Unruly Research:
Visuality in the Academy

By: Michael J. Emme

Abstract

In this paper perception as a visual and three-dimensional experience will be explored. The role that the three-dimensional mind plays in both perception and conceptualizing will serve as a frame for critiquing the limits of research conventions in the academy. The name "Unruly Research" will be proposed to describe researched strategies based in the visual and three-dimensional mind. The paper concludes by arguing that art educators, as specialists in visual learning, have a key role in developing new, visually-based research strategies.

Visual Perception

There has been a fundamental shift in the demands being placed on our perception. Anyone who has access to the world wide web, television or the international press will recognize that our pupils, lenses and optic nerves have been supplemented with glass lenses and fibre optics nerves which allow us to see around the world. Our new eyes scan much like our old eyes do, accumulating fragments that we construct into a world view, but our new eyes have millions of sockets and the scanning, while familiarly unconscious is largely ordered by the many institutions and social forces that produce the mass-media. Art critic Rosalind Krauss (1985) described photography as a prosthetic

device. Her discussion of the use of the camera lens, or more broadly the "lens media"(Emme, 1989, p.27) as supplement to our perception provides an apt metaphor for discussing the ways in which technology allows us first to see more and then to see our natural physiological tools of perception as inadequate. I think this dissatisfaction with the biological limits of 'natural perception' is key to understanding the significance of our new eyes and thus the socio-cultural game we are currently playing.

In the academy, perception is foundational to teaching, learning and research. This mass-mediated, postmodern era demands that we recognize the extra-biological and three-dimensional aspects of perception. This article will describe contemporary visuality as a way of expanding notions of academic research to include the non-linear. I want to argue for close consideration of three-dimensional inquiry, those virtual or actual navigational explorations that I shall call 'unruly research'.

The Visual Three-Dimensional Mind

In *Postmodern Geographies* (1989) Soja states that "it is now space more than time, geography more than history that hides consequences from us"(Soja, P.71). His text, a description of, and argument for a radicalized understanding of geography grown out of critical theory (and a radicalized critical theory grown out of the study of geography) traces the development of a three-dimensional world view. He differentiates postmodernity from modernity because of this three-dimensional world view or spatiality, which entails "a fundamental recomposition of the 'mode of narration', arising from a new awareness that we must take into account 'the simultaneity and extension of events and possibilities' to make sense of what we see"(Soja, p.22-3). A variety of writers have addressed this notion of simultaneity. Jung's spiritual/psychological notion of

synchronicity (Progoff, 1973), and the mathematician, Tufte's concern with "Escaping Flatland" (Tufte, 1990, p.13), the architect, James Turrell's aesthetics of light and space (Adcock, 1990), and radical and feminist conceptions of the ecological (Diamond & Orenstein, 1990) all attend to our experience of a three-dimensional world where things going on behind our backs or out of biological sight resulting in perceptions that are far too complex to be expressed through simple, linear narrative.

Consider the following convergence of experiences: An individual is sitting comfortably in their living room anywhere in the United States eating Vietnamese take-out while watching infra-red footage of the latest American or British bombing in Iraq. The food being eaten contains ingredients grown and packaged in Canada, Mexico and China and the television programming is being broadcast live. It is clear from this 'mundane' example that geographical distance, chronological time and the limits of our own perception of light are no longer restrictions in our experience of the world. Soja (1989) cites Foucault's claim that

> The great obsession of the nineteenth century was, as we know, history: with its themes of development and suspension, of crisis and cycle, themes of the ever-accumulating past, with its great preponderance of dead men and the menacing glaciation of the world....The present epoch will perhaps above all be the epoch of space. We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. (as cited in Soja, 1989, p.10)

Ours is an era where the viability of navigational strategies, not absolute solutions or descriptions of events or social structures seems 'rational'. There is, for example,

nothing irrational about the choices of meal and entertainment described earlier. The social significance of the momentary connection between a consumer and extended networks of both information and food production is substantial in what it tells us about world-wide interdependence and communication. The choices made, while meaningful, are not however correct or better than the seemingly unlimited alternatives.

Soja, in citing Foucault, is not arguing for some form of replacement of chronologic knowing with spacial knowing. Instead he suggests that the experience of simultaneity that is at the foundation of both physical and conceptual spatiality is an additional aspect of our experience that needs both theoretical and pragmatic attention.

In *Techniques of the Observer*, Crary (1992) traced the shift from what he perceived as enlightenment absolutism to the recognition of the 'constructedness' of perception back to the work of Goethe and others and argues that the importance of the subjectivity of the observer is the foundation for modernism's twin consequences of valorizing the individual in an environment of burgeoning institutionalization. Margaret Atherton's critique of Crary's simplistic reading of Descarte none-the-less reinforces the significance of perception as visual construction by citing the philosopher, George Berkley's contention that the meanings that we associate with vision come to stand for the experience of touch (Atherton, 1997, p. 158).

Clearly we observe, imagine and conceptualize in three and four dimensions. And just as clearly memory, imbedded information, is at the heart of "the delightful dance between memory, vision..." (Emme, in press) and present perception, rigorous analysis and the seemingly whimsical experience of putting a problem on the backburner where 'well toasted' solutions will pop up without any apparent predictability. Our minds are

places (Quantrill, 1987) that we move through and as we do we can use visual memories to both recall and analyse whole constellations of information. Strømnes (1980) argues that the architecturally-based mnemonic strategies used by travelling story tellers in the renaissance (Willis 1621) are early examples of current research that supports the claim that "the visual sense is central to human symbolic communication" (Strømnes , 1980, p.14). Fentress & Wickham (1992) claim that "our ability to recall and fantasize in spatial and acoustic images (even imagining our own minds as 'places' containing 'ghosts' and 'memories') shows that sensory memory of space and sound is no less conceptual than is our abstract memory of meanings" (pp. 30-31).

In a time of massive exposure to information (visual and otherwise) what gets 'put to memory' has a huge impact on how we construct our perceptions. Whether we are considering the relationship between an artist and audience (Cheetham,1991), a teacher and students or a researcher and peers, the complex networks of communication that are our environment form and frame meaning.

As suggested earlier, our capacity to think in images can have a spacial element that allows for the experience of simultaneity. A simple example of this might be "when our present perception of a room (and our sense of personal security or danger) is the result of both what we see in front of us, and what we remember of the room behind us. If we were to suddenly need to leave that room we would most likely turn toward the door even though it wasn't within our current field of view"(Emme, 1997). That experience of space or geographic memory is of daily significance for us as we navigate through dark rooms or make other quick spacial/kinesthetic decisions. The blending of stereoscopic vision, perception and memory that constitutes such an important part of our experience

of the world makes it possible for us to have both vivid, meaningful experiences of the built environment, and a range of less concrete things. The 'hyperspace' of the internet, the oceanic metaphors linked with moving through the mass-media, the conceptual experience of a work of installation art (Storr, 1995) and the global sensibility that makes us consider the immediate consequences of our actions on other people and cultures (Rowe & Schelling, 1991; Rogers, & Irwin, 1995) all constitute aspects of visual and three-dimensional thinking described by Soja (1989) as geographic memory.

In a recent issue of *The New Art Examiner* Jason Greenburg (1996) describes 'nonspace' and 'nonexistence' (p.25) as the experience of virtual reality. While he accepts computer generated reality as real, he also worries for those who only have access to space and existence. Access to the technologies of communication (and, I am also arguing, the technologies of perception) is both a class and a race issue. This is made clear in work such as that of artist Guillermo Gomez-Peña (1997) whose video and cyber-performance works explore

> unwillingly becoming... a techno-artist and an information superhighway bandido. I use the term "unwillingly" because, like most Mexican artists, my relationship with digital technology and personal computers is defined by paradoxes and contradictions: I don't quite understand them, yet I am seduced by them; I don't want to know how they work; but I love how they look and what they do; I criticize my colleagues who are acritically immersed in las nuevas tecnologías, yet I silently envy them. I resent the fact that I am constantly told that as a "Latino"(an all encompassing definition which I have questioned many times in my critical texts), I am supposedly "culturally handicapped" or somehow unfit to

handle high-technology; yet once I have IT right in front of me, I am tempted and

uncontrollably propelled to work against it; to question it, expose it, subvert it,

and imbiude it with humor, radical politics and linguas polutas such as Spanglish

and Franglé. In doing so, I become a sort of virus, the cyber-version of the

Mexican fly: irritating, inescapable, and highly contagious. (Gomez-Peña, 1987)

      Projecting worries about both access to technology and the kind of

multidimensional thinking they imply onto the academy, questions revolve around the

structure of knowledge as it is represented in teaching and through research. In a recent

discussion about the problems created in educational theory by overvaluing binary

thinking and the "simple yardstick of clarity" (Giroux, 1995,p.34) Giroux cites Trinh

Minh-ha (1991) who argues that

Accessibility, which is a process, is often taken for "natural," self-evident state of

language. What is perpetuated in its name is a given form of intolerance and an

unacknowledged practice of exclusion. Thus, as long as the complexity and

difficulty of engaging with the diversely hybrid experiences of heterogeneous

contemporary societies are denied and not dealt with, binary thinking continues to

mark time while the creative interval is dangerously reduced to non-existence. (as

cited in Giroux, 1995, p.23)

      What roles do visuality and the three-dimensional mind play in our experience

of and research into the space and nonspace of contemporary society?

Unruly Research: Visuality in the Academy

The term 'unruly' is used in a self-congratulatory way by left-of-center (wherever

that may be) academics to describe cultural expressions of all sorts that are, somehow, the

grown-up equivalent to drawing outside of the lines (probably on purpose). A good example of unruliness is described in an article published in the film and social theory journal *Screen* in the early 90's titled: *Rosanne Barr: Unruly Woman as Domestic Goddess* (Rowe, 1990) which explores the early work of now well-known comedian Rosanne Barr. The article celebrates as agit-prop theatre Rosanne's comic persona and her spoof/massacre of the American national anthem at a San Diego Padre's baseball game complete with her "unfemininely" loud, shriekingly out of key rendition of the song and "gender-inapproprate" crotch scratching. Unruliness is not the same as anarchisticness because it really is about playing with rules rather than ignoring them. Rosanne needed both the San Diego Padres and the American National Anthem for her performance to work. Along with generating lots of anger, one of the results of Rosanne's performance was renewed discussion about several national symbols. For research to be unruly it too must 'draw outside the lines'; That is, it must also play with expectations, in this case of the academy, which begs the question: where are the lines in research? If I violate those lines will there be any benefit beyond the pleasure of being contrary?

In critically exploring research as creative process, consider how artists work. Artists have very special relationships with their tools. The majority of courses offered in studio art degrees are defined by the tools and techniques being used. Many artists are also defined this way. One is a painter or a photographer, a quiltmaker or a performance artist. Even with performance art, the artist's and audiences' bodies can be understood as tools of the performer. Artists (I would argue) are prone to talk to their tools. They may ask,"What does it mean when I pick you up? how do you change me? If I turn you on your head will you still work?"

With reference to academic research the issue of where the lines are becomes, "What are the tools of research? where is the tool box?" These are complicated questions, but if, like in art making, research tools beget processes, then our processes are the array of research methodologies many of us studied and attempt to apply as part of graduate degrees and beyond. In the book I bought when I took these courses William Wiersma's *Research Methods in Education* (1986) the methodologies were conveniently listed in the first chapter and included:

experimental

Ex Post Facto

Survey

Historical

Ethnographic

More recent revisionings of the politics of knowledge (Stafford, 1994, p. 284) and research methodology (Kinchloe & Steinberg, 1997) have acknowledged the significance of accessing all intelligences in learning and research. Looking from these processes to the tools that we grasp as researchers when we undertake our work we find something akin to the tools of the performance artist. Our bodies, our perceptions and our intelligence are the fundamental tools of research. While even a cursory review of research across disciplines clearly shows our work to be dominated by our numeracy and literacy, if one wants to identify the complete research tool kit I would tend to look toward Gardner's multiple intelligences (Gardner, 1993). Across disciplines researchers use kinesthetic visual-spatial, musical, interpersonal, and intrapersonal intelligence as well as the capacity to translate perceptions into words and numbers.

Gardner argues that his categories describe intelligences because each brings biological proclivity and socially encoded symbol systems to solving problems or making products (Gardner, p.15-16). If research is the term we use for the business of studying phenomena and solving problems in the academy, and the methodologies listed above are our currently, culturally accepted means of doing that work, then each research experience must be drawing from one, several or many of the intelligences. Just as Gardner and others have argued that our public school systems have reified several intelligences at the expense of others, so too the academy and research world have pushed linguistic and logical-mathematical forms to the foreground. Barbara M. Stafford historicizes this rationalist research tradition by describing how Locke, Descarte and their contemporaries

> ...responding to the desire for a stabilization of knowledge,...argued for the systematic elaboration of knowledge and critical analysis of complex experience and compound ideas. Importantly, despite their rationalist or empiricist differences, these seventeenth-century philosophers who contributed so significantly to the Enlightenment and, indeed, to the modern regularization of learning shared the belief in a single method. This universal path was identified with the model provided by the mathematical sciences. ...The hegemony of theory in contemporary thought continues to follow their 'true way of definition'. It favors, even in denial, preexisting rules, laws, and other 'systematic' or *a priori* generalizations in fields where such exactitude is inappropriate (Stafford, 1993. p. 35)

But our world is no longer like that world. Sitting in our own homes (or classrooms) we see and hear farther in minutes than most would experience in an 18th century lifetime. The "room behind us" that I described earlier as an aspect of our present perception is now the world around us. We must simultaneously take that three-dimensional world into full account in order to understand and feel safe. To assume that rationality now can mean the same as it did even a century ago is to deny the differences in our systems of communication, and to deny the new demands being placed on our intelligence.

> For ages, mathematicians and other scientists lived in their linear world with two-valued logic, crisp decisions, sequential processes and absolute optimality. But now new vistas are opening up: nonlinearity is beckoning; we begin to understand fuzzy logic and use it to great advantage; our decisions now have to be based on multiple criteria and are not crisp any more; and our sequential processes and thinking are also beginning to change, helped along by interconnected multiprocessing computers and by concepts such as neural networks. Optimality itself is no longer the main aim in many instances: that notion often gets replaced by feasibility and suboptimality. (Rodin, 1994 p. xv)

Art Education, Academic Play and Thinking in 3-D

Art educators can bring a valuable perspective to 21st century academic research by adding an artist's curiosity, reflectiveness and playful risk-taking to the tools of research. An example of an artist-researcher's methodology is Stephen Sprague's seminal ethnographic study:*How I see the Yoruba See Themselves* (1978). This study, which was published in both *the Journal of Visual Anthropology* and the Society for Photographic

Education's journal *Exposure* explores both traditional and contemporary Yoruban representational practices and the representational practices of the anthropoligist-photographer doing the research. The findings of the study are presented as pairs of images. Each pair includes a portrait created by a contemporary Yoruban photographer and a portrait of the same subject created by the researcher. Viewers are invited to find meaning in the parallels and divergences of the two images use of pose, point of view and setting.

I have long felt that we in the field of art education really need to recognize that the academy as a whole should be our subject. We are better equipped than most to approach our academic neighbors with the kind of sensitivity to spatiality that Soja (1989) would argue results in simultaneous thinking. Instead, I see desperate attempts to be undistinguishable from those neighbors. When I look at the NAEA 's published research agenda (National Art Education Association, 1994) I see many important, challenging questions directed at the classroom setting, but what I do not see, except in very general terms, are any questions about the relevance of the academy's existing research frameworks. The recently published *Research Methods and Methodologies for Art Education* (La Pierre, & Zimmerman, 1997) is a wonderful resource for helping art educators bring an artist's sensibility to research in the academy. We live with the legacies of discipline-based thinking every day without exploring how the visuality of our disciplines might integrate with and both enrich and challenge disciplinarity across the academy. Along with choosing the right methodology for a specific research problem art educators need to discover if our particular take on the human experience, wrapped as it

is (or aught to be) in our visuality, can suggest new research methodology, or, at least, new visual ways of understanding existing research methodology.

Maybe we could benefit from understanding research not just in terms of the traditional methodological processes, which I would argue are dominated by the logic of words and numbers, but also in terms of senses and intelligences. Our different intelligences seem to operate around different systems of analysis and logic. The rationality of visually analyzing an image is not the same as the rationality of analyzing an expository essay. There is a system to images and constructed spaces (including virtual spaces like the world-wide web) that is not the same as the system we find in words and numbers[1]. Ultimately the validity of research is always expressed in terms of our acceptance of perceived order. While a caricature, it is nonetheless reasonable to claim that the post enlightenment world places the arts in the sphere of the irrational. We need to build towards an academy where the rationality of the visual (or the musical, or the kinesthetic) does not have to be translated into verbal or logical-mathematical forms to be understood and taken seriously.

Ultimately, I am interested in inquiry into the value of grouping research methodologies that involve our visuality. This is not to question existing categories such as quantitative and qualitative research, or to necessarily argue for interdisciplinarity in research. Rather, I am interested in learning about visuality by discovering the linkages and fractures that are discernible in the diverse expressions of visuality found in the work of research across academic disciplines. If "vision is a mode of cultural expression and human communication as fundamental and widespread as language, [but] not reducible to or explicable on the model of language"(Mitchell, 1995, p.543), then expanding our

understanding of the use of visuality by academic researchers should offer a

comprehensive representation of the rationality(s) of visuality.

Notes

1.   See (Blumenfeld-Jones, & Barone, 1997, pp.83-108; and Jipson & Paley, 1997
pp. 219-233) for examples of contemporary educational research that explores form as
part of its content.

References

Adcock, C. (1990). *The art of light and space*. Berkeley: University of California
Press.

Archea, J. (1984) *Visual access and exposure: An architectural basis for
interpersonal behavior*   Penn State Ph. D. thesis

Atherton, M. (1997). How to Write the History of Vision: Understanding the
Relationship Between Berkeley and Descarte. In. Levin, D. (Ed.)(1997) *Sites of Vision:
The Discursive Construction of Sight in the History of Philosophy.* Cambridge,
Massachusetts: The MIT Press.

Blumenfeld-Jones, D., & Barone, T. (1997).Interrupting the sign: The aesthetics
of research texts. In Kinchloe, J., & Steinberg, R. (Series Eds.) & Jipson, J. & Paley, N.
(Volume Eds.)(1997). *Daredevil research: Counterpoints* Vol. 21. (pp.83-108). New
York: Lang.

Cheetham, M. & Hutcheon, L. (1991). *Remembering postmodernism: Trends in
recent Canadian art.* Toronto: Oxford University Press.

Bolter, J.D. (1984). *Turing's man: Western culture in the computer age*. Chapel
Hill: University of North Carolina Press.

Coleman, A.D. (1986). Lentil soup: A cultural history of the lens. In *Photo
Communique* 8(1) 10-18.

Collier, J. (1967) *Visual Anthropology: Photography as a Research Method*. New
York: Holt, Rinehart, and Winston.

Crary, J. (1992). *Techniques of the observer: On vision and modernity in the
nineteenth century*. Cambridge, Massachussetts: MIT Press.

Diamond, I., & Orenstein, G. (1990)(Eds.) *Reweaving the world: The emergence of ecofeminism*. San Francisco: Sierra Club Books.

Dick, E. & Moffatt, S. (Eds.)(1989) *Picturing Women: Scottish Women in Photography* Glasgow: The Scottish Film Council.

Emme, M. (1989). *The meaning(s) of lens meaning. The Journal of Social Theory in Art Education*. 9. 26-35.

_____. (1994). Review of: Picturing Power: Visual Depiction and Social Relations. Studies in Art Education. 35(4), 255-6.

_____. (1997, June). *Memory, postmodernism and the dimensions of perception*. Paper presented at the symposium Untold Stories About Perception. University of British Columbia, Vancouver, BC.

_____ . (In Press).Going nowhere: Working with the cyberspace between our ears. In D. Fehr, K. Fehr, & K. Keifer-Boyd (Eds.). *Real World Readings in Art Education: Things Your Professor Never Told You.* New York: Falmer Press.

Emmer, M. (Ed.)(1993)*The Visual Mind: Art and Mathematics* Cambridge, MA: The MIT Press.

Fentress, J. & Wickham, C. (1992). *Social Memory: New perspectives on the past.* Oxford, UK: Blackwell

Fyfe, G. & Law, J. (Eds.) (1988). *Picturing Power: Visual Depiction and Social Relations*. New York: Routledge.

Gardner, H. (1993). *Multiple Intelligences: The Theory in Practice.* New York, Basic Books.

Giroux, H. (1995) Language, difference and curriculum theory: Beyond the politics of clarity. In McLaren, P., & Giarelli, J. (Eds.).(1995). *Critical theory and educational research*. (pp. 23-38). New York: SUNY Press.

Greenburg, J. (1996). The value of going nowhere: A tale of virtual existence. *New Art Examiner.* 24(1). 24-30.

Gomez-Peña, G. (1997).The virtual frontier @ the other frontier (or the Chicano interneta). http://www.telefonica.es/fat/egomez.html#gomeztext

Jipson, J., & Paley,N. (1997) Method: Who am I? In Kinchloe, J., & Steinberg, R. (Series Eds.) & Jipson, J. & Paley, N. (Volume Eds.)(1997). *Daredevil research: Counterpoints* Vol. 21. (pp. 219-233).New York: Lang.

Kariel, H. (1989). *The Desperate Politics of Postmodernism.* Amherst, Massachussetts: U-Mas. Press.

Krauss, R. (1985). *L''Amour fou: Photography and Surrealism.* New York: Corcoran Gallery, Abbeville Press.

LaPierre, S. & Zimmerman, E. (1997)(Eds.) *Research Methods and Methodologies for Art Education*. Reston, Virginia, National Art Education Association.

Mitchell, W.J.T. (1995) Interdisciplinarity and Visual Culture. *The Art Bulletin* (LXXVII) 4 December 1996 540-544.

National Art Education Association (1994) An agenda for research into the 21st century. *Art Education*, 47(4).

Progoff, I. (1973). *Jung, synchronicity, & human destiny*. New York: The Julian Press.

Quantrill, M. (1987). *The environmental memory: Man and   architecture in the landscape of ideas.* New York: Shocken Books.

Rodin, E. (1993) Foreward. In Emmer, M. (Ed.)(1993)*The Visual Mind, Art and Mathematics* . Cambridge, MA: The MIT Press.

Rogers, T, & Irwin, R. (1995). A 3d view of art in global education: Difference, diversity, and distance. *The CSEA Journal* 26(1) 15-21.

Rowe, K.(1990) Roseanne Barr: Unruly Woman as Domestic Goddess. *Screen.* 34(4), 408-419.

Soja, E. (1989). *Postmodern Geographies The Reassertion of Space in Critical Theory* New York: Verso.

Solso, R.L.(1994). *Cognition and the Visual Arts.* Cambridge, Massachusets: MIT Press.

Sprague, S. (1978).How I See the Yoruba See Themselves. *Exposure* 16(3), 16-29.

Stafford, B.M. (1993*) Body Criticism: Imaging the unseen in enlightenment art and medicine.* Cambridge, Massachussetts: MIT Press.

_____ (1994). *Artful science: enlightenment entertainment and the eclipse of visual education.* Cambridge, Massachussetts: MIT Press.

_____ (1996) *Good looking: The virtue of images*. Cambridge, Massachussetts: MIT Press

Storr, R. (1995). An interview with Ilya Kabakov. *Art in America*. 83(1). 60-69,125.

Strømnes, F. (1980). *On the architecture of thought*. Abacus No. 27-29. Helsinki: Museum of Finnish Architecture.

Tufte, E. (1990). *Envisioning Information*. Cheshire, CN: Graphics Press.

Willis, J. (1621). *The art of memory*. (published in facsimile, 1973) Amsterdam: Da Capo Press.

Weirsma, W. (1986) *Research Methods in Education*(4th edition) Boston, MA: Allyn and Bacon, Inc. Yates, F. (1966) *The art of memory.* Chicago