system including the participant viewer, however dynamic a process it may be, is actually incarcerated within the very status it despises, that of pure object - an envelope, bracketed in space and time, to be viewed by a second observer. This creates a dichotomy between the aspiration toward open-ended evolution of meanings and the closure of an autonomous frame of consciousness, a contradiction that necessitates the removal of the second observer and the phantom audience from the canon of interactive art.

Here, by way of contrast, the shamanic tradition may usefully be invoked. All the activity of the page, and of those who interact with him in image making, dancing, chanting, making music, is performative but is not intended as a public performance. It is never played to an audience, actual or implicit. No one is watching or will be expected to watch what is being enacted. This is not a public performance but a spiritual enactment, which entails the structuring or re-structuring of psychic forces. To paint the body elaborately, to stamp the ground repeatedly, to shake the rattle, to beat the drum, to circle round, pace back and forth in unison, is to invoke these forces, to conjure hidden energies. This is an enactment of psychic power not a performance or cultural entertainment. This perspective, although seen at a great distance from our current hypermediated culture, may be of value in our consideration of the function of works of interactive art, thereby avoiding the double observer, the phantom audience. Art as an enactment of mind implies an intimate level of human interaction within the system which constitutes the work of art, an art without audience in its inactive mode.

Eschewing the passive voyeur, the traditional gallery viewer, this tedmoetic aesthetic speaks to a kind of widespread intimacy, closeness on the planetary scale.

So what then is the role of the artist in an art which increasingly sees its content and meaning as created out of the viewer's interaction and negotiation? An art which is unstable, shifting and in flux; an art which parallels life, not through representation or narrative, but in its processes of emergence, uncertainty and transformation; an art which favors the ontology of becoming, rather than the assertion of being; an art moving towards a post-biological re-materialization; an art of enactment, without audience. An intimate art, the free-flowing outcome of interaction between participant viewers within networks of transformation. An art, in short, which reframes consciousness, articulating a psychic instrumentality, exploring the mysteries of mind.

These are the questions which will take us into the next century and they are questions which artists working at the furthest edge of the technoelectric aesthetic are already beginning to ask. One answer may be found in the deep past, in the remotest parts of the planet, or simply within the double consciousness to which we all have access. It may be found in the role of the shaman, re-contextualised in the bio-telematic culture but re-affirmed in its capacity for the

creation, navigation and distribution of mind. It may be as the conservator of what emerges from the complexity of interactions in the Net or from the self-assembling processes of artificial life. Whatever may be the case, one thing seems certain, the technoetic principle will be at the centre of art as it develops, and consciousness in all its forms will be the field of its unfolding

©Roy Ascott 1997

---