A Selective Annotated Bibliography:
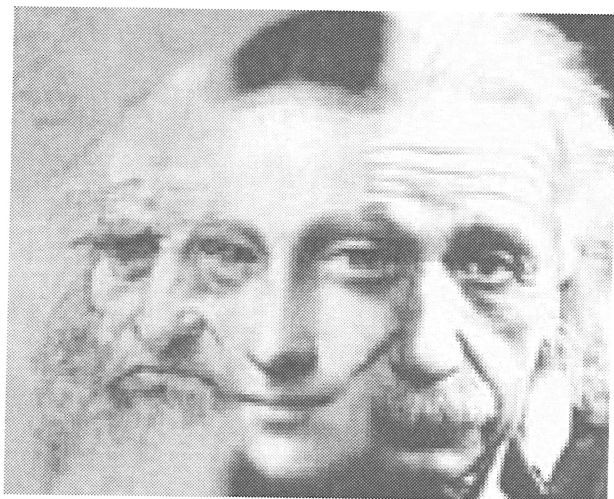
Artists as Researchers

Compiled by Bonnie Yourk

Introduction

Over the last two decades, research within the academe has experienced profound transformation. The role of art in research has been at the forefront of this change. Particularly as multi-disciplinary research has become increasingly integral to the gathering and dissemination of knowledge, alternative forms of inquiry and methodology, such as those investigated and utilized by artists, have become vital to successful research. Academic institutions are gradually encouraging and implementing the development of research collaborations that combine traditional research with art practice. As a result of this hybridity, research in the areas of the fine arts, humanities, social sciences, and sciences has taken on a new nature. Arts-based inquiry may include forms such as the novel, poetry, drama, opera, dance, music, film, video, photography, painting, and sculpture. Although these forms differ from those found in traditional research, artists involved in the research process do engage in standard practices such as the collection and analysis of quantitative and qualitative information within the context of an appropriate theory and methodology, the exploration of archival and documentary material, the formulation of research questions and hypotheses, and the active dissemination of new knowledge.

The purpose of this selective annotated bibliography is to bring together pertinent works relating to artists as researchers, capturing in print the emergence of a radical transformation in academic research. The bibliography has been separated into two distinct categories: research through art and research for art. The first category includes works about art informing research in the fields of the social sciences and humanities, the sciences, education, and art therapy. In other words, art complements the research practices pursued by professionals in these fields. The authors and editors reveal an expansion of knowledge and communication due to a synthesis of traditional and artistic forms of inquiry. The second category contains works by or about artists who are actively involved in the research process as it concerns the creation of art. Here, instead of art informing research, research informs art, and acts as an instrument by which artists can extend their artistic capacity. Also, this section includes works relating to new programs and ideas put forward by federal funding agencies committed to the production of knowledge by means of academic research. These two categories speak to each other and, ultimately, the division is partly artificial, as the works in both tend to blend or blur the distinctions between artists and researchers, art and research.

Bonnie Yourk
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RESEARCH THROUGH ART

Allen, Pat. Art is a Way of Knowing. Boston: Shambala Press, 1995.

The author gives instructions on using image-making as a way to understand fears, dreams, and identity by means of personal experience.

Bagley, Carl, and Mary Beth Cancienne, eds. Dancing the Data. New York: Peter Lang Publishing, 2002.

Contributors explore ways educational research can be synthesized with the visual and performing arts to prompt new ways of knowing, learning, and teaching. By means of their research endeavours in the mediums of dance, collage, poetry, music, and drama, they traverse beyond traditional methodological and pedagogical boundaries, in an effort to discover alternative methods of knowledge and communication.

Banks, Marcus. Visual Methods in Social Research. California: SAGE Publications, 2001.

The author depicts approaches by which social scientists can incorporate visual images into their research. The work is intended as a practical guide for students, academic, and non-academic researchers new to the fields of visual anthropology and visual sociology. He includes information on reading pictures and narratives, using visual forms as representations of knowledge, research strategies involving visual material, creating images for research, and documentation and presentation of research results. The author concludes with an abstract chapter outlining the state, place, and nature of visual research.

Banks, Marcus, and Howard Morphy, eds. Rethinking Visual Anthropology. London: Yale University Press, 1997.

Leading anthropologists offer essays discussing visual representation and analyses of still photography, television, electronic representation, art, and ritual and material culture. The contributors discuss the anthropology of art, the study of landscape, the anthropology of ritual, the anthropology of media and communication, the history of anthropology, and art practice and production.

Barry, David. "Artful Inquiry: A Symolic Constructivist Approach to Social Science Research." Qualitative Inquiry. 2.4 (1996): 411-438.

The author introduces symbolic constructivism, a qualitative research approach that uses art-like and non-routine art-like portrayals to elicit, challenge, and shift existing sense-making frameworks. He argues that, unlike art-based methods that rely on expert interpretation, symbolic constructivism stresses the development of inter-subjective understanding and the creation of multiple forms of meaning.

Benthall, Jonathan. "Science and Art as Modes of Enquiry." In Science and Technology in Art Today. London: Thames and Hudson, 1972. 150-65.

The author contends that just as science is a mode of enquiry, so too is art. He explores "visual research" within science and promotes the idea of art as "open research." He views art primarily as a process of enquiry rather than a process of production and considers the meaning of "experiment" in art.

Bijvoet, Marga. Art as Inquiry: Toward New Collaborations Between Art, Science, and Technology. New York: Peter Lang, 1997.

The author searches for a new concept of art and a different function of the artist through new modes of interdisciplinary production and collaboration. She views art as a set of relations, an information system and an entropic phenomenon, and the artist is seen in the light of ecology and the social sciences.

Blumefeld-Jones, Donald. "Dance as a Mode of Research Representation." Qualitative Inquiry, 1.4 (1995): 391-402.

The author considers dance as a viable mode for research in light of Clifford Geertz's assertion that ideas can be reflectively addressed through the arts. He describes dance as an autonomous field of aesthetic perception with its own meaning working through the categories of motion, time, space, and shape. The author adopts a hermeneutical stance, thereby critiquing the transparency of words.

Bohm, David. On Creativity. Ed. Lee Nichol. New York: Routledge, 1998.

The author explores the nature of creativity from the perspective of a practicing scientist. He suggests that the work of a visual artist is very similar to that of a scientist.

Bogdan, Robert, et al. Qualitative Research for Education: An Introduction to Theory and Methods. 3rd ed. Boston: Allyn and Bacon, 1998.

The authors provide a framework of information about qualitative research in education. This edition explores current debates about research methods and alternative ways of knowing.

Braud, William, and Rosemarie Anderson. <u>Transpersonal Research Methods for the Social Sciences</u>. California: SAGE Publications, 1998.

The authors view art as a vehicle by which researchers can study extraordinary human experiences. They investigate alternative ways of knowing, working with data, and presenting results, including the use of images, symbols, movement and art. The first part of the book contrasts conventional with extended and expanded research approaches. The second part of the book describes how new research practices take concrete forms in five specific methods of transpersonal inquiry and presents ways in which these approaches have been applied in actual research projects.

Bruter, Claude, and Christian Steinberg. <u>Mathematics and Art: Mathematical Visualization in Art and Education</u>. New York: Springer, 2002.

The authors probe recent progress in research, teaching and communication that has arisen from the use of new tools in visualization within the field of mathematics. They explore both the impact of arts in the development of mathematics and the new techniques, themes, and inspiration that artists have gained from mathematics. The book has many mathematical illustrations by mathematicians and artists.

Cole, Ardra, and J.Gary Knowles. <u>Lives in Context: The Art of Life History Research</u>. California: AltaMira Press, 2001.

The authors investigate principles guiding life history researching and view research as relationship and life history as artistic interpretation. They comment on the insights and inspiration from an artist's work as envisioning and portraying lives in context by using images as artful inquiry.

Cornett, Claudia. <u>The Arts as Meaning Makers: Integrating Literature and the Arts Throughout the Curriculum</u>. Prentice Hall, 1998.

The author discusses the integration of literature, art, drama, dance, and music throughout curricular areas by providing a basic arts knowledge base. She demonstrates how a teacher can put research and theory together to coordinate arts integration into the curriculum on a daily basis.

Courtney, Richard. <u>The Quest: Research and Inquiry in Arts Education</u>. Lanham, MD: University Press of America, 1997.

The author presents practical examples of research in the arts and education and provides a strong theoretical base for arts therapies and culture studies. He surveys the history of inquiry within arts education, as well as contemporary forms of inquiry. He also supplies an overview of research frameworks in arts education and creative arts therapies.

Denzin, Norman, and Yvonna Lincoln, eds. Handbook of Qualitative Research. 2nd ed. California: SAGE Publications, 2000.

Contributors provide a comprehensive overview of qualitative research, crossing barriers of discipline, ideology, methodology, and culture, and illuminating new paradigms, strategies, and techniques of research. The handbook presents traditional and alternative strategies of inquiry, methods of handling empirical data, and the practices of interpretation, evaluation, and representation.

Eisner, Elliot. The Arts and the Creation of Mind. New Haven: Yale University Press, 2002.

The author contemplates art as being critically important to the development of complex and subtle aspects of the mind and therefore essential to the core of the education process. He promotes the ideal of diverse curricular emphases, including arts education.

----- "The New Frontier in Qualitative Research Methodology." Qualitative Inquiry. 3.3 (1997): 259-74.

The author marks the unprecedented growth in the use of nontraditional research methods in the social sciences and discusses their promises and perils.

----- "The Promise and Perils of Alternative Forms of Data Representation." Educational Researcher. 26 (1997): 4-10.

The author addresses the potential strengths and weaknesses of alternative forms of data representation. He urges researchers to explore new ways of seeing and saying by walking to the edge of methodological inquiry. The author questions what constitutes legitimate forms of inquiry and suggests that the value of alternative forms of data representation should be determined by the judgment of a critical community as to the successful communication of research.

Flick, Uwe. "Visual Methods." In An Introduction to Qualitative Research. California: SAGE Publications, 1998.

The author depicts photo and film analysis as instruments of research and compares these visual approaches to research alongside traditional methods of inquiry.

Fowler, Charles. Strong Arts, Strong Schools: The Promising Potential and Shortsighted Disregard of the Arts in American Schooling. Oxford: Oxford University Press, 2001.

The author recognizes the arts to be forms of intelligence and argues for the improvement of general education through the arts. He regards the arts as academic, basic, and comprehensive and sees art as a catalyst for educational reform.

Green, Maxine. <u>Releasing the Imagination: Essays on Education, the Arts, and Social Change</u>. San Francisco: Jossey-Bass, 2000.

The author, through a set of essays, defines the role of the imagination in education, arts education, aesthetics, literature, and a social and multicultural context. She argues that vision can be enhanced by the application of the imagination and the arts. In this environment, she believes that true cognition and the full range of human intelligence may be explored through multiple voices and realities.

Gray, Ross, and Christina Sinding. <u>Standing Ovation: Performing Social Science Research About Cancer</u>. California: AltaMira Press, 2002.

The authors outline the theoretical basis of research as performance and discuss ethnotheatre and the impact of research-based theatre.

Hendrick, Joanne, ed. <u>First Steps Toward Teaching the Reggio Way</u>. New Jersey: Prentice-Hall, 1997.

Contributors examine how teachers are working to apply the principles of Reggio Emilia,, an Italian slant to education that views children as both artists and researchers, in classroom settings. The Reggio way is an emergent, inquiry-based, project approach philosophy in early childhood education that employs arts-based learning into every aspect of the curriculum.

Herman, Lisa. "A Methodology for Arts-Based Research – Entering the Worm-Hole: Inviting Clients' Disturbing Images into Liminal Space." <u>Poiesis</u>. 2 (2000): 1-5. *www.rhone.ch/egs/press/poiesis2000/2000-12/07.html*

The author suggests that empirical inquiry traditionally identified as scientific and introspective inquiry traditionally identified with the arts should be once more conjoined. She identifies an assignment with art-therapist students at ISIS-Canada in which students apply their training to engage clients' images in imaginal space for their own learning as therapists.

Jipson, Janice, and Nicholas Paley. <u>Daredevil Research: Recreating Analytic Practice</u>. New York: Peter Lang, 1997.

The authors experiment with alternative models of representation that are unconstrained by the weight of traditional research protocols. They investigate the creation of multiple spaces for imagining how to identify different issues for inquiry, select modes of analysis, and inscribe "data" into a transmittable form.

Lincoln, Yvonna., and Egon Guba. Naturalistic Inquiry. California: SAGE Publications, 1985.

The authors focus on naturalistic inquiry – alternatively called qualitative, ethnographic, or field research – a research method that emphasizes social science constructs and considers contemporary epistemology. They also provide detailed suggestions and a checklist for research that will be credible and trustworthy.

McDonald, Nan, and Douglas Fisher. Developing Arts Loving Readers: Top 10 Questions Teachers Are Asking about Integrated Arts. Lanham: Scarecrow Press, 2002.

The authors consider the involvement and immersion of the arts into every area of a child's education. They offer teaching suggestions to teachers and non-specialists as to how to extend classroom reading activities into group discussions, cooperative learning arts projects and creative performances. Their book is based upon the premise that children learn about the arts and their own abilities innately.

McNiff, Shaun. Arts-Based Research. London: Kingsley Press, 1998.

The author defines arts-based research and illustrates, both theoretically and by various case studies, how researchers can become involved in arts-based inquiries. He specifies the emergence of a new vision of research and creative inquiry and reviews art therapy research and artistic forms of knowing.

Massey, Scott. "The Arts as Knowing." On Common Ground. Yalen-New Haven Teachers Institute. (1995) *www.yale.edu/ynhti/pubs/A18/massey.html*

The author regards the arts as embodied processes of thinking and learning that are central to the new types of "knowers" needed for the emerging "knowledge society." He discusses the Leonard Bernstein Center, a national research and development center that uses the arts and technology as a new approach to learning.

Moline, Steve. I See What You Mean: Children at Work with Visual Information. Ontario: Pembroke Publishers, 1995.

The author argues that teachers across the curriculum have an obligation to teach students how to read and write visual texts. He outlines learning and literacy strategies that require students to communicate using visual texts. The work includes over one hundred student examples to illustrate how children can communicate some concepts better with visual texts rather than conventional word-only texts.

Mullen, Carol, and Diamond, Patrick, eds. <u>Postmodern Educator: Arts-Based Inquiries and Teacher Development</u>. New York: Peter Lang Publishing, 1999.

Contributors present a compilation of research stories of teachers and teacher educators who explore their own artistic and analytic practices in many different settings. They also promote the development of arts-based narrative inquiries by using many artistic forms to shape topics of interest, succeeding the typical theoretical terms of arts-based research in educational literature. Teacher-researchers, the contributors argue, have the capacity to re-imagine their own research inquiries as forms of art within the field of teacher education and development.

Norris, Joe. "Drama as Research: Realizing the Potential of Drama in Education as a Research   Methodology." <u>Youth Theatre Journal</u>. 12 (2000): 40-45.

The author surveys current beliefs and practices in qualitative research revolving around alternative forms of representation and arts-based research. He believes in the arts as a valuable means of collecting, analyzing, and disseminating research data. The author notes that those in the educational research community are investigating the fields of visual arts, music, and drama for assistance in expanding their repertoire of meaning-making and representing data. He suggests that there are five major ways of making meaning and that drama integrates all five and therefore is significant in value to research.

Pink, Sarah. <u>Doing Visual Ethnography</u>. California: SAGE Publications, 2001.

The author details ethnographers' experiences of using images in research and representation to present a range of possibilities intended to work as a basis by which new practices may be developed. She observes the relationship between scientific-realist and reflexive approaches to the visual in ethnography. The author argues that, rather than attaching the visual to existing methodologies, new and alternative ones should be developed. She further contests that images should be regarded as an equally meaningful element of research as are words: there is no essential hierarchy of knowledge in ethnography.

Prosser, Jon. <u>Image-Based Research: A Sourcebook for Qualitative Researchers</u>. London: Falmer Press, 1998.

The author theoretically and practically presents image-based research as an alternative to language-dominated qualitative research. He discusses visual anthropology, film-making and ethnographic research, visual sociology, and curriculum development in health education. The author explores visual imagery as data and investigates the creation of meaning in and outside of art worlds.

Stinson, Sue. "Body of Knowledge." <u>Educational Theory</u>. 45.1 (1995): 46-58.

The author displays a connection between a kinesthetic way of knowing and the approach of traditional researchers.

Tamir, Abraham. "Interaction Between the 'Two Cultures': Art and Science." In <u>Science and Art Symposium 2000</u>. Eds. Albert Gyr, et al. Massachusetts: Kluwer Academic Publishers, 2000. 65-76.

The author demonstrates the interaction between art and science: art is seen as a tool by which science is illustrated, and science is seen as an instrument to create art. The major objective of the paper is to educate people to see science in art and art in science.

Tilley, Christopher, et al. "Art and the Re-Presentation of the Past." <u>Journal of the Royal Anthropological Institute</u>. 6.1 (2000): 35-63.

The authors investigate the work of contemporary 'landscape,' 'environmental,' and 'ecological' artists and contest that the production of art works in the present can be a powerful means of interpreting the past in the present, as art transforms an understanding of place and space and can result in the creation of new meaning. They also investigate the dialectic between art and archaeology.

Tufte, Edward. <u>Envisioning Information</u>. Connecticut: Graphics Press, 2000.

The author advises his readers how to explain complex material by visual means, including maps, charts, scientific visualizations, diagrams, statistical graphics and tables, stereo photographs, guidebooks, courtroom exhibits, computer screens, and timetables. He promotes a new standard of visual literacy by showing many design strategies for the creation and interpretation of visual information.

Tufte, Edward. <u>Visual Explanations: Images and Quantities, Evidence and Narrative</u>. Connecticut: Graphics Press, 1997.

The author expresses the logic of depicting quantitative evidence and describes design strategies with details on motion, processes and mechanisms. He explains visual and statistical thinking, along with information on display repetition, pictorial instruction, and disinformation design.

Upitis, Rena. "Artistic Approaches to Research." Music Education
Research. 1.2 (1999): 219-226.

*The author views research as story and considers the kinds of audiences that would
be attracted to research stories. She discusses alternative forms of research
presentation and argues that research as story can lead researchers to create text
that has more value than many traditional forms of academic writing, in both
qualitative and quantitative forms.*

Upitis, Rena, Katharine Smithrim, and Barbara Soren. "When Teachers
Become Musicians and Artists: Teacher Transformation and
Professional Development." Music Education Research. 1.1
(1999): 23-35.

*The author summarizes two models for professional development in the arts:
summer institutes complemented by autumn/winter workshops and teacher-led
action research projects, in partnership with performing arts organizations and
museums. In both programs, teachers and artists are brought together with the aim
of increasing the artistic sensibilities and skills of teachers. She claims that
significant art experiences in the early years contribute to the development of
thinking skills, personal growth, and social change.*

Weber, Sandra. "About Image-Based Research."
www.iire.mcgill.ca/about.html

*The author communicates the employment of images in qualitative research. She
distinguishes images as data, documentation, interpretation, or representation, and
provides general principles for analyzing visual data.*

West, Thomas. In the Mind's Eye: Visual Thinkers, Gifted People with
Learning Difficulties, Computer Imaging, and the Ironies of
Creativity. New York: Prometheus Books, 1997.

*The author inspects research relating to the role of computer visualization in the
work and education of visual thinkers. He exposes myths about conventional
intelligence by reviewing the role of visual-spatial strengths of various well known
gifted individuals and their link between visual talents and verbal difficulties. The
author supposees that creative visual thinkers will move to the forefront of
innovation, alongside technology.*

Wilson, Steven. "Art as Research."
www.sfsu.edu/~swilson/papers/artist.researcher.html

The author details the profound practical and philosophical implications of research within culture. He also discusses the beneficial involvement of a wider range of research participants, including artists, and he views the arts as filling a critical role as an independent zone of research. The author maintains that artists need to actively patrol the frontiers of scientific and technological research to identify future trends that could benefit from an artist/researcher inquiry.

----- Information Arts. Cambridge: MIT Press, 2000.

The author makes an argument that the role of an artist is not only to interpret and to spread scientific knowledge, but to be an active partner in determining the direction of research. He includes a comprehensive survey of international artists who incorporate concepts and research from mathematics, the physical sciences, biology, kinetics, telecommunications, and experimental digital systems. He also views art and science as cultural acts and considers the artist as an integral part of the research process.

----- "Myths and Confusions in Thinking about Art/Science/Technology." College Art Association Meetings, NYC, 2000. *www.sfsu.edu/~swilson/papers/wilson.caapaper.html*.

The author outlines various models of artistic approaches to science and technology and he highlights art as research to be a powerful response to research agendas that are ignored by the mainstream research enterprise. He questions some of the risks of artistic research by looking particularly at the field of genetic engineering. The author also suggests possible future areas of artistic research.

Zolberg, Vera. Constructing a Sociology of the Arts. Cambridge: University Press, 1990.

The author strives to build bridges among the arts, humanities, and social sciences by incorporating them into a sociology of the arts. She analyzes humanistic and social scientific outlooks and methods on the relations of various art forms and deconstructs the artist as a social type. She also considers the interrelationship between art and its public. The author's goal is to suggest ways by which the approaches of sociologists and those of art professionals or humanists may be brought into congruity by maintaining the creative tension which exists between sociology and the arts.

RESEARCH FOR ART

Allen, Nancy, ed. Working With Words and Images: New Steps in an Old Dance. Westport: Ablex Publishing, 2002.

Contributors include writing from a variety of interdisciplinary practitioners, researchers, artists, and teachers who work together to conceptualize how words and images can harmonize to clarify meaning, particularly in the computer age.

Arnheim, Rudolf. Art and Visual Perception: A Psychology of the Creative Eye. Berkeley: University of California Press, 1975.

The author applies psychology to the study of art to describe the visual processes in the creation and interpretation of art.

Berger, John, and Jean Mohr. Another Way of Telling. Cambridge: Knopf Publishing Group, 1995.

The authors present photography as a language of appearances. They acknowledge the advantage of a more subjective or expressive meaning derived from photographs. One hundred and fifty photographs accompany their writing.

Beyer, Landon. The Arts, Popular Culture, and Social Change. New York: Peter Lang Publishing, 2000.

The author contends that modern aesthetic theory dislocates art from personal experience and abstracts art from social and historical contexts and he vies for a reversal of these tendencies, by seeing art as holistic rather than commodified. He views art as communication and investigates the relationship between the arts and larger realms of social interaction.

Canada Council for the Arts. "Canada Council for the Arts and the National Research Council of Canada: Artist-in-Residence for Research (AIRes) Program (Pilot)." 2000. *www.canadacouncil.ca/grants/interarts/ccsh01-e.asp*

Canada Council for the Arts and the National Research Council of Canada outline the Artist-in-Residence program as a strategic goal to encourage collaborations between the arts and science and technology in an effort to ensure the development of an innovative and creative future.

Costache, Irena. "The 'Truth' in Painting Or in Text: The Dialogue Between Studio Art and Theory in Education." Aesthetics On-Line. American Society for Aesthetics. *www.aestheticsonline.org/ideas/costache.html*

The author debates if truth is found in visual or textual inquiry and if a binary between the two is necessary. She discusses "Writing Across the Curriculum," a program at Loyola University that teaches a visual literacy based on broad cognitive and perceptive education and experience. The author takes this concept a step further by suggesting the necessity of seeing across the curriculum, as demonstrated in the cross-disciplinary significance of visuality throughout history. She argues that visual illiteracy is as critical as textual illiteracy and promotes visual education beyond traditional boundaries so as to enable students to integrate their art in a contemporary visual and theoretical scene.

Emmison, Michael, and Philip Smith. Researching the Visual. California: SAGE Publications, 2000.

The authors give a comprehensive introduction to the entire field of visual research, including an exploration of both traditional and non-traditional themes. They broaden the concerns of visual research to include issues of visibility, invisibility, surveillance, and presentation of the self. Over sixty student exercises and projects are included in the text, as tools to demonstrate that visual research can provide methodologically sophisticated ways of testing and developing cultural theory. The authors move beyond the traditional two-dimensional focus on images, signs, and representations (found largely within photography) to incorporate discussion of three-dimensional data, such as settings, objects, and traces as well.

Garrett-Petts, Will, and Donald Lawrence. PhotoGraphic Encounters: The Edges and Edginess of Reading Prose Pictures. Edmonton: University of Alberta Press, 2000.

The authors challenge the hegemony of word over image and argue for an integration of visual and verbal literacies. They value collaborative research, as they assert that no single author can speak authentically to the language of more than one discipline. The authors establish a multidisciplinary frame for the discussion of reading and viewing and the renewed emphasis on visual modes of communication. The book presents ideas on how teachers and researchers can go beyond a traditional "sister arts" vision that has characterized interarts studies. The authors question why the inherent value of an integrated curriculum is taken for granted in early grades and yet opportunities for integrating literacies become increasingly rare in higher education. They challenge traditional notions of what constitutes art and what separates high, mass, popular, and vernacular cultures.

Gilroy, Andrea, and Colin Lee, eds. <u>Art and Music: Therapy and Research</u>. London: Routledge, 1995.

> *Contributors depict sixteen pioneer case studies involving research problems common to art and music therapists. A variety of research methodologies as well as important research questions in relation to the field of art therapies are presented.*

Gombrich, Ernst Hans. <u>Art and Illusion: A Study in the Psychology of Pictorial Representation</u>. 3rd ed. London: Phaidon, 1968.

> *The author finds a meeting ground between science and the humanities by examining the history and psychology of pictorial representation in light of contemporary theories of visual perception, information, and learning.*

Gray, Carole. "Squaring the Circle? The Relationship Between Professional Practice, Teaching and Research in Art and Design" Professorial Lecture. The Robert Gordon University, Scotland, UK. June 17, 1998. *www2.rgu.ac.uk.criad/lecture1/main4/htm*.

> *The author affirms that professional practice, teaching, and research are interrelated and essential components in 21st century education, and the interfaces between them create the most challenging questions to be resolved. She asks, in an effort to square the circle of social art and science: "How could an accessible, rigorous mode of inquiry be developed for artists and designers, in order that we could carry out valid and meaningful practice-based research without wearing the straightjacket of reductionism and a white coat and safety glasses?" She describes her familiarity with the fundamental processes of research embedded in her practice. The author also identifies the range of roles an artist might adopt, particularly in the emergence of new kinds of contexts for showing art.*

Gray, Carol, et al. " 'Artistic' Research Procedure: Research at the Edge of Chaos?" In <u>Design Interfaces, European Academy of Design Conferences</u>. Salford, UK: Gray and Pirie, 1995.

> *The authors scrutinize 'methodologies' and various paradigms of inquiry used to date in formal Art and Design research in the UK and outline some recently completed Ph.D. award-winning research. They define a pattern within Art and Design research to display characteristic eclecticism by adopting a 'multi-method' approach to information gathering, analysis, and communication. The paper suggests that constructivism in Social Science and complexity in Science has implications for the development of modes of inquiry in Art and Design.*

Harris, Craig, ed. <u>Art and Innovation: The Xerox PARC Artist-in-Residence Program</u>. London: MIT Press, 2000.

> *Contributors discuss the Artist-in-Residence (PAIR) program at Xerox's interdisciplinary Palo Alto Research Center(PARC). This program brings new media artists to PARC and pairs them with scientists working on the frontier of developing technologies, in an effort to create both interesting art works and new scientific innovations. Various artists and researchers compare and contrast their approaches and perspectives as they join together in a search for new methods of communication and creativity.*

Hentschel, Klaus. <u>Mapping the Spectrum: Techniques of Visual Representation in Research and Teaching</u>. Oxford: University Press, 2002.

> *The author observes the visual techniques of spectrum analysis, from pencil drawing to photography. He investigates the interplay between research and printing and research and teaching.*

Jacob, Mary Jane, et al. <u>Culture in Action</u>. Seattle: Bay Press, 1995.

> *The authors describe a public art program of Sculpture Chicago which artists researched and implemented.*

Jeffers, Carol. "Research as Art and Art as Research: A Living Relationship." <u>Art Education</u>. 46.5 (1993): 12-17.

> *The author maintains that research expressed as art can promote dialogue among teachers and researchers. She explores the living relationship between educational research and art within a hermeneutic phenomenological approach to research. The author views the task of the researcher and the artist to be similar: to construct a possible interpretation of the nature of a certain human experience. She argues that the language and activities held in common between phenomenological research and art allows the educator to see research as art, art as research, and both intertwined in education.*

Kosslyn, Stephen. <u>Image and Brain: The Resolution of the Imagery Debate</u>. Cambridge: MIT Press, 1996.

> *The author presents his findings from a twenty year interdisciplinary research program that develops a theory of visual mental imagery, its relation to perception, and its implementation in the human brain. He claims that perception and representation are inextricably linked.*

Kress, Gunther, and Theo van Leeuwen. Reading Images: The Grammar of Visual Design. London: Routledge, 1996.

The authors contend that visual design fulfills two primary purposes: representing the world around and inside people and enacting social interactions as social relations. They survey patterns of representation and ways in which people encode experiences visually. They also consider patterns of interaction and ways in which visual communication involves makers and viewers of visual texts. The book also deals with the materiality of visual signs and the semiotic landscape, entailing language and visual communication.

Lippard, Lucy. The Lure of the Local: Senses of Place in a Multicentered Society. New York: Norton, 1997.

The author explores multiple senses of place through cultural studies, history, geography, photography, and contemporary art. She discusses issues including maps as reflections of culture, the meaning of place for exiles and longtime descendants, the manipulation of history, and the politics of archaeology.

Perkins, D.N. "Art as Understanding." Journal of Aesthetic Education. 22.1 (1988): 111-31.

The author ascertains the theme of art as understanding by two suggestions: art engages psychological resources of understanding and to understand art well, an attention to how understanding the endeavours of appreciating art and making art is necessitated. He outlines the nature of understanding and misunderstanding through the characteristics of relations, coherence, standards of coherence, generativity, and open-endedness. The author discusses the invisible art in art and argues the importance of educating the eye to see and understand invisible art. He also purports a "pedagogy of understanding" that would account for the role of understanding and alternative understandings in artistic activities.

Phillips, David. "Art as Research, Research as Art." Educational Theory. 45.1 (1995): 71-84.

The author comments on essays in the 1993 AERA Conference and particularly Elliot Eisner's AERA address. He argues that Eisner's suggestion that methods from the arts ought to be incorporated into educational research methods is controversial and requires careful examination. He believes that Eisner's proposition that the arts should be reflected in the display of research to a greater extent reveals good educational sense. The author explores the ambiguous meanings of "research," "art," and "truth." He argues that not all works of art are research and that not all artistic meanings have relevance for the sorts of theoretical and political questions that comprise research.

Smith, David. "Convergence, the University of the Future and the Future of the University." Presentation at <u>Cultural Work in the Information Society</u>. Rome. October 1999.

The author makes a case that the role of arts in relation to the cultural industries is essential. He proposes possible fusions of art and technology and encourages the use of new information technology as a form of artistic and literary expression and as a means of forming creative partnerships, especially between art, science, and industry. The author sees that the future university city state will support a complex hybrid of private and public sector enterprises offering a wide range of learning experiences and environments.

Smith, David. "The Researcher as Artist, the Artist as Researcher." Presentation at <u>Exchange: Facilitating Art and Design Research</u>. University of Wales College, Newport. October, 1998.

The presenter argues for the introduction of some of the basic techniques of formal enquiry previously thought to be applicable only to technology and social sciences to also be included in the education of artists. Just as research in scientific fields is understood as requiring imagination as well as formal method, aspects of contemporary art practice require formal method as well as imagination. The presenter suggests that art and design education should both introduce students to paradigms of formal enquiry and analyze the divergences between the essential world-pictures of the artist and the scientist.

Social Sciences and Humanities Research Council of Canada. "Major Collaborative Research Initiatives (MCRI)". 2002. *www.sshrc.ca/english/programinfo/grantsguide/mcri/htm*

SSHRC outlines the objectives and application procedure for MCRI's, a program that seeks to strengthen the Canadian research capacity in the humanities and social sciences by promoting high quality, innovative, collaborative research by bringing together scholars with different perspectives and expertise from across disciplines, generations, and countries.

Solso, Robert. <u>Cognition and the Visual Arts</u>. Cambridge: MIT Press, 1996.

The author explores how humans perceive, process, and store information, particularly with regard to viewing and interpreting art. He contends the importance of cognitive psychology to art and acknowledges that the clearest view of the mind comes when art is created or experienced.

Thom, Belinda. "Research Statement."
www.cs.cmu.edu/~bthom/research.pdf.

The author overviews her Ph.D thesis research which aims to create intelligent agents that collaborate – as first class citizens – with humans in creative art-based domains. Her Band-OUT-of-a-Box (BoB) is an agent that trades improvised solos with a musician in real-time.

Travis, John. "Genes on Display: DNA Becomes Part of the Artist's Palette." Science News. 158.25 (2000): 392-395.

The author discusses New York's Exit Art's 2000 exhibition, "Paradise Now: Picturing the Genetic Revolution," which portrayed work by artists reflecting concerns about genetics and biotechnology, dubbed "genetic art."

Wallis, Brian, et al, eds. Art Matters : How the Culture Wars Changed America. New York: University Press, 1999.

Contributors discuss the role of visual arts in regards to social identity, public morality, communal values, and freedom of expression. Projects by various artists provide a context for the these conversations: Lucy Lippard investigates the extraordinary transformations in visual arts; Michelle Wallis speaks about high art, popular culture and African American identity; David Deitcher explores queer culture and AIDS; Carole Vance investigates censorship and sexually charged imagery; Lewis Hyde considers democracy and culture. A synopsis of Art Matters, a private foundation offering alternative funding sources for artists, is discussed as a catalyst to new forms of art and the protection of freedom of expression.

Zeki, Semir. Inner Vision: An Exploration of Art and the Brain. Oxford: Oxford University Press, 1999.

The author relates art to the functions of the visual brain. He creates an aesthetic tour of the brain, describing how different areas of the brain respond to various elements of visual arts.