



# Artful Sustainability in Transdisciplinary Spaces of Possibilities

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**F**ollowing up on my previous article on “Artful Sustainability” in the *Transdisciplinary Journal of Engineering and Science*, this article discusses artful approaches to the conduct of transdisciplinary research, to living a queer-convivialist art of life, and to the development of spaces of possibilities in society. The article is divided in four movements: First, seven plagues hindering transdisciplinary learning are discussed. Second, the qualities of artistic and arts-based research are reviewed, with a focus on the development of aesthetics of qualitative complexity. Third, a question is posed: What are the implications of aesthetics of qualitative complexity at the personal level? Moving my focus onwards to the personal lifeworld experiences of human beings, I advocate for a turn to a queer-convivialist life-art, encouraging a complex experience of the world where harmony through contradictions is embraced and played with. Fourth, I articulate the “real-world” relevance of artful approaches with the discussion of societal spaces of possibilities: shared physical, social and mental spaces where the search process of sustainability is activated through imagination,

experimentation, challenging experiences, creative and participative learning, and prefigurative doing. Artful sustainability mobilizes art as a verb - a transformative force in society and a source of complex questioning that sharpens our ability to engage, through transdisciplinarity, with the world’s compounding challenges.

**Keywords:** Artful sustainability, transdisciplinary spaces, sustainable futures.

## 1 Introduction

The 2018 transdisciplinarity conference organized by TheATLAS asks the question of “being transdisciplinary”. Transdisciplinarity is first and foremost offering an improvement in our ways of *learning and knowing* the world, with the insights from knowledges and wisdoms from various human disciplines, as well as between and beyond those disciplines. It addresses seven plagues that reinforce each other and are hindering learning in contemporary societies. This is why transdisciplinarity is crucial to education for sustainability/sustainable development. Trans-

disciplinarity is also offering its practitioners the chance to develop new and alternative ways of making their lives, to be and to become wisely, i.e. *ways of be(com)ing* that make up an art of living well. And most importantly for social transformation toward sustainability, this art of living is not an individualist matter, but an art of living well together. Transdisciplinarity is offering spaces of possibilities at the societal level, for human societies to become socially more just, economically fairer and more durable, culturally more enriching and inspiring, and ecologically more sensitive and response-able, i.e. *ways of doing* that contribute to a more sustainable human development.

Artful and arts-based approaches bring valuable contributions at these three levels of *being transdisciplinary: learning transdisciplinarily* through artistic and arts-based research; *be(com)ing transdisciplinarily* through artful ways of living; and *doing transdisciplinarily* through artful social practices that bring transdisciplinary affects and effects into the fabric of society.

## 2 Seven Plagues Hinder Learning for Sustainable Futures

Several forms of reductionisms lie at the root of further limitations preventing transdisciplinary learning. These reductionisms have been discussed at length by Nicolescu [1]. His analysis, when combined with Morin's [2] analysis of the challenges of education in the twenty-first century, points to a triple challenge of education for sustainable futures: (1) learning to perceive, understand and work with qualitative complexity; (2) learning to learn transdisciplinarily, with helpful epistemological approaches (for which Nicolescu laid the foundations) that allow us to reach beyond extended interdisciplinarity; and (3) learning to harness the potentials of humanities and the arts towards an artful approach to sustainability research (i.e. research that aims to contribute to social transformation for desirable and viable futures) [3].

Why those three challenges? I can identify at least seven reasons why this triple challenge is crucial to learning transdisciplinarily for sustainable futures. We need to overcome the multiple limitations, rooted in the reductionisms denounced by Nicolescu, that plague learning and knowing in policy, academia, business and civil society to this day: Seven contemporary plagues reinforce each other, and need to be

overcome together, if we are to reform our ways of learning as well as our ways of be(com)ing and our ways of doing:

1. The first and most fundamental plague, at the root of the six others, is constituted by the multiple reductionisms that, among others, Nicolescu [1] discussed, and that are found across all sectors of society, including scientism, religions, political ideologies and philosophical orientations. These reductionisms compete with each other and antagonize each other, as much as they reinforce each other. Their common feature is to reduce the real to their specific single level of reality. Working together upon the way we learn, they lead to the fragmentation of knowing into insufficiently related cognitive experiences, and to the fragmentation of be(com)ing into autopoietic social systems (as diagnosed e.g. by Niklas Luhmann repetitively throughout his work [4, 5]).
2. Another plague that prevents learning transdisciplinarily is the widespread psychic numbness to the generative aliveness of the multiple ecologies we co-evolve with. This numbness, as well as ways to overcome it, have been diagnosed by, among others, David Abram [6], Tim Ingold [7], Andreas Weber [8] and Wendelin Küpers [9], who all explore ways to re-sensitise humans through various forms of phenomenology. Weber calls for an "Enlivenment" as a corrective to the numbness brought about in the process of Enlightenment. Morin's [10] principles of qualitative complexity, if understood and deployed in terms of aesthetics [11], also contribute to an "ecologisation of thinking" that nurtures Enlivenment.
3. A third plague is revealed by reading the analyses of discriminations made by various strands of feminism, cultural studies and social sciences. Taken together, they suggest the contours of a repeating pattern of Master narratives. These narratives are carried by disciplining normativities that prescribe societal normalization. These normativities are not only hindering divergent learning, but also causing multiple discriminations and injustices in society, that combine and/or conflict with each other in complex ways. (The recent research field of intersectionality focuses on these complex intersections of racial-

ized, gendered, social-classist and other normativities and the injustices they foster [12].)

4. One specific plague that came comparatively more recently, over the past four decades, is the relatively new neoliberal economic imperative of self-optimization of individuals as economic actors, which also involves a commodification of aesthetics and creativity. The praised creativity of individuals and of a so-called creative class, narrowly instrumentalized in the service of economic growth [13], are not only contributing to unsustainable development: At the level of learning and knowing, this kind of creativity [14] also distracts from and discredits the everyday, everywhere social creativity [15, 16] and the experiential and embodied aesthetics of organizations and communities [9] that are so important to learning processes.
5. In parallel and in partially contradictory tension with the previously mentioned plague of the neoliberal instrumentalization of creativity, yet another plague is the disembodied intellectualism and top-down planning- & efficiency-oriented attitudes that still dominate among elites. These lead both to a lingering cybernetic illusion of managerial control [17, 18] and to an emerging reality of post-human algorithmic control [19] while weakening societal resilience.
6. A currently fast-growing plague, in full swing for some years, is the populist aftermath of a double-movement of monocultural closures and globalist flattening of cultures that characterize the unsustainable programs of ‘clash of civilizations’ and of the so-called ‘end of history’ (to which intercultural and transcultural responses in education and in an Earth-bound open ethics have provided some resistance but have been insufficient so far). Here, our ways of learning must depart from the habitual usage of delusional terms such as “cultural identities”: The diversity of cultures should not be considered in terms of the “difference” between self-contained identities, but rather in terms of productive “distances” between them, as argued by François Jullien [20]. What distinguishes the cultures that are more or less near or far, then, are not their respective “identities” but their respective “resources”, and these resources are available to all of humanity, transversally and transdisci-

plinarly.

7. Last but not least, the seventh plague I identify is the monopolization of human imagination by a dominant social imaginary of late capitalism [21]. This dominant social imaginary thwarts the emergence of alternative imaginaries (whether alternative-capitalist or post-capitalist) that would better frame the search process of sustainable development. By obscuring the horizon of social imaginaries and numbing the imaginative capacities for learning, this dominant social imaginary hinders the needed transformations to address the compounding civilizational threats of climate change and unsustainable development.

These seven plagues can only be met if we address the triple challenge I named above. Transdisciplinary epistemology imperatively needs to be associated with a culture of qualitative complexity and to be constantly regenerated through artful processes and approaches.

### **3 Learning Transdisciplinarily: Qualities of Artistic and Arts-Based Research**

Transdisciplinary learning is not opposed to disciplinary learning, but it implies breaking out from what I called a “cisdisciplinary” attitude to research [3] in terms of how we relate to disciplines, i.e. an attitude that either mistakes the situated and partly valid knowledge and learning made possible by any given discipline with a complete and self-sufficient access to knowledge of the world, or that is satisfied with merely fragmentary learning, juxtaposing disciplines next to each other. Cisdisciplinarity imposes a restraining self-identification towards disciplines and forms of regulation that hinder an opening to transdisciplinary research possibilities.

Artistic and arts-based forms of research and education contribute to a “transdisciplinary hermeneutics” [22, 3] whereby a dynamic and complex relation between different ways of knowing and different ways of making worlds may be developed, away from the cisdisciplinary attitude. One of the ways this happens is through aesthetics of qualitative complexity [11], which are helpful in departing from the reductionisms and the other six plagues preventing transdisciplinary learning. Aesthetics of complexity is a

percipience to the patterns drawn by qualitatively complex relations. Qualitatively complex relations, after Morin [10], are relations whereby various elements relate to each other in ways that are at once complementary, competing, antagonistic and belonging to a wider unitary process, without any single of these four relationships overseeing the others. Dealing with qualitatively complex relations requires a sensitivity to such relations and a capacity to work with ambiguity, ambivalence and uncertainty, not attempting to solve all perceived contradictions but understanding paradoxes and managing them – i.e. not trying to eliminate or solve paradoxes, but thinking through them [11, 3]. Logico-deductive thinking, though necessary to solve less complex problems, is largely insufficient and unable to grasp qualitative complexity.

The required complex thinking [10], put in service of sustainability, involves four aspects: (1) recognizing and working with emergence (rather than merely relying on planning and control); (2) integrating uncertainty and non-knowing into the transdisciplinary hermeneutics [22]; (3) sharing partial views and acknowledging not only the value but also the limits of any expertise and any rational analysis; and (4) mobilizing the generative intelligence of desires and of imagination [23] for anticipation beyond the limitations of incremental thinking. Complex thinking for sustainability calls forward “question-based learning” [24] focused on enabling and “ennobling” questions that highlight qualitatively complex relations and indeterminacy, rather than a problem-based learning focused on solutions that precipitate closure through finite answers.

Artistic and arts-based forms of research and learning allow such a question-based learning. The goal of research is then not to provide definite answers to defined questions, but to make research questions more interesting by deepening them. Artistic and arts-based research develop arousing, evocative and reflexively stimulating questions & symbols. As argued by Nicolescu [1], the arts are amongst the ways to decipher the world that help us reach the depths of complexity of symbolic thinking. Question-based learning then opens up multiple perspectives and multiple attentions at once.

Whereas “artistic research” is a term that characterizes ways in which professional art-making can constitute a form of research, “arts-based research” starts from the other end, i.e. usually social-scientific

research, and characterizes research that involves the “systematic use of artistic process, the actual making of artistic expressions in all of the different forms of arts, as a primary way of understanding and examining experience” ([25] p. 29). In social science, arts-based elements can be involved in all phases of the research, including data collection, analysis, interpretation, and representation. It then affects our very ideas on the nature of knowledge and understanding. It introduces things that have been often kept out from the breadth of a researcher’s access to the world.

I already discussed at length the specific transdisciplinary qualities of artistic and arts-based research in a previous publication [3]. I am here summing them up more briefly. Artful research (whether artistic or arts-based research), involves embodied cognition. For example, the importance of the body in movement (kinaesthetics), of the senses (as also stressed in phenomenology), of emotions, of intuitions, of the subconscious and of tacit knowing for learning, are all recognized in the arts and can all be mobilized in artful research through embodied questions. The arts explore the space between what is known and what is not. They explore into darkness, while allowing ambiguities and ambivalences. They also enhance the awareness of the subjective self of the researcher as an author and as a story-teller. Thanks to artful research, one can take responsibility for one’s imagination and reflect on it, not just mindfully but also intuitively and corporeally. Artful research develops “imaginative investigations” ([26] p. XII) that articulate constellations of possible meanings, allowing a large freedom of ‘lateral’, associative thinking, working with lived experience. Empirically, artful researchers develop a heightened awareness of the multiple levels and processes of interpretation at play in perception and in further cognitive and inter-subjective communicative processes. They find and develop ways to express the kinds of knowledge that cannot be expressed merely by denotative writings. They can then also work on the bridges between sensory perceptions, human imagination, and social imaginaries (i.e. the “imaginary institution of society” [21]), thereby helping us confront the seventh plague hindering learning that I mentioned above. They put more focus than traditional research on contextual knowledge and include the audience/recipients of the interpretative work in the knowledge production process, contributing

to a deeper, richer form of participative knowledge-production.

#### 4 *Be(com)ing Transdisciplinarily: A Queer-Convivialist Life-Art*

Transdisciplinary becoming implies breaking out from the cis-cultural, cis-gender, cis-ethnic/cis-racialized, cis-normative attitudes to be(com)ing human. In other words, it breaks out from identitarian delusions of fixing definitions of the self and the other. It is a “be(com)ing” because it considers any being as a becoming (i.e. being alive is a constant process of becoming, as Tim Ingold [7], among others, discussed in more details), and it considers any self as an other too (Arthur Rimbaud’s “je est un autre”).

Art helps in this endeavour, not as a noun (to be defined, classified and compartmentalized by disciplines such as art history) but as a verb [27]: a transformative force in society and a source of complex questioning that sharpens our ability to engage, through transdisciplinarity, with the world’s compounding challenges.

Transdisciplinary be(com)ing encourages a complex experience of the world where harmony through contradictions, and tensions through apparent harmony, are embraced and played with. The aesthetics of complexity, which I mentioned above, are supportive of this.

Transdisciplinary be(com)ing queers good life (note that I am using “queer” here, like I am using art, as a verb, not as a noun). “Ce qui ne se régénère pas dégénère” (*what does not regenerate itself degenerates*) [10]. Instead of preserving one good life, the search for sustainability should be interpreted as inviting us to experiment with other lives, to open up to futures-oriented questions, and to queer these other, potential (good) lives, taking resilience as a moving horizon. Resilience implies an ability to learn from, and absorb disturbances, i.e. to be changed and re-organise, to co-evolve with the world, while developing an ethical societal direction such as e.g. the one sketched out in the *Convivialist Manifesto* around principles of interdependency and care [28]. Resilience requires redundancies, and not one blueprint of *the* good life. Transdisciplinary be(com)ing calls for a queering of convivialism, as I argued in an earlier publication [3].

As I mentioned above with Jullien [20], we need

to question any lazy concepts of “cultural identity” and engage in interculturally and transculturally enriching experiences. Transdisciplinary be(com)ing opens up to indeterminacy and to learning through serendipitous life-experiences. It overcomes the pitfalls of the identitarian trinity of speciesism, communitarianism and individualism, while facing the necessity to be(come) response-able as a species, as communities and as individuals on this planet.

A queering life-art does not seek or bring certainties, comfort and clear borders. Instead, it fosters “uncertainties that stimulate de-normalizing and de-naturalizing aesthetic experiences and thought & embodiment processes. It is a process of hot distanciation and of ‘freaky desires’ [29] [...] keeping [the self] in a (warm flux of) intellectual, emotional and corporeal confusion, keeping ambiguities and ambivalences thriving” ([3] p. 155) for longer moments in one’s life. From such experiences “can arise more interesting queerings of ‘good’ lives, taking us to other desires, elsewhere than within the path dependencies of affluent consumerism” ([3] p. 155). Besides, a vigilant and chronic process of queering is necessary to ward us off away from the risk of a rigidified moralism, especially when transdisciplinary researchers and practitioners are seeking for the transversality of a sacred “Hidden Third” as suggested by Nicolescu [1].

Transdisciplinary be(com)ing requires “a constant reflexive work of de-normalization and de-territorialization of identities, without which the genic potential of chaos (as discussed by Morin [10]) would be choked off” ([3] p. 155). Chaos is understood by Morin, not in its common-sense acception (which is reduced to the absence of order), but as an ever present genic potential, throughout one’s life, which exists before, beneath and beyond both order and disorder. Artful approaches that bring inspiration here are guided by Guattari’s *Chaosmosis* [30]. For example, the philosopher and artist Jaime Del Val developed in his artful research work a utopian (or in his own words: “metatopian”) search for continuously amorphous processes [31]. Such an approach has clear discordian accents: The humorous and absurdist faith of discordianism is indeed centered on the idea that both order and disorder are illusions imposed on the universe (illusions that have a long history in world religions and sciences). To achieve a wisdom that reaches beyond what discordianism calls the “eristic” and

“aneristic illusions”, i.e. the illusion of order and the illusion of disorder, discordianism is a half-serious, half-satirical antidote: It preaches a complex-chaos and humor-based approach to some of the deepest metaphysical questions. (To be more precise, order and disorder are, as Morin articulated in details, not illusions *per se*, but parts of the complex processes of de-re-organization of the universe [10]. The eristic and aneristic illusions lie in the belief-systems and cosmologies that explain away the complexity of the universe through a principle of order (or a principle of disorder).)

Transdisciplinary be(com)ing entices us to mobilize aesthetic sensitivities to living complexity even at the most intimate level with a convivialist & discordian eroticism that involves a reconciliation with embodiment through a queering of all aspects of our embodied lives, including a sex-positive approach to human sexuality. This can be helped by specific approaches such as queering gender, queering sexuality and queering our personal embodied lives, with a mix of corporeal practices that can be wisely brought in dialogue with each other, including especially Tantrism and BDSM (acronym standing for the ensemble of embodied, sexual and more-than-sexual, practices known as bondage, domination, submission and sadomasochism). BDSM is especially rich in the opportunities it opens up to experience deeply qualitative complexity and the complex unity of a *coincidentia oppositorum* at the most embodied, most intimate level of one’s life, beyond the clichés of dichotomic thinking (such as for example the dichotomic misinterpretation of experiences of pain-pleasure and domination-submission). Such a bold approach, combining BDSM, Tantrism, other embodied practices and the performing arts, is already being innovated by a few artists, as the exemplary case of the “Xplore Festivals” series created by the choreographer Felix Ruckert (in Berlin, Rome, Sydney, Paris, Copenhagen and Barcelona) have demonstrated time and again over the past decade [32, 33].

## 5 Societal Spaces of Possibility (in Everyday Societal Life & Public Life)

At the societal level, transdisciplinary doing is a shared practice, unfolding in the spaces where we

work and live, as part of a lived “cognitive democracy” [10]. The practice of transdisciplinary doing is related to the notion of “Spaces of Possibilities” as shared physical-spatial, social and mental spaces where potentially sustainable futures are already taking some shape, emerging, and experienced in a prefigurative way, in local communities. Together with colleagues at the Leuphana University Lueneburg, I carried out empirical research about such spaces over recent years, identifying their characteristics [34, 35]. Over the past couple of decades, other researchers also sought out the characteristics of such spaces. For example, the sociologist Erik Olin Wright characterized them as “Real Utopias”, which work as labs for sustainable futures when they manage to combine “desirability, viability, and achievability”, i.e. when they allow to dare to dream *and* to effectively experiment with alternatives in real life.

As we discuss at more length elsewhere [34, 35], spaces of possibilities combine:

- Imagination: they allow participants the unfolding of imagination (ideally a critical and radical imagination) of desired futures;
- Experimentation: not in the controlled science-lab sense of a scientific experiment, but in the sense of the artful experimentation of a desirable and viable everyday life;
- Challenging experiences that relate to various areas and issues in relation to everyday life;
- Creativity (in the sense of “social creativity”, combining individual and collective creativity) and participative learning;
- Prefigurative doing (i.e. prefiguring already today how the future *could* be) [36], and Gestaltung (i.e. a creative activity of giving form and shape while doing or making something).

Spaces of possibilities exist in a real geographic space that is (1) different from the mainstream and manifesting a spatial diversity; (2) both relatively open to the outside spatial environment and relatively closed (offering some protection for the experimentation going on inside); and (3) allowing a different, alternative experience of time to unfold (as one may experience for example at a festival, finding new rhythms and departing from the usual daily rhythms of one’s worklife). Therefore, these spaces share some characteristics with “heterotopias” [37]. However, unlike heterotopias, spaces of possibilities

are not isolated: On the contrary, they are embedding themselves with the rest of the urban society and involved in transversal networking. They also relate to qualities of urbanity (as “third places” [38] encouraging the meeting with strangers) and are part of ongoing processes of place-making (i.e. activities that enrich space with symbolic layers of meaning, perceivable to others [39]). Through “entrepreneurship in conventions” [40], the actors engaged in creating and animating spaces of possibilities may be able to start unfreezing established social conventions and initiating a change in social practices. Such a change, however, requires further adopters and further processes of institutional innovations if it is to gain any wider impact [41]. Spaces of possibilities may play a pioneering role at the start of such wider processes of institutional innovations, i.e. social, cultural and political innovations altogether constituting transformative system innovations.

One of the challenges facing transdisciplinary spaces of possibilities, besides the complex dynamic of institutional innovations, is to also find a dynamic balance between dialogic and dialectic processes in the forms of social and political interactions that unfold in such spaces [42]. In a dialectic process (in a Hegelian sense), tensions between opposing views are resolved through compromises or argumentative resolution and/or synthesis. In a dialogic process (in a Bakhtinian sense), different views co-exist and respect each other’s difference, whereby oppositions remain open and unresolved. The challenge of a qualitatively complex approach is not to privilege dialogic over dialectic processes as some proponents of ‘mindfulness’ may argue (or vice versa, as some proponents of agonistics like Chantal Mouffe [43] may argue), but to find a dynamic balancing and negotiating process whereby both tendencies are involved with shifting dominance.

Thanks to their integration of imaginative and experimental qualities, spaces of possibilities offer a real chance to overcome the dominant social imaginary of capitalism, which I discussed above as one of the plagues preventing transdisciplinary learning, be(com)ing and doing. Furthermore, thanks to their bottom-up democratic qualities, their fostering of emergent possible-solutions to problems, and the chance they offer to embody one’s ideas and make things with ones own hands, spaces of possibility also offer an antidote to another plague I mentioned above, namely the disembodied intel-

lectualism, top-down planning & efficiency oriented attitudes, and illusory obsession with control that characterize mainstream trends such as the so-called “smart city” developments in many cities of the world (which furthers the police-State surveillance and the infantilization of its citizens).

## 6 Conclusion

Transdisciplinary learning and knowing, when it moves in between levels of reality, “allows us to see unity and connectedness [as] a capacity we create inside of us” [22]. This quote points to what Nicolescu calls the “Hidden Third” as a way to realize unity in knowing. This unity should be understood not as a simple and obvious unity, and not as uniformity, but as “uniplurality” hosting greatly qualitative complexity. Otherwise, transdisciplinarity would tip into a dangerous form of holistic simplification, and Nicolescu’s insights would be misinterpreted. This risk is not to be underestimated, as it re-emerges regularly, both among the proponents and opponents of Nicolescu’s approach to transdisciplinarity: On the side of the opponents, I heard time and again the same misinterpretations of Nicolescu’s thinking on religion, on the spiritual, and on the Hidden Third, that denounce a discourse in which they see a holistic pretension to reduce reality into a unified system (such misinterpretations however, can and should be dispelled by a more attentive reading of Nicolescu’s work). On the side of the proponents, I noticed for example at the 2018 transdisciplinarity conference organized by TheATLAS that a few of the participants also seemed to misinterpret qualitatively-complex unity into something with too much uniformity. There, I noticed that this misinterpretation was in some cases directly connected to an underestimation or outright denegation of the importance of qualitative complexity as articulated by Edgar Morin. Thus, the triple challenge of education for sustainable futures, as I discussed it in section 1 above, is more urgent than ever, and should not be taken for granted, even among the communities of transdisciplinary researchers.

This unfortunate situation brings an additional argument in favour of artful and queer approaches to transdisciplinarity, next to the ones made earlier in this text: A crucial quality of artful approaches is to maintain tensions, discomfort, irritations and challenging experiences while moving in between

and across levels of reality, working with symbolic thinking, and asking questions that evoke the Hidden Third without falling into the trap of a flatly holistic discourse (or even of a more sophisticatedly-flattening “Integralist” discourse). An approach that would be merely content with a too definite answer to the question of the Hidden Third, rather than keeping this question infinitely open (i.e. an approach that would fail to make this question of the Hidden Third ever more interesting, as arts-based research usually does) would then fail to truly cultivate the deep existential questions that transdisciplinarity allows us to envisage. These questions, however, if asked artfully, may further inspire new developments activating transdisciplinary being at the levels of learning, of be(com)ing and of doing.

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## References

- [1] Nicolescu, B. (2014). *From Modernity to Cosmodernity. Science, Culture, and Spirituality*. Albany: State University of New York Press.
- [2] Morin, E. (2001). *Seven complex lessons in education for the future* Paris: UNESCO.
- [3] Kagan, S. J. (2017). Artful Sustainability: Queer-convivialist life-art and the artistic turn in sustainability research. *Transdisciplinary Journal of Engineering & Science*, 8: 151-168.
- [4] Luhmann, N. (1986). *Ökologische Kommunikation: Kann die moderne Gesellschaft sich auf ökologische Gefährdungen einstellen?*. Opladen: Westdeutscher Verlag.
- [5] Luhmann, N. (2000). *Art as a Social System*. Palo Alto: Stanford University Press.
- [6] Abram, D. (1996). *The spell of the sensuous*. New York: Random House.
- [7] Ingold, T. (2011). *Being Alive: Essays on Movement, Knowledge and Description*. London: Routledge.
- [8] Weber, A. (2013). *Enlivenment: towards a Fundamental Shift in the Concepts of Nature, Culture and Politics*. Berlin: Heinrich Boell Stiftung.
- [9] Küpers, W. (2016). Phenomenology of embodied and artful design for creative and sustainable inter-practicing in organisations. *Journal of Cleaner Production*, 135: 1436-1445.
- [10] Morin, E. (2008). *La méthode*. [6 volumes] Paris: Seuil.
- [11] Kagan, S. J. (2011). *Art and Sustainability: connecting patterns for a culture of complexity*. Bielefeld: transcript.
- [12] Buscatto, M. (2016). La forge conceptuelle. “Intersectionnalité” : À propos des usages épistémologiques d’un concept (très) à la mode. *Recherches sociologiques et anthropologiques*, 47 (2): 101-115.
- [13] Ratiu, D. E. (2013). Creative cities and/or sustainable cities: Discourses and practices, *City, Culture, and Society*, 4 (3): 125-135.
- [14] Reckwitz, A. (2012). *Die Erfindung der Kreativität. Zum Prozess gesellschaftlicher Ästhetisierung*. Berlin: Suhrkamp.
- [15] Purser, R. E., and Montuori, A. (Eds.). (1999). *Social Creativity*. Cresskill: Hampton Press.
- [16] Montuori, A. (2010). Beyond postnormal times: The future of creativity and the creativity of the future. *Futures: The journal of policy, planning and futures studies*, 43: 221-227.
- [17] Hörl, E. (in exchange with P. Feigelfeld and C. Kastelan). (2015). The Anthropocenic Illusion: Sustainability and the Fascination of Control. In C. Behnke, C. Kastelan, V. Knoll and U. Wuggenig (Eds.), *Art in the Periphery of the Center*. Berlin: Sternberg Press, pp. 352-367.
- [18] Colander, D., and Kupers, R. (2016). *Complexity and the Art of Public Policy: Solving Society’s Problems from the Bottom Up*. Princeton: Princeton University Press.
- [19] Val, J. del. (2017) Algoriceno. Ecologías mayores y menores en la era del Big Data. In M. Lacarrieu (Ed.), *ILIA. Debates sobre la Investigación en Artes*. Guayaquil: UArtes Ediciones, pp. 48-61. <http://www.uartes.edu.ec/institucional/index.php/download/ilia/?wpdmdl=1666&masterkey=59e7ea85dae70> (accessed November 27, 2018).
- [20] Jullien, F. (2016). *Il n’y a pas d’identité culturelle*. Paris: L’Herne.
- [21] Castoriadis, C. (1975). *L’institution imaginaire de la société*. Paris: Seuil.
- [22] Dieleman, H. (2018). Transdisciplinary Hermeneutics: A Symbiosis of Science, Art, Philosophy, Reflective Practice, and Subjective Experience. *Issues In Interdisciplinary Studies*, 35: 172-201.
- [23] Maggs, D., and Robinson, J. (2016). Recalibrating the Anthropocene - Sustainability in the Imaginary World. *Environmental Philosophy*, November 8.
- [24] Haley, D. (2011). Ecology and the Art of Sustainable Living. *Field: a free journal of architecture*, 4 (1): 17-32.



- [25] McNiff, S. (2008). Arts-Based Research. In J. G. Knowles & A. L. Cole (Eds.), *Handbook of the Arts in Qualitative Research*. Thousand Oaks, CA: Sage, pp. 29-40.
- [26] Sullivan, G. (2010). *Art Practice as Research: Inquiry in Visual Arts*. London: Sage.
- [27] Kagan, S. J. (2012). *Toward Global (Environ)Mental Change: Transformative Art and Cultures of Sustainability*. Berlin: Heinrich Böll Stiftung.
- [28] (Collective). (2013). *Manifeste Convivialiste: Déclaration d'interdépendance*. Lormont: Le bord de l'eau.
- [29] Lorenz, R. (2012). *Queer Art: a Freak Theory*. Bielefeld: transcript Verlag.
- [30] Guattari, F. (1995). *Chaosmosis: an Ethico-Aesthetic Paradigm*. Bloomington: Indiana University Press.
- [31] Val, J. del. (2018). Ontohacking. Ontoecological politics in the Algoricene. *Leonardo*, 51 (2): 187-188.
- [32] Kagan, S. J. (2017). Embodying Enlivenment: Becoming Sex-Ecologies at the Xplore Berlin 2016 Symposium and Festival. *CSPA Quarterly*, 17: 34-41.
- [33] Ruckert, F. (2018). Creating Sex Positive Spaces. [Lecture, video recording.] <https://www.youtube.com/watch?v=2uxoN7mY5KI> (accessed November 27, 2018).
- [34] Kagan, S. J., Hauerwaas, A., Holz, V., and Wedler, P. (2018). Culture in sustainable urban development: practices and policies for spaces of possibility and institutional innovations. *City, Culture and Society*, 13: 32-45.
- [35] Kagan, S. J., Kirchberg, V., and Weisenfeld, U. (Eds.). (2019). *Stadt als Möglichkeitsraum: Experimentierfelder einer urbanen Nachhaltigkeit*. Bielefeld: Transcript.
- [36] Sitrin, M. (2007). Ruptures in imagination: Horizontalism, autogestion and affective politics in Argentina. *Policy & Practice: A Development Education Review*, 5: 435-3.
- [37] Foucault, M. (1984). Des Espaces Autres. *Architecture, Mouvement, Continuité*, 5: 46-49.
- [38] Oldenburg, R. (1989). *The Great Good Place. Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts and How They Get You Through the Day*. St Paul: Paragon House.
- [39] Pink, S. (2015). *Doing Sensory Ethnography*. [2nd edition]. London: Sage.
- [40] Kagan, S. J. (2008). Art effectuating social change: double entrepreneurship in conventions In S. J. Kagan & V. Kirchberg (Eds.), *Sustainability: a new frontier for the arts and cultures*. Frankfurt am Main: VAS – Verlag für akademische Schriften, pp. 147-193.
- [41] Weisenfeld, U., and Hauerwaas, A. (2018). Adopters build bridges: Changing the institutional logic for more sustainable cities. From action to workset to practice. *Research Policy*, 47 (5): 911-923.
- [42] Sennett, R. (2012). *Together: The Rituals, Pleasures and Politics of Cooperation*. London: Penguin.
- [43] Mouffe, C. (2013). *Agonistics: Thinking the world politically*. London: Verso Books.

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## About the Author



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