



Media Arts and Technology
Graduate Program
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MAT200A Arts & Technology Seminar Fall 2004:

“Art Research?”

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**“Of course we don’t know
what we’re doing,
that’s why its called research”**

(Attributed to Albert Einstein, as quoted by S. Penny)

What is Scientific Research?

- Begin with a question, followed by a problem statement
- Hypothesis (or best guess) as to the answer to the problem
- Data collection of “facts” relevant to the problem
- Analysis of the fact (experimentation)
- Repeat until satisfactory conclusion is reached

Robert Williams, LSIS, USC

What is Artistic Research?

- Research and problem solving at the implicit and explicit level that differ from structured, reductive methods
- The engineering/scientific approach involves work under controlled conditions where the variables are finite, predictable and defined
- Art seek open systems, associative connections, unexpected juxtapositions

George Legrady, Simon Penny, Lake Arrowhead Conference, 2002 1|2

What is Artistic Research?

- Artistic valuing of creativity and innovation may result in alternative methods, driving the research process into unexpected directions (also true of scientific approach)
- Artists as generalists can incorporate multiple practices: researcher, inventor, hacker, and entrepreneur
- Artists tend to question the institutional context itself, investigating the conditions under which their particular research might take place

George Legrady, Simon Penny, Lake Arrowhead Conference, 2002 2|2

Art As Research

- The arts can function as an independent zone of research. They could become the place where abandoned, discredited, and unorthodox inquiries could be pursued
- They might very well value research according to criteria quite different from those of the commercial and scientific worlds
- Contemporary art often includes elements of commentary, irony and critique missing from "serious" research

Art As Research, Steve Wilson, 1996 1|3

Art As Research

- Similarly scientists and technologists strive toward objectivity; artists cultivate their idiosyncratic subjectivity as a major feature of what they do
- It would work like art always does - provoking and moving audiences through its communicative power and unique perspectives
- Still it might simultaneously work as research - using systematic investigative processes to develop new technological possibilities or to discover useful new knowledge or perspectives

Art As Research, Steve Wilson, 1996 2|3

Art As Research

Artists can augment the research process in several ways:

- They can define new kinds of research questions
- provide unorthodox interpretations of results
- point out missed opportunities for development, explore and articulate wide ranging implications of the research
- represent potential user perspectives, and help communicate research findings in effective and provocative ways

Art As Research, Steve Wilson, 1996 3|3

Theory to Practice

- In scientific research, the experiment can only take place following the proposal of a theory. Usually there is a relatively long time span between a theoretical hypothesis and its subsequent validation and utilization.
- In the case of a work of art, if a connection between theory and practice can be created at all, the relationship seems to be the reverse—as if the experimental work, which is both proposal and end result, could somehow serve as the basis for some theory that may elaborate, interpret, or even complete it.

Art, Research, Experiment, Miklos Peternak, 2004 (Beyond Geometry) 1|3

Theory to Practice

- Facing the unknown, the artist follows a strategy different from that of the scientist: generally the artist's discoveries occur not on the formal level, employing the rules of language or mathematics, but on the level of the sensations and the condition of proprioception, creating new rules that fit, instead of some relatively permanent coherent system, into the ever changing process that is art.

Proprioception: The unconscious perception of movement and spatial orientation arising from stimuli within the body itself

Art, Research, Experiment, Miklos Peternak, 2004 (Beyond Geometry) 2|3

Theory to Practice

- The work of art stands in necessary contact with the unknown, (*jumping forwards without necessarily having a background foundation*)
- whereas scientific discovery constantly annexes the unknown to the known (*one consciously takes a forward step based on precedents*)

Art, Research, Experiment, Miklos Peternak, 2004 (Beyond Geometry) 3|3

Crossovers in Science and Art Approaches

- Scientific writing uses metaphor to a greater extent than it would like to acknowledge
- What the artist presents is an open but not unstructured field for the exercise of the spectator's faculties
- Both science and art share many ways of proceeding: observation, structured speculation, visualization, exploitation of analogy and metaphor, experimental testing.

Visualizations, the Nature book of Art & Science, M.Kemp, 2000

Art Research as Potential Value

- Arts projects as beta testing: implementing technologies in ways that the developers might not have imagined or predicted
- Testbed situation: Rapid prototyping opportunities with public presentations/deadlines
- In a research lab environment, artistic input may lead the scientist/engineer to consider a problem from a different perspective

From Research to Implementation

- **Arrow Shooters:** wildly shoot arrows in all directions (*create unexpected new things without a purpose*)
- **Pathfinders:** Those who go into the forest to find the arrows (*who understand potential use and context, and therefore go out and find the arrows, i.e. entrepreneurs*)
- **Road Builders:** who build the roads to the arrows (*who realize access, implementation, make it work, and marketable*)

John Warnock, co-founder Adobe Systems, Ars Electronica, 2003

- That is it.....