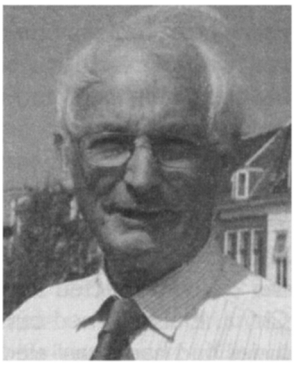
Interview with Mark Elvin



BY BEDE MOORE

Mark Elvin is currently visiting fellow at the Research School of Pacific and Asian Studies, at the Australian National University. His research interests in Chinese history include environment, economy, demography, proto-science, geography, and emotions. He has published extensively on these subjects. Among his key publications are The Retreat of the Elephants: An Environmental History of China *(2004),* The Pattern of the Chinese Past *(1973),* Cultural Atlas of China *(edited with C. Blunden, 1998),* Another History *(1996),* Changing Stories in the Chinese World *(1997), and* Sediments of Time: Environment and Society in Chinese History *(edited with Liu Ts'ui-jung, 1998). Frans-Paul van der Putten and I met him when he was in Leiden for the Crayenborgh Lecture.*

Mark, perhaps you could start by telling us how you first became interested in China?

Well, there's a background and there's a foreground. The background is that my earliest years of remembered life were in San Francisco. So I never knew a world where there weren't Chinese people around. In other words, they were never particularly strange or exotic. China was just part of the Pacific world. That's the background. Then, much later, when I was doing history at Cambridge, I got interested in the work of two people. One was Joseph Needham, whom I soon got to know, on the history of science and technology, in China. The other was Max Weber—so I got interested in the comparative method. And it struck me, even though now it seems very obvious, that the nearest miss from self-generated modernity, when put in comparison with Europe, was China.

So I thought I would look at the economic reasons for this as I was basically an economic historian in my impulses. It then happened that I needed to do the doctorate. In the Yenching Library at Harvard I found a rare book containing 1,020 documents from the Chinese Municipal Council at Shanghai, which turned out, when looked at, to be the world's first Chinese-run democracy; it had everything that was

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necessary. So I wrote a thesis on that, and it showed me that what was then the completely conventional view that the Chinese were not culturally suited to democracy was just rubbish, at least at a low level in the hierarchy of political institutions. My ideas were extremely unpopular and the thesis was hardly read by anybody until much later.

Can you say something about the Shanghai Council, how did it originate?
Yes, that was an interesting question and it led to a huge argument in private with John Fairbank. It seemed to me that there were many roots, one of which involved the much-neglected institution of the episodic gentry-assembly at local levels in China. It also turned out that a number of the guilds in the past two or three centuries had had quasi-elections, which I called "public selections". The general opinion of the members was vital to installing people in leadership positions. The idea of it is clear enough. There was a lot of local commitment by members of the gentry and the leading merchants to various forms of things that were on the edge of a kind of corporate democracy.

Elements of limited democracy came together quite rapidly, and people knew what they were doing. They started in 1905, and by 1908 they had a lot of fairly respectable organograms—separating policy formulation from its execution, for example—a lot of specialized services. They were promoting primary education for girls, as well as of course for boys, they were running originally a municipal hospital where treatment was meant to be free—they couldn't get funds enough for this so they went commercial, but they had the ideal of doing this.

My reaction at that time to the general wisdom of sociologists writing on China in that epoch was that it was fifty percent rubbish. So I became for a short time a very unpopular political historian, being accused of being a romantic reactionary. I said the best course for China would have been to have a Japanese-style semi-constitutional monarchy, which allowed these local and provincial experiments at democracy to get some real roots, which they never did. I justified it afterwards by saying this is also part of modernity; and this is a very interesting example of the difficult Chinese case: there's a lot more there than you think. They never quite achieved what we would call self-generated modernity, but it came incredibly close.

You've named a number of fields in which you've worked in history. I'm wondering how it is you've jumped from political history to writing environmental history, and further?
It's all a little mixed up together, generally speaking. The political history was actually a sheer accident. I shifted away after a while from it because I suppose I regarded it as not really my strength, but it was interesting and I remain interested in it. I was really an economic historian by instinct. How do people make things, sell them, use them, seemed to me at that time to be the foundation of modern life. It was too simple because I was leaving out two of the other things, the science, which in the nineteenth century became critical to the continued development of the technology of production; and the environment, which led back very deep. It was very much later that I realised you can't put the economy out in a world of its own. By the end of the sixties it was obvious to me that the environment had to be taken into account.

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Then I became interested in science and China. Becoming a personal friend of Joseph Needham was a very important part of this process. There had been a very odd bifurcation between those who knew a bit about the economic history (as I thought I did by then) and those who really knew about scientific and technological history, as Joseph did, while having a much less sure grasp of the economic side; China was becoming a large field and taking it all into one's consciousness was even then becoming extremely difficult, and not only for the comparative historian. It's so easy to get it wrong. At any rate, both agreeing with and arguing with Needham was a very critical point in getting me involved in the history of science. I went for a long time to the history of science seminars given at Oxford by my late friend Alaistair Crombie. In fact, I built very much on Crombie's own work in trying to look at China's science more sensibly. Forget the word "science", use "different styles of scientific thinking". Crombie found six basic styles of Western European scientific thinking which were critical and you can show that all of them—except probably "probabilistic" thinking—were found to a significant degree in premodern China. In other words, you have the same phenomenon I mentioned earlier. The Chinese had managed to be impressive, but they never got across the line and to a self-sustaining, self-generating situation. Comparison with China remains indispensable for sharpening up the thinking of slightly Euro-chauvinistic historians. They're quite right, Europe was special, for how much longer we don't know, but it is, or has been, special. And I thought it was worth taking real trouble to get away from the clichés and work out what is the real nature of this country.

Can you tell us what you think the role of the environment in Chinese history is?
Let me say, I don't think you can actually do any Chinese economic history, or at least not anything large- or middle-scale, without being constantly aware of certain environmental factors. You must, for example, take the "environmental buffer" into account, and its eventual near-disappearance, which made intermittent shortages much harder to handle. Historically, the real crisis came very late for China, above all in the seventeenth and eighteenth centuries, since at that point so much of the vulnerable sub-tropical temperate soil was being stripped of trees. You get enormous erosion problems and again you need to be aware of this. I mean, for example, the costs of irrigation maintenance exploded. Obviously, that's economically important to consider. And it becomes a huge cost on labour when they have to start doing much more dredging, and it's going on all over the place. This is just a small example, but it shows how you must remain conscious of the environment. It's really best taken not as an independent subject, but as something that a historian must always bear in mind.

What about today? What role does the environment play in contemporary China?
The simple answer is water. Nothing matters as much as water. Clearly, Chinese environmental pollution has led to enormous health problems that are connected not just with water but other things. But to focus on just one thing: northern China is going to run out of water. It's been relying for some time on supplies of ground water, which have been falling more than a meter a year in some places. The Yellow River has basically stopped reaching the sea, and the quality of water is spectacularly awful. The water problem, particularly in north China, is completely critical and

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there's just nothing else that compares with it. There simply is not enough water in the north. There is enough in the Yangzi, but it will have to be used properly.

As an issue, environmental conservation is taken both very seriously and completely ignored. Chinese environmental law, for example, is some of the best in the world, or at least last time I looked at it. The trouble is enforcement is usually handed over to the local authorities, who are getting large incomes from the local industries, and are therefore extremely unwilling to prosecute. Essentially, fines for infractions have become a form of local government income. In other words, they do not take enforcement at all seriously. The only exception is modern, hi-tech joint-venture operations with foreign firms where often very high standards are applied. So I think the problem with conservation and other desirable outcomes is that the law is great, the rules are great, but the enforcement has fallen completely afoul of a desire to increase local government income. The thing that will probably eventually make a difference to political motivation is concern with health.

To go back to the history of science in China, one of the topics on everybody's lips is the "Great Divergence", to borrow from Kenneth Pomeranz. What do you think about arguments based on coal, or the New World, or even culture? Where does science play a role?

There's a lot of coal in China and if they'd developed anything like the British mining techniques, which they had the elements for in terms of drainage and ventilation, they could have done much better. Basically, we don't really know how much coal they could have got out. They were using coal enthusiastically in some places. It's hard to tell because, certainly looking at the maps, there is an awful lot of it in China. The notion that they couldn't have produced a lot more if they'd wanted to badly enough using accessible techniques is a little hard to believe. I don't agree with Pomeranz, although I have a great regard for him and think everyone should buy his book, as I said in my review. But I don't think he's got the key point, which in my view, was science, or, rather, the near-absence in China of its modern form before it was imported from the West.

Culture is elusive and of course it is critical when you come to the point I was making. Why, when you can produce people like Zhu Zaiyu, with good mathematics, and good experimental technique, and some correct results—why can't you get a community going, within which a critical number of participants will interact? So clearly there is a cultural block, but it lies in a very, very special area. They could produce a number of extremely acute thinkers, who paralleled many of the contemporary European thinkers up to some time in the seventeenth century, but there was an insufficient density of interest. They were mostly somewhat isolated individuals (the field of historical phonetics excepted) and they could not, it seems, find or at least concentrate enough of them to get an interacting community going. So there was something missing in the collective operation, which wasn't quite absolute (as the exception of phonetics shows), but which I think was completely crucial.

So what happened to Chinese science after, let's say, the 1800s?

They basically began to slowly translate and read Western textbooks. And then by the beginning of the twentieth century there were a number of reasonable scientists mostly in practical areas like geology. It took a bit longer than it did in the case of

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Japan. The Japanese had got there a generation or two earlier, and China was a little bit slower. What actually matters is that the density of contact creates a continuous process of criticism, transmission, communication, and that is why things start moving. The heart of it is this interaction, and it failed for a long time to take off in China.

How about today, is there only one type of modern science?
Ultimately, yes. People need to be educated in the right environment because everything depends on this interaction I've talked about; that's what really matters. I mean it's striking that virtually no Chinese scientist who was brought up in China, educated in China and stayed in China has got anywhere near a Nobel Prize, whereas you only need to compare that with Chinese scientists who went to America and go their PhDs there. There's a barrier here, and it comes back to what I've been saying with interaction.

In this, I don't think there are any deep, distinctive cultural barriers. You've only got to look at the list of authors' names in publications like *Nature* and *Science*; you find Indian, East European, Chinese, and so on. On the whole, the only major absence is Africa, which is probably just a reflection of the desperately difficult situation and the obstacles in the way of most people there getting a proper education. If you've experienced training within the tradition, that's what is critical. And I don't think there is anything much that's come up in later times, say, the nineteenth century on, which really suggests that there is another way to get good results outside of this tradition.

Do you think there can ever be a world-divide again, like the China-Western Europe divide we saw prior to the nineteenth century, or do you think the world is just too globalised now?
I think the world's generally too globalised. Although, there are some very weird counter-trends. It is astonishing that the credibility of evolution is accepted by the overwhelming majority of the Chinese but barely by a majority of Americans (depending on how you set up the definitions). The role of religion is also quite interesting. For example, Zhu Zaiyu, whose work cast implicit doubt on the "correctness" of the tuning used by the Ming dynasty—which was seriously subversive, was never put under house arrest by the authorities as Galileo was.

China has work to do before it really competes internationally. It is still not quite like Japan, and the Chinese are not able within their own borders to fully reach the heart of Westernisation. It's still on the surface and they're prodigiously clever at it. But it's commercially and profit-driven stuff, motives by which scientists ultimately of any value are not driven. Of course, there's no reason at all why Chinese scientists who go to America shouldn't become world leaders and many of them are. But inside China, something in the system works against the "right" ways of thinking. The same is said by John Clark at Sydney University, a specialist in Asian art, who says that originality really only takes off when Chinese artists migrate to Paris or somewhere else. There's some kind of liberating effect, which still holds good at the moment.

There's some element that allows the Chinese to produce professionally competent imitations, but it does not quite tend to spur highly original invention, and yet the capacity for highly original invention can be liberated if the right people get

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abroad for long enough. I think it's something in the political culture. Look what's happening with the internet in China at the moment. There's an enormous effort to limit access. These sorts of things slow down globalisation, and I would expect this to disintegrate after some while but at the moment it's quite striking.

The Chinese limited international trade for a long time. Why did they do this, and was it related to the same reasons the Chinese never really sought to expand?
The blockage on international trade was indeed at one time a very clear-cut political factor. The legitimate ports of points of commerce with the West were limited by the early Qing to four places—and then in the middle of the eighteenth century to one place in the South and one in the North (for Russia). It was not quite absolute, because if you disguised yourself, nobody worried, but it was very strange. There was even a ban on teaching Chinese to foreigners, while Chinese who went abroad were not meant to come back because they were seen as being traitors and were punished if they did. Of course, a lot of trade still went on.

It's a very difficult question to answer. It was felt very strongly in the government of China that the contacts made at the boundaries through trade were extremely likely to turn politically dangerous. It was believed that the resources and the techniques coming from the outside would be in the hands of people who were on the periphery and who could supply and help rebellions. So it was very much a form of conscious political control for that reason. And it really goes back to the ideas of the founder of the Ming dynasty, who, with effects that lasted for a long time, closed things down because he was frightened of Muslims. He actually moved large numbers of the north-western Muslims to the area around Tianjin by the coast to separate them from contacts with Muslims in the Islamic regions just outside the country. It was felt that these people were not naturally submissive subjects.

So the consciousness of the need to stop foreigners of any kind from communicating ideological or political positions that might endanger the state was part of the conventional political toolkit. But don't forget that in the later nineteenth century the Chinese themselves were still being imperialists in re-conquering Turkistan, and even while being subjected at the same time by the west to a form of what might be described as "negative political acupuncture" on the other side of their country. There was, though, some high-level hesitation about this north-western reconquest, as it was rightly thought the main threat came from the sea, from the Westerners. And in the end, of course, it became impossible to keep the facade needed for the political prestige-structure intact, and cracks began to open.

The problem for China is not really the West to the degree they often say it is. There never was a conquest of China the way there was a conquest of India. There never was a British Governor General in a white hat sitting in Nanjing. In fact, the Chinese would never have allowed that to happen; there would have been an extraordinary resistance. The Chinese were not occupied, except for a short, horrible experience under the Japanese. The process operated on China was not conquest, it wasn't even a general economic domination, it was what I have just called "negative acupuncture": foreign powers put a number of "needles" (so to speak) into key places in China, which did a lot of damage, above all psychologically. The fascinating question is why did it bring the culture down? Why did this process hurt China so severely?

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Were there any ideological ramifications because of this "negative acupuncture"?
Well, the Westerners were able to induce a movement within the Chinese intellectual world such that by the middle of the 1890s the traditional culture was strategically dead. Most Confucian beliefs, more or less the whole of what might be called "scriptural Confucianism", as opposed to generally more or less "Confucian" attitudes, had strategically collapsed. This was critical. No other major civilization had ever lost its system of basic beliefs so fast. It was mostly undermined by distinguished Chinese intellectuals in the period indicated. The destruction left China increasingly without a generally believed-in set of values, over a period of about two generations, as finally became evident by the 1890s. That is, scriptural Confucianism disappeared as a self-renewing force.

And then it happened again! Maoism was in many ways a set of props of a psychological nature, which gave the Chinese a new self-respect, a sense of place in history again, and a sense of mission, a sense of what they were doing. They adapted a crude form of Stalinism, and once the Chinese had begun to guess what that really involved it was rejected. Nobody really believes in it today.

I call it the "double disavowal". China lost a dominant ideology, not once, but twice, chronologically speaking roughly in my own long-lived father's lifetime. What does this mean for a society? Certainly, for a society of this size and sophistication it's surprising. I mean, Europe never had a collapse like this. Maybe the process of secularisation, but that's still far from complete. But China's "double disavowal", that's close to the heart of the country's problems, whether one sees it as a symptom or a cause.

You've talked about a "crisis of absurdity"?
Yes, I believe that China after the first quarter of the twentieth century suffered a crisis of absurdity, both patent and latent. This type of crisis typically arises when the surface level of socially accepted ideals manifestly differs from what people themselves increasingly know to be the case. There is a visible gap—but a mostly unacknowledged one. And this has happened in other places in the world, the German-speaking world between the wars, for example; even America could be struggling with this right now. So this is another point that needs to be thought about, as the crisis of absurdity is still very deep in China. Importantly, the literature is finally beginning to express it again as some of it did in the 1930s. This is now coming back, and there are various works stating, in effect: "This is an absurd world we're living in".

So I think the critical question for China may very well be, "what do we do about this crisis of absurdity"? It will particularly be the case if there is an economic downturn. No bubble of economic growth lasts forever, no boom lasts forever. And how will they make sense of things then? There are probably inadequate psychological and spiritual resources in China to deal with anything like this. In the West there were and are more, whether adequate or not in the longer run is unclear. I don't think this dimension has been looked at enough—as yet.

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