

if you might want to do a research-creation phd

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this note is a letter to prospective doctoral students who may wish to work in research-creation.¹

turning over a new leaf, offers a moment to think over what seems to work, and what i'd like to try to realize in a phd program that accommodates creative practices from arts and performing arts as modes of knowledge-making: what in canada has been termed *research-creation*. to make it worth the institutional work, such a degree program should be distinguished from a masters degree, from professional design / architecture training, and from an mfa art program. it should have its own worth. so here are some thoughts that may serve as the base for a phd program that i would like to establish. i am very deliberately modeling my standards from the humanities phd because i think the arts & humanities provide us the most generous, ample and fertile space of practice in the university as we've inherited it from bologna and padova 700 years ago.

i thank the brilliant, talented, dedicated artist-researchers who have written and will write exemplary dissertations, indexed by striking experimental works. they will be radically different from one another, they will be risky, they will *not* be vocational. rather than predefine a field, discipline, or method, it will be valuable to discover the diversity, depth and power that phd level art-research might achieve, and only retroactively index and characterize what has been created.

why do you want a phd?

- what could be worth doing?
- what's worth living?
- what's worth investing time?
more generally, not just for a phd, can you say to what you might put 5 years, 20 years of your life?
- what would a phd offer a chance to do? do you want
 - a chance to step back, reconsider a life, and relations to self, history, later, the world?
 - a chance to let go of, and form deeply different ways of thinking and doing?
 - to enter a professional, life-changing mentor relationship?
 - to enter academy, to teach someday, i.e. to enter a guild of scholar practitioners?

what is a phd?

- what are some different orientations of phd (vs mfa)?
a phd is not simply a longer, funded version of an mfa -- a common misconception!
a phd entails articulation in *written language*, and the result will be a scholarly manuscript, a

¹ The research-creation work will be more ambitious after my sabbatical ends July 2026. If you wish to work with me in 2026 or beyond, I'm looking for students prepared to advance the state of the art in one of the following two modes. (1) If you bring a strong background in theoretical mathematics or process philosophy or philosophy of technology, check out the more theoretical essays in synthesiscenter.net/publications/ and in asu.academia.edu/ShaoXinWei, especially in the past five years, to see if you would like to join and advance such conversations. (2) If you bring or are committed to mastering strong maker skills, I'm looking for students with mature software engineering skills and deep experience with Max/MSP/Jitter and TouchDesigner as languages (not as tools) to build on and extend Synthesis' software frameworks systematically using the [odot / oscrypt languages](#).

book.

therefore it entails learning to think in a certain level of precision, exactitude, depth in *writing*.

optionally, we might aspire to writing with some poetry, inspiration, or grace.

- systematicity: mastering a body of *literature*, to be found jointly with your advisor
 - the superficial, hodgepodge writing typical of art "theory" discourse won't suffice: word salad goes stale quickly.
 - novel contribution scope and depth
- theory (but i think art research should aspire to equally ambitious artifact + theory, though it takes twice the energy.)
- prefer to narrow the scope rather than compromise precision, exactitude, depth, poetry

doctorate of **philosophy**

- generates critical knowledge -- tells us why we might prefer some way of being over another.
 - is other than engineering: not problem solving or developing tools, but this ability will be assumed and developed to an expert level during apprenticeship before beginning the dissertation.
 - is therefore not concerned with technology but *techne* in pre-socratic sense. criticism of technology, approach has to be sensitive to and sceptical of not technology or its effects, but of its framing conditions and latent ideologies.
patience allows us to imagine outside technology's bounds, but also outside easy, unthoughtful concepts.
 - retains freshness, generous attitude but...
 - consequently detaches from reductionistic conceptual carapaces or leg-irons like a-life, complexity, computer networks, cognitive science, ai, market economics ...
 - is sensitive to frame-conditions, to ideological frames, (not auto-reject): which means reductionisms of all sorts: digital, biological, informatic, linguistic, psychoanalytic
 - combines skepticism toward superficial easy "theory" with historically informed theory
 - learns some deeper stuff, critically, then reshapes / fashions new way of being (personally, i take a long time to absorb a complex, reach as far down as i can, then fashion a synthesis that offers a deep, fresh take on the situation.)
 - timeframe. it should take time:
 - 1 year for student to unlearn conceptual habits (i assume they are smart enough to pick up technique, and come already with some technique)
 - 1-2 years to learn how to read and write, master a literature
 - 1 year to define a research area and a dissertation topic (in parallel)
 - 2 years to write
- you may grow through some of these processes in parallel, or you may be already past some of them. your advisor evaluates this.

what are some domains for this sort of research-creation phd?

theory

- concepts are *NOT* cheap: good concepts are as dear and as difficult to make as good things
- what's a good concept?
- imaginary is going somewhere beyond familiar continent, ultimately beyond sight of shore.
- theory is a way to make, evaluate concepts in the imaginary with as much discipline and rigor as matter-technology's "constraints" on making artifacts.

art

- for me is a way to create reasons to live
- yields ---> ethical-aesthetic gesture, ways of being with others:
yields grace-ful ways to live for us and for not-us
- maybe it's true that one doesn't teach creativity, but teachers can inspire and make space for it. maybe creativity emerges when you realize that you are free. but then refinement is an aspect of disciplined art.

craft / technique

- learning how to work in a *collective* fashion. I built the atelier drawing from the practices of the art studio, the engineering laboratory, as well as the pre-industrial atelier.
- improvisation and invention over practice, rehearsal, experience
- letting go of habit, why? because it could be art all the way down: everything is potentially subject to critique, everything could be put in play, so nothing lies black-boxed behind the skin of mere craft. even naturalized processes like physics of materials, computation, social structure may be in play.

how to do this?

what might you offer?

- energy and mass to help take a stand in the shifting political economy:
 - part of building a studio-lab: making joint work,
 - writing joint papers with me + others in group. **co-authoring** is simultaneously a way to learn and to publicly reward the mentoring relationship in the scholarly economy.
 - teach junior students in class
 - mentor understudies in studio-lab, or group projects
- alert me to new cultural contexts, make openings to new cultural and critical contexts

what could i offer?

- help get you permission from the world, institutions, and yourself to think freely *and* rigorously.
- provide judgment on depth and scope.
- provide judgment on what is a question, a field of discourse.
- determine where the deep waters are.
- determine what's feasible.
- alert you to theoretical and historical contexts, antecedents.
- open doors

practicalities

where: arts and humanities (beyond fine arts?)

- has produced interesting artists
- built academic strength in arts and humanities
- engaged with worldly, social life
- working across and with cultural milieus (in addition to north-american context)
- come as visitor, talk with grad students and other faculty
- *support:* grants, commissions, private or public ventures
- the program will ask from you
 - writing sample, that demonstrates the depth and style of your thinking in written language. it can be critical writing or fiction.
i'm looking for potential for depth, precision, freedom *and* rigor
 - cv, academic and professional curriculum vita.
art cv's tend to list a lot of galleries or shows, but for a phd, it's more meaningful to put writings and research projects up front. in the context of the phd, the reflection

leading to / from an art piece or event is more important to me than the object.

- research statement, a 1-2 page executive summary that i or other faculty sponsor could adapt into a grant that could help support you. this is not binding because the phd relationship would grow outside what can be expressed in such a format.

phases of a phd with me

of course not everyone has to go through the same sequence if they've already got some of this coming in, but i think these are all important elements for the sort of art research phd that i would like to support.

unlearn

unlearn conceptual frames (in course work), for example, let go of cognitivism, computational equivalence, commodity and utility rationale, market logic predicated on scarcity calculus. unlearn practices, habits (in studio lab). for example, let go of procedural programming, let go of ego-expression or ego-therapy as a mode of art practice.

learn how to read and write

unlearn "word salad" habits (if any) endemic in art and architecture discourse.
learn to write (think) philosophically, critically, poetically -- this is the heart of what i can offer.
compose poetry in words and matter.

develop intimacy with a body of literature

master a body of writing-thinking that can feed not just the dissertation but the rest of your life. in order to be worthwhile, this should take 2 unbroken years, at least. (practitioners of art, poetry, literature in classical chinese culture would take 15-20 years to learn and apprentice in their art.)
perhaps drawn from multiple disciplines, but coherent to your own research

(re)subjectifying play

write and rewrite papers
sketch-work in all media, especially unfamiliar media
realize (art) studies, in the atelier

apprenticeship in studio-lab-atelier (for those who are makers: artists or speculative engineers)

work on experimental projects defined by professor or senior students
work on public events -- but in this case, should be "hired" in a professional way
learn as understudy
everyone should be able to cover for another, develop capacity for collective work in depth
advantages:
tackle inquiry that exceeds single person's capacity to carry out
intimately learn how to realize works beyond single-ego expression
internalize accumulated technique, tactics, know-how

define research questions

critically review body of prior literature
critically review prior art
scope
divide between what we can do now, what waits for after phd
define calendar or milestones, landing spots so we can be happy when we obtain

interim achievements, e.g. a show in school, an event in a public space, a publication
 budget
 enroll people, peers, team as necessary
 answer the "so what?"
 why would others care about this work?
 what's the significance?
 what, how does it matter?
how might it give life, not crush it?

i'll ask you to answer this in order to live through your work in this world, but i would help
 find or establish a sympathetic and knowledgeable audience.

ethical strategy for atelier

the atelier stores group knowledge, a stew / apparatus structured by ongoing experiments,
 from which members take what they need in order to make experiments, and to which they
 contribute pieces of experimental apparatus that others can use in the future. the apparatus
 can be physical things, material samples, software, documentation, videos, reports,
 procedures, etc.

this requires some discipline and etiquette.

the discipline is that when you make something nontrivially using the atelier's knowledge or
 capital resources, you should also make it usable by someone other than yourself in the
 atelier. if it is materials knowledge, then write it up as a report, and post it along with
 samples and sources. write and share reviews of conferences trips, films, performances and
 exhibits in the atelier. for example, if you write a piece of software, then write a clean
 usable interface, and document it so that a student two generations after you can understand
 how to use it. ditto with a material component.

professional ethos; i strongly want material practitioners, *artists and designers*, to adopt
citation practice from the scholarly community: if you use a technique or an idea or a piece
 of code from someone, you must explicitly name that person in your work. this is not about
 (for or against the notion of) originality, this is about rewarding and publicly acknowledging
 someone for helping you, and conversely being tangibly rewarded for giving your knowledge
 to a colleague. here, tangible means social capital, reputation.

humanities scholars have developed over the past 700 years a very precise and refined
 citation practice to trace by name and specific moment their flow of ideas. why? because
 that's how we've learned to run a really-existing gift economy based on the circulation of
 works and acts of imagination. precision is necessary because knowledge exchanges (and
 grows) in these small moments and denominations: the phrase, the paragraph, the 3 lines of
 repeatedly useful code, the 3 square inches of a fabric patch that shows a different way of
 thinking about connections, the hypothesis of a theorem, one video segment that provides
 just the right texture to seed your synthesis. of course, acknowledgments will be scaled to
 the significance of the contribution relative to the final work, and may be thresholded or
 filtered for the occasion with justification.

(social capital's etiquette depends on the field in which we exhibit the work: for example, in
 scientific practice, the students who do the work are listed in order of their contribution, and
 the professor who proposes / advises the experiment and provides the setting is named last
 author. in humanities or social sciences with 1-2 or rarely 3 authors, the authors are named
 in order of their contributed idea-weight. in math it's the same, with some attention to
 naming contributions at the level of theorem statement, proof, and even a particular insight-

step, because of the extreme density of the work. smaller contributions are cited in acknowledgments and citations. i introduce this into material studio-lab-atelier practice as well.)

in general we must acknowledge each other's contributions in this creative economy because that is the best, and at heart the only way we have to reward the sharing of knowledge, insight, art.

i ask you to develop and sustain on this ethos with me.

social-cultural strategy

the atelier also holds aura in public culture. this aura grows with each individual work that makes a good impression or contribution in some local venue, and so is larger than individual social capital. individual projects, can be tightly scoped or preliminary, yet members can inherit and leverage accumulated, shared aura.

references

art practices

<https://synthesiscenter.net/techniques/>
<http://f0.am>

to give some idea of the sorts of research that i'm pursuing or supporting, take a look at the atelier's project pages:

<https://synthesiscenter.net/research/>
<http://topologicalmedialab.net> -> showcase | research projects

and read these papers to get an idea of the level and scope of writing

<https://synthesiscenter.net/publications/>
<http://topologicalmedialab.net/xinwei/papers/papers.htm>

currently my attention is focusing much more on the processualist philosophy, metabolic approaches to design, and critical studies of sociotechnical systems because i think it's time to publish the conceptual questions, heuristics, learnings that trellis emerging technologies, and experimental, experiential media arts and sciences. but i will welcome graduate students or post-docs to carry on studio and lab work, and invite advanced students to write techno-scientific papers with me.

these are some of the people with whom i've worked:

<https://synthesiscenter.net/affiliates/>
<http://topologicalmedialab.net> -> people

how

- classes: how and why.
- projects, three kinds
 - acculturation, can we become comfortable working together? weight of contribution is not as important as learning the process and research values. can be web/video documentation.
 - someone else's project, defined by: professor, research fellow or experienced student; or group

- self-designed
- professional presence
 - papers co-authored with advisor, peers as a way to reward collaboration
 - papers with self as lead or sole author to establish presence, voice
 - ditto exhibits

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