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The Photographic Absolute: An Architectural Beginning

PRACTICING-RESEARCH:
TOWARDS A MATHESIS SINGULARIS

PhD Report



Arkitektur- og designhøgskolen i Oslo
The Oslo School of Architecture and Design

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*Be brave enough to live life creatively. The creative is the place
where no one else has ever been. You have to leave the city of
your comfort and go into the wilderness of your intuition.
You can't get there by bus, only by hard work and risk and
by not quite knowing what you are doing. What you'll discover
will be wonderful. What you'll discover will be yourself.*

Alan Alda

The current project was officially initiated in August 2008 when I, together with the rest of the successful applicants for the announced positions of doctoral research fellows in practice-oriented research, joined the Oslo School of Architecture and Design. As the announcement of the positions declared, priority would be given to “project applications within research that is practically biased, i.e. projects that combine research with development work of artistic, architectural or design related character”. This “bias” was based on the school’s wish “to develop its PhD programme in the direction of ‘Research by Design’” and it was founded on the notion “that relevant development work within architecture and design will most successfully take place through creative project work, in which practice work is combined with critical reflection”.

Research by Design is currently the term most used in the academic realm of architecture and design to indicate research projects that integrate hands-on production and critical reflection. In the context of the art academy, this mode of knowledge production is usually called *Artistic Research* or *Artistic Development Work*. Other terms in use combine art or practice with qualifying verbs such as based, oriented, or led, research.¹ I have decided to steer clear from choosing and using one out of the plethora of labels already available to refer to research activity that combines pre-critical production and critical retrospection, as this would inadvertently commit my discussion to the disciplinary and ideological parameters inherent in it. And so, I devised my own term: *practicing-research*.

I settled on the term *practicing-research* based on the following criteria: One. The present participle of the verb “to practice” qualifies the noun “research” and establishes the interaction of practice and research as an ever evolving process.² Two. The absence of a preposition in the term expels any implication of causality and fittingly points to the self-sustaining nature of this mode of research. Three. The term evades reference to a specific discipline and implies thus the inclusive nature of this mode of research.

In my forthcoming discussion on practicing-research I consider projects from the area of architecture and design together with projects from the sphere of fine art without distinction. In fact, all research activity operating in this mode of knowledge production is implicitly included in my discussion, because the ontology and the epistemology of practicing-research projects is fundamentally the same across the board.

¹ For a list of terms currently in use to describe this mode of research see: BIGGS, M. and KARLSSON, H. eds. *The Routledge Companion to Research in the Arts*. London: Routledge, 2011, p.xiii.

² On artistic research as practice see: HANNULA, M. et al. *Artistic Research: Theories, Methods and Practices*. Helsinki: Academy of Fine Arts, 2005, pp.100-107.

The elementary qualifiers of research in art and design were identified by Christopher Frayling in 1993. Based on Herbert Read's *Education through Art* (1958), Frayling distinguished three types of research under the wide umbrella of artistic or design research: research *into* art and design, research *for* art and design, and research *through* art and design.³ Although these types have been challenged and slightly modified throughout the years, there has not been, as Wolfgang Jonas conceded in 2007, any "substantial progress" in finding alternatives that better define this kind of research.⁴

Research *into* – referred to by others as research *on* or *about* – takes an interpretative stance towards its object of study and maintains a constant critical distance to it. Research of this type follows long-standing models of knowledge production from the humanities and the social sciences and therefore does not constitute an epistemological innovation. Research *for* aims to disclose knowledge that is subsequently brought into the production of one or more artifacts. In this case, the artifact is the objective rather than the object of study; the researcher observes, contemplates, and assimilates phenomena, revealing insights that are ultimately embodied in the work produced. Research *through* turns creative practice into its "methodological" vehicle. Here, the research process does not culminate in the making of an artifact, but it proceeds and evolves through the continuous alternation between phases of pre-reflective production and intervals of analytical reflection.

Among the three types of research – *into*, *for*, and *through* art and design – it is the latter two that diverge significantly from the traditional research model. In research *for*, and especially in research *through* art and design, the constant arm's length distance to the subject at hand – which is an imperative in scientific research – is abolished while the researcher becomes personally involved and immersed in acts of pre-analytical creation. Research projects *for* and *through* art and design raise the need to respond to and adjust *the* and *with the* process of inquiry, hence their path is idiosyncratic, unforeseeable and unique. The integration of the intuitive and the analytic, along with the singularity and the unpredictability that this process entails, are the hallmarks of practicing-research.

The dynamic negotiation between pre-critical creation and post-rationalization that brands practicing-research is intrinsic to artistic practice. Artists at work alternate naturally between intense periods of immersion and subsequent reflective pauses during their creative journeys. If we define "creativity" as the bringing forth of something new into existence – which "does

not imply that the 'something new' need be new to everyone, or, indeed, to anyone else save the person who creates it"⁵ – then the artist's performance leads to novel artifacts by moving rhythmically between intuition and reflection. Within artistic circles this organic process is taken as a matter of (f)act and has not been studied systematically; however, personal diaries and letters provide lucid glimpses into the way that artists work. As Sol LeWitt wrote to Eva Hesse:

I know that you (or anyone) can only work so much and the rest of the time you are left with your thoughts. But when you work or before your work you have to empty you [sic] mind and concentrate on what you are doing. After you do something it is done and that's that. After a while you can see some are better than others but also you can see what direction you are going. I'm sure you know all that.⁶

Much more has been written about the dynamics of creation by persons outside the artistic sphere. One such contribution is *The Psychology of Men of Genius* (1929) by German psychiatrist Ernst Kretschmer who asserted:

Products of the artistic imagination tend to emerge from a psychic twilight, a state of lessened consciousness and diminished attentivity to external stimuli. Further, the condition is one of 'absent-mindedness' with hypnotical over-concentration on a single focus, providing an entirely passive experience, frequently of a visual character, divorced from the categories of space and time, and reason and will.⁷

Emptying the mind and immersing oneself entirely in the creative project at hand – and only afterwards stepping back to take a look at the outcomes so as to learn from them and proceed accordingly – is a process that is still very much at home in the artist's atelier, but one which has suffered a heavy blow in *studios* of architecture.

The eclipse of intuition by reason that occurred in the sphere of architectural production, and not only, has been widely discussed. Among the voices contributing to this discussion, Alberto Pérez-Gómez's is one of the most prevalent. In *Architecture and the Crisis of Modern Science*, Pérez-Gómez traced the turn of architectural practice away from the artistic manner and toward the scientific method back to the 18th century, when "a system of rational prescriptive rules" came to guide the profession.⁸ Thenceforth architects have approached their practice as a "technical challenge" and they have sought to arrive at invariable and immutable mathematical certainties through the use of "design methodologies, typologies, linguistic rules of formalism, [or] any sort of explicit or disguised functionalism".⁹ As Pérez-Gómez explained further:

³ FRAYLING, C. Research in Art and Design. *Royal College of Art Research Papers*, vol.1 nr.1, 1993, p.5. The use of the word *type* instead of *category*, which is what Frayling used, is deliberate and based on my opinion that being *of a type* is here more suitable than being *in a category*.

⁴ JONAS, W. Design Research and its Meaning to the Methodological Development of the Discipline. In: MICHEL, R. ed. *Design Research Now: Essays and Selected Projects*. Basel: Birkhäuser, 2007, (pp.187-206) p.187.

⁵ STORR, A. *The Dynamics of Creation*. London: Secker & Warburg, 1972, p.xi.

⁶ Available at: <http://jwvpk.wordpress.com/2009/03/10/letter-from-sol-lewitt-to-eva-hesse> [Accessed 17 October 2011].

⁷ KRETSCHMER, E. *The Psychology of Men of Genius*. Berlin: Routledge, 1929. Quoted in: KOESTLER, A. *The Act of Creation*. London: Hutchinson, 1964, p.325.

⁸ PÉREZ-GÓMEZ, A. *Architecture and the Crisis of Modern Science*. Cambridge, Mass.: MIT Press, 1983, p.8.

⁹ *Ibid.*, p.3.

Once it adopted the ideals of a positivistic science, architecture was forced to reject its traditional role as one of the fine arts. Deprived of a legitimate poetic content, architecture was reduced to either a prosaic technological process or mere decoration.¹⁰

Pérez-Gómez's position that the "malaise" of modern architecture originates in the "functionalization" of architectural theory – as a set of operational rules that came to command the practice from without – finds fertile terrain for agreement here. The emergence of a cultural climate whereby rational systems and universal truth towered over the contextualized, the contingent, and the personal, reduced architecture to an illustration or a justification of this or that theory or principle. Instead of integrating the intuitive and the analytical as equal and complementary components of their practice, the vast majority of architects during the past two centuries have followed *a priori* theoretical concepts.

A look in Ulrich Conrads' book *Programs and Manifestoes on 20th-Century Architecture* attests to the overwhelming multitude of attempts by architects, especially in the second and third decades of the century, to predetermine the theories and doctrines that their practice would then follow. Indicative of this trend is *Vers une Architecture*, which Le Corbusier published before he had built any of his trademark pieces of architecture.

After the 1930s the wave that originated in the Enlightenment and which brought about the dominance of theory over practice, also gave rise to the school of Analytic philosophy – which prevailed on the Continent and North America until the 1960s. Advocating the supremacy of formal logic, Analytic philosophers promoted the movements of Logical Positivism and Verificationism, under the hospices of which introspective and intuitive knowledge was deemed meaningless and was dismissed. As William Barrett wrote in the now classic book *Irrational Man*, Logical Positivism "trafficked upon the *quilt* philosophers felt at not being scientists; that is, at not being researchers producing reliable knowledge in the mode of science".¹¹ As he maintained:

Positivist man is a curious creature who dwells in the tiny island of light composed of what he finds scientifically "meaningful," while the whole surrounding area in which ordinary men live from day to day and have their dealings with other men is consigned to the outer darkness of the "meaningless".¹²

The polarization of art and science prevalent during this period naturally entered the world of architects, who, following suit, sought to define their practice according to these terms and to tame its multifacetedness through the imposition of principles and hierarchies such as between form, function, and tectonics. Thenceforth, architectural practice – and consequently education as well – turned into a procedure of intellectual problem solving, akin to positivistic science,

while the voice of intuition was increasingly silenced and hindered from animating, from bringing life into, the work. There have undoubtedly been architects during this time who avoided such simplifications and who, by maintaining the manner of artistic exploration in their practice and teachings, have kept the fire burning – so to speak – but they have been the exemption rather than the norm.¹³

After the end of World War II, and especially after the beginning of the second half of the 20th century, scientists and scholars began to look past the self-imposed dichotomy between art and science and towards a more integrative and grounded understanding of knowledge production.

In 1950 William I.B. Beveridge's seminal book *The Art of Scientific Investigation* was first published. Here, the Australian pathologist approached scientific research and practice as a creative art and explored how the mind of the scientist can best be harnessed to the process of discovery. The book highlights the human factor and contains chapters such as "Chance", "Intuition" and "Imagination", as well as an array of quotations from other scientists affirming that both the rational and the intuitive mind are vital to scientific discovery. As Beveridge concluded, although rational thinking may keep us "on the chosen road" it does not necessarily lead to discovery, which should come "as an adventure rather than as the result of a logical process of thought".¹⁴ Albert Einstein was an avid proponent of the position that great scientists are also artists, and he expressed time and again his esteem for intuition as the beginning of all significant scientific achievements. As he stated, "the basis of true thinking is intuition: this is what makes me abhor our present day school system. They split each science into several categories; yet truth is only attained by a totality of experience".¹⁵ And so he emphatically recommended: "Rely on your intuition. Many ideas will occur, of course, but examine each of them critically".¹⁶

A host of books focusing on the interaction between intuition and intellect and its import on the production of knowledge surfaced in the following decades. In *The Act of Creation* (1964) Arthur Koestler investigated the conscious and unconscious processes underlying scientific discovery and artistic originality and argued that all creative activities have a basic pattern in common which he called "bisociation" – a transitory state of double-mindedness where the equilibrium between emotion and thought is disturbed.¹⁷ After Koestler, the biologist and Nobel laureate Sir Peter Medawar published *Induction and Intuition in Scientific Thought* in 1969,¹⁸ and

¹⁰ Ibid., p.11.

¹¹ BARRETT, W. *Irrational Man: A Study in Existential Philosophy*. London: Heinemann, 1961, p.6.

¹² Ibid., p.19.

¹³ I will not attempt to compile a list of such architects, on one hand because this is not the main subject here, and on the other hand because an opening in this direction deserves a whole other cycle of research. However, based on my own experience, I can presently point to Peter Zumthor as an example.

¹⁴ BEVERIDGE, W.I.B. *The Art of Scientific Investigation*. New York: Random House, 1957, p.107.

¹⁵ HERMANN, W. *Einstein and the Poet: In Search of the Cosmic Man*. Brookline Village, MA: Branden Press, 1983, p.70. (The book consists of four interviews with Einstein before and after World War II.)

¹⁶ Ibid., p.138.

¹⁷ KOESTLER, A. *The Act of Creation*. London: Hutchinson, 1964, p.36.

¹⁸ MEDAWAR, P.B. *Induction and Intuition in Scientific Thought*. London Methuen & Co., 1969.

subsequently the distinguished virologist Jonas Salk enriched the discussion with his book *Anatomy of Reality: Merging of Intuition and Reason* in 1983.¹⁹ Salk elucidated in a most profound and concise account the vital significance of the collaboration between intuition and reason to the evolution of the human mind and emphasized the need to educate and cultivate these two spheres of the mind both separately and together:

A new way of thinking is now needed to deal with our present reality, which is sensed more sensitively through intuition than by our capacity to observe and to reason objectively. Our subjective responses (intuitive) are more sensitive and more rapid than our objective responses (reasoned). ... I suspect that if appropriately cultivated, the two would work best together if the intuition were liberated from bondage and constraints, and put in charge of a respectful intellect. If a respectful intellect becomes conscious of intuition and reflects upon what it observes, a self-correcting, self-modifying, and self-improving process is established. ... To perform in this way is in the mind's own self-interest and in the self-interest of those human beings which it serves, and in the interest of the evolutionary process itself.²⁰

Three years after Salk, Hubert and Stuart Dreyfuss published *Mind Over Machine*, where they started with the prologue “The Heart Has Its Reasons That Reason Does Not Know” and went on to argue – along the lines of Heidegger’s and Merlau-Ponty’s thought – that unconscious instincts play a primary role in the human learning process, which is fundamentally a matter of “a *knowing how* rather than a *knowing that*”.²¹ Their position – along with Salk’s view that in the evolution of the human mind belief always comes first and is then gradually replaced by knowledge²² – was already elaborated by the influential social scientist and philosopher Michael Polanyi in his 1958 book *Personal Knowledge: Towards a Post-Critical Philosophy*.²³

In this book Polanyi posited that implicit forms of knowing work in concert with critical interrogation during the learning process, and that “even the most completely formalized logical operations must include an unformalized tacit coefficient”.²⁴ To support his position he brought forth as witnesses scientists working in fields considered to be paragons of objectivity, such as mathematicians, who admitted that they work toward discovery by shifting their confidence back and forth between subjective intuition and objective computation. Specifically, Polanyi quoted S. C. Kleene, who in *Introduction to Metamathematics* (1952) affirmed that “an intuitive mathematics is necessary even to define the formal mathematics”.²⁵

¹⁹ SALK, J. *Anatomy of Reality: Merging of Intuition and Reason*. New York: Columbia University Press, 1983.

²⁰ Ibid., pp.79-80.

²¹ DREYFUS, H.L., DREYFUS, S.E. and ATHANASIOU, T. *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer*. Oxford: Basil Blackwell, 1986, p.4.

²² Ibid., p.87.

²³ POLANYI, M. *Personal Knowledge: Towards a Post-Critical Philosophy*. London: Routledge and Kegan Paul, 1958. Thomas Kuhn’s ground-breaking *The Structure of Scientific Revolutions* (1962) and Jerome Bruner’s *On Knowing: Essays for the Left Hand* (1962) and *Toward a Theory of Instruction* (1966) followed Polanyi’s work.

²⁴ Ibid., p.257.

²⁵ Ibid., p.258.

By arguing convincingly that it is the researcher’s personal convictions – arising by inspiration and through the imagination – that launch the research inquiry in the first place and subsequently guide the decisions that determine its course, Polanyi exposed the fallacy of “the objectivist urge to depersonalize our intelligent mental processes”.²⁶ As he proclaimed, “the process of examining any topic is both an exploration of the topic, and an exegesis of our fundamental beliefs in the light of which we approach it, a dialectical combination of exploration and exegesis. Our fundamental beliefs are continuously reconsidered in the course of such a process, but only in the scope of their own basic premises”.²⁷ Hence following a long period when “all belief was reduced to the status of subjectivity: to that of an imperfection by which knowledge fell short of universality”, Polanyi concluded that since “no intelligence, however critical or original can operate outside such a fiduciary framework” personal belief and intuition ought to be reinstated “as the source of all knowledge”.²⁸

During the same period when the dichotomy between art and science was being challenged and the presence of intuition alongside reason in the production of knowledge was becoming widely accepted, a keen interest also arose to better comprehend the mechanisms of creativity in design practices. Design research emerged as a recognizable field of study in the 1960s, leading to the foundation of the Design Research Society in 1966, the aims of which include: “recognizing design as a creative act common to many disciplines, understanding research and its relationship with education and practice, [and] advancing the theory and practice of design”.²⁹

In 1969 Herbert A. Simon wrote *The Sciences of the Artificial*, where he contended that classical science deals well with things as they are via rationality, but its methods are inadequate when it comes to artificial phenomena that are contingent on variable circumstances. As he wrote:

Engineering, medicine, business, architecture, and painting are concerned not with the necessary but with the contingent – not with how things are but with how they might be – in short with design. The possibility of creating a science or sciences of design is exactly as great as the possibility of creating any science of the artificial.³⁰

A decade after the publication of Simon’s book, Bruce Archer, the first professor of Design Research at the Royal College of Art in London, attested that “there exists a designerly way of thinking and communicating that is both different from scientific and scholarly ways of thinking and communicating, and as powerful as scientific and scholarly methods of enquiry when applied to its own kinds of problems”.³¹

²⁶ Ibid., p.257.

²⁷ Ibid., p.267.

²⁸ Ibid., p.266.

²⁹ Available at: <http://www.designresearchsociety.org/joomla/about/aims.html> [Accessed 15 May 2011].

³⁰ SIMON, H.A. *The Sciences of the Artificial*. Cambridge, Mass.: M.I.T., 1969, p.xi.

³¹ ARCHER, L.B. Whatever Became of Design Methodology? *Design Studies*, vol.1, no.1, July 1979, pp.17–20. Archer’s views were developed further by Nigel Cross in a series of essays, later published in *Designerly Ways of Knowing* (2006).

By the 1980s Design Research was firmly established as a field in the academic realm, and was discussed and developed through an abundance of publications, conferences, and new doctoral programmes. A prominent voice in the discussion on Design Research at the time was that of Donald Schön. In his 1983 book *The Reflective Practitioner: How Professionals Think in Action*, Schön considered the presence of “complexity, uncertainty, instability, uniqueness, and value conflict” in practices that involve a “designerly way of thinking” and sought the epistemology implicit in the processes that *practitioners* resort to as a result of these phenomena.³²

As Schön pointed out, because in the world of the practitioner “problems are interconnected, environments are turbulent, and the future is indeterminate”, the scientific model – which is based on the application of pre-established principles, theories, techniques and methods so as to arrive at unambiguous results – is of no avail.³³ Since the practitioner aims not to prove and thus close a hypothesis, but to explore its consequences, his process is way-finding rather than result-confirming. Despite previous relevant experience, each case is unique for the practitioner and delving into this uncharted territory entails an explorative process of problem *setting* – as opposed to problem *solving* – a continuous questioning and reframing of the situation until this fits with the given task:

The inquirer’s relation to this situation is *transactional*. He shapes the situation, but in conversation with it, so that his own models and appreciations are also shaped by the situation. The phenomena that he seeks to understand are partially of his own making; he is *in* the situation that he seeks to understand.³⁴

This dynamic mode of inquiry, which Schön labeled *reflection-in-action*, is characterized by two eminent traits: One. The process of inquiry is organic and unpredictable, it unfolds and develops along a path that emerges on-the-spot via the successive alternation between action and reflection, and although it follows a certain direction, it does not have a pre-established route or endpoint. Two. As the practitioner is simultaneously forming and being formed by the situation, his individuality and context play a vital role in the process. In research projects *for* art or design, the disclosure of insights, their interpretation, and their eventual incorporation in the artifact(s) produced is affected by the unique disposition of the operator in the particular time and place. Research projects enacted *through* creative practice, which entail maneuvering between intuitive production and post-rationalization, are similarly contingent on the author’s initial intention and the specific circumstances of his environment.

³² SCHÖN, D.A. *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books, 1983, p.18. Subsequently, Schön published *The Design Studio: An Exploration of its Traditions and Potential* (1985), where he considered the architecture design studio as a prototype of learning-by-doing with potential implications to a wider range of fields, and *Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions* (1987), where he presented architectural education as a paradigm for all professional education.

³³ *Ibid.*, p.16.

³⁴ *Ibid.*, p.150-151.

Following Schön’s discussion came *The New Production Of Knowledge: The Dynamics Of Science And Research In Contemporary Societies*, published in 1994 by six international scholars who identified field applicability, heterogeneity, and transdisciplinarity, as the prime traits of the new state of knowledge production, which they termed Mode 2 – as opposed to the traditional Mode 1 that is academic, homogeneous, and disciplinary.³⁵ But in fact, the qualities that now define Mode 2 were the norm of knowledge production by and large before this was divided into disciplines and institutionalized in the early 19th century, bringing about the epistemological rift between practice and theory.

The question whether the practice of architecture is an art or a science was discussed by Roland Newman in his 1974 paper *The Basis of Architectural Design: Intuition or Research?*.³⁶ Newman confirmed Llewlyn-Davies’s and Cowan’s position – explicated in their 1964 article “The Future of Research” – that architects were now rejecting the 19th century separation of art and science and returning “to the attitude of Wren, who saw no real difference between his work as an engineer and his work as an architect”.³⁷ However, as Newman noted, architects still saw the question of their practice “in terms of creativity versus the scientific method, or an artistic intuitive approach versus a reductionist approach” and he proceeded to challenge and to refute this “self-imposed dichotomy”:

Firstly, it is not enough to have a creative thought, or make a creative leap, for it must then be checked and analyzed over and over again against existing knowledge and experience. An idea is essentially a hypothesis, a tentative solution, especially in design, and effectively the architect is implicitly testing the hypothesis from within and by his very act of designing.³⁸

Newman contended that designing a building can be seen as an experiment that explores value-judgments, assumptions, and beliefs, vis-à-vis the brief, the site, and all other relevant constraints. As the architect evaluates and adapts a design solution, he follows in effect a scientific procedure, but the criteria upon which this process is based may fall within the area of the subjective. In the absence of objective verification, the process acquires an air of tentativeness and uncertainty. However, if one begins with a concept as an indisputable truth, then the practice of architecture assumes the character of an application rather than an exploration. As Newman suggested, rather than taking “such statements as ‘form follows function’ or ‘community is good for you’” as dogmas, the architect can consider these as “tentative generalisations” that enable and move the exploration:

³⁵ GIBBONS, M. et al. eds. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage, 1994, pp.vii-viii. In 2001 three of the contributors to this book published *Re-Thinking Science: Knowledge in an Age of Uncertainty*, analyzing the societal implications of knowledge produced in Mode 2. NOWOTNY, H., SCOTT, P. and GIBBONS, M. eds. *Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty*. Cambridge: Polity Press, 2001.

³⁶ NEWMAN, R.J. *The Basis of Architectural Design: Intuition or Research?* Oxford: Oxford Polytechnic, Department of Architecture, 1974.

³⁷ LLEWLYN-DAVIES, L. and COWAN, P. The Future of Research. *RIBA Journal*, April 1964, pp.149-154.

³⁸ NEWMAN 1974, p.9.

My contention is therefore that rather than argue the question of whether an architect is an artist like a painter or a sculptor or whether he is a designer in the sense that he is concerned with an ordering of technological or other relationships, the correct solution would be to argue that he is both – an artist and a designer.³⁹

The design process is a negotiation between the artistic and the scientific. Artistic creativity is erratic, intuitive, and subjective, while the scientific method is accretionary and systematic. Incorporating both elements, as equal and complementary parts in the practice of architectural design, turns their opposition into a synergy that moves the creative process forward.

The integration of intuitive production and analytical thinking that is at the core of practicing-research prompts the reconsideration of academic research *en masse* as this mode of knowledge production enters the academic environment. Notwithstanding the state of uncomfortable tension in which the wedlock of practicing-research and academic research now stands, and regardless of all the questions that still remain on the table, it is generally agreed that the process of their reciprocal adaptation is inevitable and bound to bring about a radical evolution of the established concept of research. As the editors of the recently published *The Routledge Companion to Research in the Arts* stated in the preface of the book, one of their principal aims was to identify “the particular conditions and needs that were not already met by existing research models, so that both the subject and the aims of arts research might be established from, as it were, first principles”.⁴⁰ Further on they wrote:

A potential benefit of arts-based research is that it might reveal new ways of researching and provide insights and understanding beyond the arts themselves. This would occur if arts-based research offered something new to the academy in terms of its methods and outcomes rather than simply its interest in art. The ‘something new’ that it might offer is a change to the dominant knowledge model. The academy has been dominated until very recent times by a largely scientific concept of knowledge building. This kind of knowledge is somewhat impersonal and does not reflect the subjective interest of any one individual; it is supposed to tell us something objective about the world and that is why it is contrasted to ‘opinion’. If the term knowledge can be applied to the arts, it seems unlikely that knowledge will be of this kind.⁴¹

In the same year that *The Routledge Companion to Research in the Arts* was published, the journal *Texte zur Kunst* published an issue on Artistic Research. In the preface of this volume the editors recognized that “among practitioners – artists, university teachers, curators etc. – the debate on the obvious question of the century-old relationship between art and science has long been abandoned”.⁴² Hence, without disregarding the “differentiation processes of the two disciplines”

they focused on “elucidating the specificity of artistic research practice and the conditions of its possibility, rather than again and again spelling out the dialectics (or synthesis) of ‘art’ and ‘science’”.⁴³ As they pointed out:

... for the sake of this clarifying work, what has now become crucial is the genealogical examination of the critical claim to the status and function of research and a scientific approach. In the most various milieus of postwar art, one can find artistic articulations seeking to establish a relationship to research and scientific concepts, and that often regard artistic work itself as a research method.⁴⁴

Furthermore, at the beginning of 2011, Witte de With Center For Contemporary Art in Rotterdam hosted the exhibition *Making is Thinking*, curated by Zoe Gray, who sought to “collapse the persistent dichotomy between the practical and the intellectual” by bringing together fifteen artists whose work engaged “notions of conceptual craft and intuitive industry” and refused “the binary of concept and form”.⁴⁵

Following the exposure of the art-versus-science fallacy and the gradual demolition of the 19th century walls erected between disciplines, scientists, artists, and scholars alike, have turned toward a more true-to-life view of knowledge production. The emergence and development of practicing-research is a consequence of this historical shift. Since practicing-research is a dynamic and singular process, affected by its context and by the disposition of its author, it does not yield a block of universal truth, but it is instead a lived and idiosyncratic exploration of the questions present at its outset and the ones that arise on its way. It is therefore not surprising that efforts to restrain this kind of research activity within certain criteria of qualification and evaluation, or even to reach a consensus on a set of guidelines for deliverables, have encountered such difficulty. This predicament is perhaps the most salient indication that this mode of knowledge production deserves a fresh vantage point, one that takes into account its endemic qualities.

Because of the contextualized nature of practicing-research, any effort to gain a genuine understanding of it summons an approach that begins – like the research projects themselves – from the ground, from what exists already, and works upwards from there. As Roland Barthes aptly wrote in *Camera Lucida*, “why mightn’t there be, somehow, a new science for each object? A *mathesis singularis* (and no longer *universalis*)”.⁴⁶ The concept of *mathesis universalis* emerged in 16th century Europe as part of the programme of Rationalism, which sought a universal science based on mathematics and prompted philosophers and practitioners to resort to theoretical apparatuses and logical principles in their search for invariable knowledge. As the demand for

³⁹ Ibid., p.14.

⁴⁰ BIGGS and KARLSSON 2011, p.xiv.

⁴¹ Ibid., p.2.

⁴² BECKSTETTE, S., HOLERT, T. and TISCHER, J. eds. Preface. *Texte Zur Kunst*, nr.82, June 2011, p.6.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ GRAY, Z. Text for the exhibition *Making is Thinking*. Rotterdam: Witte de With, Center For Contemporary Art, 23 January - 1 May 2011.

⁴⁶ BARTHES, R. *Camera Lucida: Reflections on Photography*. New York: Hill and Wang, 1981, p.8.

universally applicable abstractions spread across the whole spectrum of knowledge production, it naturally influenced architectural practice as well. Pérez-Gómez wrote the following regarding the impact of this quest on the work of architects:

Many years have passed since architects began their search for a universal theory grounded in absolute rational certainty. ... And still the modern professional waits for a set of objective and universal standards, either formal, ideological, or functional, that will determine his design and contribute to truly meaningful buildings.⁴⁷

Barthes resisted any such reductive systems and evaded the imposition of theories derived in advance and from without when he set out “to give a name to Photography’s essence”, by beginning from the few photographs that he was sure existed for him.⁴⁸ He negotiated the paradox present in having “on the one hand the desire to give a name to Photography’s essence and then to sketch an eidetic science of the Photograph; and on the other the intractable feeling that Photography is essentially (a contradiction in terms) only contingency, singularity...”⁴⁹ by following his personal affinity towards certain photographs, so as to find the “essential” photograph that achieved for him “utopically, *the impossible science of the unique being*”.⁵⁰

Barthes’ approach towards a *mathesis singularis* is soaked in Sartrean existentialism. In the lecture *Existentialism is a Humanism* that Sartre delivered in 1945, he declared that the first principle of existentialism is that “existence precedes essence; or if you prefer that subjectivity must be our point of departure”.⁵¹ Existentialism postulates a human ontology that is rooted in the belief that man first exists and only then does he freely define his own essence through his actions, which imply a specific environment and a singular disposition.⁵² Since essence is preceded by presence and production, every moral choice is, as Sartre maintained, akin to a work of art – in the sense that it is not possible to determine in advance, based on formal and universal dogmas, “what ought to be done”.⁵³ However, notwithstanding the singularity of every human project, there is a universality inherent within each one, not a stable and invariable universality, but one which is perpetually re-constructed. As Sartre explained:

Furthermore, although it is impossible to find in every man a universal essence that could be said to comprise human nature, there is nonetheless a universal human *condition*. ... all limitations that *a priori* define man’s fundamental situation in the universe. ... These limitations are neither subjective or objective; rather they have a subjective as well as an objective dimension: objective

because they affect everyone and are evident everywhere; subjective because they are *experienced* and are meaningless if man does not experience them – that is to say, if man does not freely determine himself in relation to them. ... Consequently, every project, however individual, has a universal value. ... There is universality in every project, inasmuch as any man is capable of understanding any human project. This should not be taken to mean that a certain project defines man forever, but that it can be reinvented again and again.⁵⁴

By renouncing the comfort of a closed system of thought and embracing a philosophy of lived experience, manifested as a series of freely determined actions that are simultaneously highly personal and inevitably universal, Sartre managed to eliminate the “difference between being as an absolute temporarily localized – that is, localized in history – and universally intelligible being” and to make the science of the singular object possible.⁵⁵ His philosophy conceived the universal project of humanity, including the production of knowledge, as a process-based rather than an object-based enterprise. As Annie Cohen-Solal asserted in the introduction to *Existentialism is a Humanism*, “the different strands of Sartre’s thinking, his various preoccupations, can be traced through his work from beginning to end: knowledge through exploration and adventure”.⁵⁶

Sartre’s existentialism echoes conspicuously in David Kolb’s *Experiential Learning: Experience as the Source of Learning and Development*, another milestone in the literature pertaining to practicing-research. Kolb defined experiential learning as “the process whereby knowledge is created through the transformation of experience”; this definition highlights some of the central aspects of knowledge production as understood from the experiential perspective:

First is the emphasis on the process of adaptation and learning as opposed to content or outcomes. Second is that knowledge is a transformation process, being continuously created and recreated, not an independent entity to be acquired or transmitted. Third, learning transforms experience in both its objective and subjective forms. Finally, to understand [experiential] learning, we must understand the nature of knowledge and vice versa.⁵⁷

What distinguishes experiential learning from the “idealist approaches of traditional education” is its emphasis on learning as an interminable process “whereby concepts are derived from and continuously modified by experience”.⁵⁸ According to Kolb, experience is seized in two fundamentally different ways: either through conceptual interpretation and symbolic representation – critical *comprehension* – or through the tangible qualities of immediate experience – appreciative *apprehension*.⁵⁹

⁴⁷ PÉREZ-GÓMEZ 1983, p.17.

⁴⁸ BARTHES 1981, p.8.

⁴⁹ Ibid., p.20.

⁵⁰ Ibid., p.71.

⁵¹ SARTRE, J.-P., MACOMBER, C. and KULKA, J. *Existentialism Is a Humanism*. New Haven: Yale University Press, 2007, p.20. For a thorough discussion of this principle see: BARRETT 1961, p.89-97.

⁵² Ibid., p.22.

⁵³ Ibid., pp.45-46.

⁵⁴ Ibid., pp.42-43.

⁵⁵ Ibid., p.44.

⁵⁶ Ibid., pp.13-14.

⁵⁷ KOLB, D.A. *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, N.J.: Prentice-Hall, 1984, p.38.

⁵⁸ Ibid., p.26. Paulo Friere also asserted that “knowledge emerges only through invention and reinvention, through the restless, impatient, continuing, hopeful inquiry men pursue in the world, with the world, and with each other”. FREIRE, P. *Pedagogy of the Oppressed*. New York: Seabury Press, 1970, p.58.

⁵⁹ Ibid., p.41.

Apprehension is personal, tacit, and unfolds in a continuous here-and-now, so that it is “at once instantaneous and eternal” and thus acausal; comprehension on the other hand, is public and communicable, it endures in time as “a record of the past that seeks to define the future” and it is thus linked with the concept of linear time that is a first principle of causality.⁶⁰

Kolb proclaimed, much like the thinkers discussed earlier in this essay, that it is through “the intense coequal confrontation” of critical comprehension and appreciative apprehension that knowledge arises.⁶¹ The synergy of apprehensions and comprehensions is at the very core of experiential learning because “apprehensions are the source of validation for comprehensions, and comprehensions are the source of guidance in the selection of apprehensions”.⁶² This interaction results in “a transactionalism, in which knowledge emerges from the dialectic relationship between the two forms of knowing”.⁶³ Hence the production of knowledge is a process “that in prospect is filled with surprising, unanticipated experiences and insights, and in retrospect makes our earlier earnest convictions about the nature of reality seem simplistic and dogmatic”.⁶⁴

Despite variations in the terms and models used, Kolb and Schön reached nearly identical conclusions on the transactional alliance of the rational and the actual, or otherwise, of formal logic and lived experience. By proposing a model of exploratory learning that is in a state of continual becoming through the organic interaction of the abstract and the universal with the actual and the singular, they evaded the dangers of a reductionism that renders knowledge as static truth and built a productive bridge between the formerly separated and antagonistic domains of theory and practice. Published one year apart, *The Reflective Practitioner: How Professionals Think in Action* and *Experiential Learning: Experience as the Source of Learning and Development* have set the foundations of practicing-research as a vital, dynamic, idiosyncratic, and unpredictable process.

Although neither Kolb nor Schön officially acknowledged the contribution of Sartre to their thought, the principles of his philosophy are undeniably embedded in their work. “It must be that each man has been born to make, in order to understand the world, a new and solitary effort”, Sartre wrote in a notebook.⁶⁵ At the bottom of this chain of thought one name looms large: Henri Bergson, who wrote the following in *Creative Evolution (L'Évolution créatrice, 1907)*:

⁶⁰ Ibid., p.102.

⁶¹ Ibid., p.105.

⁶² Ibid., p.106.

⁶³ Ibid., p.107. Kolb went on to clarify that “the relationship between apprehension and comprehension is dialectic in the Hegelian sense: although the results of either process cannot be entirely explained in terms of the other, these opposite processes merge toward a higher truth that encompasses and transcends them”.

⁶⁴ Ibid., p.108.

⁶⁵ SARTRE, J.-P., ELKAIM-SARTRE, A. and WEBBER, J. *The Imaginary: A Phenomenological Psychology of the Imagination*. London: Routledge, 2004, p.viii.

If we could rid ourselves of all pride, if, to define our species, we kept strictly to what the historic and the prehistoric periods show us to be the constant characteristic of man and of intelligence, we should say not *Homo sapiens*, but *Homo faber*. In short, intelligence, considered in what seems to be its original feature, is the faculty of manufacturing artificial objects, especially tools to make tools, and of indefinitely varying the manufacture.⁶⁶

Countering the doctrines of Materialism and Mechanism that dominated the life sciences in the late 19th century, Bergson postulated that evolution is the essence of life and that each living moment is part of a ceaseless creative process motivated by a vital force (*élan vital*). He began *Creative Evolution* by stating that our own existence, “which is what we are most assured of” and what we know internally and profoundly, consists of successive moments of creation of which we are the “artisans”.⁶⁷ However, although “this creation of self by self is the more complete, the more one reasons on what one does ... the same reasons may dictate to different persons, or to the same person at different moments, acts profoundly different, although equally reasonable”.⁶⁸ Thus, “our personality shoots, grows and ripens without ceasing” and endures as a creative evolution composed of singular and unforeseeable moments.⁶⁹

Life, as a creative evolution, can only be grasped by proceeding “organically” through instinct; “by the expansion of consciousness” which instinct brings about, it “introduces us into life’s own domain, which is reciprocal interpenetration, endlessly continued creation”.⁷⁰ Intellect, on the other hand, proceeds mechanically and tries to explain the unforeseeable and new by resolving it “into elements old or known, arranged in a different order” and thus fails to grasp the vital process “in its *upspringing*, that is to say, in its indivisibility, nor in its *ferveur*, that is to say, in its creativeness”.⁷¹ And so Bergson concluded that “*whatever, in instinct and intelligence, is innate knowledge, bears in the first case on things and in the second on relations*”.⁷²

As two divergent developments of the mind, instinct and intellect yield two radically different kinds of knowledge, material and formal knowledge respectively, which are complementary in their opposition.⁷³ Even, if instinct – “enlarged and purified” into intuition – is only “a vague nebulousness”, it still suggests to us “the vague feeling, if nothing more, of what must take the place of intellectual molds” and introduces us “into life’s own domain, which is reciprocal interpenetration, endlessly continued creation”.⁷⁴ Intuition thus brings the intellect to recognize that “neither mechanical causality nor finality can give a sufficient interpretation of the vital process”;

⁶⁶ BERGSON, H. *Creative Evolution*. London: Macmillan, 1911, p.146.

⁶⁷ Ibid., p.1 and p.7.

⁶⁸ Ibid., p.7.

⁶⁹ Ibid., p.6.

⁷⁰ Ibid., p.187.

⁷¹ Ibid., p.173.

⁷² Ibid., p.156.

⁷³ Ibid., p.142.

⁷⁴ Ibid., p.187.

however, it is intelligence that gives it the push “that has made it rise to the point it has reached” and it is intelligence that will then take its import and set up relations that constitute “a systematic knowledge”.⁷⁵ Bergson summed up the relation between instinct and intellect as follows:

There are things that intelligence alone is able to seek, but which, by itself, it will never find. These things instinct alone could find; but it will never seek them.⁷⁶

Barrett’s 1958 prediction that Bergson’s radical thought – eclipsed during the reign of Logical Positivism – was “due for a revival, at which time hindsight will enable us to see that his philosophy contains much more than it seemed to, even at the height of his fame”,⁷⁷ proved to be right. Gilles Deleuze’s 1966 book *Bergsonism* marked the resurgence of Bergson’s thought and, in extent, the renaissance of the discussion on the import of intuition to the evolution of the human mind and the production of knowledge. Searching the Norwegian library database BIBSYS for books with the word “intuition” either in their title or as a primary subject, I found only ten books published before 1960 and one hundred and twenty-three published thenceforth.

Scientists, scholars, and educators, have unfolded and discussed the presence of intuition and its relation to the intellect in various and different ways, but all of them have unanimously attested to the creative potential of their rapport. Some of the most notable contributions to this discussion have already been mentioned. A recent addition to the list is *The Master and its Emissary: The Divided Brain and the Making of the Western World*, by psychiatrist and literary scholar Iain McGilchrist.⁷⁸ In this highly acclaimed book – the title of which evokes Einstein’s famous quote: “the intuitive mind is a sacred gift and the rational mind is a faithful servant” – McGilchrist endorsed Bergson’s position that formal logic – introduced by Plato and triumphant in the wake of Descartes – is inadequate for taking in the wholeness of life.⁷⁹ Furthermore, he declared that the promotion of objective left brain thinking at the expense of right brain experience and intuition in the western world has elevated quantity over quality and theory over experience, making us dependent on a rational, de-contextualized, and consequently de-humanized way of thinking, that is distorting and misdirecting our lives. Essentially the message of this book is that ever since the rational mind – which is “so eloquent on its own behalf” – has become the master of our lives, it has “neglected to allow us to perceive that there are other very important things that need to be combined with it”.⁸⁰

⁷⁵ Ibid., p.156.

⁷⁶ Ibid., p.159.

⁷⁷ BARRETT 1961, p.13

⁷⁸ MCGILCHRIST, I. *The Master and His Emissary: The Divided Brain and the Making of the Western World*. New Haven, [Conn.]: Yale University Press, 2009.

⁷⁹ According to McGilchrist, the intuitive right brain surveys the whole scene and channels incoming data, and so it is more directly in touch with the world and usually knows what the left brain is doing; but left brain logic may know nothing about elements outside its own enclave and may even refuse to admit their existence.

⁸⁰ Radio interview. Available at: <http://www.abc.net.au/radionational/programs/allinthemind/the-master-and-his-emissary-the-divided-brain-and/3047408#transcript> [Accessed 13 March 2011].

The thread that starts from the philosophy of Bergson, runs through Sartre’s existentialism, and is weaved in the thought of Kolb and Schön, has now been traced. These seminal thinkers have either implicitly or explicitly contributed to the advancement of a mode of learning that is inherently linked with practicing-research by upholding and promoting the integration of intuition and intellect, or according to the terms of Kolb, the synergy between apprehension and comprehension. At the very core of their work is the belief that every individual has the prerogative, not to say the obligation, to transcend social and ethical predicaments, to challenge conventions and institutions, and to create freely his own life through actions that despite their singularity have a shared universal constitution. This fervent humanism is affirmed by Kolb in the following statement:

The critical difference between personal and social knowledge is the presence of apprehension as a way of knowing in personal knowledge. It should be clear that the apprehensional portion of personal knowledge is all that prevents us from losing our identity as unique human beings . . . Because we can still learn from our *own* experience, because we can subject the abstract symbols of the social-knowledge system to the rigors of our own inquiry about these symbols and our personal experience with them, we are free.⁸¹

What is humanism? According to Corliss Lamont, although humanism as a philosophy has assumed various faces in the centuries since its origin, it has retained unaltered its basic proposition: that “human beings, while conditioned by the past, possess genuine freedom of creative choice and action, and are, within certain objective limits, the masters of their own destiny”.⁸² While substituting “all theories of universal determinism, fatalism, or predestination”, humanism is not a dogma but a “developing philosophy” that ceaselessly challenges and re-formulates basic assumptions and convictions, including its own.⁸³ Sartre’s proposition that existentialism is a humanism – which is founded on his notion of life as a “free organic *praxis*”, methodologically, ontologically, and ethically – is therefore easy to digest.⁸⁴

It is in view of the close parallels between humanism, existentialism, and practicing-research, that I bring forth my proposition: *practicing-research is a humanism*. Practicing-research *lives* the principles of existentialism and develops the humanism inherent in it, and in this sense it is practiced philosophy that moves unforeseeably in the perpetual redefinition of itself through the efforts of each individual who takes it on. Every practicing-research project is an adventure. What initiates every adventure is the wish for something specific (the *what*), what drives it is the conviction that this something is worth searching for (the *why*), and what sustains it is the confidence that the wish is *somehow* attainable. The path of this journey reveals itself gradually and concurrently with the becoming of the adventure.

⁸¹ KOLB 1984, p.109.

⁸² LAMONT, C. *The Philosophy of Humanism*. New York: Ungar, 1965, p.13.

⁸³ Ibid., p.14.

⁸⁴ According to Hannah Arendt, *praxis* is the highest level of active life and our capacity to engage in this is what makes us uniquely human. See: ARENDT, H. *The Human Condition*. Chicago, Ill.: Univ. of Chicago Press, 1970.

If we concede that practicing-research is indeed a humanism, it becomes ever more evident that efforts to systematize the knowledge that it yields under pre-established categories will inevitably be plagued by the perpetual conflict between the abstract universality of concepts and the actual singularity of the lived. Mieke Bal recognized the epistemological fallacy of pre-determined taxonomies in the case of traditional narratology, but her findings and conclusions are just as valid in the case of practicing-research:

Delimitation, classification, typology, it is all very nice as a remedy to chaos-anxiety, but what insights does it yield? ... Between a general conception of narrative and an actual narrative text – or object – lies more than classification. The distribution of actual objects over a restricted number of categories is only meaningful – if at all – after insight into a text has been gained.⁸⁵

As a remedy to this predicament, Bal proposed to make suffice with some general principles, which she termed *travelling concepts*, and to allow for movement within these as it is appropriate to each project. *Concept* is here understood by Bal not as a “clear-cut methodological legislation, but as a territory to be travelled, in a spirit of adventure”.⁸⁶ According to Bal, theory should not be an “instrument of analysis, to be ‘applied’ on the art object, supposedly serving it but in fact subjecting it; but a discourse that can be brought to bear on the object at the same time as the object can be brought to bear on it”.⁸⁷

Evidently, Bal’s view arises from the same standpoint as the thought of Sartre, Kolb, and Schön, and it is parallel with Barthes’ effort towards a *mathesis singularis*. All of these thinkers resisted the reductionism of a systematic approach that starts from *a priori* theories and concepts so as to arrive at a static and immutable *mathesis universalis*. They advocated instead a mode of learning that is in a state of continual becoming, an exploratory and creative process that is open to rearticulation and reorientation through the dynamic interaction of the abstract and universal with the actual and singular. Their most essential and pertinent contribution has thus been the construction of a productive bridge between the formerly separated and opposed domains of theory and practice.

A genuine understanding of practicing-research presupposes the abolishment of the straitjacket of conclusive definitions, typologies and concepts at the outset.⁸⁸ It is rather more appropriate to start by recognizing the universal *conditions* that are in place as this new paradigm of knowledge production seeks its identity and its place within academia. This proposition is in tune with Sartre’s affirmation of a universal condition, within the frame of which man acts freely so as

to define himself and reinvent thus this frame each time anew. Such a tentative constitution would enable practicing-research projects to exist within the republic of academia without curtailing their singularity.

I find it apropos that I begin my effort to trace the shared conditions of practicing-research projects from the established norms of modern scientific research and proceed by considering these in the context of the “newcomer” in academia. This approach aims to delineate an estate in the academic domain where practicing-research can initially land, so as to develop further through the accumulation of singular voices that spell the evolution of this domain and the potential revolution of academic research altogether.

The institutional standards of the modern scientific community were, as it is well known, identified and described by Robert K. Merton in the essay “The Normative Structure of Science” in 1942.⁸⁹ The original list included Communalism, Universality, Disinterestedness, and Skepticism. Merton later added Originality to the group, forming thus the definitive assembly, which has come to be known by the acronym CUDOS.⁹⁰ As John Ziman aptly clarified, these norms are “traditions rather than moral principles”, they are not enforced by sanctions but they are transmitted as “precepts and examples” so as to mold the professional *ethos* of the scientist.

The norm of Communalism entails the communication of the knowledge produced through research so as to make it part of the public domain; knowledge is taken out of the context of discovery and placed in the context of legitimization in a way that is understandable by others. In order to fulfill this directive, various vehicles of dissemination have been developed, which constitute together the developing archive of academia. The scientific paper is the most prevalent among these. Robert A. Day affirmed the indispensable link between (scientific) research and writing when he stated that “a scientific experiment has not been completed until the results have been published”.⁹¹

The vast majority of scientific papers follow the same structure, which has come to be known by the acronym IMRAD: Introduction, Methods, Results, and Discussion. The IMRAD format was promoted by scientific journals in the post World War II era as a way to cope with a considerable increase in research activity during this period. Eventually this structure spread to journals in the social sciences, the arts and humanities, and has since become the norm for academic publishing and for PhD theses.⁹²

⁸⁵ BAL, M. *Narratology: Introduction to the Theory of Narrative*. Toronto: University of Toronto Press, 1997, p.226.

⁸⁶ BAL, M. *Travelling Concepts in the Humanities: A Rough Guide*. Toronto: University of Toronto Press, 2002, p.23.

⁸⁷ *Ibid.*, p.61.

⁸⁸ The term *understanding* is here “taken in a broad sense that encompasses cognitive as well as affective acts, precisely, not distinguished”. BAL 1997, p.226.

⁸⁹ MERTON, R.K. and STORER, N.W. *The Sociology of Science: Theoretical and Empirical Investigations*. Chicago, Ill.: University of Chicago Press, 1973, pp. 267-278.

⁹⁰ ZIMAN, J.M. *Real Science: What It Is, and What It Means*. Cambridge: Cambridge University Press, 2000, p.31.

⁹¹ DAY, R.A. The Origins of the Scientific Paper: The IMRAD Format. *American Medical Writers Association Journal*, vol.4, nr.2, 1989, p.16.

⁹² *Ibid.*, p.18. Guidebooks for doctoral researchers present the IMRAD format as the standard for PhD theses. See: PHILLIPS, E.M. and PUGH, D.S. *How to Get a Phd: A Handbook for Students and Their Supervisors*. Buckingham: Open University Press, 2000, p.65.

The IMRAD format has however been heavily criticized for oversimplifying and even falsifying the scientific process. In the essay “Is The Scientific Paper A Fraud?” – originally broadcasted on BBC radio in 1964 – Peter Medawar declared that “the scientific paper is a fraud in the sense that it does give a totally misleading narrative of the processes of thought that go into the making of scientific discoveries”.⁹³ As he explained, “all scientific work of an experimental or exploratory character starts with some expectation about the outcome of the inquiry”, and therefore failing to acknowledge the presence of this expectation both at the outset and during the research inquiry and reserving all appraisal of the evidence gathered until the end of the written report is a pretense and a gross misrepresentation of the scientific research process.⁹⁴

So as to rectify this deception, Medawar proposed to modify the IMRAD format by amalgamating the Discussion, typically found at the end of the scientific paper, with the Introduction, and to begin the research report with this. According to his proposal, “the scientific facts and scientific acts should follow the discussion, and scientists should not be ashamed to admit, that hypotheses appear in their minds along uncharted by-ways of thought; that they are imaginative and inspirational in character; that they are indeed adventures of the mind”.⁹⁵ This obviously holds true not only for scientific research but also, and especially, for practicing-research.

Medawar not only exposed the fallacy of unaffected objectivity associated with scientific research and endorsed through the IMRAD structure, but he also brought forth the element of unforeseeability that is present in every research process and every act of creation and discovery, as in life itself. In the foreword to *The Routledge Companion to Research in the Arts*, Helga Nowotny identified the uncertainty that is a shared coefficient in artistic and scientific research, and which makes these endeavors “adventures of the mind”:

Science and the arts are therefore much closer to each other than their currently institutionalized forms might lead one to expect. They share the creative impulse and their main driving forces of motivation: curiosity and imagination. They thrive – and continuously struggle – in the zone of uncertainty where what is yet to be explored is at home. Uncertainty is therefore inherent in scientific research and in the artistic production of new knowledge alike.⁹⁶

In the same volume, Mark Johnson pointed out in his essay “Embodied Knowing Through Art” that “the idea of research as the progressive accumulation of objective knowledge is too impoverished a model to account for the full range of modes of human inquiry”.⁹⁷ He proposed instead a model of research, applicable to both science and art, as an ongoing inquiry that aims to transform a perplexing situation into one that is meaningful. Yet, even if “both art and science

⁹³ MEDAWAR, P. and PYKE, D. *The Threat and the Glory: Reflections on Science and Scientists*. Oxford: Oxford University Press, 1990, p.233.

⁹⁴ Ibid., p.231.

⁹⁵ Ibid., p.233.

⁹⁶ BIGGS and KARLSSON 2011, p.xviii.

⁹⁷ JOHNSON, M. Embodied Knowing Through Art. In: BIGGS and KARLSSON 2011 (pp.141-151) p.151.

are about the transformation of experience to enrich meaning, open up new connections, and help us harmonize our experiences”,⁹⁸ the former focuses on the qualitative aspect of the work while the latter on its quantitative dimensions and causal relations. This is where scientific research and practicing-research part ways, according to Kant’s 1790 distinction between the *method* of science – which is constraint – and the manner or *modus* of art – which is freedom.⁹⁹

Although personal belief, intuition, and imagination, are equally present at the outset of all research ventures, there is a profound divergence between scientific and practicing-research when it comes to how the researcher proceeds to explore the ground of the initial proposition(s). While the scientist resorts to systematic methods to test his hypotheses, arriving at outcomes that can be objectively verified, the practicing researcher proceeds in a singular manner along a path that is not replicable, not even by the same person in a different place or time. Practicing-research yields knowledge that is contingent on the particularities of the context within which it takes places, affected by the operator’s disposition, and touched by chance and circumstance. Henk Borgdorff confirmed this in his essay “The Production of Knowledge in Artistic Research”:

The erratic nature of creative discovery – of which unsystematic drifting, serendipity, chance inspirations and clues form an integral part – is such that a methodological justification is not easy to codify. . . . it involves doing unpredictable things, and this implies intuition and some measure of randomness. Research is more like exploration, than like following a firm path.¹⁰⁰

Since tried-and-true procedures are entirely out of place when it comes to practicing-research, the exposition of Methods in the project report dictated by the IMRAD structure needs drastic readjustment. The void left by the absence of a method ought to be filled with what is analogously pertinent to practicing-research: the Context within which the project began and was developed. A description of the circumstances that have encircled the evolution of a practicing-research project appropriately places this in its “site” and acknowledges their role in its development.

The proposed substitution of Methods with Context is at odds with the norm of Disinterestedness, which stems from the expectation that the findings of scientific research are repeatable and verifiable by other experts in the field.¹⁰¹ The scientific researcher is obliged to disengage his beliefs or interests from the research process and to maintain an arm’s-length attitude towards his findings, which he attains through the application of a describable method. The scientist presents himself “as a mere name, a disembodied instrument of factual observation or logical inference, morally detached from the events or arguments reported” and unaffected by the “social background” surrounding the project.¹⁰²

⁹⁸ Ibid., p.150.

⁹⁹ KANT, I. *Critique of Judgement*. Indianapolis: Hackett, 1987, p.230.

¹⁰⁰ BORGENDORFF, H. The Production of Knowledge in Artistic Research. In: BIGGS and KARLSSON 2011, (pp.44-63) p.57.

¹⁰¹ MERTON 1973, p.276.

¹⁰² ZIMAN 2000, p.38.

Highlighting the particular circumstances within which a practicing-research project evolved and acknowledging the influence of these and of the researcher's disposition on the endeavor, is also out of line with the scientific norm of Universalism – which, as Merton explained, is “rooted in the impersonal character of science”:

Universalism finds immediate expression in the canon that truth-claims, whatever their source are to be subjected to *preestablished impersonal criteria*: consonant with observation and with previously confirmed knowledge. The acceptance or rejection of claims entering the lists of science is not to depend on the personal and social attributes of their protagonists; his race, class and personal qualities are as such irrelevant. Objectivity precludes particularism.¹⁰³

Hence, factors that have been systematically suppressed in the production and assessment of scientific research come to the fore in practicing-research, turning the norms of Disinterestedness and Universalism inside out. If the norm of Universalism has any relevance to practicing-research, then this is on the reception front: the humanism inherent in this mode of research harbors, following Sartre, a universality that transcends the race, nationality, culture, or gender of its author. By presenting the particular context of the research project and acknowledging this as an integral part of his endeavor, the researcher essentially invites the reader to the site of the project, so as to experience and evaluate it on the terms that this entails.

The contingent character of practicing-research projects together with the lack of replicable and objectively verifiable findings, challenges also the last of the Mertonian norms: Skepticism. According to this norm, the findings of scientific research ought to undergo critical scrutiny by experts in the field before they can be endorsed as valid academic knowledge. Reviewers assess scientific research in terms of its “overall credibility” and based on the “scientific significance” of the proffered findings to the relevant milieu.¹⁰⁴

Since practicing-research projects are way-finding rather than result-confirming, since such projects are essentially about *how* we come to know and not about *what* we have learned as a set of quantifiable findings, how can their credibility be ascertained? In the absence of objectively verifiable and repeatable results, the very development of these research journeys turns into the object of their assessment procedure. What kind of yardstick is then to be used so as to decide whether the evolution of a practicing-research project, guided as it is by personal beliefs and intuitions and profoundly affected by its context, is valid? My proposition is that practicing-research projects are assessed on the basis of their *authenticity*.

Authenticity is a highly contested and controversial notion that has, like intuition, been systematically discredited by Analytic philosophers. As Jacob Golomb wrote in his 1995 book *In Search for Authenticity*, “there is today a grave danger that we are facing the death of authenticity.

¹⁰³ MERTON 1973, p.270.

¹⁰⁴ ZIMAN 2000, p.43.

Poststructuralist thought and other currently fashionable streams of what is vaguely called ‘postmodernism’ attempt to dissolve the subjective pathos of authenticity which lies at the heart of existentialist concern”.¹⁰⁵ As one of the central tenets of existential thought, authenticity is directly linked to this doctrine's belief that it is each individual's prerogative to keep defining his own life through deliberate and committed choices that resist societal and other external forces, and which combat the leveling effects of enculturation. As Golomb explained:

The existentialist writers hope to shatter our dogmatic beliefs and lure us into giving up blindly accepted ethical norms and ideologies. Only when we successfully shed these values that we have been conditioned to uphold by various institutions – our families, schools, and universities – will we be able to reach beyond them to the genuine roots of our selves and ultimately attain authenticity.¹⁰⁶

Remaining ever aware and critical of the circumstances surrounding one's life, choosing a course of action in response to these, and accepting the ramifications of these choices, are the cardinal elements of authentic existence. As Bugental noted in *The Search for Authenticity*:

Authenticity has three functional characteristics: 1. The authentic person is broadly aware of himself, his relationships and his world in all dimensions. 2. The authentic person accepts and seems to go to meet the fact that he is constantly in the process of making choices, that decisions are the very stuff of living. 3. The authentic person takes responsibility for his decisions, including full recognition of their consequences.¹⁰⁷

These “functional characteristics” are prerequisites of authenticity, but their fulfillment does not necessarily lead to it. As Golomb wrote, although “the intuitive and individual routes to authenticity seem to be more viable and productive than the ontological-phenomenological approaches ... there is no single exclusively valid path to authenticity; nor can there be”.¹⁰⁸ Transcending the prevailing ethos of one's community and questing after a subjective pathos, is a project that follows a singular script, and so “any positive definition of authenticity would be self-nullifying”.¹⁰⁹ Hence, the proponents of authenticity – such as Søren Kierkegaard, Albert Camus, Martin Heidegger, Friedrich Nietzsche, and Jean-Paul Sartre – provided no criteria “however vague or subjective, for identifying instances of authenticity, for authoritatively deciding that *x* is authentic and *y* is not”.¹¹⁰

Without a positive definition or a prescribed recipe for its attainment, authenticity can only be “discerned in its absence, in the passionate search for it, in inauthenticity, and in various acts of ‘bad faith’ (*mauvaise foi*)”, which according to Sartre, result from succumbing to the pressure of

¹⁰⁵ GOLOMB, J. *In Search of Authenticity: From Kierkegaard to Camus*. London: Routledge, 1995, pp.203-204.

¹⁰⁶ Ibid., p.8.

¹⁰⁷ BUGENTAL, J.F.T. *The Search for Authenticity: An Existential-Analytic Approach to Psychotherapy*. New York: Holt, Rinehart and Winston, 1965, p.103.

¹⁰⁸ GOLOMB 1995, p.200.

¹⁰⁹ Ibid., p.7.

¹¹⁰ Ibid., p.203.

societal forces and passively complying with reigning rules, accepted standards of conduct, or the norms of tradition and culture.¹¹¹ Heidegger also regarded the cognizance of “fallenness” (*verfall*) – the inauthentic state whereby one is swept by external pressures and forsakes his freedom of choice – as the “absolutely necessary precondition for the struggle towards true *Dasein*, toward possession, or, rather, repossession of self” and the return to “authentic being”.¹¹²

As a resolute resistance to dogmata, the pursuit for authenticity is not a solipsistic venture happening in a void, but a quest that can only take place within the context of a society and a culture. Heidegger highlighted historicity as a primary condition of man: *Dasein* is embedded in the physical, literal, tangible day-to-day life. Consequently, the attainment of authenticity entails conscious actions, which are only meaningful and significant within the framework of a community and against a historical horizon:

Most accounts of authenticity are modelled on the aesthetic ideal of creativity: spontaneous creation of one’s self and life. Yet no creativity is possible without the social and cultural context that provides the raw material one uses – the conventions, ideas and institutions against which one must struggle to fashion one’s authentic self. Society provides the ethical norms and potential sources of self-identity that must freely and consciously be overcome, changed or assimilated into one’s life if one is to become what one wants to be.¹¹³

In the same way that the social context is an indispensable counterpoint in the pursuit of an authentic life, so are the norms of the academic establishment the background against which the practicing researcher performs his project. It is through the friction between an “individual pathos” and an ecumenical ethic that practicing-research projects work towards authenticity, via a path that is ever evolving and turning upon itself in revolt. If authenticity ever became a finite value, it would be akin to the established ethic that it seeks to replace, or as Golomb wrote, we would “find ourselves where we started – with a regulative ideal comparable to those offered by Kant and Hegel”.¹¹⁴

The repudiation of a pre-determined and universal ethic and the implementation of deliberate and responsible decisions made against an established background are the preeminent elements of the quest for an authentic life – as understood by existential philosophers – and practicing-research alike: both manifest the “willingness to embrace subjective pathos without the crutch of a rigorous ethical code”.¹¹⁵ Practicing-research is an idiosyncratic and unpredictable adventure in a state of perpetual becoming, like life itself; and thus the reasons that make an *a priori* ethic unviable in the search of authenticity, point also to the impossibility of canning a universal code for practicing-research up front.

¹¹¹ Ibid., p.7.

¹¹² STEINER, G. *Heidegger*. London: Fontana/Collins, 1978, p.96.

¹¹³ GOLOMB 1995, p.201.

¹¹⁴ Ibid., p.202.

¹¹⁵ Ibid.

Since authenticity “cannot be grounded and implemented by conventional (i.e. rational) means of persuasion”,¹¹⁶ since it cannot be demonstrated in a systematic and objective way, how can it function as the criterion of assessment for research projects? I answer this question with the help of Bugental, who affirmed that “authenticity is difficult to convey in words, but experientially it is readily perceived in ourselves or in others”.¹¹⁷ Hence, if the practicing researcher’s wish is genuine to begin with, and if he develops his work in good faith and by following the compass of his inner voice, then an effectively communicated account of this journey will most likely possess an air of genuineness (and ingenuity) that will expand into others, convincing them (and moving them). If a singular process guided by personal pathos resonates in others, then it must, as claimed by Sartre, be in tune with the *human condition*.

Since practicing-research reports are designed experiences, harboring qualitative rather than quantitative knowledge, reviewers are summoned to activate their own intuitive faculty and to implement their acumen while unfolding and evaluating these. The question “Is the way that the researcher arrived at his outcomes logical and verifiable, and therefore convincing?” is hence substituted with “Does the evolution of this research project *feel* convincing to you? Does it possess a sense of genuineness and honesty? Does it move you?”. This substitution clearly marks and manifests a fundamental shift away from criticism and towards appreciation. As Kolb wrote, “much can be said about the process and method of criticism, indeed most scholarly method is based on it. The process of appreciation is less recognized and understood. . . . Unlike criticism which is based on skepticism and doubt, appreciation is based on belief, trust, and conviction”.¹¹⁸ Thus personal convictions and intuitions are not paramount only to the practicing researcher, both at the outset and throughout the project, but also to the assessors of a practicing-research report at the potential entry point of this into the world of authorized knowledge.

The way that the researcher chooses to communicate his journey affects profoundly how this is received and perceived outside the confines of its own universe. According to Einstein, “if what is seen and experienced is portrayed in the language of logic, then it is science. If it is communicated through forms whose constructions are not accessible to the conscious mind but are recognized intuitively, then it is art”.¹¹⁹ Re-reporting a practicing-research project activates both of these competences, as did the journey itself throughout its evolution.

The practicing researcher is both, but not simultaneously, a critic and a maker: at times entirely immersed and personally invested in acts of artistic creation – guided by his intuition, beliefs, and imagination – while at other times he steps back and as an observer of his own work he examines this from a distance with an objective and critical eye. The interchange between deep

¹¹⁶ Ibid.

¹¹⁷ BUGENTAL 1965, p.102.

¹¹⁸ KOLB 1984, pp.103-104.

¹¹⁹ EINSTEIN, A. and CALAPRICE, A. *The Expanded Quotable Einstein*. Princeton, NJ: Princeton University Press, 2000, p.271.

absorption and self-reflection is also a trait, according to Kolb, of experiential learning. The productive integration of thinking, feeling, acting and perceiving, “requires abilities that are polar opposites, and the learner, as a result, must continually choose which set of learning abilities he or she will bring to bear in any specific learning situation. . . . Thus, in the process of learning, one moves in varying degrees from actor to observer, and from specific involvement to general analytic detachment”.¹²⁰

As Sol LeWitt indicated in his letter to Eva Hesse, following a period of intuitive production, one is left with his thoughts, so the real challenge here is to achieve enough critical distance to see what has been produced as if this is seen for the first time, and then to return to artistic creation all over again, informed but not constrained by what the analytical mind has revealed.¹²¹ The task of every practicing researcher is then to find his own rhythm and his own technique of alternating between creative immersion and impartial reflection. Achieving the purest possible form of these two states might require the intervention of time, a change of location, or other “techniques” found to be effective in the given circumstances. While remaining aware of the transactional character of his work, the practicing researcher choreographs his performance by way of the negotiation between the two diametrically opposed personae of maker and critic, or actor and spectator. The function of the project report, is then to draw the insights of this performance out of the domain of the *je ne sais quoi* and place them on a common platform. Synthesizing and articulating are the basic operations of this task, and what in fact turns practice into research.

In their article “Doctorateness in Design Disciplines: Negotiating Connoisseurship and Criticism in Practice-related Fields”, Halina Dunin-Woyseth and Fredrik Nilsson discussed the claim of “practice-related research” to “doctorateness” and professed that in order to fulfill this “the competence of the connoisseur – the ability to perceive and appreciate nuances in a particular field of practice – has to be combined with the competence of the critic – the ability to disclose and communicate characteristics and qualities to a broader audience”.¹²² As Henk Borgdorff also affirmed, artistic research – and hence practicing-research at large – “is the articulation of the unreflective, non-conceptual content enclosed in aesthetic experiences, enacted in creative practices, and embodied in artistic products”.¹²³

Admittedly, verbal or graphic articulations of intuitions or aesthetic experiences *re-present* the original event and therefore do not partake of its spontaneous and direct nature. It is within this limitation that the practicing researcher deliberates a language so as to un-pack the insights

¹²⁰ KOLB 1984, pp.30-31.

¹²¹ Roland Barthes referred to this predicament as “the uneasiness of being a subject torn between two languages, one expressive, the other critical”. BARTHES 1981, p.8.

¹²² DUNIN-WOYSETH, H. and NILSSON, F. Doctorateness in Design Disciplines: Negotiating Connoisseurship and Criticism in Practice-related Fields. *FORMakademisk* [Online], vol.5, nr.2, 2012, pp.1-11. Available at: <http://www.formakademisk.org> [Accessed 8 February 2013].

¹²³ BIGGS and KARLSSON 2011, p.59.

revealed in the span of his adventure and a design that aptly synthesizes and re-ports these.¹²⁴ However, the research report is an experience in its own right whereby *what* is communicated is linked to and affected by *how* this is communicated. The format of the research report and its content are interdependent: the content in-forms the report, while the report carries the content out of its singular universe and delivers it on a collective platform.

Since practicing-research projects are singular, the knowledge that they generate is *ipso facto* novel, and therefore they are automatically in tune with the Mertonian norm of Originality.¹²⁵ However, the originality of the knowledge brought forth by practicing researchers does not prescribe the terms of its contribution to the relevant milieu, which is a criterion of evaluation installed by the norm of Skepticism. Given that the insights revealed through practicing-research projects center on the process of knowing and are idiosyncratic and site-specific, how can such projects constitute a contribution to other researchers and to their milieu at large?

In terms of the contribution of practicing researchers to others working in the same sphere of knowledge production: the character of this is inspirational. The reports of these projects are like star(t)s in the firmament of their epistemological milieu waiting to be re-discovered each time anew. Like existentialism, practicing-research places ontology before epistemology: the project report first exists and then acquires a significance through its exchange with each reader. The research report functions as an analogon, in the Sartrian sense: it can be turned, unfolded, experienced, imagined, under the command of an other’s intention in a certain time and place. The mind of the reader is the surface on which the voice issuing from the project report bounces and takes on a new sense in the world. The nature of the echo is unforeseeable, as this depends as much on the original voice as on the surface that reflects this. What is sure however – since we do not live in a void – is that as long as there is a voice there will be an echo somewhere, sometime, somehow.

Beyond the content of the research report *per se*, are the humanistic implications of practicing-research. By placing individual and situated experience at its center, practicing-research establishes the conditions for the attainment of authenticity, at a time when this is most urgently needed. When existentialism emerged in the wake World War II, it was essentially an effort to take philosophy out of the Academy and into the world, “back to the earth of actual experience”.¹²⁶ According to Barrett, existentialism was a revolt against the oversimplification of life promoted by Positivism and through its attempt “to grasp the image of the whole man, even where this involves bringing to consciousness all that is dark and questionable in his existence” it propelled the search for an authentic expression of contemporary life.¹²⁷

¹²⁴ As Beveridge wrote in *The Art of Scientific Investigation*, “the importance of correct use of language lies not only in being able to report research well; it is with language that we do most of our thinking”. BEVERIDGE 1957, p.11.

¹²⁵ ZIMAN 2000, p.40

¹²⁶ BARRETT 1958, p.16.

¹²⁷ *Ibid.*, p.19.

Practicing-research grounds knowledge in personal experience and the body in its biology; as a practiced existentialism, it is now knocking on Academy's door, prompting it to open up and take life in, with all its darkness, its anxieties, its uncertainties, its triumphs, its indeterminations, its interminable nature. In *living* the principles of existentialism, practicing-research is essentially the search for authenticity. And as it reinstalls the province of ethics in the territory of the individual, trusting in the innate ability of each person to act in good faith while defining his own life and humanity each time anew, practicing-research aptly responds to Jonas Salk's plea for an "individual mutualism", written thirty years ago now:

...a beginning must be made to put into practice a philosophy or an ideology that will be expressed in everyday life and not merely in an ideal to be achieved at some indefinite time in the future. It is something that must be attained piecemeal, in small amounts, by degrees. Therefore, a beginning must be made to turn ourselves even by a fraction of a degree in the direction in which we seem to want to go, though, at times, we appear to wander from the path that would lead us there. It is in search of guidance from within ourselves that consciousness is invoked in the service of coguiding and coauthroing our own evolution.¹²⁸

The evolution of practicing-research projects is a determined interminability. These endeavors, these adventures, which involve "sincerity of intention" in combination with "passion directed at *one* object", entail "perpetual movement without definite results"; and so it is their "way which is the truth".¹²⁹ The essence of this self-directed and self-sustaining journey was poignantly expressed by the Greek poet Konstantinos Kavaphes in *Ithaca* (1911):

As you set sail for Ithaca,
wish for your journey to be long,
full of adventure and knowledge.
...
Always bear Ithaca in mind.
Arriving there is your appointed lot.
But do not rush the journey.
It is best that it lasts for many years,
and that you reach the island in your old age,
enriched with all that you have gathered on the way,
and not expecting Ithaca to offer you more riches.
Ithaca gave you the delightful journey.
Without her you would have not set out.
She has nothing more to give you.
And if you find her wanting, Ithaca has not deceived you.
Wise and experienced as you will have become,
you will already know the significance of Ithacas.¹³⁰

¹²⁸ SALK 1983, p.110.

¹²⁹ GOLOMB 1995, p.54.

¹³⁰ KAVAPHES, K.P. *Ta poiemata A'(1897-1918)*, Athens: Ikaros, 1995, pp.29-30. My translation.

When I set out to write this essay, I had clear in my mind the wish to understand the ontological and epistemological terrain on which my project exists and to prime its reception in the public realm. However, I did not have an outline to begin with, and admittedly not a timeline either.

Since the path ahead of me was nebulous, I took the first step by composing a block of text out of the pieces of knowledge that were most present to me there and then. I revised this block of text over and over again until I felt that it had settled well in my consciousness and had found its rightful expression in words. Only then did I proceed to the next block of text.

The elements of thought that had already reached a state of settled precision pointed towards new directions in which I could develop my discussion. New input originated either from the bibliography of books that I had already read, from my bank of knowledge compiled through years of intentional research or serendipitous encounters, or from sources I happened upon out of pure chance while writing.

The pertinence and import of knowledge enclosed in new sources was not always lucid *ab initio*, especially when I did not arrive to these through literary references. However, if I had a hunch that exploring a new sphere of thought would somehow contribute to my discussion, I followed this and delved into the material.

I amassed elements of new knowledge from different sources in an overwhelming pile which I read, reread, and reflected on, gradually sifting out the peripheral and keeping the most relevant parts. Sorting these contiguous yet divergent fragments of thought was more often than not bewildering. As I was compelled to take a stance while synthesizing them, I gradually found my own voice in their polyphony and I developed my own thoughts and conclusions.

And so it is through these successive episodes of gathering knowledge and settling it in blocks of interdependent thought, whereby the present added to the past and advanced it towards the future, that this essay progressed and evolved in unforeseeable ways so as to reach its current constitution and its present closure, which is by no means the conclusion of my mind's evolution.

