

## Book of abstracts

Margherita **Bianchi**, University of Padua, Italy

*The polyfunctionality of the environment in plant interactions*

I aim to make explicit several interdisciplinary links between the emerging research on the behaviors of plants, asexual organisms, and some areas of philosophical research related to bio-ecological analyses, which, in turn, may be expanded or supplemented by these studies in a dynamic of mutual influence.

I refer to the potentially fruitful connections between ongoing research on the interactional capacities of plants and: 1) the transformation of the idea of the environment, from a mere place of organismic life to a constituent and shaping element of the coupled agent-environment system, the result of the evolution of systemic theories and epistemological studies of complexity, in their connection with ecological studies; 2) the analyses of process ontologies, and finally, 3) some post-cognitivist approaches developed within the cognitive sciences, in this case, the extended cognition, which can provide, from the most recent literature, stimulating examples of how to orient research on plant abilities concerning the role played by context and the presence of other organisms.

I will highlight how these levels are closely related.

Stefano **Canali** - Thomas **Bonnin**, Polytechnic University of Milan, Italy

*The exposome in action. Assessing contemporary research on the role of the environment on human health and disease*

Contemporary research on the exposome, i.e. the sum of all the exposures an individual encounters throughout life that may influence human health, bears the promise of integrative and policy-relevant research on the effect of the environment on health. Critical analyses of the first generation of exposome projects have voiced concerns over the actual inclusion of environmental factors and related risk of molecularization of public health issues. The emergence of the European Human Exposome Network (EHEN) provides an opportunity to better situate the ambitions and priorities of the exposome approach based on new and ongoing research. In this presentation, we assess the promises, methods, and limitations of the EHEN, as a case study of the second generation of exposome research.

We observe that the second generation of exposome research doubles down on the initial ambition of an integrative study of the environmental effects of health to fuel better public health interventions. This intensification is, however, accompanied by significant epistemological challenges and doesn't help to overcome severe restrictions in the geographical and political scope of this knowledge. We thus advocate for increased reflexivity over the limitations of this conceptually and methodologically integrative approach to public and environmental health.

José Carlos **Cañizares** – Pablo **Lima**, University of Sevilla, Spain

*Revisiting perspectives on biodiversity and collapse: the Mediterranean Sea as a model and metaphor of future trends and challenges*

Throughout the 20th century, advances in Earth Sciences have highlighted the interdependence between human societies and the natural environment, and the risks arising from increased anthropogenic pressure on ecological systems. These developments have spurred public anxiety and debates about ecological limits to growth, societal collapse or resilience, and how to interpret scientific assessments from Earth Sciences. A key area of debate is the relationship between biodiversity and resilience or collapse. This paper revisits historical and philosophical narratives

about these concepts using scientific research on biodiversity and extinction, primarily in the Mediterranean Sea.

Concerns about biodiversity and extinction are fueled by observations of the impacts of human activities on species and the biosphere. Reports and predictions about biodiversity loss, exacerbated by climate change, suggest humanity may be driving a Sixth Mass Extinction, potentially threatening our own survival. The Mediterranean Sea serves as a critical case study due to its sensitivity to climate change and anthropogenic pressures. Recent scientific work has shown that the Mediterranean's biodiversity hotspots are particularly vulnerable, with significant socio-ecological consequences.

By focusing on the Mediterranean, this paper illustrates the need to integrate biodiversity discussions within broader Earth system perspectives. The case study provides valuable insights and metaphors for guiding societal discussions on biodiversity, resilience, and collapse, emphasizing the importance of understanding and acting upon scientific assessments to address ecological degradation and foster resilience.

**Mattia Della Rocca**, University of Rome 3, Italy

*Environment as Information: On Some Entailments of Ecological Psychology on the Environment*

The abstract explores the concept of the environment as information within cognitive sciences, integrating perspectives from philosophy and the history of science. Key theories by Jakob von Uexküll, Kurt Koffka, and James J. Gibson form the foundation of this discussion. Von Uexküll's "Umwelt" concept emphasizes that each organism perceives a subjective environment tailored to its sensory and functional needs, rather than an objective reality. Koffka's "behavioral environment" extends this by highlighting the importance of the environment's functional significance to the organism. Gibson's theory of affordances introduces the idea that the environment offers actionable information, focusing on the interaction between the organism and its surroundings.

The intervention assesses these classical theories against contemporary digital environments, such as virtual and augmented reality, which offer new contexts for exploring ecological psychology. These digital settings simulate and manipulate affordances, challenging traditional perceptions and behaviors. Additionally, the study of artificial cognitive agents, like AI and robotics, raises questions about their ability to perceive affordances similarly to biological organisms.

The analysis concludes by examining how these informational environments affect development, evolution, and health. The interdisciplinary approach aims to bridge classical theories with modern technological advancements, advocating for continued research into how various environments shape perceptual and cognitive processes.

**Paolo Furia**, University of Turin, Italy

*Environment and landscape between environmental aesthetics and human geography. Overcoming the dualism*

My paper aims to overcome the dualistic conception according to which environment is objective and scientific, whereas landscape is subjective and cultural. I will address such debate with reference to two specific disciplines: environmental aesthetics and human geography.

First, I will show how the dualism environment/landscape is maintained in North American aesthetics, for instance in Carlson (2009). It assumes a dichotomy between nature and culture, science and art, objective and subjective: its original move, dating back to Hepburn's question about how appreciation of nature is different from appreciation of arts (1966), has oriented the following developments. Pluralistic approaches can be found in the investigation of Berleant (1997)

and Brady (2018), but the suspicion towards the “only aesthetic”, or worse, “only visual” notion of landscape endures over time.

Second, I will put environmental aesthetics in dialogue with human geography’s substantive notion of landscape (Olwig 1996). I will argue for the overcoming of the dualism between landscape (art) and environment (science), by showing how aesthetic qualities of landscapes can be explanatory of inherent features of the environment and how the notion of environment, understood as *milieu* (Berque 2008), implies a coherent conceptualization of landscape as environment as long as it is actually perceived and inhabited.

Andrea **Gentili**, University of Padua, Italy

*The environment of the 20th century and the concept of Umwelt*

Few concepts have undergone such a broad and varied characterization in the course of such a short time as that of environment, which, in less than a century, has come to play a multiplicity of overlapping roles. The latest elaboration is that of scientific ecology, the ecosystem concept crystallized definitively in the 1970s as a functional unit of energy exchange operations between actors, a strictly scientific and observational paradigm. At about the same time, environmental ethics was born, ascribing instead to nature in general a moral sense, a value, as a regulative principle of conduct. Yet, both of these perspectives do not take into account an aspect that seems to us to be increasingly relevant today, and which actually coincides with the first elaboration of the concept in the German area: the environment as *Umwelt*, a practical and vital, species-specific world, which is in an original co-belonging and correspondence with the organism. This is the conceptual elaboration of Jacob von Uexküll (1864-1944), which, suitably revisited, could be a valuable contribution to the contemporary paradigms, introducing into them an element of praxis and situational specificity that the other models seem not to have thoroughly developed.

Dennis **Hossom**, University of California, Davis, USA

*Where the Mustangs Roam: Conflicting Narratives of Environment in a Historical and Philosophical Investigations of the “Wild Horse Problem” in North America.*

Within the United States, “mustang” refers to both captive and free-roaming horses descendant of horses brought by 16<sup>th</sup> century Spanish colonial expedition to the North American continent. A decades long debate over the federal management of “wild mustang” populations now frames a conflict over the impact of free-roaming horses in environmental and ecological crisis across the rangelands of the Western US. Articulating the “mustang problem” concerns answering the question of *who is responsible* for these “wild” horses. This “problem” engages a wide variety of public and private interest holders, with conflict engaging the classificatory concepts I term the Wild-Domestic Distinction (WDD), which includes *wild*, *domestic*, *feral*, and *tame*. These concepts classify nonhuman animals into four interrelated categories that trace the “relations of people and place”, and narratives of belonging and responsibility between human, nonhuman animals, and “the environment” (Van Horn & Hausdoerffer 2017). I conduct a historical and philosophical investigation of the “mustang problem” through a case study analysis of WDD concepts employed by interest holder groups engaged in the conflict. Conflict over mustang classification tracks diverse conceptions of the histories and relations of horses, humans, and ecosystems in North America that range from centuries to millennia of coevolutionary-environmental accounts.

Gaspare **Polizzi**, University of Pisa

*The Term-Concept “Environment” put to the test of different cultures*

It is appropriate to reflect on the origins and use of the term-concept "environment" within some Western and non-Western cultures to understand the vision of the relationship between humans and the environment. The term "ambiente" is characteristic of Italian scientific culture, starting with Galileo Galilei, who uses the present participle "ambiente" to indicate the space that surrounds a person and in which he moves or lives, which is quite distinct, in my opinion, from the term "habitat". The concept of habitat specifies a determination of place. In ecology, habitat refers to the general conditions of a human settlement and the complex of structures that characterize it. Compared to the Italian cultural tradition, the visions of the environment that emerge from the others European cultures express very different conceptions. I will also dwell briefly on the concept of "nature" proper to Quechua culture. A final comparative element will be traced in Japanese culture through the term "Fūdo", which has been philosophically reworked by the Japanese thinker Tetsurō Watsuji. The analysis in these different cultural expressions of the relationship between man and the environment leads to rethink the functions of an environmentalist philosophy

Hernan **Quizhpe Parra**, University of Cuenca, Ecuador

*Beyond the conventional notion of the environment: Care and management of nature through Sumak Kawsay in Ecuador*

The conventional notion of development, institutionalized following Harry S. Truman's 1949 speech (Acosta, 2014), has shaped political and institutional discussions for decades. This model prioritizes economic growth, measured by macroeconomic indicators like GDP, often at the expense of environmental well-being (Escobar, 2011). Here, "environment" equates to "natural resource," highlighting capitalism's second contradiction (O'Connor, 1994). In contrast, alternative development approaches from the Global South, rooted in traditional relationships with nature, have emerged (Escobar, 2015). Notable examples include African Ubuntu, Hindu Swaraj, and Andean-Amazonian Sumak Kawsay (Ziai, 2014). These paradigms redefine human-nature relationships, diverging from hegemonic Western views that translate nature as a natural resource (Acosta & Cajas-Guijarro, 2020). This paper examines the application of Sumak Kawsay in managing Amazonian watersheds in Ecuador by the Kichwa and Aí' Cofán nationalities. Buen Vivir, integrated into Ecuador's constitution (2008-2009), grants Nature rights, promoting conservation strategies by indigenous communities (Villalba, 2013). The Sacred Watersheds initiative by PAKKIRU and FEINCE exemplifies this, viewing watersheds as living entities with political agency (Valladares & Boelens, 2017; Viteri, 2017). This cosmopolitical approach surpasses Western environmental views, integrating relational dimensions of nature and addressing regional climate change dynamics (De la Cadena, 2015; Luisetti, 2023; Minoia et al., 2024)

Łukasz **Sobechowicz**, Institute of Geography and Spatial Organization (IGSO PAS), Poland

*A two-way relationship. Environmental transformation and resilience to environmental stresses. The case of Kazun residents in the 19th century*

To what extent did our ancestors living in the 19th century transform the surrounding natural environment to their needs, and to what extent were they vulnerable to environmental stresses?

The study site will be the parish of Kazun (central Poland) on the banks of the Vistula River, about 30 kilometers northwest of Warsaw. The parish was inhabited by two communities: Catholics and Mennonites, who had the skills to successfully develop and colonize the previously inhospitable floodplain

The vulnerability of both communities to environmental stresses, especially crop failures in the 1840s and 1850s, will be examined by comparing vital events from civil registration with changes in grain and potato prices recorded in Warsaw. I will consider to what extent widespread crop failure, potato blight, floods, and other environmental stresses affected Catholics and Mennonites.

To what extent cultural differences and different farming patterns cause different strategies for counteracting the crisis?

Demographic and economic data will be supplemented with palynological data. The core from Kazuńskie Górze Lake reveals the changing level of human pressure on the environment over time and shows the transformation of the local management model.