Preface

CONTEXT

This book and its twin volume, *City Preparedness for the Climate Crisis*, are part of current work at the World Capital Institute (WCI) in order to evolve the fields of Knowledge-Based Development and Knowledge Cities – the scientific and technical sides of the WCI work – into those of *Knowledge for the Anthropocene* (Volume 1) and *City Preparedness for the Climate Emergency* (Volume 2). The choice faced by the WCI is the same as many individuals and organizations face in their daily experience: coming to terms with Anthropocene realities as the single most pressing issue of our age and the need to re-invent our lives accordingly.

Both volumes work as mutual companions and together add to a conceptual and practical approach towards the Anthropocene. These two volumes carry a formal symmetry, while the contents are quite specific to each. The original selection of topics for both volumes was based on prior work that led to the ongoing transformation of the WCI work in the second decade of our century.

The World Capital Institute is an independent international think- and do-tank “whose purpose is to further the understanding and application of knowledge as the most powerful leverage of development” (WCI webpage at www.worldcapitalinstitute.org). For that purpose, it has created and internationally propelled the discipline of Knowledge-Based Development (KBD) and its application to urban development under the better-known category of the Knowledge City, which stands for a best model representation for a socio-economic and infrastructural pattern. KBD and the Knowledge City aim at a balance of all collective capital forms (both tangible and intangible) in the evolution of a human activity system. Under this perspective, the main societal performance benchmark is not monetary mass increase as expressed by the GDP (Gross Domestic Product), but the improvement in the everyday and long-term experience of the majority of citizens on the basis of knowledge creation and distributed capitalization. The bulk of the literature on Knowledge Cities has been led by WCI associates and the leading journal in the field – the *International Journal of Knowledge Based Development* (IJKBD), one of the offsprings of WCI, was created and continues to be edited by prominent WCI members. Additionally, the WCI conveys the main annual conference on KBD

and K-Cities: The Knowledge Cities World Summit (KCWS) as well as the annual Most Admired Knowledge City Awards (MAKCi).

In public discourse, the Knowledge City is often equated with the Smart City, which we believe is an inadmissible simplification. The term Smart City was originally coined from the side of technologists and from industry and is still understood by the majority today as a city that is organized for the benefit of its citizens, in particular by means of information technology. In our sense, the Knowledge City seeks a communal value balance, which brings us to the topic of this first volume, namely how a public policy can be shaped using all its potentials and in all dimensions of social existence (Carrillo, 2006; Carrillo et al., 2014; Koch, 2016).

Knowledge-based Development (KBD) evolved from the fields of Knowledge and Intellectual Capital Management at the organizational level to the wider realm of societal value and knowledge base. KBD focused on the intangible (or 'knowledge-based') collective value, that is, all those forms of capital beyond the traditional financial and physical assets that can leverage social development. Hence, KBD has been defined as "the collective identification and enhancement of the value set whose dynamic balance furthers the viability and transcendence of a given community" (Carrillo, 2014: 416).

The promise of KBD has been to contribute to the understanding and design of human coexistence in knowledge-intensive societies. Such understanding involved a major challenge for it implied coming to terms with knowledge as a natural and behavioural phenomenon as well as with its economic implications. Advancing on this endeavour helped to set up an agenda for knowledge societies beyond economic productivity, rather aiming at a qualitative evolution in the human condition.

But if KBD is about net future social value and related human preferences, then the realities of the Anthropocene, as Naomi Klein would have it, put our whole value systems in perspective (Klein, 2015). Therefore, the WCI has increasingly shifted its focus over the last years towards the knowledge implications of and for the Anthropocene. In particular, it has paid attention to two key concerns that provide continuity to its developmental and urban traditions: (a) what is the social role of knowledge and what new shape might it take as the realities of the Anthropocene unfold? And (b) how can cities be best prepared to deal with the upcoming challenges of the Anthropocene?

The move from Knowledge-Based Development and Knowledge Cities towards Knowledge for the Anthropocene and City Preparedness for the Climate Crisis is highlighted by the recent 'Anthropocene Turn' as described by an editorial in the *International Journal of Knowledge-Based Development* (Carrillo, 2019). This book now is right at the core of a movement that is bound to attract increasing interest as we enter the Anthropocene epoch.

BOOK PLAN

This book conveys a wide spectrum of scientists, philosophers, activists, decision-makers, artists and humanists to tackle these questions from a trans-disciplinary perspective. The content structure is aimed at a general academic audience, rather than the specialists of each particular field. Even for specialists, the interest and value of this work lies in the interconnections and cross references that are made possible by the mosaic of data, theories, cases, models, methods and experiences collected in this book. Those interconnections will be underscored by a general conclusion, emphasizing some of the links as they emerge from the joint reading of all chapters. Individually, each chapter serves as reference to a specific topic. The aim is not to provide a consistent or complete picture of all the challenges we are confronted with in the Anthropocene, but rather to collect a multitude of approaches and arguments that need to be considered when discussing such a complex topic.

Even with a wider academic audience in mind, an emphasis has been given to readability and clarity. Each relatively brief chapter is intended to contribute a contemporary perspective on a selected topic. The philosophical and political standpoints, theoretical and methodological approaches – although generally convergent – allow for a naturally broad range of points of view. Writing styles also vary from a colloquial essay to the empirical analysis, from the journalistic to the strictly academic, from the monograph to the artistic rendering. The underlying belief is that the reader will benefit from an adequate set of realizations and analyses integrated under the common challenges of Knowledge for the Anthropocene and hopefully will use it as a source for further elaborations.

The book is organized in seven parts, going from the more fundamental ethical, epistemic, ontological and aesthetic foundations to the political, scientific, managerial and technical.

Part I introduces the reader to the meaning of Anthropogenic Existential Risks, their philosophical implications and the behavioural and public opinion challenges it poses to Knowledge Systems. While reference is constantly being made to physical science evidence for climate change, its relative presence is minor given that Earth, Atmospheric, Environmental, and Life Sciences are sufficiently well documented elsewhere.

Instead, Part II serves a reference purpose, with Chapter 5 providing a glossary of terms balancing the physical sciences terms with those from the social and behavioural science and humanities. Also, Chapter 6 provides a directory of organizations and movements concerned with the Anthropocene thus serving as a source of information for further investigations – a subject of great concern for the WCI.

The bulk of chapters deal with behavioural, economic, social and cultural aspects including economic aspects of the Anthropocene and alternative economic cultures (Part III), and issues of ethics and justice (Part IV). Part V looks into the challenges to knowledge systems, including formal and informal knowledge. The final chapters consider some of the conditions from economics, politics and art determining potential outcomes, including explorations of the limits of human imagination (Part VI). The final part (VII) looks at possible futures and our means to envisage them. The book closes with a set of conclusions by Günter Koch, offering his interpretation of the common emerging threads, including main lessons, new questions and further research.

The intended target for this book is the academic public at large, including researchers and graduate students as well as science communicators. It can also be of interest for general graduate courses on climate change. To specialists on social issues of the Anthropocene and Environmental Sciences, it provides a novel look at the central matter of what new significance the socio-economic and cultural knowledge base can acquire before the Anthropocene. We also would hope that it may serve as a reference to journalists and the media, as a competent source for elaborations on the future of the planet and societies in this new age of Anthropocene.

This would be the first volume to directly deal with the subject of Knowledge for the Anthropocene. A growing number of climate scientists, philosophers, environmental activists, decision-makers, politicians, social scientists and the public at large are beginning to realize the inadequacy of the current scientific and education establishment to meet the likely scenarios of the climate emergency. If the COVID-19 pandemic, which governed during the period when this book was compiled, is any indication, the lack of health systems preparedness, sufficient infrastructure and medical systems and services personnel, alert networks for adequate timing, scientific advice integration, global crisis governance, R&D coordination efforts, proper social communication tools, economic and social response capacities, to name but a few, experienced even by some of the most capital and technology-intensive societies, is a major reason for concern. It is a cause of no small wonder that even the most powerful country in the world is also the one where the pandemic toll in both confirmed cases and deaths in absolute numbers has been the highest at the time when this book was compiled. Whatever the final global pandemic cost might be in human lives, suffering and economic stagnation, it might pale in comparison with the foreseeable scenarios posed by Anthropogenic Global Existential Risks. New climate research tends to increasingly suggest that such scenarios are looking worse and closer by the day.

However, it must also be acknowledged that new forms of scientific and diplomatic cooperation during the pandemic led to the huge accomplishment of developing alternative vaccines in record time through several international

cooperation mechanisms. To the extent knowledge is still regarded as a global common good, the potential for international synergies exist.

We now turn firsthand to the research community in the hope that this collective work opens up much needed collaborations across disciplines to consolidate the emerging field of Knowledge for the Anthropocene. If it contributes to raise new relevant and productive questions and suggest effective ways to tackle them, its purpose would have been accomplished.

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