

Humanities
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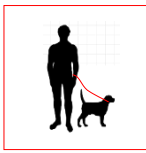
From Two Cultures to
Bettering Humanity

Lui Lam

Science Matters Series

Lui Lam

Founder and Editor



Scimat (Science Matters) is the new multidiscipline that treats all human matters as part of science, wherein, humans (the material system of *Homo sapiens*) are studied scientifically from the perspective of complex systems. That *Everything in Nature Is Part of Science* was well recognized by Aristotle and da Vinci and many others. Yet, it is only recently, with the advent of modern science and experiences gathered in the study of evolutionary and cognitive sciences, neuroscience, statistical physics, complex systems and other disciplines, that we know how the human-related disciplines can be studied scientifically. **Science Matters Series** covers new developments in all the topics in the humanities and social science from the scimat perspective, with emphasis on the humanities.

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L. Lam



Those who are crazy enough to think they
can change the world usually do.

— Steve Jobs

Science Matters Series | No.4

Humanities, Science, Scimat

From Two Cultures to Bettering Humanity

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Prolog



The year was 1990. When NASA's *Voyager 1* space probe was leaving the Solar System, it turned its camera around and took one last picture of Earth. In this rare picture, our dear Earth appears as a pale blue dot. The blue is reflection from the seas while the white comes from the clouds. It is this pale blue dot we share every day. It is on this pale blue dot our joy and sorrow come and go. We are curious about the real world happening on this pale blue dot and beyond. We are curious about the trees, ants, sunset and the stars up in the sky. We are curious about the fate of us humans—past, present and future. And we keep on wondering whether there is a God out there.

These questions were raised systematically about 2,600 years ago by the Greeks in the West and the Chinese in the East. The complete answer did not come, not even today. However, in the past 400 years since Galileo, modern science has prospered and we know much more. We even have the answer to some of the big questions raised by our ancestors.

Our understanding of this pale blue dot and its inhabitants, we humans among them, comes from all branches of science, but especially from the study of complex systems in the last four decades as well as the century-long development of evolutionary science and neuroscience. To understand where we came from, why we humans behave the way we do, and how we can make the world better tomorrow, we have to look back 13.7 billion years in the past—a long lookback in time, just like the *Voyager 1*'s long lookback in space. In this book, some of these understandings are presented, spanning from science to arts and human history, and from philosophy to the God question.

About the Author

Lui Lam, humanist and physicist, is professor emeritus at San Jose State University, California; recipient of SJSU's 2017 Distinguished Service Award; guest professor at Chinese Academy of Sciences *and* China Association for Science and Technology. Education: BS (First Class Honors), University of Hong Kong; MS, University of British Columbia; PhD, Columbia University. Had worked in Europe (Belgium and West Germany) and Beijing (Institute of Physics, CAS, 1978-1983). Invented Bowlics (1982), one of three existing types of liquid crystals; Active Walks (1992), a new paradigm in complex systems; and two new disciplines: Histophysics (2002) and Scimat (Science Matters, 2007/2008). Published over 180 papers and 16 books, including *Arts* (2011) and *All About Science* (2014). Founder of International Liquid Crystal Society (1990); founder and editor of two book series: Science Matters (World Scientific) and Partially Ordered Systems (Springer). Current research: philosophy, humanities-science blending, and innovation. Website: www.sjsu.edu/people/lui.lam/scimat.