



Cultures and Local Practices of Sustainability

ROUTES Towards
Sustainability Network

Editors:

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Introduction

Gonzalo Valdivieso

Universidad Católica de Chile, Villarrica Campus

The book *Cultural and Local Practices of Sustainability* is the result of a collaborative and interdisciplinary academic effort developed in the context of the Routes towards Sustainability University Network. This book emerges from a conference held in Santiago and Villarrica by the end of 2018 related to the International Symposium on Cultures and Local Practices of Sustainability, where cultural, educational, and practical challenges were discussed for three days to move forward in terms of dynamics and notions about sustainability.

The Routes towards Sustainability University Network, born in 2012, is an association of twenty universities from different continents that hosts symposiums, conferences, lectures, study programmes, and projects from an interdisciplinary vision on sustainability.

This book is founded from a multidisciplinary approach, in which we integrate cultural elements from the environmental humanities, design, economy, urbanism, and innovation, to understand conceptions about sustainability from a complex and systemic perspective, addressing different areas of knowledge and requiring an integrative view.

We have organized the book in two sections, for didactic purposes only. The first section deals with the elements of humanities, including a critical re-reading of studies on utopias in classical texts by Thomas More and Vasco de Quiroga; the role of children's literature in the shaping of eco minds of children in Chile; and the need to change perspectives

related to the design industry in Colombia. These three dimensions show precise connections between literature, education, and design, as central elements to understand and direct necessary changes in concepts—traditional and current—on how the challenges of sustainability must permeate cultural constructs.

The second section of the book seeks to highlight practical and methodological experiences connected to the challenges of the culture of sustainability. We incorporate visions from innovation, economy, and urban and territorial regeneration, adding collaborative and participative mechanisms to build sustainable environments.

In the first section, Spinozzi proposes a discussion on the challenges of sustainability of the habitats, from the original concepts of Thomas Moore and the work by Vasco de Quiroga, based on his experience in the Americas in the early 16th century. Her chapter compares Moore's theoretical vision with the colonialism of Mexico, both looking for answers for a sustainable living under a framework of utopias.

In a second article, Casals introduces us to environmental humanities from an ecocritical perspective. Her discussion presents concrete cases from three books, an article, and an exhibition related to marine ecosystems with a pedagogical approach. However, the language, images, and—most likely—a lack of a real interdisciplinary approximation blur the objective of fostering future ecological minds that some of these texts declare.

The third article of this section introduces us to an experience of application of the Sustainable Learning and Education Model in the area of Clothing Design, to question the practices of a fashion industry in crisis. From the concept of multiple footprints, Builes and Suárez propose a critical discussion on the effects of the fashion industry and the possibilities for transforming academic training and research in this area, providing professionals with a wider outlook on the impacts of their job.

The second section of the book begins with an article by Kemp and Turkeli discussing "the evolutionary nature of innovation and social development" and incorporating an analysis of eight notions from ecology towards innovation for sustainable development. They conclude that, to move

towards a sustainable development, we require changes towards more relational ways of living, which constitutes a quasi-evolutionary process.

Following, the article by Dal Negro, Madjitey, and Mazzanti establishes the dilemma of the actual impact of financing for the development of countries in East Africa. Their results are discouraging in terms of sustainability, since they show that investing decisions are often based on profitability rather than on other aspects of development, and that their impact focuses on countries with more stable economies, increasing the breach among the countries of the continent.

Cerreta and Mazzarella present us with an approximation to circular economy based on urban regeneration through collaborative decision-making processes, in the context of a case study in Naples. This experience emphasises a methodology that allows incorporating a group of stakeholders to transition towards sustainability.

Within the urban context, Cuervo, Lalinde, and Botero present an applied research exercise of an experimental project of technological and social innovation on housing design with sustainable criteria in Colombia. They propose a methodology called The Sustainable Habitat Integrative Workshop, to empower social transformation and provide solutions to design problems.

In contrast to the previous articles, Cannavò, Celani, and Zupi centre their attention on inner landscapes, which are fragile areas separate from big metropolis and cities that, from a new narrative of the territory, can be transformed in a more sustainable way, preserving their heritage, traditions, and knowledge. This approach, from the landscape framework, responds to a change beyond the logic of development and growth.

Finally, the section concludes with the article by Celani and Ali, in which they propose a multidisciplinary model for improving cultural assets in Europe.

The set of articles in this book allow to connect different dimensions of the transitional challenge towards sustainability, focusing on cultural

and methodological changes implied and not on the techniques, which often dominate over academic discussions on these topics.

It is necessary to claim that the articles in this book were written by each of their authors during 2019, went through a double-blind peer review, and then were revised once again by their authors at the beginning of 2020, before the pandemic of COVID-19, which has strongly impacted the ways of living in the planet at a global scale. For this reason, the time of publication has been slower than normal, and readers will not find references to the pandemic, to the possibility of envisioning more sustainable lifestyles in a post COVID-19 world, or references following 2019. Nonetheless, we believe that the contribution of this book is not focused on the systematical change of daily individual activities that might possibly occur in a post COVID-19 world—and which undoubtedly help—, but on the way in which we must think this route towards sustainability; from an integrated vision connecting humanities, culture, education, and practices to generate profound transitions towards a reality that is different from the current one.



Prologue

Gianfranco Franz¹

University of Ferrara

“We are also made of stories”

Eduardo Galeano — *Los hijos de los días*

In 2015, following the Paris Climate Conference (COP21) and the ratification of the United Nations 2030 Development Agenda with its 17 Sustainable Development Goals (SDGs), the debate on sustainability attained renewed vigour. However, as soon as the global political direction seemed settled, turbulent contestations emerged. Global enthusiasm was challenged, first by the election of Donald Trump in 2016, and later by global populism emerging in Europe and Latin America. What sparked

¹ Gianfranco Franz has a degree in Architecture from the University IUAV of Venice. He is currently a full time professor of Policies for Sustainability and Local Development at the Department of Economics and Management of the University of Ferrara, Italy. His major research interest has been urban planning since the 90s. From 2003 to 2015 he coordinated the first international and interdisciplinary MA programme in *EcoPolis - Policies for Sustainability and Local Development* at the University of Ferrara. Since 2006 he has been involved in strategic planning practices in Italy and Brazil, worked on urban regeneration and creativity, developed policies and tools for smart cities and, recently, for circular cities and regions. Since 2017 he has elaborated theoretical views on cultures of sustainability, the Anthropocene, and Ecological Footprints, encompassing a humanistic, social, and economic perspective. At present ecological thinking and cross-disciplinary methodologies are at the core of his research. He is membre and founder of the International and Interdepartmental PhD programme in Environmental Sustainability and Wellbeing. In 2012, he founded *Routes towards Sustainability*, an international university network promoting multi, trans-and cross-disciplinary approaches to the development of places, cities, and communities within the framework of sustainability and wellbeing.

like a unitary front responding to global warming clashed and was further blown by the 2018 election of Jair Bolsonaro in Brazil.

At the same time, silently and unexpectedly, the symbolic *first* Friday for Future took place. Greta Thunberg, at fifteen, refused to enter the classroom until the Swedish elections calling out politicians' neglect of the climate crisis. Shortly, her individual act empowered youth worldwide to express their concerns against their governments' indifference towards climate change. In December of 2018, Thunberg gave her first speech at COP24 in Katowice, Poland, where representatives from 196 states met to put the Paris agreement back on track. A year later, originally to be hosted by Chile, the climate conference (COP25) was held in Madrid because of the social revolt in the original location. Briefly, the world's media focused on the politics of global warming, offering an extraordinary stage for young generations and their environmental claims. Nonetheless, this attention was disrupted in early 2020 by the COVID-19 crisis.

The Madrid Climate Conference became the latest demonstration of global leaders' near-sightedness. It occurred a few months after a relevant yet controversial event: in August 2019, 200 major US companies—the globe's capitalism elite—gathered at the Business Roundtable to sign the periodic Corporate Governance document with which all committed to follow the same ethical and business principles.² This document was hailed as revolutionary. For the first time since 1972, when the Business Roundtable was founded—coincidentally, the same year as the publication of *The Limits to Growth*, the very famous book of Club di Roma, edited by Donella Meadows and others—the MIT colleagues declared they will “respect the people in our communities and protect the environment by embracing sustainable practices across our businesses” (Business Roundtables, 2019, para. 16; Grove et al., 2020).

² Those corporations include American Airlines, American Express, Amazon, Apple, Boeing, Bayer USA, BlackRock, Caterpillar, Cisco, Citygroup, Chevron, Coca-Cola, FedEx, Deloitte, Exxon, Ford, IBM, General Motors, Goldman Sachs, LyondellBasell, Johnson & Johnson, JP Morgan Chase, Lockheed, Marriott, Nasdaq, Mastercard, Moody's, McKinsey, Motorola, Procter & Gamble, Pepsi Cola, Siemens USA, Walmart, United Airlines, Visa, Western Union, UPS, Whirlpool, Xerox.

This affirmation by the Business Roundtable rhetorically overturns the behaviour that multinational corporations have long assumed. In 1997, they signed a similar document stating that the only end of a business was to create value and profitability for its shareholders. In any case, between 2018 and 2021, thanks to Thunberg's and Fridays For Future—together with the disastrous fires in Alaska, California, Siberia, the Amazon Rainforest, Africa, Australia, and the many fires in Southern Europe—the debate on global warming, climate change and global integration of our societies and economies has taken on a magnitude that has not been seen since the Rio de Janeiro Summit. In this context, this prologue voices the need to think through concepts and cultures of *positive* sustainability. After decades of scientific effort measuring *unsustainability*, with concepts such as 'development', 'efficiency', 'competitiveness' and 'prosperity', we have reached these seemingly end-times. Positive sustainability rather requires focusing on cultural and emotional dimensions that have been left aside.

Currently, we may be excused for feeling optimistic that the fifty-year discussion about the bases of human sustainability appears to be coming together at last. It seems that the dramatic experience of the COVID-19 pandemic is helping humanity to reverse the path of excessive mobility and senseless growth promoted in the last twenty years. Even contemporary science and medicine have come together in response to the pandemic—which I see as a case of *positive* globalisation—. We appear to be taking off on a journey to rebalance human needs and habits, planetary requirements and larger ecologies of life. As Jared Diamond (2004) argued in *Collapse: How Societies Choose to Fail or Succeed*, any civilisation can die from excessive isolation, but also for excessive integration.

Having said that, an enormous task remains ahead, and we are caught in old paradigms. Western civilisation has already gone far beyond the Earth's threshold, exceeding scientifically verified planetary limits, pushing forward a seemingly unlimited economic globalisation that advocates for barrier-free economic interconnection. If, as we have known since the early 1970s, growth has physical and biological limits, then

global economic interconnection must also have boundaries. We must reflect on curtailing unsustainable global supply chains and re-orienting the world's dependence on Asian production systems; the centre of mass production after 40 years of industrial relocation.

Vigorously limiting the dominant global system of production and consumption will undoubtedly impact the current economic, political, and cultural systems, but this shift remains both desirable and necessary if we are to have a sustainable future. We must act strategically. How can we best manage the transition from the current model of economic globalisation to a more balanced, but still globally connected, way of organising life on this planet? How can we foster ecological thinking? Can we recover and revalue previous scientific and cultural contributions? How can we make visible the kind of ecological thinking that is often silenced by triumphant neo-liberal globalisation?

Although mass consumption derives specifically from the post-World War II recovery and contemporary standards of living in the West have been brought about by scientific and technological developments over the past 150 years, I believe we can still shape a new story. To that end, it is essential to invest significant financial resources and intellectual energies in the transition towards circular communities, economies, and cities, highlighting the benefits of healthier habits, and making evident the problems with hegemonic consumption models. Making visible the cultural dimension of sustainability, disseminating scientific and social knowledge together, entangling these with non-academic knowledge in an ecological mode will be fundamental. We can achieve this through slow sedimentation of critical and generatively hopeful messages, working together on new shared cultural constructs; by means of symbols, emotions, and beauty in whatever way they may be expressed and communicated.

However, after fifty years discussing about sustainability, we seem to have failed due to multiple interconnected factors. First, the guiding terms of sustainability were *consumed* beyond a meaningful framework of principles and practices. Sustainability became the rhetoric of governments and corporations, written into hollow speeches and

corporate reports, as if using the correct word was enough, stripping the breadth and depth away from sustainability. Structural unsustainability continued across the world's major economies, while the moral imperative was allotted to local enactments and consumers' choices.

Secondly, following Rio and Kyoto, while few ecological attuned countries restrained unsustainable practices, global capitalism intensified. The early 2000s emerging economies entry into the World Trade Organization (Brazil, Russia, India, China, and South Africa; i.e., the BRICS) signalled a radical shift in the world's economic and political forces. For the first time, the expanding middle classes in the BRICS and other areas of the Global South sought access to high-mass consumption. Then, the US financial bubble burst (2007–2008), spreading its negative effects to many economies across the world, destroying wealth and jobs, it overshadowing climate change and sustainability issues. Divorced from environmental concerns, growth-oriented policies focused on decreasing unemployment and poverty rates.

Underlying is the weakness of ecologically oriented thinking across different political cultures. This flaw has not yet been solved, despite abundant examples of best practices promoted by cities, community-based organisations and green businesses. Emissions of greenhouse gases have exponentially increased together with the ecological footprint worldwide. The global industrialisation of agriculture continues to degrade the land, while the global fishing industry continues to turn the world's oceans into parcels of managed—and depleted—resources, the dispersion of plastic is now being watched remotely by tracking and measuring waste-flows, and the illegal disposal of toxic waste has turned into a transnational business. Paradoxically, all this is still called *development*.

Wolfgang Sachs explained almost 30 years ago how the concept of development had already been worn out by the 1970s, forcing us to use adjectives to reinvigorate it. As Sachs (1995) writes, there is no longer development in current discourses without sustainability; no longer sustainability without development, precisely to demonstrate the conceptual artifice of keeping together the disease and its therapy. Often

held up as one of the progenitors of contemporary sustainability thinking, Gro Harlem Brundtland has been criticized by Sachs who defined the Brundtland Report as the “conceptual roof for both violating and curing the environment” (p. 29).

As I wrote in an article recently published by the *Review of Studies on Sustainability* (Franz, 2020), in the 1960s, the radical pioneer White Jr (1967) pointed out that “the issue is whether a democratized world can survive its own implications. Presumably we cannot unless we rethink our axioms” (p. 1204). Citing him, so close to our own concerns yet so distant in time, reminds me of the myth of Cassandra, and how resistant humanity is to warnings of existential danger. Even though the ecological crisis that we face in the 2020s is much more serious than the crisis anticipated by the beautiful minds of ecological thought in the twentieth century, we have yet to re-think the axioms of sustainable development. This long history, an archaeological excavation of still-recent but almost-forgotten knowledge, highlights how long it takes to transform a shared cultural construct. The search for sustainability necessarily requires time, but radical cultural transformations and evolutions do too.

As Enzo Ferrara (2016) explains, it is necessary to act on culture without waiting for paligenetic decisions to come from national and global political representatives. The hope for global governance is a mirage, particularly given that existing bodies continue to present economic policy as a solution to the ecological crisis itself. Ferrara emphasizes how the concept of *growth* worked for centuries in our minds, making us unable to differentiate the concept of development associated with economic growth from that of progress. As White Jr. (1967) points out, during an epoch of human history dominated by science and technology, approximately 350 years long, the pillars of unsustainability and the *hubris* of science were built, marginalising humanistic knowledge and cultural contributions to understanding human and ecological flourishing:

I personally doubt that disastrous ecological backlash can be avoided simply by applying to our problems more science and more technology [...]. Despite

Copernicus, all the cosmos rotates around our little globe. Despite Darwin, we are *not*, in our hearts, part of the natural process. We are superior to nature, contemptuous of it, willing to use it for our slightest whim (p. 1206).

To cultivate positive sustainability, it is therefore necessary to dismantle an extraordinary cultural and scientific castle, built by other wonderful minds before us. I am not proposing to deny the legacy of Descartes, Galileo, Copernicus, and those whose work has separated us from nature. That would be equally harmful. That heritage is miscellaneous and there are still many things to learn from it. For example, in 1865, the Scottish economist William Stanley Jevons (1866) demonstrated the fallacy of the concept of *efficiency*, noting that technological innovations in energy production led to an increased consumption of energy; the Jevons' paradox. What we must avoid though are edifices erected around the compulsion to measure. The *Castle of Measurement* has rooms for images, poetry, stories and narration, but they are sequestered, as are other ways of seeing the world. Even mathematics has become a prisoner of hyper-specialization, erroneously regarded as progress. Numbers have become prisoners of indicators, and indicators have taken the place of aspirational goals. As Serge Latouche (2000) reminds us, decades after the first theoretical formulations of poststructuralism and its critique of grand narratives, we are still coping with the hegemonic doctrine of progress and material development. Before Latouche, this point was investigated by David Orr, professor of environmental studies and founder of the Meadow Creek Project in Arkansas, a pioneering ecologically self-sufficient community. In his keynote address for the Annual E.F. Schumacher Lectures, Orr (1993) argued against the predominance of measurement:

The architects of the modern worldview, notably Galileo and Descartes, assumed that those things that could be weighed, measured, and counted were more true than those that could not be quantified. If it couldn't be counted, in other words, it didn't count. Cartesian philosophy was full of potential ecological mischief, a potential that Descartes's heirs developed

to its fullest [...]. Descartes was at heart an engineer, and his legacy to the environment of our time is the cold passion to remake the world as if we were merely remodeling a machine (p. 3).

The modern machine has now been thoroughly criticised (Foucault, 1972), but years before the philosophers began its deconstruction, the Cartesian *cogito* was called into question by literary writers. For example, the Argentinian writer Julio Cortázar wrote *Las babas del diablo* (1959) (*Blow-Up* in English); the beginning of the story is eloquent:

It'll never be known how this has to be told, in the first person or in the second, using the third person plural or continually inventing modes that will serve for nothing. If one might say: I will see the moon rise, or: we hurt me at the back of my eyes, and especially: you the blonde woman was the clouds that race before my your his our yours their faces. What the hell (p. 100).

Upon reflecting on three decades of sustainability thought and action—hundreds of books, official documents, scientific papers, some good practices, and countless political speeches—my mind always returns to the famous sequence of a tennis match without a ball inspired by Cortázar's short story in Michelangelo Antonioni's *Blow Up* (1966) (Rimini, 2004). A boy and a girl playing tennis are watched by a small and very involved audience. The two youngsters mimic athletic gestures with elegant moves, but there is no tennis ball. The *non-ball* leaves the field; the young photographer, although reluctant, enters the game because the girl asks him to go and collect the ball. He finds it for the continuation of the non-game. What is it? A joke? An illusion?

By analogy, transposing this scene to the efforts of at least two generations of scholars, environmental activists, ecologists, politicians, and green entrepreneurs, we could say that we have all been playing a game without a ball. The concerned public have become our accomplices. Outside of that virtual game, which has sparked enthusiasm, solemn

political promises, great scientific-technological progress, and innovative *green* goods, the rest of the world remains comfortably in the clubhouse of consumption, material wellbeing, and technological efficiency. These are treated as ends in themselves. If we live in a satisfied world, which continues to talk about growth and GDP, it is because, as in the film *Blow Up*, we continued to play without a ball. Intellectuals continue to acclaim the speeches and resolutions made at the international meetings. Researchers continue to obtain funds for research and technological innovation. However, as William Easterly (2015) clearly highlights in his comment on the Sustainable Development Goals, the *What Should We Do?* industry does not show any signs of going out of business soon. Sustainability gives us public intellectuals something to talk about and it gives politicians something to recommend.

The ball that was missing in the long match between *sustainability* and *growth* over the last three decades is a cultural sense of positive sustainability; narrative and artistic endeavours to express what a flourishing alternative looks like. We have forgotten to listen to the words of artists such as the Uruguayan writer Eduardo Galeano (2012, April 21) when he says: "Scientists say we are made of atoms, but a little bird told me that we are also made of stories".

I am convinced that we as humans are also made of stories, but this statement does not seem serious or academic because stories are not based on data and are not elaborating numbers, the sole elements we trust to solve problems. On the contrary, we should convince ourselves that stories, novels, and arts are the most powerful tools to change our minds. The engine of sustainability is still working, but to use it more effectively it will be necessary to narrate different visions of the world and tell the stories of generative practices. A new ecological thought and an effective narration of it requires an ecologised language that is unpolluted by *contaminated words* such as *growth*, *competitiveness*, *efficiency*, *prosperity*, and so on. The *hubris* of Measurement; the exactness of numbers, the amount of indicators we seek to describe world conditions with, the negative power of algorithms. Measurement with a

capital “M” does not in itself pull us back to less competitive lives and will not bring us back to a more balanced relationship with Nature. One of the nine Planetary Boundaries (Steffan et al. 2015), a very interesting and complicated model to measure the environmental condition of the planet, considers and observes the so-called *Novel entities*, chemically and bio-chemically unknown, and possibly very dangerous elements that humans have produced by means of polluting and contaminating water and air. I think that reflecting around these problems is paramount, but at the same time, we also need novels!

I invite faculties, scholars and students, young people, and ordinary citizens to read this book that illustrates efforts to consider measurement and data, together with positive experiences of sustainability, as well as narratives. Many of the authors in this book are colleagues and friends; since 2012 within the Routes Towards Sustainability International University Network we have been telling stories and exploring these possibilities, making space for a multi-disciplinary research environment and even working towards a trans-disciplinary space of knowledge that is reflected in this book.

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