



Entrevista com Yuk Hui

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Yuk Hui é um dos mais proeminentes filósofos da tecnologia na atualidade. É professor associado de Filosofia e Tecnologia e Mídia da City University of Hong Kong e professor visitante de Filosofia e Tecnologia na Academia de Artes da China, em Hangzhou. Ele estudou Engenharia da Computação na Universidade de Hong Kong e Filosofia no Goldsmiths College em Londres e obteve sua habilitação (*venia legendi* em filosofia da tecnologia) da Leuphana University Lüneburg. Foi pesquisador de pós-doutorado no Institut de Recherche et d'Innovation do Centre Georges Pompidou em Paris (2012) e cientista visitante no Deutsche Telekom Laboratories em Berlim (2013). Desde 2010, leciona em vários institutos, incluindo Goldsmiths College, Leuphana University, Bauhaus University, Strelka Institute Moscow, Chinese Academy of Art e City University of Hong Kong. Hui é jurado do Prêmio Berggruen de Filosofia e Cultura desde 2020, e iniciador da Rede de Pesquisa em Filosofia e Tecnologia desde 2014.

Hui é autor de *On the Existence of Digital Objects* (prefaciado por Bernard Stiegler, University of Minnesota Press, março de 2016), *The Question Concerning Technology in China. An Essay in Cosmotronics* (Urbanomic / MIT Press, 2016/2019), *Recursividade e Contingência* (prefaciado por Howard Caygill, Rowman & Littlefield International, janeiro de 2019), *Fragmentar el futuro -ensayos sobre tecnodiversidad* (Caja Negra, 2020) e *Arte e Cosmotécnica* (University of Minnesota Press / e-flux, junho de 2021). Foi editor de *30 anos após Les Immatériaux: Arte, Ciência e Teoria* (Meson, 2015) e *Cosmotécnica: Por um Conceito Renovado de Tecnologia no Antropoceno* (Routledge, 2021). Seus livros foram

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revisados e endossados por *The Philosophical Quarterly*, *Radical Philosophy*, *Jahrbuch Technikphilosophie*, *Theory Culture and Society*, *Issue in Science and Technology*, *Frankfurter Allgemeine Zeitung* e *Folha de São Paulo*, entre outros, e foram traduzidos para uma dezena de idiomas, incluindo alemão, francês, italiano, chinês, japonês, coreano, russo, norueguês, polonês, espanhol e português. Suas principais áreas de pesquisa são: Filosofia da Tecnologia, Filosofia da Mídia, Filosofia da Natureza, Filosofia do Chinês Tradicional, Fenomenologia, Idealismo Alemão, Cibernética, Inteligência Artificial, Simondon, Heidegger, Lyotard e Mou Zongsan. Seu livro *Tecnodiversidade* foi publicado no Brasil em 2020, pela Ubu Editora.

Jelson Oliveira: Your book *Tecnodiversidade* has just been translated into Portuguese. In it, you raise the question about the universality of the concept of technology. Could you explain more about what that means?

Yuk Hui: Technodiversity suggests that in order to overcome modernity and to imagine a new geopolitics, we will have to reopen the question of technology. Instead of understanding technology as universal, we will have to rediscover a multiplicity of cosmotechnics and their histories. The concept of cosmotechnics meant to be a challenge to how technology has been understood in philosophy, anthropology and history in the 20th century, which I will schematically present in terms of the following questioning:

In philosophy of technology, Martin Heidegger's famous 1949 Bremen lecture on the essence of technology, later published under the title "The Question Concerning Technology", has been well received worldwide. In it Heidegger proposed that there is a rupture between what the ancient Greeks called *technē* and what Heidegger referred to as modern technology, for they differ in their essences. *Technē* has its essence in *poiesis*, i.e., bringing-forth, while modern technology or *enframing* [*Gestell*], sees everything as standing reserve or as resources to be exploited. We should ask ourselves, however, where the position of, say, ancient Indian technology, Chinese technology, or Amazonian technology is in Heidegger's analysis? For sure, these technologies are not equivalent to modern technology, but can one assimilate or reduce them to Greek *technē*?

In anthropology of technology, the invention and use of tools (often covered by the terms labour or praxis) has been understood as the determining process behind hominization, convincingly demonstrated for instance by the palaeontologist André Leroi-Gourhan. Technics has been interpreted by the latter as an extension of organs and an externalization of memory. In this interpretation, technology is anthropologically universal. This is not wrong in so far as such externalization and extension are considered as proceeding from what Leroi-Gourhand called a “technical tendency,” but we still have to explain what he called “technical facts,” which are different from region to region, and from culture to culture. What is embedded in these technical facts apart from a casual reduction to cultural difference, or even sometimes to contingency?

In history of technology, Joseph Needham raised a haunting question, namely by asking why modern science and technology wasn't developed in China and India, while at the same time showing the large amount of scientific and technological development in China *before* the 16th century. Echoing Needham's inquiry, there have been significant inquiries on comparing technological development in different regions of the world in order to show that, for example, one particular region is more advanced in paper making or metallurgy than another. However, this is a distortion of Needham's question, which in fact suggests that one cannot compare Chinese science and technology directly with that of the West, since they are based on different epistemologies and philosophies. In this sense, how can one re-articulate these differences?

These are some of the boundaries that the concept of cosmotechnics attempts to negotiate with, since they all imply a universal concept of technology, which is in fact a residue of the desire of a particular kind of thinking. I gave a preliminary definition of cosmotechnics as unification between the cosmic order and the moral order through technical activities, in order to suggest that technology should be re-situated in a broader reality, which enables it and also constrains it. The detachment of technology from such a reality has resulted from the desire to be universalizing and to become the ground of everything. Such a desire is made possible by the history of colonization, modernization and globalization, which, being accompanied by its history of economic growth and military expansion, has given rise to a mono-

technological culture in which modern technology becomes the principle productive force and largely determines the relation between human and non-human beings, human and cosmos, and nature and culture. The problems brought about by this mono-technological culture are leading to the exhaustion of resources and of life on the earth and to the destruction of the environment, which are central to the discourse around the Anthropocene. It is also in this social and political context that it seems urgent to re-open the question of technology and the quest for a multiple cosmotechnics.

JO: China today is a place that sums up the challenge of combining technology with environmental problems. How did the fact that you were a Chinese thinker influence the elaboration of your concept of cosmotechnics?

YH: In history of technology, the biochemist and sinologist Joseph Needham raised a haunting question, namely by asking why modern science and technology wasn't developed in China and India, while at the same time showing the large amount of scientific and technological development in China *before* the 16th century. Echoing Needham's inquiry, there have been significant inquiries on comparing technological development in different regions of the world in order to show that, for example, one particular region is more advanced in paper making or metallurgy than another. However, this is a distortion of Needham's question, which in fact suggests that one cannot compare Chinese science and technology directly with that of the West, since they are based on different forms of thinking. In this sense, how can one re-articulate these differences? It is also departing from this inquiry, I believe, that we can arrive at what I call earlier cosmotechnics. To articulate this we have to go back to history and what is called tradition today.

However what interests me is thinking but not tradition mobilized by fascism and nationalism like what has been happening. Tradition belongs to what André Leroi-Gourhan calls an internal milieu, as opposed to the external milieu which means natural environment and influence of other ethnic groups. Within the internal milieu, which is tradition, one finds a dynamic that constantly negotiates with the external milieu through the mediation of a technical milieu in order to restore an equilibrium.

So, tradition is nothing static but rather both the subject and object of negotiation. This ethnological description may not be valid today anymore in view of the technological globalization—a continuation of colonization—whose aim is to destroy the internal milieu by rapidly and radically change the technological milieu. Japan and China were forced to modernize in the 19th century and in these countries, one lives in a contradiction between modern and tradition, and the melancholia produced by it. Maybe today this sentiment is no longer shared since Asia has been conquered by American consumerism. But it was the case for me. I was born in a traditional Chinese family specializes in Chinese medicine, grew up in the British colony, and was trained as computer engineering, before I went to study philosophy and work in England, France and Germany for 15 years. I am an Asian, but I am also a European. Today how are we going to make sense or better make use of this incompatibility and melancholia? We cannot lazily choose one of them. This relation between modern and tradition may be seen and lived differently in the West. The historical progress in the West, one can say, like Hegel does, that it is motivated by a logical necessity towards the Absolute internal to the pursuit of reason in the West. The *Weltgeist*, also claims Hegel, starts from China, travelled to the West. Recently I read a book by a German writer Moritz Rudolph, the book is titled *Der Weltgeist als Lachs* (World Spirit as Salmon), which makes a witty claim that the world spirit is like salmon it always returns and dies at the place where it is from. Maybe it is true that today the world spirit (for that you need to be a devoted believer of the universality of reason) travels back to the East and is going to end there. Here end means both self-realization and completion. However, by doing that, we are still subscribing to a particular understanding of history which is that of the Enlightenment, and that is conditioned also by a particular technological condition which we explained earlier. I think Jean-François Lyotard probably understood this much better than many of his contemporaries in his postmodern discourse, which is unfortunately misunderstood today. Because as you know, the postmodern condition is actually and literally a report on knowledge under the new technological condition. The first 40 pages of Lyotard's 1979 *The Condition Postmodern* has captured what is exactly happening today. Without relinquishing tradition—here I understand as life of the spirit and its material support—so quickly, and without substantializing it as national identity or symbol, I

am curious to explore how these non-modern thinking could contribute to the transformation of technology today. I believe that it is within the incompatibility of different philosophical traditions, that we can develop new thinking, or individuation of thinking—individuation in the sense of Gilbert Simondon.

JO: How do you evaluate the influence of Martin Heidegger's thinking on the formulation of the central concepts of your work?

YH: Heidegger is a central philosophical figure for me, but I am not Heideggerian. Heidegger is an interrogator for me, and it is through Heidegger, that I try to produce a dialogue between the East and the West, but also to think with Heidegger what remain to be done. Maybe I can explain this by stating that the title of my book *The Question Concerning Technology in China* (2016/2019) makes reference to Heidegger's 1949 Bremen lecture titled *Gestell*, later published as *The Question Concerning Technology* (*Die Frage nach der Technik*). Heidegger makes a distinction between what the Greeks called *technē* and modern technology. If *technē*, understood as *poiesis*, bringing forth [*Hervorbringen*], which bears a mode of unconcealment of Being [*Sein*], then one finds in modern technology no longer *poiesis*, but rather it has its essence as *Gestell*, namely an enframing of all beings as standing reserve, resources to be exploited. Modern technology for Heidegger arrived after modern science, namely it took its significance since the industrial revolution.

We may say that since the industrial revolution on, the question central to our society is technological and Marx understood this very well in his analysis of capitalism and machineries. The optimism of progress that one finds among theorists today is rather an unconscious continuation of the encyclopedism of the Enlightenment. For the encyclopedists, technology itself, here the technology of printing, is able to render all human knowledge public; and with this technology one can expand the anatomy of knowledge and a particular entry. Simondon shows that the encyclopedists live in an epoch of technical elements, namely tools and simple mechanical machines. It is also in these tools, for example the encyclopedia itself, that one finds the possibility of an infinite improvement and progress. The encyclopedist optimism, which continues until our time, is a product of technology of their epoch. In Marx's time,

such optimism is no longer possible, because the industrial machines are no longer simple tools and machineries used in the workshops of the artisans. The machines are what Simondon calls technical individuals, meaning machines that become autonomous and closed in itself. In this case, human beings are no longer hosts of tools, but rather servants of machines. It is also in this context that we understand the question of alienation in the relation between human and machine.

Heidegger's time, which also overlaps with Simondon's is no longer that of Marx's, since it was an epoch of quantum power: transistors, radio, television, atomic bomb, etc. We are now living the so-called fourth industrial revolution powered by computer networks. What I am trying to say here is that one has to understand the concept of technology historically, like how Heidegger and Simondon did, though in two quite different fashions. Otherwise, one commits a "fallacy of misplaced concreteness." One could say the same thing about nature, culture, capitalism, for example. Today this danger of technology is self-evident, we live in an Anthropocene characterized by climate change, global warming, pandemics etc. These are not revenge of nature, these are brought about human activities and the technological power we have released. This danger of technology that Heidegger warns about remains indecisive. It doesn't mean that there is no longer any possibility regarding the unconcealment of Being, but rather its mode of unconcealment is challenging [Herausforderung]. That is why there is saving power in the danger in Hölderin's prognosis.

But Heidegger remains for me a European thinker, who wants to tackle the problem within European thought. When he claims the end of philosophy in modern technology, he means two things: firstly, cybernetics will take over the position of philosophy, namely cybernetics marks the realization and completion of philosophy; secondly the world civilization will be based on Western European thinking. This is of course very arrogant, but it is not without truth, when we think of the technologies we use today. Heidegger wants to abandon philosophy for thinking, however this thinking is still very much rooted in European culture, or more precisely Greco-German culture. However, this is probably not the only way, and might not even be the most effective means today

JO: In your book, you say that the environment is not only modified by technology, but also constituted by it. Could you explain what that means?

YH: Human beings are animals, so we *adapt* to the environment. But in comparison with most of the animals, human beings are also technical beings, namely they produce tools and symbols. So humans also transform the environment and *adopt* it. From a historical point of view, the process of hominization implies the invention and use of technology. Therefore the theses that human being makes tools and tools make human being are both valid, like how palaeontology has shown in terms of continuity and discontinuity from the Zinjanthropian to the Neanthropians (homo sapiens). Therefore there is a dialectics, if you like, between adaptation to and adoption of the environment.

JO: How do you think that “non-European and non-modern thinking” that, according to your perspective, brings a call for “return to nature”, evokes the sense of the cosmodiversity? How do you see Brazil’s role in this scenario?

YH: I am very careful with return to nature, since I don’t think there is a “nature” per se. There are different natures, as what the anthropologists like Philippe Descola and Eduardo Viveiros de Castro have been trying to show. Philippe Descola claims that the concept of nature we have today is a product of naturalism, namely product of European modernity. He quoted a story from Henry Michaux’s diary, which I find it very witty and self-explanatory. Michaux went to live in Ecuador in the early twentieth century, and in 1928 decided to return to Paris. He took the boat along River Napo and at a certain point they arrived in a Brazilian town Belém de Pará. Going to the city centre, they chanced upon a grand park. One of his fellow passengers, a woman who came from the jungle, said: “Ah, at last, nature.” And Michaux concluded “she said, but she was coming from the jungle.” So the jungle is not “nature” that we know today, but the grand park is “nature” like the national parks in every country. However, I am not sure if going back to “nature” is sufficient, especially today we live in a technological epoch. My impression is that anthropologists, except the school of André Leroi-Gourhan, pay little attention to the

question of technology. I tried to have correspondence with Professor Eduardo Viveiros de Castro in the past two years, and we recently published a dialogue for the American journal *Philosophy Today*, and it was very productive. We can turn the question towards technology, as I said earlier, given a quest for multiple nature, should we think about multiple technics? If yes, how can we articulate them? This is my central inquiry. I am very curious how cosmotechnics could be discussed in the context of Brazil. Ronaldo Lemos told me that in the early 2000, there were a lot of interesting research in Brazil about how indigenous knowledge could contribute to the understanding of technology and transformation of digital technology. I certainly think that it is now the best moment to revive it, in view of the catastrophes we are confronting.

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