Essay

"Creative Anthropology" as a Unit for Knowing: Epistemic Object and Experimental System in Research-Creation "in" Clay

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Abstract: This essay takes advantage of the current context of superdiversity to define a form of hybrid heuristics between North American anthropology and research-creation "in" the arts. In an attempt to alleviate the epistemological disaster described by Gregory Bateson as the loss of the unity of the biosphere and humanity, I position myself within a nomothetic perspective of Boasian anthropology and a postqualitative approach to research-creation. My research-creation proposes clay as an epistemic object and develops a creative methodology in the form of an experimental system that borrows from the following two types of change observable in living organisms: static and schismatic changes. The artistic activities, presented as two heuristic cycles, seek to broaden the self-reflexivity inherent in the use of clay by human groups. They provoke decentring leading to a loss of control where a new identity has to be defined. This reveals itself in terms of system thinking as the reconstruction of a new reality that is defined neither entirely by my artistic practice nor entirely by my theoretical framework derived from anthropology. It is a "place of passage" between both. It is a new identity that can be defined by the "change of change" that I call "creative anthropology". This transdisciplinary approach introduces a "second glance" into anthropological research and opens up breaches through research-creation. It works to develop new narratives and test posthumanism in the field of my artistic practice.

Keywords: research-creation; Bateson; clay; creative anthropology; epistemic object; experimental system; transdisciplinary; postqualitative research; arts; superdiversity

1. Introduction

> "I surrender to the belief that my knowing is a small part of a wider integrated knowing that knits the entire biosphere or creation." [1] (p. 17)

In the introduction to Gregory Bateson's latest book, *A Sacred Unity: Further Steps to an Ecology of Mind*, Rodney E. Donaldson uses this paper's opening quotation in his preface to explain a belief held dear by Bateson: "Bateson firmly believed that we are parts of a living world and that our loss both of a sense of unity of biosphere and humanity and of the notion that that ultimate unity is aesthetic is a disastrous epistemological error", he wrote [1] (p. 13). In most environmental studies or research on living organisms, aesthetics, defined as the science of sensitive perception [2], appears sporadically, when it is not simply missing. Yet, it is an essential and integral component of the epistemology of recursive systems for Gregory Bateson [3]. For him, the "difference that makes a difference" is aesthetic, meaning that the difference that matters is defined by an individual's sensitive perception in a given cultural environment and that this difference is therefore culturally situated. It is quite natural to understand Bateson's interest in aesthetics if we are aware of the researcher's family background, which enabled him to develop a genuine passion for the work of William Blake [4]. But his interest in the sensory, in creation, and in art also led him to set himself up as a critic of certain aspects of the scientific approach.

For Bateson, scientific research is not self-sufficient. "In fact, Bateson urges scientists to abandon the "simple vision" to which they are accustomed (and on which they are therefore dependent), and to supplement it with a poetic approach to their object of study" [5] (p. 2). Scientific research requires a sensitive eye, a "second glance" that William Blake found to be so significant in unravelling the interconnection of the physical and spiritual realms. It is this additional perspective, integrated into the scientific process, that would make it possible to counter the single perspective of modern science and its mechanistic approach to living systems [3]. But what Bateson is criticizing is not technical or methodological interdisciplinarity, but rather the contribution of artistic sensitivity to the scientific apparatus and the transversality of approaches that would enable scientists to learn from the arts, and vice versa.

Today, our world is considerably more complex than it was in 1972 when Bateson published *Steps to an Ecology of Mind*. The notion of superdiversity, as defined by Steven Vertovec [6], can now be observed at every level of society. This diversification is constantly intensifying because of migratory flows, communication networks and the globalisation of cultural and commercial exchanges. In urban environments in particular, this growth in superdiversity has led to an increase in linguistic exchanges [7] and encouraged the emergence of micropopulations identified with entirely new aesthetic niches [8]. Some anthropologists have also shown that these aesthetic niches and new forms of shared communities can give rise to debates with the wider political community, especially if the latter is already a minority or in a fragile state [9]. Despite this, superdiverse contexts create a profusion of new opportunities for expression, which cannot ignore the remarkable diversification of artistic practices and, more recently, approaches to research-creation [10]. In line with Bateson's thinking, the fields of symbols, words and ideas are also benefiting from this intercultural effervescence. Artists inevitably draw inspiration from these super-diverse contexts, fostering the development of intercultural research and research-creation methodologies that transcend the boundaries of artistic disciplines. We are now encountering approaches to the transmission of the arts that make it possible to compensate for identity gaps among Indigenous populations by combining orality and accounts of practice [11]. Superdiverse contexts pave the way for creative research rooted in these "differences that make a difference", through culturally situated artistic explorations [12,13], with approaches to creation that encourage intercultural encounters [14–18], and through practices that take a critical look at a given culture [19]. Diversification in research and creation involves marginalised groups in the co-construction of the world of ideas [20,21], and this integrative diversification is only possible in the context of "[l]ate Modernity—the stage of Modernity in which the emergence of superdiversity is to be situated—[…] described as an era of hybridized, fragmented and polymorph identities" [22] (p. 2).

The subjectivity of creative research draws on the superdiversity of human identities by developing participatory and relational art projects that create spaces for dialogue and exchange in the context of growing socio-economic inequalities and population movements [23]. The current complexity and displacement of populations require tools such as systemic triangulation to theorise performative practices [24], demonstrating the adaptation of research-creation methodologies to the superdiversity of the cultural world. Methodological "bricolages" [25,26] or so-called "creative" methodologies [27] are more in tune with current artistic practices and have a positive influence on the methodological approaches of certain sciences [28]. The superdiversity observable in research-creation increases the potential for contamination between art and other disciplines, giving rise to an effervescent form of "disciplinary cannibalism" [29], which has already begun. "Over the past twenty years or so, the "disciplinary cannibalism" of art history and anthropology has produced convergences and fruitful research perspectives. It has become increasingly clear that aesthetic perspective and [anthropologic] exploration, far from being mutually exclusive, are now linked by a reciprocal involvement" [30] (p. 15).

This article takes advantage of this context of superdiversity in research-creation to develop new exploratory narratives and define the knowledge that results from interactions between North American anthropology and research-creation. The problem raised by Bateson, of the imperative of integrating a "second glance" into the scientific approach, remains a complex issue. Systems thinking emerges as an ideal tool for theorising the changes applicable to artistic practice, offering the possibility of unprecedented learning. Through two heuristic cycles, the research-creation presented here could exemplify the "unity" sought by Bateson. It is essential to emphasise that research-creation is rooted in artistic practices, from which intersections between the arts and sciences can emerge. From a holistic point of view, the knowledge produced cannot be reduced to one or the other of these fields. It is also imperative to maintain an analogy between the observable world of superdiversity and the realm of ideas. This analogy allows for the application of a system built on the model of observable changes in biology to suggest sensible forms of adaptation of the "mind".

To develop convergent and cross-disciplinary research, it is crucial not to look for what might be shared between the respective results of creative and scientific approaches because, at this level, they show significant opposition. Instead, we need to explore what they have in common in their research processes and situate them within definitions of anthropology and creative research that encourage this transdisciplinary openness. The points of convergence between these disciplines can be seen in the use of epistemic objects and in the construction of experimental systems [31]. However, these are not technological systems that are determined by their characteristics, nor are they obvious and available objects for everyday use. The epistemic objects and experimental systems in question are distinguished by their systemic configuration, which is deliberately precarious from the moment they are set up, and by a type of object with a certain intrinsic underdetermination [31]. The entanglement of theory and practice in the form of a system organised around an epistemic object makes it possible to identify correspondences between the territories of artistic practice and scientific research. My research-creation ventures into this entanglement to experiment with a transdisciplinary approach, revitalising anthropological research by integrating the poetic, the sensitive, and the imaginary, while simultaneously broadening the reflexivity of artistic practices centred on clay. It is essential to note that in this reflexive article, clay is consciously identified as the central material that integrates various ceramic practices and forms, while broader categories also manifest themselves in other human cultures [32].

The research-creation briefly outlined here proposes to make clay the central object of this epistemic investigation. It sets out to develop an experimental system emulating the following two types of change observable in living organisms: static change and schismatic change [33]. The modification of this system generates a new identity, to be defined in the context of the "change of change" [34] and the introduction of the researcher's creativity into anthropology. It is in today's complex and superdiverse context that the complementarity between the sensitive and the scientific can be explored. The conclusion of this article will seek to name and define the identity of this hybrid heuristic approach [31]. It is first necessary to situate this research within a succinct definition of anthropology that allows for flexibility and openness and to take a position on the place of artistic practice in this research-creation.

2. What Is the Anthropological Position?

For Bateson, only anthropology can operate a transdisciplinary arts–sciences entanglement [35]. To understand the researcher's point of view, it is necessary to situate the practice of anthropology in line with his holistic vision of the discipline and to look for correspondences with some current research in this field. For Bateson, positivist science lacks poetry: "If there had been no poets, there would have been no problems, because it is certain that the illiterate man of science of today would never have found them" [36] (p. 7). It is clear that his position on the subject fluctuated over the course of his career if we think of the frantic archiving he did in New Guinea or the application of theories from biology to the world of human culture [37]. He was nevertheless a fervent critic of Cartesian thought and quoted the Old Testament to blame his predecessors: "The fathers have eaten sour grapes, and the children's teeth are set on edge" [38] (Jeremiah 31: 29–34). Bateson was outspoken about the epistemic obstacles that the Cartesian approach had placed before us:

> "The schooling which we all come out of is quite monstrous. It goes back in fact to Locke and Newton and to Descartes and dualism. It is not an accident and it is a very curious juxtaposition that this same man around 1700, Descartes, created three of the major tools of our contemporary thinking. One: the split between mind and matter. Two: the Cartesian coordinates, the graph—you put time on the bottom and you make a variable. And, three: the cogito—'I think, therefore I am.' Those three things go together and have simply torn the concept of the universe in which we live into rags." [1] (p. 305)

The positivist sciences, in the contingencies of their historical development, have an advantage in producing specialists. Recent history has enshrined true knowledge as the result of the Cartesian approach, and this has discarded the traditional partnerships between the physical world and the spiritual world, or between observed facts and constructed fables. These propositions of Cartesian philosophy defined that the default inquiry would be that of the scientific approach [39]. "For those of us who have been educated in the values of a society in which the authority of scientific knowledge reigns unchallenged, the division of reality into two mutually exclusive realms, that of fact and that of fable, is so ingrained that it has become self-evident" [39] (p. 453). This also coloured, not to say constrained, the historical developments of anthropological research in the first half of the twentieth century. For those trained (as I am) in the tradition of North American anthropology, specialisation in one of the four subdivisions is compulsory and necessary for acquiring the "right" research method. It is not my intention to examine the methodology of the Boasian school, as this has already been amply performed by other more "specialist" authors, and we can find in the literature opinions "talked out of both sides of the mouth". On the one hand, the holistic vision of the Boasian system is defended by showing that Boas himself was more interested in the systems that define objects in their cultural contexts than in the collection of sporadic data [40]. On the other hand, the Boasian system has also been described as an atomistic approach that neglects the historicity of human cultures by using ethnographic description in the manner of a Linnaean natural history [41].

It is still important to mention that what has been criticized about the divisional tree proposed by Boas has raised a long-standing opposition between two modes of research as follows: the idiographic mode refers to the study of particular cases and the collection of data; the nomothetic mode refers to objects and methods used to establish general or universal laws, as represented by constant relationships between the phenomena observed. The idiographic mode naturally corresponds to the field methods of ethnography (widely employed by Boasian anthropology), whereas the nomothetic mode corresponds to anthropology whose reflexivity is at a level of abstraction similar to that of philosophy. The nomothetic mode is certainly closer to Bateson's definition of anthropology when he evoked the possibilities of collaboration between the arts and sciences. Anthropology is at a higher level of abstraction than the ethnographic method. This level of abstraction operates at

the philosophical level to produce meaning from the data collected. It is also at this level of abstraction that creative research is situated, in which the data are constructed through artistic practice. In anthropology, as in creative research, "[t]he theoretician operating in a nomothetic mode imagines a world that is, by its nature, particulate" [39] (p. 418) and seeks new ways of inhabiting it.

This degree of abstraction was already apparent in the mid-twentieth century in the structuralist–functionalism of Alfred Radcliffe-Brown [42], which displaced the absolute functionalism of Malinowski [43] to human society and its institutions, understood as a whole that is greater than the sum of its parts and capable of self-organisation and self-reproduction. Radcliffe-Brown's successor, Edward Evan Evans-Pritchard, opposed the positivism that sought to make anthropology a "natural science", seeing it as a comprehensive rather than explanatory science. For him and his colleague Eva Gillies, anthropology studies societies as moral systems and thus seeks arguments rather than specific laws. It is interesting to note that during field studies among the Azande populations of Central Africa, their research highlighted the fact that logical and spiritual (magical/sensitive) registers coexist in the conception of the reality of these human groups [44]. Thus, over the last century, several anthropological practices, oscillating to varying degrees between the empirical method and philosophical anthropology, have observed the inseparability of facts and fables in human cultural constructs. This can be seen in the mythical thinking mapped out by Lévi-Strauss [45–47] because art and myth, being both "languages" and sensitive views of a particular world, maintain close links to express the unity of human phenomena [48,49].

A nomothetic approach to anthropology needs to be separated from the ethnographic method because "[…] through its conflation with ethnography, anthropology has become an interrogation of its own ways of working" [39] (p. 445). This break with data collection should, however, allow for a reflexivity that includes the poetic and the sensitive and that lingers on working within phenomena, with people, or with materials (in the case of a material art practice). Data are constructed when the researcher is active and takes part in the world. Research then becomes a participatory activity that enables comparisons to be made between different sensibilities, between different perceptions of reality. "To do anthropology, I venture, is to dream like an *Ojibwa*. As in a dream, it is continually to open up the world, rather than to seek closure. The endeavour is essentially comparative, but what it compares are not bounded objects or entities but ways of being" [50] (p. 84).

A constant "opening up" of the world is certainly less possible in an arborescent system that produces specialists than in a philosophical abstraction that includes poetic and sensitive perceptions. The division into subdivisions obviously has several advantages, the main one being that it facilitates interdisciplinarity. But I fear that the hyperspecialisation of researchers will produce a degree of disciplinary hermeticism. Indeed, interdisciplinarity between the subdivisions of Boasian anthropology has practically never taken place. In any case, it has been very rare in the last century, since "[o]f the 3264 articles in American Anthropologist (AA) from 1899 to 1998, only perhaps 311 substantially draw on more than one anthropological sub-field in the analysis of their data. That is to say, over a 100-year period, only 9.5 percent of the articles in AA bring the discipline's subfields together in significant ways" [51] (p. 463).

A holistic approach to practice requires us to cross the boundaries of Boasian subdivisions and encourage interdisciplinarity or, even better, transdisciplinarity. "Interdisciplinarity is about transferring methods from one discipline to another. It transcends disciplines, but its purpose also remains rooted in disciplinary research. Transdisciplinarity, on the other hand, as the prefix "trans" indicates, is concerned with what is simultaneously between disciplines, across disciplines and beyond any discipline. Its purpose is to understand the present world, one of the imperatives of which is the unity of knowledge" [52] (p. 27). The unity of knowledge (to recall the unity sought by Bateson) requires that the authority of knowledge is not solely that of the scientific approach. We need to move from the observation of an object to a subject participating in research and from participatory

observation to participatory practice because it is through the knowing subject who experiences research that the various levels of reality, observed through transdisciplinarity, can be incorporated. "The unity linking all the levels of Reality, if it exists, must necessarily be an open unity" [52] (p. 32). An open unit corresponds to the complex systems observable in living organisms. We therefore need to find a way to bridge the gap between creation and anthropology by redefining research as a responsibility for the living [53]. Research as correspondence with the living is a form of experience, and it is through experience that things mingle with us, with our thoughts, our dreams, and our imagination [54].

In the quotation at the beginning of this article, Bateson emphasises "his knowledge". Being himself involved in the search for knowledge between the empirical and the nomothetic. The researcher positions himself within his object of study, participates in it, and includes his own reflexivity in the experiential data. Research from within that does not neglect the imaginary or the poetic is something quite rare in an idiographic approach, but it is a frequent, even obligatory, position in research-creation.

3. What Research-Creation?

In the case of an entanglement of art and anthropology in the field of artistic practice, art (in this article, all definitions of art are valid) as defined by research-creation approaches cannot find complementarity in an idiographic approach to anthropology. To paraphrase Tim Ingold, an art that is meant to be speculative and experimental, that explores the possibilities of being (and becoming) in comparisons and in open conversations, cannot satisfy the standards of precision and descriptive depth of detail demanded by ethnographic enquiry [55]. According to Ingold, artistic practices that can be confused with an anthropological approach as defined above must meet certain criteria. Art perceived as anthropological does not elevate itself above others or impose itself as a supreme truth; it pays attention to the world rather than imposing its primary intentions; it is critical, but it does not abandon itself to criticism; it is curious and allows knowledge to emerge from within (in order to take part in life); it conceives without being conceptual; it raises questions, without proposing answers; and its practice is closer to the spectrum of material practices (crafts, decorative arts, studio arts, design, etc.) [53,55].

Research-creation is a dynamic approach that integrates theoretical reflection and artistic practice in a continuous process of exploration and discovery. Research and creation remain inseparable, but the links between research and artistic practice can take different forms. According to Borgdorff [56], artistic practice and research can be differentially entangled in the following three ways: research "on" the arts, where the object of research is artistic practice (art history, art anthropology, etc.); research "for" the arts, where art is not only the object of research but also its objective (technical development, new aesthetic territory, etc.); research "in" the arts, where artistic practice is the means of research (inseparability of subject and object of research, theory–practice tangle, embodied knowledge is articulated in the creative process and in the artistic results). The research-creation presented at the end of this article falls into the third category. Artistic practice is a means of producing transversal and recursive knowledge between the Boasian subdivisions through the contribution of the researcher's sensitive experience.

We need to explain the researcher's position in this research-creation. The first heuristic cycle that makes up the experimental system presented here proposes a decentring of the subject towards artistic practice, based on a performative approach to the objects, codes, and vocabulary specific to clay practices. Performative research is research in which creation is mobilised, on the one hand, to overcome the expressive limitations of qualitative methodologies when it comes to studying phenomena of the "sensitive" order, and the limitations of academic language in giving an account of them, and, on the other hand, to allow the person performing the research to include their subjectivity, to realise themselves, and even to transform themselves [57]. The performative approach makes it possible to relegate objects to the background and consider creative processes, contexts, and activities as key. Performative research instrumentalizes artistic creation as a complement to qualita-

tive research in which the researcher remains in the foreground, running the risk of being confined to an anthropocentric reading of creative activities:

> "When the stable, rational and coherent subject is the focus of attention, the objects become secondary. Only the objects perceived and experienced by the subjects are secondary. recognised as important. This anthropocentric approach has the subject, the being human experience, as an indisputable starting point, making human experience the fundamental condition for research." [58] (p. 450)

This is what the second heuristic cycle attempts to achieve, by proposing research that is not focused on the human being, in order to "create research in a different way" [57]. This decentring is necessary to develop artistic activities that operate within the subdivision of anthropology concerned with the biological and the comparative, i.e., comparative primatology. This part of research-creation is positioned as a post-qualitative approach, blurring the boundary between the person carrying out the research and the data. There is an entanglement, and the data are fabricated rather than collected. The post-qualitative approach challenges performative research, but it is much closer to system thinking. It abandons the modernist ideal of simplicity and reductionist methods to apprehend the world in all its complexity. Post-qualitative research appears to be the approach that makes it possible to introduce creativity into the social sciences through the construction of innovative models, the fabrication of data and their potential agency [59], and by borrowing from performative research:

> "If the world is complex and disorderly, we will at least sometimes have to renounce simplicity. But one thing is certain: if we want to think about the messiness of reality, we will have to learn to think, to practise, to relate and to know in new ways. We will have to learn to know certain realities of the world using methods that are unusual or unknown in the social sciences." [60] (p. 3)

The post-qualitative approach makes extensive use of writing to research and extract data (accounts of practice have been produced following the artistic experiments presented here; this article does not repeat the exercise of introspection and explicitation [61] but briefly presents the reflective avenues that have emerged). Writing in the first person "moves away from conventional academic language, to incorporate the feelings and affects accompanying the key moments in the research-creation process" [57] (p. 7). This is a way of bringing out the diffractions between the phenomena observed and the researcher's perceptions, aiming to "liberate reflexivity from postpositivist and realist demands in terms of the validity or fidelity of research, contributing to a non-reductive, diffractive and transformative understanding of knowledge" [62] (p. 3). The post-qualitative approach positions itself in a "beyond" qualitative method and opens up new avenues of research.

> "The knowledge that they have to develop must be: constructed; unfinished; plausible, appropriate and contingent; oriented by ends; dependent on the actions and experiences made by the knowing subjects; structured by the knowledge process while also structuring it; forged in and through the interaction of the knowing subject with the world." [63] (p. 7)

My research-creation is based on these epistemological and methodological positions in order to propose a form of research in the anthropology of the arts, the aims of which are "to go beyond current knowledge, to reject a dominant interpretation that no longer contributes anything, apart from glosses incessant and infinite" [63] (p. 17). The use of constructed knowledge can make "that the aim of the research will be to resolve, in innovative terms, a new concrete problem posed by the evolution of the social world" [63] (p. 17), referring here to the problem of the loss of the sense of aesthetic unity evoked by Bateson. Knowledge becomes a product co-constructed by the creative process, by its results, and by changes in the system because "truth is to be made, not discovered" [64] (p. 84). In this sense, the use of epistemic objects and an experimental system enable the articulation and co-construction of cross-disciplinary knowledge. They leave a great deal

of room for the researcher's inventiveness and incorporate the recursive nature of knowledge, leading the experimental system to self-organise, self-reproduce, and offer new learning opportunities.

> "The first results obtained give ideas for other questions and other observations to be made in the field of study, this new collection of data opens up new results, which lead to new investigations... We rediscover the fundamental ideas of knowledge that inform the means of its ongoing improvement." [63] (p. 26)

4. Epistemic Object: Mind and Clay in Co-Construction

In light of the research carried out by Hans-Jörg Rheinberger [65], it appears that an epistemic object marks a kind of tension towards the solution of a problem beyond the reach of current understanding, which lies on the horizon of a domain of knowledge. Drawing a trajectory of hypotheses, epistemic objects are at the same time historically rooted in known data and practices. In other words, they guide successive conceptualisations and experimentation, enabling the orientation of knowledge that will be identified later [65,66]. It is now important "to no longer separate the formation of concepts and theories from the flow of experimentation" [31] (p. 237) and epistemic objects appear, not as research results, but rather "as the driving forces, as the germinating powers of the research process" [31] (p. 240).

The impressive amount of data uncovered by anthropology over the last century has highlighted an increasing diversity of uses for clay in human cultures. The distribution of practices goes back to the Upper Palaeolithic (according to archaeological evidence) and the ubiquity of the material throughout the inhabited world (with the exception of the Arctic and sub-Arctic zones) means that clay can be proposed as an invariant of human cultures. As an epistemic object, clay is therefore "historically rooted" in the "data" observed by anthropology and in the "known practices" of crafts and ceramic art. It is a material that has played a vital role in the development of architecture, the processing and preservation of food, the manufacture of alcoholic beverages, the development of the first forms of writing on clay tablets, the improvement in sanitary conditions, the irrigation of agricultural land, funerary rites, artistic productions, the development of symbolic thought, and in the advances of modern science right up to the developments of ceramic engineering today [67].

Although the presence of clay in human societies is extremely diverse in time and space, the fact remains that it is the physical and spiritual relationships of the human body and its representation by the material that make it possible to propose its epistemic use. These relationships appear as much in distant times, in the construction of founding narratives throughout the world, as in current research into cognitive archaeology. The unity between humanity and the biosphere could be glimpsed by following the trail of representations of the body in Upper Palaeolithic ceramic figurines, or by the metaphors with living organisms applied to ceramic objects or combustion structures by certain human cultures. Also, the terms used by craftsmen and archaeologists in describing traditional pottery forms, referring to parts of the human body and the use of clay to test the concept of material agentivity by cognitive archaeology [68,69], led me to consider clay as the ideal tool for blurring the boundaries between the human mind (as considered in the Cartesian philosophical tradition) and its material engagement. The perspective of the theory of material engagement makes it possible to study the co-construction of humans and "things", proposing a theory of mind analogous to Bateson's ambition. "A distinctive feature of [this theory] lies in its conviction that minds and things are continuous and inter-definable processes rather than isolated and independent entities" [70] (p. 13). This theory offers us part of the answer as to the distribution of the "human mind" in the ceramic evidence and in the uses of clay.

"There is no deficiency of higher intelligence in pottery making. Quite the contrary, pottery making, like the rest of human arts and crafts, bring forth, enact, and re-create precisely the form of intelligence that drives human cognitive evolution. It is not the movement of clay that is lacking creative consciousness, memory, or imagination. It is we, as modern observers that often lack the ability or the appropriate methodologies to follow that movement and to understand the cognitive life it entails. If we cannot see the mind in clay, it is because of our deeply entrenched assumptions about the location and ontology of mind stuff." [70] (p. 12)

By passing the Cartesian assumption of a mind locked in a skull and considering clay as a mirror in which cognition is distributed, we need to look at a few links that might evoke the co-construction of human societies and the working of clay. In the field of archaeology, but also in that of craftsmanship, the fact that the parts of a vase are defined by terminology analogous to the human body (mouth, lip, neck, shoulder, body, foot, as seen in Figure 1 below) is not insignificant and allows us to consider an ancient link between the manipulation of clay, ceramic artefacts, and the representation of the body.
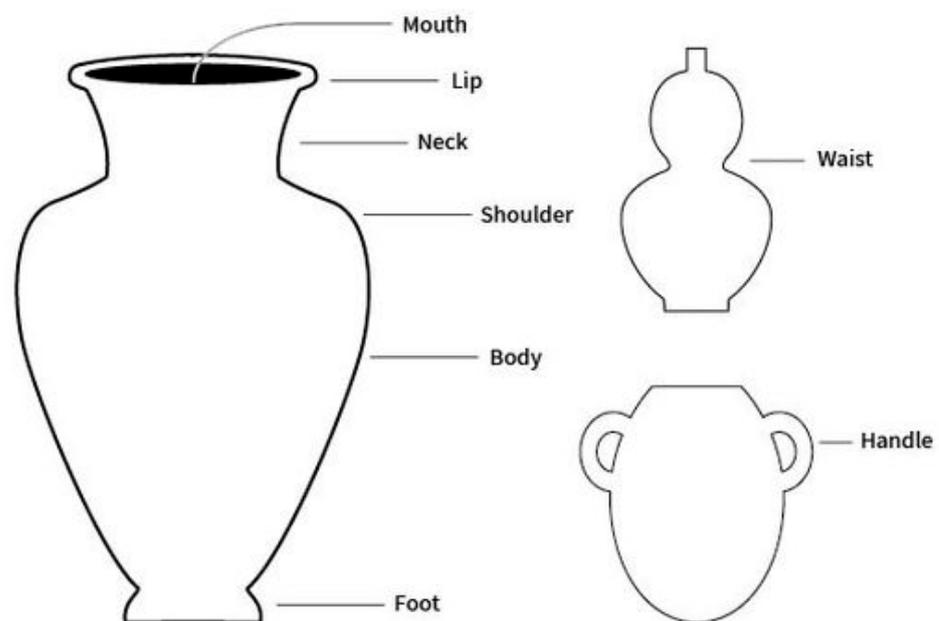

Figure 1. Example of the anatomy of a clay vessel.

This metaphor between the parts of the human body and the parts of a vase is an old one. Several examples can be found in the descriptions of pottery shapes by archaeologists or craftsmen, see also [71] (Figure 5, p. 397). It can also be seen in the utensils needed for the tea ceremony in Japan (chanoyu 茶の湯, or sadō 茶道, or even chadō 茶道 for "way of tea"). These objects are considered living organisms when they are "born" out of the kiln. From the perspective of a tea bowl as a living organism, it is appropriate to consider firing defects as being personality or character traits. The practice of kintsugi [72,73] is also important in this respect, as gluing a broken object back together and decorating the fracture lines with gold dust imbues it with a tragic beauty, highlighting the accidental nature of its journey as "a formative life experience". In the samurai tradition, it is also mentioned that the human spirit (mind) is constantly floating and seeks objects to land on; ceramic objects are a place of attachment or rest for the samurai spirit (which is not enclosed in the skull) [74]. Moreover, the object that is analogous to human bodies, living organisms or the "mind" is not a separable result of its manufacturing process or its "embryogenesis". The traces of the firing process are aesthetic elements that can be spotted on the object, and each has a particular name [75]. These aesthetic qualifiers make it possible to reconstruct

the lost process of anagama firing, used in the production of tea ceremony utensils and also to describe the process of firing of this type of kiln, presented as analogous to the digestive system of the human body [76].

The body analogies observable in the parts of a ceramic object or in the manufacturing process demonstrate a close and ancient link between clay and the human organism. Clay is found in many of the world's founding myths. For example, the Bible explains that God made man (and woman) in his own image from the dust of the ground ("red earth" from the Hebrew *adamah*); Jewish folklore describes the *golem* as an anthropomorphic being generally created from mud or clay; in Sumerian mythology, the gods *Enki* or *Enlil* create humans from clay and blood; in Egyptian mythology, the god *Khnum* creates human children from clay; in the epic of *Gilgamesh*, *Enkidu* is created by the goddess *Aruru* from clay to be *Gilgamesh*'s partner; *Yoruba* culture maintains that the god *Obatala* created mankind from clay; the *Maori* people believe that *Tāne Mahuta*, god of the forest, created the first woman from clay; in the Korean story *Seng-gut*, humans are created from red clay; and so on.

Many of these stories evoke the making of humanity or its representation through the material of clay. Human representations in the form of figurines are also the oldest ceramic artefacts discovered by archaeologists. The oldest ceramic known to date is the *Dolni Vestonice* Venus (see Figure 2 below), found in Moravia in the Czech Republic (for further information about this Venus, see [77]).

Figure 2. *Cont.*

Figure 2. Venus from *Dolni Vestonice*, 29,000 to 22,000 years BP. Source: Petr Novák, Wikipedia.

The ceramic remains at the *Dolni Vestonice* site in the Czech Republic offer an important insight into the knowledge held and passed on by humans from one generation to the next. Most of the ceramic artefacts found on the site (over 10,000) "and the existence of kilns argues that the relevant cultural practices over time involved repetition and both transmission and learning of a specific, patterned behavior of ceramic technology" [78] (p. 1007). The fractures observed on the artefacts seem to have been intentionally produced by the thermal shock of the loess and strongly suggest that the interest of these human groups was not in the objects produced but rather in the processes of making and firing the clay figurines. These processual experiments from the Upper Palaeolithic and the discovery of built combustion structures suggest that clay working was probably more widespread at this time than is known from archaeological evidence. Combustion structures "located a considerable distance upslope from the settlement area, suggests that activities involving figurines were carried out by only a small number of people. The separation of the locus of this behavior, away from yet near the settlement, may imply the special and nonutilitarian nature of this behavior as well as the control of this behavior by just some individuals in the community" [78] (p. 1008). For more details on the firing structures excavated in 1951 and in 1979 at Dolni Vestonice, the horseshoe-shaped kiln, and the pitched-vault kiln (which contains 2300 ceramic fragments), see also [78] (Figure 7, p. 1007). The fact that, in the Upper Palaeolithic, clay and ceramic technology appear in archaeological contexts attributable to non-utilitarian specialised behaviour representing human (female) bodies, and that the firing process seems to have been the central interest of these activities, testifies to an early spiritual and symbolic relationship between human groups and ceramic technology.

What is also surprising is the fact that these artefacts are non-utilitarian and that they predate by around 8000 years the first utilitarian ceramics discovered in southern China [79]. Anthropomorphic representations in ceramics were extremely diverse until the European Neolithic period [80], and they could be considered as transitional, with utilitarian forms containing either reminiscences of anthropomorphic parts or stylistic decorations with an identity character [81]. This is also what archaeology points out when it uses ceramic decoration as a cultural identifier. The discipline considers that the diversity of ceramic decorations bears witness to the diversity of ancient human cultures (e.g., the Neolithic Rubane culture in Central Europe, which owes its name to the ribbons that frequently decorated its pottery).

It is these analogies between objects, firing structures, and living organisms that make clay an ideal reflexive material and an object of knowledge that may enable us to rediscover "the lost unity between the biosphere and humanity". At the very least, the material offers rich avenues for reflection, as its resistance to the passage of time demonstrates its longstanding implications in the development of human societies. It appears to be a mirror of the human mind, also incorporating a co-construction of scientific thought through its interpretations of ceramic evidence.

By producing reflections on human cultures and their relationship with their environment, and by representing the human body symbolically or physically, the material intuitively appears to me to be self-reflexive. This self-reflexivity of the ceramic medium has been central to the definition of ceramic art since the mid-twentieth century. Artists who used clay for artistic rather than craft purposes were quick to realise that ceramics was a medium in its own right and that a ceramic art practice had to draw on its own history, contexts, processes, and codes. Several examples of contemporary practice work in this direction, and the reflexivity of ceramics has become the conceptual and theoretical framework for artistic practice. This reflexivity should be extended to the production processes and contexts of ceramic practice.

My artistic practice and the research-creation presented here are also based on references to ceramics, and in the long term, observed through artefacts and in the variety of cultural approaches documented by anthropology. It is worth mentioning that the oppositions internal to the medium (clay/ceramic, raw/fired, craft/art, utilitarian/decorative, solid/liquid, material/immaterial, individual/collective, perennial/temporary, contemporary/ancient, object/subject, individual/environment, etc.) are self-reflexive driving forces that build structures, suggest function, and stimulate the evolution of my experimental system. The aesthetic oppositions and self-reflexivity seen in the clay practices produce movement between iterations, developing a knowledge that will have to be defined later.

5. Experimental System: Static and Schismatic Changes Applied to Research-Creation "in" Clay

The use of question-generating material oppositions, together with intuitions derived from the field of ceramics (the analogies between the body and clay, or the self-reflexivity observed in modern and contemporary artistic practices) form the basis for the construction of an experimental system based on assemblages of so-called "loose" concepts [63]. These concepts remain precarious, and this precariousness is important because it allows for these "assemblages" to be disintegrated in new iterations of the system, constantly proposing new research procedures [31]. New problems arise with each new solution, and the system thus produces differential iterations. This is what Gaston Bachelard was referring to when he wrote about "knowledge in progression", emphasising a process of mutual instruction between procedure and object [82]. This reciprocity between object and procedure (or method) requires a solidarity that produces a reification. The object is then capable of transforming the method, and, in this case, the concepts and theories that emerge from the iterations of the system cannot be separated from the flow of experimentation [31]. My experimental system has two iterations that emulate the following types of changes observable in living organisms: static changes that occur within the sys-

tem and schismatic changes, which affect and modify the system itself [33]. The theory of change [34], which allows the system to self-reproduce and suggest new ways of learning, has been instrumentalized after the artistic experiments. It is in the flow of these experiments that the changes made to the "loose" concepts observed in praxis enable new analogies to be sought. The knowledge built up by experimentation in the non-human world is fed back into the human world, and this feedback makes it possible to delimit a new territory; a hybrid heuristic makes it possible to reflect on the unity of the "mind" and the environment and to work from their co-construction in the production of new artistic experiments, because the system becomes the means of its permanent learning.

5.1. Static Changes: The More Things Change, the More They Stay the Same!

I start from the intuition that current practices seem to rely on the codes of the medium to position themselves autonomously in the fields of art (its vocabulary, materiality, history, etc.). This self-reflexivity seems to define a conceptual territory specific to ceramic practices, preventing them from "[…] lowering ceramics from an art (an intellectual approach) to a mere material and physical practice" [83] (p. 48). These oppositions between art and craft or between concept and material seemed to me to be important, but also restrictive, because they focus on the object as the result of praxis. What we observe in terms of human behaviour over time does not seem to focus solely on objects, but above all on the processes and contexts in which matter is transformed. What is more, archaeology and anthropology see objects as revealing contexts and behaviours that have disappeared, so they are not the reflexive outcomes, but rather the beginnings. I felt it necessary to propose a decentring by extending the notion of self-reflexivity to the processes and contexts of production. Attempting to do this means moving away from traditional forms of ceramic creation to include performativity and the contexts of praxis. As author and collaborator Paul Kawczak said to me at the start of my cycle of experiment "How far can you move away from it and still talk about it [ceramics]?". This remark sparked my interest in searching anthropological documents for information that would enable me to relate contexts and processes to objects in a self-reflexive way. The creative project lasted just under two months, and an experiential book was published as a reflexive report [84].

The reflections were built up from the media archives resulting from the praxis. The creative activities have been extremely rich and diverse but have not led to any profound changes in my artistic practice. They have remained within the aesthetic questioning specific to the world of ceramics and interdisciplinary research within the arts. It was the transdisciplinary reflections with the author Paul Kawczak and the archaeologist Manek Kolhatkar that destabilised the system. As Kolhatkar wrote, quoting Bateson [85] "[…] it takes two eyes to be able to reproduce an impression of depth, and it is by joining two durations that we will attempt to bring out something else, to proceed with a double description of real" [84] (p. 41). The impression of depth can be restored using a macro-concept as a coherent amalgam [65] that oversees and encompasses all the archives indiscriminately and links the artefacts to the contexts and processes of production. The macro-concept of "behavioural artefact" [86,87] is then borrowed from behavioural archaeology [88] and enables internal changes to my system. It includes objects, gestures, traces, sounds, actions, handwritten notes, and instruction lists in a metacategory called "artefact". Following these activities of indifferentiation, the artefacts underline a permanence (service responsible for ensuring the uninterrupted functioning of an organism) and solutions giving them meaning can easily be envisaged from the theoretical framework of archaeology.

The coherent amalgam of "behavioural artefacts" reorganises and expands what can be considered ceramic reflexivity by undistinguishing the objects produced from the contexts or performativity associated with working with clay, but it resists the shock and remains a solution that makes sense within material production. These changes produce movement by proposing a larger category, but they are insufficient to bring about a real transformation in my practice that would define this "place of passage" between creation and anthropology. In order to mutate, the system requires a real imbalance, which seemed

possible to me if analogies are sought in the "behavioural" part of the macro-concept. Behaviours analogous to those archived in this first heuristic cycle can easily be perceived in the ceramic traditions of other human groups. I was initially interested in the craft traditions recorded by ethnography and reinforced by archaeological evidence in human groups that are both present and dispersed over time. The archetypes of craft pottery and the chain of operations involved in its transformation can certainly allow for increased self-reflexivity. This led me to experiment with other subdivisions of Boasian anthropology, namely, ethnology and ethnolinguistics.

Several of these experiments were carried out (they will not be unfolded here), but once again, they remained rooted in a performative approach to my research-creation, and this placed the actor-human at the centre of the activities. But does anthropology exist without anthropos? And research-creation? How do you keep to self-reflexive experiments while avoiding anthropocentrism? We needed to look not at organisms of a completely different nature, but at living things with which we share certain characteristics. Since primates are phylogenetically related to humans, they differ in degree, but not in kind. Comparative primatology is, therefore, a Boasian subdivision that is rarely related to archaeology or ethnology, and even less to creative research.

5.2. Schismatic Changes: Decentring to the Point of Losing Control!

Schismatic changes led to transformations in the rules that govern my practice. This was brought about by external input and a sudden change in context brought about by the primatoscopy-01 project (the project is still active, primatoscopy-02 is due to start in 2024). This project was developed in four distinct phases, each adjusting its protocol according to the constraints encountered in the phase that preceded it. Primatoscopy-01 is a long research cycle involving activities with clay with the following two species of primates in captivity: Japanese macaques (*macaca fuscata*) and gelada baboons (*theropithecus gelada*). For reasons of accessibility to the enclosures and because of their highly hierarchical social organisation, the *Gelada* baboons had to be removed from the experiment after the first phase. And that was not the least of my worries.

The experiments began systematically (see Figure 3 below): blocks of clay of equivalent size and weight were placed in the enclosures at equal distances from each other and at an equal distance from any furniture or devices required for captivity. The aim of this initial arrangement was to delimit certain characteristics of the non-human primates (physical strength, hierarchization, prehension, movement, etc.) and also to maximise the relationship between individuals and clay. This first phase was decisive, but also disappointing, as it completely reoriented my expectations. As Japanese macaques are usually carriers of the herpes B virus (*Herpesvirus simiae*), it was difficult for me to have access to the artefacts left after their handling of the clay. The protocol prevented me from intervening in the enclosures after their passage and obliged me to isolate the clay fragments recovered until they had been fired. What is more, as the conditions in captivity could not be recorded, it was impossible for me to film the primates in my absence and observe their behaviour. I had to work with the residues I saw in the enclosures and try to make sense of these behavioural artefacts. The results immediately seemed disastrous; the clay was scattered throughout the food and excrement; there were few traces imprinted in the clay; there was little handling of the blocks; and the primates seemed disturbed by these material "intrusions" into their enclosure.
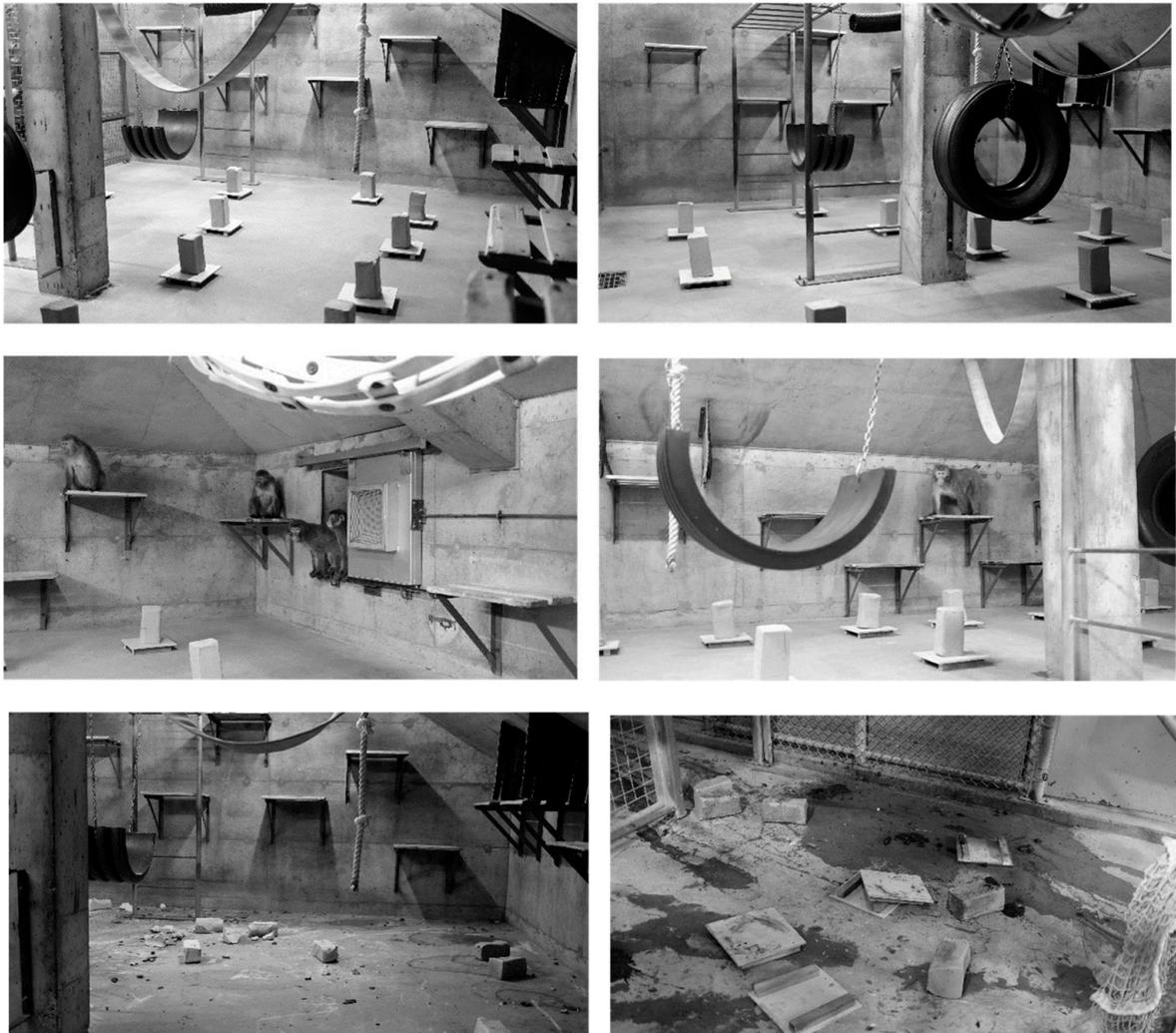
Figure 3. Japanese macaque enclosure at the start of phase 1. Photos: Patrick Moisan.

Subsequent phases varied the shapes displayed in the enclosures to encourage the primates to handle the clay. Traditional pottery wheel shapes were used to contain the food and encourage the primates to manipulate the objects (see Figure 4 below). It was not until the end of phase 02 that I realised that their activities are divided according to the functions of the enclosures; primates in captivity do not play where they eat. From then on, I was able to arrange the clay forms in such a way as to obtain artefacts (mainly torn forms, fragments, and residues). Fortunately, I was archiving the results of each phase, and an invariable pattern was emerging through them: the clay was drying rapidly through the ventilation of the enclosures, and the primates were fragmenting the clay once it was dry. This was visible in the shape of the fractures that could be seen on the fragments and in the marks left on the ground; the macaques seemed more interested in using the fragments of dried clay to trace the ground than in handling the raw clay. I was familiar with these behaviours, having observed them in primates in the wild when they break stones to lick off the salt. These gestures seemed to me to be culturally constructed behaviours [89]. I could make them happen in this context and reflect on them through the materiality of clay.

Figure 4. Handling traditional clay forms. Phases 02 to 04. Photos: Yanik Potvin.

This aroused my interest in archives showing the use of dried fragments to draw lines on the ground. At all stages of the project, the macaques were tracing the ground using clay as if it were chalk (see Figure 5 below). These multitudes of tangled lines were astonishing because they were constant and repetitive. They seemed to be the main interest suggested by the materiality of the clay. As a "good archaeologist", I was able to divide the lines into two meta-categories: transport lines (linear, isolated, and intersecting) and relentless lines (localised, circular superimposed, and demonstrating a back-and-forth gesture).
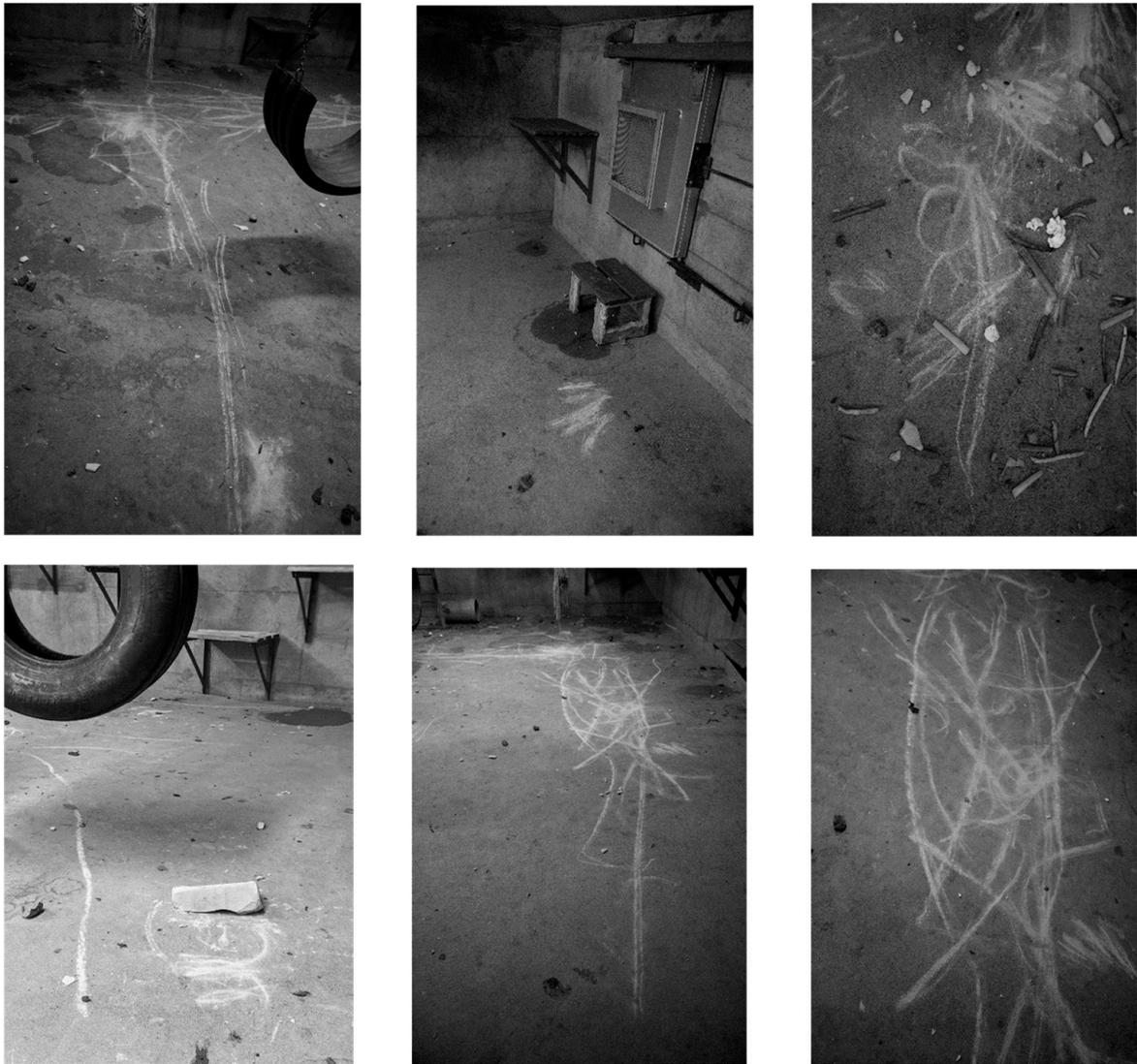
Figure 5. Examples of lines produced by Japanese macaques, phases 01 to 04. Photos: Yanik Potvin.

The relentlessness lines have become comparative tools. I compared them with lines produced by chimpanzees (*pan troglodytes*). Several examples of pictorial creation with non-human primates have been carried out over the last century. The chimpanzee named "Congo" has produced artefacts with paint, as well as a series of experimental drawings [90]. The comparative interest of the experimental drawings produced by Congo lies not in their definition as "works of art", but rather in the repetition of lines, their superimposition, and in the transposition of the results to the specific world of these primates. The mistake has always been to attempt to observe creative possibilities in non-human primates and to compare them with the drawings of human children, with the signs observed in the human world using a semiotic approach [91], or to reflect on them in comparison with the artistic artefacts of the human art world. For me, the interest does not lie in knowing whether other species can produce "art" according to the characteristics that define this institution at a given moment in its history. It is more a question of trying to compare the lines produced by non-human primates with their environment and to reflect on the co-construction of these lines with what they perceive, recognise, and express. To this end, I had to think similar to a macaque, if I can put it that way, put myself in their shoes, and not bring the observations back to the human world, not just yet. Through these comparisons, the lines quickly evoked a "natural" environment, as perceived and constructed in primate cognition. This inspired me enormously because, in a bid to avoid the anthropocentrism

central to the performative approach to static change in my research-creation, I thought I had found a way to observe constructed behaviour in a species phylogenetically related to our own. These intuitions were only made possible by the knowledge and observations surrounding clay and its changes in state. It was through clay that primates expressed this co-construction of their culture and their environment. A co-construction that I had glimpsed in their choice of activities according to the divisions of their inner enclosure.

I also compared the lines drawn on the ground by macaques with the lines produced by primatologists in their perceptions of great ape nesting. A study by primatologist Izawa Kohsei, trained at Kyoto University by the founder of Japanese primatology Junichiro Itani (1926–2001), shows schematic representations of six chimpanzee nests [92,93]. These diagrams evoke superimposed, intertwined lines representing the trees used in nesting activities by these primates. These recordings, schematised by the primatologists, and the lines produced with dried clay by the Japanese macaques, make an important schematic link in this cycle of research: the observation and recording of elements of the natural environment ("natural" in contrast to a captive environment) of certain primates by primatologists evokes the lines produced by the primates themselves in their state of captivity. Obviously, this hypothesis will need to be further explored and repeated in greater depth as I continue my research-creation, by obtaining more empirical data for comparison. Already, inspiring leads, shared between human and non-human primates, appear in the formation of certain parts of primate family brains, and the possibility of a co-construction between mind and perceived environment has been highlighted by cognitive archaeology [94] and also in literary works. It is interesting to note that the brains of the primate family contain two fusiform gyri under the occipital lobes. These gyri function in a mirror image, with one gyrus recognising the lines of the environment (horizon line, trees, etc.), while the other gyrus applies this line recognition to the faces of the individuals around it that make up its group [95,96]. This intuition would need to be explored in greater depth, but it does allow us to glimpse, through the field of my artistic practice, at the links between the "mind" and the environment. It was the writings of Anne Michaels [97] that brought my observation back to the specifically human world, demonstrating another use of lines as a co-construction of culture and environment. A poetic, sensitive, and symbolic lead was found in the comparison between the lines of macaques and the manufacture of the pigments used in the parietal drawings in the Lascaux and Chauvet caves. To paraphrase Michaels, the black pigment used to paint the animals at Lascaux was made from manganese dioxide and quartz, and almost half of the mixture was calcium phosphate. Calcium phosphate is produced by heating bone to four hundred degrees Celsius and then grinding it. We made our paintings from the bones of the animals we were painting.

6. Opening Breaches: Creative Anthropology's Hybrid Heuristics

Several reflexive avenues arising from these heuristic cycles enabled my system to generate new problems, in a recursive manner. Although they have very succinctly unfolded (see: https://yanikpotvin.com/experiences/, https://yanikpotvin.com/artefacts/, accessed on 10 January 2024), the two changes in my practice were guided in their experimentations and in their conceptualisations by the characteristics of my epistemic object, historically rooted in known data and practices [66]. The static changes, which decenter the "loose" concepts applied to clay and ceramics, allow for the creation of larger categories, more encompassing concepts that simultaneously straddle artistic practice and anthropological theory. This initial decentring is possible based on data rooted in history and brought to reality by the disciplines of anthropology. The schismatic changes have led to an intense decentring of my ceramic practice, caused by a loss of control over the creative process. The new context and the first results I saw appeared to me to be brutal, and I had to renegotiate my initial premises in the course of my work. These new premises drew on the theoretical framework of anthropology and attempted to maintain a link, albeit a very distant one, with the broadening of self-reflexivity brought about by the static changes. At this point, my practice is so far removed from ceramic reflexivity that I wonder

if it still speaks of it. And the trajectory of hypotheses provoked by my epistemic object seeks reflexive connections that make no more sense in the world of creation than in that of anthropological research. For every human system, this reveals itself as the reconstruction of a new reality; this new reality corresponds to level 3 learning. It is defined neither totally by my practice nor totally by my theoretical framework; it is a "place of passage" between the two. It is a new identity that can be defined by the "change of change" and a hybrid heuristic approach that I call "creative anthropology".

I believe that this hybrid approach still has no equivalent in arts anthropology research. It produces a new kind of learning by combining knowledge and practice [98]. Creative anthropology can be distinguished from approaches that document cultural facts in the media [99]; from representations of anthropological data through artistic practices [100,101]; from interdisciplinary collaborations between an anthropologist and artists [102–104]; and from proposals from the artist as an anthropologist [105,106] or archaeology as an art form [107]. All these innovative approaches have defined several possibilities for interdisciplinary relations [108], but in contrast to existing research, creative anthropology takes the stick from the end of research-creation [52]. Its results are not disciplinary, but transdisciplinary. The hypotheses, results, and forms of dissemination belong indiscriminately to the fields of anthropology and creative research. By using an epistemic object such as clay, which is rooted in material practices, and a systemic construction that functions by analogy with the living, creative anthropology presents itself as an innovative and creative articulation of the ideal and the material [49,109].

If the "unity of knowledge" so much sought after by Bateson can be glimpsed, it is this articulation between object and system that will enable it to be put into practice and reflected upon. Nor should we forget the current context of cultural superdiversity, which makes it possible to develop research in the interstices between existing disciplines. But the current superdiversity of the human world appears to be inversely proportional to the diversification of non-humans, threatening their habitats, which are their "mind" (and ours, by the same token). Creative anthropology does not set out to demonstrate "truths" or to catalogue our cultural particularities as descriptions frozen and dried up in time or space. Nor does it dwell on "separating the chaff from the wheat" [38] (Matthew 13: 24–30) or on delimiting who, from the schema and the content, is responsible for what comes first in our perceptions of the world [110]. It is active in the field of research-creation and works to improve the world's habitability, being accountable only to the moral and ethical levels of human society. It is situated in a "beyond" anthropology, a "post-anthropology" if you like. It is a form of research that engages human creativity in the defence of heuristic thinking.

For me, this free thought is essential to defend. Similar to all forms of life, it is organic, it tends towards increasing complexity, and it puts forward proposals and sets its own goals, but it places the artist–researcher in a risky, even uncomfortable position. His practice becomes difficult to recognise in current trends in art or anthropology. It is a research position that shakes disciplinary boundaries and proposes ways of going beyond the self-reflexivity or autonomy of art. This is why the heteronomy of research-creation is more conducive to the development of these "lieux de passage". Research-creation offers methodological and conceptual openings that cannot be reduced to institutions or art historical developments and even less to art that can only be explained by itself. This is the position of the reflexive practitioner [111], who operates from within his or her artistic practice and seeks to make meaning in an equivocal way. This position complements the ecology of the mind of Bateson, who was interested in artistic creativity from the outside and did not, strictly speaking, have an artistic practice. Through the field of creative practice, the researcher can open up several "levels of reality". This is what creative anthropology is all about, creating "breaches" to "something", to an "elsewhere". Creative anthropology does not set concepts, it continually "opens up the world" by raising questions rather than "closing it up" by proposing answers. Comparisons between different epistemologies and between different "ways of being" are possible from within, in our engagement with the

world, with the environment, and with materials [112]. This makes it possible to observe "things" in movement, in the processes and relations that give them form. It is through movement, through "mise-en-action" and through participatory practices that we must strive to describe the world and to perceive "new possibilities" in it [112].

Creative anthropology has been briefly introduced here, and it was important to explain how it works by coupling an epistemic object with system thinking. Obviously, each cycle of this creative research will be the subject of a more detailed description in the near future. For the moment, the "breaches opened up" by this approach remain difficult to name or circumscribe in the current state of our language, and the forms of diffusion specific to research-creation can complement these deficiencies. This complementarity evokes different levels of perception "enabling an increasingly general, unifying, all-encompassing vision of [r]eality, without ever exhausting it entirely" [52] (p. 33). Creative anthropology thus appears as an "open unit" that transgresses traditional binary dichotomies. The knowledge that emerges from its activities is committed to developing new narratives proposing a posthumanism [113–115] integrated with anthropology through research-creation. It is by hybridizing material knowledge rooted in the long term with creativity geared towards a future accessible to all forms of life that we will be able to improve the conditions under which the world is habitable. Because "the ultimate, hidden truth of the world is that it is something that we make, and could just as easily make differently" [116] (p. 54).

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