

VI.

*an unconventional research • research alternatives • Goldsmiths Interaction Research Studio • the phenomenological approach • practice-as-research • autoethnography • **output & documentation** • system test • reflections on the development and design process • self-interviews • other writings • **Objections** • lack of rigor • lack of external input*

An Unconventional Research

With the idea in place, the next step is to consider how to evaluate it. However, it seems inappropriate to evaluate a non-traditional project in a traditional way. With its complex and durational goals — recreating a relationship with personal information over years — Oublié/Trouvé is not suited to user centered design–style testing. The style focuses on short testing sessions and a quantitative evaluation, where the best design is the one most people prefer or are quickest to use; O/t is a single exploration focused on generating a new relationship. What are the ergonomics of that? What does it mean for an object of contemplation to be *usable* and is that even the right word?

Furthermore, to step away from the implicit positivism is to honor the core principles of the project itself. If the project is pulling away from the underlying assumptions of positivism — the notion that truth is a quantity in the world we can discover through the application of general logical principles — so should the research. This is all about ambiguity, the personal, and the contextual.

Luckily research models that take the ambiguous, contextual, personal, and durational into account already exist. Bill Gaver and the team at the Goldsmiths Interaction Research Studio undertake durational and personal design. The phenomenological approach, which considers research via reflection and experience, originated with Merleau-Ponty and has been given new life by Susan Kozel, Kate Sicchio, and other researchers working with the performing arts and technology. In the visual arts, Graeme Sullivan's art-practice-as-research outlines the workings of research through doing, including a robust, multivalent framework. Finally, autoethnography, a personal approach to social studies research, provides us with an array of written research products that have been useful to communicate social experiences within a field that still runs on quantitative work.

Research Alternatives

Goldsmiths Interaction Research Studio

As they explain on their homepage, the Goldsmiths Interaction Research Studio undertakes “practice-based research ... to produce prototype products embodying new concepts for interaction.” They continue, “Because our prototypes are evocative and open ended, a crucial part of our process involves asking volunteers to live with our designs to see how their experiences evolve.”

One of the ways they do so is through the distribution of cultural probes, which studio head Bill Gaver first deployed for a project with our critical design friend from section II, Anthony Dunne.

They describe their approach:

Unlike much research, we don't emphasize precise analyses or carefully controlled methodologies; instead, we concentrate on aesthetic control, the cultural implications of our designs, and ways to open new spaces for design. Scientific theories may be one source of inspiration for us, but so are more informal analyses, chance observations, the popular press, and other such "unscientific" sources.

Unlike most design, we don't focus on commercial products, but on new understandings of technology. This allows us — even requires us — to be speculative in our designs, as trying to extend the boundaries of current technologies demands that we explore functions, experiences, and cultural placements quite outside the norm.

Instead of designing solutions for user needs, then, we work to provide opportunities to discover new pleasures, new forms of sociability, and new cultural forms. (Gaver et. al, "Cultural Probes," 24–25)

In this approach, designers seek to be neither doctors nor servants (Gaver et. al, "Cultural Probes," 25): the goal is not to diagnose a problem nor to create a system that works exactly as a user might demand. Instead, though friendliness, lack of goals, and a willingness to explore, insight and new paths may come to light. These paths will be contextual, they note, because the questions and explorations are as well.

The cultural probes were successful for us in trying to familiarize ourselves with the sites in a way that would be appropriate for our approach as artist–designers. They

provided us with a rich and varied set of materials that both inspired our designs and let us ground them in the detailed textures of the local cultures. ...

The real strength of the method was that we had designed and produced the materials specifically for this project, for those people, and for their environments. Gaver et. al, “Cultural Probes,” 29)

They call this process “user-centered inspiration” and highlight how it is used to influence ideas without dictating them. The process matches the un-commercial and exploratory desires.

That this method continues to be used at Goldsmiths and continues to produce many projects, papers, and talks, attests to its validity as an insight-seeking methodology. With the Datacatcher project, which is reviewed with other related works in section VII, this method is put to use to transmute data into a lived moment.

From the Interaction Research Studio approach then, I take the value of asking people about their lives without the data being used literally and the value of durational works. And, more importantly, I take the value of a long test. Though we differ in terms of timelines and resources, the primary point of departure is in terms of who we are studying. The Interaction Design studio seeks to research and provoke social moments. In this case, I am investigating and provoking individual moments.

Phenomenology

The Goldsmiths model, though innovative for design, shares the critical design flaw: it still expects to operate within current social structures. Personal, experiential research requires one step further — into phenomenology. Closely associated with Maurice Merleau-Ponty, phenomenology asserts the power of knowledge through individual perception, through interaction with the world and through personal reflection.

In *Closer*, Susan Kozel makes the case for rehabilitating this slightly old-fashioned theory and for the ability to draw truth from our relationship with ourselves, through an erasure of the subject-object divide:

Phenomenology appeared exhausted in the 1990s, seeming to offer less rigor, insight, and inspiration than other philosophical lenses for examining the world. The critique of it as fundamentally a male, subject-centered approach to transcendent meaning overshadowed the validity of its basic tenets for a while — for a short while. Still, the core of phenomenology survived: that it calls for a return, again and again, to lived experience; that it takes as its starting point a position prior to, or beyond, the subject-object divide; that it shapes a reflective process that opens itself onto the richness of pre-reflective experience; that it is inclusive of a variety of experiences and not bound to a narrow and abstracted notion of truth; that it provides scope for the many dimensions of what we are as human beings to contribute to the expansion of knowledge and creation of cultural artifacts. Bodies, thought, imagination, memories, material conditions of life, and affect find a voice through phenomenology. (3)

Centered as it is around “thought, imagination, memories, material conditions of life,” the invested object project appears well-suited for a phenomenological investigation.

Kozel also explicitly locates phenomenology in opposition to the positivist currents in contemporary tech culture:

To counterbalance this anachronistic, and simply weird, positivist turn occurring at the beginning of a new century, it became clear that a compelling approach to the validity of the subjective position in research was needed: a respect for the lived experience of the scientist, researcher, artist, designer, and writer, and an acknowledgment of the sometimes anarchic results borne from the marriage of perception and imagination in the process of thinking and doing. (9)

This finds its echo in Kozel’s use of Francisco Varela’s cognitive work to buttress the scientific truth of the phenomenological approach — the same Varela who was a student of Humberto Maturana and part of the cybernetic second wave.(8)

But what does “doing a phenomenology” (Kozel 39) look like exactly? At first, Kozel’s focus the body seemed difficult to reconcile with the invested object, this work that is only about the physical body in the sense that it attempts to pull computing out of a screen slightly and more into an object which with we can have a material relationship. Kozel, though, suggests “The experience of using technologies in close proximity with bodies ... can go in many directions: corporeal, spiritual, immanent, external, through memory, across dissolution, morphing, and transubstantiation, backward and forward in time. This particular

proximity needs a range of under-formulated and highly poetic concepts to help explain it and to make links with the wider bodies of human knowledge and experience.” (29–30)

With these thoughts as a guide, the invested object can be seen as an embodied work through the use of memory, reaching to make links with “wider bodies” of knowledge. It also buttresses the durational experience to insight approach from Goldsmiths, locating truth in the poetic and physical experience of living with the work.

The suitability of phenomenology for this project can also be considered in terms of telematics. As Martha Ladly writes,

Telematic performance describes the process of engagement with the long-distance transmission of digital, visual or kinetic information, and the interaction of the mind, the body and the senses, with the information received. As such, telematic performance can act as a catalyst for understanding the wider social and cultural implications of digital technology.” (139)

Oublié/Trouvé is of course concerned with the transmission of contextual digital information over the long distance of time, making it a telematic project indeed. As Kozel demonstrates in great detail in *Closer*, various types of phenomenologies can be done around telematic projects, from the straightforward but electrically evocative reflections on *Telematic Dreaming* through the dialogic investigations of *Ghosts and Astronauts* and the pedagogy of *Lifmlink*. In all cases, attention is paid to the physical and mental experience of the works, in particular to the space where two categories or experiences meet, to the space where bodies and the

personal meet the world. This is the space Merleau-Ponty would call the *flesh*, and which Kozel reworks in her new phenomenology.

This reconsideration of bodies and the spaces between them is also key to the reworking of phenomenology offered by this book. According to this reworking, bodies and the space between people are not simply matter or substance: they are connective tissue, electric and transforming, they are channels of communication. They are flesh.

Conclusions are drawn out from these. Truth emerges from flesh, through sensation and reflection. This is not without pitfalls, however. Though experience and perception — the pre-reflexive — hold a truth, we must attempt to access it through reflection itself.

Kozel sketches the problem:

Obviously there is a logical problem in trying to use reflective practices to obtain access to the pre-reflective, but this is what phenomenology is all about. The tensions are clear and need to be stated up front: Can a process of thought reveal the pre-thought? Can a reflective practice bracket itself in order to reach a pre-reflective state without violating this state and itself in the process? ... The impulse toward phenomenology as a method is based on the realization that we can loosen our rationalist structures of meaning sufficiently to permit qualities that are associated with the pre-rational, such as ambiguity of meaning, fluidity of existential and conceptual structures, scope for entirely new thought, perceptions,

including contradictions, reversals of meaning, or paradoxes.
(13)

and draws out the phenomenological solution:

It is impossible to prevent thought from attempting to pin down experience just as it is impossible to prevent experience from blowing holes in structures that attempt to codify it. Merleau-Ponty knew this, and attempted to respect the being of thought and the being of sensation, hence the circle he described in which reflection and the pre-reflective enter into relationship, and his dynamic notion of hyper-reflection.

Hyper-reflection is a process of thought that takes into account its own functioning. Like the recognition in contemporary physics of the impact of the observer on the observed, another operation beyond the “conversion of sense experience into reflection” is necessary: “a sort of hyper-reflection (*sur-réflexion*) that would also take itself and the changes it introduces into the spectacle into account” (Merleau-Ponty 1968, 38). The circle of hyper-reflection can be so finely grained, in such tiny loops that it can be done in the midst of experience. (Kozel 16)

What does this look like as a methodology? How does it communicate its truth beyond the hyper-reflection in the moment?

As a first-person methodology, a phenomenological description is received subjectively. As a purveyor of lived experience with the potential for new knowledge contained

within it, one person's phenomenological account can be received by others within circles of shared truth. Truth according to this model may be objective and verifiable through repeated experiments, but it also may be entirely unrepeatable and subjective. The truth offered through phenomenology is better expressed as relevance, and the way it functions is described effectively by Gaston Bachelard in terms of reverberation, resonance, and repercussion. ...

The phenomenological impulse is to move from subjectivity to transsubjectivity. The phenomenological experience of another person unfolds across physical description with latent conceptual elements extrapolated and can be relevant to me based on my having experienced the same thing, or simply because I have the ability to construct meaning empathically, perhaps through imagination or previous experience. Quite simply, I can resonate with another's experience. According to Bachelard, first there is a reverberation, followed by the experience in oneself of resonances, and then there are repercussions in the way we see or feel the world. The poetic image "takes root in us" even though it originates from another, and "we begin to have the impression that we could have created it, that we should have created it." (Kozel 17)

A reflexive methodology for a reflexive object. I knew I was on the right track here. This feeling deepens when I see this approach also matches the way in which Shattuck discusses Proust's goals for his own work, that readers read themselves into him. (CITE) It is the same mechanism: to vibrate and continue that vibration.

Also resonant with these resonances is Kate Sicchio's image of she who undertakes a phenomenology, the immanent researcher. "In order for research to consider the interrelations and interconnectedness of ideas within a practical exploration, a continuum of multiple aspects are considered, as well as a continuum of the positions for the researcher in the work," Sicchio writes. (157) That is, depth of meaning can be produced by overlaying the aspects of the researcher as developer on those of the researcher as writer and researcher as user or test subject. The interactions and reflections that result work to produce truth in the same way as Proust's stereoptical views of the narrator's life.

Seeking other practical methods to implement this phenomenological methodology, I looked to visual arts.

Practice-As-Research

Graeme Sullivan's practice-as-research theories and framework are grounded in questions of the uses of visual art in higher education and focus on understanding art-making as a research practice within the university.

Echoing the phenomenologists, Sullivan sets practice-based inquiry in opposition to a more positivist approach. "Rather than seeing inquiry as a linear procedure or an enclosing process, research acts can also be interactive and reflexive whereby imaginative insight is constructed from a creative and critical practice." ("Research Acts," 19–20) He also points to the generation of knowledge as a result of the interaction of different aspects, and the way this can undo empirical divides between maker and observer:

Conceiving art practice as a theoretical act within a framework of inquiry sets in place the prospect of doing research in artmaking. When used as a site for research, art practice brings into play the seamless relationship between the “researcher” (artist) and the “researched” (art practice) and this builds on all the discursive arguments that disrupt untenable dichotomies such as the fictive subjective-objective divide. (Sullivan, “Research Acts,” 31)

Or, as John Baldacchino puts it,

Art practice is, in and of itself, a specific and special form of *research*. In the arts, the very idea of a qualitative-quantitative divide becomes irrelevant because by its distinct nature arts research calls for a different set of categories where the arts do not *search* for facts or stuff but they *generate* it. (quoted in Sullivan, *Art As Research*, 57, emphasis in the original)

Generating facts, in this project, may be known by another name: polluting the possible. The invested object project is practice-as-research.

Building up the phenomenological case in a research environment, Sullivan also highlights reflexive processes as critical to the undertaking. “The transformative nature of practice-as-research is best seen in its reflexivity and postdiscipline structure, and these are best represented in structures that are described as *braided* and *self-similar*.” (*Art As Research*, 110, emphasis in the original)

The latter “describes the way visual arts research takes place within and beyond existing discipline boundaries” (Sullivan, *Art As Research*, 111); it

is clear this describes this research and program.

Sullivan expands the former, listing four types of reflexiveness that occur in the process. The first, the self-reflexive is the phenomenological reflexivity “that is directed by personal interest and creative insight, yet informed by discipline knowledge and research expertise.” The second, the meta-analytic, comes from the artist-researcher “responding to empirical understandings ... so as to review conceptual strategies used and to consider other approaches.” The third and fourth focus on engagement with widening circles — the dialogic reflection of research discussion within the field and the questioning of social context and problems unearthed by the work. (Sullivan, *Art As Research*, 111)

Again, it should be clear that the invested object project undertakes each reflexive practice. The second and fourth are to be found in the genesis of the project as a reaction to the social and empirical constructions of information. This paper is part of the academic engagement with research, to be reviewed, questioned, and responded to. And the first, the self-reflexive, is to be found in the reflections that constitute the primary data of this research.

He then moves on to present his deep, braided framework, a series of levels that begin with visual arts research and ascend through knowing and contexts into the practices that “describe creative and critical habits of mind that are at the core of thinking and making processes involved in art as research.” (Sullivan, *Art As Research*, 193) The invested object project spans each of the four groupings (see Figure XXX), undertaking interpretive discourse and empiricist inquiry through the visualization of moments and their surrounding metadata, as well as through the construction of a memory narrative through stereoptical juxtaposition.

The entire Oublié/Trouvé system can be read as the visualized idea of a new relationship with data, and it stands on the critical process, born from a critique of the current situation.

As a work of visual arts research, the invested object inhabits the thesis-exegesis structure. Sullivan describes this as “another public face for exploring and presenting art practice as research.” In this case, a physical work, like Oublié/Trouvé is accompanied by a work of explanation and theory, like this paper. Though some find the structure redundant, Sullivan acknowledges, others find the exegesis valuable because it “acknowledges that visual arts theorizing is a diverse practice that can be articulated in many visual and verbal forms.” And yet this “active documentation” (as Nancy Freitas has named it) is not the research outcome it might be in a qualitative empirical work, but instead is another way to think through the ideas and theories resident in the visual or physical work. In the end, Sullivan argues, “an exegesis is not merely a form of documentation that serves preliminary purposes, that records in-process activity, or displays outcomes: *it is all of these.*” (*Art As Research*, 221, emphasis original)

Autoethnography

Though Sullivan finishes *Art As Research* reviewing a few projects, a deeper look at varying documentation in pursuit of insight comes from sociology — and the autoethnographers. In *The Ethnographic I*, Carolyn Ellis situates autoethnography beside more traditional ethnographies, sketching how it extends the ethnographic approach “writing about or describing people and culture using firsthand observation and participation in a setting or situation” into writing more impressionistic works, usually taking the researcher’s self as the core of a narrative work.

(Ellis 26–32) In fact, *The Ethnographic I* is itself a work of autoethnography — a history and explanation of the methodology in the form of a novel.

Ellis summarizes the approach:

Back and forth autoethnographers gaze: First they look through an ethnographic wide lens, focusing on social and cultural aspects of their personal experience; then, they look inward, exposing a vulnerable self that is moved by and may move through, refract, and resist cultural interpretations. (37)

Like all the foregoing methodologies, Ellis sees autoethnography in contrast to more quantitative, positivist approaches:

Rather than believing in the presence of an external, unconstructed truth, researchers on this end of the continuum embrace narrative truth, which means that the experiences they depict become believable, lifelike, and possible. Through narrative we learn to understand the meanings and significance of the past as incomplete, tentative and revisable according to the contingencies of present life circumstances. In interpretive, impressionistic, narrative work, authors are concerned about issues of validity, reliability and generalization but these terms take of different meanings in narrative research.(30)

Yet here the cracks between autoethnographic and phenomenological or practice-based research begin to appear. Ellis makes a number of claims for the value of personal experience *within* the social sciences, which

means she still looks at the production of works as part of a tradition of divining research instead of generating knowledge.

Autoethnography, then, has less to say about the uses of documentation reflection produces; where it excels is in offering up a panoply of works as valuable research methods. Ellis recounts how essays, novels, one-act plays, interviews, reconstructed conversations, and even paintings can work as effective objects and documents of inquiry, each communicating a truth in a format that will resonate.

She also presents an approach to field notes that has been useful in this project. I use notes more as reference material than sources of truthful representation and keep in mind the distinction Ellis offers when I choose what to record: “If you viewed your project as closer to art than science, then your goal would be not so much to portray the *facts* of what happened to you accurately ... but instead to convey the *meanings* you attached to the experience.” (116)

In addition to presenting options and suggestions, Ellis’s work also offers candidates for validity evaluation that can be important in buttressing these choices in the face of objectors who insist on a validity beyond the philosophical. (It can be argued that even this demand tilts the table towards their own assumptions, but when we can, meeting objections where they begin cannot hurt.)

She cites Yvonna Lincoln and Egon Guba’s evaluative methods: Fairness looks at whether all views are represented. “Ontological and educative authenticity” look to see if participants minds are changed and “catalytic authenticity” finds validity in the actions participants undertake. She offers her definition of validity: “To me, validity means that our work

seeks verisimilitude; it evokes in readers a feeling that the experience described is lifelike, believable, and possible.” Ellis goes on to consider Laurel Richardson’s use of “a metaphor of a crystal to deconstruct traditional validity,” wherein distinctions in interpretation are not read as undermining validity, but as different aspects on a structure, before coming to rest on Patti Lather’s “counter-practices of authority that rupture validity as a ‘regime of truth’ and lead to a critical political agenda.” These include

four subtypes: ironic validity, concerning the problems of representation; paralogical validity, which honors differences and uncertainties; rhizomatic validity, which seeks out multiplicity; and voluptuous validity which seeks out ethics through practices of engagement and self-reflexivity. (Ellis 124–125)

These last two are the invested object’s claims to validity. (Unsurprisingly they are the counter-practices. Sorry, empiricists!) In this practice, the research methods are worthwhile and knowledge produced true because it rhymes and resonates with other works in art and literature on the same topics. The self-engagement and reflection, through a variety of media, if done rigorously and well will communicate an experience that is true.

Output & documentation

Reviewing these approaches has allowed me to come up with a list of research deliverables that are true to the spirit of the project and rigorous within its demands.

System Test and Observation

The primary basis for self-reflection is engagement with the Oublié/Trouvé system itself. For this, I spent a month testing the system and its position in my daily life. I then undertook a phenomenology using Richard Lanigan's phenomenological process as recounted by Ladly:

Richard Lanigan details a three-step phenomenological methodology for investigation, analysis and interpretation. Lanigan's method was distilled from Herbert Spiegelberg's more elaborate seven-step method, described in his work *The Phenomenological Movement* (Spiegelberg 1994). The first step in the method is to formulate a phenomenological description using phenomenological intuition, dealing with the *capta*, or conscious experience of the phenomena. The next step is to make a phenomenological reduction, whereby the observer determines which parts of the description are *essential*. The goal is to isolate the object of consciousness, the thing, situation, emotion or person that constitutes the experience. The description then becomes a *reduction* or a *depicting definition*, based directly on the experience, rather than on a conception of what the experience may be like. The final step is to produce a phenomenological interpretation, an attempt to signify meaning.(142)

The un-distilled reflection is in the appendix. The resulting essential experience is documented in section VII, mixed in with the presentation of the system. This is my attempt to signify meaning.

Reflections on the Development and Design Process

In addition to reflections on being she who used the system, I took field notes on the process of being the hardware designer, the software developer, and the information artist. These reflections are also documented in section VII.

Self-interviews

I interviewed myself about my project goals and approach at the beginning of the project and again at the end. These are reproduced in full in the appendix.

Add things here about them.

Other Writings

Seeding the app with prior memories, including some collected on paper in the moment and others generated by recollection, provided a space to observe what I chose to include as a moment of inflection. These can be found in the appendix along with short vignettes I used to prepare for testing.

Objections

The two primary objections to this approach are a perceived lack of rigor and lack of external input.

I hope this section and the reflective output have put to rest the notion that an experience-based research project has less claim to validity than the more traditional positivist approach. In the performing and media arts as well as in the social sciences, knowledge is being produced through

practice and reflection. Validity can be measured rhizhomatically and voluptuously.

The question of external input is a bit trickier. A good phenomenology should resonate further than the creator, even if a personal experience is a valid one. At the same time, limitations of time and scope prevent what I would consider to be a full test — giving systems out for multi-year tests.

I compromised by running two surveys, discussed in the next section, in order to consider the cultural resonance of my ideas of objects that are carried and that we remember with, and then the idea of Oublié/Trouvé itself. Because these ideas will be received without context, the low-context setting of a survey is not the negative it usually is. Likewise, the intended pool of resonators is expected to have high capacity for self-reflection and thus not need much hand-holding to produce thoughtful responses.

So let's see what happened.

Edited by Westley Hennigh-Palermo, husband