The doctorate in “the making fields”: Thoughts about a continuum of measures of validity in research methodology

- Ellison and Eatman: public scholarship
- Communal nature of doctoral knowledge (a brief history)
- Discovery of nature / scientific method / 20th century rejection of scientific method

**WORKSHOP**
- Topic and titling
- Getting in / out: Strategy and tactics
- Theoretical anchor(s)
  - Literature Review
- Projected outcomes
  - generalizable
  - Dissemination
  - a continuum of scholarship
The doctorate in “the making fields”: Thoughts about a continuum of measures of validity in research methodology
Art (as in What is Art?)
  Aesthetic emotion / aesthetic distance
  Disinterest
  Representation versus expression
  Institutional theory of art
  Ideality

ARCHITECTURE
  Firmitas, Utilitas, Venustas
  The enormity of the built environment (from Lincoln Cathedral to bicycle sheds)
  Interiors, landscapes, urban design, planning ... related disciplines
  Construction and contracts
  Economic dimension
  Political dimension
  Computation, new virtualism

DESIGN
  Design thinking
  Wicked problems
  Systems
  Creative leap
  collaboration
  Scale and systems

D. Wang: The PhD in the making fields: a continuum of measures of validity in research methodology
1. Ellison and Eatman – the notion of public scholarship

**DESIGN**
- Design thinking
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1. Ellison and Eatman – the notion of public scholarship

Social-cultural issue: Academic standing in an increasingly diverse and globalizing world

Postmodern culture’s “incredulity against meta-narratives” mitigates against experimental knowledge as the only legitimate “true knowledge”
1. Ellison and Eatman – the notion of public scholarship

Social-cultural issue: Academic standing in an increasingly diverse and globalizing world

* Public history of slavery: symposia and a series of regional collaborative events
* New World Theater Project: a series of public performances
* Arts and Civic Dialogue: writers and public in a series of interactions
* Museum based Community History: archival research and 100 oral histories leading to two exhibitions
* Teachers as public scholars: K-12 teachers trained in local histories to develop curricula

Postmodern culture’s “incredulity against meta-narratives” mitigates against experimental knowledge as the only legitimate “true knowledge”

A resource on promotion and tenure in the Arts, Humanities and Design

* Art and Craft teacher’s views in context of creativity.
* Embodied learning interactions in between the digital and concrete-material world. “the body as a premise for learning.”
* Body-Space-Movement: Awareness / Creative Practice.
* Material Poetic events. A study of children’s material inspira(c)tions in kindergarten.
* Body-space interaction: consequences for education (Question 3).
* To grip form and to get a grip of form

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Looking ahead: External logistics of a research design

**Intersubjectivity**

**Generalizability** (external validity)

**Depth** (robustness / confidence)

**Dissemination**
- The work receives attestation beyond the dissertation committee (i.e., some form of sustained public attestation).
- Peer reviewed publication
- Grant or some form of selective source of funding

**Connects domains of knowledge**
- The interdisciplinarity of public scholarship
- Intercultural engagement
- The integration of scholarship, teaching and public engagement
- The impact of public scholarship across multiple publics, communities and audiences

**A continuum of scholarship:**
- Meaning this dissertation, or this scholarly effort, is not just a “one off.” It is part of a sustained pattern of public inquiry.
- Makes a clear contribution of society
- In the making disciplines, what matters is not so much a body of knowledge at any one time, as a clear body of work over time.
1. Ellison and Eatman – the notion of public scholarship

Looking ahead: Internal logistics of a research design

**Strict Prediction** (experimental method)

**Independent variable**
- Participant observation
- Ethnographic engagement
- Targeted activities

**Dependent variable**
- Qualitative narrative
  - (Historical narrative)
- (multiple cases)

**Unit of Test**
- In situ social settings

**Cause / Prediction** (external validity)

**CAUSE / Prediction**
- Thick description

**Unit of Test**
- Site (siting)
  - “Field operations”

**Strict Prediction**
- (control)
- (certainty)

**Thick Description** (qualitative method)
- Thick description

**Dependent variable**
- Qualitative narrative
- (multiple cases)

**Unit of Test**
- Events: exhibits, symposia, performances

**Practice / Making**
- Agency
- Resistance

**Independent variable**
- Participant observation
- Ethnographic engagement
- Targeted activities

**Dependent variable**
- Qualitative narrative
  - (Historical narrative)
- (multiple cases)

**Unit of Test**
- “a world”

**Thick Description**
- Thick Description

**Practice / Making**
- Inscription
- Activism
- Enactment
- Empowerment

**Independent variable**
- Participant observation
- Ethnographic engagement
- Targeted activities

**Dependent variable**
- Qualitative narrative
  - (Historical narrative)
- (multiple cases)

**Unit of Test**
- “a world”

**Thick Description**
- Thick Description

**Practice / Making**
- Change
- (comparison? Affirmation?)

**Independent variable**
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D. Wang: The PhD in the making fields: a continuum of measures of validity in research methodology
2. Communal nature of the university, and of doctoral education (a brief history)

* One of the legacies of post-Hellenic / early Christian European civilization is the university.

* The cathedral schools: the tension between monastic withdrawal from the world; but in that withdrawal, these monasteries became wombs of learning about the world.

* We moderns, with our modern urban textures and seamless global communication networks, can hardly grasp the isolation of these centers of learning.

Medieval manuscript showing a meeting of doctors at the University of Paris.

http://www.historytoday.com/alan-b-cobban/student-power-middle-ages
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* Out of these isolated centers, communities of learning emerged: there was a sense of orderliness: in social contract; in production of goods; in sense of community.

* Western architecture reflects this communal participation, for example, in the cloister / courtyard / piazza vocabulary. Point: knowledge production intimately associated with communitarian values.

* Doctorates were awarded at the University of Paris in the twelfth century.
2. Communal nature of the university, and of doctoral education (a brief history)

* One of the legacies of post-Hellenic / early Christian European civilization is the university.

Doctoral education anchors its legitimacy in its historical roots of discovery of new knowledge for communal betterment; in fact the highest form of knowledge production for communal betterment.

Doctoral knowledge ought to be intersubjectively understandable not only in an abstract sense, amongst a separatist group of “revolutionaries” (although new knowledge is often revolutionary); but intersubjectively understandable to the general population of university scholars and, beyond them, to the human community at large – for the tangible betterment of the human project.

In this regard I don’t think it is helpful to see “doctorateness” in Art, Design and Architecture as so unique that the very notion of a Ph.D. needs to be redefined from scratch as a form of inquiry the world has not seen before. This kind of a-historical view, I think, makes defining “doctorateness” in Art, Design and Architecture a harder, not an easier, task.

* Doctorates were awarded at the University of Paris in the twelfth century.
3. The discovery of nature and the rise of scientific method

* By “the discovery of nature,” I mean the historical factors bringing about the separation of theology from philosophy; thus creating a new category of knowledge called “natural philosophy” -- which became the basis of a **scientific** way to “know” the cosmos.

- Ptolemaic system, William Cunningham “Doctor of Physicke”1531

- The Territories of Science and Religion, Peter Harrison
  The evolution of *scientia* and *religio* from denoting internal traits of moral character to denoting external bodies of propositional measures

- Heavenly Participation, Hans Boersma
  Traces why we moderns assume that the physical world is *simply* “brute matter,” without question, accessible **only** by propositional formulations

D. Wang: The PhD in the making fields: a continuum of measures of validity in research methodology
3. The discovery of nature and the rise of scientific method

* “Natural” (scientific) explanations did not come cheaply. Here are some decisions by the Church, in 1616, against Galileo, who supported the Copernican model of a sun-centered solar system:

... this proposition is foolish and absurd in philosophy, and formally heretical since it explicitly contradicts in many places the sense of Holy Scripture, according to the literal meaning of the words and according to the common interpretation and understanding of the Holy Fathers and the doctors of theology. (XIX, 321; trans. by Finocchiaro 1989, 146). [http://inters.org/galileo-copernicanism-fantoli](http://inters.org/galileo-copernicanism-fantoli)

... this proposition receives the same censure [qualification] in philosophy and that in regard to theological truth it is at least erroneous in faith. (XIX, 321). [http://inters.org/galileo-copernicanism-fantoli](http://inters.org/galileo-copernicanism-fantoli)

So one attitude we have inherited – which directly influences the difficulty of determining “doctorateness” in Art, Design and Architecture – is caution that anything not “scientifically explained”, but perhaps based upon “belief” (or worse: based on “religious” commitments), is de facto suspect.

The shortcoming in this broadly rejectionist view is that we largely eliminate aesthetic measures from what constitutes “true” knowledge.

Generally, it was with the ascent of “scientific method” that another question began to emerge in Western ideas: “What is Art?”
3. The discovery of nature and the rise of scientific method

The 17th century began the scientific objectification of the cosmos

Knowledge for human comfort
An activist view of knowledge: nature to be harnessed for use ... so:
A utilitarian view of knowledge: the end goal is function
The emergence of the idea of progress as a fact of nature
A linear view of time

Francis Bacon, *The Advancement of Learning*
1605

Rene Desartes
*Discourse on the Method of Rightly Conducting One's Reason and of Seeking Truth in the Sciences*
1637

The human senses are not dependable
“Objectivity” an abstract power of human cognition
Skepticism becomes fundamental of path to knowing
Reduction of nature to empirical measures
Experimental method
Led to (Locke’s) notion of primary v secondary qualities

D. Wang: The PhD in the making fields: a continuum of measures of validity in research methodology
3. The discovery of nature and the rise of scientific method

The 17th century began the scientific objectification of the cosmos

From now on, everything must be “a science” in order for it to be “true knowledge”

What we really have is a conflation between “truth” and “facts”

1750

The beautiful must be understood as a science

1807

Philosophy (the phenomenology of Geist) is a science

C. Hempel, b. 1905

Logical empiricism: History can be understood scientifically

1963

Even theology, if done right, must be a science

D. Wang: The PhD in the making: fields, a continuum of measures of validity in research methodology
3. The discovery of nature and the rise of scientific method

Art, Design, Architecture and …. A continuum of measures of validity in research methodology

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From now on, everything must be “a science” in order for it to be “true knowledge”

What we really have is a conflation between “truth” and “facts”

We live in a post-Industrial revolution that has fundamentally "machined" the way we see the world.


"… it ranges from the act of shaving to the act of organizing the landing at Normandy … today no human activity escapes this technical imperative. There is a technique of organization … just as there is a technique of friendship and a technique of swimming…"

Ibid., 21-22.

The very notion of architecture needing to have "a body of knowledge" is itself a result of the scientification of the way the modern mind manages categories (= scientific taxonomies) of human activity as discrete "chunks" of endeavors that 1) have function, and 2) are marketable.

Experimental research (which devalues art and aesthetics as “secondary”) is the dominant research paradigm for academic inquiry. How to measure doctoral competency in Art, Design and Architecture with this reality working “against” it?
3. The discovery of nature and the rise of scientific method / rejection of scientific method in the 20th century

A time of opportunity to contribute new definitions of research that is communally understandable, but in the area of the arts

**Romanticism**  *The Chancel and Crossing of Tintern Abbey, Looking Towards the East Window*, by JMW Turner, 1794.

**Phenomenology**  *Impressionism in art*  
*Woman with a Parasol - Madame Monet and Her Son*, Monet 1875

**Linguistic revolution:**  *structuralism (Cubism in art)*  
*Still life with a bottle*, by Picasso 1911

**Critical theory (art as social critique):**  
*Everyone I've ever slept with 1963-1995*, by Tracey Emin, 1995
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An email from today: A few of the students will be from the School of Architecture and Design in Oslo, here is another who is planning on coming. His name is Bjørnar Nørstebø and his thesis title is "Adapting visual dissemination - visual communication for a changing building industry."
1. Ellison and Eatman – the notion of public scholarship

- **Unit of Test**
  - **CAUSE / Prediction** (external validity)
  - **Independent variable** (control)
    - **Strict Prediction** (correlation method)
  - **Dependent variable** (certainty)
    - **Thick Description** (qualitative method)
  - **Thick Description** (in situ social settings)
  - **Strict Prediction** (control)

- **Site (siting)**
  - **“Field operations”**
  - **“a world”**

- **Events: exhibits, symposia, performances**
  - **Agency**
  - **Resistance**
  - **Parablic power**

- **Protagonist**
  - **Dynamic moral agent**

- **Story**
  - **Moral suasion**

- **Practice / Making**
  - **Polemics / Deontics**

- **In situ social settings**
  - **Participant observation**
  - **Ethnographic engagement**
  - **Targeted activities**
  - **Qualitative narrative** (historical narrative)
  - **(multiple cases)**

- **(comparison? Affirmation?)**

- **D. Wang: The PhD in the making fields: a continuum of measures of validity in research methodology**
intersubjectivity

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- The interdisciplinarity of public scholarship
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Depth (robustness / confidence)

A continuum of scholarship:
- Meaning this dissertation, or this scholarly effort, is not just a “one off.” It is part of a sustained pattern of public inquiry.
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- In the making disciplines, what matters is not so much a body of knowledge at any one time, as a clear body of work over time.
…. And to “get out” with conclusions which are
documentable, systemically coherent, generally
repeatable, communally understandable, and an
addition to the literature.

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Topic and titling

It has a focus

It has a theoretical basis in the literature

Example: “I want to research sustainable design” This is a broad research area

This is a topic of research

It suggests a method

It promises outcomes (new knowledge)

When you have a topic statement like this, you are 50% complete

D. Wang: The PhD in the making fields: a continuum of measures of validity in research methodology
Sissel Bro: **BODY-SPACE-MOVEMENT: spatial orientations, sensuous awareness and creative practice in a learning and educational perspective**

**Titles**

1. Embodied movements: phenomenologies of creative teaching and learning in the K-6 classroom.

A word about research questions

Ann Hege Lorvik Waterhouse: Just crossing the starting line (?)

Research questions: a good research question focuses the topic (as opposed to identifying the domain); clarifies the research methodology, and promises anticipated outcomes.

Submitted question: How does “earth materials” in different dimensions (quanta on different places) in kindergarten inspire children to act artistically with materials through experimentation, exploration, and expression as poetic events?

How does sustained exposure to the work of Andy Goldsworthy impact children’s ability to create sculpture in nature?

In what ways can Rosalind Krauss’s “Sculpture in the Expanded Field” theory of sculpture be enacted in teaching children non-anthropocentric expressions of art?
…. And to “get out” with conclusions which are documentable, systemically coherent, generally repeatable, communally understandable, and an addition to the literature.

Topic of research: 50% of the project is done if stated clearly in one or two sentences.
Getting in / getting out

Strategies: the way you conceptualize the research

Tactics: the way you operationalize the research

Strategies:
- Experimental (EXP)
- Co-relational (COR)
- Qualitative (QUA)
- Historical (HIS)
- Simulation (SIM)
- Logical argumentation

Tactics:
- Statistics
- Surveys
- Documents / Archives
- Participant Observation
- Laboratory Work
- Artifact Analysis
- Theory Building
- Thick Description
- Re-enactment
- Ethnography

Instruments

Archival Participation

Case

L.A.
A sequenced project (or LA as strategy and QE as tactic)

1. Logical argumentation strategy: a set of descriptors in answer to questions 4 and 5:

4. How can constructivist learning theories be used to enable an understanding of teachers’ role(s) in facilitating creativity inside Art and Craft in Norwegian compulsory schools?

5. How can constructivist learning theories be used to enrich teacher’s competence in running a creative classroom?

2. Qualitative ethnography:

   - Case 1
   - Case 2
   - Case 3
   - Case 4

Potential outcomes

- A theory of creativity in arts and crafts education derived from the cases
- Actionable applications for teacher training
- A definable set of guidelines for curriculum
Theoretical anchors

**Qualitative theory**
Validation by thick description / narrative satisfaction
*Example*: comparative case studies of life in four rural towns

**Normative theory**
Validation by common practice
*Example*: artisan construction practice of a vernacular traditional house

**Critical theory**
Validation by social change
*Example*: Marxist-based interpretation of the history of one town

**Positivist theory**
Validation by experimental demonstration
*Example*: correlation of economic impact of healthcare on rural stability

**Design-Polemical theory**
Validation by popular assent
*Example*: design in relation to rural identity: Branding “Stone Villages”
Theoretical anchors

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  - Validity by thick description / narrative
  - Example: comparative case studies of life in four rural towns

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  - Validity by experimental demonstration
  - Example: correlation of economic impact of healthcare on rural stability

- **Design-Polemical theory**
  - Validity by popular assent
  - Example: design in relation to rural identity: Branding "Stone Villages"
Literature review

* Rooted in literature (related to field; knowledge of primary and secondary sources)
* Depth (sufficient data; systematic analysis; multiple cases)
Two examples of need for a clearer theoretical base

Can you explain any of these goals more clearly?

1. Utilizing the potential of embodied knowledge / haptic perception in form-theories.

2. Give supplement to form theory from concepts and expressions that provide support for bodily recognition of three-dimensional forms.

3. Give supplement to form theory from concepts and expressions based on “material agency.”
The objective of this research action is to understand the implications of a changed materiality in the context of arts and crafts teacher education due to the general digitalization of our era.

What are the different qualities in the interaction between manipulable and non-manipulable materials for the learner in art and craft teacher education context?

Research methodology and approach

The research objective will be achieved through two main actions: 1) Collecting and analysing research evidence on the role of the non-manipulative and manipulative material as well as current philosophical and political theoretical knowledge related to this issue. This effort will amount to a literature review which grounds an inventory of core qualities of material interaction. 2) Studying arts and crafts teacher students learning and making processes in these two media types, through the collection of research evidence generated from purposefully designed interventions.

The research will use multiple research methods as part of a qualitative and practice-led approach. An in-depth systematic literature review will be conducted through an Internet based search on research results describing arts and crafts learning in digital and concrete materials. The search words are Materiality, Digital / Virtual, Craft, Teacher training. The timeframe of research data is limited to 2007 -2017 in order to focus on contemporary developments in this area. As a result of this literature review, a working definition of core qualities, concepts and knowledge for the purpose of the second part of the research will be developed. Following the literature review, a research intervention will be created in order to study material interaction in a learning context.

Two examples of need for clearer theoretical base
Projected outcomes

Causality?  
Co-variation?  
Thick description?  
New tool?  
New interdisciplinary linkages?  

New procedure?  
New historical narrative?  
New theory / philosophical system?  
New praxis?

From theory to new theory  
From theory to design  
From theory to consultancy  
From theory to method  
From theory to praxis  
Narrative cases

Limitations of the study  
Future research
Exercises

1. A topic statement limited to three sentences
2. A title that captures in a provocative way what the research entails
3. A topic statement limited to three sentences
4. A research strategy
5. Identify a range of research tactics
6. Develop a map of your research idea

Abstract

Problem and research question
What does the literature say? (primary, secondary, exemplars, different schools, lack)
What do you say? (Evaluation of the literature in light of your problem/question)
What do you propose to do about it (reference to method)?
What do you hope to contribute in the way of new knowledge?
a continuum of measures of validity for Art, Design, Architecture
The doctorate in “the making fields”: Thoughts about a continuum of measures of validity in research methodology

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- Theoretical anchor(s)
  - Literature Review
- Projected outcomes
  - generalizable
  - Dissemination
  - a continuum of scholarship

Thank You

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