

Geography and health: The contemporary production of a diseased spatial theory

Geografia e saúde: a produção contemporânea de uma teoria espacial enferma

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ABSTRACT The necessary – and under-stimulated – encounter between Geography and Health in contemporary academic production, reveals that science is also ailing. However, when it becomes possible to generate approximations, intersections, and dialogues between, for instance, the territorial interpretation of health-disease and the interpretation of health-disease from territorial determinations, conditions are created to, in a single act, establish a critique of science and the monopoly of health. As a result, this paper proposes the reflection of worker's health as a link between territory and health. Field research, guidance of dissertations and doctorates, and participation in the Inter-Trade Union Forum on Health-labor-law/Oswaldo Cruz Foundation (FIOCRUZ-RJ), nourish the reflections elaborated in this article. The theoretical assumption is based on the following principle: worker's health, as a field and a social issue, in defending public health, health as a right and justice, and, in criticizing all regimes of labor exploitation, under a territorial reading, gains strength in its praxis, as it clarifies that illness is implicated in the relationship between the spheres of power that, in capitalist society, are concerned with preserving and constituting social inequality, the monopoly of wealth, poverty, and violence. The fight for health, a fundamental good, becomes a struggle for territorial emancipation.

KEYWORDS Occupational health. Sociocultural territory. Health-disease process.

RESUMO *O encontro necessário – e pouco estimulado – entre geografia e saúde, na produção acadêmica contemporânea, revela que a ciência está, também, enferma. Todavia, quando se torna possível gerar aproximações, intersecções e diálogos entre, por exemplo, interpretação territorial da saúde-doença e interpretação da saúde-doença a partir das determinações territoriais, criam-se condições para estabelecer uma crítica à ciência e ao monopólio da saúde. Em decorrência disso, propõe-se a reflexão da saúde do trabalhador como elo entre território e saúde. Pesquisas de campo, orientações de dissertações e doutoramentos e participação do Fórum Intersindical Saúde-trabalho-direito/Fundação Oswaldo Cruz (Fiocruz-RJ) nutrem as reflexões elaboradas no presente artigo. O pressuposto teórico inscreve-se pelo seguinte princípio: a saúde do trabalhador, como um campo e uma questão social, ao defender a saúde pública, a saúde como direito e justiça, e, ao criticar todos os regimes de exploração do trabalho, sob uma leitura territorial, ganha um reforço na sua práxis, pois esclarece que o adoecimento está implicado na relação entre as esferas de poder que, na sociedade capitalista, ocupam-se em preservar e constituir a desigualdade social, o monopólio da riqueza, a pobreza e a violência. A luta pela saúde, um bem primordial, faz-se na luta pela emancipação territorial.*

PALAVRAS-CHAVE Saúde ocupacional. Território sociocultural. Processo saúde-doença.

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Introduction

When looking at contemporary sociability, an empirical finding is easily verified: more and more people sleep less. Youth experience a transition in the sleep regime: they sleep later or, nocturnally, live from naps through the day¹. The rates of poisoned sociability continue: people speak louder, certainly because the external noises are greater and because the one who hears is often distracted. Changing the listening regime is, at the same time, an ethical and political problem.

Findings follow. There has been an increase in *per capita* drug consumption rates. Likewise, there was an increase in the diversity of types of drugs routinely used by a large part of the Brazilian population. Chemical dependence, illness and precariousness of work coalesce around an unbridled pathologization of social life².

Pathologization, in addition to being verified by illness on a different scales, is equipped with violence of various types and scales, the most brutal. Sickness and violence find, in the State, echoes in a conservative response: the militarization of existence and the medicalization of social life. This certifies the social failure of the current economic model, as death and cowardice arise from it; illness and exploitation.

From these facts, one can foresee: chemical addiction creates the hypochondriac subject. This subject, insecure, seeks in medicines the security that, in an addictive regime, makes him more insecure. The more insecure the more dependent. Sick and insecure, this subject is thrown into a geopolitical network: that of the powers and businesses of drug laboratories. The pharmachemical industry, benefited by the worker's illness, has a poisoned sociability, typical of a poisoned world. It poisons the world herself.

Now, to conceive health as a supreme good and, therefore, as a right (the healthy person dances, participates, acts, plays, dialogues, produces, collaborates, vibrates, struggles for freedom, enjoys), requires from the scientific

fields the construction of a criticism of the economic model, which poisons, and of the industry, which benefits from illness. But are the scientific fields concerned and marked out to carry out this criticism? Is criticizing just enough?

The proposition of this article starts from one assumption: in the same way that there is an economic model that gets sick and benefits from illness, there is a sick science. It is therefore necessary to see the limits of knowledge – and also its possibilities. When the field of knowledge of geography and the field of knowledge of health intersect, a hope can arise: to clarify the understanding of health-disease through the territory and to read the territory that gets sick.

We rely on the idea that science, as organized, is also located in the illness of the world. We also support the idea that the foundations of a sick science create sick work, evidenced in precariousness, exploitation, subcontracting, deregulation, structural unemployment, outsourcing and deep informalization.

However, the centrality of work as a life operator, creator of worlds, as a premise of health-disease, implies territory. From this, several questions arise: how, in this period, do concrete workers develop work from the territory? What implications for workers' health do the types, contents, morphology and meanings of current work produce? What are the relationships between illness and unemployment?

In addition, the teaching of the free spirit of the field and the issue of worker health invites us to elaborate an equally free scripture, however, committed to the academic and research experiences carried out in partnership. To carry out this article, we counted on master's, doctoral and post-doctoral orientation activities; with the organization of thematic seminars involving participation in the Intersyndical Forum Health-Work-Right, based at the Oswaldo Cruz Foundation (FIOCRUZ/RJ), together with the research group 'Space, Subject and Existence', headquartered at the Federal University of Goiás (UFG).

In addition to this introduction, the text is divided into three parts. At first, the relationship between geography and health is problematized. In the second section, the necessary links between territory and health are discussed. In the third part of the research, it is demonstrated that, from the field of workers' health, the necessary encounter between territory and health takes place.

Problematizing the relationship between geography and health

As we read the celebrated text 'Who will carry out the coup in Brazil?', written by Wanderley Guilherme dos Santos³, who died on October 25, 2019, we, academic researchers, university professors, learned in publications filled with citations, modest authors of this text, are amazed. All the others, who, in the same institutional and professional conditions in which we are situated, did not read the aforementioned text, should have been equally amazed.

We had read, yes, the noble social scientist who left us just now, in his essay 'Citizenship and Justice: social policy in the Brazilian order'⁴, in which he gives us the concept of 'regulated citizenship', anointed by an epiphany that has served us ever since.

It served us for a certain purpose, that of understanding health reform and not agrarian reform, by abandoning the empty territories of regulated citizens and, of course, trade union corporatism and others. If we read it again, carefully, we will certainly discover something about the visceral and thriving relationship between geography and health.

But, about his 1962 text, which, in 2022, completed its sixty years of writing – 'Who will carry out the coup in Brazil?'³ –, we (still the same authors of this conversation here) are surprised by the coincidence (coincidence? a lot of it) with the years from 2019 to 2022.

Before any epistemic-academic reflection to compete for an eventual publication in an indexed journal and olympically overcome the barriers of the distinguished reviewers who arbitrate on human thought – Supreme Court of Science –, we insist, sixty years later: who will carry out the coup in Brazil?

The relationship between the disciplines of geography and health, separated by an interdisciplinarity, we do not know if timidly, naively or intentionally not interdisciplinary, is a permanent coup in Brazil. Political coups have been perpetrated before. Surgically, one of them was perpetrated in 1964, with the support of the Central Intelligence Agency, known as the CIA, and threatened to repeat itself in 'new times' Brazil, in 2022. However, the coup in Brazil is already taking place on several fronts.

It occurs in the separation of academic disciplines, it occurs in the separation between people and academia, it occurs in the lowering of thinking heads in the face of imminent coups of other orders.

The relationship between geography and health, day by day, is practically non-existent. Few relationships or causal links are seen, for example, between land concentration, unemployment and illness; between the domain of agrifood empires, poverty and epidemic; or between urbanization, mobility and death in traffic. Geography and health are not related, not out of antipathy, on the contrary, they are not related because sister disciplines, when enclosed in the fiefdoms of a cloistered science, become distinct, diverse, dissociated, cradle of non-consensual and incomprehensible diasporas. If Nobel Laureates in Physics, Medicine, Literature, Economics and Peace do not talk to each other and, worse, are often laureates with contradictory arguments among themselves, why would mere-mortal academic thinkers under the abyssal lines talk?

The territory and space that geography leads as a lactating woman (the one who breastfeeds), has in health a breastfed child.

And health, poor child rejected from medicine, bites the breasts of geography, which cannot feed it. Who rejects? The geographical science that (does not) breastfeed or the health science (not) breastfed. Tough question.

The permanent coup of the fragmentation of science, as Edgar Morin and Jean-Louis Le Moigne⁵ underline, is a mantra that should be sung by the editors of scientific journals: it is forbidden to write anything in social sciences looking at your own belly button.

Interdisciplinarity in social sciences cannot be a fortuitous event of nature or a slogan of marginal and counter-hegemonic learned doctors. Interdisciplinarity should be the passport of access for girls and boys who, upon entering the academy, choose one field of social sciences and knock on the door of another to understand their own.

Wanderley Guilherme dos Santos, what does this have to do with it? Everything.

Let's start, as the north of this epistemic-academic parlage, with a fundamental question, more of content, then. At the time this text began to be planned (October/November 2019), the country was on the verge of a real, objective, concrete, state, civil-military coup, as always, by the way... just read Wanderley Guilherme dos Santos³. However, the surreal, abstract, subjective coup has already been given.

Territory, space and health already bleed battered. How to explain, as geographers and sanitarians, the concretization of Satan's temptations in the full regime of 'Brazil above everything and Jesus above everyone', as it was in the government between 2019-2022?

Let's go to them (Satan's temptations): Brumadinho and the deliberate murder of workers (2019); fires in the Amazon (2019) and the deliberate murder of the forest and its guardians, as was the case of Bruno Pereira and Dom Phillips (2022); neglected oil spill and the deliberate murder of the sea-dependent world – flora, fauna, people (2019); more than 700,000 deaths from COVID-19 (April 2023).

A simple first period class, whether in the sciences of geography or health, does not resist

the School Without Political Party. Talking about human causes and responsibilities about these revelries of Satan will generate selfies and recordings of teachers. Social networks – of all shades – will be populated by unscientific words, eschatological treatises and who knows what types of threats. And we, the learned doctors, will be around writing articles for reviewers to read (people of who knows what ideology – sacred or profane) and – maybe? – reject, in one or two years.

Who will interpret? More than 60,000 workers die from traffic accidents annually in Brazil⁶. The Brazilian metropolises, segregated, unequal, noisy, are factories of death. About 700 thousand occurrences of accidents at work⁷, which are added to the increase in unemployment, the terror of not being employed, the violence of competition in the informal market.

The country is also ruthless with women. According to data from the survey 'Visible and invisible: the victimization of women in Brazil', produced by the Brazilian Forum on Public Security, approximately 18.6 million women were victims of violence in Brazil in 2022, with extreme situations of physical, sexual and psychological violence. It's estimated that

[...] there are 822 thousand cases of rape in Brazil per year. Of this total, only 8.5% of them reach the police and 4.2% are identified by the health system⁸⁽⁴⁾.

From the data above, it can be said: the coup has already been given in Brazil. Because, especially due to the death of Wanderley Guilherme dos Santos, but fundamentally due to the content of his text and the threat of a coup in Brazil in 2022, reading it as if it were 1962 is mandatory. Essay that deals with the relationship between geography and health, at the appropriate time.

When reading Santos³, we cannot, under any circumstances, stop thinking about what we are living in Brazil. Perfect topicality, as it could not fail to be for those who permanently

hear the roar of history. Because we are dealing with this author in a geographic-sanitary plan, we need to be aware of the signs of those who threatened to carry out the coup in Brazil. Not that this author refers to the vast and complex themes, but the plotters do. Even if we don't know what they are yet, even if we do. Territory, space, environment and all the ingredients that give them life – health, culture, education and work – were preferred targets of the plotting heralds. And does it matter if it's military, civilian, civilian-military or military civilian? Our children and grandchildren will rate how?

Currently, in traditional academic production, in which scientific journals could we have, with the necessary urgency, statements of this type? Would they be published?

The press, even with its contradictions supported by the economic elites, has, notoriously, in its investigative aspect and in the open media that is not subject to the rituals of approval of 'scientific' texts, the primacy of constituting itself as a primary, original and primitive source of knowledge in social sciences, today, in Brazil. Well, geography and health included there. In fact, if there is a lot besides geography and health, there is little.

One of the aspects that draws the most attention in Santos's³ text is the absence of bibliographic references. Free thought – especially about matters little crushed in scientific articles, such as the imminence of a coup in your country – is a libertarian matter, more for hummingbirds than for academic flights. Although Santos³ is considered one of the great social science thinkers of his time, now let us see, in his confirmed and discontented premonition, he voluntarily exiled himself from academic ties in the foreshadowing text. Today, for sure, he would have some difficulties to get it published in scientific media.

Geography and health and their unexplored epistemes do not escape the rule of hummingbirds. Nor do they escape the order of the already in force coup of the interdisciplinary apartheid previously pointed out. Even though it is known that, in 1962, the canonical

codes of scientific production were not so fervent, Santos³, by not submitting to quotes from thinkers who preceded him, throughout the history of human knowledge, did not do them any demerit. On the contrary, in his complex reflection, the synthesis of the human adventure of thinking is clearly embedded. Think about how hummingbirds fly. Free, emancipated. In his text, the pre-Socratics are present, of course, Socrates himself and his maieutics, Plato, of course, the great reflective interpreter, and Aristotle, with his ethics of justice. Would they feel disrespected? Without a doubt, they would not. They would feel proud of a follower tens of centuries later.

There are also, in Santos' modest premonitory essay³ on the next coup of the period (similar to what is coming), the first-time enlighteners – Erasmus, Moreus, Machiavelli – and the subsequent thinkers of the objectification of the subjectivity of power – Hobbes, Locke, Montesquieu, Rousseau.

If he dedicated his fluidity of ideas to citing each one of those who irrigated his web of cerebral blood vessels, we might not reach the essayistic prelude of 1962, which, today, more than ever, applies to our country. Implicitly encyclopedic essay that, running away from the predecessor hermetic inscriptions, dedicated itself to displaying an objective and direct language to the threatened people and their organic intellectuals. Something that academia currently denies, for producing texts about subjects who do not have access to the writings of those who study and research them. The subjects from academic research are like cheated husbands: they are the last to know. Before we scrutinize the interdisciplinary mangrove of geography and health, it is unnecessary to point out, and for this reason we do so, that there in the essay is Karl Marx⁹, in the flesh. The blood of the poet of the Manifesto gushes out.

The author³ dismisses, as well known, the bibliographical presence of his predecessors and his contemporaries of the 1960s – Lukács, Sartre, Marcuse. All bibliography

is incomplete. All we learned agree, but for reviewers of scientific texts, it should always be complemented by some of their private sympathy. Perhaps, therefore, blessed by the less rigorous time with these hardships, he dismissed them all. Whoever reads it, sees everyone embedded there, those of his sympathy and also those of his antipathy. We stay with Wanderley Guilherme dos Santos. His lessons motivate us to debate science without the fences of fragmentation. They mobilize us to integrate geography and health; to interpret the links between territory and health.

Links between territory and health

How many of us, learned doctors, in public universities, trainers of successive hordes of girls and boys entering geography and the countless health sciences, have made intercessions between them? These unanswered things.

We will not come to the abuse of saying that in every geography degree, students have never heard of health, as related to its geographical object of desire. But it is possible that this ominous fact occurred. Likewise, how many of the countless students of the health sciences – Medicine, Nursing, Psychology, Nutrition, Speech Therapy, Physiotherapy, Occupational Therapy, Biomedicine, Dentistry –, at some point, studied the space, the territory where life runs, and the floor of their feet, which will trample their post-college trajectory?

What mention did they make of this relationship, at some point, for looking beyond the landscape and seeing the people who will be subjects of their care? To understand their stories, their tears and laughter, their daily sufferings that will demand from them the technical care for which (it is assumed) they were (or will be) ‘well’ prepared?

Of course, you can’t say that everything is wrong, but in terms of geography and health, everything is wrong. Sciences that do not talk are like lovers who do not touch.

Today, in the health area, there is even talk of territories¹⁰. Primary health care incorporated the territory category to talk about exclusion, vulnerability, violence and misery, but without coming close to the sense of space for the construction of citizenship and its attributes – culture, local economy, rites, typical knowledge and social determinations. Private medicine, given the accelerated inability of the middle classes to maintain the support of their extortionate patterns of accumulation, is currently betting on preventive medicine. For this, it appropriates, in a surprising and unusual way, the model born in socialist countries: family health, territory mapping and the logic of prevention.

However, the preventive health model, explicitly pointed out in article 198 of the Federal Constitution of 1988, is the essence of the reformist health model that is counter-hegemonic to the industrial medical health complex and its commercial logic. There was the essence of the creation of the Unified Health System (SUS): the uncompromising defense of the miserable and the deprived against their exploitation by the then growing market for the medicine of hallucinated profit, the denial of Hippocrates, the denial of humanity. Inspired by several anti-capitalist fronts, especially the International Conference on Primary Health Care (Alma-Ata, 1978)¹¹, SUS extended its universalist generosity to the wealthy blessed. And it did it good, there is no reason to deny it. As the Citizen’s Letter says, before the coming coup: health is everyone’s right and the duty of the State. Generosity that social welfare policies have with those who destroy them. And the geography with it?

Now, after all, what is, fundamentally, the nail-flesh relationship of geography and health? If we start with geography, it’s easy. 40, 50 years ago, geography was amorphous matter, static and stereotyped by the narrative passivity of its contents. We learned the names of hills, waterfalls, mountain ranges never visited. World maps and mute maps. Geography had no voice. Geography was a gathering.

The breastfed sanitary child, the same age as the geographical mother who breastfeeds it, from the SUS, taught mom that the health system would become decentralized. Its logic, organization, operationalization, management, would be right there in the mother's womb. That was the time when the mother – geography – understood her role. Did it really understand?

Healthy territory, jargon that the Ottawa Charter (1986) for Health Promotion vulgarized, by equating unparalleled things, such as healthy company, healthy building, healthy city, healthy municipality, healthy work, healthy environment, healthy food, life, attitude, etc... it does not even remotely account for an epistemology of the relationship between geography and health.

Infant health and lactating geography have not yet understood each other very well.

It is inevitable to remember Wanderley Guilherme dos Santos³ when he separates the two types of coup: the one that we live in democracy with the hegemony of the bourgeois class over the deprived class, in apparent harmony, and the one that breaks out to guarantee the previous situation when it is at risk.

For, in the case of 'healthy geography', capitalism, the bourgeoisie, economic power, the power grabbers, the bankers, the millionaire heirs, the 'high-density financier' thieves, and those we know so many of so many orders that we do not even classify them – oppressors, plunderers and predators always – will say that the disciplines of geography and health need to be narrowed in the search for sustainable development.

Is it a joke subject to peer review in a scientific journal?

Sustainable development is laughable in the eyes of a critical geography.

Health that values itself, then, paved in a criticism of the medical-industrial complex, even more so. Sustainable development is a euphemism for perpetuating the predatory logic of capital in a scenario of unsustainability of human needs (and their rights).

Space, territory, health are links. Links of a chain that has not yet been invented. The SUS loses, due to geographical destitution. Geography loses, due to sanitary destitution. How to recover this encounter? Is it possible?

Worker's health: betting on the encounter between territory and health

For about six years, often, the relationships of study, research and militancy have been strengthened between geographers from the Federal University of Goiás (UFG), State University of Goiás (UEG), Federal Institute of Goiás (IFGoiano) and health professionals from the Department of Human Rights, Health and Cultural Diversity (DIHS), of FIOCRUZ, in Rio de Janeiro. The unifying link of the encounter lies in the reflection and militancy around workers' health.

Reflections, studies and research, forged in partnerships, dialogues and friendship between professionals in the aforementioned fields, gained strength with the creation of the Intersyndical Forum Health-Work-Right. The voices of trade unionists, management and services people, from places such the Reference Center for Occupational Health (CEREST), representatives of social movements of various collectives and academics of, health, geography and other fields, at the Forum, clarify the agglutinating destiny of health and territory: to take health as the main good of the human being; to combat work processes that cause suffering, illness, violence and death of the worker; and to realize that work is the creative and transformative energy of territorial dynamics and also of health.

Understanding workers' health as a link between territory and health initially requires clarifying some principles related to the themes in question.

On the side of geographers, the fertile Brazilian geographical production has

constituted a rich source of ideas about the territory. From this production, it can be understood that the territory is the support of social production and reproduction. By expressing the concrete conditions of life and the symbolic dimensions of relationships and sociability, it can be seen that the social determinations of health-disease are embedded in territorial contents at different scales. Life is territorially constituted, therefore, the territory is a determination of health-disease¹².

Because it is constituted of social relations and in conflicts of power, the territory becomes a category, a compass, a means of reading health. Territorial interpretation requires the reading of social contradictions, inequalities and class struggles, of the production of poverty. It also requires a perception of the actors who dominate wealth, control and economically feed on the disease; that appropriate common goods such as water, wind, soil, vegetation, subsoil, sunlight.

In fact, the territorial reading of health-disease places the geographical and health lenses to think about the structure of the State, the strength of transnational corporations; the enrichment of landowners, the strategies of companies and also the agendas of social movements, unions, different collectives that fight for life. If territory is made of relationships, so is human life.

When establishing this form of reading, it is discovered that the health of subjects of a class, the treatment of the disease, the conditions of illness and also the neglect of the early death of workers in jobs and in the commutes are crossed by power relations. Thus, domination joins the monopoly of wealth; the strategies of wealth control behaving as a source of illnesses. The process of domination is also seen by the control of hospitals, including the monopoly of medical knowledge, made by children of the ruling class, extending as social violence.

By saying that power is the severity of any territorial reading, it can also be said that health-disease are closely linked to the way

power is configured and exercised. No wonder, there are ideological, normative, legal devices that alienate workers and prevent them from seeing the plot of their illness and the control of their lives. Power and life do not dissociate, as territory and power.

The territorial reading of disease-health is evident in principle number one of workers' health: every kind of work moves the body, stimulates the organs, agglutinates the human organism to space. However, the division of social classes and the exploitation of the worker, in a historical itinerary marked from the industrial revolution (18th century) to the present, demonstrate that capitalism lives and survives from the worker's illness, since the class difference and the privileges of those who appropriate the means of production and the wealth originated from work are not divided equally. Inequality, an expression of the capitalist territory, is a mark of the illness and death of workers¹³.

When health-disease is seen from this angle, a central premise is elucidated: workers' health stems from a reading of the class struggle and any other form of domination, whether race-ethnicity, gender or sex, as work is responsible for building everything that stems from the relationship between society and nature. It is then up to the worker to defend his health, and he can only do so with a project of class emancipation. Class emancipation is realized territorially, like life. Every political struggle and every emancipation project involves and is involved in territorial plots.

Territorial plots are designed by new morphologies and content of the work. Today, there is the uberization, the registration of the corporate factory, of chemical agriculture, in the same way that the discourses around entrepreneurship grow, of the coach format of personal solution of suffering. Managers, analysts, administrators and managers gain the pulpit of publishing liberal solutions to crises, unemployment, depression, anxiety and suffering. These discourses and ideologies act in the control of desire, emotion and are

evident as capitalist strategies of seduction of the worker¹⁴.

The coups of the right, the action of fascism, the police truculences that criminalize the action of social movements, the pressure on workers, the destitution of their rights, are the concretization of the class struggle. Now, health is the full achievement of life, which, in turn, depends on the material and subjective reproduction of the worker. When the worker ceases to control his action at work and exercises it under domination and alienation, this realization, which should be full, becomes illness. The worker fights in his associations because he defends his life; life is the fabric of health, the pictorial code of the encounter with the other, not of his exploitation.

Therefore, components such as the profound difference between life expectancy, for example, in the United States of America (around 80 years) and in Mozambique (around 50 years); the difference between scientific research in the field of health carried out by the exploiting rich countries and by the exploited poor countries of the capitalist order; the difficulties of impoverished retirees to buy their medicines and their history of penury in the world of work. All are examples of the relationship between power, work and health. At the geopolitical level, on the inner scale of countries and social classes, as well as race-ethnicity, differences in health are territorial differences.

The business action carried out by entrepreneurs, paper managers, financial analysts, agents of the so-called opportunity management, short risk investors, public securities, bank Deposit Certificate (CDs), financial Depository Receipt (DRs), debentures, stock market, in a profuse radius of alliances, competitions, coercion strategies of dominant States, are responsible for a new model of accumulation based on financial income. Geographer David Harvey¹ argues that this environment unfolds a new territorial content seen in the geographical landscape of capital accumulation. This environment is stitched together by mechanisms of production, speculation,

business, scientific knowledge and land use. This process makes science sick – one could say.

David Harvey's analysis¹⁵ demonstrates that intervention in nature, through discoveries in the field of genetics, technology and business, inspires geopolitical control of the world's wealth. Therefore, according to the geographer, the precariousness of labor relations cannot – and should not – be separated from state tactics, geopolitical disputes, rentism and the worker's illness. There is a pathological global process, the successive growth of the diseased landscape, including science. This, under the threat of coups.

However, the territorial interpretation of health, or the reading of health-disease through the territory, within the framework of the field and the issue of worker health, mobilizes other principles. Well, the reading of the territory, as previously argued, is for workers' health activists a way to clarify their forms of struggle. It is therefore up to the members of this interdisciplinary field to see, for example, the strategies of the State, the reasons why it benefits doctors and capitalist medicine. It should also be seen from the same perspective that the territorial structure of the toxic economy causes worker illness in the gray crops of agribusiness, in the breeding of chickens and cattle and in the process of commute in cities and bodies exposed to the sun in the hope of saving lunch by selling candies, cookies, fruits on the corners of the metropolises. The subjects of struggles, when interpreting the territory, read the articulations of the political benches, their ideological strategies, their class representations, including in the normative spheres and in the way the judiciary legitimizes social inequality, maintains the privileges of corporations, conceals the class struggle¹⁶.

As a result of what has been presented, workers and workers' health activists must ask: what are the implications, for example, of colonization and imperialism on the health and illness of workers? They must ask why enrichment, the concentration of land and capital

create poverty? Should they ask if poverty is more affected by diseases or not? Should they ask for who the medical science is for? Do they also need to ask about the meanings of social, urban, class violence?

All these questions – and others as important as these – help to clarify that the destructive processes of life, or the ontological predation of human beings, water, soil, biodiversity and socio-biodiversity, by joining the process of spatial segregation, unemployment, social marginalization, class fragmentation, legal civil war, are part of the contradictory essence of capitalism.

The reading of contradictions can be a light for the worker to see why their bodies are pressed and are always tired and stressed. They can find an explanation in the fact that their children do not have adequate medical care; their food is not enough; as well as their restricted leisure.

When the worker recognizes his identity, that is, reads his place in the world, sees the way in which the territory is disputed, appropriated and divided between the classes, when recognizing his identity and using it to recognize himself in the world, it is possible to combat the ideologies that want to take over his thought, his beliefs, his tastes and his actions. The worker then comes to see that there is a concrete world – that of his life – and of the territory, in which his life is exercised¹⁷.

This resumption of the world, from the conquest of his identity, stimulates him to recognize that there is no health of the worker without praxis. He recognizes that health and disease are intertwined in such a way that the terms are combined; and that without the emancipatory action of the worker, there will be no solution to remedy what makes him ill: exploitation.

Therefore, workers' health, in addition to being interdisciplinary – therefore, it is not the property of any scientific field, any isolated type of union, or religion, or even a political party –, as a praxis, ceases to be just a field and becomes a social issue. Or a challenge for all workers. If every kind of struggle demands an

identity or a social identification, its achievement is territorially concretized.

When the motto – 'health, you don't delegate, you defend it' – is extended as a principle, what is put is the call for the worker to read the territorial dimension of work in all its dimension, whether on the factory floor, in industrial workshops, in the huge crops sprayed by pesticides, in signs and traffic lights where candies and fruits are sold in the open air; at counters, on medical shifts, in classrooms, on the scaffolding of buildings, or in answering phone calls, as in telemarketing, driving a car rented in the provision of services to Uber Technologies Inc (Uber).

The worker, by disposing himself as an operating subject of his health, not individually, but based on class identity, requests its organization. It is in the organizational forums, associations, unions, social movements or political parties interested in the total cause of the worker that health is recognized as a worker's right; and, in recognizing it, understands that health is a human right.

That is why fractured, dichotomized, fragmented scientific knowledge, raised only to the narcissistic figures of publication numbers, helps little to compose the fight for health. But when the various fields of knowledge are brought together, specifically health and geography, to mention the only two fields dealt with in this text, it is discovered that knowledge can enhance the reading of life.

The knowledge of the worker, as well as his vast experience in the world of work and the link of work with the family, with leisure, with school, in short, with the concrete world of his life, is a demonstration that health and territory are embraced in political struggles. These struggles have as their purpose the struggle for life.

We can consider

As has been reflected for some time in the works carried out from research actions,

organization of thematic seminars, participation in DIHS/FIOCRUZ workshops, health is not the absence of disease, because the matter of the body has a long history; and the body is a memory of the history of the planet, product/producer of culture.

Thus, it can be said that there is no totally healthy or totally sick subject. Health and disease become health-disease. And, in this regard, workers' health should be made explicit. This is a field of knowledge; of political struggle; of intervention; of social participation. Therefore, it aggregates unions, social movements, universities. And it should aggregate the dialogue between knowledges.

Due to its breadth, its decisive position and also its origin, workers' health does not choose religion, political party, language, color, but is an ideological issue. By reading work in a comprehensive sphere, based on social class, it aggregates the action of subjectivity; connection with knowledges, with emotion, with pleasure; with the body; with nature; with culture; with identities; with the territory; with the environment; with time.

In the specific case of the reflections that were developed, the observation of the deep illness caused by the current economic model and the exploitation of the worker is also echoed in the organization of science. It was noticed that, on the one hand, the so-called health professionals disregard the reading of the contradictions of the territory as determinants, or conditionings of the illness; on the other hand, the geographical, spatial, territorial interpretations, made by geography, tend to disregard the health-disease plots.

The disease of science is, therefore, the result of the fragmentation of knowledge, of its atomization. This fragmentation, with its sophisticated and academic enunciations, much more than facing the concrete problems that affect workers, motivates an unstoppable internal conflict between peers.

Scientific practice itself gets sick. It is an index of global pathologization¹⁸.

Therefore, the dissolution of cooperation in the elaboration of knowledge, in its dissemination and in its publicization, weakens praxis, therefore, it weakens the struggle for the emancipation of workers. Weakened, the coups are easier to implement.

In the current economic regime, science is also a territory of dispute. No wonder, rich countries develop research, try to control nature, patents, laboratories and drug formulas that promise to cure human anguish. But they do not act to eliminate social inequality, poverty, hunger, monopoly. On the contrary, the illness of workers to the degree of a global pathologization interests the pharmaceutical industry as much as minerals, water and soil for the production process. The human misfortune of illness is the fortune of laboratories and corporations. The triumph of the hospital-centered model, the geopolitical victory of the dominant countries.

The deep commodification of nature, the exploitation of labor or the growth of dependence on medicines are parts of a gear whose result is genetic erosion, ontological predation and the intoxication of life. The sick planet has the approval of sick science. But sickness is profitable because it mobilizes forces that control wealth, corporations, and monopolies.

The joining of the hospital-centered network to the production network is, on a geopolitical scale, a form of territorial domination. It is an effective action of power. The question that arises is how the worker will read this control by interpreting its contradictions. Or how he will face the ideologies that displace him from the concrete plane – from the relationship between his life and territorial determinations. Now, the emancipatory process, therefore, requires recovering as much as possible the health of science and its various fields of knowledge. As mentioned by dos Santos³, in 1962, if there is not a well-done interpretation, it will not be known who will carry out the coup in Brazil.

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Collaborators

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of the work; and collaborated with the writing of the text through the presentation of the results of the research carried out. Vasconcellos LCF (0000-0002-7679-9870)* contributed to the conception and planning of the text; and collaborated with the writing of the text and the critical review of the content. Gonçalves RJAF (0000-0002-8033-0426)* collaborated with the writing of the text, interpretation of the data and information presented; and critical review of the content for final approval. ■

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