The question of what is to be done with the humanities necessarily calls for a reflection on the state and functioning of the university as a whole and on the society on which it depends. Now, it is clear that the university as a whole has lost its way, and that this situation in large part is due to the technological system that now dominates the world: a system in which technological “advances” have achieved ideological dominance and seemingly leave us no choice in the spectacular consumerist global society that permits and sustains them. And this technological dominance is echoed in our universities and in our national and international academic institutions and power structures; technology is now so financially demanding that solitary nation-states can no longer afford to go it alone.

In the university, the humanities have been declared a field in “crisis” since the emergence in the 1920s of the ideology that had us believe that only the scientific method could lead to humanity’s happiness. But now, it is not only the humanities that are in crisis and menaced but also the whole realm of “nonapplied” academic fields; similarly, ways of imagining and practicing knowledge and culture prior to the dominance of technology lie dormant and marginalized. Now all academic fields must be in thrall to the technological system—to the reign of engineers.
The experience of the world and the university on which I draw here stems from almost four decades spent studying and teaching in institutions in the United Kingdom, the United States, China, Hong Kong, and France. What follow are some rough and ready suggestions as to what could and should be done to make things better. My first, very simple premise is that what is good for the world—by which I mean society and the environment or, more grandiosely, the whole planet, including humankind—must also be good for the university and, by logical extension, for the humanities. My second premise is that we need to arrive at a way of running the planet and world society that enables us to found a new culture. By that I do not mean an unheard-of culture but the kind of holistic culture that humankind has already known. By that I also mean a form of governance resembling real democracy both for society writ large and, by extension, for the academy. A holistic, yet diverse culture would embrace not only creativity and artistic practices but also ways of understanding and observing the world that have hitherto been described as “science”; in the academy this would translate as a resurgence of broad transdisciplinarity.

Today’s society, like today’s physical environment, presents us with a plethora of problems. But issues such as wealth disparity, unprecedented movements of people, climate change, access to natural resources, and assurance of minimum standards of public health are meshed together in complex ways. To address such complicated questions we need a collaborative, cross-disciplinary approach, since current disciplines cannot singly imagine, tackle, and resolve the complexity of today’s human and physical world. New scenarios need new approaches and indeed the production of “new knowledge.” But this new knowledge can also draw on knowledge and philosophies that in the process of modernization we have forgotten or neglected.

The current state of globalization, not to say deterritorialization, of knowledge means, at least, that humanity, if it so wishes, can now look back with a broad perspective on the totality of its diverse histories in ways our ancestors could not. We can benefit not only from transcultural and transdisciplinary perspectives, as did many scholars already in the premodern age, but now also from informed transhistorical reflection. So-called old or non-Western science and philosophies, for instance, can be accessed and deployed to nourish our reflection on the relation of humankind to the natural environment and on our attitudes to health and the body. Students, scientists, and scholars need to be able to make use of the entire length and breadth of human knowledge and experience and establish new, open yet rigorous strategies for rethinking humanity’s and the planet’s future.

Here, I shall elaborate on just a few of the implications of these reflections with a few historical examples. I shall evoke clouds, which in the realm of computing seem to be occupying much of the horizon. My clouds, however, will be more complex and of a different order. I shall also make some concluding remarks about complexity, and why in the twenty-first century China’s role and responsibility in imagining our common future have become so important.

While I firmly believe that the “harder” scientific disciplines have much to learn from the “softer,” I also believe that we need to arrive at, or perhaps return to, a situation in which the domains of humanities and the hard sciences not only coexist but nourish one another. In the first half of the twentieth century, under the grip of the ideology of science, the humanities reinvented themselves and, together with what elsewhere were termed the “social sciences,” became known in France as the sciences humaines, or human sciences. To be taken seriously, humanities needed science—in particular, mathematics—and even literature scholars started counting.
But instead of “progressing” forward, or rather hurtling wide-eyed into what seemed a bright new world of science, why did humanities scholars not look over their shoulders? What I am advocating here is a reevaluation, as the now unquotable F. R. Leavis might have put it, of narrow epistemologies and how the humanities can be extricated from their current bind, in which they are the poor relatives, the spare wheel, and the stuff of Saturday night soirées, as one French philosopher recently suggested to me.

And yet, interestingly, engineering schools around the world seem to have understood that they need the humanities. Witness MIT and its affiliate, the new Singapore University of Technology and Design, or the Ecole Centrale in Lyon in France. The Ecole is a major specialist engineering institute with a history stretching back to the mid-nineteenth century; it specializes in physics and engineering, but its library includes an extensive section on humanities and foreign languages, and its students are encouraged to gain a broad creative background to inspire their engineering research. When I visited, the Ecole’s students had recently done a project on tribology. Tribology (the word is derived from “to rub, to wear away” in Greek) is the study of friction, the coming together of two surfaces in motion or two bodies in contact, and the third surface or body that is produced.

The French students had carried this concept further. This is what their poster, “A la rencontre du troisième corps,” said:

The third body born of this coming into contact is neither like the first nor like the second, nor is it the simple meeting of the two, but rather possesses its own qualities. However, the concepts of contact, rubbing together, wear, and impression concern not only material objects but equally ideas. Thus, when friction becomes a caress, upon the contact of another or of oneself, it permits us to become conscious of our own subjectivity vis-à-vis the world and others. By analogy with material bodies, when a thinking body rubs against the world, a third body is found in the mental representations that the individual makes of it, fed by sensorial information perceived by her or his memory and her or his feeling. Like all third bodies, this one is dynamic and is never fixed in space or time. It is thus possible to envisage the extension of a concept initially restrained to material physics to other domains of knowledge, such as philosophy or even art.

The project exhibit concluded with artwork (fig. 1) they created to illustrate a citation from Roland Barthes’s *Fragment d’un discours amoureux*: “Le langage est une peau. Je frotte mon langage contre l’Autre” (Language is a skin. I rub my language against the Other).
Let us pursue the notion of the imbrication of arts and sciences. I want to mention first the controversial, unconventional scientist Mitchell Feigenbaum, who in the mid-1970s started working across disciplines. Feigenbaum, convinced that science had failed to tackle hard, nonlinear problems, wished to transgress disciplinary boundaries and create new knowledge; his work includes the logistic map, innovations in fractal geometry, and nonlinear systems facilitating the study of chaos. For a long time, it was difficult for me, as a nonscientist working in the humanities and social sciences, to appreciate that transgressing the bounds between physics and mathematics already represented a major cross-disciplinary challenge. But Feigenbaum not only looked back at older knowledge for questions and answers but also looked across disciplines, beyond modern science to older science and arts where scholar-scientists who did not recognize or see the utility of boundaries worked.

When Feigenbaum did not think that Newton had addressed the fundamental questions on light and color, he turned to Goethe, the world-renowned German writer and polymath. Newton’s famous prism experiment fragmented white light into colors, but whereas Newton held his prism before a light source, Goethe held the prism to his eye and looked through it and saw, not color, but a white uniform surface unless a spot interrupted the white surface or a cloud interrupted the blue sky. “Newton was a reductionist, Goethe was holistic.” Newton fragmented light and found the most basic physical explanation for color. Goethe studied gardens of flowers and galleries of paintings, looking for a comprehensive explanation. Feigenbaum was convinced that Goethe had been right about color and saw good science in Goethe’s ideas: “They were hard and empirical…. It was the perception of colour. To Goethe, that was universal and objective.”

Similarly fascinated by perception, Feigenbaum, like Goethe before him, also looked to artists, to painters. “In a way,” said Feigenbaum, art is a theory about the way the world looks to human beings. It’s abundantly obvious that one doesn’t know the world around us in detail. What artists have accomplished is realizing that there’s only a small amount of stuff that’s important, and then seeing what it was. So they can do some of my research for me. But to say there’s a piece [of cloud] over here with that much density, and next to it a piece with this much density—to accumulate that much detailed information, I think is wrong. It’s certainly not how a human being perceives those things, it’s not how an artist perceives them. Somewhere the business of writing down partial differential equations is not to have done the work on the problem. . . . Somehow the wondrous promise of the earth is that there are things beautiful in it, things wondrous and alluring, and by virtue of your trade you want to understand them.

I have no idea whether Feigenbaum had looked at the paintings of the nineteenth-century British painter J. M. W. Turner, but Turner had certainly studied both Newton’s and Goethe’s theories of color, as witnessed by Turner’s own, annotated, copy of Eastlake’s translation of Goethe’s Fahrbenlehre. More importantly, Turner’s late paintings, directly inspired by his reading of Goethe, are still a source of wonder.

In particular, Turner’s painting Light and Colour (Goethe’s Theory)—The Morning after the Deluge—Moses Writing the Book of Genesis (fig. 2) makes a direct paratextual reference to Goethe’s Fahrbenlehre (1810). The deep yellow of the sun dominating the painting is one of Goethe’s “plus” colors, representing optimism and a new beginning. As art critic Kathleen Duffy has noted,
“this work is without viewpoint or horizon and lacks a direct light source. The eye and the sun are fused. Reality is formed by the viewer instead of being an external vision presented from a distance. Such a change in the concept of reality led many of Turner’s critics to accuse him of being completely mad.”

To drive home his painting’s relationship with Goethe’s theory, in another intertextual gesture Turner appended the following lines of verse:

The ark stood firm on Ararat; th’returning sun
Exhaled earth’s humid bubbles, and emulous of light,
Reflected her lost forms, each in prismatic guise
Hope’s harbinger, ephemeral as the summer fly
Which rises, flits, expands, and dies.

This meshing together, this mutual apprenticeship between the arts and the sciences, was thus not unusual even in the nineteenth century; Turner, the painter, was Professor of Perspective at the Royal Academy in London, while Goethe was first and foremost a poet. But as the dominance of the ideology of science and technology gained ground from the mid-nineteenth century onward, the poet became increasingly imagined as vague, unstructured, divorced from reality, in a world apart. But as the mid-nineteenth-century progenitor of modernism Charles Baudelaire showed, poets too were still keen observers of the physical built and unbuilt environment and astute analysts of the visual. This is evident in Baudelaire’s account of the French painter Eugène Boudin’s 1859 exhibition, in which he praises Boudin’s precision (fig. 3):

These studies, so swiftly and faithfully sketched from the most fleeting and the most uncapturable, in their form and their color, from the waves and the clouds, are always accompanied by a marginal note of the date, the time, and the wind, such as October 8th, noon, Northwest. . . . [But] with the legend hidden by your hand, you would still be able to guess the season, the time, and the wind. I exaggerate nothing. I saw for myself. In the end, all these fantastic and luminous forms, these chaotic darknesses, these green and pink immensities hanging, and attached, to one another, these blazing beauties, these black and violet satin firmaments wrinkled, rolled or torn, these horizons in mourning or streaming molten metal, all these depths, all these splendors, went to my head like intoxicating drink or the eloquence of opium. 2

We are back in the clouds with Feigenbaum, back before the visual wonder that science cannot capture but that painterly observation can. And such observation is not a Western prerogative. Witness the passion, yet also the detailed accuracy, of this description by the eleventh-century Chinese painter Guo Xi 郭熙:

The clouds and atmosphere of the real landscape are not the same throughout the four seasons. In spring they are bright and harmonious; in summer dense and brooding; in autumn thin and scattered; in winter dark and gloomy. When an artist succeeds in reproducing this general tone and not a group of disjoined forms, then clouds and atmosphere seem to come to life. The mist and haze on the mountains are not the same either throughout the four seasons. The mountains of spring are tranquil and captivating as if they smiled; the mountains of summer are fresh and green as if they dripped with dew; the mountains of autumn are clear as if beautifully ornamented and arrayed; the mountains of winter are melancholy and subdued as if in sleep. 3

Turner, Goethe, and Guo Xi show us not simply the imbrication of observation and artistic practice (Guo also elaborated a three-distance concept of perspective—deep, elevated, and level) but also the utility of pondering texts from the past, be they visual or written.

If we are truly moving into an age in which humankind’s domination of nature is to be interrogated, our relationship to nature reevaluated, if we mean not just to pay lip service to managing differently the risks we have created by our excesses, through greed, through putting obstacles in the way of the natural course of things in our physical environment, where for millions of years there were none (and then perversely talking of natural disaster), if we mean all these things, then we should perhaps glance back at the way our forebears imagined, visualized, and thought the place of humankind in the physical environment. The texts and practices of the past are indeed useful, since we will need texts that help us to think through the problems of society and the environment outside and beyond the logic of nineteenth- and twentieth-century industrial technology.

We need to reevaluate the place of history, and of our human and ecological heritage, for we have allowed the forces of reaction to colonize the past and the teaching of the past. The past is humankind’s heritage, at once dead yet living. There are lessons to be learned, missed directions to be retraced, starting points to be revisited.

Such was the practice of the Greco-French theoretician Cornelius Castoriadis, who, dispensing with the accumulated commentaries and conventional interpretations, went directly to the thought contained in the texts of “ancient” Greece in search of practices that could directly serve our own age. But in order to revisit and reread the texts of the past, we need frameworks, such as those developed by Castoriadis, that take into account the complexity of the world and that reject facile simplification and the overwhelming compulsion to homogenize. The thought of Castoriadis, economist, psychoanalyst, social theoretician, is to be found principally in a series of books entitled Carrefours du labyrinthe (translated as The Crossroads in the Labyrinth), in which he develops his theory of the imaginary, the imaginary being understood as individual and collective consciousness and perceptions of social reality.

For Castoriadis, what we must do is to recognize the distinctions, the differences, and the complexities of the world. He defines complexity as a manifestation of the magmatic nature of being, which is “not a whole, nor a well-ordered hierarchy of wholes, but a magma,” “a magma of imaginary social significations that lend sense to collective and individual life.” He goes on: “Therefore, renunciation of unification or ultimate simplification is a necessary mourning that needs to be gone through once and for all, while at the same time not renouncing the ambition to elucidate and render coherent that which we can elucidate and render coherent.”

We could, and should, take Castoriadis’s methodology as a model for the recuperation of other philosophies and practices, such as found in premodern China. But to which old texts might we turn? Raoul Vaneigem’s suggestion is that we judge the utility of an old work by “the amount of radical theory it contains, by the kernel of creative spontaneity that new creators can set free for, and through, a so far unknown poetry.”

Like his contemporary Guy Debord, Vaneigem favors the strategy of recuperation, of the diverting of existing texts, images, and signs from their original purpose and sense, so as to create something new. We can indeed always reuse, recycle, on condition that we abandon the ideology of the “authentic” and also leave aside our contempt for the mixed, the hybrid, or the third

---

5 Ibid., 219.
object suggested by the Lyon engineering students’ extended notion of tribology. Of course, this cannot be done innocently and always demands contextualization and historicization of ideas, objects, and practices; redeployment, détournement, is done knowingly, as a thought-through and desired act.

As to how we should address the complexity that faces us, Castoriadis, as we saw, suggests the metaphor of social magma. But how in the academy can we address or apprehend this complexity when we incessantly divide, fragment, and overspecialize in our attempt to maintain professional disciplinary territories intact at all cost?

This is why we need to think openly about restructuring the education we offer in our universities, in order to arrive at models that permit students to transgress boundaries and to imagine ways of refashioning knowledge. It is also why I have gradually pushed my own vision of cross-cultural studies further, into a cross-disciplinary perspective, which is so important not only for the future of the humanities and social sciences but for the re-creation of a culture of knowledge and “science.”

Jacques Ellul spoke of the limits to technological dominance that would be necessary in order to create a “blueprint” of a new culture, and Castoriadis likewise reminded us that we need to go beyond a mere redistribution of wealth: “If a new human culture is created, after a radical transformation of existing society, it will not only have to tackle the division of labor . . . , it would also involve an overturning of established significations, frameworks of rationality, of the science of the past few centuries and the technology that rendered it all homogeneous.”

But there are several absolutely necessary conditions for the “radical transformation of existing society” in the twenty-first century: the participation of Asia in changing the dominance of technology; global academic freedom; and a transcultural vision of the society that needs to be instituted.

As I brought to the fore in a recent article, “La Chine à la manivelle de l’orgue de barbarie” (China turning the handle of the barrel organ), the responsibility for applying the brakes to the current technological frenzy now lies in great measure with China’s regnant class. However, it is precisely China that suffers the greatest lack of the free academic space for humanities-inspired thinking that is required for developing new cross-disciplinary approaches to environmental, public health, and governance problems. China needs open debate on basic human rights: the right to enjoy drinkable water, safe food, and breathable air. But while China’s social media Internauts have made great strides in opening up debate, its academics and intellectuals still lack essential freedom, and that liberty is far from being won. Although several US and European universities have set up campuses in China, their focus is limited to technological and business-related disciplines; the humanities and social sciences are largely absent.

Over the past few years several international academic conferences have focused on the future of the humanities in China, and their main concern seems to have been the need to “de-imperialize” or decolonize Western academic cultural theory. Now, I agree that cultural theory must be reinvented so as to transcend Eurocentric positions and so make it universally applicable and

---

useful.\(^9\) Moreover, without the contribution of non-Western ideas and recuperable historical practices, the “new human culture” for a posttechnological era evoked by Castoriadis is literally unimaginable. We cannot merely rely on an essentially Eurocentric nostalgic revival of Athens, the Renaissance, or the Enlightenment but must draw on the panoply of humankind’s thought and practices, on the global, historical creativity and spontaneity, now available to us.

And yet the paramount question is whether there will be space and opportunity for such discussions to take place within China. Currently, China does not even allow the interrogation of the narration and representation of China’s modern political and intellectual history. Through its soft-power arm, the Confucius Institute network, the Chinese government is currently making available funding to enable foreign students to undertake PhD work in China. But which projects will be selected for funding, and what degree of academic and critical freedom will be accorded to recipients of such funding? The new Chinese leadership is putting great emphasis on promoting China as a cultural nation. But will the vision of China’s culture be an open and diverse one, or will it be an official one? Indeed, again via the means of cultural diplomacy, we are currently witnessing an attempt by the Chinese authorities to establish hegemonic control over the way Chinese culture and society are imagined in the world. The proposition that China’s historical and modern culture should not be uniquely defined, as it has been for so long, by foreign sinologists is unobjectionable. But that its definition should be globally monopolized by the Chinese state, as it has been in China itself for the past six decades, would not only be regrettable but would run counter to what China still lacks—the opening up of a space for reflection in the humanities and social sciences. Such a space is essential if China’s intellectuals are to contribute to a global reflection on the future not only of Chinese but also of world society and its ecological and cultural environment.

Unfortunately, the absence of academic freedom in the humanities and social sciences is not limited to the People’s Republic of China, and academic self-censorship has long since spread to Hong Kong and Taiwan. A similar lack of academic freedom is common to much of Asia. Without worldwide freedom to think, argue, and publish, the reimagining of global society and its academic institutions will be impossible to accomplish.\(^\text{A}\)