

remain optimistic of the promise of synthetic biology, indeed firmly convinced that prohibitions do little more than delay beneficial developments and obscure the hostile uses of new technologies. They argue that it is also in the interest of increasing biodiversity that we should not just resurrect extinct species, but create completely new organisms, with entirely new functionalities. The capabilities offered by synthetic biology, which are in the end just a logical continuation of humanity's previous attempts to harness nature, will ultimately be necessary to surpass or at least maintain the current level of civilization, and possibly of life itself. Along these lines, Church points to the prudence of spreading life to other planets, especially in case the Earth were to suffer a global catastrophic event, either natural or manmade, and synthetic biology would help facilitate this spread.

Regenesis attempts to provide (a necessarily condensed and simplified) history of life, civilization, (biological) science and technology, and synthetic biology, along with the prospects of what might be possible in the near and distant future. Although the reader may be skeptical of the possibility and desirability of some of the developmental trajectories proposed, Church is nevertheless a visionary who has already turned some of his past predictions into reality, and some of his extrapolations in *Regenesis* just might become regular features of everyday life in the coming years and decades.

Simone ARNALDI

Centre for environmental, ethical, legal and social decisions on emerging technologies (CIGA) & Department of Political science, law and international studies, University of Padua, and Department of Humanities, University of Trieste

Antoni Kukliński

In search of new paradigms.

Selected papers 2001-2011

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What do copper regions and *pax kantiana* have in common? Why is the future of Europe linked to the sword of Alexander the Great? The variety of topics in Antoni Kukliński's book *In search of new paradigms* is impressive, but their reading is a compelling and fascinating exercise in intellectual inquiry. *Fragstellung*, questioning, is admittedly the "greatest fascination" of the Author's academic activity (p. xiii) and the volume collects ten years (2001-2011) of notes and papers that are meant to be provocative contributions to the public debate on the future of Poland, Europe and the Western "megaspaces" (p. 3ff). The book is anything but a neutral, detached analysis of these issues and it rather constitutes a testimony to the author's intellectual commitment and civic passion, both blended with insightful thinking. It is such a combination that makes Kukliński to challenge the "conventional wisdom" of both

accepted research paradigms and policy strategies.

The papers are grouped in four sections, in a sequence that describes a journey from a broader to a narrower geographical scope. The first part of the book focuses on global dynamics, exploring the transition from a modernity dominated by Western countries to new global political and economic configurations in the XXI century. For the author, the ascent of BRICS and the parallel decline of the West is leading to dilemmatic alternatives for the construction of a new global order, which is nonetheless a "*conditio sine qua non* of survival and development of humanity" (p. 73). The second part examines what Kukliński calls "the European drama", dealing with the continent's prospects for the close and distant futures. According to the Author, Europe is faced with grim prospects, as political and social paralysis does not consent to change and face the competition of the new emergent powers. The lack of visionary thinking (see also below) and the absence of a "dream" are considered as the chief weaknesses of the continent. The third group of papers discusses the futures of Poland and the possible developments for the country in this broader, grim scenario. Last, a fourth part presents a regional perspective on these processes. This regional dimension adds a horizontal dimension to the vertical, global to national, perspective outlined in the three previous sections of the book. Here the accent is on the European scene and

includes counterintuitive comparisons (such as the notion of the "triple European Mezzogiorno", discussing the analogies between Eastern Germany, Eastern Poland and Southern Italy) and a sustained critique of the EU bureaucratized regional cohesion policy.

The fundamental thesis of the book is that small thinking and "conventional wisdom" will make Europe and Western civilization the "Titanic of the XXI century" (p. 11). Kukliński considers small thinking as the result of the worship of the business-as-usual, together with the lack of courage and imagination in both research and policy-making. One of Kukliński's preferred metaphors throughout the book is that of "Gordian knots", which are conundrums of social and economic aspects and the policy problems they cause. What Kukliński looks for are decisive solutions ("Alexandrian solutions", another metaphor), which necessarily lie *beyond* conventional wisdom. The whole book is a search for these solutions, and the "new paradigms" through which we might provide them.

Kukliński's papers are accompanied with a preface by the President of the Polish Economic Society, Elżbieta Mączyńska, and with a Post Scriptum including three afterwords by Józef Niżnik, Anna Gašior-Niemiec and Roman Galar. As Josef Niznik correctly notes in his comment to the book, "[m]ost of the texts [...] could be read as research projects to be developed by others" (p. 305). I would go a step further: the essays are all

but mere diagnoses or value-neutral analyses. They are what they promise to be: “programmatically papers”, provocation and *stimuli* for broader discussion. They sketch a vision for the future, whose traits are well clear: a strong transatlantic community, a Europe that is aware of and able to exert its global role, with developmental policies capable of unleashing regional energies rather than seeking conformity through uniform indicators.

Indeed, Kukliński is not shy in vocally affirming his preferences. Yet, a pessimistic feeling pervades his work, as long as data and policy habits seem to contradict his visions of preferred futures. What the author fears most is “the strategic deficit” affecting the European states after the creation of the European Union, which was instead a “culmination” and the “greatest institutional innovation of the XX century” (on this aspect, see especially pp. 111–126). An essential condition for strategic thinking to flourish is imagination. As Kukliński notes, imagination is crucial to surpass the boundaries of conventional wisdom and to envision the ways to overcome the barriers and impediments to new and alternative developmental paths (see e.g. p. 205).

In the introduction to the volume and in many other passages (see pp. xiiiiff), the author frames his work in the intellectual tradition marked by the names of Myrdal, Galbraith and Kuhn. Kukliński adopts an original interpretation of the notion of paradigm, which has no longer an

exclusively cognitive significance, but also a pragmatic validity. Paradigms (and paradigm change) do not belong only to the realm of knowledge, but also to the world of strategies and policies (see also, Nižnik, in the volume). In this unusual “alliance” of philosophy of science and strategic thinking, world history is seen as a mixture of long term, stable conditions and “turning points”, which make structures temporarily malleable and open up the space for new orders and durable arrangements (p. 63ff). From this point of view, history can be seen as the unfolding of “normal periods” and “revolutionary moments”. Developing knowledge paradigms able to understand the rhythm and direction of stability and change in the long term is considered as the condition for building visions, strategies and actions able to affect and orient futures.

Along the declared intellectual ascendancy of the author’s work, the reference to history and the way Kukliński frames his discussion of economics and geopolitics in the broader historical context unveils what, in my view, is the fundamental inspiration of the book. The *longue durée* is indeed the privileged temporal horizon of his analysis. This approach applies to the past, as he searches the roots of the present of Europe till the XIX century and backwards. Moreover, this applies to the future too, as Kukliński pushes his sight forward to 2050. However, the author’s gaze is not that of historians and it is not by chance that

Oswald Spengler's *The decline of the West* surfaces throughout the volume. Kukliński enters the book as an economic geographer, but emerges from it as a philosopher of history or a macro-historian (Inayatullah and Galtung, 1997) and he draws on this long-term view into the past to elaborate speculations for the future, following a tradition of intellectual thinking that stretches back for centuries (Flechtheim, 1966). It might be precisely because of this influence that Kukliński shamelessly labels his efforts to systematically explore global, European and regional futures as "futurology", against conventional terminology and to the horror of researchers and practitioners in foresight and future-oriented analysis.

Yet, the symmetric detachment from a perspective based on both a "fatalistic" and a "voluntaristic" paradigm distances Kukliński's view both from any temptation of determinism or from any inflated view of the agent's will and power. This balance is a chief characteristic of the book, which develops around the tension between his advocacy of strategic thinking and action on the one hand, and the doomed feeling that the history of Europe and the West follows

a path that is largely determined and that seems to inevitably lead to the decline of the Western world and to the marginalization of Europe in the global scene.

In this book, the reader won't find the usual sequence of academic papers. Nor is the author concerned with prudence as he replaces the understatement at all costs that is dictated by academic *etiquette* with the bold and assertive statements that his civic passion suggests. What one can find in the volume is the author's vibrant and compelling call to reject the temptation of a "gentle surrender", the illusionary seduction that the status quo can be prolonged indefinitely. This style may be disappointing to some, but the contents of the book offer a rare opportunity for debate and reflection beyond the gates of conventional thinking.

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