

## Continuing Humanity's Dialogue with Nature and Itself

**Osman Arrobbio<sup>1,2</sup>, Giuseppe Barbiero<sup>1,5</sup>, Elena Camino<sup>1</sup>, Alessandro Cerutti<sup>1,6</sup>, Laura Colucci-Gray<sup>1,3</sup>, Martin Dodman<sup>1</sup>, Enzo Ferrara<sup>1,4</sup> and Silvano Folco<sup>1</sup>**

<sup>1</sup>Interdisciplinary Research Institute on Sustainability, Torino, Italy; <sup>2</sup>Politechnic University of Torino and University of Torino, Torino, Italy, <sup>3</sup>School of Education, University of Aberdeen, UK; <sup>4</sup>Istituto Nazionale di Ricerca Metrologica, Torino, Italy; <sup>5</sup>University of Valle d'Aosta, Aosta, Italy; <sup>6</sup>European Commission Joint Research Centre, Directorate D – Sustainable Resources, Bio-Economy Unit (D1), Ispra, Italy.

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**Corresponding Author:** Elena Camino, Italy. **E.mail:** [elenacamino1946@gmail.com](mailto:elenacamino1946@gmail.com)

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“Truly, I live in dark times!”. In the poetry of Bertolt Brecht, reviewed in the fifth article of this issue as a powerful voice decrying the unsustainability of the human actions that characterized his era, living in “dark times” is a recurring theme. We might consider the term equally appropriate to describe the negative forces at work in our current period. The widespread global poverty and injustice, the large-scale migration crises, the atrocious violence perpetrated both by so-called fundamentalist terrorists and those who vow to combat them, the demagogic populist movements, the aggressive protectionist nationalisms, all combine to produce a frightening international scenario. At the same time, the startling combination of ignorance and arrogance resulting, for example, in denial of climate science – for one of the US President’s advisers (presumably utterly oblivious to the irony of his statement) climate change is a “manufactured crisis”, while another can blithely assert “I would not agree that [carbon dioxide] is a primary contributor to the global warming that we see” – renders with absolute clarity the immense difficulties encountered in creating the necessary conditions for any one of a number of essential sustainability transitions.

In the light of all this, we have, however, no option but to continue our commitment to dialogue and reciprocal exchange, as stated in the original aims of this journal, to build connections between different visions and logical levels, creating interdisciplinary and transdisciplinary perspectives. In this respect, all of the articles published in this issue deal with the relationships between actions and impacts, awareness and accountability, understanding, resolving and reporting issues, current and new paradigms, combining aspects of visual arts, literature and science, psychology and sociology, ecology and economics, ethics and technology. Together they unite theoretical, research and educational visions we hope can make a significant contribution to humanity’s dialogue with nature and itself.

*Art Teachers’ Education for Environmental Awareness. What is Hidden in Nature that we have never Seen or Heard?*), by Ásthildur B. Jónsdóttir, offers a particular vision of the role of education in promoting awareness, attitudes and actions that put sustainability at the heart of every aspect of the human enterprise. The author’s emphasis is on considering what kind of knowledge and experience should be provided by teacher education in order to enable future teachers to play such a role. The article describes a project developed in the Reykjavík Botanical Garden and involving student teachers of art and pupils who work together. The project is built on a participatory pedagogy which includes critical place-based learning in learner-directed settings and harnessing tacit knowledge to this end. It is argued that teachers with an increasing sense of self-efficacy and action competence will be better able to help pupils make choices and undertake courses of action based on sustainability. The author examines the complementary roles of art and science in the building of knowledge and how both must be based on learners’ direct engagement with their surroundings in order to stimulate their dialogue with their fellow learners and with nature and provide the vital ingredients of play, passion, participation and pertinence.

*Nonviolent Conflict Transformation and Peace Journalism* is a translation from the original Italian of a paper by Nanni (Giovanni) Salio, written as an introduction to a collection of essays, testimonies and experiences, in which the author summarises his lifelong exploration and practice of nonviolence within the context of the analysis and resolution of conflict and links this to the important role that can be played by peace journalism. Starting from Gandhi’s belief that conflict should be seen as an occasion for dialogue and the discovery of common ground, the article examines ways of transforming aggression into a positive and non-destructive creative force for building

sustainable trajectories via nonviolent thoughts, words and actions, together with the crucial importance of education and training of professionals who work in this field. A significant role in this shift can be played by peace journalism, in terms of the responsibilities exercised both by editors and journalists concerning choices about what to report and how to report it. Such choices can enable us to go beyond the confines of much mainstream, or even war-oriented, journalism that tends to limit and determine understanding within simplistic schemes of reference such as *good and evil, right and wrong or them and us*, in order to promote equality at the level of building and sharing knowledge and place empathy and solidarity as a sustainable basis for dialogue between people and with their environments.

In *On the Use of Life Cycle Assessment to Improve Agronomists' Knowledge and Skills toward Sustainable Agricultural Systems*, Cerutti et. al. examine a specific aspect of the quantitative measurements and calculations of environmental impacts in agronomics in which *"in general terms, sustainability is perceived from two very different points of view: sustainability as practices, such as reducing food miles, buying organic, consuming less meat, etc., or sustainability as metrics, involving the quantification of the environmental performance of a system through the application and comparison of sustainability assessment indicators"*. The approach proposed is based on Life Cycle Analysis (LCA) – which permits a quantitative description of a variety of features linked with production, (e.g. distribution, consumption, and waste treatment) that contribute to the determination of the environmental impact of a given product. The authors argue that by enabling university students to carry out LCA, they are not merely being introduced to technical facts, but also given the chance to achieve higher levels of awareness of the complexity of agricultural and food systems and of the importance of a critical

appraisal of a variety of qualitative and quantitative analytical methods to evaluate their impact. Both the need to go beyond the perspectives of single disciplines and that of providing students with a variety of approaches to learning – from statistical analysis to open discussion of the data made available and from case studies to engaging students in discussion tackling open questions – are considered vital for promoting awareness of ways of accounting for environmental sustainability.

In *The Challenge of ICT Long-Term Sustainability*, Norberto Patrignani considers various aspects of the all-pervasive extension of information and communication technology within the perspective of the interdependent evolution of technologies and societies, the types, scales and, in particular, rates of technological innovation and its impact on people and environments. He argues for the urgent need to establish a new design paradigm based on criteria such as recyclability, repairability, minimization of material and power consumption and zero-waste. The paradox of acceleration of all our processes of communication, production and consumption, largely due to inexorable developments and applications of ICT, is that it creates unsustainable trajectories for human beings and their environments. Far from enabling us to have more time to engage in useful human activity as a result of the increased speed of each of our processes, acceleration unrelentingly leads to rhythms that are untenable in the context of respecting the limits of human beings and the planet they inhabit. What is necessary is an approach based on Slow Tech in order to achieve a gradual transition towards the wise production, use and disposal of ICT.

In *Humanity and Nature, Warfare and Exploitation in Bertolt Brecht's Poetry*, Enzo Ferrara and Martin Dodman look at how already in the first half of the nineteenth century Brecht's work was a precursor of many

of the themes today considered central in sustainability literature. Long before many branches of natural, economic and social sciences began to examine the unsustainable consequences of indiscriminate exploitation of natural resources and uncontrolled production and consumption processes, the German poet offered a devastating analysis of how all forms of possession, dominance and manipulation for satisfying the greed of individuals or groups, including that of warfare, are inextricably linked as human impulses that are both destructive and unbearable.

Brecht's poems bear witness to the limits and paradoxes of the endeavours of those who struggle against the forces of evil and destruction and constantly underline how our only hope for salvation is through dialogue designed to help us build and maintain common discourses and communities of values. Particularly striking is the repeated sense of responsibility toward future generations and the reiterated plea asking those generations to not judge too harshly our failures and shortcomings. "Think of us with clemency".