

Liberatory technology through mutual nurturing. Andean thought and anarchist critique of technocapitalism¹

Una tecnología liberadora desde la crianza mutua. Pensamiento andino y crítica anarquista del tecnocapital

Uma tecnologia libertadora a partir da criação mutua. Pensamento andino e crítica anarquista ao tecnocapital

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Abstract

The denunciation of technology as the cause of contemporary crises has led part of critical thinking to become inclined to rejecting technology. Anarchism, however, possesses a critical tradition that, grounded in the distinction between capitalism and technology, has underscored the liberating potentialities of technology. Drawing on a review of ethnohistorical, anthropological, and philosophical research, this article seeks to show the resonances between Bookchin's dialectical naturalism and a theory of mediations within Andean thought, particularly through the notion of “mutual nurturing”. In this sense, it is argued that a theory of mediations can enrich anarchist critical theory by interrogating the foundations of technocapital and revealing its colonial character. This opens up possibilities for deeper explorations of how an alternative technics may be conceived in the present.

Keywords: Anarchism, mutual nurturing, philosophy of technology, Andean thought, critical sociology, liberatory technology, educational theory.

Resumen

La denuncia de la tecnología como causa de las crisis presentes ha conducido a parte del pensamiento crítico a inclinarse a renunciar a la tecnología. Por su parte, el anarquismo cuenta con una tradición crítica que, a partir de la distinción entre capitalismo y tecnología, ha subrayado las potencialidades liberadoras de la tecnología. Este artículo se propone mostrar, desde la revisión de investigaciones etnohistóricas, antropológicas y filosóficas, las resonancias entre el naturalismo dialéctico de Bookchin, y una teoría de las mediaciones en el pensamiento andino, particularmente desde la noción de “crianza mutua”. En ese sentido, se argumenta que una teoría de las mediaciones puede nutrir la teoría crítica anarquista al interrogar los fundamentos del tecnocapital, y al evidenciar su carácter colonial. Esto abre posibilidades de profundización en torno a las posibilidades de pensar otra técnica en el presente.

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Palabras clave: Anarquismo, crianza mutua, filosofía de la tecnología, pensamiento andino, sociología crítica, tecnología liberadora, teoría de la educación.

Resumo

A acusação de que a tecnologia é a causa das crises atuais levou parte do pensamento crítico a inclinar-se para a renúncia à tecnologia. Por seu lado, o anarquismo possui uma tradição crítica que, a partir da distinção entre capitalismo e tecnologia, tem sublinhado as potencialidades libertadoras da tecnologia. Este artigo propõe-se a mostrar, a partir da revisão de investigações etnohistóricas, antropológicas e filosóficas, as ressonâncias entre o naturalismo dialético de Bookchin e uma teoria das mediações no pensamento andino, particularmente a partir da noção de “criação mútua”. Nesse sentido, argumenta-se que uma teoria das mediações pode alimentar a teoria crítica anarquista ao questionar os fundamentos do tecnocapital e ao evidenciar o seu caráter colonial. Isto abre possibilidades de aprofundamento em torno das possibilidades de pensar outra técnica no presente.

Palavras-chave: Anarquismo, nutrição mútua, filosofia da tecnologia, pensamento andino, sociologia crítica, tecnologia libertadora, teoria da educação.

“How can we heal the fracture that separates living men from dead machines without sacrificing either men or machines? How can we transform technology for survival into a technology for life?” (Bookchin, 1986, p. 155)

Introduction

In various diagnoses, technology appears as the cause of contemporary crises: political, economic, subjective, environmental, to name only a few. But is the problem technology as such or a historically specific technology with which we live today? Throughout the twentieth century, phenomenology, Frankfurt School critical theory, and Heideggerian thought conceptualized technology as a problematic tendency inherent to modern epistemology and metaphysics (Adorno & Horkheimer, 1998; Anders, 2025; Heidegger, 2007; Husserl, 2008)². This diagnosis reached an exemplary formulation in Jacques Ellul's critique of the “technological system” (1980), according to which technology colonizes and subordinates every aspect of social life. Despite the fact that this tone of defeat toward technics has shifted with the advent of the twenty-first century, there is a persistent understanding of technology as a tendency whose development will either provide solutions to current crises -as can be seen in “transhumanism” (Bostrom, 2022) and in Bratton's *terraformist* approach (2021)- or, alternatively, as a tendency that, while impossible to counteract, may nevertheless be subordinated to other political and moral orientations, as can be observed in the research regarding platforms (Srnicsek, 2018) or

² The case of Marcuse (2024) should be set apart, insofar as he conceived capitalism as a mode of social relations that obstructs the development of the “pacifying” potentials of technology. We must do the same for the work of Simondon (2007), as it seeks to avoid both technophilia and technophobia and opens other paths of inquiry. His intuition of technics as “crystallized human gesture” today acquires renewed consistency, for example, in the “cosmotronics” of Yuk Hui (2024). Throughout this text we prefer to situate ourselves closer to this line of thought.

surveillance (Zuboff, 2020). In this article, I share the view that “Denouncing technology and civilization as inherently oppressive of humanity in fact serves to *veil* the specific social relations that privilege exploiters over the exploited and hierarchs over their subordinates” (Bookchin, 1995, p. 33). Thus, a central task in order to critically understand the present is to avoid isolating technology from the social, material, and cultural relations within which it exists: the origin of these crises is not technology itself, but rather the social relations within which it participates, which produce it and which, in turn, it reproduces. In other words, it is not a matter of criticizing technology, but of delimiting the particular technology we confront. From this standpoint, rather than relying on an abstract and universal concept of “technology,” it is worthwhile to distinguish between “technics,” “technology,” and “technocapitalism.”

By “technics,” I refer to any form of know-how sedimented in functioning objects, which therefore participate in the material culture of communities. By “technology,” one may consider modern technics, whose development is intertwined with science as a form of knowledge experimentally oriented, interrogating reality through logically consistent and empirically verifiable hypotheses (Hernández, 2009; Hui, 2024). Finally, with the idea of “technocapital,” I seek to differentiate technology from capitalism. Without this distinction, the critique of technology may tend toward a certain primitivism that ultimately distances itself from the very idea of technology altogether.

By technocapital, I refer to the contemporary configuration of an entire system of technological objects, natural and technical environments, human and nonhuman beings, which are presumed to operate as though separate, yet which we may observe are constantly affecting one another (as in the notion of “collateral effects”), and whose communication occurs primarily through the market. In short, this is a historically determined form of technological development that emerged in Europe around the time of the Industrial Revolution, that draws on scientific rationality (Hernández, 2009), and that is subordinated to the accumulation of value, subsuming all existence under the logic of value (Marx, 2007). If technocapital is historically and geographically particular, its *planetaryization* is a dimension of colonial deployment.

This leads us to inquire into how other forms of life have produced different technical objects and means, not with the intention of arriving at solutions to our present dilemmas, but rather in pursuit of questions that allow us to estrange ourselves from the present. I will focus on how Andean thought understands reality through mediation. By mediation I refer to the Andean understanding that relations logically precede that which is brought into relation, in other words, each thing is the knot that emerges from its relations. Thus, van Kessel and Condori (1992) observe mediation in the production of *ch'uñu* (freeze-dried potato): for a human group to exist as such, it requires its community within the *ayllu*, just as it requires planting and caring for potatoes in order to nourish itself, and livestock in order to transport the harvest. Yet, in turn, the potato would not be what it is without the *ayllu* that cares for it, nor without the frost that freezes it or the sun that dehydrates it, nor could the animals participate in the nurturing of potatoes if the *ayllu* did not also care for them in turn. In summary, each thing exists only insofar as it participates in relations that characterize it as what it is.

Our hypothesis is that it is possible to enrich the anarchist critique of technocapital by means of a logic of mediations such as the one we encounter in Andean thought. First, because the idea of mediations -with its collective conception of social life and its dynamic understanding of the socio-natural- establishes a dialogue with the anarchist tradition, particularly with Bookchin (2012, 2019a, b; 2023). Second, because attention to Andean concepts does not call into question the “ends” of technocapital, but rather its very foundations. If, following Taibo (2018), Makaran and Brancaleone (2024), we distinguish between anarchism as a modern political ideology and libertarian or anarchist practices disseminated among various non-Western peoples without a necessarily ideological foundation, then what we propose is that anarchism nourish itself from Andean libertarian practices in its critique of technocapital, establishing a dialogue capable of sparking our technopolitical imagination by recognizing that mediation and relationality are interpretative keys pertinent to our present urgencies.

What follows first synthesizes some aspects of Murray Bookchin's thought regarding technology. Then, I will outline the theory of mediation in Andean thought, showing how it appears in agricultural production according to ethnohistorical and ethnographic sources, before concluding with reflections on the concept of “mutual nurturing.” Finally, I conclude by underscoring the convergences between anarchism and Andean thought, as well as the avenues for further research and exploration that these convergences open up.

Technology and Anarchism

Kropotkin (2005) saw in technology the possibility of unfolding a social revolution. He argued that the development of industry and technology improves human life by reducing effort and facilitating production for the satisfaction of needs. Yet obstacles persist. We could enjoy a life of collective abundance “from what our science and our technics could provide us, if they were applied to securing the well-being of all” (p. 22). In Kropotkin's project, machines are the sediment of the labor of generations, the expression of a collective and historical inventiveness. For this reason, they ought to belong to everyone, and oriented toward a society centered on well-being. The potentials of technology call private property into question, to the point that Kropotkin states that “[n]o one has the right to seize a single one of these machines and say: 'It is mine; for its use you shall pay tribute for every product you make with it'" (p. 29). Every technical invention is always collective, and therefore its use and disposition ought to be collective as well. Thus, Kropotkin regarded technology as a potentially liberatory element, provided that we transform the property regime and its mode of use.

Today, however, we might observe that the reduction of certain burdens of labor has instead led to intensified productivity, without even a glimpse of freeing of our time. Moreover, Kropotkin (2005) knew neither atomic bombs nor what is now called the Anthropocene. What, then, can we say today? Above

all, it is the twentieth-century diagnosis -according to which technology stands as both cause and expression of relations of destruction and domination³- that we must observe at a certain distance.

Bookchin (1995) argues that this diagnosis implies that “capitalism itself has been mystified by many self-styled anarchists into an abstractly conceived ‘industrial society’, and the various oppressions that it inflicts upon society have been grossly imputed to the impact of ‘technology’” (p. 2). Thus emerges a critique directed against “civilization” in the abstract, rather than against historically specific capitalist and state-centric relations. As a result, this tendency -also present within anarchism⁴- renounces the aspiration to transform the institutions upon which collective life is built, believing instead that they can simply be discarded. In this same line, it ends up conceiving technology as a force that determines social relations, aborting any understanding of the more complex relation between socio-technical processes, while overlooking the fact that the problems developing under the aegis of technology - such as loss of jobs, environmental destruction, among others- “are anchored *precisely in social relations of capitalist exploitation*, not in technological advances per se” (Bookchin 1995, p. 29). In the shadow of the Anthropocene, we might add today that these are capitalist material relations that erode the fabric of life, insofar alongside the exploitation of labor, there have become visible droughts and desertification, the extinction of diverse species, global warming, and other such phenomena.

Bookchin understood the role technology played in the world wars, during the so-called “Cold War,” and was aware of the processes of automation involved in massive job losses. For this reason, he states that

I make no claim that technology is necessarily liberatory or consistently beneficial to man's development. But I surely do not believe that man is destined to be enslaved by technology and technological modes of thought (...). On the contrary, I shall try to show that an organic mode of life deprived of its technological component would be as nonfunctional as a man deprived of his skeleton. Technology must be viewed as the basic structural support of a society; it is literally the framework of an economy and of many social institutions. (Bookchin, 1986, pp. 108-109)

And it is precisely because technology is conceived as a structure that expresses, sustains, produces, and reproduces particular social and metabolic relations that Bookchin asks whether it might enable a free community, not only to the extent that it reduces human effort, but insofar as technology promotes communal solidarity and recognizes the relations of dependence that human beings maintain with nature: “The question is whether a future society will be organized around technology or whether technology is now sufficiently malleable so that it can be organized around society.” (p. 128).

³ This diagnosis is shared by thinkers as diverse as Martin Heidegger, Günther Anders, Jacques Ellul and Ted Kaczynski (2025), whose stances may be situated somewhere between anti-industrialism and primitivism. In all of these cases, technology appears as a system of domination that has also instrumentalized the human being and reason itself, thereby inaugurating an “age of the end.”

⁴ This disagreement with what Bookchin calls “personal anarchism” would eventually lead him to abandon his interest in “anarchism” in order to focus on a form of communalism that nevertheless draws deeply from the libertarian tradition and its social ecology (Bookchin, 2015).

In this regard, Bookchin undertakes an exercise in technopolitical imagination. He seeks to extract the objective possibilities inscribed within science and technology while recognizing the limits imposed by capitalist relations: he shows how the “cost factor” ultimately hinders technological development. By contrast, he maintains that science and technology could produce industries on a “human scale,” thereby avoiding dependence on enormous and heavy bureaucracies; industries oriented toward the reproducibility of the bioregions within which they develop, attentive to the nature upon which they depend. Simultaneously, this human-scale industry would foster communal solidarity and self-determination, while material needs would encourage confederated relations of exchange with other communities. This entire process would be guided by human needs rather than by profit or accumulation, and would proceed in recognition of the dependence of human life upon its environment.

All of this is part of what Bookchin conceived as a type of “dialectical naturalism” (Bookchin, 1990; Bookchin, 1999). In synthetic terms, Bookchin's argument holds that nature is a historical entity within which diverse processes occur and co-evolve. Furthermore, humans, and technology, cannot be conceived as elements alien to nature, but rather as manifestations of it. The normative horizon proposed by Bookchin -expressed through the idea of a conscious and free nature- suggests that technology may become part of both human freedom and nature itself. Within this framework, reason plays a central role for Bookchin, though its horizon is not the instrumentalization of that which exists. Rather, it points toward possibilities whose realization would improve life, enhancing both human beings and nature. This dependence of human beings on nature, and vice versa, is crucial for our argument.

We can therefore notice that the critique of technology as a condition of possibility of life is not foreign to anarchism, nor does it necessarily lead to the renunciation of all technology: it remains possible to think another technique. In what follows, I seek to connect this notion with Andean thought. Yet a pause is necessary. In criticizing primitivism, Bookchin (1995) also criticizes the mystifications of the “past.” Might I not incur in that same danger by considering the critical potential of Andean thought? In one respect, such is not the case insofar, to the extent that this thought lives in existing communities and permeates everyday life in America (Kusch, 1986). In another respect, the Andean understanding of temporality does not assume that the “past” has been left behind, but rather that it “has moved ahead of us,” granting the present its own consistency (Depaz, 2015). Therefore, I am interested in the power of what I will treat here as a “thought,” as a “theory” of socio-natural reality, while avoiding any mystifications. I propose considering in Andean thought a series of conceptual tools for “conceiving” and perceiving other possibilities, for allowing ourselves to be affected in new ways by experience. As Bookchin (1995) observes, we can learn much from societies different from our own, especially regarding “the malleability of human behavior” which reminds us that competition, selfishness, and greed are not inherent characteristics of humanity (p. 41). The sources for this Andean thought are elaborated here through Gómez's (2021) ethnohistorical consideration of the *ayllu*, the ethnography of van Kessel and Condori (1992) concerning the production of *ch'uñu*, and Elvira Espejo Ayca's (2023) reflections on mutual nurturing.

Some Elements of Andean Thought

Kusch (1976) recounts an anecdote he experienced in Kollana, Bolivia, when, while speaking with an Indigenous family and confronted with what he saw as poverty, he suggested they travel to Oruro and acquire a hydraulic pump: “The son, in order to be polite with us, said somewhat inwardly: ‘Yes, we will go.’ Then, a heavy silence ensued. The grandfather gazed at the *puna*. What might he have been looking at?” (p. 50). Kusch thus realizes that “[o]ur utensils do not simply cross over to the other side. We are truly on the verge of saying ‘dumb Indian.’ But what would happen if we don’t say it?” (p. 51). Why, then, is there no such transfer of technology, “just like that”? Kusch wagers on the cultural rootedness of technology. Certainly, this is certainly an unavoidable explanation. Yet at the same time, many technics are indeed transferred between cultures, and this is the case of what Miró-Quesada understood through the idea of technology as a *mythoid*⁵.

Perhaps, however, another explanation must be added in such cases. Following Graeber’s (2015) dispute with the “ontological turn,” I maintain that another explanation consists in the fact that other forms of living also possess other theories regarding the real⁶; they therefore entail other practices, within which another way of rendering ourselves sensitive to the world pulsates. Accordingly, I will argue that there is a central issue within Andean thought: an Andean theory of “mediation,” which posits an understanding of the socio-natural as a relational fabric, and within whose framework it possible to ponder technics. In Andean thought, diverse forms of mediation emerge, ranging from reciprocity to conflict, all of which render the relationship with other human beings, with wild nature, and with the “divine”/“ancestral” a central element to be cultivated, prioritizing mediations of “care” or “affection” over those of “discovery” or “conquest.”

If I insist that this is not merely a “cultural trait,” but rather a proposition about the way in which relations between distinct entities are constituted, and about the technics brought about by such a theory, it is because the concepts of Andean thought are capable of calling ourselves into question: they speak to us about our world and our relations with it.

One expression of this relationality may be identified in the political order of the *ayllu*, as studied by Gómez (2021). An obstacle must first be avoided. As Kapsoli (1984) points out, the memory preserved by the peoples colonized by the Tahuantinsuyo was, initially, one of resistance against that

⁵ Miró-Quesada (2006) warns that technical objects express particular understandings of, and relations with, the world, and that they exert a colonizing effect upon practices when they become established in other regions. One might also consider the idea of “anthropophagy” as a local appropriation of technics, following Oswald de Andrade (1929-2022). It is in such direction that Danowski and Viveiros de Castro (2019) seem to elaborate when approaching the issue of “terrestrial technics”.

⁶ In summary, Graeber (2015) argues that the ontological turn: (1) confuses “ontology”—that which a mode of thought maintains regarding reality and its essence—with a “way of being”; (2) confuses “epistemology”—the study regarding the possibility of knowledge—with a “way of knowing”; and (3) maintains that different cultures inhabit different “worlds.” Against this, Graeber proposes an “ontological realism”—according to which different cultures share one and the same reality, although that reality remains ultimately unknowable—and a “theoretical relativism,” which holds that we possess different yet internally coherent conceptions such reality. This shift provides a fundamental element in regards to the issues of the present discussion: different cultures are able to debate reality itself, and therefore we are capable of learning from other cultures. We inhabit different worlds of meaning, but based upon a shared world. If the “incommensurability” between cultures defended by the ontological turn is not a source of “respect for alterity,” but rather a deactivation of the critical potential of non-capitalist forms of life, Graeber’s realism compels us to consider seriously what other forms of life may offer us in understanding our own mode of living and the possibilities for its transformation.

colonization. It would only be with European colonization that the memory of the Tahuantinsuyo acquired messianic overtones and became desirable. Consequently, the vindication of the Inca Empire can only be understood in light of European colonial domination, but this does not allow us to overlook the fact that the Tahuantinsuyo maintained colonial political relations with other Andean peoples. Here it is not possible to argue whether or not Inca colonialism can be distinguished from European colonialism. Nevertheless, as Gómez (2021) has observed, various Inca political orientations were in fact inherited from forms of Andean life predating the Tahuantinsuyo, foremost among them the figure of the *ayllu*.

The *ayllu* is a “rural commune based on communal ownership of land and on kinship community” as a “primary instance of economic, social and cultural organization” (Gómez, 2021, p. 119). We must add, following Allen (2017), that the above includes beings she describes as “more-than-human,” encompassing both “the places that make up the landscape” and those who “are active participants in daily life” (p. 17). More precisely, it constitutes a milieu that is simultaneously social, natural, and religious, including human society, the extra-human society of *wak’as* (divinities, ancestors), and wild nature or *sallqa* (van Kessel & Condori, 1992). The *ayllu* is an institution whose orientation is cosmopolitical: a community not exclusively human, whose foundation lies in the co-dependence among the three coexisting communities (human, divine, and wild). In this context, Andean “reciprocity” maintains that the only possible way of existing lies in the inevitable dependence of these communities to one another, thereby inviting us to conceive that every action or omission has consequences within the relations in which we are enmeshed. The question is not whether we wish to relate to the other communities, but rather how we shall engage in something that inevitably takes place.

In a political sense, the *ayllu* responds to three economic-political, moral, and ritual principles: the “common law” -labor is communal and its product divided into three parts: community, ritual, and Inca family- the “law of brotherhood” -misery is combated through the institutionalization of mutual support-, and the “law in favor of the poor,” or the redistribution of production in order to care for children, the elderly, and the sick, making use of the portion belonging to the Inca Empire (Gómez, 2021).

We might understand the foregoing as the social institutionalization of reciprocity as a category for comprehending reality. From this follows a central element that reveals the practical implications in which this theory of mediation participates: the *tupu* as a unit of land measurement, whose criterion is not geometric but rather economic-political and moral. The *tupu* is the amount of land a community requires to live, such that its demarcation does not depend upon geometric measurements of area, as though equality implied equal “square meters” for everyone. The *tupu* depends on soil quality, access to water, and the needs of the community that will inhabit it. It is a qualitative measurement oriented toward political and moral precision, and follows from conceiving the socio-natural in terms of co-dependence.

Van Kessel (1992) described Andean technology as bidimensional. Unlike technocapital, which orients itself solely through a conception of science and reason severed from their contexts of emergence within lived experience, Andean technology combines empirical-experimental criteria with ritual, moral, and cosmopolitical orientations. Thus, according to van Kessel (1992), within Christian and later modern paradigms, labor is viewed as the confrontation of human beings against a certain nature that, insofar it is threatening, must be dominated. By contrast, for the Andean world, given the dependence between humans, *wak'as*, and wild nature, labor is not be oriented toward dominating the other parties, but rather toward establishing a “dialogue” with them that allows the human community to subsist, thereby endowing labor itself with a ritual character.

This can be observed in the “nurturing of life in the *chacra*” as van Kessel and Condori (1992) describe it: in order to produce *ch'uñu*, the community must harvest and select the potatoes most suitable for dehydration, a task carried out while evoking the spirits of geography and agriculture. The climate must be observed in order to prevent frosts that might burn the crop, while at the same time regulating the potatoes' exposure to frosts capable of freezing them. A *ch'uñawi*, grass bed upon which the potatoes are exposed to frost, must be prepared. A hut must also be built, from which the *musiri*, caretaker of the *chacra*, can oversee the production of the *ch'uñu*. Once the potatoes have been frozen by frost and dehydrated by the sun, the community proceeds with the *takiña*, treading on the potatoes, followed by the *qaxuña*, peeling them. The process concludes with the celebration of a mass, an offering that includes alcohol libations, community food, and coca, before the *ch'uñu* is finally transported to the homes. The entire process is accompanied by songs and invocations, since “no productive labor is apart from the religious worldview” (p. 63). This process relates to the concept of *tinkuy* as a contentious yet necessary encounter between nature and human being: the human being cares for nature just as nature cares for the human community. *Tinkuy*, therefore, does not name an agonistic contest, but an approach between two parties, whose balance can never be taken for granted in advance.

One might think that ritual constrains technics because it is external or supplementary to it, and that this technological bidimensionality is therefore merely an ethical or religious orientation, much as when one speaks of ethics in science and technology. For this reason, it is important to delve into the reasons of why van Kessel emphasizes this bidimensionality. By transforming the separation between human society and the natural world into a conception of reciprocal relations of dependence among human, *wak'a*, and *sallqa*, both the questions and the answers, on an empirical and experimental level, lead toward a qualitatively different form of knowledge, such that we could not adequately maintain that it stands opposed to or excludes modern scientific knowledge⁷.

Bidimensional Andean technology would therefore not come about due to an external restriction imposed upon technological practice and knowledge production by means of religious censorship, but rather due to the constitution of another way of questioning and relating to what exists. Here, ritual

⁷ This resonates with situated objectivity (Haraway, 1995), and Despret's dwell on demonstrating how experiments *produce* knowledge (2023). What is at stake here is scientific, technical, and technological activity itself as relation.

does not impose limits upon an abstract power of science; instead, it grants another consistency to science and technology. Song and invocation underscore that what is taking place is a situated, dedicated, and careful labor, and this is precisely the core of the bidimensionality observed by Kessel. This is also expressed in the *tupu* as a unit of measurement: conceiving reality differently and practicing another type of relation gives rise to the construction of other forms of measurement, as well as to other forms of cultivation and harvesting.

In light of the foregoing, we can observe that mediation is not merely the establishment of a relation between, for example, human beings and *ch'uñu*, but rather the recognition that both parties constitute each other's mutual conditions of possibility. This resonates with critiques concerning "separation" (Debord, 2007): experience and thought derived from capitalist relations, according to which all phenomena are severed from one another, encountering one another only through the market. The critique of separation increasingly emerges within the natural sciences, social sciences, and humanities whenever the boundaries between disciplines are questioned; but, also, when digital networks or the experience of ecological crisis make us feel that everything is more interconnected than we believed.

At the same time, both separation and the questioning of separation have led to an experience of impotence, in which human beings cease to be "historical subjects" in the modern sense, since the course of a world whose processes unfold separately appears alien to our practices. A theory of mediation places us once more in the midst of the world, though not in the manner of the voluntarism inherited from a conquering and controlling mode of thought, thereby avoiding both impotence and omnipotence. This is how we may read the articulation between production and ritual (van Kessel & Condori, 1992): production does not proceed with the certainty that nature has been subdued, but with the caution of one who knows that forces exist which exceed human will. In this context, Andean thought, while incapable of providing us with definite answers, may at least offer us other ways of formulating questions.

If we consider the concept of mediation, what is experienced today as "immediacy" in relation to digital technologies may instead be an effect of the specific forms of mediation characteristic of technocapital. Within Andean thought there exists a series of concepts that make it possible to think mediations between the human, the wild, and the divine. Briefly, these include *taypi* as a germinal microcosm in which disparities remain bundled up without becoming confused one with another; *awka* as the clarity and diurnal distinction of discrete entities; *puruma* as the liminal character of the indeterminate, the place where one thing ends and another begins (Harris & Bouysse-Cassagne, 1988); *kisa* as a fluid contiguity that gathers two or more differences without synthesizing or confusing them (as occurs in the tonal transition of a rainbow or an *aguayo*); *kuti* as turn-taking and alternation, presupposing orders in a constant coming and going, as expressed in the idea of *pachakuti* for which crisis is understood instead as an alternation; *tinku*, in which reciprocity manifests itself in the mode of a conflict that nourishes the movement of the living (Cereceda, 2023; van Kessel & Condori, 1992); or *ch'ixi* in Silvia Rivera Cusicanqui (2018) as the motley coexistence of differences.

Andean thought offers a vast conceptual apparatus for thinking relations across difference without resorting to figures of synthesis that overcome contradictions, insofar its aim is not to overcome differences, but to articulate them; nor does it rely upon subsumption, which reduces the particular to the universal, since within Andean thought every mediation constitutes the irreducibility of each entity. This richness of conceptual distinctions in regards to mediation offers us the possibility of centering relationality when conceiving reality. From a perspective of theory of mediations, “separation” is not the absence of relations, but rather a form of relation that has forgotten itself. If mediation is the consistency of existence, capitalism -as a not-knowing with respect to relation- leads to destructive consequences inasmuch relations can never be suspended, but rather become neglected.

Given the scope of this article, it is not possible to delve into each of the previously mentioned categories of mediation. I will therefore focus on the Aymara notion of *uywaña* as theoretical and practical perspective resulting from thinking mediations. *Uywaña* has often been translated as domestication, but Elvira Espejo Ayca (2023) emphasizes that it would be more appropriate to speak of “mutual nurturing”. In her work, she addresses specifically with Andean weaving as something that is simultaneously nurtured by weavers and itself nurturing its users. Participating in relations of reciprocity, the *aguayo* that protects its bearer from cold and sun in turn deserves care itself.

For their part, van Kessel and Condori (1992) also synthesize their observation on the production of *ch'uñu* through the idea of mutual nurturing: hence this agricultural production is permeated by affection and by recognition of the potato as the nourishment that enables the community to live. In both examples, dependence upon nature means that nature cannot become a unilateral object of human desires, but rather presents itself as a companion or contending force with which reciprocal relations are woven. The same must be said of the *wak'as*, which constitute a sacred geography wherein the past, sedimented in the landscape, becomes the material and moral condition and possibility of the present.

If, in our practices, we fail to correspond to untamed nature or to the ancestors who have become a condition of the present, we will remain blind both to the threats and to the possibilities that these other parts of the terrestrial community (Mbembe, 2024) offer us, and remain incapable of understanding the crises we are living through. Reciprocity thus appears as the possibility of comprehending our relation to what exists, while mutual nurturing emerges as co-creation. From the standpoint of mediations, the human being is neither sovereign over nature nor over ancestors, and cannot disregard or dominate them. Human dependence upon nature does not reduce humanity to impotence, but it does call into question voluntarist conceptions of the “subject” in the sense inherited from modern political philosophy.

Van Kessel (1992) will show that this mutual nurturing makes Andean technology itself part of the ritual care of the *ayllu*. This idea resonates with Bookchin's intuitions regarding a technology that, by recognizing its dependence upon nature, enables anarchic and ecological social relations. In this way, the cosmopolitical wager contained in the Andean understanding of the world directly concerns the

urgencies that besiege us in the present, as we witness how climate change unfolds slowly yet relentlessly in intimate relation with the reproduction of human misery across the planet. As Chakravarty (2021) has argued, the need for postcapitalist thought can no longer naively embrace productivism. It also becomes relevant when considering the feeling of human impotence before the enormous automatism of globalized technocapitalist processes in production and financial capital. Andean thought underscores the possibility that, within what we experience as impotence, instead there may emerge a form of agency grounded in reciprocity and dependence, rather than through the figures of conquest, domination, or control. One of the consequences of this is that we begin to think technology as a support for our relation to the world, rather than as a collection of utensils and solutions for confronting emergencies. Technics, as mediation, sustains our existence in and with the world, whereas technics as domination opposes our existence to the world.

Elvira Espejo Ayca (2023) tells us that mutual nurturing includes objects themselves as part of the community and of reciprocal relationships. What pulses here is a stance against the subordination of technology to accumulation, which calls into question programmed obsolescence (insofar reciprocity requires that technologies themselves be capable of being cared for), as well as the contemporary fetishism that deifies technology (inasmuch as one might think the mediation between human beings and technics), to mentioned only two examples. In this way, we may once again situate ourselves in the midst of technics, so as to think our relation to it and the relation it sustains between us and nature.

Conclusion. Critique of Technology in Favor of Its Potentials

We have emphasized how the anarchist critique, particularly in Bookchin's proposal, allows us to recover the question of technics without yielding to primitivism. Within the framework of the dialectical naturalism proposed by Bookchin, technology itself must also participate in the relations of co-dependence between human beings and nature. This resonates with the intuitions of the theory of mediation in Andean thought, wherein the relationality between human beings and their environment gave rise to technological developments grounded above all in care and nurturing. If we begin to think from mediation, technocapitalism appears catastrophic not because of its technological component, but because of its neglect of the relationality within the socio-natural.

This opens possibilities for investigating other categories of mediation and their potential impacts on technological production and upon our relation to existing technology. I agree with Yuk Hui's (2024) proposal that all techniques are *cosmotechinic*, but I stress that the problems being debated today about technology cannot overlook the capitalist and colonial character of this particular technology, nor therefore yield to the exhausted conceptions inherited from a certain modernity. A theory of mediation, with its emphasis on relations of dependence, makes it possible to critique the "separation" upon which technocapitalism is founded, showing that our technology, despite its economic successes and without denying its achievements in other domains, has proven inadequate insofar it has approached

reality erroneously, that is, by disregarding the relations of dependence in which it has in fact always participated. What we now name as the “Anthropocene” or “collapse” may be understood as an awakening to the mediations in which we have always already been participating.

I have not sought to speak on behalf of the Andean world, nor to present its technology as an example of what should be done, but rather to learn from its logic, from which we may pose questions about technology in another way. We have seen that between Bookchin's naturalism and Andean thought there exists a convergence at the level of a relational understanding of reality. The questions opened by a logic of mediations interrogate the possibility of erecting a technology grounded not so much in the domination of nature as in the establishment of a relation of mutual nurturing. These questions ask whether technology itself might become an instance of mutual support between humans and nonhumans, in the interest of enabling a livable world. Likewise, from the perspective of a thought of mediations, the ideas of “control” and “domination” may indeed resonate with mediation as conflict (*tinkuy*), yet they both forget that conflict carries consequences and that conflict, insofar as it is an encounter between two parties, is not necessarily reducible to an agonism of domination: “nurturing life in the *chacra*’ is not a pleasant or poetic labor, but rather a total challenge and a permanent struggle *-tinku-* for the continuity and unfolding of life” (van Kessel & Condori, 1992, p. 123).

Unlike the Western philosophical tradition, for the Andean world conflict does not succeed in subsuming nature within a humanist project. Conflict instead appears as the recognition of the irreducible character of the human, nature, and the ancestral, even of the irreducible character between two human communities. Yet it does not interrupt coexistence; rather, it characterizes its inevitability. Conflict is therefore one mediation among many possible strategies for placing what exists in relation with one another, and not a fundamental one. It thus becomes necessary to develop categories of mediation that may enable another technological relation with nature. This would allow us to rethink certain projects that once pulsed at the heart of the modernity contested by anarchism: the possibility that knowledge and technology, rather than operating against nature, might instead prolong its potentials.

What is thereby called into question does not relate to the ends of technology, an approach that would instead tend toward the idea of sustainable capitalism. Rather, thinking from mediations interrogates the very foundations of technocapitalism, those that have been erected upon the conception of nature as matter to be dominated and oriented toward the accumulation of value. That which Andean thought offers anarchism is, first, a development of the critique of these foundations by underscoring a cosmopolitical dimension that expands the critique of technology so as to consider its potential to enhance nature as well. Secondly, it offers the possibility of affirming diverse forms of life as producers of distinct technologies—not merely for the sake of “*technodiversity*,” but rather as a critique of the colonial character historically assumed by technocapital.

Thus, anarchism and Andean thought converge in a critique of technocapital, rather than in a renunciation of all technics or all technology. Important questions nevertheless remain unanswered,

insofar as it remains necessary to explore, beyond the cases examined here, how mediations might orient the production of another technics. Likewise, Bookchin's dialectical naturalism and his concept of reason must be further developed in order to move from a mere comparison in regards to a thought of mediations toward evaluating the possibility of articulating both theories together.

Although I have shown that a theory of mediation may help us understand the time in which we live, it should also be noted that dissident technological practices are already emerging, practices that may be approached through relationality and the critique of technocapitalism, wherever impotence compels us to transform our habits: recycling, repair, free software. Thus, alongside Bookchin, we will continue asking ourselves how we may avoid the sacrifice of either human beings or machines.

References

- Adorno, Th. y Horkheimer, M. (1998). *Dialéctica de la Ilustración. Fragmentos filosóficos*. Trotta.
- Allen, C. (2017). Pensamientos de una etnógrafa acerca de la interpretación en la arqueología andina. *Mundo de Antes*, 11, 13-68. <https://doi.org/10.59516/mda.v11.47>
- Anders, G. (2025). *El tiempo del fin*. Alma Negra Editorial.
- Bookchin, M. (1978). *Por una sociedad ecológica*. Editorial Gustavo Gili. https://fetap-cgt.org/old/IMG/pdf/Murray_Bookchin_Por_una_sociedad_Ecologica.pdf
- Bookchin, M. (2012). *Rehacer la sociedad. Senderos hacia un futuro verde*. Lom.
- Bookchin, M. (2019a). *Anarquismo social o anarquismo personal. Un abismo insuperable*. Virus.
- Bookchin, M. (2019b). *La próxima revolución. Las asambleas populares y la promesa de la democracia directa*. Virus.
- Bookchin, M. (2023). *Ecología social*. Sapos y Culebras editorial.
- Bostrom, N. (2022). *¿Hacia dónde vamos? La propuesta transhumanista*. Asociación Secular Humanista del Perú.
- Bratton, B. (2021). *La terraformación*. Caja Negra.
- Cereceda, V. (2023). *Aproximaciones a una estética andina: de la belleza al tinku*. Kikuyo ediciones.
- Chakravarty, D. (2021). *Clima y capital. La vida bajo el antropoceno*. Ediciones Mimesis.
- Danowski, D. y Viveiros, E. (2019). *¿Hay mundo por venir? Ensayo sobre los miedos y los fines*. Caja Negra.
- De Andrade, O. (2022). *Manifiesto antropófago*. <https://casadeltiempo.uam.mx/index.php/20-ct-vi->

5/306-ct-vi-5-manifiesto-antropofago-oswald-de-andrade

- Debord, G. (2007). *La sociedad del Espectáculo*. Pre-Textos.
- Depaz, Z. (2015). *La cosmo-visión andina en el Manuscrito de Huarochirí*. Ediciones Vicio Perpetuo Vicio Perfecto.
- Despret, V. (2023). *Cuando el lobo viva con el cordero*. Cactus.
- Ellul, J. (1980). *The technological system*. The Continuum Publishing Corporation.
- Espejo, E. (2023). *Yanak uywaña: La crianza mutua de las artes*. Kikuyo ediciones.
- Haraway, D. (1995). *Ciencia, cyborgs y mujeres. La reinención de la naturaleza*. Cátedra.
https://monoskop.org/images/e/eb/Haraway_Donna_J_Ciencia_cyborgs_y_mujeres_La_reinencion_de_la_naturaleza.pdf
- Heidegger, M. (2007). *Filosofía, Ciencia y Técnica*. Editorial Universitaria.
- Hernández, J. (2009). Lo natural y lo artificial en Aristóteles y Francis Bacon. Bases para la tecnología moderna. *Ontology Studies*, 9, 289-309.
<https://raco.cat/index.php/Ontology/article/view/173312>
- Gómez, A. (2021). *La memoria utópica del Inca Garcilaso: Comunalismo andino y buen gobierno*. LOM ediciones y Tinta Limón.
- Harris, O. y Bouysson-Cassagne, T. (1988). Pacha: en torno al pensamiento Aymara. En X. Albó (Comp.), *Raíces de América. El mundo Aymara* (pp. 217-281). Alianza Editorial.
- Hui, Y. (2024). *La pregunta por la técnica en China. Un ensayo sobre cosmotécnica*. Caja Negra.
- Husserl, E. (2008). *La crisis de las ciencias europeas y la fenomenología trascendental*. Prometeo Libros.
- Graeber, D. (2015). Radical alterity is just another way of saying "reality": A reply to Eduardo Viveiros de Castro. *HAU: Journal of Ethnographic Theory*, 5(2), 1-41,
<https://doi.org/10.14318/hau5.2.003>
- Kaczynski, T. (2025). *Desde un bosque lejano. Tecnología, colapso y revolución*. Errata naturae.
- Kapsoli, W. (1984). *Ayllus del sol. Anarquismo y utopía andina*. TAREA.
- Kropotkin, P. (2005). *La conquista del pan*. Libros de Anarres.
- Kusch, R. (1976). *Geocultura del hombre americano*. Fernando García Cambeiro.

- Kusch, R. (1986). *América Profunda*. Editorial Bonum.
- Makaran, G. y Brancaleone, C. (2024). *Alebrijes Anárquicos: Anarquía, praxis anticolonial y autonomía en América Latina*. Editorial Eleuterio.
- Marcuse, H. (2024). *El hombre unidimensional*. Ariel.
- Marx, K. (2007). *Elementos fundamentales para la crítica de la economía política (Grundrisse) 1857 ~ 1858*. Siglo XXI Editores.
- Mbembe, A. (2024). *La comunidad terrestre. Reflexiones sobre la última utopía*. Ned Ediciones.
- Miró-Quesada, F. (2006). Ciencia y técnica: ideas o mitoides. En L. Zea (Coord.), *Latinoamérica en sus ideas* (pp. 72-94). Siglo XXI Editores.
- Rivera, S. (2018). *Un mundo ch'ixi es posible. Ensayos desde un presente en crisis*. Tinta Limón.
- Simondon, G. (2007). *El modo de existencia de los objetos técnicos*. Prometeo Libros.
- Srnicek, N. (2018). *Capitalismo de plataformas*. Caja Negra.
- Taibo, C. (2018). *Anarquistas de ultramar. Anarquismo, indigenismo, descolonización*. Editorial Eleuterio.
- van Kessel, J. (1992). Tecnología aymara: un enfoque cultural. En H. D. Berg y N. Schiffers (Comps.), *La cosmovisión aymara* (pp. 187-219). UCB Hisbol. <https://www.bivica.org/files/cosmovision-aymara.pdf>
- van Kessel, J. y Condori, D. (1992). *Criar la vida: trabajo y tecnología en el mundo andino*. Vivarium.
- Zuboff, S. (2020). *La era del capitalismo de la vigilancia*. Paidós.