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# CARTOGRAPHY AS AN INDISCIPLINARY EPISTEMIC PRACTICE: A METHOD OF INVESTIGATION ON INTENSITIES THAT MOBILIZE BEYOND HEGEMONIC BORDERS

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**José Roberto Silva de Oliveira[1] and Suely Aldir Messeder[2]**

## ABSTRACT

This article intends to present alternative forms developed by some areas of knowledge that use cartography as a method of investigating the process of knowledge construction, as opposed to hegemonic epistemic regimes. In its first part, we will deal with this objective; In the second, we will make some relationships with our research practice. Finally, general considerations about this method and its contributions to indisciplinary epistemic practices will be presented. To do so, we will focus not on the orthodox models of cartography production, but on the alternative forms proposed by the following areas: Critical Cartography, Psychology, Sociology and Philosophy.

**Keywords:** Methodology. Cartography. Humanities. Know-how. Cognitive domain.

[1] E-mail: roberto.oliveira@ifba.edu.br
[2] Email: suelymesseder@gmail.com

## INTRODUCTION

Despite combining strands of the natural sciences and the social sciences, cartography is a genuinely political epistemic practice: it extrapolates the technical conceptions of circumscription of space with all its material contextualizations, to meet the interests of the State, through the precision of domains, the delimitation of borders, natural signs and symbolic traces left by its agents. However, this political character seemed to be overshadowed by scientific force, perhaps by the very intentionality of its controllers – expert politicians – in wanting to link cartography more to the precision of science than to the unstable movements of power. However, even in the last decades of the twentieth century, the epistemic domains of cartography were expanded, due to the use of other contributions from various disciplines and knowledge. As a result, political links gained more evidence, enabling differentiated analyses within Geography itself and other areas of knowledge, such as Philosophy and the Human Sciences (HARLEY, 1990a).

This article intends to present alternative forms developed by some areas of knowledge that use cartography as a method of investigating the process of knowledge construction, as opposed to hegemonic epistemic regimes. In its first part, we will deal with this objective; In the second, we will make some relationships with our research practice. Finally, general considerations about this method and its contributions to indisciplinary epistemic practices will be presented. To this end, we will focus not on orthodox models of cartography production, but on alternative forms. We will be guided by thinkers whose production of knowledge has influenced Critical Cartography (CRAMPTON; KRYGIER, 2008; WOOD; KRYGIER, 2009), Psychology (ROLNIK, 2016; GUATTARI; ROLNIK, 1992; PASSOS, KASTRUP, ESCÓSSIA, 2015), Sociology (SANTOS, 2011) and Philosophy (DELEUZE; GUATTARI, 2011, 1992).

We will start from the following directions of the cartographic method: the first refers to its practice; the second, to its political commitment. Cartography is a method of investigation that describes processes and the circumstances that make them possible, until reaching the event as singularization: how things become what they are, where and when they happen; how they are intertwined in their processes of *becoming*, which can reveal molecular points (rhizomatic singularities) or molar territories (hegemonic stratifications) (GUATARRI; ROLNIK, 1992). Its approach is marked by the refusal to integrate itself into the dominant productive and cultural process, whatever its tendency: political-economic – capitalist or socialist, right-wing or left-wing –, epistemological – scientific, philosophical, artistic or religious –, and geospatial – globalization and

cyberculture. Such directions will lead us to unfinished trails and new clearings of knowledge.

## CARTOGRAPHIC TRAILS AND CLEARINGS: CRITICAL, SUBJECTIVE, SYMBOLIC OF LAW AND RHIZOMATIC

Although, according to Deleuze and Guattari (2011), cartography is the methodological operational procedure of life, before being appropriated by any area of knowledge, it is necessary to recognize the close relationship of its epistemic origin with the discipline of Cartography and Geography. In consideration of this proximity, we will begin our reflections with the approach of critical cartography originated in the field of these disciplines. Even though it was born where the control of mappings and the formal sense of representation are dominant, critical cartography evidences and addresses "clandestine" ways of producing mappings. Crampton and Krygier (2008, p. 85) see two events strike cartography – the "[...] a broad set of imaginative mapping practices and a critique emphasizing the politics of mapping [...]". They present them as movements of insurrection, responsible for the indiscipline of classical cartography.

This new way of mapping shows that in addition to the conditions of historically known symbolic representations of knowledge, others are revealed under new contexts. It brings the political, critical and technological democratization character in the production of spatial knowledge (CRAMPTON, 2002; OLSSON, 2002). With this, there is both the proximity of space to power and knowledge and its technological interdependence, which is no longer tied to geographic information systems (GIS), but has extended to other dimensions.

Like philosophical criticism, critical cartography emphasizes historical conditions and unveils a politics of knowledge that examines their structures and their relationship with power, (CRAMPTON; KRYGIER, 2008), to resist, challenge and, perhaps, discard their orthodox categories of thought. In this sense, the action of a critical mapping must go beyond the description of the arrangement of objects at a given geographical point; it should be a form of questioning about the theoretical and bodily procedures that "[...] codify objects and produce identities" (PICKLES, 2004, p. 12): the gaze, as an epistemic device, gains much more meaning. So, mappings not only generate information, but reveal themselves as a means that contributes to the construction of knowledge and the promotion of social transformations, that is, it becomes a knowledge policy project.

In principle, the map should provide significant information that allows for spatio-geographical understanding. It defines itself as a communication tool. As a symbolic

platform of communication, the map can be subject to other performative capacities that further expand its act of transcending (representing) materiality (the place, the territory, the point). With this, it becomes a space of subjectivity. Such experiences ensure cartography its transdisciplinary character, but, at the same time, lead it beyond discipline, that is, to an indiscipline. Crampton and Krygier (2008) present several examples of practices that distance critical cartography from its origins.

According to the authors, cartography starts from its original field and moves towards other areas, such as art and philosophy: it is present in the avant-garde movement of Braque and Cezanne, or in the contemporary productions of Malene Rrdam, Anna Mara Bogadittir and Lee Walton; it is inserted in the field of philosophy with the insurrection of knowledge as produced by Foucault (1998); Deleuze and Guattari (1992; 2011), reaching even their own area of knowledge, by establishing themselves as a political instrument or a device of transgression – free mapping or "map hacking", to become an indiscipline, finally freed from academic limits, to be accessed by popular movements of free mapping:

> "But if the "spectacle" was the focus for some, others directed their own tools of mass distribution to other uses, bringing mapping technologies more directly to the population. In doing so, they have again crossed the disciplinary paths of academic expertise and control: a "popular cartography." Among the significant practices is open-source mapping, also called by some "map hacking" (Erle et al. 2005). Map hacking is the practice of exploiting free-form mapping applications or combinations of one website's functionality with that of another (sometimes known as mashups). These exploits are possible due to the XML language and application programming interfaces (APIs) [...]" (CRAMPTON; KRYGIER, 2008, p. 93).

With the role of maps receiving more emphasis in their strategies than in their form and with the contributions of information and computing technologies expanding mapping technologies, both traditional peoples and communities, with their original mapping practices, and social groups far from orthodox thought, entered the formal space of cartography and geography at the same time, but with skills capable of dealing with the space and the elements of assemblages that compose it. With this, all of them began to emphasize the alternative mode of free mapping, that is, a knowledge that does not fit "[...] in a body of knowledge with scientific aspirations [...]" (Idem, 2008, p. 95), but which is responsible for the configuration of new worlds and new societies (ROLNIK, 2016).

According to Crampton and Krygier (2008, p. 103), the cartographer must explore the praxis of five "arenas" of knowledge, which can further expand the frontiers of critical cartography, namely: map artists and their ethics of experimentation (WOOD, 2006; KANARINKA, 2006); the current mappings with their creative style of revealing "[...] the role of space in people's lives [...]"; maps as resistances and their ability to highlight invisible places in the spaces of official State agencies; the hacking of maps and their renewing

ability to release access; and, finally, the theoretical critique of cartography, which problematizes the assumptions and historically temporalizes the perceived spatial phenomena.

Let us now move on to the relationship between Psychology and cartography. It was narrowed by the notion of subjectivity and the implications of new interpretations related to this notion, but by another perspective – one that mobilizes the subject's intensities in search of other forms of affirmation.

After the consolidation of the modern subject, between the seventeenth and nineteenth centuries, the need to inquire about the conditions of possibility of the subject to produce knowledge, about its position in the practical-epistemic space and the guarantee of adequacy between truth and reality, about its condition as a given entity, which, at the same time, sustains the whole world (object of knowledge) and its cognitive domain, it has become a prerogative of research on human nature.

Although it is initially the object of study in Philosophy, an area that we will deal with shortly, the notion of subjectivity gained new foundations with psychology (FREITAS, 2008; SCHULTZ, 2015) and with psychoanalysis (GRENNBERG, 1983). However, with the criticisms arising from the publications of *The Anti-Oedipus: Capitalism and Schizophrenia* and *A Thousand Plateaus*, by Gilles Deleuze and Félix Guattari (1992; 2011), the debate on this object takes on new directions, expanding beyond the field of Human Sciences and consciousness. From now on, it assumes a profile of protest – the protest of the unconscious (GUATTARI; ROLNIK, 1996).

In this Protestant profile of the unconscious, desire adopts the primacy of action and with it is the dismantling of a subjectivity composed of segmented forms much closer to the relations of the capitalist system than to a transcendental subject based on its main cognitive faculty – the intellect. These are new attempts at subjectivation that lead to singularizations; they are practical alternatives; they are assemblages; are, as Deleuze (1985, p. 9) would say, the unconscious that protest, in search of the affirmation of their existence:

> We address the unconscious who protest. We are looking for allies. We need allies. And we have the impression that these allies already exist, that they have not waited for us, that there are many people who are fed up, who think, feel and work in similar directions: nothing to do with fashion, but with a deeper "air of time", in which convergent research is carried out in very different domains.

And, in fact, allies emerged in several regions. In Brazil, for example, in addition to the political and cultural movements, which agitated the hegemonic territorial stratifications, they manifested themselves among the academic and social spaces – the World Social

Forum of Porto Alegre, the Department of Psychology of the Federal University of Sergipe, the Pontifical Catholic University of São Paulo, the Department of Preventive Medicine of the University of Campinas, the Fluminense Federal University and the Federal University of Rio de Janeiro, with the research group *Cognition and Subjectivity* (cf. STEPS; KASTRUP; ESCÓSSIA, 2015). In addition to the debate on cognition, subjectivity and representation, these new anti-consciousness producers focused on "cartography as a methodological problem", suggesting that the knowing relationship (subject and object) should be guided by this path in formation.

The notion of *process*, inherent to the cartographic method, is exactly what was sought to be placed as its main object of investigation in the field of subjectivity. Unlike the orthodox method, which already takes some elements of cognition as finished, because they are already the foundation of the relationship and the condition of representation, the researchers who assumed the cartographic method start from the principle that *becoming* is the foundation of the knowing relationship (FONSECA; KRIST, 2003). Thus, with the abandonment of first causes or of any foundation that guarantees the existence of beings, the very existence (of itself, of cognitive objects and of real things) assumes tensions and contradictions of vital forces, always in a constant process of (re)construction.

The emphasis on vital forces that the works of Nietzsche and Freud inaugurate and that was taken up, in their own way, by Deleuze and Guattari (1992; 2011), is also revealed in the works of biologists Humberto Maturana and Francisco Varela (2001; 2014; 2014a). They sought to make a description of the circular organization of living beings, evidencing the intrinsic relationship between *living* and knowing; between *being* and *being in the world*. They show that life is a production marked by structural changes in the organism and the environment, that is, by a history, through which the *autopoiesis* of beings is figured:

> [...] giving rise to a world is the throbbing dimension of knowledge and is associated with the deepest roots of our cognitive being, no matter how solid our experience may be. And because these roots extend to the very biological basis [...] this giving rise manifests itself in **all** our actions and in our whole being. There is no doubt that it manifests itself in all the actions of human social life in which it is usually evident, as in the case of values and preferences. There is no discontinuity between the social, the human and its biological roots. The phenomenon of knowledge is an integrated whole and is based in the same way in all its areas" (MATURANA; VARELA, 2001, p. 33. Emphasis added).

However, if, according to the biology of knowing (*autopoiesis*), there is a necessary congruence in the structural change of organism and environment, marking the history of the ontogeny of the living being, from the point of view of *subjective autopoiesis*, it is necessary to open the space for recurrent interactions, that is, the space where desire is installed and generates its productions. Although it is an intermediate environment, present

in the great territory where life is composed and recomposed; Despite its narrow limitations, the space of desire generates such multiplicity that it will force cartographers to find new means of describing its phenomena.

In the first moment, the mapped subjective productions come from capitalistic modes of production. Guattari and Rolnik (1996) indicate individuation as its main characteristic, aiming to prepare the ground to reach the most significant stage, since it is its opposition – the "singular modes of subjectivation" or singularizations. For these two cartographers, "individuated subjectivities" can be found at all levels of the individual's activity, in a standardized and systematically hierarchical way – through their values, their practices and their forms of submission. Individuation is, therefore, the main focus of the production of capitalistic subjectivities, whose objective is the standardization of social subjectivity:

> Not only a production of individualized subjectivity – the subjectivity of individuals – but a production of social subjectivity, a production of subjectivity that can be found at all levels of production and consumption. And even more: a production of unconscious subjectivity. In my view, this great factory, this great capitalistic machine produces even what happens to us when we dream, when we daydream, when we fantasize, when we fall in love, and so on. In any case, it intends to guarantee a hegemonic function in all these fields. (GUATTARI; ROLNIK, 1996, 16)

Now, mapping micro-desires and micro-politics implies reaching singular modes of subjectivation, which escape capitalist machinic individuation. But how to map this process of singularization without falling into the trap of individuation? How can we recognize it as being, at the same time, processes of singularization and rupture with the dominant stratifications, not because of the fact that it becomes a singularity, but because of the capacity to transform itself into entities of collective assemblages of enunciation?[3] To avoid such risks, the first step of the cartographic process is to differentiate the notion of individual from the notion of subjectivity (or at least not to keep them associated by a deterministic link), recognizing in the former the signs of sequenced machination and in the latter the possibility of circulating through "[...] social sets of different sizes [...]" (GUATTARI; ROLNIK, 1996, 33), which may or may not meet the interests of machinic productions or molecular revolutions[4]. The second step will identify and investigate processes of "autonomization" or "minorization", based on the singular traits of molecular revolution.

[3] - This is the term used by Guattari and Rolnik (1996, p. 30-31), as opposed to the concept of subject. Here is how they present the term: "Instead of subject, subject of enunciation or Freud's psychic instances, I prefer to speak *of collective agency of enunciation*. Collective agency does not correspond to an individuated entity or to a predetermined social entity."

[4] - "Subjectivity seems to be characterized in a double way: on the one hand, the fact that it inhabits infrapersonal processes (the molecular dimension) and, on the other, the fact that it is essentially mediated at the level of the concatenations of social, economic, machinic relations, that it is open to all socio-anthropological, economic, etc. determinations." (GUATTARI; ROLNIK, 1996, p. 68).

Let us take as an example three of these processes – the becoming of woman, the becoming of black and the becoming homosexual. Initially, these subjective individualities must share the same dimensions that frame the social field, in which the other social subjectivities also inhabit, live and produce history. Women, blacks and homosexuals must exist as if their existence did not differ from the established standardization: this is how one must feel, breathe, and move around socio-anthropological spaces. This is the subjective result of the connection established between "the machines of social control" and the human psychic instances responsible for the perception of the world (cf. GUATTARI; ROLNIK, 1996, p. 27). However, if the becoming woman, black and homosexual assumes the process of collective agency instead of a production of subjectivity, it will be able to escape the machinic mechanisms of hegemonic domination. The question is to know how this process of collective agency is carried out?

According to Guattari and Rolnik (1996), the first action to make this process effective consists of a double search for decentralization: on the one hand, the assemblages are centered on the established standardization, that is, on the dominant machinic systems; on the other hand, they must act to distance themselves from what pre-establishes their capacity to feel (be affected), to desire, to represent and to value:

> These processes are doubly decentralized. They imply the functioning of machines of expression that can be both extrapersonal, extra-individual (machinic, economic, social, technological, iconic, ecological, ethological, media systems, in short, systems that are no longer immediately anthropological), and infrahuman, infrapsychic, infrapersonal nature (systems of representation, sensitivity, affect, desire, representation, images, value, modes of memorization and ideological production, systems of inhibition and automatisms, bodily, organic, biological, physiological systems, etc.) (GUATTARI; ROLNIK, 1996, p. 31).

The second step consists of the act of producing the processes of singularization, that is, the ability to express oneself and create from forms different from those pre-established by the machinic process. This is possible thanks to the new ways of dealing with the collective and the individual (the infrapersonal), as expressed above. But this transformation leads to the very sense of *singularization*. And here lies the essential point of this process, because we always tend to think that *becoming* (vector of singularization) will reveal a personal or collective individuality that will oppose the hegemonic social collective, thus enabling the emergence of a feminine, black or homosexual society, which will take the place of the hegemonic society.

By recognizing that the process of singularization differs from individuation – responsible for the "social reification of subjectivity" (GUATTARI; ROLNIK, 1996, p. 38) – it is admitted that it has unique types of practical and theoretical references. However, such

types are not stratified into singular collectivities figured, for example, in women, blacks or homosexuals. Instead of identifying them as new territorialized strata (the female stratum, the black stratum, the homosexual stratum), one should think of them as rhizomes that are interconnected with various other types of *becoming* (socio-anthropological determinations) – such as literature, music and practices, in short, symbolic relations and their social, natural and transcendental dimensions[5].

What matters here is not the capacity for stratification with the potential to destructure the hegemonic collective to the point and replace it; but the ability to resist, create and transform themselves as autonomous singularities. From the moment that the groups acquire this freedom to live their processes, Guattari and Rolnik (1996, p. 46) state, "[...] They start to have an ability to read their own situation and what is going on around them. It is this capacity that will give them a minimum possibility of creation and allow them to preserve exactly this character of autonomy that is so important".

But let us leave the clearing of subjectivity, because we must still transit through the cartography of social representations and the rhizomatic forms of Philosophy.

In the *Critique of Indolent Reason*, Boaventura de Souza Santos (2011) presents some traces of the cartographic method in research on social representations, focusing on those figured by modern science and law, as hegemonic and central elements of world perception, around which the true and the implausible, the legitimate and the illegitimate orbit. From this focus, the author privileges space as the modality for thinking and acting, in the midst of which temporalities are installed, as each of these forms of time "[...] it confers a mentality of its own to the social relations that take place in it. The succession of times is also a succession of spaces that we travel through and that travel through us, leaving in us the marks that we leave on them" (SANTOS, 2011, p. 194). However, in this study, we will focus only on the forms of social representations coexisting in Law.

Santos (2011) proposes that Law be seen from the cartographic perspective, as it is a set of social representations composed of laws, norms, customs and legal institutions; therefore, it should be interpreted as a "[...] regulated distortion of social territories [...]". Because, on the one hand, the Law institutes legal exclusivity in a society, by revoking normative informality, but, on the other hand, it must coexist with the marks of this

[5] - "The idea of 'becoming' is linked to the possibility or not of a process of singularization. Feminine, poetic, homosexual, black singularities, etc., can break with the dominant stratifications. For me, this is the mainspring of the problematic of minorities: it is a problematic of multiplicity and plurality, and not a question of cultural identity, of a return to the identical, of a return to the archaic [...] this is the case, for example, of what is most alive in *jazz*. He incorporates certain traits of singularity of the *black spirituals* to make an authentic music, which corresponds to our sensibility, our instruments and our modes of diffusion, until this music also collides with the world of the State. (GUATTARI; ROLNIK, 1996, p. 74).

informality, which remain in the memory of the social collective (cf. Idem, 2011, p. 198-199). According to the author, Law applies the three mechanisms of distortion of reality proper to the map – *scale*, *projection* and *symbolization*.

As it is the mechanism of mediation of intentionality and action, scale applies to social action, when it is thought of from a small scale that must act in the entire territorial dimension. Therefore, its main function is to ensure that power is disseminated. On the other hand, the strategy of spatial representation (projection), characterized by its double capacity to simplify the dimensions of space and its objects and to establish a certain distortion in its attributes (angles, shapes and directions), is influenced by the sociocultural context of the cartographer. For example, in the symbolic map of any individual there is always a center to be positioned as the main reference, around which the peripheries are installed. Finally, symbolization, responsible for the meaning of cartographic distortion, requires the participation of the conventional community (the one that has the ability to read iconic and arbitrary signs) in the interpretation of the represented reality.

However, although the Law has appropriated legal forms, legal plurality can be claimed as an ancestral prerogative, after all, the vestiges of immemorial norms and rules, even if little considered, are found throughout the space of relationships. However, this plurality is reconstructed from the same social dynamics that account for the relations of production and sociocultural movements. In these terms, it is never a monopoly of a class nor does it focus only on the past. Evidently, there is always a tension present in the social scale: on the one hand, the dominant class wants the exclusivity of norms, aiming to "immunize" the relations of production – political, economic, social and cultural – on the other hand, non-legal (informal) forms always emerge that, directly or indirectly, clash with institutional legal representation. Santos (2011) draws attention to the technical rules that represent the socio-legal space of contemporary societies – the scale used may hide a certain discrepancy, by presupposing the existence of a single socio-legal form:

> In truth, we can only compare social interests and degrees of group consciousness within the same socio-legal space and, therefore, within the same form of law. The difficulty of such an enterprise lies in the fact that, as I have already stated above, socio-legal life is constituted, in practice, by different legal spaces that operate simultaneously and on different scales. The interaction and intersection between the different legal spaces are so intense that, at the level of the phenomenology of socio-legal life, one cannot speak of law and legality, but rather of *interlaw* and *interlegality* [...]" (SANTOS, 2011, p. 208-209).

The way in which law projects social reality can be detected from the legal objects, the levels of interest of the actors involved and the conflicts that arise from them. In a way, the perception of projection will always depend on a broad mastery, on the part of the

cartographer, of the elements of scale and symbolization, which will enable him or her to access them. It is therefore necessary to detect which "*super-fact*" determines the projection adopted by an institutional juridical order (cf. SANTOS, 2011, p. 213).

The best way to detect it is through its intensity: the closer to the center, the more intense it manifests itself; conversely, the more we enter the periphery, the less we detect its intensity. There, new types of centralities and intensities are found, typical of the actors involved, because "[...] the peripheral regions are also those in which the interpenetration between the various forms of law that converge in the regulation of social action is denser" (SANTOS, 2011, p. 214).

By evidencing both the elements of scale and projection and the ways in which they were used, symbolization takes on the complexity of social representation. Precisely for this reason, the cartographer must make use of important contributions in the search for the interpretation of the legal reality of a given social collective. From the point of view of Western legal symbolization, Santos (2011, p. 217-220) goes beyond the contributions of semiotics, rhetoric and cultural anthropology, adding elements of literature from two important traditions – the Greek, represented by *Homer's Odyssey*, and the Hebrew/Hellenic, portrayed by the Bible. According to the author, such literary instruments carry within themselves the two essential types of legal representation of Western reality.

The first legal model in question, the Homeric, marks the tension between the continuous flow of social action and its discontinuity, both present in contractual celebrations or in judgments of actions of the cultures that gave rise to them. This tension leads such a model to an intensely dialectical condition – the formality and abstraction of the rules that deal with social action, giving rise to instrumental juridicity. As for the second model, it is marked by an "imagetic legality", characterized by the "[...] concern in integrating the discontinuities of social and legal interaction in the complex contexts in which they occur and in describing them in figurative and concrete terms through iconic, emotive and expressive signs" (Idem, p. 2018). It is worth noting that, if in the first model the dialectical tension can be recognized twice, it tends to deepen when one seeks to establish an interrelation of the respective models.

However, these Western styles were affected by an even greater dialectical tension, when they sought to submit other styles of legal symbolization. Part of the tension came from the clashes between Western hegemonic models and models, as old as them, already existing in the colonized domains; another part has been originating from the new socio-productive relations and the spatial-temporal distances, which emerge from the countless types of domination, the struggles for freedom and the new peripheral social orders, marked

by memory and contemporaneity. Basically, all these tensions ensure the existence of legal pluralism, that is, of overlapping, articulated and interpreted legal forms, which fill the porosity of social relations, and interlegality, that is, the dynamic manifestation that emerges from social processes, moved by different types of collective struggles.

Finally, we arrive at the procedures of the cartographic model of Philosophy, but, already agreeing that they did not originate from it; they are only manifestations of the way in which philosophy experiences, articulates and expresses them, recognizing events as they are revealed in other disciplines – as multiplicities. The difference is that, in Philosophy, multiplicities came to be conceived as a *theory*: instead of being a distinguishing device "[...] between consciousness and the unconscious, between nature and history, the body and the soul [...]". As a theory, multiplicities guarantee the separation of the agglomeration and the unit and are recognized as the *reality* from which they originate "[...] subjectivations, totalizations and unifications [...]" (DELEUZE; GUATTARI, 2011, p. 10).

By assuming the condition of a theory, multiplicities had their characteristic principles mapped by Deleuze and Guattari (2011, p. 11), which consist of: elements (*singularities*), relations (*becomings*), events (*haecceities*), dimensions (*space-time*); model of realization (*rhizome*), plane of composition (*plateaus*) and vectors (*territories* and *deterritorialization*). Thus, on the one hand, these principles form the various plateaus that reveal multiplicity as substance (noun) and not as mere quality (adjective); and, on the other hand, these principles manifest themselves as other propositions of Philosophy – the lines of flight that abandon the territorial segmentarities, responsible for systems and organicity, in an attempt to highlight the intensities (rhizomatic connections) and the assemblages (inorganic productions).

But this turnaround requires a more detailed explanation and we believe that the best way to accomplish it would be to start from the concepts. By assuming this point of displacement, we are in line with Deleuze and Guattari (1992), about the fact that Philosophy is an area of knowledge that deals directly with concepts. And many of them were created or revisited in *a thousand plateaus* (2011) with the intention of expressing and giving meaning to each of the lines of flight open or yet to come. Some have already been referenced above; others take on its configuration, as they are perceived by new cartographers in the middle of the plateaus.

However, why, in seeking to map the elements of the theory of multiplicities, is Philosophy presented by the two philosophers as the discipline that must answer for the

concepts? In what way can the creation or reinvention of concepts interfere in the epistemic practices of the disciplines involved, especially the practice of the method?

The first thing you have to say about concepts is that there is no importance in knowing where, how or when they were created. What matters is to know if they disturb or generate danger, that is, if they install intimacies and animosities in human relationships, to the point of driving philosophy to exercise, through its "conceptual characters", the role of destabilizing both thought and the entities with which it relates: Marx revisiting the concept of wealth by Adam Smith and David Ricardo; Freud giving the mythical character of Oedipus the conceptual breadth of sexuality (Idem, 1992, p.13).

Created or reinvented, concepts need to bring within themselves the power to help humans transform reality. And the role of the philosopher is not to make them shine, but, after creating them, to persuade men and women to use them (Nietzsche, Marx) or to achieve them (Plato). The great risk that concepts run is that of losing their unstable novelty, when they are stratified and transformed into a system of rebates and reductions: the concept of wealth alienated by capitalist forces; the concept of desire (sexuality) reduced to the family secret of patriarchal society, with the endorsement of psychoanalysis. What philosophy does is seek to disentangle concepts from the stratifying forces found in all domains—in the sciences, in the practices, in the arts, and even in life.

However, this instability of concepts causes the idea that they are false concepts in the immediatists. But, on the cartographic level, it is exactly this that allows them to shake up the history of knowledge, renewing it. It is also because of this capacity for (self) renewal that they wander among contemporary disciplines, traditions and fashions. Evidently, this wandering can lead them to the most superficial plane of the domain of their manipulators – the "mercantile form of the concept" (DELEUZE; GUATTARI, 1992, p. 19); or it can make them reach other perspectives with a novelty capable of transforming reality itself. In this sense, it is impossible not to recognize the action of certain cartographers who literally follow the advice of Foucault (1995; 1996): it is necessary to open the words. It is this ability to make concepts implode that guarantees them self-renewal and renewing reality.

With this we come to another important characteristic of the concept: every concept is a multiplicity. It reveals itself as such when it allows itself to be cut, articulated and superimposed, not sharing the unity or the alleged philosophical universality. The concept is, at least, a figuration of two components – the field of experience and the problem posed by the subject. It turns out that none of these components is monolithic. Through their stories, they express conceptual pieces "[...] that responded to other problems and supposed other plans [...]" (Idem, 1992, p. 31).

Basically, both the field of experience and the problematizing subject go through deterritorializations and reterritorializations. These displacements, these lines of flight experienced by the subjects and by their respective geographies must always be part of the composition of the concepts, as a way of propelling them to other bifurcations. For a concept never figures solitary on a plane: for example, it is not possible to think of extension without thinking about other concepts that are relative to it; it is not even possible to think about the *Self* without referring to *Other*. The distinction that identifies them is the same that requires the necessary juncture for their consistency. Thus, concepts experience the paradox of an inseparable autonomy, without which they cannot establish connections. "The concept is, therefore, at the same time absolute and relative [...]", say Deleuze and Guattari (1992, p. 33-34): "[...] relative to its own components, to the other concepts, to the plane from which it is delineated, to the problems it is supposed to solve, but absolute by the condensation it operates, by the place it occupies on the plane, by the conditions it imposes on the problem".

In short, the bridges-crossroads that connect the concepts, which, in turn, promote the transit of history, ensure the becomings and give rise to events, in addition to responding to the positioning of the subjects in relation to the problems raised. Without the fluidity of crossroads and conceptual displacements, events do not open up to new horizons; therefore, there is no mobility that allows the generation of new planes of immanence. The philosophers who produce concepts teach us that it is always necessary to insert new components among those already existing in the conceptual fields so that the concept can be transformed into *another*, also forcing a change in the assumptions that concern them. Only in this way are new plans drawn up (DELEUZE, 1991).

Now, it is exactly this process of displacement; this fluid and transformative movement that configures the cartographic method in the domains of Philosophy. Through them, traces must give rise to new materialities, just as thought must gain new images. Therefore, through other possibilities of thoughts, the method allows us to trace configurations of the being as new phenomenal fields. These many other paths of thought traced by new cartographers can clash with many old ones, they can merge with them or they can simply implode them, generating philosophical deviations and deterritorializations. Thus, when reflecting on the procedures of cartographers/philosophers, on their conceptual productions and the creation of new planes of immanence, Deleuze and Guattari (1992, p. 51-73) unveil, at the same time, in the field of Philosophy, the (in)solidity of truth and the holes of the *cogito* as a foundation:

> No image of thought can be content with selecting determinations calmly, and all find something abominable in law, whether it be error into which thought does not cease to fall, or illusion into which it does not cease to revolve, or stupidity into which it does not cease to sink, or delirium in which it does not cease to deviate from itself or from a god.

## INTERSECTIONS OF RESEARCH PRACTICE

After transiting through the indisciplinary cartographic practices, we will make certain intersections, relying on the notion of relationship with knowledge by Bernard Charlot (2005, p. 45), which is "[...] a relationship with the world, with the other and with oneself of a subject confronted with the need to learn". Charlot joins the other researchers who turn to this form of research. That is, they start from the agreement that there is a plurality of knowledge that is not always recognized by official educational institutions as valid, but which is extremely relevant in the modern world, as it is capable of guaranteeing the existence of men and women who are excluded, overshadowed and even prevented from exercising their roles as social agents in the territories they inhabit. On the other hand, they also perceive that an action aimed at the recognition of such knowledge and practices, aiming to highlight them and bring them closer to academic knowledge, can generate a process of inclusion and transformation of the environment and the individuals involved.

The research that sought to investigate this interrelationship is entitled "Cartographies of epistemic drift: an analysis of the production and dissemination of knowledge of the epistemic community of the PPGDC with the feasibility of social inclusion".[6] It is a research on research that places the interrelation of knowledge as its main focus and that, in some way, evidences social technologies born or reapplied from this interrelation. By visiting ten theses defended in the Program with this profile, she unveiled singularities of the practical-theoretical worlds born in the relationship of communities.

Figured as plateaus that deterritorialize the stratified space of orthodox knowledge, the theses reveal intensities of being, acting and producing, that is, of a *know-how* generated by human collectives in their relationship with the world of life.

We base the term "know-how" on the conceptions of Maturana and Varela (2001) and Merleau-Ponty (2018) that existence cannot be conceived apart from acting and knowing. In this sense, the human constitution is thought of as an *event* resulting from an action that manifests itself through three inseparable intensities – acting/knowing/being – effected from the relationship of the living being with the world. It is such a primordial act of its constitution that it anticipates the very production of consciousness as a reflexive act, to

[6] - Cartographies of epistemic drift: An analysis of the production and dissemination of knowledge of the epistemic community of the DMMDC with the feasibility of social inclusion. Thesis defended by José Roberto Silva de Oliveira, supervised by Suely Aldir Messeder, UFBA, 2021.

the point that the human or its group is not different from other living beings, in its being in the world and in its original act of producing knowledge.

In principle, the human groups defined in the academic world as "communities of practice" bring such unique ways of being in the world, that they generate a certain autonomy in relation to stratified societies, defined as the holders of the symbolic forms responsible for hegemonic knowledge and practices. Were it not for the relations of production that bring them together and certain intermediary elements that connect them, such as capital, the formal laws of knowledge, the circulation of goods (economy) and social practices (politics), these two types of community would maintain their existences independent and free from the effects they generate – the process of domination, social invisibility and inequality. The valorization of the interlocution of knowledge is, ultimately, an attempt to recover the autonomy of the communities involved and the visibility of the references produced by the peripheral groups as a materialization of their *cognitive domain*.

It was possible to detect that the diversity of regional spaces and contents transmitted by the theses, instead of confirming the discontinuity adopted as the main characteristic of Western knowledge in modernity, further intensifies the element that guarantees its intersections – the know-how as "[...] an operational effectiveness of the domain of existence of the living being" (MATURNA; VARELA, 2001, p. 35). But the intensive character of this operational effectiveness is only manifested when the individual or the community of individuals puts its cognitive domain into action.

The notion of "cognitive domain" indicates that, as a living system, the human being is constituted in an operational way that enables him to act in the world; to generate explanations about the world, about themselves and about their interrelations. This operational mode represents your cognition. This, in turn, acting as an agent of the coordination of actions (relationship with the world) and interpersonal relationships, generates what some analysts of cognition call "knowledge" (POLANYI, 1958, 1966; MATURANA, 2014)

It is this cognitive domain that ensures the possibilities of relationship between the practical world and the theoretical world. Now, because we are constantly between these two dimensions, we build epistemic communities, whose condition of existence is the validation of practical-theoretical volitional, operational, explanatory and aesthetic actions, as multi-referential spaces. With this, we can perceive that the theses, through new descriptions of social phenomena, have opened up spatial forms that enable new recurrent interactions, generating other modes of singular subjectivations (GUATTARI; ROLNIK, 1996).

In addition, the theses highlight the interrelations of knowledge mediated by the communities of practice and by the Program's researchers, launching themselves as lines of flight, which run through various disciplines and knowledge, generate new connections and transmit a certain intensive stabilization marked by the desire for survival; the same desire that makes a plateau sprout around the territorial strata.

The other element of evidence refers to the perception of normative informalities present both in the collective memory of excluded groups and in their symbolic acts, which bring to light marks of ancestry, traces of their clashes with the world of life and creative ways of circumventing the formative legality imposed by the hegemonic society (FOUCUALT, 1996; 1998), but which is not configured in and does not ensure fair and equitable social relations. These traits indicate alternative ways (singularizations) for excluded groups to make their relations of production – political, economic, social and cultural – viable, even when they are denied their participation in the aforementioned form of machinic production of subjectivity.

Several types of clandestine but vital traces were evidenced by the ten studies analyzed, contributing to the production of a cartography that demarcates the symbolic elements of perception of the rhizomes (peripheral spaces) and territories (hegemonic spaces) visited, but which still does not bring the clarity of these elements. Perhaps, in addition to sketching these clandestine vestiges of the operational cognitive domains, the only reality that our cartography reveals is the tacit perception that the existence of the living cannot be conceived apart from knowing and acting.

## GENERAL CONSIDERATIONS

In this article, we seek to reflect on the use of the cartographic method by the following areas: Critical Cartography, Psychology, Sociology and Philosophy. We detected that they use the cartographic method as an indisciplinary act, that is, as a way to get rid of the hegemonic patterns established by knowledge systems and socio-political systems.

This initiative revealed that the aforementioned disciplines highlight the following points of divergence: the attempt to distance homogeneous spaces, to the detriment of the manifestation of peripheral domains and the clandestine emergencies of their mapping (critical cartography); the denunciation of a machinic production of individuals and subjectivities as a way of maintaining the capitalist molar system and the struggle for forms of production of molecular subjectivations, which sustain and give rise to molecular assemblages (psychology); the diagnosis of the modern social dilemma, marked, at the same time, by the exclusivity of the laws imposed by the hegemonic powers, and by the

legal informalities that are shown as indications of traditions suffocated by dominant interests (sociology); Finally, the refusal of stratified territories of knowledge based on solid concepts and rooted thoughts was also revealed, opening up to displacements and becomings capable of deterritorializing thought in all its forms (philosophy).

We also carried out intersections of our research with these results, aiming to reach epistemic drifts that reveal themselves as rhizomes, as human assemblages capable of responding, in a creative way, to the challenges of the world of life and to the hegemonies of the dominant powers. In this way, we seek to highlight some concepts that can guarantee more the intensive mediations of molecular assemblages than the foundation of their bases. Among those that were worked on by the research, we highlight the concepts of *know-how* and *cognitive domain*, as both contribute to collective assemblages being able to respond to the challenges of life or social relations in a creative and productive way, generating, in the field of actions, new events, that is, new perspectives for the history of production relations.

Thus, when intensities, displacements and singularities assume the process of production of individual or collective singularizations in the areas of knowledge, they generate other epistemic-practical behaviors, refusing the established disciplinary norms and moving towards new indisciplinary perspectives.

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