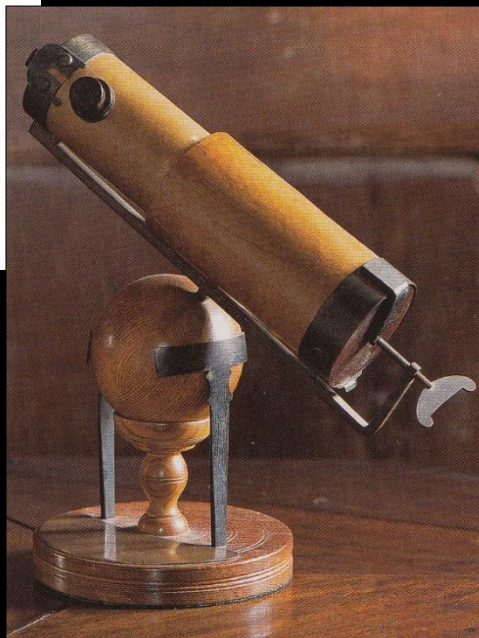


文与理

本质与分合



林磊

河南沁阳朱载堉纪念馆
中国科学院物理研究所
中国科协中国科普研究所

AI时代：文理并重

基辛格

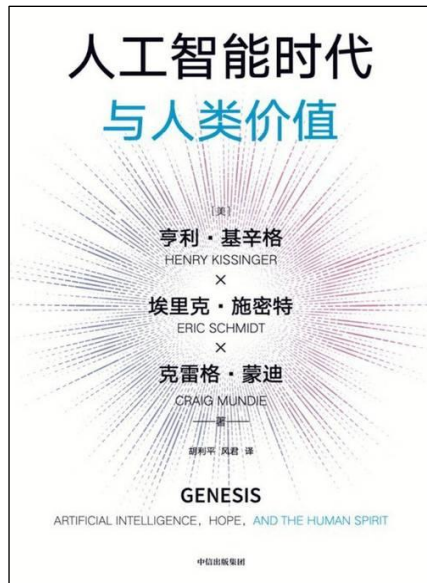


Henry Kissinger
1923-2023

- 哈佛大学教授
- 1971, 作为尼克松总统秘密特使访华（为中美建交开启了大门）
- 1973, 获诺贝尔和平奖

- 将 AI 呈现为“第三次发现时代”的先兆（这一时代将重塑知识、政治、安全、经济、科学以及人类自身的状况）

- 捍卫以脆弱性、死亡性和道德选择为根基的人类尊严（作为与智能机器未来任何合作关系中不可谈判的基础）
- 警告对自由意志、身份认同和社会凝聚力的风险。提倡“清醒的乐观”
- 提出诸如 AI 财富税、全民收入和价值对齐等政策建议，以及强调有意识的共存而非共同进化
- 不仅需要道德追求，还需要可执行的全球治理（强制偏见审计、数据主权法律和民主监督，以防止计算资本集中成为一种新的技术封建秩序）



黄仁勋



- NVIDIA（英伟达）公司创始人兼首席执行官
- 1983，俄勒冈州立大学学士
- 1990，斯坦福大学电子工程硕士
- 2025，入选《时代》周刊 2025 “年度人物”
- 2026，以1580亿美元位列全球富豪第7位

他说：

- 技术与人文的交汇点是最有意义的创新发生的地方
- 要创造真正服务于社会的技术，我们必须理解其核心的价值观、伦理和文化
- AI 不仅是一个技术挑战——它也是一个人类挑战。我们需要既有科学专业知识，又有人文洞察力
- 我鼓励学生和专业人士打破壁垒，培养科学与人文的双重技能
- 未来属于那些将分析能力与同理心和伦理推理相结合的人



Daniela Amodei

联合创始人兼总裁
Anthropic

- 随着 AI 在工作和日常生活中的扩展，人文学将变得“更为重要”
- 虽然工程仍然是核心，但设计选择、社会影响和政策问题使得人的判断至关重要。比如：
 - 安全性和红队测试依赖于此
 - 政策与合规工作需要清晰的写作和法律意识
 - 用户研究受益于文化知识和同理心
- AI 的进展不仅是技术性的，它也是社会、法律和文化方面的

她说的是懂 AI 的人文学者或毕业生

名校新课：哈佛与史丹福等

Bowling Green
State University

新增文科相关专业的美国大学一览			
学校名称	专业名称	文科/社科核心	招生时间
哈佛大学	能源、气候与环境 (ENCE)	历史、伦理、人文想象、社会学	2026-27学年
斯坦福大学	数据科学与艺术文化分析 + 计算文化分析	文学、历史、艺术、批判性思维	2025年秋
芝加哥大学	气候与可持续增长	政治、经济与社会；全球田野	2025年秋
宾州州立大学	信息技术伦理与合规 (IEC)	历史、政治、文化、批判思维	2025年秋
鲍林格林州立大学	AI+X (可定制)	任意人文/社科+AI	2025年秋
乔治城大学	CSES + 联合公共政策 (JPPP)	伦理、社会学、公共政策	2025-26学年

- 在当前 AI 突飞猛进的时代，某些专才的工作（如计算机程序员及文书）正迅速丧失，社会需要的是众多能诱导/驾驭 AI 或起码能与 AI 对话的文理通才——文理人
- 混合培训，人文学学生获得数据素养，工程学生学习伦理、法律和沟通
- 哈佛大学：让历史学家和物理学家同台上课

文理之分

文理两分的由来

泰勒斯 (Thales, 2600年前)

亚里士多德 (Aristotle, 2400年前)

达·芬奇 (Da Vinci, 600年前)

伽利略 (Galileo, 400年前)

牛顿 (Newton, 300年前)

文艺复兴

启蒙运动 (1688-1789)

文理不分

自然科学飞速发展

大学设研究生院

文理两分

始于德国 (1800后)
Johns Hopkins大学 (1876)

大学文理分科

中学文理分科

时间

文理两分在**德国**



- 从1348年至19世纪上半，德国的大学分4个学院（Faculty），依受宠性从高到低排：神学、司法、医学、**哲学**（含人文学、社会科学、自然科学）
- **工业革命**（1760-1820/1840年）始于英国，席卷欧洲，横跨18与19世纪，促进了经济发展，催生了中产阶级，繁荣了教育事业
- 进入19世纪，普鲁士的教育部长 Wilhelm von Humboldt (1767-1835) 于**1810**年创立研究型的**柏林大学**（1949年改名洪堡大学）；创新之处：提倡老师教学与研究并重、学生通过研究学习
- 其后，柏林大学发明了**研究生制度**（当时称Seminar，不是现在的讨论班或研讨会），有系统的训练研究生（这制度于1876年当 Johns Hopkins大学开张时传入美国）
- 重要的是，柏林大学的**哲学**学院于19世纪下半**分拆为文理**两部分，并从研究生院蔓延至本科及中学

文理两分在中国

- 1909年，清宣统元年，学部建议中学文理分科
 - 1912年，民国教育总长蔡元培主张文理不分
 - 1915年，袁世凯掌权，说要“取法德制”，应文理分科
-
- 1949年，新中国成立，建设急需专才，仿前苏联，学校重组，分文理工等
 - 1957年，大陆高考开始分文理，高中学习随之
 - 1977年，高考恢复，延续此文理两分做法



袁世凯
1859-1916

文理两分在**英国**



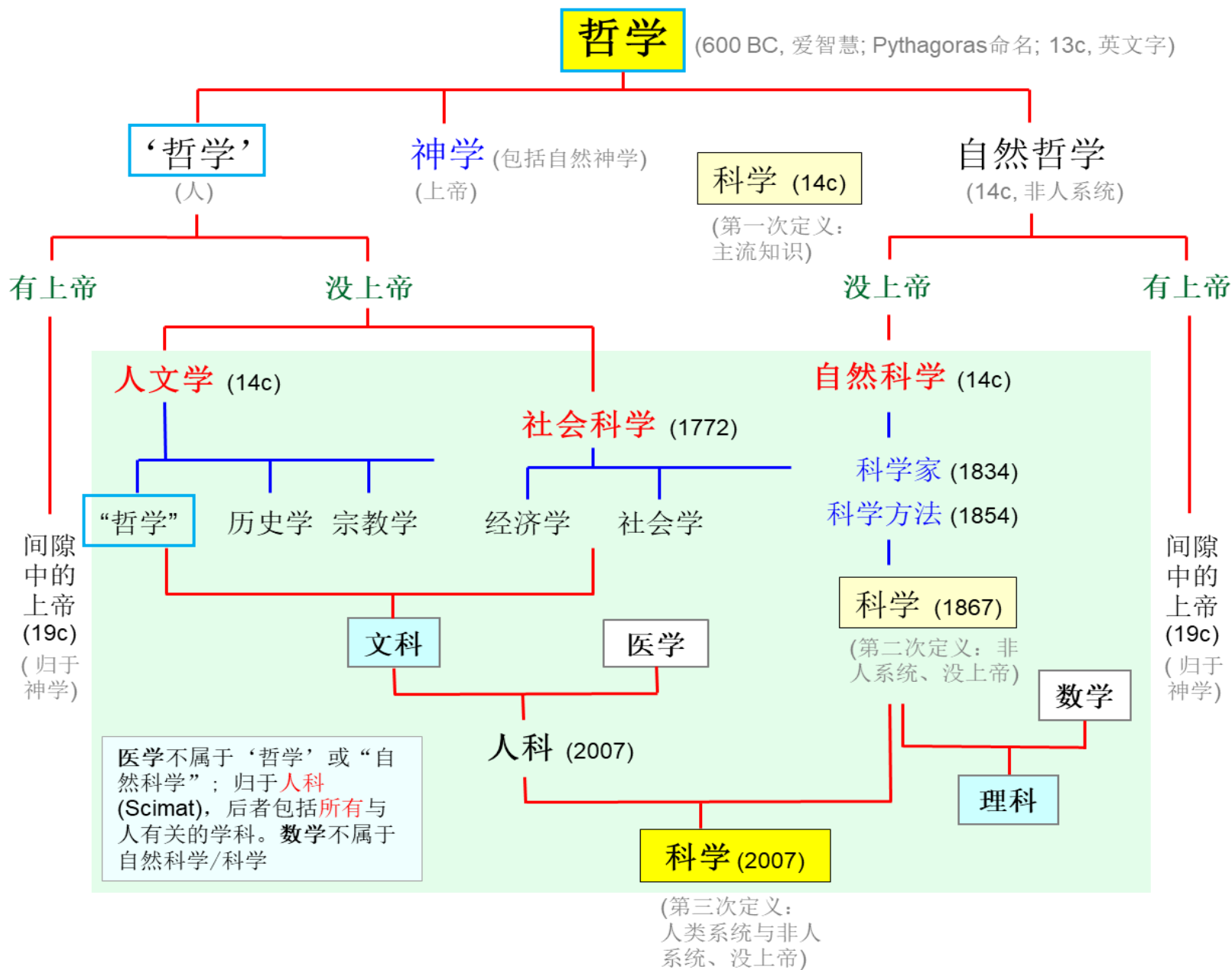
C. P. Snow
1905-1980

- 1959年，C. P. **斯诺**在剑桥大学发表了题为《两种文化与科学革命》的演讲
- 演讲包含三主题：
 - 西方**科学文化**与**人文学文化**之间的区别与交流缺失
 - 科学革命的重要性
 - 富国援助贫国的紧迫性
- 演讲在全球引起极大兴趣和讨论，帮助斯诺获得了20个荣誉学位（大多来自英国以外）
- 虽然后两个主题也值得讨论，但正是“**两种文化**”的主题引发了最多的争议和辩论

- 斯诺针对的是当时英国从中学到大学严重的**文理两分**情况
- 他**没给出**两种文化的历史成因
- 他给的**处方**：文科人学点物理，理科人读点文学作品——这当然**于事无补**

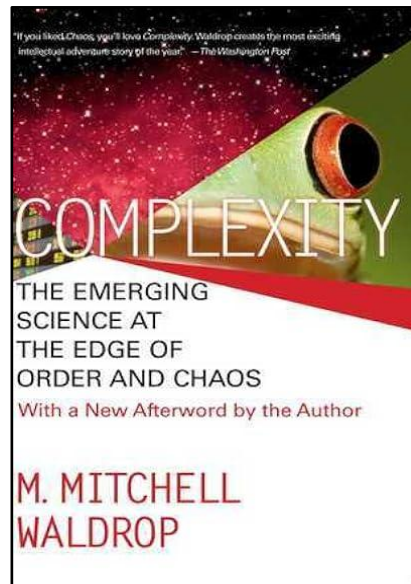
文理之合

文理同源

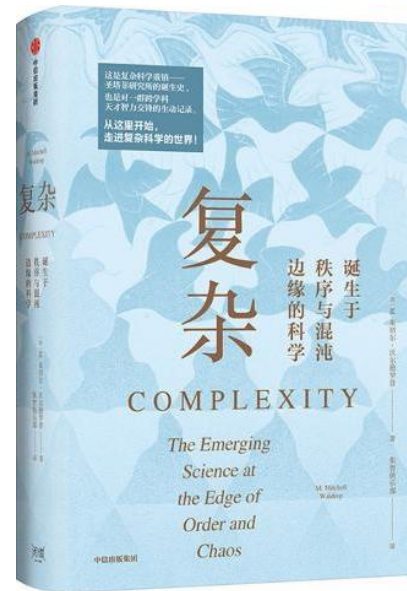


简单系统与复杂系统

	简单	复杂
确定性	A 自由落体、航天物轨迹	C 混沌（三体问题）、分形
概率性	B 随机行走（布朗运动）、 基本粒子（因量子力学预言 是 概率性）	D 理科（气象、气候变化、非人生 物） 文科 （人文学、社会科学）

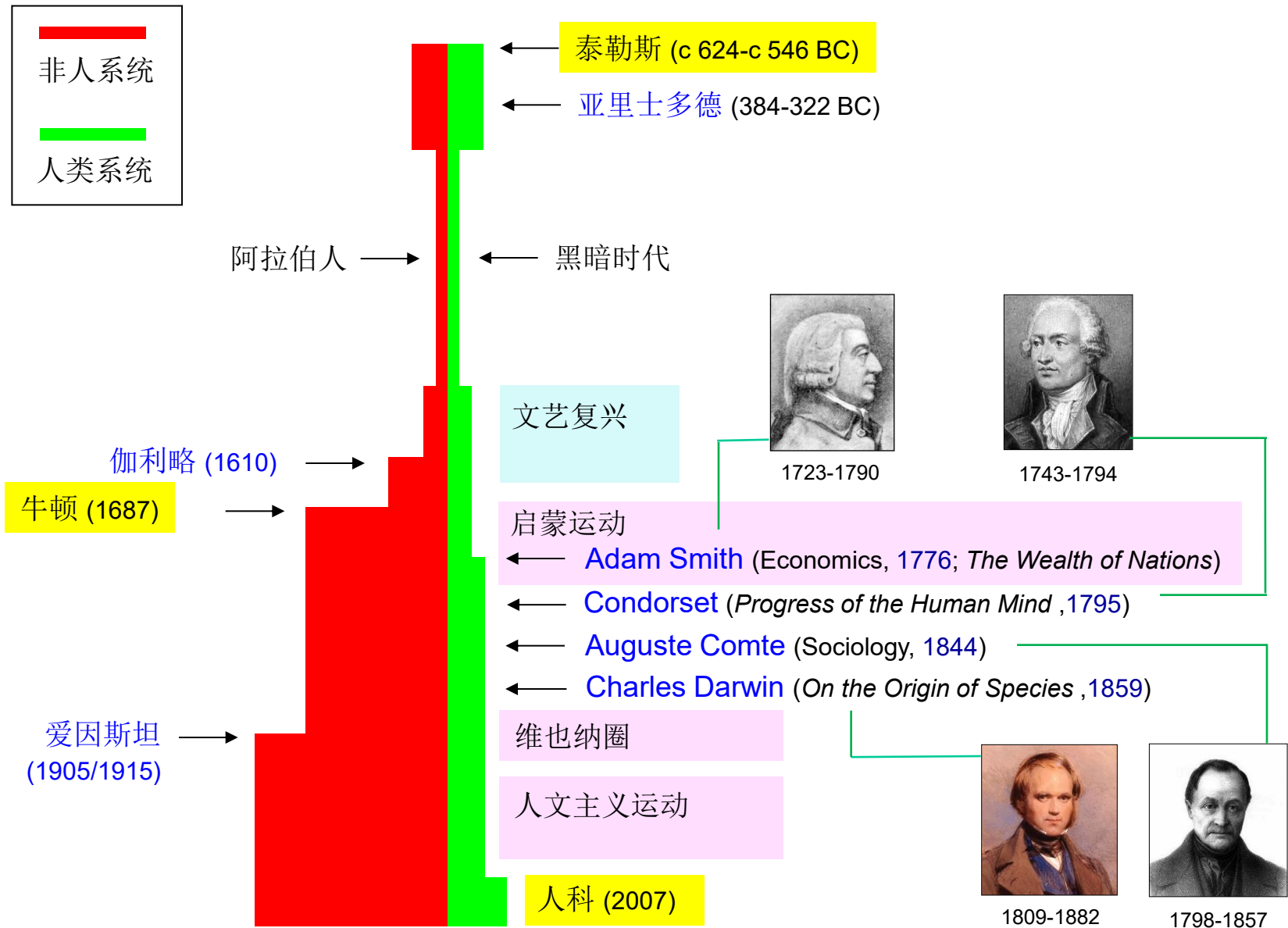


1992首发

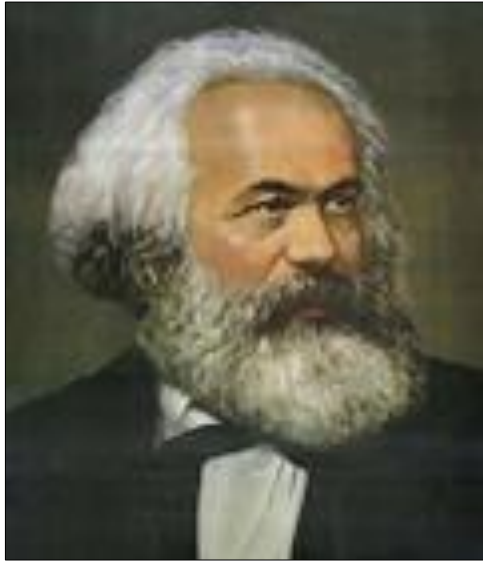


英翻中

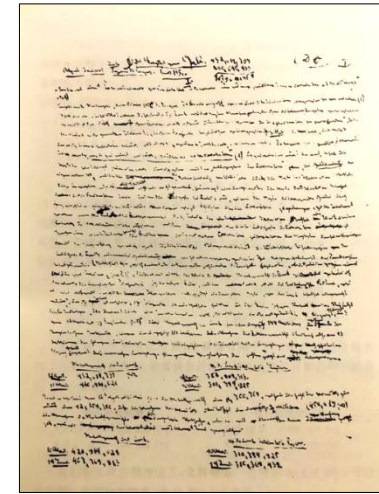
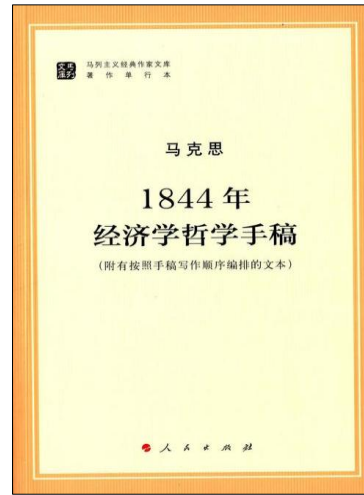
文理发展



马克思：科学一体



马克思
1818-1883



《1844年经济学哲学手稿》：

人的科学和自然科学将融合起来，
成为一个整体的科学

怎么办？

文 理 交 融

蔡元培：融通文理

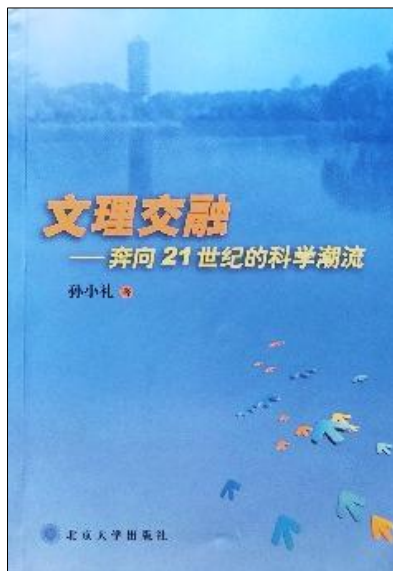


蔡元培
1868-1940

1907	39(岁)	留学德国柏林一年学德语
1908-11	40-43	留学莱比锡大学，研究了3年哲学、美学、心理学和民族学
1912	44	任民国首任教育总长；6个月后辞职（因不愿与袁世凯合作）
1913-16	45-48	到法国留学3年；成立勤工俭学组织
1916-27	48-59	北京大学校长（1919年五四运动；1923-1926年在欧洲考察）
1928	60	创立中央研究院（中国科学院前身），任院长13年；创立国立艺术院（中国美术学院前身）

1918

- 主张“融通文理”（因为文中有理，理中有文）
- 首创通识教育（比美国早27年）



孙小礼 2003



蔡元培墓（香港仔华人永远坟场）

文理交融之重要

- 2018, 教育部高等教育司: 高等教育创新势在必行, 要全面推进“新工科、新医科、新农科、新文科”等建设

- 2019.07.23, 一批大学校长书记座谈 (《光明日报》2019.07.24)

- 提出: 大学要搞新文科, 搞文理交融
- 目的: 让文科毕业生能更好地为社会服务
- 办法: 大学要清除一些行政壁垒, 让文科生学点新科技
- 目标: 为大学生带来一场“学习革命”

- 2019.10.28, 中国科学技术大学召开新文科建设研讨会



新文科“新”在哪儿? 并非“科技+人文”那么简单

作者: 《光明日报》(2019年07月23日 08版)

推进不同学科的交叉融合

作者: 光明网数据新闻工作室 《光明日报》(2019年07月23日 08版)

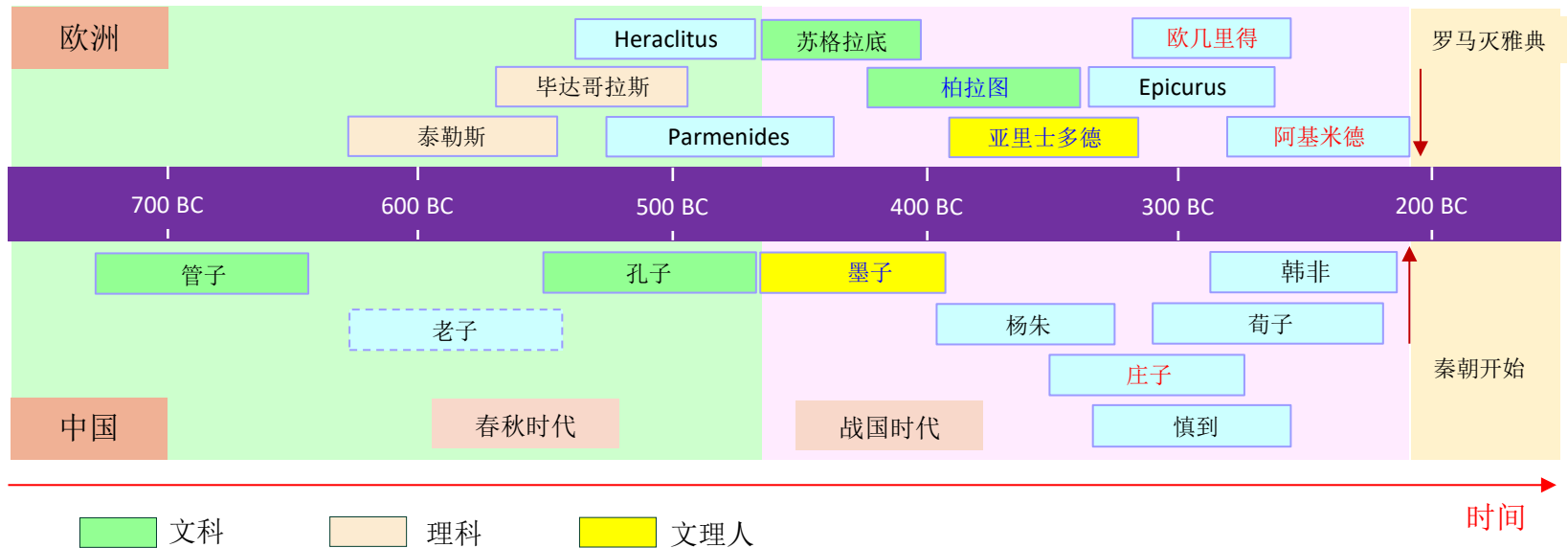
问题是: 文理交融如何做?

文理并重：墨子与亚里士多德

“文理人” = 认真地同时做文科和理科研究的人

出色的，中国：墨子（c476-c390 BC）、朱载堉（1536-1611）

西方：亚里士多德（384-322 BC）、达·芬奇（1452-1519）



- 墨子，战国时代思想家、科学家、教育家，社会活动家，创立的墨家学派，在当时产生巨大影响（与孔子创立的儒家学派并立），在文理两方面都有重要建树
- 墨子是世上首个“文理人”
- 亚里士多德是西方首个“文理人”

文理人



2021/2025

L O V E
W I S D O M
L O V E
F R E E D O M

爱智慧
爱自由
诗意地栖居
让世界更美好

主张:

文理并重，文理交融

文理人:

- 回归古代墨子及亚里士多德文理不分的传统
- 方法是蔡元培提出的融通文理
- 实现马克思科学一体的1844年预言和愿景

文理人 = 文 + 理 + 人

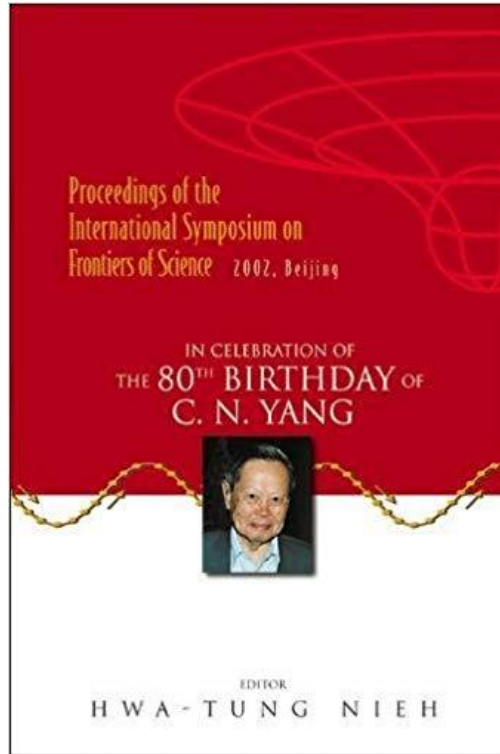
所以《文理人》是AI时代每个人该有的基本知识

四个例子

文史哲

1. 历史物理学

杨振宁80大寿
清华学术研讨会
(2002)



历史物理学首篇文章 (2002)

作者: 林磊 (Lui LAM)

首发于杨振宁80大寿研讨会



Modern Physics Letters B, Vol. 16, No. 30 (2002) 1163–1176
© World Scientific Publishing Company

HISTOPHYSICS: A NEW DISCIPLINE*

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San Jose, CA 95192-0106, USA
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Received 17 June 2002

History is the most important discipline of study. The system investigated in history is a many-body system consisting of biological material bodies, *Homo sapiens*, and hence can be studied scientifically. The unique role physicists can play in advancing the science of human history is presented. We will discuss the methods of study in history; worldviews; modeling history as a complex, dynamical system; predicting the future and retrodicting the past; and artificial history. In particular, active walk is shown to provide the foundation for a new worldview, and found to be widely applicable in modeling history, as illustrated by three examples from economic, evolutionary and social histories, respectively.

Keywords: Histophysics; history; physics; complex systems; artificial history; active walk.

1. Introduction

New disciplines of study are born from time to time, like in the case of human babies, but less frequently. Or, for that matter, like new stars emerging in the sky, being suddenly noticed after a long period in the making.

Historically, when physics is combined with other natural sciences, new disciplines are created and we have astrophysics, biophysics, geophysics, and so on. More recently, econophysics was born when physicists ventured into economics, a branch of the social sciences.¹ (Similarly in the field of biology, in 1975, sociobiology was created when biology was merged with sociology by Edward Wilson.²) In this article, physics is linked to history, giving birth to a new discipline — histophysics.

Since the nineteenth century, history has been treated as a science intermittently through the efforts of Condorcet, Comte, Buckle, Taine, Adams, and others.^{3,4} The progress has been uneven, and there are even doubts as to whether this endeavor is at all possible, given the complexity and the irreproducible nature of historical processes. As argued in this article, the system under study in history is actually

*Contribution to the International Symposium on Frontiers of Science: In Celebration of the 80th Birthday of Chen Ning Yang (June 2002, Beijing).

历史物理学的三个进路

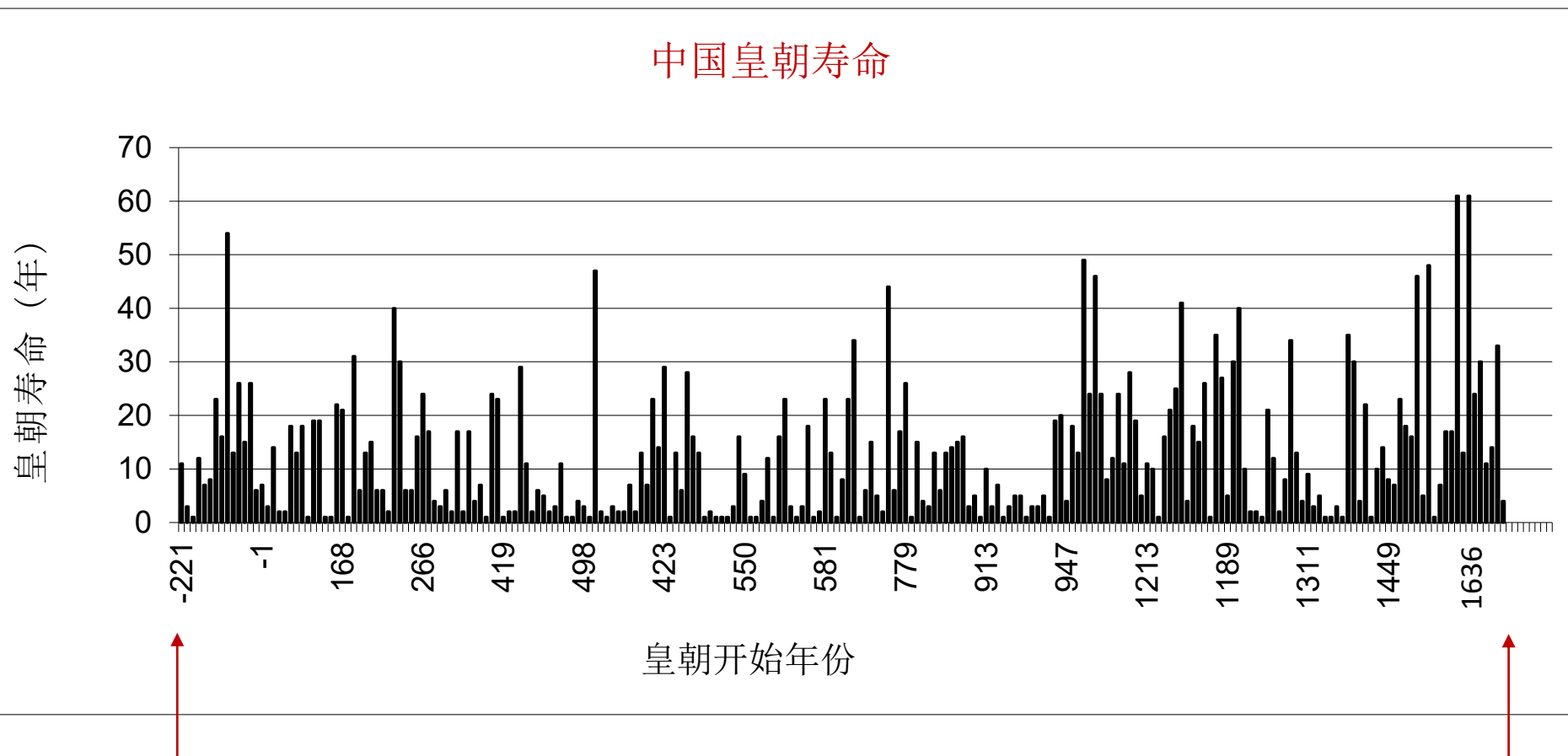
需要问为什么

进路	方法	例子
经验层次 Empirical	收集数据，整理数据 → 经验定律 统计分析，Zipf描图	战争死亡人数分布， 中国朝代寿命分布
唯象层次 Phenomenological	计算机建模，活性行走	经济史、人类演化史、 社会演化史建模
从下而上层次 Bottom-Up	计算机模拟	模拟历史上村落的演变

中国皇朝寿命

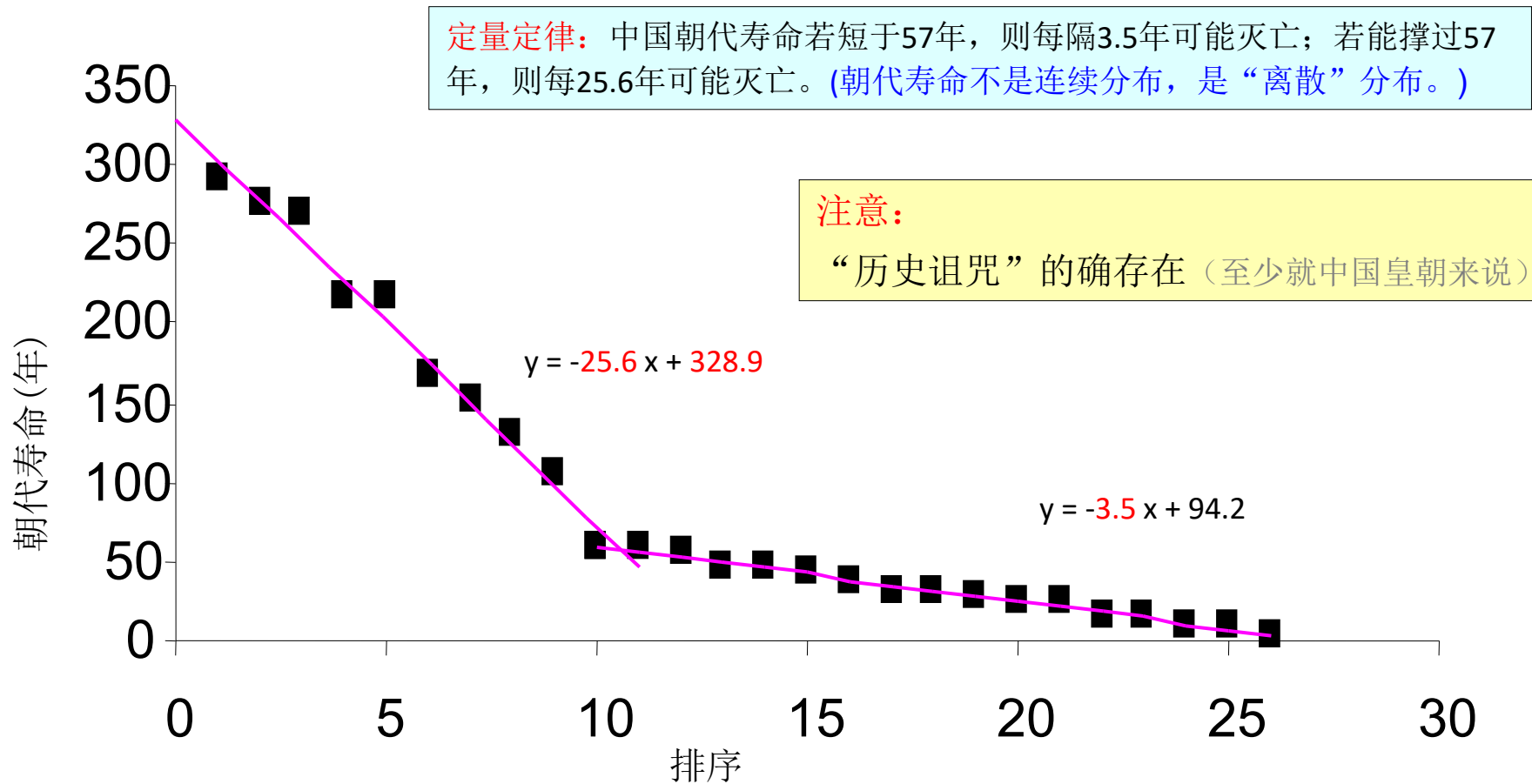
皇朝寿命 = 单个皇帝在位年数

- 皇帝数目 = 231
- 平均皇朝寿命 = 12.5 年 (从 1 到 61 年)
- 皇朝总长 = 2886 年 (从秦到清)



无规律!

Zipf 描图：中国朝代寿命分布的定量定律



定量预言：在假定所有朝代均落在这两直线的前提下，清代以后如有新的朝代，则只有两个可能命运：

1. 其寿命有290年或更少（并服从离散律）
2. 若超过290年，将于第329年消亡

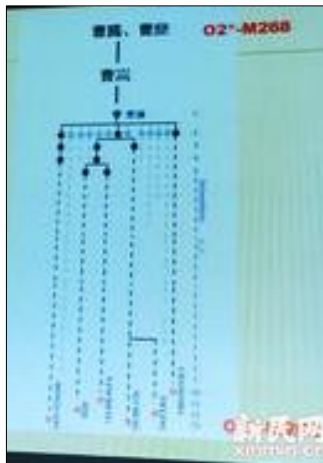
2. 曹操出身

Journal of Human Genetics **57**, 216-218 (March 2012) | doi:10.1038/jhg.2011.147

Present Y chromosomes reveal the ancestry of Emperor CAO Cao of 1800 years ago

Chuanhao Wang, Shi Yan, Zheng Hou, Wenqing Fu, Momiao Xiong, Sheng Han (韩昇, 历史系), Li Jin and Hui Li (李辉, 现代人类学实验室)

Emperor CAO Cao (155AD–220AD) is one of the most famous persons in Chinese history that had changed the history of East Asia. He **claimed to be a descendant of Marquis CAO Can and therefore was of aristocratic ancestry**. However, this claim has been suspected for around 1800 years. Here, we collected some present clans with full records of 70–100 generations claimed to be descendants of CAO Cao or CAO Can, and validated them by comparing their Y chromosomes. Haplotype O2-M268 is the only one that is enriched significantly in the Emperor's claimed descendant clans ($P=9.323 \times 10^{-5}$, odds ratio=12.72) and, therefore, is most likely to be that of the Emperor. Moreover, our analysis showed that the Y chromosome haplotype of the Emperor is different from that of the Marquis (Haplotype O3-002611). Therefore, Emperor CAO Cao's **claim was not supported by genetic evidence**. This study offers a **successful showcase of the utility of genetics in studying the ancient history**.

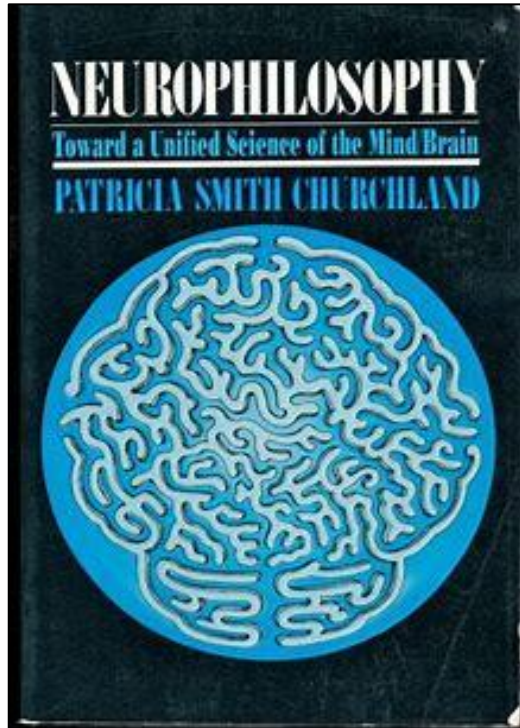


复旦大学发布关于曹操家族DNA研究，首次近100 % 确定曹操家族 DNA，突破了三大历史谜团：

- 非汉代丞相曹参后代
- 也并非从夏侯氏抱养
- 也非民间所传避祸改姓“曹”

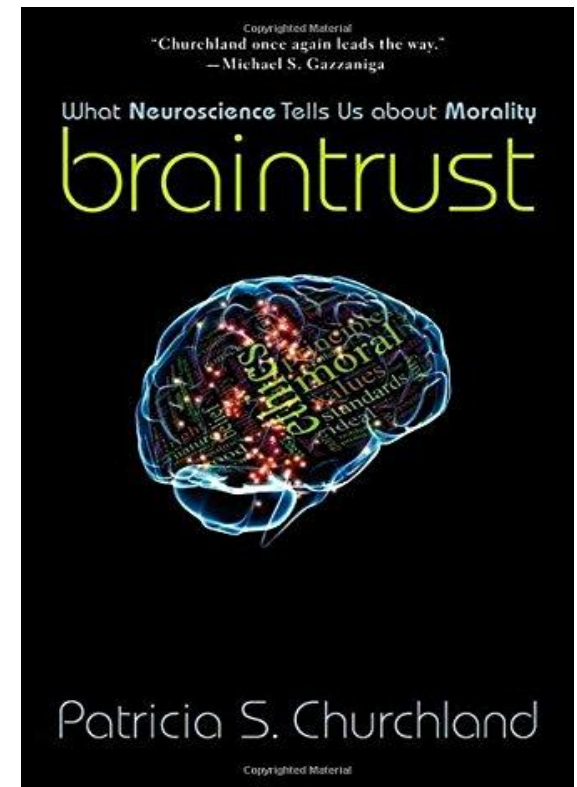
历史教科书将可能改写

3. 神经哲学



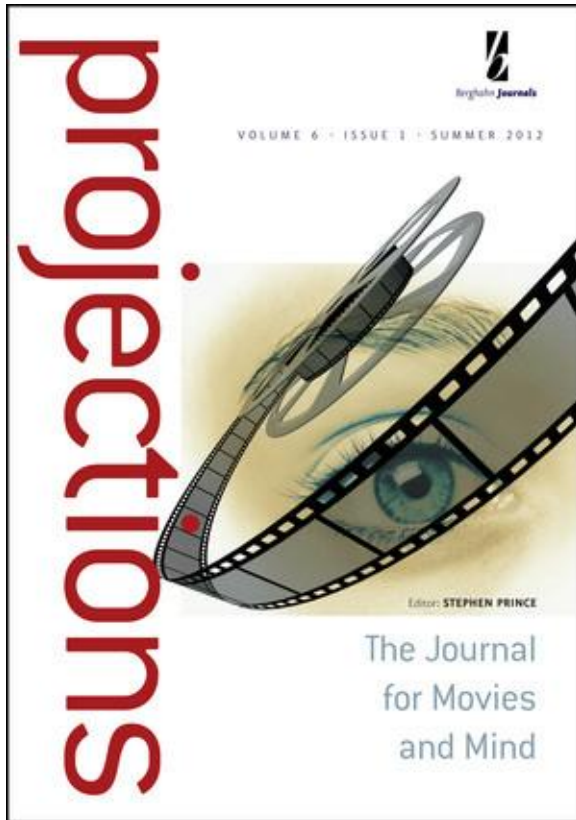
MIT Press (1989)

- **第一部分：**神经系统科学史：神经生理学、神经解剖学和神经心理学的一般介绍。
- **第二部分：**将心身问题置于科学哲学的更广泛背景下：解释“理论间减少”问题：制定还原论战略：回答基于二元论的传统反对者和其他反还原论者。
- **第三部分：**讨论功能神经生物学和人工智能研究中连接模型领域最有前途的理论发展。



2012

4. 神经电影学



Neurocinematics: The Neuroscience of Film in [Projections](#)

Author: [Uri Hasson](#)¹, [Ohad Landesman](#)², [Barbara Knappmeyer](#)³, [Ignacio Vallines](#)⁴, [Nava Rubin](#)⁵ and [David J. Heeger](#)⁶

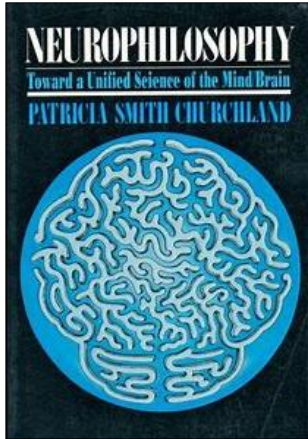
DOI:

<https://doi.org/10.3167/proj.2008.020102>

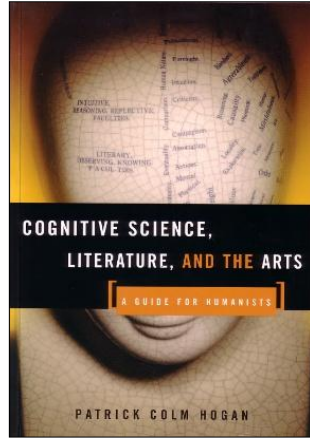
- 神经电影学是普林斯顿大学的Uri Hasson创造的一个术语。他是最早研究大脑如何使用fMRI脑部扫描仪对电影做出反应的人之一。他的团队研究了一组观众对不同类型电影的相似性大脑反应
- 比如，神经电影学对于设计和评估广告视频的有效性非常有用

文理融合的书

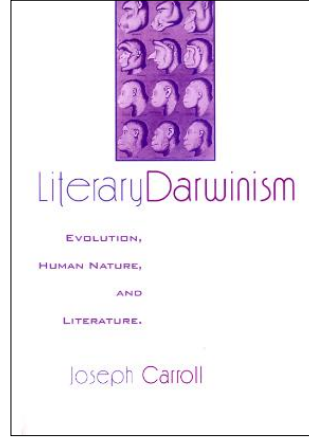
文科人写的



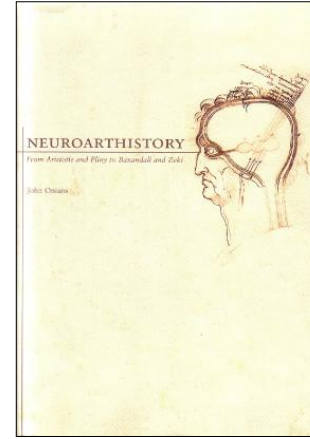
1989



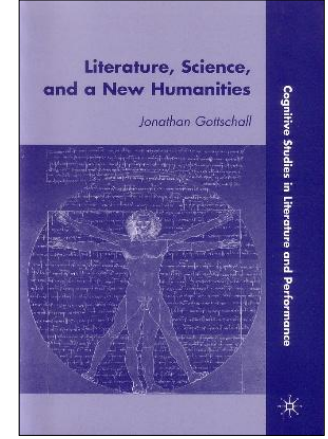
2003



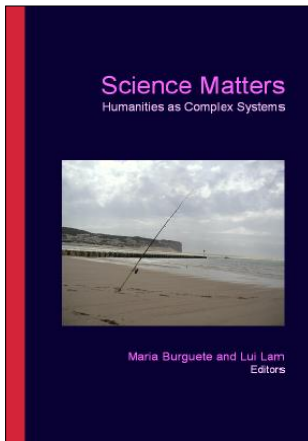
2004



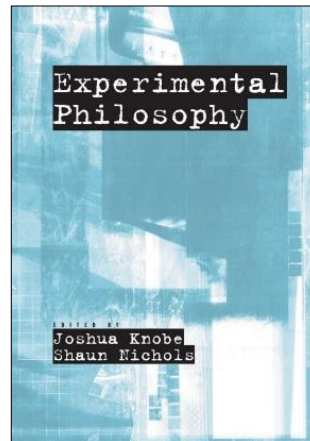
2007



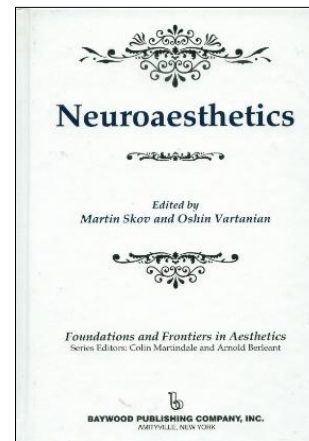
2008



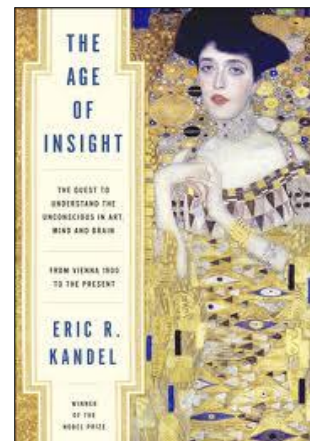
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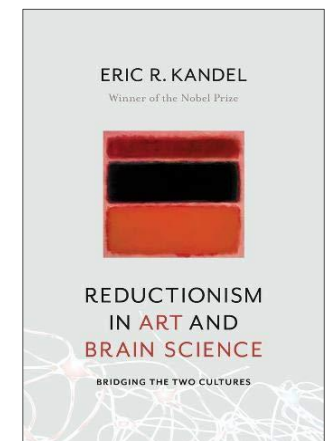
2008



2009



2012



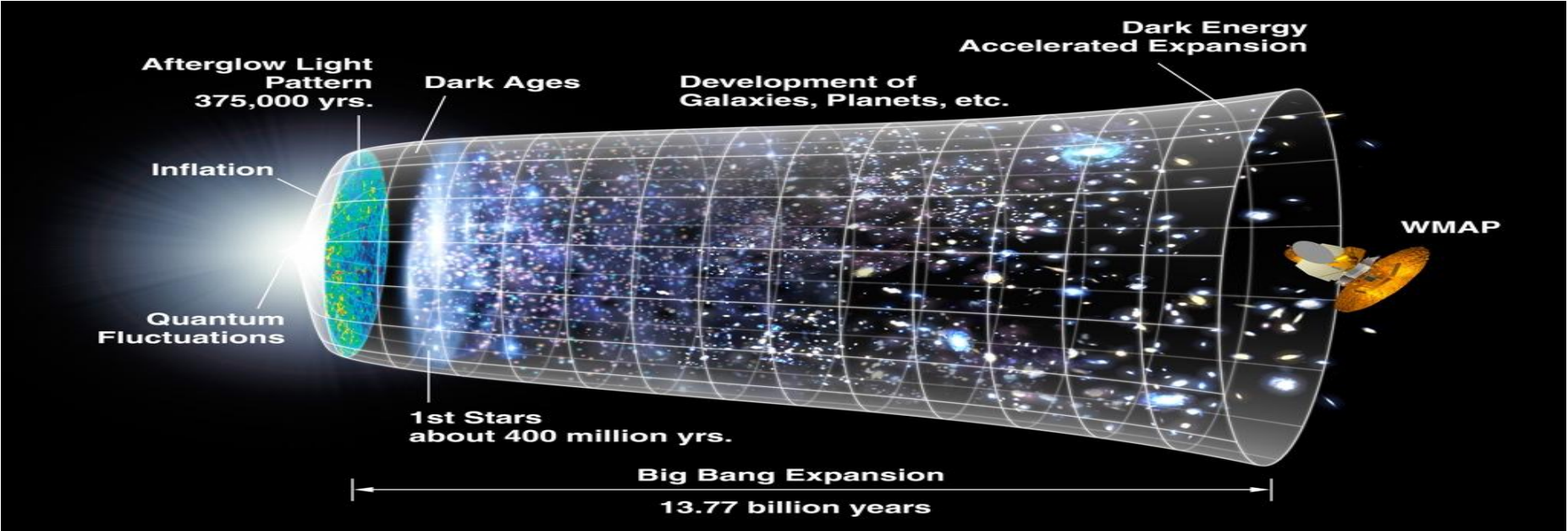
2018

文理人规划

第1步

将人类简史3条信息放入小学教育

信息 1：一切都始于大爆炸



有文字记载的历史约5000年，在宇宙长河138亿年中是瞬间的事，人类要谦卑

信息 2：我们是鱼的传人

探源研究取得重要突破！我国科研团队证实人类是从鱼进化来的

环球网 2022-09-29 20:03

本文转自【央视一套】

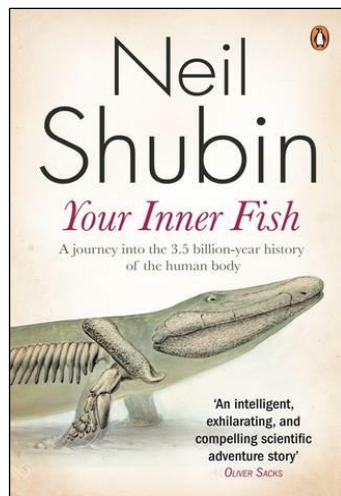
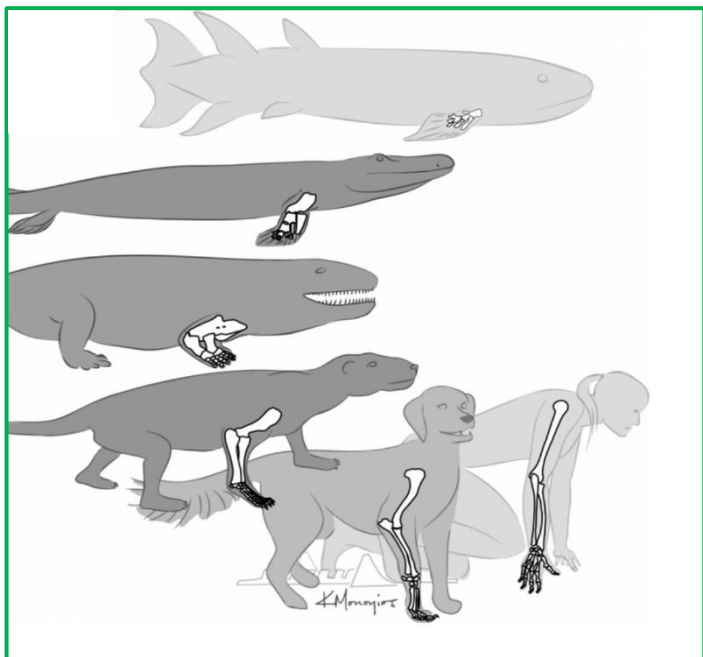
记者从中国科学院古脊椎动物与古人类研究所获悉，中科院朱敏院士领衔的科研团队经过多年的野外考察与研究，揭示了有颌脊椎动物起源与早期演化的重要信息。在“从鱼到人”的探源研究领域取得重要突破系列科研成果，近日在国际学术期刊《自然》在线发表。

我国科研团队证实人类是从鱼进化来的。

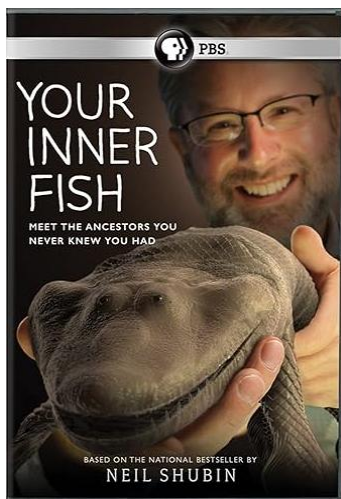


人类祖先：鱼

达尔文演化论 (1859)



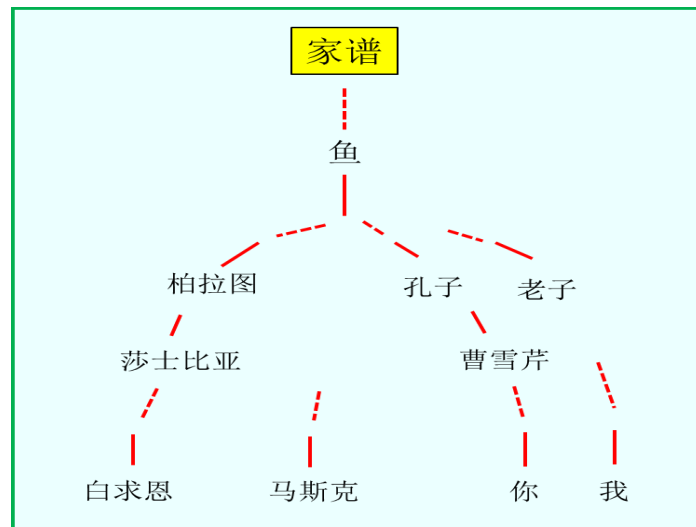
2008



2014

芝加哥大学有机生物学和解剖学教授：

我们的胳膊、腿、脖子和肺是一条鱼遗赠给我们的，这条鱼在大约3.75亿年前“爬”上陆地。今天，这种生物的遗传遗产可以在我们自己的DNA中看到，包括用于构建我们手和四肢的基因。

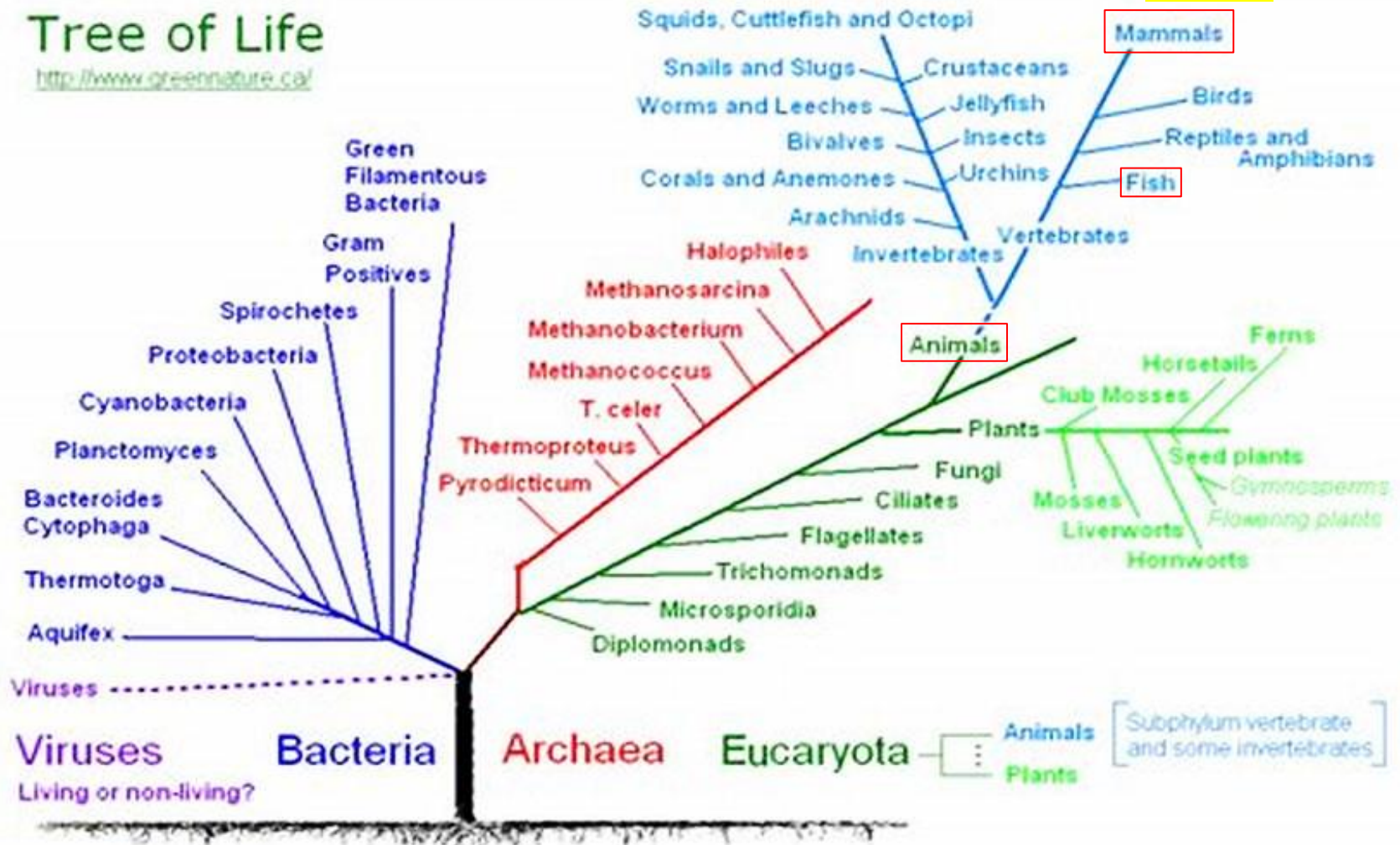


世上古今中外所有人都是**一家子**，不是远亲就是近戚，共享一张家谱，共同祖先是鱼。**血浓于水**，要**善待**世上任何一个人

人类

Tree of Life

<http://www.greennature.co/>



病毒

细菌

古细菌

真核生物

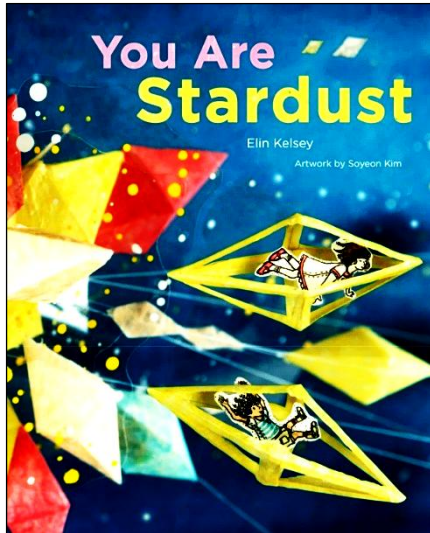
海不枯
石不爛

余光中

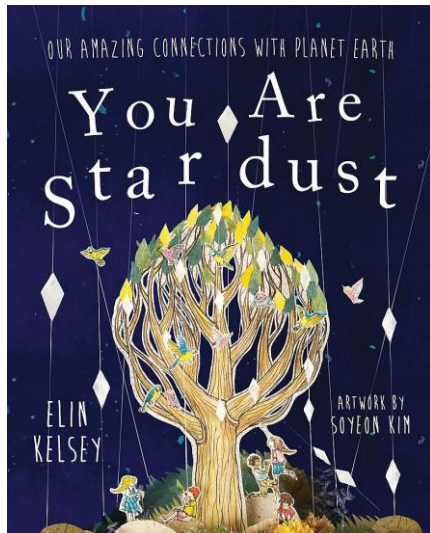
海不枯,石不爛 余光中

每個人的家譜追溯到遠古
你知道嗎,都是一條魚
深海遠洋,才是我們
最早的故鄉,懷鄉正是懷古
望海的眼睛,因此,都著迷
似乎記起了什麼,卻說不清楚
水族的历史,人類的身世
在岸上,在藻間,在水底
聽得懂海豹的狂吠嗎
鯨魚的腹語,海區鳥的悲啼
迷霧與羅盤之間,神話
從何處起頭呢,而科學
在何處接手?恐懼與好奇
該如何區分?星隕,海嘯,地震
我們的星球,雷摧,電劈
火災與水災交替的地獄
要等幾億年才到人間
這歷劫的驚險,要問
倖存的盲鰻與鸚鵡螺
或向紅龍與巨魷去求証
上船吧 探險的潛艇
會帶你深入墨藍的夢境
去探寒武或侏儸的現場
蝦蟹從不吐露的隱情

信息 3：我们身体是回收星尘



2012



2013

- 地球上包括人类的所有东西，都是由原子组成的
- 所有原子来自星球 (除了氢、氦和锂等轻原子大爆炸后不久形成，银和金是中子星合并时产生的)。我们都是星尘
- 地球上的原子都是重复使用的，我们的身体是回收星尘。
- 这些回收的原子可能来自（死或活的）他人的身体。所以，任何两个人，都可能是我中有你，你中有我。

善待他人，就是善待自己，大家应和谐相处

小结：人类简史



与人类有关的三个基本科学认知：

- 历史方面：大爆炸
- 生物方面：鱼的传人
- 物理方面：回收星尘

教训

- 有记载的人类历史只有几千年之长，放在百多亿年的宇宙背景中，还不到一闪而过的时间
- 所有事项，无论是个人的还是国家的，都应从这个角度来考虑
- 与共享这个地球的其他人和平相处，要宽容和谦卑

第2步

在全球推广一门新的文与理通识课

Renda International Summer School
(course number: SH1518)

Humanities, Science, Scimat:
A Trans-Disciplinary and Cross-Cultural
Experience

Summer 2015



中国人民大学
国际暑期学校

2015年夏

讲师：林磊

课程：

人文学、科学、人科：
一个跨学科及跨文化
的经验

Lui Lam

Humanities Science Scimat

An Interdisciplinary
Cross-Cultural
Introduction

Contents

Prolog

- 1 Introduction

PART I BASIC

- 2 Humans
- 3 Knowledge, Nature, Science and Scimat
- 4 Science and Scimat, Again
- 5 History
- 6 Arts
- 7 Philosophy

PART II EXTRA

- 8 The Two Cultures Problem
- 9 Philosophy and Sociology of Science
- 10 History of Science
- 11 Science Communication

PART III EXTRAORDINARY

- 12 Why the World Is So Complex
- 13 Does God Exist?
- 14 Su Dong-Po's Bamboo and Paul Cézanne's Apple

PART IV BONUS

- 15 How to Do (Good) Research
- 16 On Intuition and Innovation

Epilog

Index

- 中心有**两种**：研究型与**平台型**（自己不一定做研究）。文理人中心**属后者**。

后者如加州大学圣塔巴巴分校的 Kavlin Institute of Theoretical Physics
（十分成功，有欧亚分店，连锁）

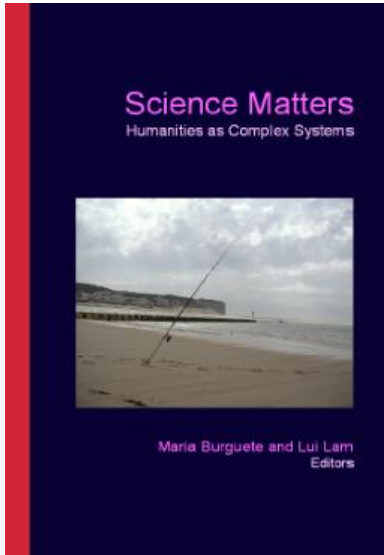
- 文理人中心的**工作内容**：

1. **募捐经费**（从校友开始），支持中心运作
2. **组织国际会议**和**暑期/冬季人科学习班**
3. 每两年颁个全球性的“**国际人科奖**”
4. **资助短期的做文理交融的访问学者**（请进来或走出走）
5. 资助校内文学院和理学院的老师们合作，建立文理交融的**新文科**课程（比如“历史物理学”）
6. 在全球推广一门新的**通识课**：“**文与理:AI时代的基本知识**”

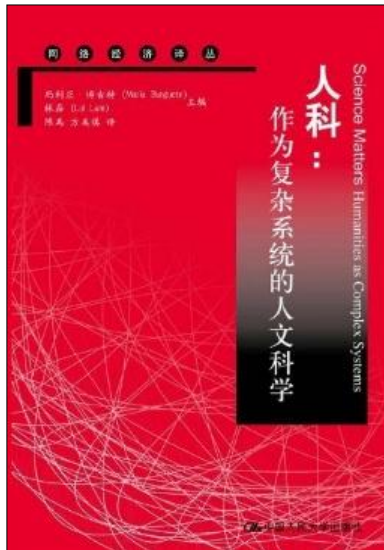
人科

文理人的海外规划

人科



2008



2013

- 作为一门多学科，“文理人”的学名是**人科**（人的科学，**Scimat**，早期称 Science Matters）
- 由英国人定义于1867年的**科学**（Science）是个新词，代表一个新概念：研究大自然（非人系统）而不引入上帝
- 据 2007 年人科定义：

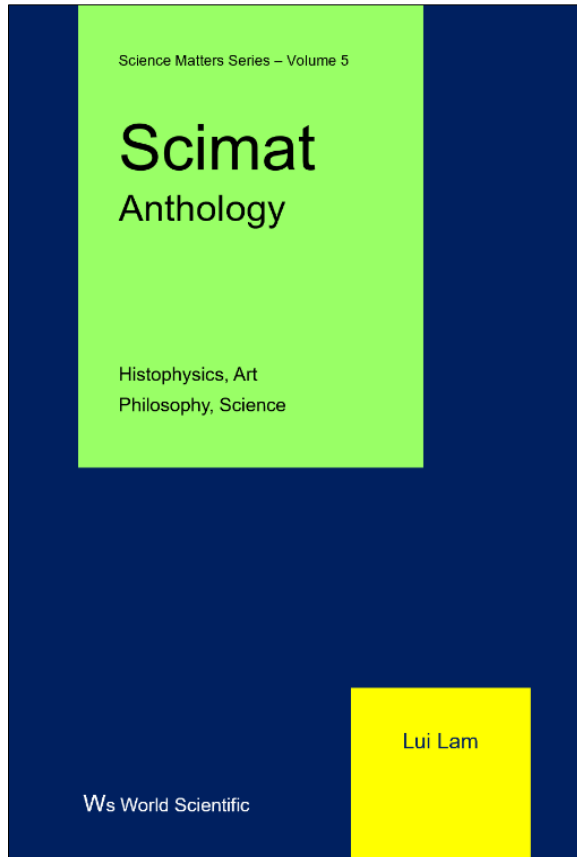
科学是人类了解大自然**所有**事物的努力和成果，而不引入任何超自然的考虑

科学 = 非人系统科学 + 人类系统科学

人科

人文学 + 社会科学 + 医学

人科之路



2024

林磊，《人科文选》，700页，
从人科视角谈历史、艺术、哲学、
科学

- 人科的使命是“让世界变得更美好”
- 方法是“通过改善人文学来改善人文”

Bettering humanity by bettering the humanities!



人科国际规划

2007年开始

- 2007, 首个人科国际会议（葡萄牙, Ericeira）
- “人科国际规划”开始
- 口号：大自然的一切都是科学一部分！

Everything in nature is part of science!

- 特别是，与人类相关的事务（人文学和社会科学）应该并且可以以科学的方式进行研究（基于林磊在2006年关于两种文化问题的分析），即：

人文学是科学一部分！



The First International Conference on
SCIENCE MATTERS: A UNIFIED PERSPECTIVE
MAY 28-30, 2007
Ericeira, Portugal

"Everything in Nature is a part of science."

All earnest and honest human quests for knowledge are efforts to understand nature, which includes all human and nonhuman systems, the objects of study in science. Thus, broadly speaking, all these quests are science matters. The methods and tools used may be different; for example, the literary people use mainly their bodily sensors and their brain as the information processor, while natural scientists may use, in addition, measuring instruments and computers. Yet, all these activities could be viewed in a unified perspective—they are scientific developments at varying stages of maturity and have a lot to learn from each other. In this conference, we invite experts from different disciplines worldwide to share their experience and outlooks, and hopefully plan the future together.

Many of the topics included in this conference are under the name of science and culture, science and art, science and society, etc. We do not think these descriptions are useful. For example, by saying "science and culture," it implies that science and culture are two different things, which could be opposing each other. Instead, we view them as different aspects of the same thing—the effort to understand nature, and a new word "science matters" is called for.

Invited Speakers

Leonor Bêtran (Portugal, *The nature of dance*)
Paulo Borges (Portugal, *Buddhism, meditation & science of mind*)
Maria Burguete (Portugal, *History & philosophy of contemporary chemistry*)
Paul Caro (France, *Culture through science: A new world of images and stories*)
Clara Pinto Correia (Portugal, *Biology: Manipulation of scientific information*)
Alfredo Dinis (Portugal, *Has neuroscience any theological consequences?*)
Isabel Empis (Portugal, *Psychology & life quality*)
Gilbert Fayt (Belgium, *Policy fallacy: Stop talking, do it!*)
Bernardo Herold (Portugal, *Science & society*)
Brigitte Hoppe (Germany, *The role of physiognomy in science and art*)
Lui Lam (USA, *Histophysics: Integrating history with physics*)
Daguang Li (China, *Science communication in China*)
Bing Liu (China, *Philosophy of science and Chinese sciences*)
Dun Liu (China, *History of science in globalizing time*)
Edgar Morin (France, *Did a scientific revolution begin?*)
João Anticaco Nunes (Portugal, *Unified science or ecologies of practices?*)
Maurizio Salvi (Italy, *Science & ethics*)
Nigel Sanitt (UK, *The tripod of science: Communication, philosophy and education*)
Michael Shermer (USA, *The science of good and evil*)

Advisors

Paul Caro (France)
Gilbert Fayt (Belgium)
Brigitte Hoppe (Germany)
João Anticaco Nunes (Portugal)
Maurizio Salvi (Italy)
Michael Shermer (USA)
Edward Wilson (USA)

Cochairs

Maria Burguete (Portugal)
Lui Lam (USA, lu2002lam@yahoo.com)

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Sponsors

Centro de Estudos Sociais da Universidade Coimbra, Barclays Bank, Fundação Luso-Americana, Fundação para a Ciência e Tecnologia, Fundação Oriente, Fundação Calouste Gulbenkian, British Council

Further information www.ces.uc.pt/science_matters_meeting



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Further information www.ces.uc.pt/science_matters_meeting

2007

The Second International Conference on Science Matters

ARTS & SCIENCE

HUMANITIES AS SCIENCE MATTERS

October 5-7, 2009, Estoril, Portugal

"Everything in Nature is part of science."

Science Matters (SciMat) is the new discipline that brings all human-dependent matters as part of science. Solidified instead of the topics severed in humanities and social sciences, arts in particular. This conference fosters discussion on literature, painting, art, music, movie and performing arts from the perspective of SciMat, while contributing on other topics of SciMat are welcome. The conference will bring together experts from the arts and sciences, to find out how each other's works performed and to exchange ideas. Hopefully, mutual understanding will be achieved and collaboration across disciplines will result, with the aim to raise the scientific level of all the disciplines. Contributed papers are most welcome and encouraged.

Invited Speakers

BELTRAN, LEROUX (Portugal) BURDETTE, MARIA (Portugal) CUNADO, MANUEL (Portugal) HODAM, PETROVIC (Italy) HOPPE, BRUNETTE (Germany) LIU, SHUO (China) MORA, LUCIANO (Brazil) OSKAR, JOHN (USA) ROBIN, MOOLAR (The Netherlands and Germany) SHAN, T. MOEL (UK) SCHNEIDER, IVON (Germany) WU, SUO-WEI (China)	Art, human beings, God and science Christianity and art Buddhism, art and science On the rights of literary creation and its relation to adaptation The Latin "tutor" and his rights of nature "tutor" Science and art in China Literature Interdisciplinary: Revisiting aesthetic traditions in a new scientific approach to the understanding of art Contemporary scientific and the discovery of ecosystems Objects in science and art The convergence of science and art Science and art: A philosophical perspective
--	--

International Artists

Paul Cero (France), Michel Priebe (Germany), Janine Priebe (Germany), Brigitte Hoppe (Germany), Michael Scharrer (USA), Edward C. Wilson (USA)

Co-Chairs

Marie Margulies (Portugal, marie.margulies@gmail.com)
and Lai Lim (UK, li899@bt.com)

Contact

Email: marie.margulies@gmail.com, Phone: + 351 893 266 303

This conference is under the auspices of the **International Science Matters Committee** members: Maria Burdette (Portugal), Paul Cero (France), Gilbert Fong (Germany), Brigitte Hoppe (Germany), Lai Lim (UK), Jing Lin (China), Yan Lin (China), Michael Muel (Italy), Nigel Smith (UK) and Michael Scharrer (USA).

Partners

Portugal 2010 - Estoril is a World Capital

ESTORIL
CITY OF CULTURE

ESTORIL
CITY OF CULTURE

CASINO
ESTORIL

ICES Canada

ESTORIL

Further information: www.scimatters2009.com.pt

2009

Third International Science Matters Conference

ALL ABOUT SCIENCE

PHILOSOPHY, HISTORY, SOCIOLOGY & COMMUNICATION

Calouste Gulbenkian Foundation, Lisbon, Portugal
November 21-23, 2011

"Everything in Nature is part of science."

Science Matters (SciMat) is the new discipline that treats all human-dependent matters as part of science, wherein, humans (the material system of *Homo sapiens*) are studied scientifically from the perspective of complex systems. Science is a subset of human activities aiming to understand how Nature (consisting of human and nonhuman systems) works. The Science process is a human-dependent matter and hence part of SciMat. This third international conference in the biannual series features discussions on human-dependent parts of science, emphasizing the philosophy, history, sociology and communication of science from the perspective of SciMat, while contributions from other topics of SciMat are welcome and encouraged. The conference is made up of review talks on all aspects of science by top experts around the world, and contributed papers. SciMat website: www.sjsu.edu/people/lui.lam/scimat

Invited Speakers

United Kingdom	DAVID PAPINEAU	Skeptical Philosophy of Science
United Kingdom	NIGEL SANITT	What Do Scientists Know?
Germany	JÜRGEN REHN	The Globalization of Knowledge in History
Australia	ROBIN WARREN	Discovering Neuroscience (Nobel Prize 2004)
USACINA	LUI LAM	All About Science and Science Matters
Portugal	MARIA BURGUETE	Medical Studies in Coimbra 1911
United Kingdom	PETER BROKS	Science Communication: A History and Review
Israel	SORIN SOLOMON	A Unified Framework for Art and Science
Portugal/UK	HABIB PESQUALONES	Point, Counterpoint, Nature Fractals
Portugal	FRANCISCO SANTOS	Evolutionary Dynamics of Collective Action
China	LI-MENG QIU	Motivation Degrees of the Traditional and the Simplified Chinese Characters
Spain	MARTA RUEDA	Synchronicity: Approaching the Mind-Matter Dialog
United Kingdom	KAUSA BERG	Understanding Art through Science: From Socialism to the "Contextual Brain"
Portugal	LEONOR BELTRAN	Creative Dance
Portugal	FRANCISCO MACHADO	Planet Earth: Enough for All?

International Advisors

Paul Caro (France), Bärbel Friedrich (Germany), Janos Fröhling (Belgium), Brigitte Hoppe (Germany), Dun Liu (China), Nigel Sanitt (UK), Michael Shermer (USA), Edward O. Wilson (USA)

Cochairs

Maria Burguete (Portugal, confsciencematters@gmail.com)
Lui Lam (USA, lu2002lam@yahoo.com)

Contact

Email: confsciencematters@gmail.com, Phone: + 351 933 256 303

Sponsors



This conference is under the auspices of the International Science Matters Committee; members: Maria Burguete (Portugal), Paul Caro (France), Patrick Hogan (USA), Brigitte Hoppe (Germany), Lui Lam (USA), Bing Liu (China), Dun Liu (China), John Onians (UK), Nigel Sanitt (UK), Ivo Schneider (Germany) and Michael Shermer (USA).

Further Information: www.sciencemattersconferences.com

2011

4th International Conference on Science Matters

PORTO CULTURA

Humanities as SCIENCE MATTERS

History, Philosophy & Arts

"Everything in Nature is part of science."

Science Matters (SciMat) is the new discipline that treats all human-dependent matters as part of science, wherein, humans (the material system of *Homo sapiens*) are studied scientifically from the perspective of complex systems. Humanities, the knowledge about humans, are thus a part of SciMat. Like in any other subject, humanities could be studied at three different levels or with three approaches - empirical, phenomenological and the bottom-up. This fourth international conference in the biennial series covers all three approaches with particular attention paid to the bottom-up approach. It will emphasize History, Philosophy, and Arts (including Literature). The conference will feature reviews by top experts from around the world, plus contributed papers.

Casa do Infante, O'Porto

PORTUGAL, 15th -17th, October 2013

East Anglia University, United Kingdom	KAUSA BERG	Introducing NeuroArtHistory: Paintings and Neurons
Science history & philosophy professor, Portugal	MARIA BURGUETE	Generation of 1911: A Case Study in Portugal
European Academy of Sciences, Arts & Letters, France	JEAN CONNERADE	Science, Culture and Anti-science
Maitre de conférences, France	ANNE-SOPHIE GODFROY	Science & Gender
European Academy of Sciences, Arts & Letters, France	FRANÇOISE ICART	Arts, Photography & Science
San Jose State University professor, United States	LUI LAM	Science Matters: Its Philosophy and History
Arts professor, Portugal	MARTA DE MENEZES	Art and Biology: A Story about Art Research
Biology Professor Minho University, Portugal	ALEXANDRA NOBRE	Biology & Art Complicity
University College London, United Kingdom	HAUKE RIESCH	Humour and Science Communication
Attune Institution, Suriname	G.SMITH & NSU, United States	E. BASTIDAS
Pantane Forum Director, United Kingdom	NIGEL SANITT	Indigenous Knowledge Systems and Science
Université de Perpignan Via Domitia, France	DAVID SCHMOOL	From Science to Fiction
Architect & Designer, Portugal	RITA ROQUETTE DE VASCONCELLOS	Insights into Solid State Physics: Basic Phenomena and Teaching
European Academy of Sciences, Greece	GREGORY VASTATZIDIS	Architecture & Form
		Heuristic Potential of Amplifier Simulacrum

Cochairs:

Maria Burguete (Portugal, confsciencematters@gmail.com) and Nigel Sanitt (UK, nigel@sanitt.com)

International Advisors:

Manuel Bicho (Portugal), João Caraça (Portugal), Patrick Hogan (USA), Brigitte Hoppe (Germany), Lui Lam (USA), John Onians (UK), David Papineau (UK), Michael Shermer (USA), Edward O. Wilson (USA) and Robin Warren (Australia).

This conference is under the auspices of the International Science Matters Committee; members: Manuel Bicho (Portugal), Peter Broks (UK), Maria Burguete (Portugal), João Caraça (Portugal), Paul Caro (France), Patrick Hogan (USA), Brigitte Hoppe (Germany), Lui Lam (USA), Bing Liu (China), Dun Liu (China), John Onians (UK), David Papineau (UK), Nigel Sanitt (UK), Ivo Schneider (Germany), Michael Shermer (USA), and Robin Warren (Australia).



further information www.scimat-2013.com

2013

5th International Conference on Science Matters

Interdisciplinary Education & Teaching in the 21st Century

"Everything in Nature is part of science."

Scimat (Science Matters) is the new multidiscipline that treats all human-dependent matters as part of science, wherein, humans are studied scientifically from the perspective of complex systems. It encourages collaboration between the humanists and natural scientists. As our world (and job market) is ever changing, rapidly and unpredictably, and problem solving in the real world knows no disciplinary boundaries, interdisciplinary education and teaching have become important in universities worldwide. Accordingly, this fifth international conference in the biennial series covers Interdisciplinary Education, General Education, and Interdisciplinary Teaching. It features reviews by top experts from around the world, plus contributed papers

Estalagem Muchaxo Hotel
CASCAIS, Portugal * 28th -30th October 2015

Harvard University, Professor (USA) DEIRDRE BARRETT	Dreams and Creative Problem Solving
Rocha Cabral Institute, Researcher (Portugal) MARIA BURGUETE	Interdisciplinary Concepts
Euroscience, Hon. President (France) JEAN-PATRICK CONNERADE	Teaching Science to Poets
Braga University, Professor (Portugal) MANUEL CURADO	Science as Mirror of the Scientist, not of the World
University of Florence (Italy) ELISA GUBERTI	Interdisciplinary Skills for Complex Global Environments
Renmin University of China (China) YUE GUO	Youth Image in Chinese and American Youth Films
University Paris Diderot (France) BAUDOUIN JURDANT	Science and Literature
San Jose State University, Professor (USA) LUI LAM	Humanities, Science, Scimat: A New GE Course
Group Analytic Psychotherapist (Portugal) ANA PAULA MOITA	A Successful Therapy for Personality Disorders
Evora University, Biology Professor (Portugal) MANUEL MOTA	An Interesting History of Biology
Engineering Education Society, President (Portugal) JOSE QUADRADO	Interdisciplinarity in Education
Pantaneiro Forum, Director and Astrophysics (UK) NIGEL SANITT	University Textbooks in the Digital World
INIV/IST (Portugal) António SARAIVA & Ricardo MIRANDA	The Earth Chart: Challenges & Controversies
Max-Planck Institute Berlin, Researcher (Germany) ANNETTE VOGT	Science in Education
Renmin University of China (China) Donghui ZHANG & Tianying XUAN	General Education in China

Cochairs:

Maria Burguete (Portugal) and Jean-Patrick Connerade (France/UK)

International Advisors:

Manuel Bicho (Portugal); João Caraca (Portugal); Jean-Patrick Connerade (France); Patrick Hogan (USA); Brigitte Hoppe (Germany); Lui Lam (USA); John Onians (UK); David Papineau (UK); Michael Shermer (USA); Edward O. Wilson (USA); and Robin Warren (Australia).

This conference is under the auspices of the International Science Matters Committee: members: Manuel Bicho (Portugal), Peter Brooks (UK), Maria Burguete (Portugal), João Caraca (Portugal), Paul Caro (France), Patrick Hogan (USA), Brigitte Hoppe (Germany), Lui Lam (USA), Bing Liu (China), Dun Liu (China), John Onians (UK), David Papineau (UK), Nigel Sanitt (UK), Ivo Schneider (Germany), Michael Shermer (USA), and Robin Warren (Australia).



FCT Fundação para a Ciência e a Tecnologia



further information www.scimat-2015.com

2015

Sixth International Science Matters Conference

1TH

ANNIVERSARY

Bettering Humanity Historic Secular Movements

October 25-27, 2017
Cascais, Portugal

In the long history of humans' development, various efforts to better humanity have been proposed. This conference aims to review the secular movements which are historically significant, to understand how and why they mostly failed and in what ways they succeeded so that we can learn from them and do better with the Scimat approach. Examples of these movements in modern times include the Enlightenment, the Vienna Circle and the Humanistic movement. In this conference, reviews are presented by experts on the main theme of bettering humanity. But like in previous Scimat conferences, papers on all other science matters are welcome. It is also the occasion to celebrate the tenth anniversary of the scimat conference series and the Scimat Program.

Invited Speakers

Investment banking (Bank of NY, Deutsche Bank, Lloyds Bank) (Germany) FLORENTIN BOGGE	Letters Matters, Bibliography and Musical Mathematics
Emeritus Professor of Faculty of History, University of Oxford (UK) JOHN B. R. CHRISTIE	Science, Secularism and Enlightenment: Then and Now
Professor University Paris 7 Diderot (France) CLAUDE COHEN	Jean-Jacques Rousseau on Bettering Humanity: Music, Politics and Education
President of EASAL (UK/France) JEAN-PATRICK CONNERADE	The Contribution of British Humanists in the XIXth Century
General Secretary of United Nations (Portugal) ANTONIO GUTERRES	Bettering Humanity through the United Nations
Journalist & PhD in Communication (Spain) CESTINA JIMENEZ	The Enlightenment
Convent: President of British Humanist Association (UK) SHARON KHORRAMAN	The Humanistic Movement
San Jose State University professor (USA/China) LUI LAM	Bettering Humanity: The Scimat Approach
Essex University Biology Professor (Portugal) MANUEL MOTA	Bettering Humanity through Biology
London School of Arts Professor (Portugal) MIGUEL RUS	Bettering Humanity through Arts
Pantaneiro Forum Publisher (UK) NIGEL SANITT	The Eye in Ideas: Culture, Causality and Communication in Scientific Discovery
Max-Planck Institute Berlin Researcher (Germany) ANNETTE VOGT	The Vienna Circle and the Role of Positivism

To be confirmed:

Coauthors

Maria Burguete (Portugal), Jean-Patrick Connerade (UK/France) and Lui Lam (USA/China)

International Advisors

Manuel Bicho (Portugal); João Caraca (Portugal); Patrick Hogan (USA); Brigitte Hoppe (Germany); Lui Lam (USA); Bing Liu (China); Dun Liu (China); John Onians (UK); David Papineau (UK); Nigel Sanitt (UK); Ivo Schneider (Germany); Michael Shermer (USA); and Robin Warren (Australia).

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further information: www.scimat-2015.com

2017

委员

1. Manuel **Bicho** (Portugal)
2. Peter **Broks** (UK)
3. Maria **Burguete** (Portugal)
4. João **Caraça** (Portugal)
5. Paul **Caro** (France)
6. Jean -Patrick **Connerade** (UK/France)
7. Patrick **Hogan** (USA)
8. Brigitte **Hoppe** (Germany)
9. Lui **Lam** (林磊 USA) *Coordinator*
10. Bing **Liu** (刘兵 China)
11. Dun **Liu** (刘钝 China)
12. John **Onians** (UK)
13. David **Papineau** (UK)
14. Kok **Khoo Phua** (潘国驹 Singapore)
15. Nigel **Sanitt** (UK)
16. Ivo **Schneider** (Germany)
17. Michael **Shermer** (USA)
18. Robin **Warren** (Australia)



Ex-President, European Academy of Sciences Arts & Letters



Author, *Cognitive Science, Literature and the Arts*



Columnist, *Scientific American* ; Editor, *Skeptic Magazine*



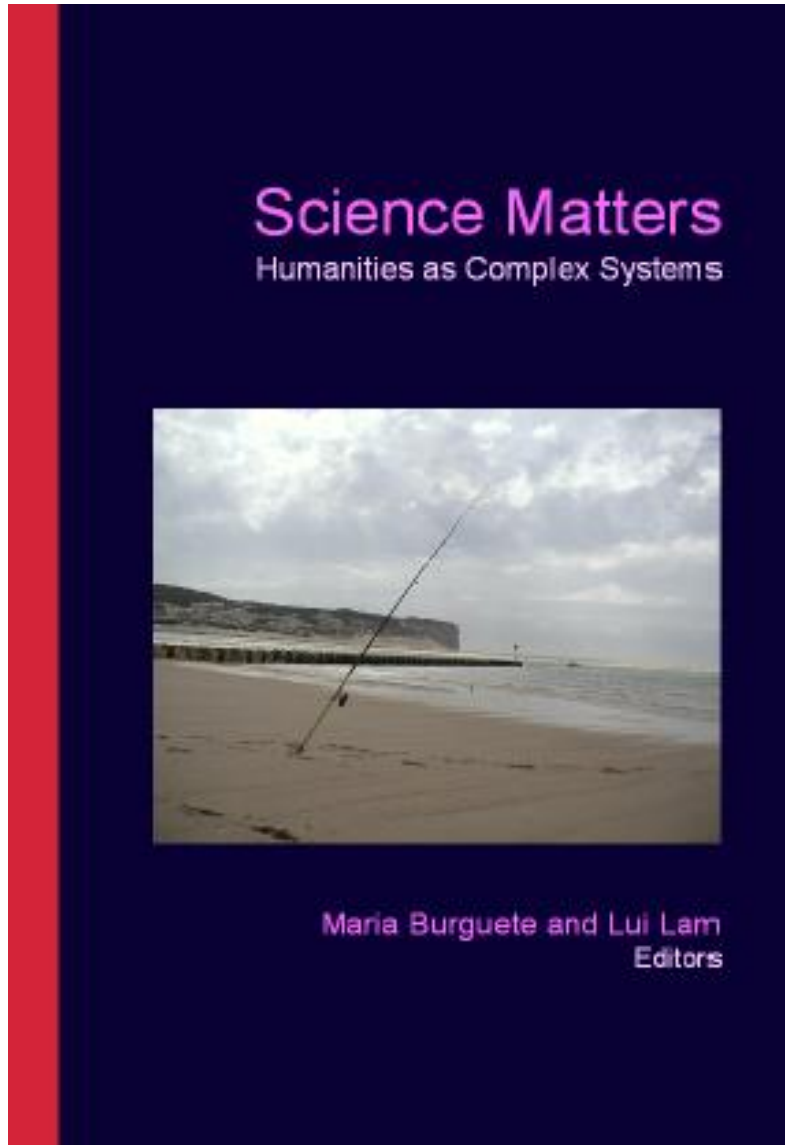
Nobel Laureate (2005)

目的

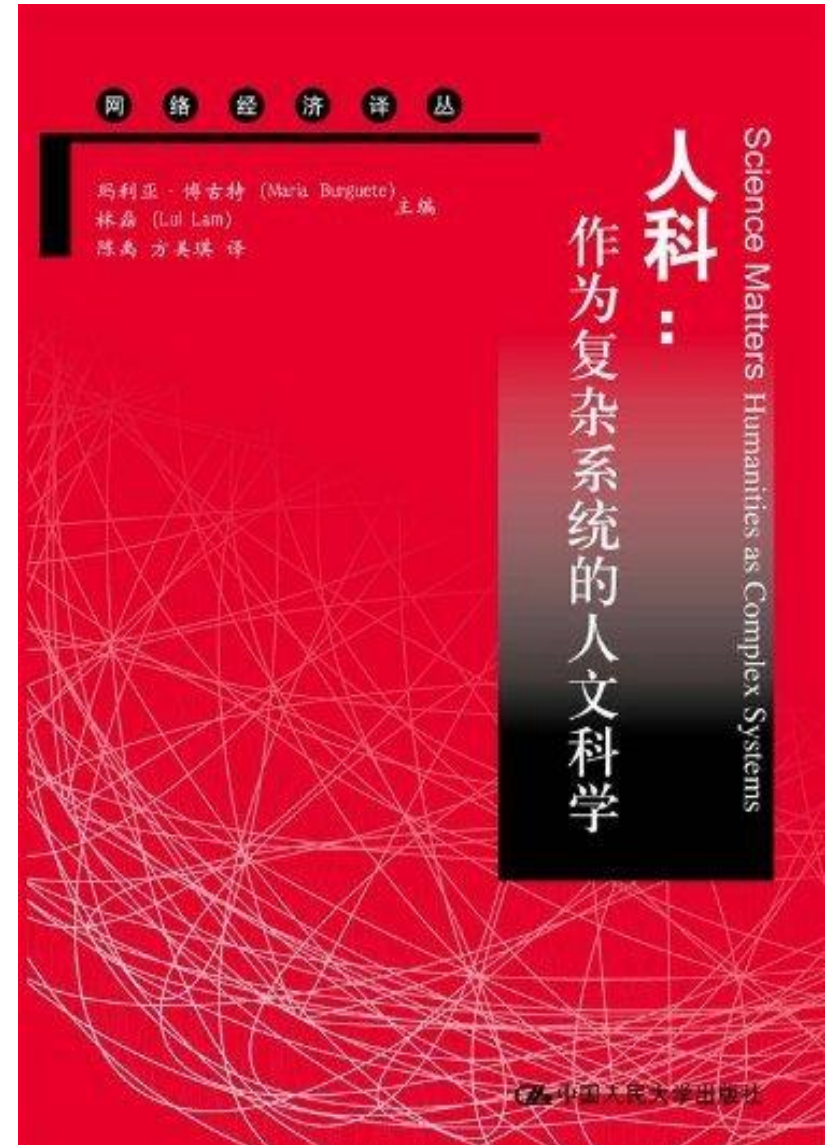
传播人科理念与推进国际人科规划

1. World Scientific: Science Matter Series

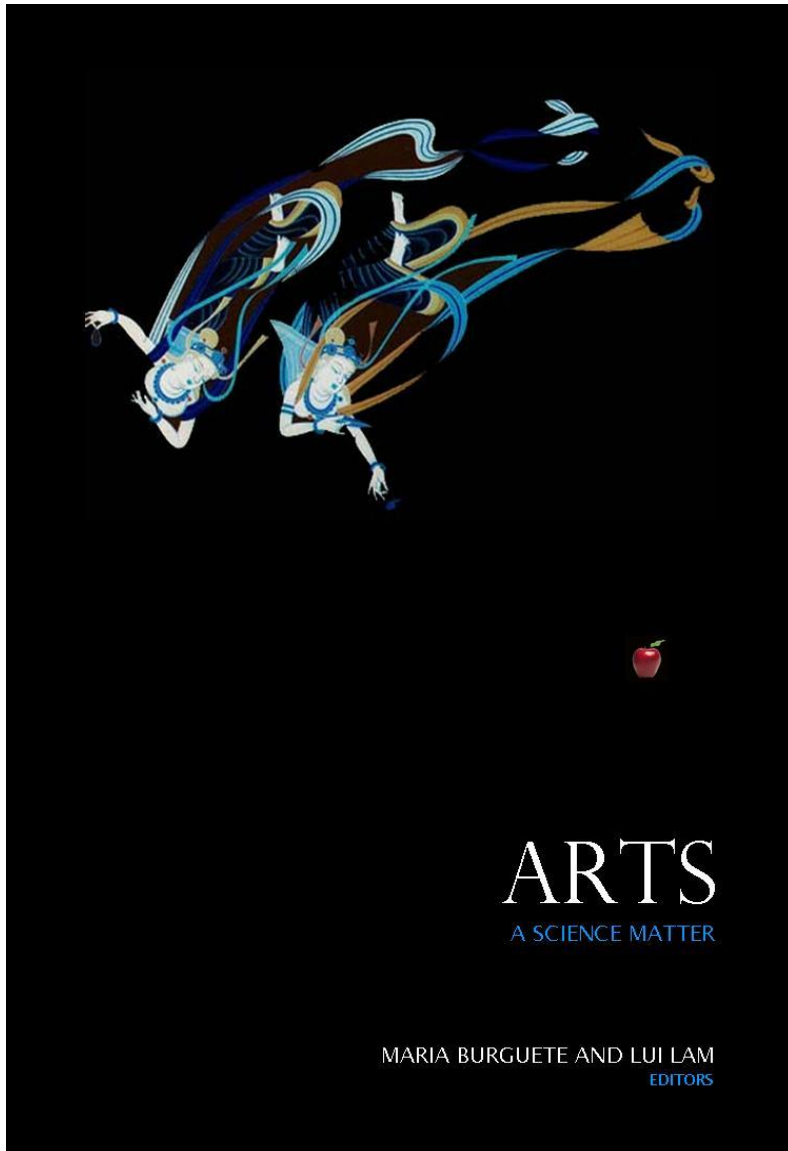
中国人民大学出版社



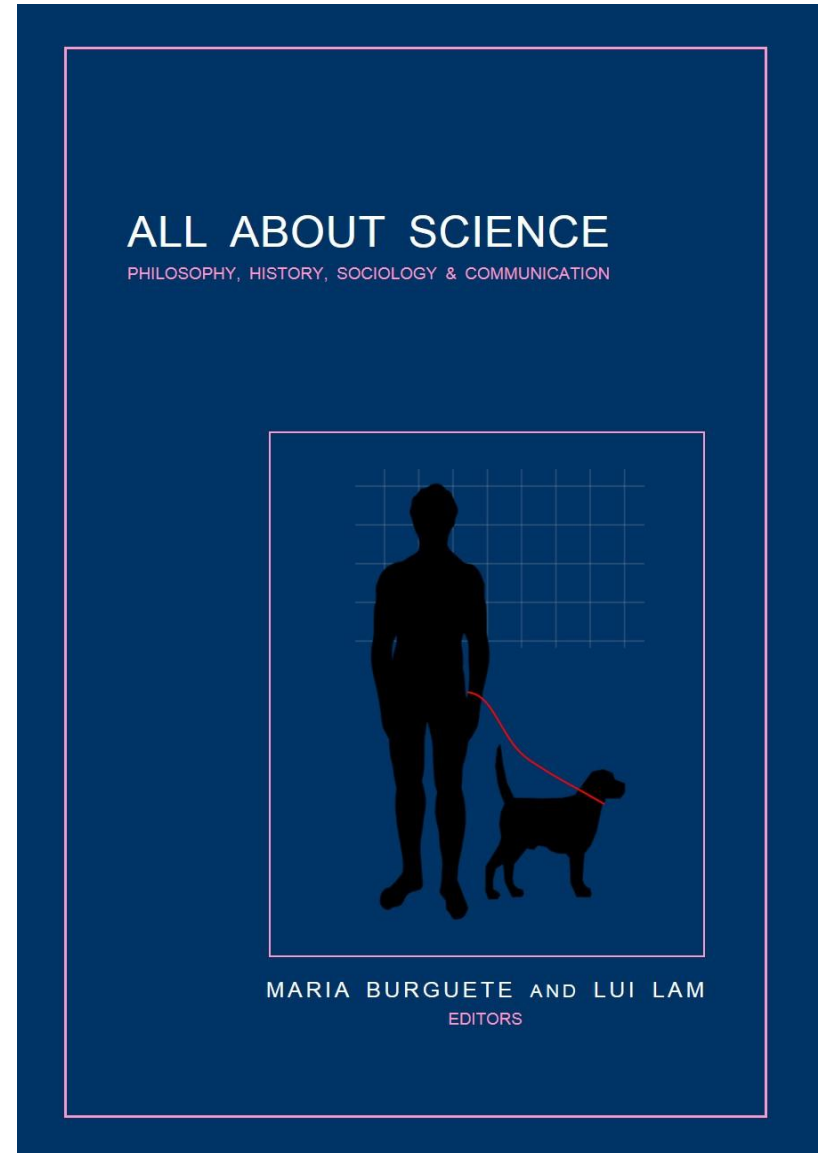
2008



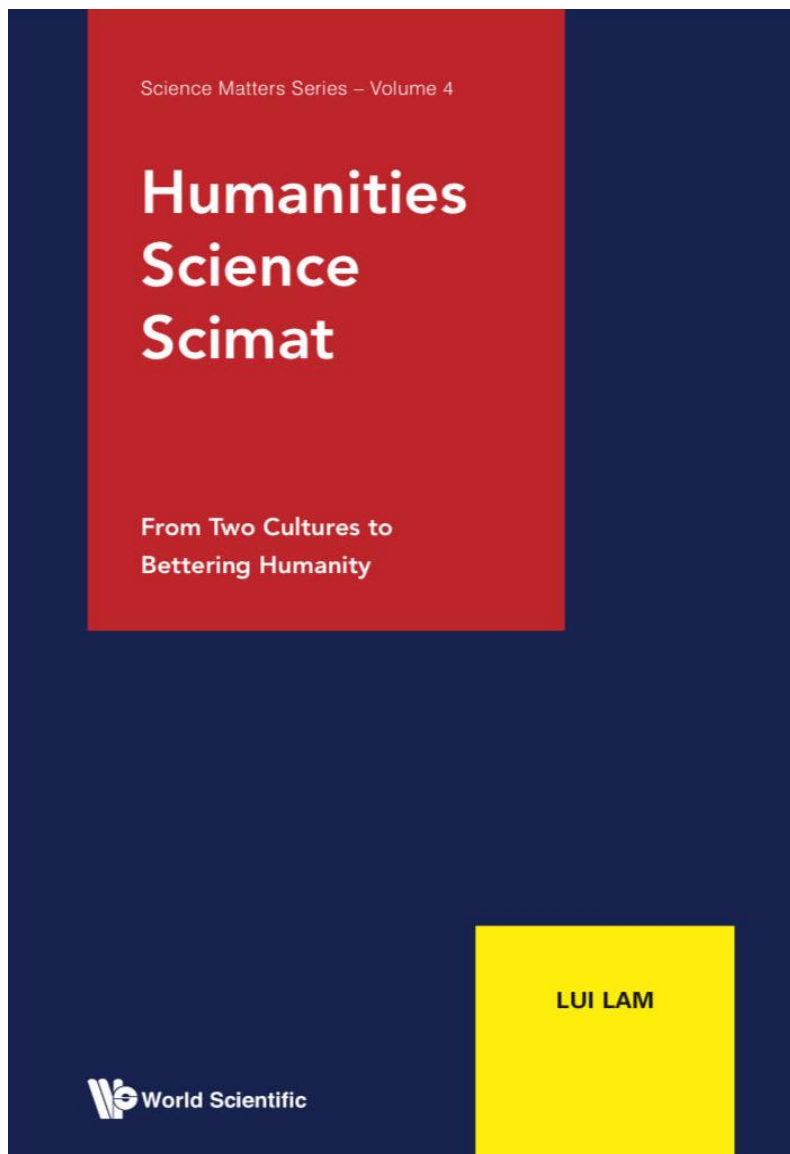
2013



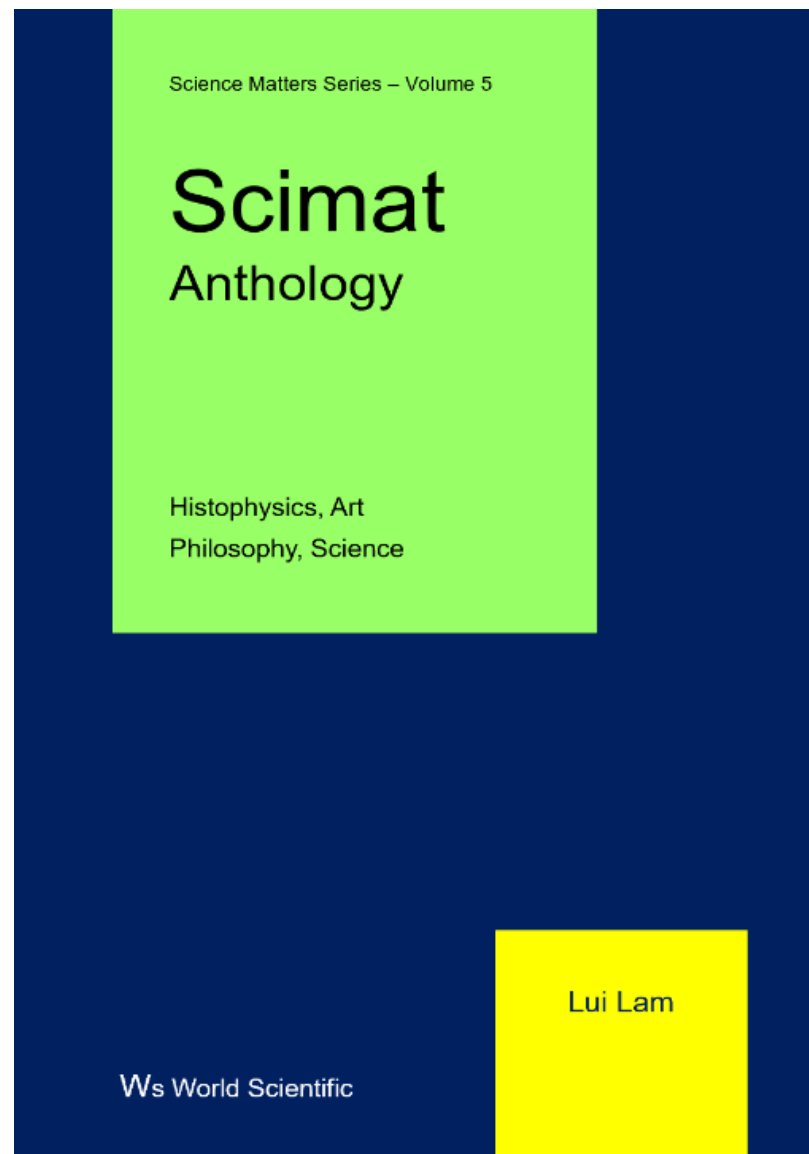
2011



2014



2024



2024

Todas as questões humanas do conhecimento colocadas de forma honesta e sincera, constituem esforços para compreender a Natureza, nela se incluindo todos os seus objectos de estudo formados por sistemas humanos e sistemas não humanos. Assim, de um modo geral, todas estas questões pertencem ao domínio da ciência. Os métodos e as ferramentas utilizadas podem ser diferentes, consoante se trate de um especialista da área das ciências humanas e sociais ou um especialista da área das ciências naturais. No entanto, todas estas actividades, visualizadas numa perspectiva unificada, são actividades cujos desenvolvimentos científicos se encontram em estados de maturidade diferentes e que por conseguinte, têm interesse a aprender umas com as outras.

A Ciência Humana (Science Matters ou Scimat) é sobre todo o conhecimento dependente do ser humano, no qual os seres humanos (o sistema material do Homo Sapiens), são estudados cientificamente, na perspectiva de sistemas complexos.

A Scimat inclui todos os tópicos abrangidos pelas humanidades e ciências sociais com particular relevo para a arte, a literatura, o cinema, a cultura, a história, a filosofia, as ciências da comunicação e os estados de ciência.

Maria Burguete realizou o seu Doutoramento em História das Ciências (Química Contemporânea) na Universidade Ludwig Maximiliana em Munique, Alemanha em 2000. Foi a primeira Bioquímica a licenciar-se na Faculdade de Ciências de Lisboa em 1992, após a conclusão do Bachelato em Engenharia Química em 1979 e o Instituto Superior Engenharia de Lisboa (ISEL). Cientista com vasta experiência docente e de investigação numa grande variedade de áreas científicas. Esta diversidade contribuiu para o desenvolvimento de sua interdisciplinaridade e transdisciplinaridade. Actualmente, é investigadora no Instituto Investigação Científica Bento da Rocha Cabral em Portugal. Publicou dez livros científicos e cinco livros de poesia para além de mais de 50 artigos científicos, na sua maioria na área de História e Filosofia das Ciências. Desde 2010 é membro correspondente da Academia Europeia das Ciências, Artes e Letras, fundada em Paris em 1990. Email: mariamarissa434@gmail.com

Lui Lam, cientista e humanista, obteve o seu Bachelato em Ciências, com distinção da Universidade de Hong-Kong, o Master em Ciências da Universidade de British Columbia e o Doutoramento na Universidade de Columbia. É professor catedrático de Física na Universidade de San Jose, Califórnia e Professor Adjunto em ambas as instituições: Academia das Ciências da China e da Associação Chinesa para a Ciência e Tecnologia. Em 1982, o Professor Lam inventou "Bolívia" (um dos três tipos de cristais líquidos existentes no mundo); em 1992 criou um novo paradigma para sistemas complexos, "Active Walk", e criou duas novas disciplinas: Hystophysics (2002) and Scimat (Science Matters, 2007/2008). Lam publicou 14 livros e mais de 180 artigos científicos. É o fundador da International Liquid Crystal Society (1990) e co-fundador da Chinese Liquid Crystal Society (1998); fundador e editor principal de duas séries de livros: Science Matters (World Scientific) e Partially Ordered Systems (Springer). As suas áreas de investigação são actualmente sobre hystofísica, sistemas complexos e Science Matters. Email: h2008lam@yahoo.com



Maria Burguete
Lui Lam

Ciência Humana

Ciência Humana

Uma Perspectiva Unificada em Humanidades e Ciências



Maria Burguete e Lui Lam
Editores

Instituto de Investigação Científica
Bento da Rocha Cabral

2015

2. Pantaneto Press: Scimat Series

SCIMAT SERIES

Scimat (Science Matters) is the new multidiscipline that deals with the science of humans. It aims to raise the scientific level of the humanities by encouraging interaction between humanists and natural scientists.

This book *Humanities As Science Matters* derives from the fourth international scimat conference of the same title, held in O'Porto, Portugal, in October 2013. It presents new developments in four humanities disciplines—history, philosophy, arts and sociology—as they are related to science. The interdisciplinarity is well portrayed in this volume which contains 11 chapters written by 12 expert humanists and scientists. We believe a new era of scientific knowledge is emerging with a new and unified perspective of the humanities (history, philosophy and arts in particular) in a unique multidiscipline called Scimat.

Maria Burguete is a scientist at Bento da Rocha Cabral Institute in Portugal. She has published 9 scientific books, 7 poetry books and over 30 scientific papers mostly in history and philosophy of science. She and Lui Lam started The Scimat Program in 2007. Since 2010 she is a corresponding member of the European Academy of Sciences, Arts & Letters founded in Paris in 1980.

Hauke Riesch is a lecturer in sociology at Brunel University London, where he researches on the public understanding of science, philosophy of science, environmental and energy policy. As a member of the newly created Brunel Centre for Comedy Studies Research, he has decided to do something fun for a change and look at the links between humour and science.

Pantaneto Press



Burguete
& Riesch

Humanities As Science Matters



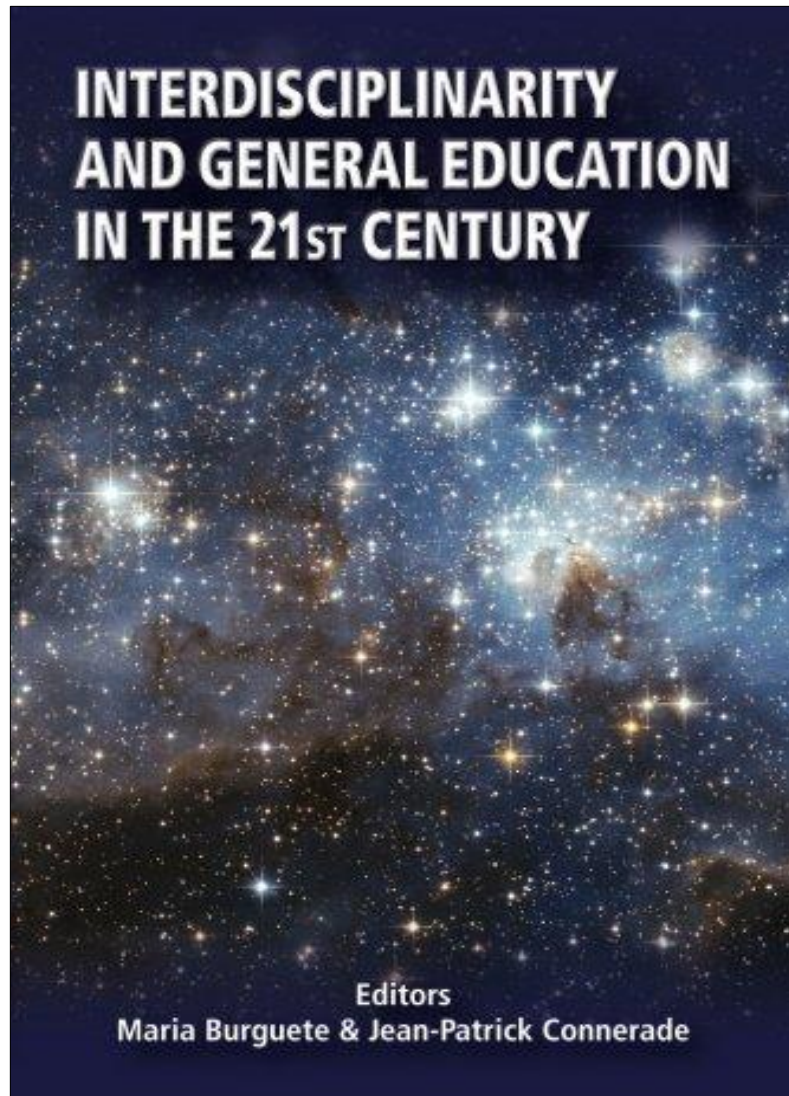
HUMANITIES As Science Matters History, Philosophy & Arts



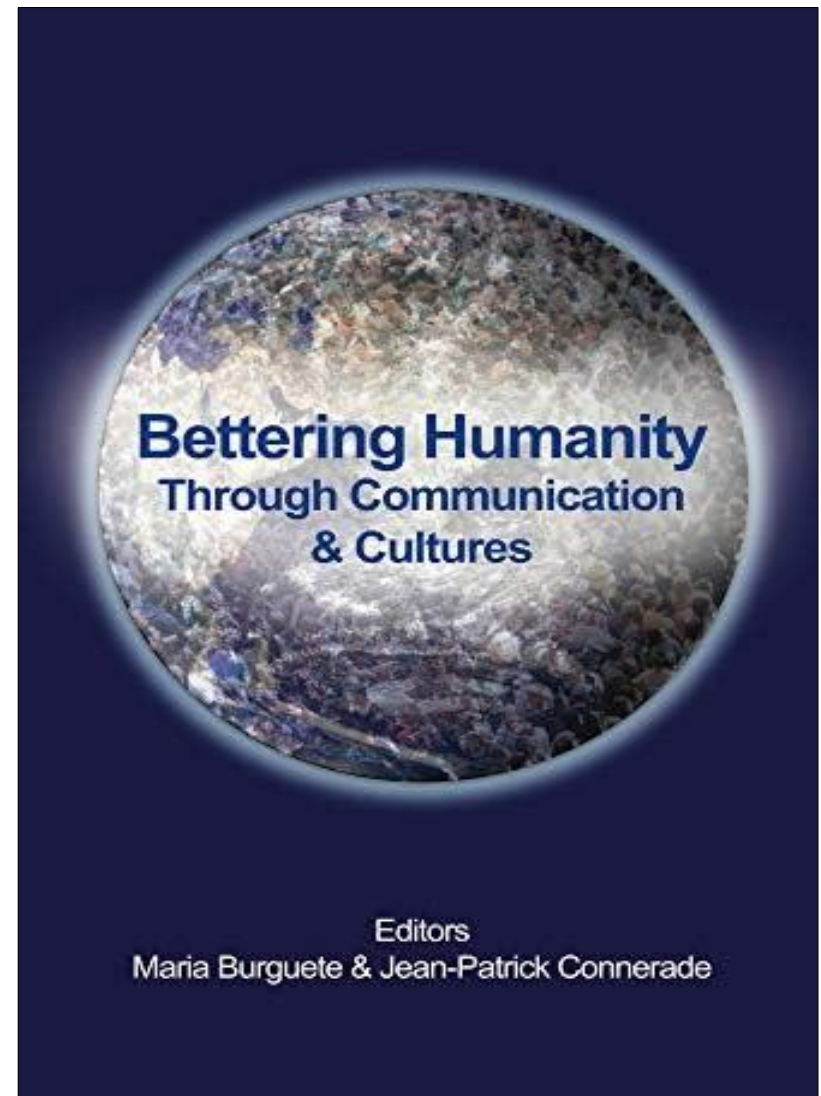
Editors
Maria Burguete & Hauke Riesch

2016

3. Science Matters Press: Scimat Series



2017



2018

Step 4

在全球推广一门新的**通识课**：“文与理：AI时代的基本知识”

Step 5

在全球建立100个国际**人科中心**

总结

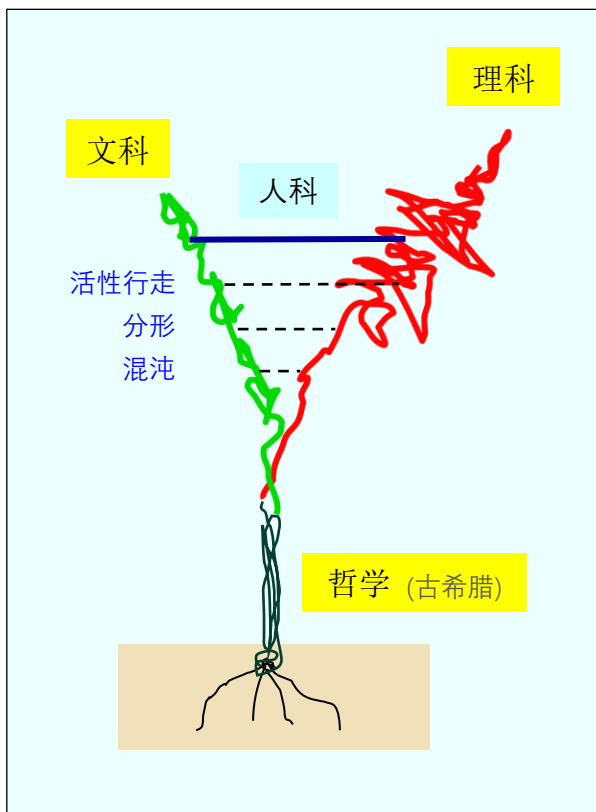
AI时代的教育与研究



- 文理融合的**基础**，是因为两者都是研究由**原子**组成的物质系统（前者是人，后者是人及非人）
- 古中国有六艺（礼、乐、射、御、书、数），欧洲有七艺（文法、逻辑、修辞、算术、几何、音乐、天文），都是文理**兼修**的课。放诸当代：
 - 教育方面应是**文理统修**（而不只是通识教育）
 - 研究方面则是**文理交融**（复杂系统科学正是采用这方法）
- “文理**统修**”不只是为了在 **AI** 时代找工作作准备，而是为了回复到古代立身处世的“**全人**”理想，做一个与机器有别的“人”，能：

判真假、明是非、断忠奸！

文与理



任何学科研究的三个层次:

- 经验层次
- 唯象层次
- 从下而上层次

其实，文与理的故事并不复杂:

- 两者都源自古希腊的哲学
- 文是研究复杂系统的，而理则主要研究简单系统，比较容易，所以理的科学度比文的高
- 两者的研究方法是相同的、共通的，只是文主要在经验层次打转，而理则三个层次都早用上
- 在AI时代，两者的出路在文理交融，而不在通识课
- 文理人（人科）是走向未来的最佳进路

文理融合 = 双剑合璧



2025

文理人

林磊



Wenlire: Humanities, Science, Human Lui LAM

凝石工作室 2025

中国情结

海归第二代

林磊



China Complex Lui LAM

凝石工作室 2025

欢迎联系

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日期：2026年3月29日（周日）

地点：石家庄

题目：文与理：本质与分合

讲者：林磊（河南沁阳朱载堉纪念馆 中国科学院物理研究所 中国科协中国科普研究所）

摘要：在AI时代生存及就业，文理兼修已成为众多专家及学生的共识，何以如此？文与理的本质是什么？文与理真的不一样吗？其实，文理两分为的是尽速培养专业人才，只有二百年不到的历史，其弊端一百年前早为蔡元培察觉，并于北京大学提出“融通文理”的补救之道，是为世上高校通识课之始。然而，通识课治标不治本，治本之道是回归古代墨子及亚里士多德文理不分的传统，方法是蔡元培提出的融通文理，这就是《文理人》所主张的“文理并重，文理交融”进路。本报告将讨论所有这些问题，并介绍“文理人规划” 的过去及未来。

林磊介绍：人文学者与物理学家，美国加州圣何塞州立大学荣休教授，中国科学院与中国科学技术协会客座教授，河南沁阳朱载堉纪念馆特聘教授。香港大学（一等荣誉）学士、英属哥伦比亚大学硕士、哥伦比亚大学博士。除美国外，林磊曾在欧洲（比利时、西德）、北京（中科院物理所，1978-1983）工作；前30年做自然科学（物理、化学、复杂系统），后20年做人文学（文史哲）；发明了碗形液晶（1982）、活性行走（1992）和两门新的学科：历史物理学（2002）、人科（2007）；已出版180多篇论文和29本书，包括《Humanities, Science, Scimat》（2024）、《文理人》（2025）和《中国情结》（2025）；国际液晶学会创立者（1990），中国液晶学会共同创办人（1980），Science Matters（World Scientific出版社）和Partially Ordered Systems（Springer出版社）两英文丛书的创立者与主编。

文理人

林磊



Wenliren: Humanities, Science, Human Lui LAM

凝 石 工 作 室 2 0 2 5

妹妹小学3年级，在班上
做“鱼的传人”报告，
师生同赞

一家四口



哥哥小学5年级，看了“颜色”，决定做
科学家，为了可不看人面色

538

文理人

31.2 颜色



181125

2018 年度中国时尚大奖：十佳职业时装模特（2018.11.02）。模特，一个面无表情的行业，那是有理由的。模特的角色是把衣服穿起展示，一个会走动的衣架；面有表情会吸引观众眼球，而衣服本身才是主角，需要观众全神盯着。

在大领导的签合约仪式、总统的签法案仪式，站在后面的幕僚都是布景板，不能有表情，否则会抢眼球，分散主角的光环。

电影里也是，当主角、配角同镜时，配角只能适度的演；活灵活现的演，叫抢镜，没有主角会愿意跟他或她合作。

很多职业也是，下属不能锋芒毕露，不给上司留面子。只有做科研不一样，想创新就是要当主角，把所有人都比下去，越早越好。

不鼓励锋芒毕露，就搞不出创新。