LI SHIZHEN - Curated Transcript of BBC In Our Time podcast
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In Our Time is hosted by Melvyn Bragg. Melvyn's guests on this podcast are:

Craig Clunas
Professor Emeritus in the History of Art at the University of Oxford

Anne Gerritsen
Professor in History at the University of Warwick

And

Roel Sterckx
Joseph Needham Professor of Chinese History at the University of Cambridge

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Curated transcript:

[Melvyn Bragg] Hello. In China, the name of Li Shizhen, 1518 to 1593, is as famous as Isaac Newton's name is here. He was a medical doctor and he scoured his country for thousands of natural remedies for almost 30 years, classifying them and compiling them into a great work of 2 million characters. His compendium set a standard for centuries. And even as modern medicine was spreading after the Revolution, Mao celebrated him as the learned barefoot doctor, offering treatment from door to door, an example to others from the age of the Ming. With me to discuss Li Shizhen are Roel Sterckx, Joseph Needham Professor of Chinese History at the University of

Cambridge, Anne Gerritsen, Professor in History at the University of Warwick, and Craig Clunas, Professor Emeritus in the History of Art at the University of Oxford.

[Melvyn Bragg] Craig Clooness, what was the Ming Empire?

[Craig Clunas] So the Ming Empire is the period of Chinese history from 1368 to 1644. So if we're thinking of that in terms of British history, you can think about the Black Death to the Civil Wars. It's the period of Chinese history that comes immediately after the Mongol hegemony, when China is part of the vast Eurasian Empire formed by Genghis Khan and his descendants from Mongolia. And it's a period when the Han majority, that is, that the Chinese people themselves, took back the control over the empire from the Mongols. And the Ming was founded by a man called Zhu Yuanzhang, who had come from very, very humble beginnings, but created this very long lasting dynasty, which at the time, at its height in the 16th century and during Li Shizhen's lifetime was the largest single state on the planet at that time and probably the largest single state that the planet had ever seen.

[2:12]
[Melvyn Bragg] And its population, as I understand it from your notes, it was more than the population of Europe and the Ottoman Empire combined.

[Craig Clunas] Yes, it had a population of about 150 million which is the same [as Europe and the Ottoman Empire combined]. So in a way, rather than thinking about a country, it's helpful to think about a continent. China is on a continental scale and so the distances from one side to the other, the population and the density of population in the most populous parts of the empire in the lower Yangtze Valley, very much analogous to the whole of Europe, ...including the Ottoman Empire at that time.

[Melvyn Bragg] How outward looking was it?

[Craig Clunas] Well, it used to be thought that it was very much a place where they pushed the Mongols out and pulled the shutters down. That used to be the image of the Ming. But much more recent scholarship sees the Ming as being much more widely connected both with the rest of Eurasia, so with the Islamic world, the Timorid empire in what's now Persia and Afghanistan, but also, of course, through in the very early Ming, the sending out of these great imperial voyages into the Indian ocean. So the Ming was not the shuttered, closed off empire that used to be thought. It was much more engaged with the rest of the world.

[Melvyn Bragg] If it were possible to characterize what the Ming empire stood for (a big ask) how would you do that?

[Craig Clunas] Well, of course, it very much saw itself as part of a long tradition of imperial rule. So the elites that rule in the Ming empire are very much thinking of themselves as an instance of the kind of ideologically founded state that has been going on in China for thousands and thousands of years. So there's a great consciousness of that history and also a great consciousness of themselves as, in some sense, a center of civilization. They're conscious that there are other civilizations, but the idea that the world revolves around us is very much part of the way the elites

think. Now, of course, most of what we know about the Ming is from what the literate minority thought, what ordinary people out in the fields thought is much harder to know.

[Melvyn Bragg] This massive empire, how closely was it controlled from what we now call Beijing?

[4:31]
[Craig Clunas] Yes, well, there's a Chinese proverb which existed in the Ming period which goes, "heaven is high and the emperor is far away", which means that "out here, we're doing our own thing". It's kind of interesting that the Ming had this population of 150 million but it's divided into only about 1,300 counties. So actually, the chances of the average peasant ever seeing an official of the imperial government are quite slight. So the Ming empire is not held together from the top down. It's also held together by a shared consciousness of a cultural heritage, a language, a set of texts. There are all kinds of things that hold it together, and certainly there are lots of things going on out there that the court in Beijing knows nothing about.

[Melvyn Bragg] But...is there no sort of military control, police, as we would use the word, police control ... holding it together?

[Craig Clunas] Yes. I mean, the state will come down on you like a ton of bricks if there's any kind of organized resistance. But also a lot of the control at the local level is, if you like, subcontracted by the state to the landlord class, to the gentry, as they're sometimes called, who own the land, who run the land, and who, by dint of their education, are part of an empire wide idea. They're an imagined community, if you like.

[6:02]
[Melvyn Bragg] Thank you very much. Anne Gerritsen, who was Li Shizhen?

[Anne Gerritsen] An extraordinary man, by all accounts. So he was born in the provinces. So many of the illustrious figures of the Ming that we know about were born or were part of the imperial state. He was a provincial figure born in Hubei in 1518, as you say, in a family of medics. So he had a grandfather who was a medic, he had a father who was a medic. Quite a difference between what kind of doctors they were. But there was the hope that Li Shizhen would become a scholar, that he would pass the examinations and would become part of the imperial bureaucracy. So he spent his time studying.

[Melvyn Bragg] Why was it so important to be a scholar? Status has been mentioned. I think status was enormously important. Can you just dwell on that for a moment?

[6:56]
[Anne Gerritsen] Yes, absolutely. So the scholars were the people who were literate and who had mastered the body of texts associated with Confucianism, and if they were lucky, had passed the exams. I mean, it was a [tiny] minority, but if they passed the examinations, they would then be admitted to this high bureaucratic class, the group of people who led this state, the people who were appointed to administrative office both in the capital and in the provinces. And if you were lucky enough to pass those exams, and if you were successful in passing into that career straitum, then you had enormous status. So this was desirable for most of the literate population.

[Melvyn Bragg] But as I understand it, Li Shizhen sat them three times, got through the first lot, sat the second lot three times, failed three times. To our benefit.

[Anne Gerritsen] To our benefit, exactly. Because after he'd failed comprehensively three times, he decided to change outlook and to dedicate his life to becoming a doctor. So he became an apprentice of his father. He started to study, instead of the general Confucian texts, to focus on medical texts and to read everything that came within his reach, and then devoted his life to this compilation that we already mentioned before.

[Melvyn Bragg] So ... he went on to be such a brilliant intellectual, brilliant scholar. He was 17 years old... any reason we know of that he didn't pass that exam?

[Anne Gerritsen] Well, it is a very particular kind of examination that tests a certain kind of knowledge and reproducing information and writing in a certain style. And the percentages that passed are so small that it can be no reflection on anyone's intelligence, more perhaps to do with either, in fact, so intelligent that learning that kind of material may have been somewhat restrictive to him, but also ill health. So we have some evidence that he was struggling with ill health. He had problems with his eyesight, so he wasn't a well man. And I think, for whatever reason, the examinations didn't suit him. It wasn't for him.

[Melvyn Bragg] What was the status of a doctor, then?

[9:14]
[Anne Gerritsen] Status changed quite a bit. So a doctor didn't always mean the same thing. So his grandfather was quite a humble kind of doctor, basically a peddler of medicines. He traveled. He was an itinerant. He had to offer his treatment and his medicines to anyone who wanted to take them from him and he had, therefore, a fairly low status precisely because he was an itinerant figure. But his father made the transition into this scholarly world, so he mastered the texts. He became more of a scholarly doctor, and because of the high reputation of textual tradition, that meant he had a far higher status as a doctor, and that is certainly the kind of doctor that Lisha Zhen became.

[Melvyn Bragg] Thank you. Roel Sterckx, what would be have been the prevailing idea about the relationship between human beings and the natural world?

[10:03]
[Roel Sterckx] Well, in premodern China, people generally had a very organic view of the world around them. So one overarching idea was that everything around us is interconnected, interdependent and networked together. And that, in other words, rather than thinking of the natural world as that bit of the world around us that's untouched by humans, the Chinese planted human beings right in the middle of it. Now, a second main underlying idea there is that therefore, in order to understand the natural world, rather than trying to identify biophysically, what things are, it is much more important to try and explain how things relate to each other. So describe the relationship of various beings, objects, plants, animals with each other. A second underlying idea was that everything around us in the natural world is constantly subject

to change. The only certainty we have, ironically, about what happens around us is that things are constantly changing. And so everything is subject to transformations, to metamorphosis , and so the I suppose the sage or the observer or the scholar needs to put his finger on explaining why changes happen and how they happen. Now, to do that, you need a conceptual toolbox, and the Chinese developed that over the century. One is to think of everything in the world as consisting of complementary opposites. The Chinese call it "yin and yang", the shadowy side of a hill versus the sunny side of a hill, so that you can think of things in terms of hot-cold, high-low, black-white, and so on. So that's one toolbox they had. A second model that was applied to the understanding of the natural world was the idea that everything somehow can be classified into a group of five or following a sequence of five phases. These were natural elements identified as early as the fourth century BC: Fire, wood, metal, earth. And I left one out here water, I think. And so the whole purpose of it is basically to just describe the pattern of change and describe ways of sequencing of how things follow on from each other. The result of that is that for the right or the wrong reasons, people who categorize nature in premodern China seem to be always impelled to have to do this in groups of five and categories of five. And a final, not insignificant feature really, about the way in which the Chinese in pre-modern China handled nature or saw that relationship is that they used a language which drew substantially on figurative language. They used analogies to talk about nature comparisons, metaphors, rather than a highly technical sort of language, and that sometimes takes getting used to.

[Melvyn Bragg] We know that he read immensely and that he ... included and corrected a lot of previous works in his own spectacularly, colossal work. At that time, was there more of a premium on preserving tradition than going out and finding new stuff?

[Roel Sterckx] Well, preserving tradition has always been a very important thing on the sort-of intellectual menu of any scholar and [the literati?]. And certainly in the Ming too, the idea that you collect knowledge from the past and that you play out opinions from previous text against your own ideas, that was certainly a very prevalent way of looking at it. Li ShiZhen, however, did more than simply that. He did more than simply looking at past traditions, at text from the past. He actually went out and experimented...

[Melvyn Bragg] ...What sort of experiments?

[13:56]
[Roel Sterckx] He was interested in touching the objects, in touching the plants, the animals, the stones, the rocks.

[Melvyn Bragg] Did he dissect?

[Roel Sterckx] He is known to have done dissections. The most notable one is that he's alleged to have dissected a pangolin because he was curious... about the quantity of ants he might find in the stomach .... and so he certainly went out to do that. We know that he dissected snakes, for example. So there was a scholar who, on the one hand, operated in a textual universe trying to explain information by going back to text that came before him. But [on] the other hand, he was also somebody who was out there and actually almost sensed the world himself, ... by traveling around and experimenting with things.

[Melvyn Bragg] Thank you very much. Craig Clunas, can we get an idea of this man now? ...Is he wandering around ...much ...going all over China? ...
What's he like and what's he at in those 30 years when he's collecting material?

[15:02]
[Craig Clunas] Well, after his initial training as a doctor, [by] his father, we know that he worked briefly at the regional court of an aristocrat in his native province in Hubei. So this is a relative of the emperor, a minor member of the imperial family. And this man would have a court, he would have professional doctors, and Li Shizhen is believed to have worked as one of these doctors. That would presumably have given him access to a library, which was an important part of putting together his work. We believe also that he spent some time in the Imperial Medical College in Beijing. There's a great court apparatus of physicians to look after the emperor and his immediate family. So he's had experience there. We also know from the people that he knew that he's moving up the social scale, because when he writes poetry, for example, which is the thing that educated people are supposed to do, and he knows people who know some of the most important poets and intellectuals of the Ming period. So although he comes from this relatively modest provincial background, he certainly quite rapidly moves up the social scale, and therefore, by the time that he's finishing this great compendium of medical and botanical information, he's not an isolated or a remote figure, I think.

[Melvyn Bragg] Was there a tradition of gathering masses of information and putting it together? Was he in that tradition...?

[Craig Clunas] He was, and indeed, the kind of medical, pharmaceutical, botanical text that he's doing has a very long tradition in China. These so called "bencao", which means something like "basic herbs texts", go back a very long way. But interestingly, they had almost always been put together by large teams and they'd been put together by large teams under at direct imperial orders. What's original and different and unusual about Li Shizhen is that he, purely as a personal and private project, sets out to write one of these compendia and to write one that is larger and more comprehensive and more rigorous and more accurate than all the ones which came before it. [Note: According to wikipedia, Shizhen's book is the "Bencao gangmu", known in English as the "Compendium of Materia Medica" or "Great Pharmacopoeia".]

[Melvyn Bragg] Does he go to places that previous scholars haven't reached?

[Craig Clunas] Well, we don't really know everywhere that he went ....

[Melvyn Bragg] I don't mean literally "geographical" ... I mean [did he go] into [new] areas of study?

[17:36]
[Craig Clunas] Yes, he certainly does. The [compendium that he wrote]itself has a vast bibliography. What it begins with is a huge account of "these are all the books I read". And he boasts that a very large proportion of these books are books which have never before been used. And what's interesting is that he draws a lot of medical information from non-medical texts. So he doesn't just look at the existing medical texts, he reads a lot of poetry and he reads religious texts and he reads historical texts. So he's clearly

omnivorously gathering what you might call medical, pharmaceutical, botanical information from a range of texts which aren't predominantly about that.

[Melvyn Bragg] And he also draws on the idea of food being part of this study...?

[Anne Gerritsen] Yes, but that was entirely to be expected. So food and medicine ...

[Melvyn Bragg] Had this been done before?

[Anne Gerritsen] Yes, because the substances that people consumed for medical purposes and the food, the dietary practices that they maintained were a very closed network, so ... dietary practices were used for health reasons, and medical substances were taken in combination with certain foods. So that distinction between food and drugs or medicines doesn't exist in the same way. It's part of an entire complex of substances that, for Li Shizhen, were part of a wholesome treatment of the human body.

There are big figures [in Li Shizhen's book] relating to how many plant seed. Can you give us some of the figures [relating] in this book? [Tell us some statistics?]...

[Anne Gerritsen] So the big volumes that he puts together, there are 52 separate chapters in that, or volumes within that. There are about 60 subcategories that are, again divided into, I think, 1,892 separate substances that are described. And then each of those have numerous different applications and descriptions. That comes up to about 11,000 different remedies that are included in this volume.

[Melvyn Bragg] And there are other things in it besides the remedies, aren't there?

[19:54]
[Anne Gerritsen] [A huge amount]...of information, [such as the] background on where the plants grew, what other texts have been written about the substances, how errors were included, what kind of stories were in circulation. Quite structured - so these were following certain kind of sequence, but the attempt was to be as comprehensive for each of these substances, which is how you get from 1892 individual substances to 11,000 different remedies. So a huge amount of information for each of these plants and other herbal plants, but also body [parts], animal products, all kinds of things were included as a survey of the entire natural world...

[Melvyn Bragg] Roel, was his compilation richer, thicker, bigger than anything that had gone before?

[Roel Sterckx] I think it was in the sense that at least if we if we follow his own claim, he said he adds at least 350 or something drugs that he's never found in any of the previous literature. So he clearly does add new information. He feels he's adding new information, but he doesn't necessarily always do this... in a medical context. Sometimes he adds information that has little medical relevance. For example, he talks about crickets because people fight them and people play with them, not because they have a medicinal use. Other times he will talk about local folklore. He will go at length into the discussions of how a certain thing is named, because, of course, naming plants, naming animals, and linking them to particular localities is very problematic -

you know, very often we do not know what a particular name stands for. So sorting out these names is a very sort of confusing concept as well - sort-of making sure that you control whatever substance you're dealing with by giving [it a name] seems to be very important for him. ... If you look at a "lemma" now, if you look at an entry now in the text, you can follow the man's pattern of thought almost from the beginning to the end. He will name the thing, then he will offer a discussion as to what the other names are, what he's found in other texts about it. Then he will add a section which he calls something like Combined Interpretations, in which he goes through every single text that he's read, listed together. And then he moves on to how to make a recipe from this particular drug, [how to make it work?], and then, finally, what are the symptoms, the illness, symptoms that might be treated by it, and sometimes he will readily admit, "well, I've read this, I've read that. I'm not quite sure about the origins of this, but my conclusion is that it possibly could be used for that particular purpose".

[Melvyn Bragg] Craig Clunas, is he always drawing towards recipe and medicine that could cure people? Is the basic idea of being a doctor running through this work of scholarship?

[23:07]
[Craig Clunas] I think it does, but it does extend beyond that. It is a work of, erudition about the natural world, always remembering, as Roel says, that the natural world is not something that is separate from humanity. So in a way,... the knowledge is always applied knowledge. It's always *for* something. I don't think there's a sense there of just knowing it for the sake of knowing it. There is a sense that this has a benefit and that it's going to be of benefit to people. So the medical thing yes, I don't think he ever forgets that.

[Melvyn Bragg] Do we have any evidence that these treatments, these new - I think Russ had over 300 new drugs - that they were tried on people, that they worked?

[Craig Clunas] He talks about trying certain things on himself, and, of course, the popularity of his book - it goes through eight editions throughout the 17th century - suggests that both what you might call the medical establishment and just just people who bought books more generally felt that this was a book they wanted to have.

[Melvyn Bragg] To cure an infection, or other stuff that was useful?

[Craig Clunas] So, yes, I think that applied or practical side of it is very much part of the book's reception, at least.

[Melvyn Bragg] Did he draw on information, knowledge outside China?

[Craig Clunas] He's he's very conscious that some things come from abroad. So, for example, he writes about almonds and he says "this is a Persian thing". And he gives them and he knows that they have a Persian name. He quotes the name from Western Asia. But also interestingly, he's working at the time of one of the great first globalizations of botanical material, when material from the New World is first becoming available. So although he's not the first person in China to write about maize, he describes maize, he talks about pumpkins, which come from the New World, a sweet potato. These are all foodstuffs, and, as Anne said, there's not a difference

between food and medicine for him. So he's very conscious that these are things that have just appeared on the scene that don't exist in the earlier texts. And he's certainly aware of them and of other things as having in some way an origin that is outside the boundaries of the Ming Empire, or at the farthest edges of human existence.

[Melvyn Bragg] ...Anne Gerritsen can we just have a few more examples of these treatments? I'm sure the listeners would know. [For example] he did this and therefore you could be cured, or may be cured by that. Is that possible?

[25:53]
[Anne Gerritsen] Sure, there are some wonderful ones. I mean, I was thinking of one that is applied for someone who wants to become more intelligent - something we might all be quite interested in - and what he suggests to do is to take one 10th of ginseng, the ginseng root, and nine tenths you add pigs, lard and ... old wine, well stored wine, and you make a drink out of this. And you have a small cup in the morning and a small cup in the evening. And you do this for 100 days. And if you do that, then you will have better eyesight, stronger hearing, your bones will be strengthened, your skin will be radiant, all the kind of things that, of course, everyone would be terribly interested in, but including a kind of wholesome sense of what it is to be intelligent.

[Melvyn Bragg] Did it work?

[Anne Gerritsen] I think it did. I think that those centuries of people using ginseng to improve their general health and focus, I think ... it's not for nothing that it's still all over the shelves, even in small town England, too.

[Melvyn Bragg] Have you got another treatment that you can delight us with?

[Anne Gerritsen] ...There's also information about toxins, for example. And arsenic, which was widely available at the time, could be used, added to some urine or ground up bugs, and used as a poison, or it could be used as an insecticide or as a fumigation. So he often had numerous different applications, which for us seemed quite wide ranging, not necessarily all health improving.

[Melvyn Bragg] How did he classify all this information?

[Roel Sterckx] He uses various systems. He classifies drugs according to ...

[Melvyn Bragg] Have you tried any of these drugs?

[Roel Sterckx] I have...We have experimented with some of the recipes some years ago in a workshop, but it's not very easy to get hold of all of them and the idea...

[Melvyn Bragg] And did they work?

[Roel Sterckx] Well... introducing rat poo into a classroom at a university is problematic, but ...that's one of the ingredients that he did use. But he classifies according to the five elements. He puts things together according to various models, based on the flavor, based on where he's found something, based on how things reproduce, based on how they sound. And interestingly, he goes through these 52

chapters, and the final chapter is about human beings. Because, of course, the logical consequence of seeing human beings as part of nature should be that, of course, bodily parts of humans might have a pharmaceutical or a therapeutical use. And there he runs into trouble because on the one hand, he is very much okay with the use of things like hair and nail clippings and blood and even... placenta as a medicine. But where he stops is the consumption of human flesh and human meat. And we do know from pharmacopa that preceded him that this was certainly not unheard of. So there is the confusion - a scholar all of a sudden sort of drawing the boundary between human beings and the rest of the world around him when it comes down to his recipes. But his main aim in all of these is basically to make the claim that in order to understand the natural history behind everything we see, we need to think about its use. So there is a practical orientation there behind it that, in a way, still survives today. I mean, the notion that animal means edible in the context of China is something that you see in a pharmacopa like this. So nothing is out of reach as long as you can classify it as fitting a specific system.

[Melvyn Bragg] Craig Clunas, what was the demand for information in books like this or in books like this?

[Craig Clunas] Well, there's a huge commercial book market in Ming, China. Printing is an industry. There are huge numbers of publishers. They're in violent competition with one another. There is plagiarism, there is stealing ...there is fraudulent naming of famous people who've claimed to have written things. So ...even though only a minority of the population is literate, the population is so large that even that small percentage is an absolutely large number, a number well into the millions. And so publishing is big business, and one of the things that is big business is the publishing of encyclopedias. Now, this isn't really an encyclopedia because it has a particular focus. But the 16th century is a period in China when there's a great deal of publishing of encyclopedias which are often about making previously elite information available to new kinds of readers, probably from merchant backgrounds who aren't maybe fully into the whole kind of Confucian classics things, but they want to know a little bit about medicine, a little bit about the arts, a little bit about religion, a little bit about the natural world. So there's lots of encyclopedias being published, and when his book is finally published in 1596 (it's published just after he dies by his sons and grandsons), it's published by a commercial publisher who presumably believes that there's an audience out there who want to buy a book like this.

[Melvyn Bragg] ...Anne Gerritsen, how would this approach of his compare with that in the West at the time?

[31:56]
[Anne Gerritsen] It's a very tempting comparison. So if you put it, for example, next to 16th century Europe, there too is a huge interest in botany, in trying to classify the natural world, in trying to establish the authority of the ancients, but also testing the knowledge about medicine and about plants that had been transmitted from ancient scholarship and applying it and investigating exactly its worth and adjusting it to accommodate a new world which included plants from new worlds and using print technology to circulate that knowledge to add new additions to illustrate the material. So, for example, a Flemish, almost contemporary of his, Dodoens, produces the Cruydeboeck in the middle of the 16th century, which has a comprehensive overview

of plants and medicinal knowledge and herbals around the same sort of time. It's much smaller, it has far fewer entries, it has far fewer illustrations. But nonetheless, there is some sense in the challenge to knowledge from the past, the investigation of new materials that are arriving, the popularization of that knowledge and distributing it to a wider public, and the commercialization of these products that seem very tempting to compare. I mean, there are undoubtedly also differences, and one could question whether comparison is really the thing to do, because the temptation is always then to say, here's a European standard, and look, they were doing it too in China. In fact, you could argue we should investigate him for his own worth and within his own particularly intellectual context, but there are tempting comparisons to make that suggest that if we're thinking about what is changing in terms of science in the early modern world, we shouldn't just look at what's happening in Europe. We should also take account of these very significant contributions made by someone like Li Shizhen.

[Melvyn Bragg] But it's also tempting to say, did ideas transfer from the West to the East in ways that we haven't really discovered yet? Or from the East to the West.

[Anne Gerritsen] Absolutely. So I think we continue to look for texts that have clarity and that show exact the smoking gun of those connections. What we know from Li Shizhen is that he was reading texts that certainly came medical compendia from the Middle East, but also texts that included travel logs from people who'd been in the South China Sea or into the Indian Ocean and brought information about this with them. So I don't think we quite know that texts were exchanged - [with] the whole text available within China from the 16th century Europe.

[Melvyn Bragg] Craig?

[Craig Clunas] We certainly know, don't we, that Christian missionaries in China in the 16th century were interested in buying these kinds of books, and there are accounts of them being shipped from China to the Philippines, which at that time was a Spanish colony, and some of these texts ending up in the library in the Escorial. So there's certainly an idea that Europeans at this period think that there may well be interesting forms of knowledge about the natural world which are available within the Chinese textual tradition.

[Melvyn Bragg] Was his book ... predominantly meant to be practical, Roel?

[35:22]
[Roel Sterckx] Well, that's a very difficult question. He certainly meant ... certain elements of the book to be practical. It's hard to imagine, though, that all of it was practical. And one of the earliest criticisms the book gets, as quickly as a century after its publication, is that it's not practical for several reasons. First of all, it's simply too big, it's too large an encyclopedia, it contains too much information, and no individual physician could possibly absorb all of this and put it into practice. So that was one criticism. A second criticism of him was that Li Shizhen now and then tends to veer off into folklore or into details of very ....exotic ingredients in certain parts of the world that nobody would have heard of. It's certainly been presented then, later on in the 19th century, early 20th century, as a text that is practical and ...is in various forms, being taught as part of a curriculum in traditional Chinese medicine. And there has been a time, especially during the 20th century, that people have tried to identify or to

associate biophysical, even Linnaean taxonomies to the ingredients in Li Shizhen's text in order to show ...[that it] is scientific, it works, and so on. But I tend to think of it sort of as a combination of both. I tend to think that for people who had an interest in medicine or we had an interest in the natural world, having Li Shizhen, so to speak, in your study or on your bookshelf would have been the equivalent of a scholar now who is interested in literature, in the English language, of having to collect the works of Shakespeare on his shelf without necessarily, obviously, making direct connections all the time between what one is doing and the text one is referring to.

[Melvyn Bragg] The Ming period is closed. It's the bright period, the brilliant period in China history. How much did his reputation and his position add to that?

[37:32]
[Craig Clunas] Certainly in the 20th century, he becomes one of the sort of glories of the period. So after the founding of the People's Republic, there's a great deal of attention paid to him. So, for example, it's only in 1954 that scholars work out what his birth and death dates were. He's a known figure, but the exact dates were only worked out then. And then in 1955, he's on a postage stamp and there's a biopic, a movie made about him, in 1957 with a very famous actor in it. And a lot of this is constructing a usable past. We have no idea what Li Shizhen looked like. There are no contemporary pictures of him. We don't know if he was tall and thin or short and fat. But in a way, we all know what he looks like now because we're thinking about how he's portrayed this film and how he looks on the stamp.

[Melvyn Bragg] How did they make him look?

[Craig Clunas] Sort of thin and aesthetic and kind of "noble". Definitely noble - he's a heroic and a noble figure. And in the film he's portrayed as heroically, fighting against hidebound, feudal attitudes. So he becomes very much a precursor of the modern heroic self-effacing, but serving-the-people scientist.

[Melvyn Bragg] Someone for Mao Tse Tung to lean on ..?

[Craig Clunas] Absolutely, yes. His mythology becomes part of that. He becomes a usable pass because, of course, there are all sorts of bits of the Ming dynasty that the People's Republic doesn't want to celebrate - people who were famous, but who were landlords or oppressive figures or seen as now as part of a feudal history we want to get rid of. This is a history that can be celebrated and promoted and encouraged under the new regime.

[Roel Sterckx] Even more recently, in 2012, I believe, the text got heritage status, UNESCO heritage status, which was something the Chinese were very proud about. In 2015, a Chinese pharmacologist gets a Nobel Prize and, you know, declares in Stockholm that of course, traditional Chinese medicine and Li Shizhen is something that the whole world should be looking at more carefully.

[Anne Gerritsen] The fame of Li Shizhen is not just established within China. This is also Korea and Japan. Already in the 17th century ... the text spreads to Japan, is translated, there is annotated, is re-illustrated. So in Korea and in Japan, there's a venerable tradition of studying Li Shizhen's text, and the fame of the Ming, in a way,

spreads through those kind-of well established volumes of the Ming that were famous in other collections, too.

Are any of the recipes or conclusions that he came to in his book still useful now or used now?

[Anne Gerritsen] Absolutely, yes. I mean, useful... It depends a little bit on where you stand on Chinese medicine. For Mao, the interest was in trying to bring his ideological vision of the barefoot doctors who go out in the villages and who gather remedies. It's an ordinary the ordinary doctor who gets elevated and he created something that he called "traditional Chinese medicine", which was really a communist invention, which captured the tradition of medicine that was very common and very widespread and diffuse throughout China and turned it into something that was an official curriculum and that had official institutional accreditation, as it were. But Chinese medicine is a very widely practiced range of approaches of thinking about the body, about holistic healing, and those practices are extremely widespread still, and people claim to have huge benefit from it. So in in Germany, for example, you can train to be you can train in traditional Chinese medicine and establish yourself as a Chinese medic using this tradition.

[Melvyn Bragg] Thank you very much, Anne Gerritsen, Roel Sterckx and Craig Clunas.

And the in our Time podcast gets some extra time now with a few minutes of bonus material from Melvyn and his guests.

[42:03]
[Anne Gerritsen] We didn't talk about the illustrations.

[Roel Sterckx] Yeah, that was something I was thinking about when Greg was talking about commerce and print...

[Craig Clunas] I went and looked at ... a facsimile of the first edition. The first edition is really quite rare. And these are really rubbish illustrations. I mean, by the standards of Ming... and the text is too - the characters, the cutting of the characters, it's not a super lux... I mean, in terms of the the range of Ming book production ...

[Anne Gerritsen] But I thought that ... they did it in a rush in those three years after he died. They were carving them almost as he died, and I think it was pushed through quickly and then the sons were the ones who decided they should have the illustrations...

[Craig Clunas] And it was re-done in the 17th century with much nicer illustrations, and that's the version that everybody thinks about. But I was kind of shocked by how "scuzzy" the first edition is.

[Roel Sterckx] Li Shizhen himself was not very confident of the use of illustrations. He actually didn't believe they could match the kind of information that you could transmit through text.

[Anne Gerritsen] And there's no evidence that he wanted those illustrations to accompany him.

[Craig Clunas] He never mentions the illustrations. So the illustrations were not necessarily part of what he thought of as central to the book.

[Anne Gerritsen] And yet, with hindsight, they become the thing that people always know. They're the thing that people conjure up when they think about the bencao.

[Melvyn Bragg] Is there any .. any truth in the idea of him [being] anything like the barefoot doctor going around?...A shaking of heads going on across the table...

[Craig Clunas] ...He's not super posh, but ... there's no evidence for this kind of man of the people thing. That comes from the movie and the kind of hagiographies...1950s...

[Anne Gerritsen] But I think he did gather information in different ways than people had done before. So he went well beyond just the books on the shelf, and he was interested in talking to people that until then hadn't necessarily been considered a source of information. So that included other texts, but also people with very different daily ...professions.

[Craig Clunas] But that goes back to the very ancient Chinese idea that the people may be the recipient of sort of truth. Like in the Book of Songs, which is one of the...very early Chinese classics. His field work... he did go out and talk to people and [asked] "What do you call this thing here? Or what's the name you give it?" And so on. So he was interested in that, but he's not, I think, interested in ... serving the people... Well, there's no evidence... we just don't know. I mean, there are limits to what we know about...

[Anne Gerritsen] But it is extraordinary what he was able to get out of the books he had available to him. So we know that he had some travel records of people who'd been right through Southeast Asia, but he also teased information out of volumes that didn't include the whole of the text, but fragments of this knowledge that must have come from travelers because he never left the Ming regime, he never traveled outside. But he had information about, for example, the pepper plant and how the pepper plant, how it produces peppercorns and how the colors of the plant and the berry change, which only could have come from someone who would have seen the plant on the Malibar coast and had experience of seeing the process of that plant growing and being harvested, as opposed to the dry peppercorns that are always black and always the way they appeared in the market. So he teased out information from sources, from people, from materials that no one had ever considered worthy of that kind of investigation before.

[46:03]
[Roel Sterckx] And that's probably where he does differ a little bit from the image we have of the Chinese naturalist before him, who is a bookish scholar, who is somebody who doesn't open the window of his study, who is, [as was said of] one famous philosopher a few centuries earlier "who is somebody who's riding a horse while not knowing whether the horse one is riding is a mare or a stallion because one is too

engrossed in the books". And Li Shizhen obviously, is somebody who did come out of his study, and that's much more pronounced, I think, in his story than that in that of anybody who came before him, really.

[Melvyn Bragg] You were very coy about these treatments that you tasted. Do you want to give us a bit more of them?

[Roel Sterckx] Well, there is another rather curious drug that he talks about, and he gets his information from an earlier text that talks about the southern seas. The sea is obviously another unexplored part of the world for him. And that's turtle sperm that has been vomited up by sharks... which was supposedly well, he admits that, he says, "I've heard it is very curative. But ...I am sure that I will never get my hands on anything like this"... But ... we did toy with that...

[Craig Clunas] The idea some of the very mainstream herbal remedies like "huanglian" or whatever - I don't know what that's called. I mean, that's very much part of ... I've been given that in hospital in China alongside when I had a kind of very bad stomach, acute gastroenteritis, I had antibiotics, and I had huanglian. Huanglian is kind-of famous in China because there's a proverb about it as being the most horrible tasting thing in the world, and it really is the most horrible... tasting thing in the world. But what part it played in my recovery from this, I don't know. But it didn't seem a ridiculous thing that a herbal concoction as well as antibiotics would be a good thing to take...

[Anne Gerritsen] And that way of thinking about what you eat and what you drink and what temperature the food is you eat - whether you have hot food or cold food. I mean, those things have their base in Chinese medicine, but they're very much part of how people think about what they eat.

[Craig Clunas] Part of Chinese culture.

[Anne Gerritsen] Exactly...

[Roel Sterckx] You can explain the working of the same drug from different perspectives, and that's what Li Shizhen does. He talks about cinnamon, cinnamon bark, and he actually talks about the flavor of it, he talks about the scent of it - using poetry -. He talks about the medicinal use of it, he talks about it being good for treating swellings in the groin, and then he talks about it being a good condiment. And then the reader is sort-of meant to think of cinnamon as something which is both tasty also is medicinally very efficient and is actually something that is fragrant. I wouldn't recommend though his recipes - his anesthetics - they seem to be a little bit far fetched.

[Craig Clunas] I mean, it's worth saying that we know that he wrote a whole load of books before he wrote this about pulse diagnosis. This is clearly the medical tradition that his father specialized in. So an important part of diagnosis in Chinese medicine is feeling the pulse not just once but in different parts of the body and comparing the strength of the pulse in different areas and so on. So he'd written a number of books on this topic which don't survive. These books are lost now - we just have their titles and their titles mean that they must have been about this pulse diagnosis. So it's not

just about his grasp of the human body and so on is also to do with other aspects of Chinese medicine of which that was the bit he specialized in - this pulse taking.

[Roel Sterckx] And in a way not very new. I mean, if you look at the models of illness, pathology, much of what he has to say builds on what was there 1500 years earlier. The idea that illness comes either from the inside - it's a disbalance of the body or it's an external factor, wind or even demonic influences - ao that whole aspect is still there. So he doesn't give you a medical theory but what he does is he instead suggests well, anything we see around us has potentially medical usage, and that's how he tries to... I don't think he feels that he is theoretically innovating grand theories of the body and communicating with sort-of high medicine.

[Anne Gerritsen] Well, I was going to say... but things did change during his time and the use of pepper, for example, which was very common in the north and he attributed his eyesight problems to that. So he advocated using less pepper and it was part of a sort of culinary shift of people moving away from very spiced, hot food to more neutral and bland flavors.

[Melvyn Bragg] I think we are about to be offered something from the producer....

In our time with Melvyn Bragg is produced by Simon Tillotson.
