

Dr. Shih-Shen CHIEN, associate professor in Development Geography and Planning at National Taiwan University, presented in **SMART-ECO Ningbo Project Meeting, 2016/ 05/ 12-13**

Understanding Eco/ Smart Process and Consequences in post-Socialist China

Structure of presentation

- Transnational search of China
 - why foreign actors are so welcome?
- Local process under Chinese party-state
 - And why many eco city projects in China are new town models?
- Smart and Eco consequences in China-
 - How to theorize dynamics between authoritarian and smart/ eco

Transnational search

Transnational diffusion to China

- France in Wuhan, Hubei: In March 2014, Chinese President Xi Jinping visited France and signed an agreement concerning the construction of a Sino-French eco-city in Wuhan. The general plan of Sino-French Wuhan Ecological Demonstration City is slated for finalization by August 2015.
- Sweden in Caofendian, Hebei: In 2008, China and Sweden launched a collaboration called the Sustainable Urban Development Cooperation for Caofendian Eco-city. Sweden is also involved another eco-city project in Wuxi
- Singapore in Tianjin: The Singapore government made significant investments in the Sino-Singapore Tianjin Eco City (SSTEC) in 2007
- The UK in Dongtan, Shanghai: Proposed by Arup, a British architecture consultant, the 2005 launch of the Dongtan project was attended by British Prime Minister Tony Blair and former Chinese president Hu Jintao
- In addition, Finland participated in an eco-city project in Mentougou, Switzerland supported a sister-city eco-city partnership program between Zurich and Kunming; China and the USA jointly developed Huangbaiyu Eco Village; other projects include the Sino-Dutch Shenzhen Low Carbon City project and the Sino-German Eco Park in Qingdao

Self-learning through transnational teaching—a teacher's perspective

- recursive learning in three dimensions
 - Central fragmentations
 - Local interests
 - Budgeting and scheduling of land development



CHIEN, Shih-Shen*; Xufeng ZHU; Tingjia CHEN (2015), Self-Learning through Teaching: Singapore's Land Development Policy Transfer Experience in China, Environment and Planning C: Government and Policy. Vol. 33, Number12, pp 1639 – 1656 * as contact author

Theorizing Transnational Learning— a learner perspective

Social Networking Channel	Informal, personal contact relying on personal relationships and networking	Mostly informal, non-binding, low profile transfer of information between individuals based on trust
Corporate Institutional Channel	Formal, contracted and structured co-operation and transfer of knowledge between institutions, local or national governments and firms	Binding co-operation that involves both parties as stakeholders
Hegemonic Discursive Channel	Transfer of knowledge from institutions, firms, consultancies etc based on prevailing "best practice" and commonly accepted international standards	Non-binding relationship with transfer of knowledge that may not be immediately useful

Architect for eco-designs



Wang Shu, a Chinese architect, won the 2012 Pritzker Architecture Prize for his design's strong sense of cultural continuity and re-invigorated tradition (<http://www.pritzkerprize.com/2012/jury-citation>).

- 寧波歷史博物館 瓦片牆、天井等匯成的「新鄉土主義風格」是它「審美標籤」，以創新的理念，將寧波地域文化特徵、傳統建築元素與現代建築形式和工藝融為一體，使之造型簡約而富有靈動，外觀嚴謹而頗具創意，同時，充分體現「獨特性、藝術性、經濟性、超前性、功能性、安全性」。



Historical legacies in foreignization

■ History:

- The late 19th C: Territorial concessions
- ROC: Big Nanjing project (with Henry Murphy)
- 1949-78: Russia influence, top 10 buildings
- After 78: seeking for foreigners' consultancies, like Singapore
- After 2000: WTO and Olympics

■ Differences:

- Coercive learning v.s. voluntary learning

■ Similarities:

- China's lacking confidence in old knowledge
- China as a solution for the western spatial fix in capitalism crisis

Spatial fix for capitalism crisis

■ Colonial time

- Western powers need to look for foreign colonies
In order to cope with home crisis, like overproduction, under-consumption and trade deficit

■ Current time

- Singapore uses China for its Regionalization project
- EU embassies are keen to develop the Chinese market after the 2008 EU crisis

Time: Hastiness in foreignization

- Catch-up mentality
- China in favor of **ecological modernization** and economic development
 - This explains why eco cities links with industrial zones
- Local cadres are pressurized to present **performance soon**
 - e.g. 2 years in office in average

第 8 卷第 2 期
2009 年 1 月

经 济 学 (季 刊)
China Economic Quarterly

Vol. 8, No. 2
January, 2009

超赶共识监督下的中国产业政策模式 ——以汽车产业为例

瞿宛文*

摘 要 本文以中国汽车（轿车）产业在改革开放后的发展，及其产业政策沿革为例，探讨中国产业政策之模式。汽车产业政策在过去三十年来持续演变，政策质量多不理想，中央政策单位无法与企业部门信息互通，政策拟定上常难以适应市场状况，各地方也多各行其是。不过这也形成实验空间，事后各地不同结果可能被择优选用，作为下一波政策修订的依据。政策的改进有赖于各方对追

Late Qing debate

- Complete westernization
 - 全盤西化
 - 胡適等
- Chinese Knowledge + western technologies
 - 中學為體，西學為用
 - 東南大學 + 浙江大學 (竺可禎 + 張其昀等)

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題

學
衡

民國十一年一月

第一期

THE CRITICAL REVIEW

No.1 January, 1922

Spatiality: spectacular urbanism

- Sweden's case
 - Home: 12km²
 - Caifendian: 150 km²
 - Singapore's case
 - Designs in China were not installed at home
 - France's case
 - Skyscrapers not popular in Paris
- Developing countries' **show-off** for modernity
 - **Land finance** for local cadres
 - This explains Chinese eco-cities are less retro-fit
 - **Local limited resistance** is not legitimate enough to against foreignization projects

France in Wuhan



Local processes

Nationwide land-speculation fevers

The '**low carbon eco city**' strategy has become the third wave of local development fever, followed by the first wave of **development zone fever** and the second wave of **college town fever** over the past three decades, to be a dream of almost prefecture-level cities.

- News sources: *zhongguo fangdichan bao* (China Real Estate Post), 2012 April

Map 1: Locations of college towns and eco cities up to 2012



Source: Chien (2013), *China Information*

Three Fevers

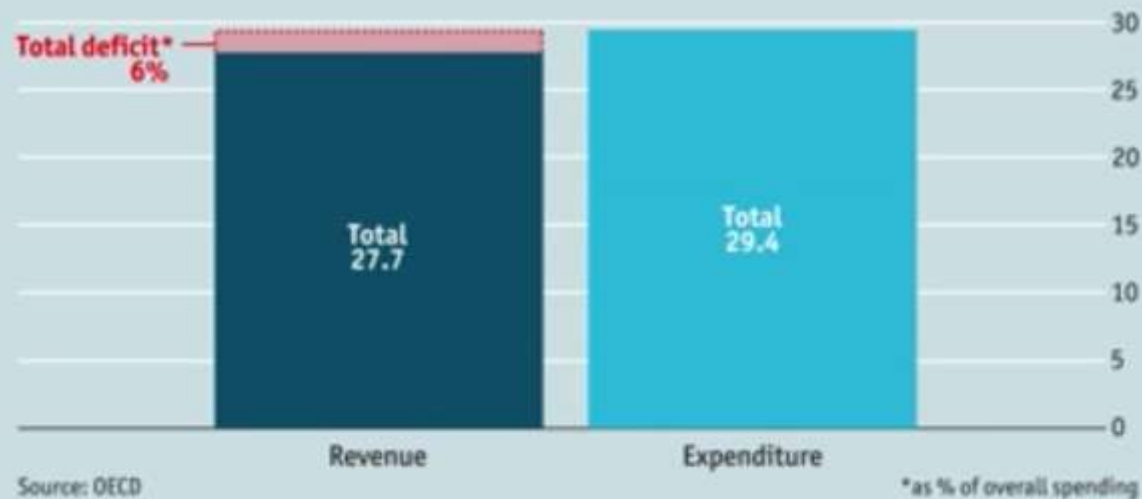
	Development zone fevers, since 1980s	College towns fever, since late 1990s	Eco Cities fever, since mid 2010s
Global context	Economic Globalization	High tech and Knowledge economy	Climate change, green economy
China back-ground	International isolation, lack of FDI	Crisis of economic restructuring, lack of R&D	Urban pollution, China as a key CO ₂ producer
Central discourse	Business market and Attraction of FDI (招商引資)	Revitalizing the nation by science and technology (科教興國)	Ecological modernization (生態文明)

Three Fevers

	Development zone fevers, since 1980s	College towns fever, since late 1990s	Eco Cities fever, since mid 2010s
Local implementation	More than 5,000 zones	More than 60 cases,	More than 300 projects
Positive externalities	Export-oriented economy; technology transfer	Human resource, triplex of university, firms and gov't	Low carbon and environmental awareness
Negative Externalities	Pollution, duplicate construction, isomorphism	Commodification of education, pure land development, forced displacement of university	High carbon construction, pure land development

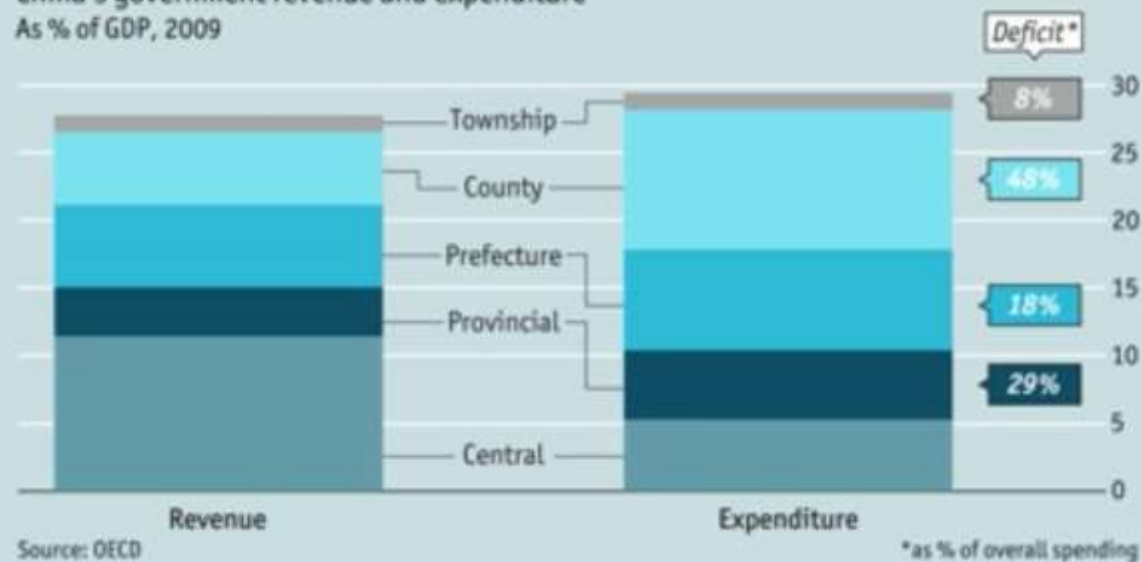
Central versus local

China's government revenue and expenditure
As % of GDP, 2009



Central versus local

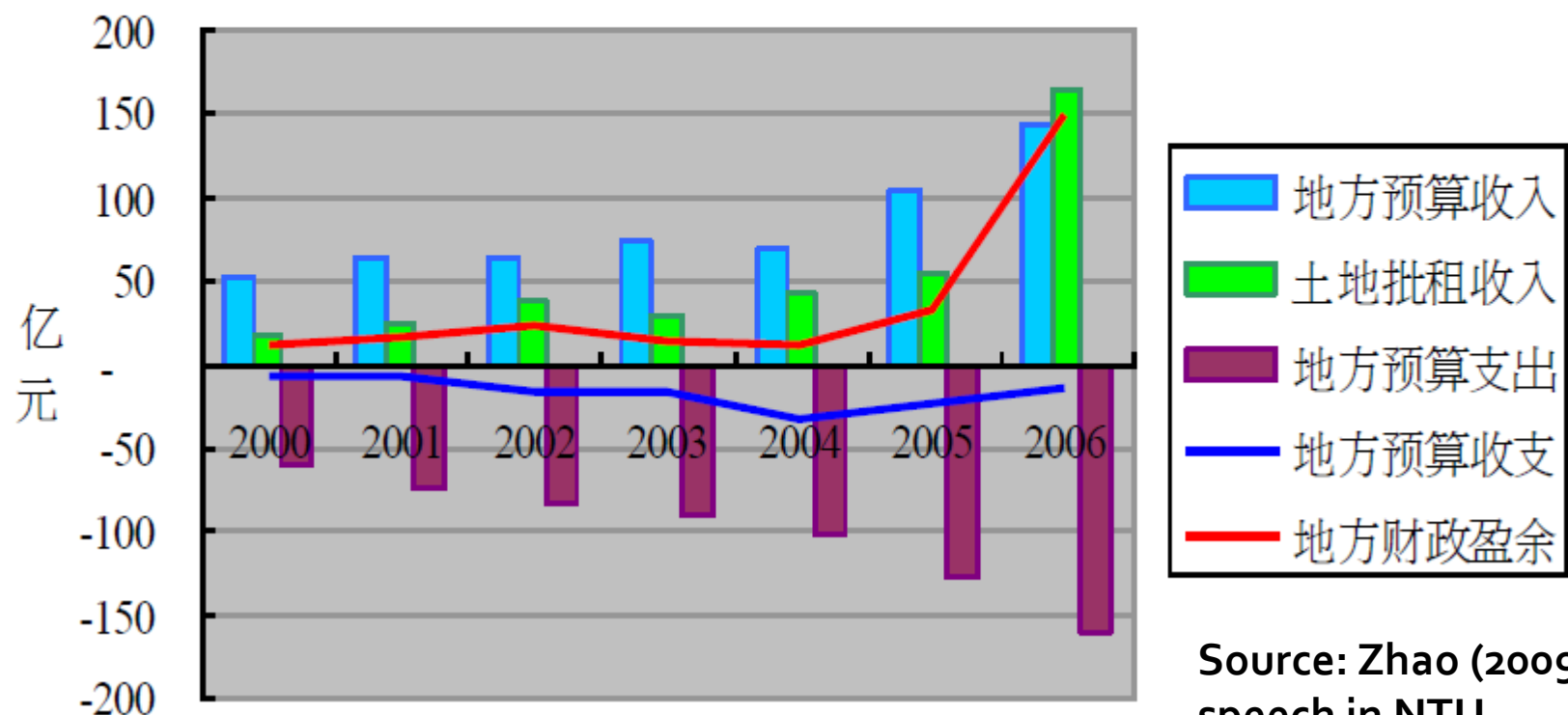
China's government revenue and expenditure
As % of GDP, 2009



local
budgetary
deficit

Outside of Budgetary Revenues

图2 厦门市政府财政收支情况

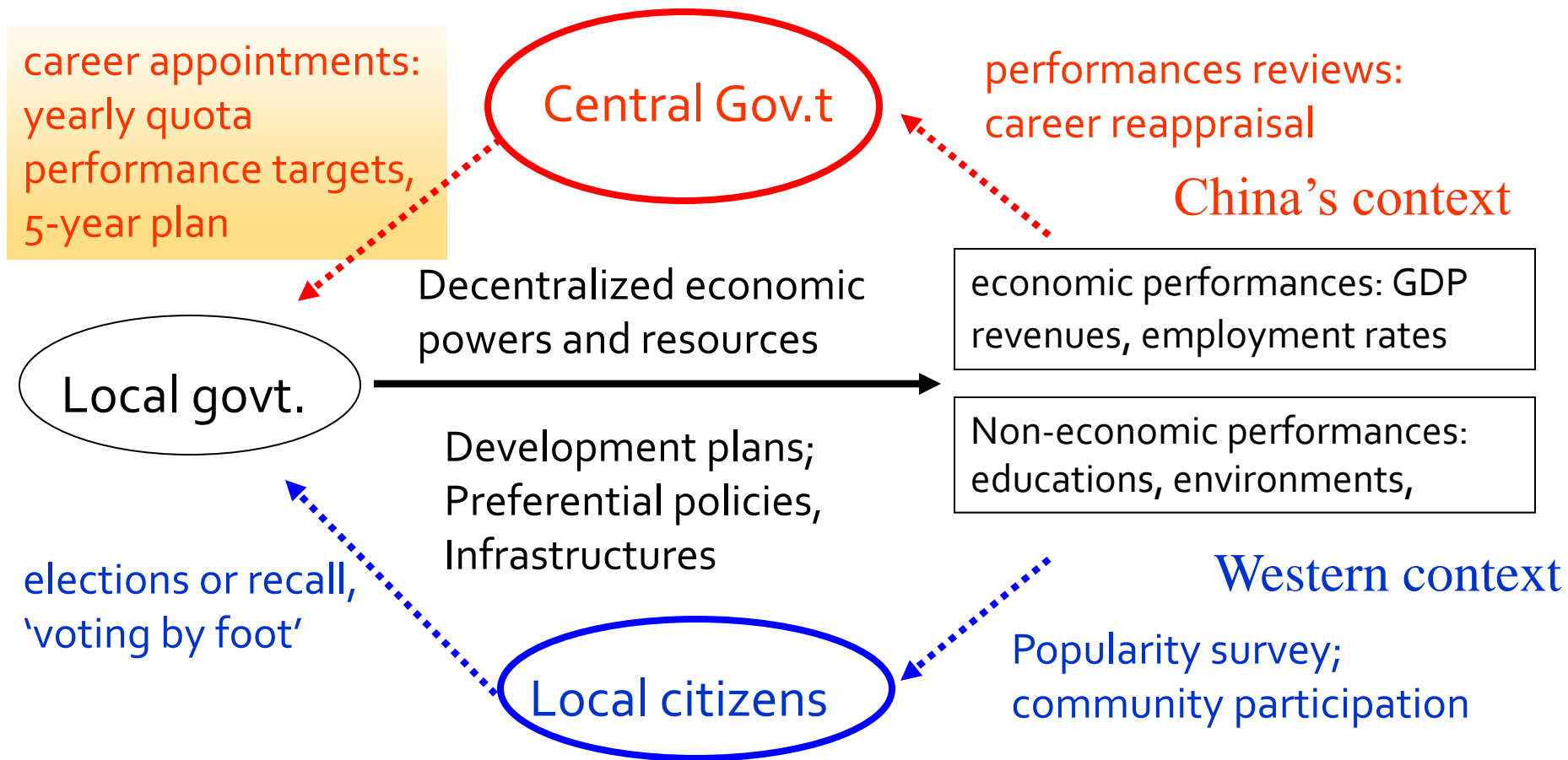


Source: Zhao (2009),
speech in NTU

As/symmetric Decentralization-1

economic political	decentralization	centralization
	post-socialist China	Socialist countries, and UK
centralization		
decentralization	Russia in the 90s Most of the west	Federal states like US or Germany

Upward or Downward Accountability



Chien, S.-S. (2008). "Local Responses to Globalization in China - a Territorial Restructuring Process Perspective." Pacific Economic Review 13(4): 492-517.

Local gov't behaviors under AD

■ Quota/indicators and cadre management

- In terms of personnel management, upper-level authorities have fully rights to change their local cadres at their one level down.
- Target responsibility system- there is a standardized and systematized evaluation of cadre performance on a wide range of functions at the local level,
- Performance-based appointment system- the greater economic growth, the better chances there are for local leaders to get promotions.

Mechanisms of CCP operations

- vertical subcontracting
 - Level by level
- horizontal competition
 - with their previous and current counterparts
- quota territorialization
 - Assigned upward accountability
 - Some quotas are more important than others:
veto, hard, soft

Quota for one-child policy

5月19日，山東臨沂蘭陵縣領導向存幹部攤派“流產（墮胎）指標”，未完成者或被“就地免職”，不少村幹部紛紛向附近醫院婦產科以高價購買流產孕婦證明，價格從千元急漲至過萬元人民幣。這一“流產指標”怪象，引發外界嘩然。 - See more at: <http://b5.secrechina.com/news/15/05/24/576749.html#sthash.KIQkKSyr.dpuf>

《看中國》粉絲團誠摯歡迎你的加入：
https://www.facebook.com/KanZhongGuo.web?bookmark_t=page

山東下達“流產指標” 村支書無奈萬元交差



陕西省人口计生委派工作组调查安康孕妇强制引产一事

2012年6月12日 来源：省人口计生委 【字体：大 中 小】 【打印本页】 【关闭本页】

陕西省人口计生委就网曝安康怀孕1月孕妇遭强制引产一事召开紧急会议，决定派工作组调查了解事件发生的过程，待情况调查清楚后，将依法依规严肃处理。6月12日，计生委工作组已赴安康市开展工作。6月13日上午，省人口计生委向各市人口计生局，再次重申，在人口和计划生育工作中，必须严格依法行政，坚持文明执法，杜绝强制引产，切实维护育龄妇女的合法权益。

陝西安康孕婦遭強制引產事件是2012年6月4日因陝西省安康市鎮坪縣曾家鎮漁坪村孕婦馮建梅無法支付超生二胎的四萬元罰款

Authoritarian/ eco/ smart

Three kinds of governances

Market-driven

- Privatization
- Private ownership
- capital and corporation
- neo-liberalism

Society-driven

- Collective actions
- Public participations
- Democratic decision-making

State-driven

- Strong state direct intervention
- Authoritarian state domination

Power/Governmentality

Weberian Power (power over/ to)	Foucauldian Power (conduct of conduct)	STS (politics of thing)
<u>Smart authoritarian</u> Grid Management	<u>Authoritarian smart I</u> Sesame Credit Rating	<u>Authoritarian smart II</u> Green Dam filtering
<u>Eco Authoritarian</u> River Leader	<u>Authoritarian eco I</u> Green Hegemony	<u>Authoritarian eco II</u> Nuclear Power, geo-engineering

Smart Authoritarian: GM

- The sixth administrative unit below the state
 - (0) state; (1) provincial; (2) prefecture; (3) county; (4) town/ township/ street office; (5) village/ community-level
- Urban Space were divided into “grids” as basic units
 - social management,
 - Information collection,
 - surveillance,
 - Services...



<http://www.fei123.com/660000/656498.shtml>

Grid management for stability

- 網格與食安: grid and food security
<http://hk.crntt.com/doc/1041/9/0/0/104190030.html?coluid=91&kindid=2712&docid=104190030>
- 網格與汙染控制: grid and pollution minotor
<http://big5.chinanews.com/gate/big5/www.gs.chinanews.com.cn/news/2016/04-20/271817.shtml>
- 網格員與流動人口: grid and flooding population
http://news.gmw.cn/newspaper/2016-05/10/content_112330294.htm
- 網格員協助警察: grid and police
http://www.sznews.com/news/content/2016-04/19/content_13142643.htm
- 网格化监管显现威力: grid and social monitoring
http://hebei.hebnews.cn/2016-05/10/content_5496663.htm

GM as the basic party construction

- Combined with the information system, grid management integrated detailed and updated information of individuals and households.



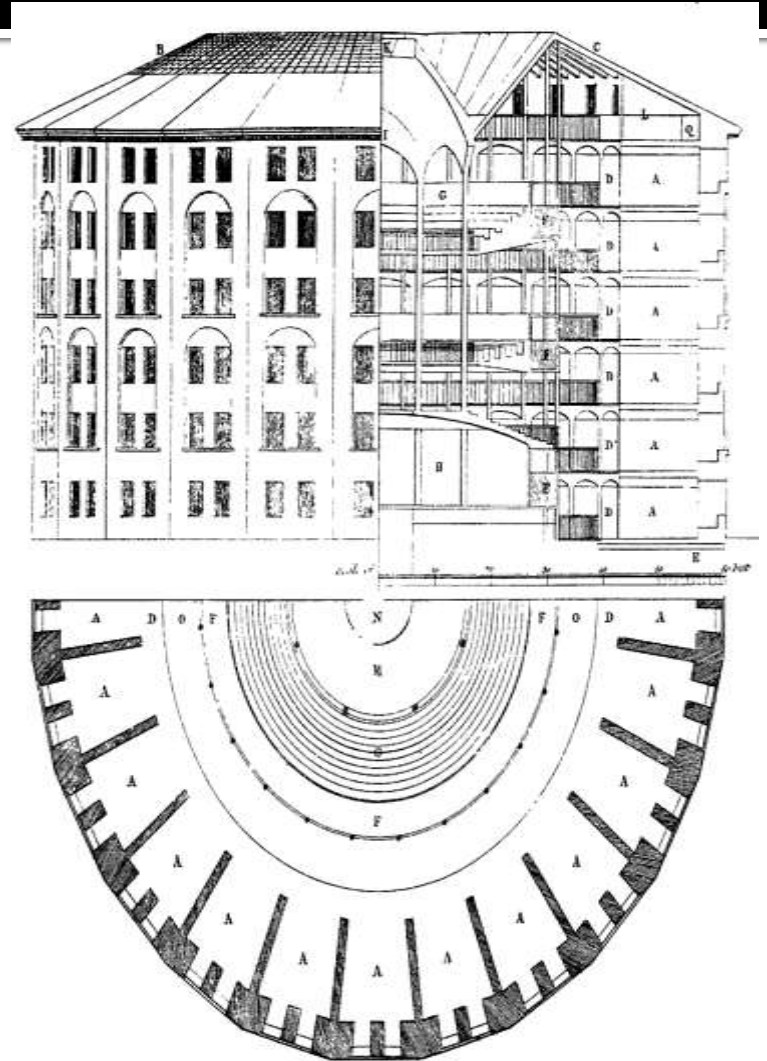
http://web1.35114.cc/WebSite/51881/457527_1/channel_269381/D_15057.shtml

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Authoritarian Smart I

- Authoritarian that works not as a direct dominating power, but as a self-governance and self-taming mechanism.
- Smart technologies as “Panopticon” that works as the material base of the authoritarian system



Authoritarian Smart II: sesame credit

- Traditional credit system for finance only
- Sesame Credit for on-line social behaviors-
 - Credit history
 - Behavior preferences
 - Compliance records
 - Social status
 - Personal networks



AS₁: Credit for social behavior

- Humor has it that there might be punishment for low score individuals after 2020
 - e.g. low speed internet; less participation in charity activities; using less online shopping; befriending with lower credits...
- In order to gain higher scores, for better qualities of services, individuals might have to act properly and make proper friends.

China's New Social Credit System

Despite hyped concerns in the foreign press, little is actually known about China's plans to rate citizens and firms.

By Sara Hsu
May 10, 2015



287 Shares



Image Credit: Shanghai via Shutterstock.com

Last summer, China released an outline of its new social credit system, which would rate citizens and firms on financial, legal, and civic terms. There has been much hoopla in recent Western media outlets about the system, with some viewing it as a return to the *dang'an* system, which was highly opaque and inaccessible to the individuals and firms being rated. The interpretation of the new policy as an imposition of a "Big Brother" type of invasive tracking system may be largely exaggerated, and how this understanding was arrived at is unclear.

The policy itself states that "records of sincerity," including reports on credit, legal violations, and performance will be kept, although the document, like most state documents is quite vague. The document is extensive, discussing credit in administrative areas, commercial activities, social behavior, and the judicial system. Individuals will hold identification cards associated with credit information, based on financial, industrial and commercial registration, taxes and social security payments, and traffic violations, according to *Xinhua*. This leaves its implementation open to interpretation.

<http://thediplomat.com/2015/05/chinas-new-social-credit-system/>

WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION

AFRICA AMERICAS ASIA PACIFIC EUROPE MIDDLE EAST

Beijing Journal; Where Each Worker Is Yoked to a Personal File

By NICHOLAS D. KRISTOF,
Published: March 16, 1992

BEIJING— Behind a locked metal grill door on the second floor of the Beijing Engineering Design Institute is a small room stacked with files from floor to ceiling. There is a file here on each of the institute's 600 employees, and although they are never allowed to peek inside, they live all their lives with their file looming over them.

As part of China's complex system of social control and surveillance, the authorities keep a *dangan*, or file, on virtually everyone except peasants. Indeed, most Chinese have two *dangan*: one at their workplace and another in their local police station.

"Here's one, a man called Ji," Zhang Yuhong, a 34-year-old Communist Party member and *dangan* clerk at the design institute, said as she skimmed through the loose-leaf binder that served as Mr. Ji's *dangan*, pronounced dahng-ahn.

"School records and grade transcripts," she began, offering a foreigner a rare look into the *dangan* system. "Entry into the Communist Youth League and the Communist Party. Family members and photo. Promotions and level of work. Performance evaluations. That kind of thing. About 10 items." Employer Keeps the File

 FACEBOOK TWITTER GOOGLE+ EMAIL SHARE PRINT REPRINTS

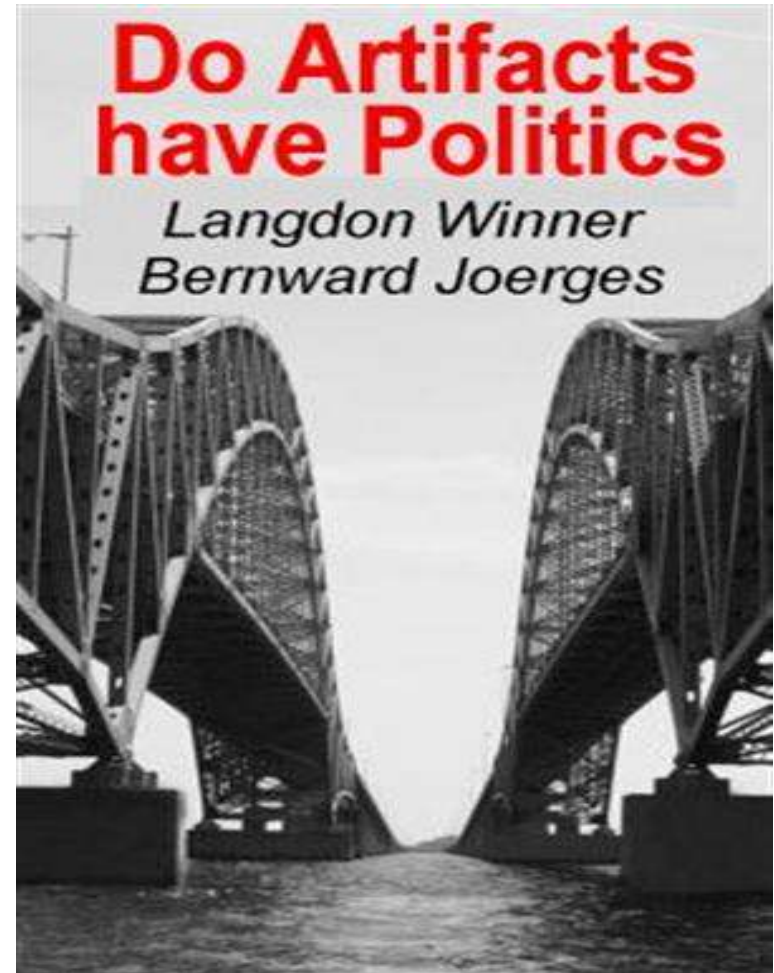
traditional
party-state
documents
(*dang an*)

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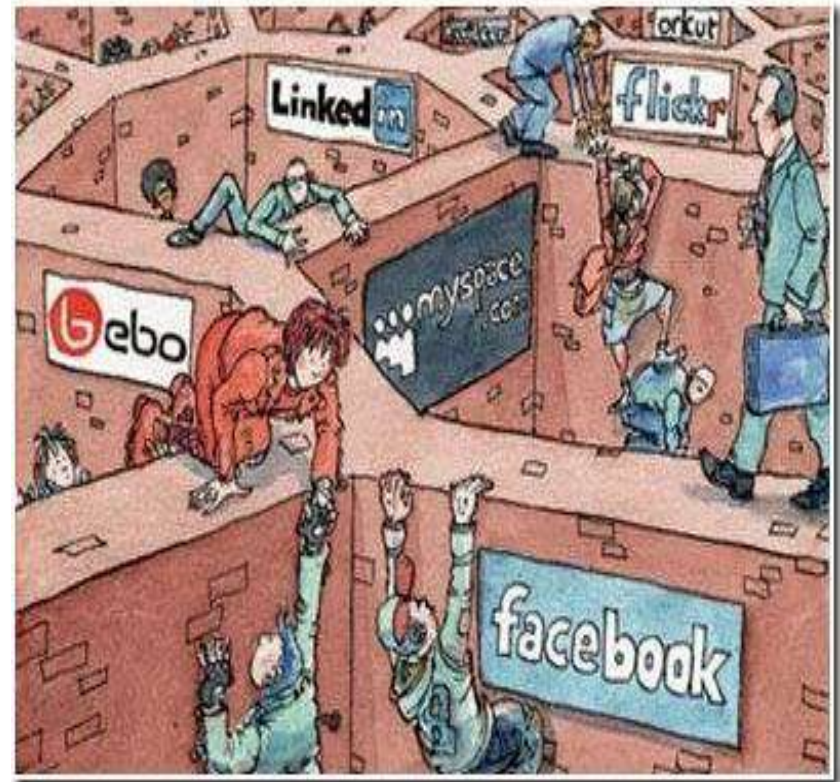
Authoritarian Smart II

- Classical and inspiring question in STS:
“Do Artifacts Have Politics”
- Technology that is endogenously articulate with authoritarian/centralized knowledge regime and control mechanism



Authoritarian Smart: Green Dam Internet Filtering

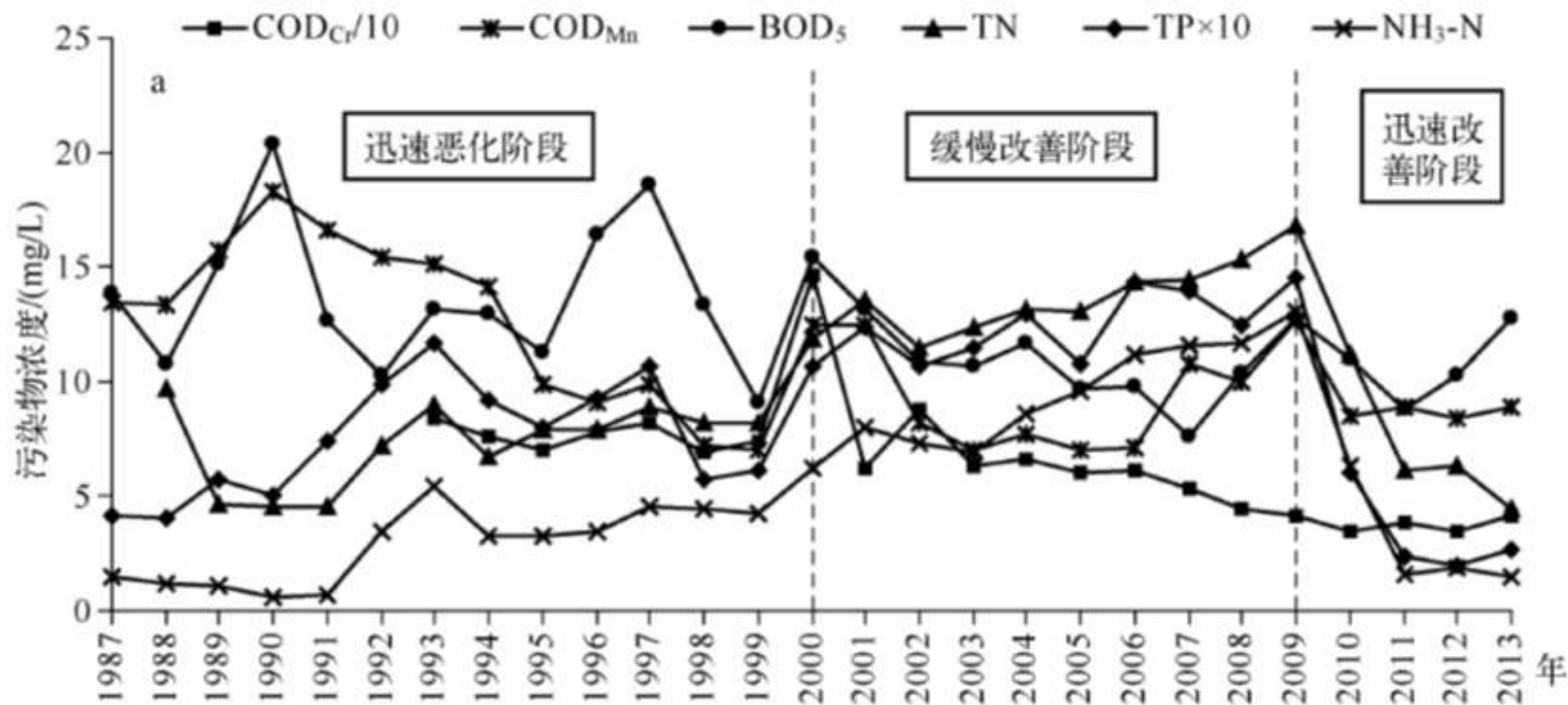
- Filtering internet contents form “problematic sources”
- The filter system is established not to restrict block the accessibility of those sources, but to raise the threshold



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Dan Lake Pollution Improvement



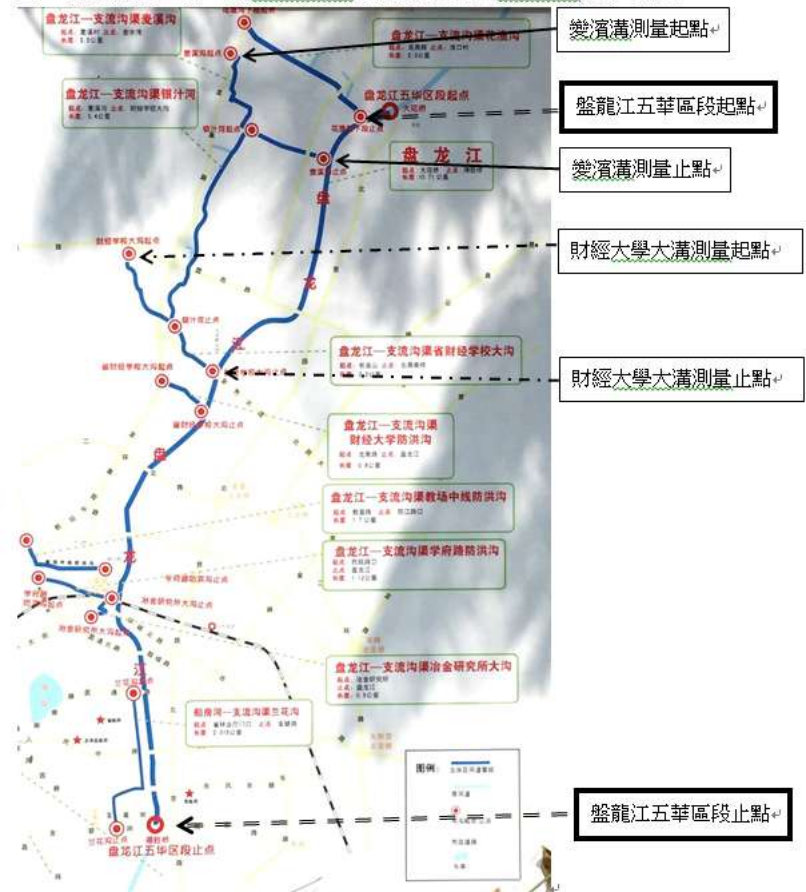
附註: COD_{Cr}/10 (化學需氧量), COD_{Mn} (高錳酸鉀), BOD₅ (五日化學需氧量), TN (總氮), TP×10 (總磷), NH₃-N (N氨氮)

資料來源: 何佳等, 2015: 198

River leaders system

- Each river is assigned to each leading cadre (standing committee members of local CCP)
- River protection outcome is related to political promotion of these leading party cadres

圖 3 滇池盤龍江五華區段起止點與其下各支流水質測起止點劃分示意圖



資料來源：作者田野收集 (2015 年 1 月)

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River Leade	Green Hegemony	Nuclear Power, geo-engineering

Authoritarian Eco: self-green

- The forming of “green” and “eco” discourse and knowledge
- E.g. “Responsibility for the environment is shifted onto the population, and citizens are called to take up the mantle of saving the environment in attractively simplistic ways.”
- Rutherford, S. (2007). Green governmentality: insights and opportunities in the study of nature's rule. *Progress in human geography*, 31(3), 291-307.

Power/Governmentality

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Eco-civilization ; River Leader	Green Hegemony	Nuclear Power, geo- engineering

Authoritarian Eco tech I- Nuclear

- Highly centralized institutions and knowledge system, such as the Nuclear Power
- Rely on an authoritarian and non-participatory regime



<http://www.extremetech.com/extreme/217486-extremetech-explains-how-does-nuclear-energy-work>

China over Mother Nature

Chinese scientists preparing to take on Mother Nature

By **STEPHEN WADE**
The Associated Press

BEIJING — As they prepare to play host to the Olympics — an event whose very purpose is to push the limits of human beings — the Chinese are trying to do what man never has: control the weather.

With five months to go before the Summer Games come to Beijing, Chinese scientists say they are confident they can keep rain away from the opening ceremony, or summon a storm on cue to clear the city's choking pollution.

It's a bold — and, according to international scientists, dubious — bit of stage managing, even for a nation that has already shown an outsize ambition to use the Olympics to showcase its

development from rural poverty to economic powerhouse.

China is spending US\$40 billion to remake the infrastructure of the ancient capital, and it already spends an estimated \$100 million a year and employs 50,000 for rainmaking.

At installations like one called Fragrant Hills, outside Beijing, peasants don military fatigues and helmets and squat behind anti-aircraft guns and rocket launchers, blasting the sky with silver iodide, hoping to shock rain from the clouds.

If rain threatens the opening or closing ceremonies, Beijing officials say they will set up several banks of rocket launchers outside the city to seed threatening clouds and cause them to release their rain before it reaches the capital.



NG HAN GUAN/THE ASSOCIATED PRESS

A ROCKET LAUNCHER used to seed clouds is seen at a station of the Beijing Meteorological Bureau in Beijing.

"We are now drafting the implementation plan for the artificial rain mitigation for the

opening and closing ceremonies," said Wang Yubin, a Beijing Meteorological Bureau

engineer. "This is a very complex process, so we must select the right time and place."

China, short on water and arable land, has lavished some of the scarce resources it has on rainmaking and rain prevention.

Its cloud-seeding weapons include 6,781 artillery guns and 4,110 rocket launchers, according to the state-run Xinhua news agency. The China Meteorological Administration says 4,231 flights for cloud-seeding were conducted from 1995 to 2003.

The Chinese scientists say it worked — increasing rainfall during those years by 210 billion cubic metres, enough to meet the annual needs of 400 million people. China has a population of about 1.3 billion.

Other scientists aren't so sure. "I don't think their chances of

preventing rain are very high at all," said Dr. Roelof Bruintjes, a meteorologist with the U.S. National Center for Atmospheric Research, who was in China several weeks ago and told top-ranking Chinese scientists he was skeptical.

"If there is really a weather system that is producing rain, they won't be able to do anything. We can't chase away a cloud, and nobody can make a cloud, either."

The argument is about much more than precipitation theory. The Olympics, set to run Aug. 8-24, are tightly scheduled, and a rainy day can wreak havoc — particularly if the opening ceremony, perhaps China's best showcase of the Games, is a washout.

◆ See **PROFESSOR** / A14

http://usatoday30.usatoday.com/weather/research/2008-02-29-china-weather_N.htm

<http://www.orwelltoday.com/chinaweather.jpg>

Authoritarian Eco Tech II- WMO

- More than 50% of rain enhancement projects were conducted in China
 - **State-led**: 30 provinces and 2000 countries have Weather Modification Office.
 - WM equipments are **fixed** in specific spots and conducted **regularly**, and some provinces have aircrafts



Conclusions

- **Transnational part:**
 - big/small north v.s REALLY BIG SOUTH
 - the new role of China in the world capitalism crisis
- **Process part: for comparison between the EU and China**
 - Look at the quota territorialization, and related evaluation systems (asymmetric decentralization; upward accountability)
- **Consequence part: theorization on the relationship between the state and eco/ smart**
 - Interactive dynamics between authoritarian and eco/ smart: SA, SA1, SA2, EA, AE1, AE2
 - More challenges when these China models to be exported overseas, bringing more cases to re-theorize and conceptualize the state and eco/ smart

Dr. Shiuh-Shen CHIEN, NTU : Understanding Eco/ Smart Process and
Consequences in post-Socialist China, presented in **SMART-ECO Ningbo**
Project Meeting, 2016/ 05/ 12-13

Thanks YOU