Caught in the nuclear trap(s)? The responsibility and findings of independent scholarship

Benoît Pelopidas

CAUGHT IN THE NUCLEAR TRAP(S)? THE RESPONSIBILITY AND FINDINGS OF INDEPENDENT SCHOLARSHIP

Interview with Benoît Pélopidas (Sciences Po, Centre de recherches internationales (CERI), CNRS, Paris, France), by Miriam Périer

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Benoit Pelopidas is the author of ***Repenser les choix nucléaires. La séduction de l'impossible***, published last January by Presses de Sciences Po and currently being translated into English. Through systematic research conducted over more than a decade, at the crossroads of nuclear history and international relations, the author addresses essential notions such as proliferation, the security dilemma, vulnerability, and chance to name but a few. He answers our questions about his work, his approach, and his firm stance on the independence of research. This interview was conducted with Benoît Pélopidas on the occasion of the **fifth anniversary** of the ***Nuclear Knowledges*** programme.

In your introduction (p. 28), you write, "Independent research, as distinct from para-institutional communication, plays (...) a crucial role in reconnecting two fields of study that seem to ignore each other: nuclear studies and studies of political regimes in general and of democracy in particular." Can you tell us more about the implications of connecting those two fields in terms of research?

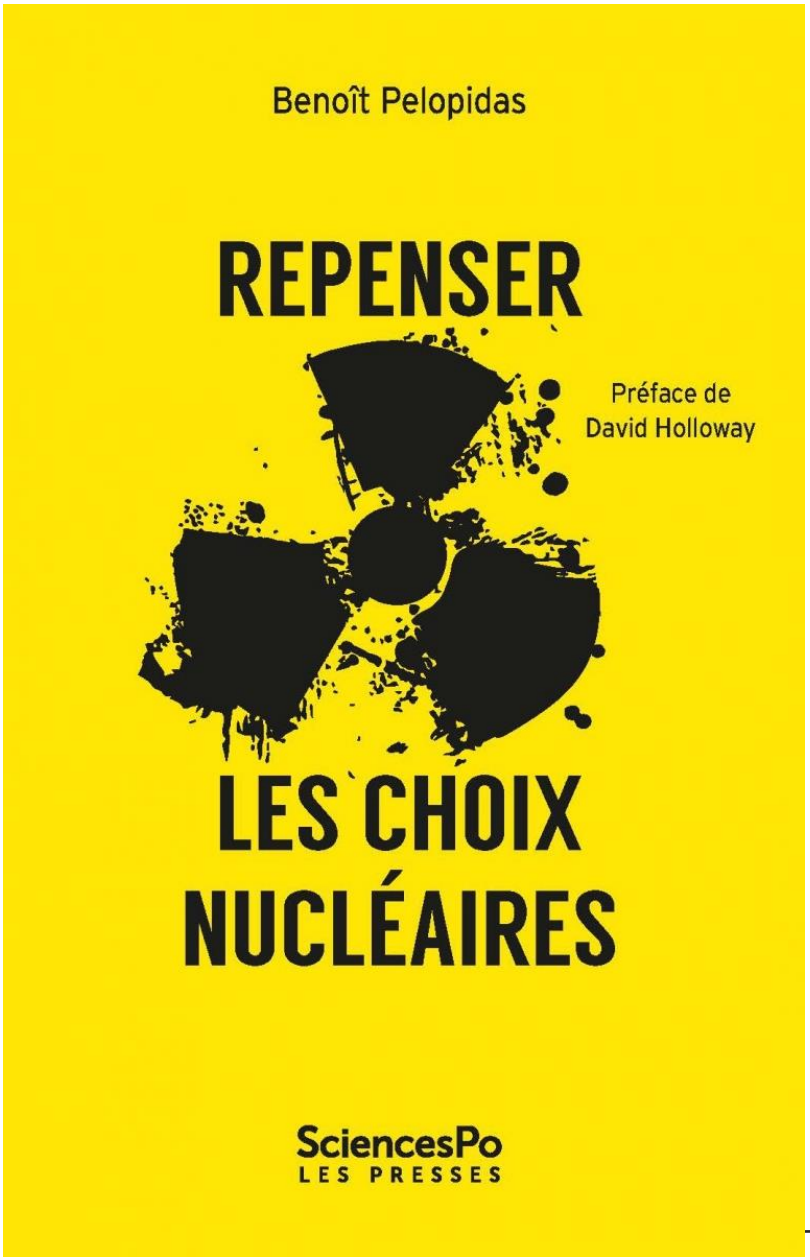
Before addressing the issue of social science research, let me remind our readers that nine states, including democracies, have embarked on programmes that plan to base national and international security on nuclear weapons for the next 70 years. This is longer than the period since the first French nuclear test in 1960. The explosion of just 1% of

the 13,000 nuclear weapons involved would be enough to jeopardise global food supplies. That is why the accuracy of our knowledge on this subject is so crucial. But, as we will discuss later, the knowledge that is supposedly available is not supported by adequate evidence.

Regrettably, in the last 25 years, none of the top francophone academic journals have published so much as a single article on the possibility of nuclear war and its relation to political action. In France, the most substantial treatment of the subject can be found in philosophy not in political science, in the writings of Jean-Pierre Dupuy and in those of other readers of Günther Anders, such as Marc Crépon. I therefore consider the field of nuclear studies to be a transnational one, written mainly in English and known as "nuclear studies" or "nuclear security studies". In this field however, the effects of the nuclearization of the world on the possibility and forms of democratic government are hardly ever addressed. The only exceptions are the works of Elaine Scarry, Garry Wills and Avner Cohen, which are monographs on the American and Israeli cases. A robust comparative study has yet to be done, and this book intends to lay the groundwork for this, while awaiting Thomas Fraise's PhD dissertation, which deals directly with this subject. This is all the more important as studies on democracy operate as though nuclear weapons played no role and were compatible with democratic practices, without putting this assumption to the test. The three following examples show that accepted knowledge is not satisfactory.

First, drawing on the work of Paul Edwards and Daniel Deudney,[1] among others, I show that the satellite-based global surveillance infrastructure emerged from a primary injunction to detect all enemy nuclear weapons in order to target them, because even a single nuclear strike was deemed intolerable. Similarly, global monitoring also relies on seismic activity measuring devices to detect underground nuclear tests. In this way, nuclear weapons find a place in the discussion of democracy and surveillance.

Second, while some authors such as Colin Crouch have formulated the notion of post-democracy, it is striking that the factors he identifies do not include the nuclearization of the world.



The third element that seems essential to me is that the nuclear state expects its citizens to consent to three commitments that certainly warrant further study. It expects them to consent to be a target: in a world governed by nuclear deterrence, the adversaries with large arsenals will target not only the centres of power but also most likely the French nuclear weapons in order to limit the damage they could inflict upon them in return. Citizens are also expected to consent to the fact that the head of state can use the arsenal on behalf of the whole political community, since the speed of ballistic missiles does not allow time for any consultation. Finally, they are expected to consent that their taxes will be used to finance this arsenal and its modernisation.

The French reader may find this surprising because he or she frequently hears that there is a consensus in France on this issue. The chapter on "creating a space for democratic choice by re-characterising the role of the expert" shows how this illusion was constructed, the methodological flaws that perpetuate it, and then tests it through two unpublished surveys whose robust results invalidate the consensus thesis. The archives also challenge the idea of a past consensus in the French citizenry that has eroded.

This therefore opens an essential field of study that (re)connects democracy and the politics of nuclear weapons systems by questioning the impact of the nuclearization of the world on the possibility of democracy and democratic practices, rather than assuming that they are compatible and that the former has no effects on the latter.

Do you consider that nuclear research (civil or military) can be done independently?

The work of the programme I am pleased and fortunate to have led for five years, since 2017, *Nuclear Knowledges*, proves that such research is possible and fruitful. To avoid unnecessary controversy, let me state from the outset that independent research is not a subjective label, but is recognised by verifiable practices. These include the non-appropriation of categories of official or activist discourse as categories of analysis, a full awareness of the effects of self-censorship linked to using the categories of nuclear thought, the firm stance of refusing any conflict of interest (which translates into exclusive funding on the basis of academic merit), and the building of an interdisciplinary research design. These four gestures make possible to raise the questions that were avoided by the supposed performativity of the official discourse and allow to independently reassess claims about the effects of particular policy choices. On the issue of nuclear energy, we have had the pleasure of funding, in the framework of the ANR VULPAN project, Valerie Arnhold's research on the normalisation of nuclear accidents by different organisations that construct them as conceivable and surmountable.

By choosing financial independence and interdisciplinarity, it becomes possible to identify the mismatches between accepted knowledge and available evidence and to try to remedy them.

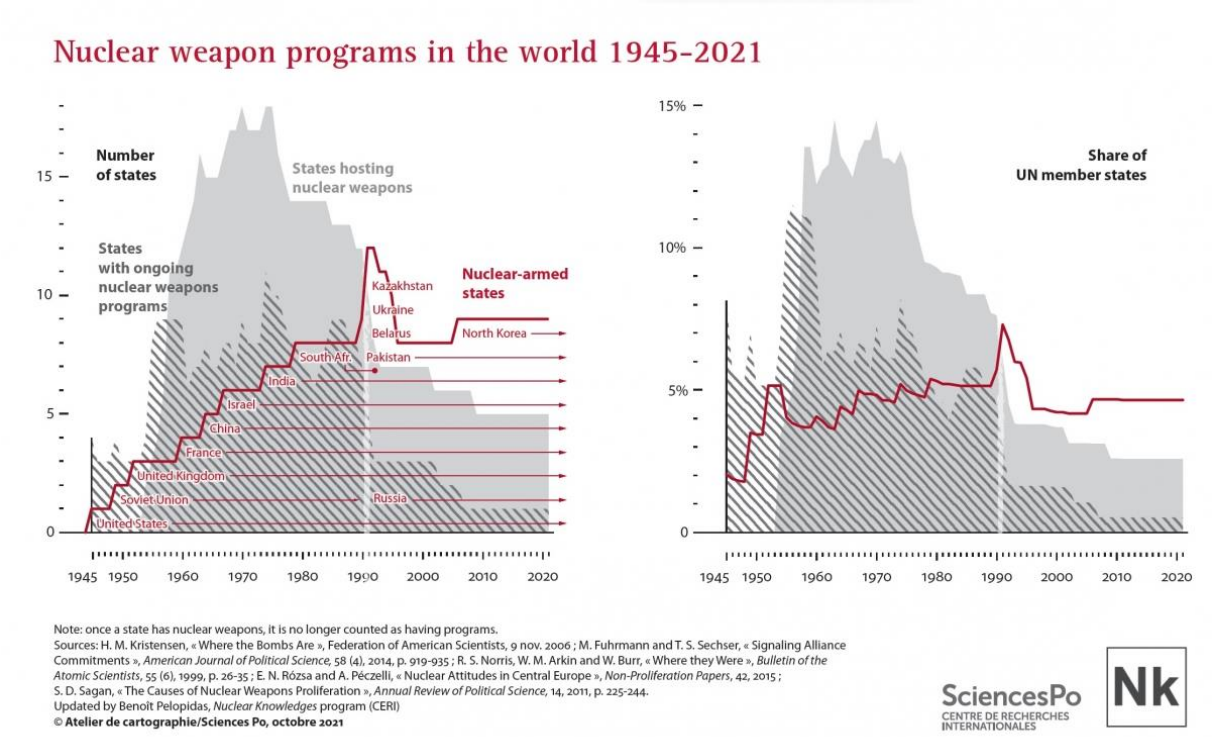
Let me give you four examples, which are key findings of the book.

We have already mentioned the frequently repeated assertion of a French consensus on the policy of nuclear deterrence—which indeed exists at the level of political parties. It is worth noting that the official surveys on which this claim is based, issued by the communication unit of the Ministry of the Armed Forces, frame the questions as though the main assumptions of the official discourse were established truths (nuclear weapons being associated with deterrence, a strictly defensive and risk-free posture) and reproduce the basic shape of its communication strategy, i.e., no mention of the costs or possible undesirable effects. Avoiding such biases, we can reformulate and ask the question of French attitudes towards nuclear weapons policies in a way that allows for a more diverse set of attitudes. We find that the only attitudes that are supported by more than 50% of the respondents reflect a feeling of illegitimacy of citizens taking part in such conversations and their apprehensiveness of the consequences that would result from even participating in such a discussion.

The second example of mismatch between accepted knowledge and available evidence, which became visible thanks to the efforts of independent and interdisciplinary research, concerns the credibility of the French nuclear deterrence. Leading French analysts measure it against French sources, which is obviously inadequate. We have therefore called upon an engineer and nuclear physicist to conduct an independent technical analysis of the performance of the first generation of the French strike force, and have conducted archival research in the United States, the United Kingdom, and on a series of Russian documents. These documents establish that, from the point of view of allies and potential adversaries, the French strike force was not perceived as a credible threat until at least 1974 and was not technically capable of accomplishing the objectives assigned to it. More research still needs to be conducted on when this credibility was achieved, based on appropriate sources rather than on the incantatory repetition of

French leaders' and engineers' desire for credibility. This result is all the more important because the majority of the members of the Defence and Armed Forces Committee of the National Assembly, who were kind enough to answer my questions, believe that the French strike force became credible much earlier.

The third gap concerns French officials, experts, and media who all accept a framing of the nuclear weapons problem in terms of horizontal proliferation as if it were inevitable and thus restricted possibilities. However, a detailed study shows that the post-Cold War period is a period of historically low proliferation and that the nuclear-armed states, permanent members of the UN Security Council, have played an essential role in the spread of nuclear weapons. None of the current nuclear weapon states acquired its arsenal without the help of at least one of the P5. This is a far cry from the intrinsic desirability of nuclear weapons, wrongly assumed by what I call the "paradigm of proliferation", which hides the fact that the renunciation of nuclear weapons is more common than proliferation on any scale, and which also obscures the responsibility that nuclear-armed states have in this phenomenon. It is essential to critique this assumption of inevitability of proliferation because, as I have shown in my book, it is widely disseminated in the public opinion through the repeated claims of experts, journalists, and officials. Let me use the work of the talented cartographer Benoît Martin to illustrate this result.



Nuclear Programmes in the World, 1945-2021, by Benoit Martin, Sciences Po.

A fourth fundamental element about which conventional wisdom is not supported by adequate evidence is the role of luck in the fact that there have not been any unwanted nuclear explosions yet. This role of luck has been asserted by American, Russian, and British officials since the 1960s, but the literature does not take them seriously. In fact, the literature suggests either that the role of luck cannot be assessed and thus deduces, at the cost of an obvious methodological flaw, that it does not play a role (rejecting the counterfactual method leads to such an error); or it claims that the non-relevance of luck can be proven because what matters is control. The book thus proposes a method for assessing this role of luck (defined as three modes irreducible to control) and a typology of the modes by which it is denied. It also uses American and British archives to show that luck has been essential in avoiding unwanted nuclear explosions so far.

Finally, it proved possible to problematise the practices by which official categories and the assumptions of the paradigm of proliferation are appropriated. We also problematise the irresponsibility of para-official experts, offer categories that make it possible to go beyond the framework of the proliferation paradigm (vulnerabilities, renunciation,

chance) and to assess the validity of the assumptions at work. Thus evaluation replaces incantation.

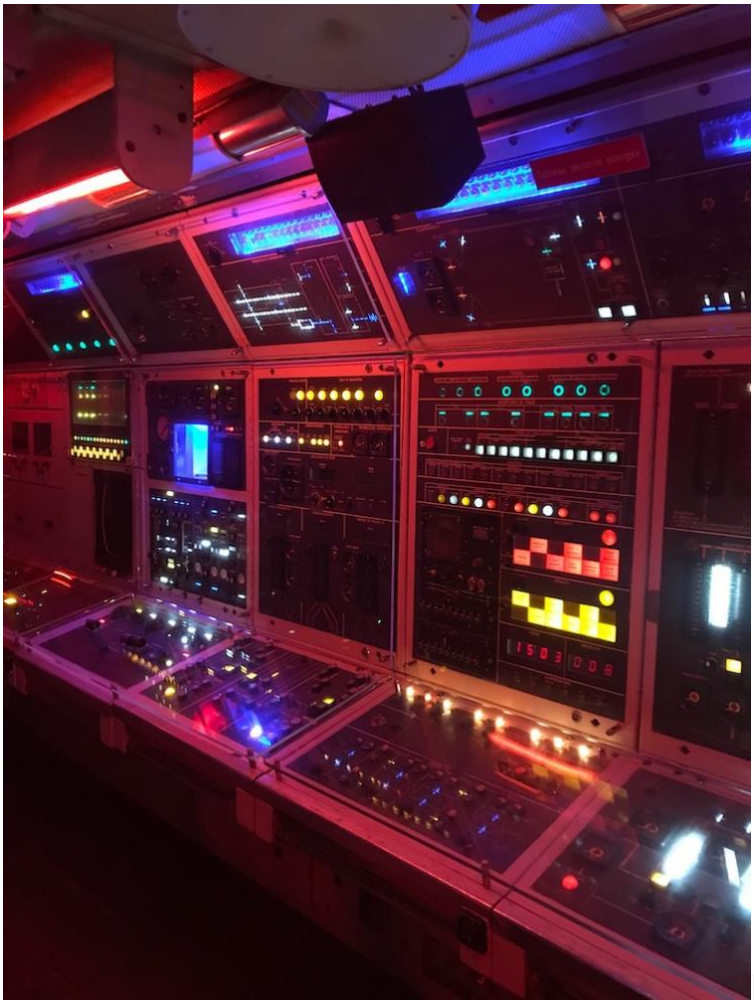
Once the elements that underpin the inevitability of the current policy have been invalidated—the inevitability of proliferation, perfect control over weapons and no role for luck, consensus in the French population, and allegedly adequate expertise—I show, in the concluding chapter of the book, what kind of justifications would be consistent with the current policy. They turn out to be very different from the official justifications.

I would also like to mention another important study conducted by the team, one that is emblematic of my point about financial independence coupled with interdisciplinary work making new research questions possible. Dr. Sébastien Philippe, a researcher associated with the programme, combined a novel analysis of declassified archives with new computer modelling to re-evaluate the consequences of the French tests in Polynesia, which had previously been substantively underestimated.

Does this independence distinguish researchers from experts?

In fact, it shows why we cannot expect para-official experts to provide a complete overview of nuclear vulnerabilities, particularly because of the discursive requirements of deterrence. The experts who place themselves at the service of the state are trapped in a double bind.

First, while deterrence is based on the acceptance of a primary material vulnerability, the official discourse adopts the rhetoric of protection and conceals that underlying vulnerability.

 Le Redoutable Submarine, Cité de la Mer, Cherbourg, France. Photo by Miriam Périer, April 2022.
Then, a second limitation amplifies the first one: the discourse of deterrence plays both a descriptive and a performative role. It aims to describe international power relations, but it is also reaffirmed and repeated to make deterrence more credible. As a result, official and para-official experts cannot say that its failure is possible and that a nuclear war would follow. Replacing the reality of vulnerability with a rhetoric of protection makes this eventuality inconceivable. Therefore, to believe in the official or expert discourse on vulnerabilities is to be mistaken about its nature, which is assumed to be merely descriptive.

Equally serious is the overconfident belief that nuclear war or unwanted explosions are impossible. The book shows the other means by which these experts wrongly convince themselves that a nuclear disaster is impossible.

The independent scholar always keeps in mind that our knowledge on the nuclear past depends upon the availability of primary sources, that most nuclear weapons states are not transparent on it, and this has consequences. The United States and the United Kingdom have been exceptions. So, an important part of our work is to understand the epistemic and political consequences of this limited universe of data, the shape of which is decided by states, to try to extend it, to diversify sources and to show the consequences of a discourse which would consider the existing universe of data as complete. One implication is that what I was saying earlier about the role of luck is most likely an underestimation. Treating it as a complete assessment would require accepting that Russia, France, China, Israel, India, Pakistan and North Korea have been capable of a perfect control over their nuclear arsenals while the declassification of US and UK archives has uncovered several cases of luck in these two countries alone.

What is the cost of an independent research like yours?

The results of the work of a relatively small team of a dozen researchers over five years in total demonstrate the exorbitant cost of research that is *not* independent. Citizens, whether elected or not, civilians or military, and the scientific community have been paying this price as they were relying on incomplete or inexact knowledge as discussed above. The results obtained by my team about the inadequacy of accepted knowledge and available evidence could and should have been obtained a long time ago. By funding research that suffers from conflicts of interests and/or accepts the categories used by official actors as analytical categories, we produce an incantatory discourse and the illusion that the progress of knowledge is impossible and superfluous. Such an approach perpetuates the irresponsibility of experts who commit serious methodological flaws, and maintains the impossibility of political responsibility, since no alternative is proposed to representatives and citizens beyond a binary between *status quo* and chaos and the continuation of current policies is justified by this lack of alternative. In a democracy, this would be an unacceptable state of affairs. In a country that intends to be at the cutting edge of knowledge, it would also be unacceptable, since numerous studies have already shown how conflicts of interest in research funding have produced

considerable distortions in results, in fields as varied as energy policy, the effects of tobacco on health, and the production of information. We assume, strangely enough, that this would not be the case in the field of nuclear studies. Faced with a trend of increasing precariousness in public universities and the increasing reliance on external funding, particularly military funding, we must refuse both precariousness and the subordination of research to conflicts of interest. Let us not fall into the trap of accepting conflicts of interest as the only alternative to job insecurity.

The programme's appeal to young researchers is further proof of the fruitfulness of this intransigence on independence and interdisciplinarity. We have welcomed many doctoral students from prestigious universities such as Brown and Cornell. Several promising scholars have expressed desire to join our program. Two of them have been awarded a Marie Curie grant.

In the same vein, you write in your book: "It is high time that a prudent and independent moderator makes a public debate possible, based on clear statements and alternatives, which he or she will confront with their possible contradictions, with new research results and with the extent of what remains to be discovered". Do you think that a researcher, an intellectual, should play the role of a "diplomat", a mediating authority in the nuclear field?

The purpose of independent research, as opposed to pro- or anti-nuclear activists, is to offer the possibility of a clear and coherently justified political choice. The aim is to accurately question the memories of the past, the visions of the future, and the values in the name of which it is claimed that our political community should adopt this or that policy. Let us not hide these choices behind unwarranted claims of inevitabilities. Therefore, the book finishes with the proposal to desacralize nuclear choices without conventionalising them. We must be able to ask fundamental questions clearly and explicitly: which weapons systems for which defence policies for the nation and for Europe? Grounded in which imagined future? Let us bear in mind that according to the French Minister of the Armed Forces, Florence Parly, these policies are binding until 2090.

One of the central methodological propositions of the book and of the work I have been conducting in parallel is to show the constitutive role of imagined futures in determining the scope of nuclear possibilities. As the concluding chapter shows, there are imaginable futures in which nuclear weapons are necessary for us, others in which they have little relevance, others in which they are harmful to those who possess them (if hacking them becomes possible for instance), and others in which we can use other means to accomplish our goals. In our thinking about future enemies that cannot be deterred with nuclear weapons, we should incorporate non-nuclear existential challenges such as climate change and biodiversity collapse. Indeed, claims of 'success of nuclear deterrence' are predicated on the idea that the country on behalf of which such claims are made is still inhabitable. Those who have already made their choices should be able to debate them. The independent researcher serves the debate but has a demanding idea of it. Debate is not merely confrontation between existing preconceptions, but discussion of coherent positions based on the most recent advances in knowledge. The researcher must be sure to avoid rhetorical illusions of inevitability, of the insignificance of imagined futures that do not need to be discussed, or of contradictions. The independent researcher thus enables a democratic debate between different clearly justified alternatives.

If I may, I would like to end by paying tribute to two French authors with very different profiles, Bastien Irondelle and Georges Le Guelte. In spite of their differences, they share the same integrity and intellectual generosity, they have both used the tools of political science, and have both been mentors and inspirations for me. It is this tradition of honest, independent, and ambitious research in the service of the possibility of democratic debate that I invite our readers to nourish.

Interview by Miriam Périer, CERI.

Find out more about the *Nuclear Knowledges programme*

- The Nuclear Knowledges website
- The ERC-funded project NUCLEAR

- Interview with Dr Emma Belcher on *Press the Button* on *Repenser les choix nucléaires*
- Article by Alexandra B. Hall in *The National Interest* summarizing the podcast
- Panel on Nuclear Knowledge production organized by the Managing the Atom Program at Harvard University in January 2022
- Luck and nuclear vulnerabilities, by Benoît Pelopidas
- Discussion between Carol Cohn, Jayita Sarkar and Benoît Pelopidas on Nuclear Knowledge Production: Authority, Truths, and Making Sense of the Bomb at the Belfer Center (Harvard University)
- The Global Nuclear Arsenal (video), by Nuclear Knowledges

- 1. See Paul Edwards in *Histoire des Sciences et des savoirs, Vol 3. Le siècle des technosciences*, Paris, Le Seuil, 2015 and Daniel Deudney, *Dark Skies*, Oxford: Oxford University Press, 2020.