States and Wars: China's Long March towards Unity and Its Long-Term Consequences, 750 BC – 1911 AD

A presentation by
Debin Ma
(Tsinghua University)

Joint work with Chen Shuo (Fudan University)

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An Escape from Rome and No Escape from Beijing?

- China versus Europe: Unity versus Fragmentation or Stability (Stagnation) versus Dynamism;

- Following the collapse of Rome empire, Europeans (including the descendants of Europe) expanded to over more than three continents:

  - *"a billion or so Europeans in Europe and the Americas live divided into some fifty separate and sovereign states, while more than a billion Chinese live in only one state."*

- This became what sinologist Fairbank called the Onus of Unity.

The Absence of "exit" and Competition

- 'Europe's geographic balkanization resulted in dozens or hundreds of independent, competing statelets and centers of innovation whereas in China 'a decision by one despot could and repeatedly did halt innovation.' (Jared Diamond);

- Europe's Escape from Rome (Walter Scheidel)

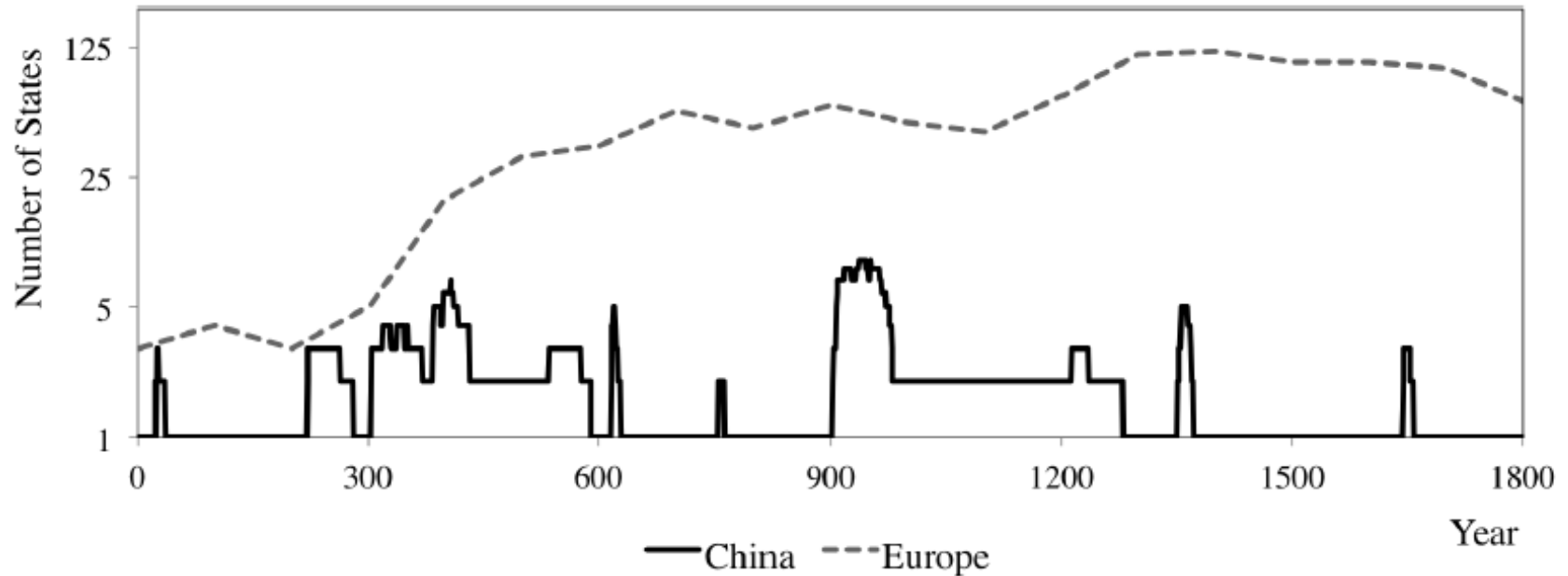# Stylized facts: Unified China and Divided Europe (Ko, Koyama and Sng)

Figure 1: The number of sovereign states in China and Europe, 1-1800. Sources: Nussli (2011); Wei (2011).

Source: Ko et al., (2014)

Our Hypothesis

- Our paper attempts to explain the cause –not just the consequence – of Chinese unity often under a single ruler, hereafter referred to as **Grand Unity** 大一统.

- Our central thesis of our paper locates the mythical unity of Chinese empire in a tripartite synthesis of a **geography** within a closed and circumscribed environment, the **ideology** of the legitimacy of a single unified ruler for all and the governing **institutions** of direct administrative rule.

- The sustainability of this synthesis was forged and re-enforced through two millennia of sustained **warfare** - in particular the **agrarian-nomadic conflict** - along either side of the Great Wall.

- More importantly, we argue that both ideology and institutions persisted beyond those geographic factors and became self-fulfilling.

The Mechanism

- Warfare and conquest
  - → massive resource mobilization → absolutist rule, political centralization, direct administrative rule (郡县制) and eventually Civil Service Examination (科举制）
  - → an agrarian production system based on de-facto private property rights in land and small-holding peasantry.

- The Limits of Agrarianism at the Nomadic Frontier:
  - China's geographic extension from the so-called Central Plain in Northern China - the original core of Chinese civilization – was also a process of incorporating and civilizing the so-called "barbarians" into a wide zone of a single Chinese rule for all.

Our Contribution

- Two millennia data sets based on standardized definition of territories and regimes;

- We quantify the role of ideology by calculating the word frequency of several key terms related to the concept of Grand Unity ideology: "unify" and the character for "Han" Chinese and four different expressions of "barbarian" from the voluminous official Twenty Four Historical Annals.

- Warfare time series differentiated by **types and location**.

- We offer an in-depth discussion on the changing relationship among the three types of warfare and how they reflect the interaction between warfare and internal political institution.

1. Geographical and Cultural Space

- China's geographic location as a case of environmental circumscription" - bounded by Himalaya on the West and Pacific on the East.

- Grand Unity (大一统) for all under the heaven (天下一家);

- The legendary Chinese idea of Nine States (九州);

- Centre versus peripheries; Chinese 华 versus "barbarians"夷 .

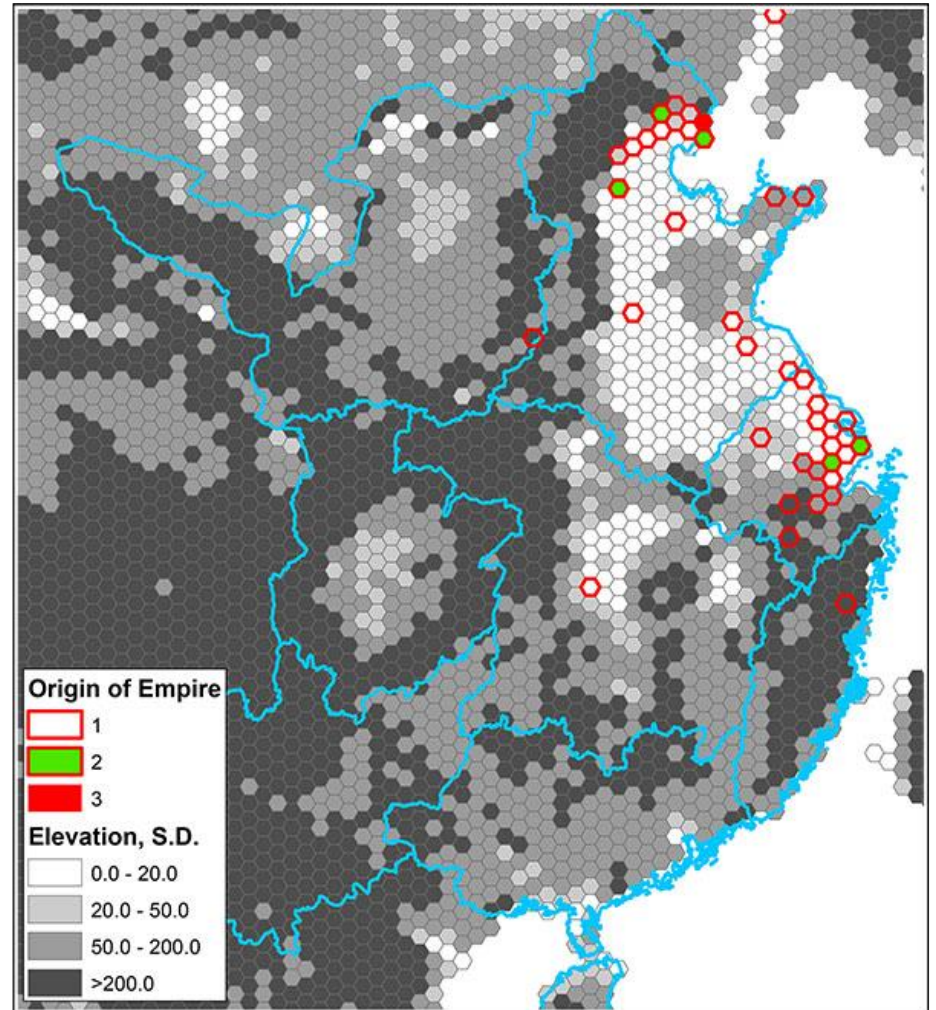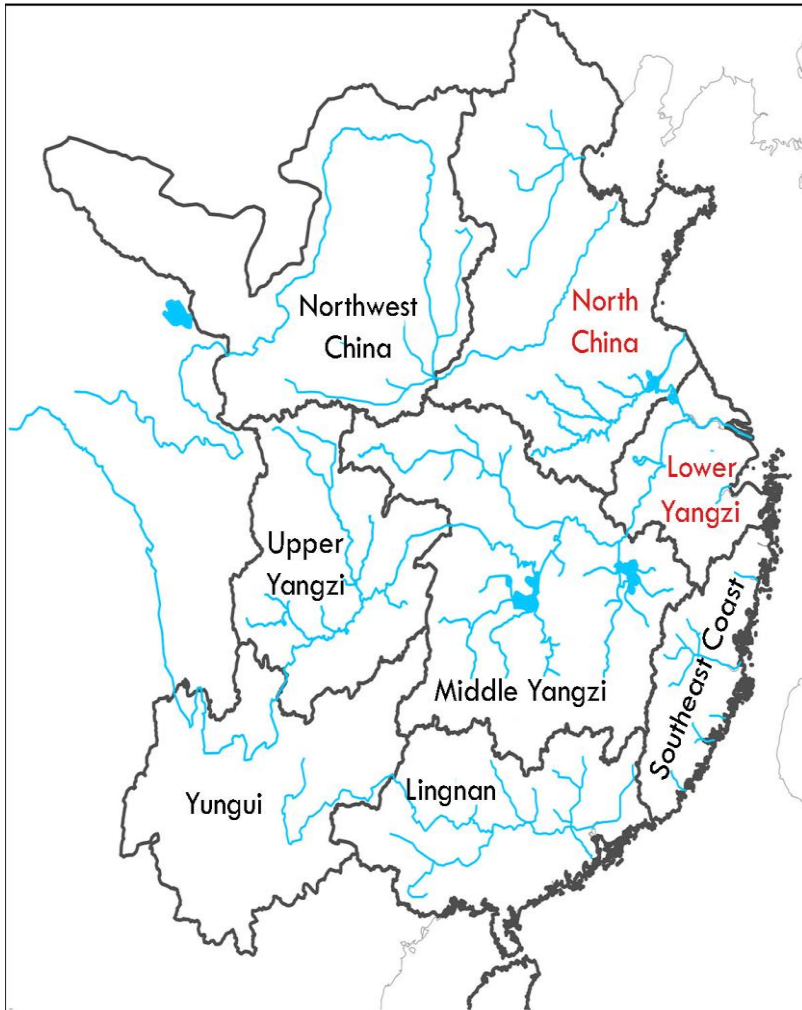- The word "Great Unity" (大一统) can be traced to *Gongyangzhuan* (公羊传) in the Spring-Autumn period.

Geographical and Cultural Space

Figure 1: Ruggedness in Europe and China proper.(Jesus Fernande-Villaverde, Koyama, Lin and Sng)
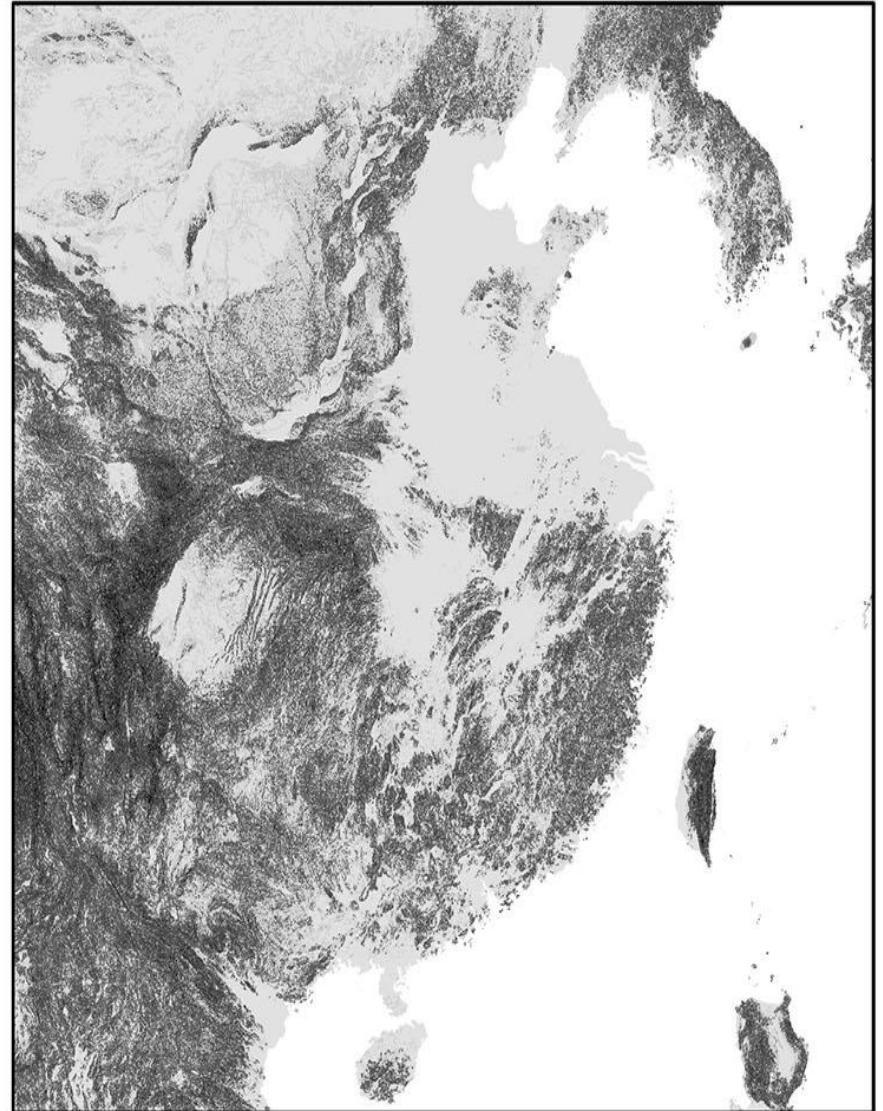
The dominance of North China Plain
(Jesus Fernande-Villaverde, Koyama, Lin and Sng)

# China as vast as a Continent: Environmental Circumscription?

2. The Origin of an Ideology and Institution

- The Ideal of "Great Unity" originated in China's fragmented "feudal age" 封建制 (Confucian)

- Once achieved, unity was preserved by the invention of bureaucratic government.

- Internal integration (郡县制) (Legalist):
  - Hierarchical dominance over local autonomy or power sharing;
  - The legitimacy of Nomenklatura (personnel appointment from the top)

- 外儒内法 and Confucian-Legalist Synthesis

Spring and Autumn Era:
China's first march towards unity.
Figure 1. States and Wars in 750 BC – 221 BC

Legend:
- Average Number of States per Decade
- Total Incidences of Warfare per Decade
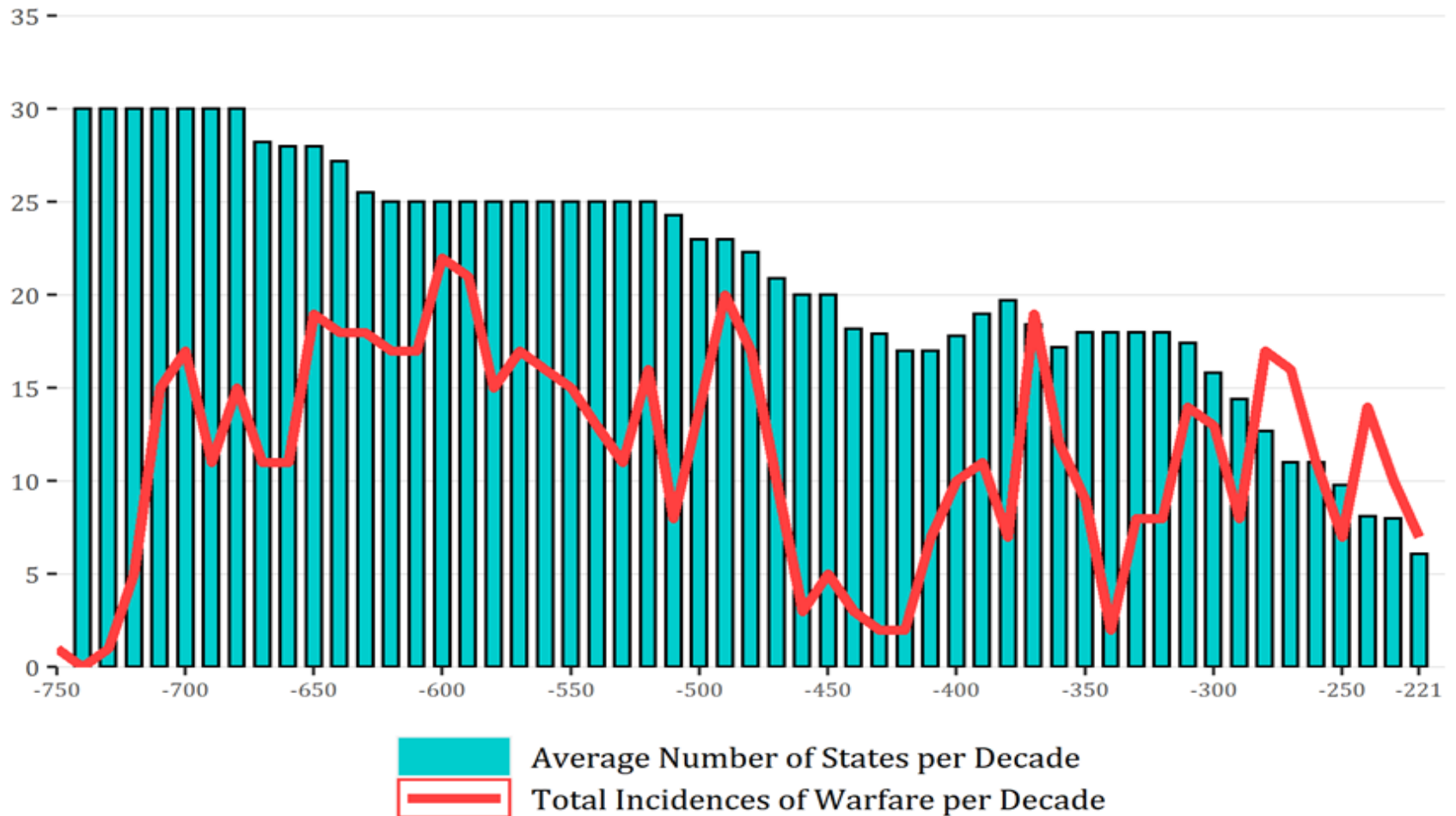
Why did the late-rising Qin on the West Frontier Unify China (The Rise of 郡县制 and the decline of Feudalism)?

*Figure 4.1.* War networks for the years between 722 and 643 BCE (Zhao Dinxin)
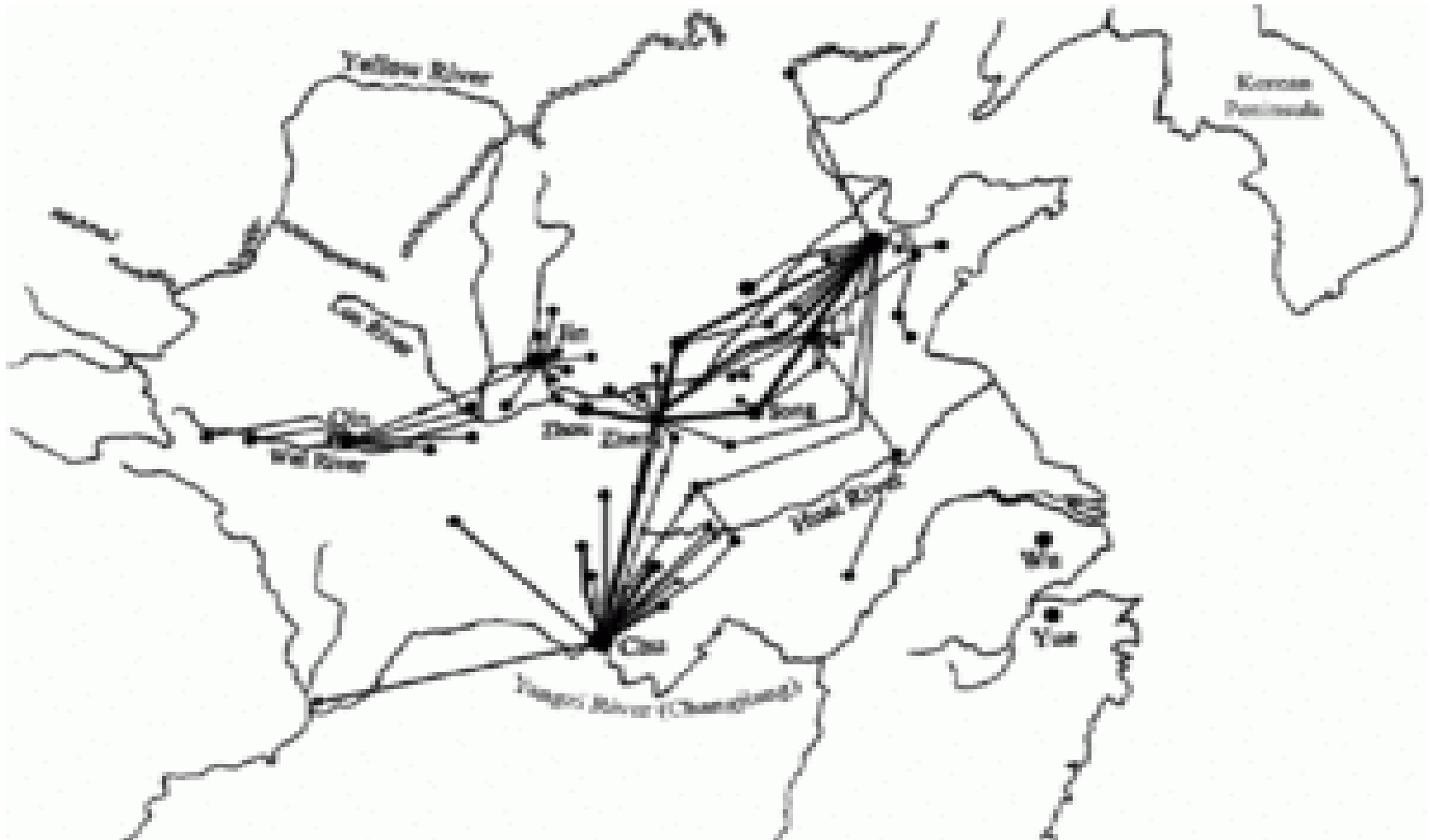
Grand Unity as Legitimacy of Rule

- *史记, 秦始皇本记 (Records of the Grand Historian):*
  - *By annihilating the six kingdoms, annexing China and suppressing the four barbarians (Eastern Yi, Southern Man, West Rong and Northern Di), Qin restored peace to all under the heaven (Danjo 2016, p. 11).*

Figure 2: The Word Frequency (or Percentage Share) of 'Tong' 统 (Unity) in *Twenty-Four Historical Annals* in 221BC – 1644 (in decade average)

"emperors" 皇帝, "Confucian" 儒, "famine relief" 赈灾: 1.36‰, 0.43‰ and 2‰ respectively
"Tong" average a bit above 1.5‰ between 900 and 1644 AD and jumped to about 3‰.
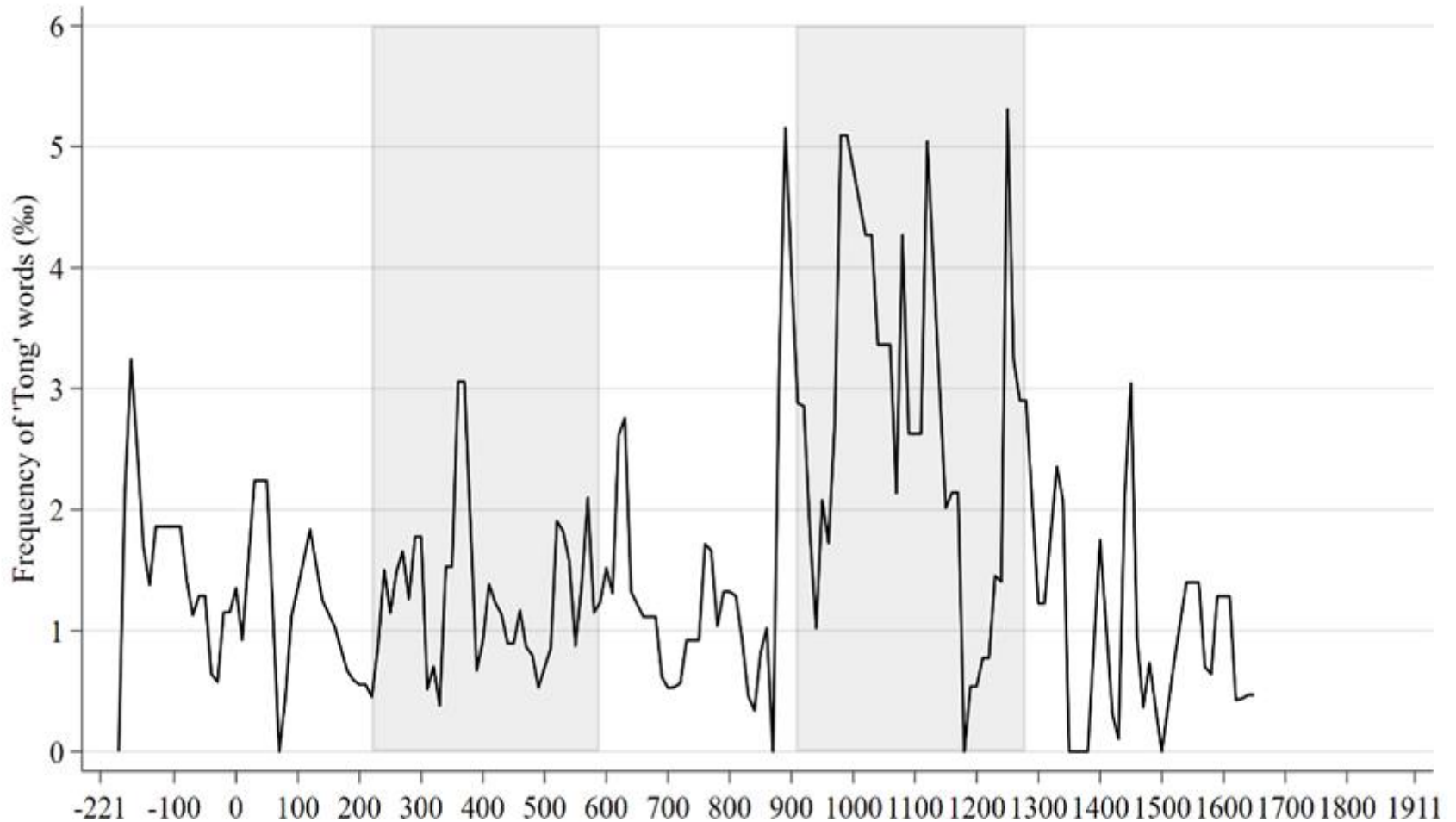
3. States

Figure 3. Geographic Locations of Capitals of Nomadic and Agrarian Regimes

States: our dataset
Defining the Number of Agrarian and Nomadic Regimes

Legend:
- ■ Agrarian Capitals
- ▲ Nomadic Capitals
- the Great Canal
- Qin Great Wall
- Ming Great Wall
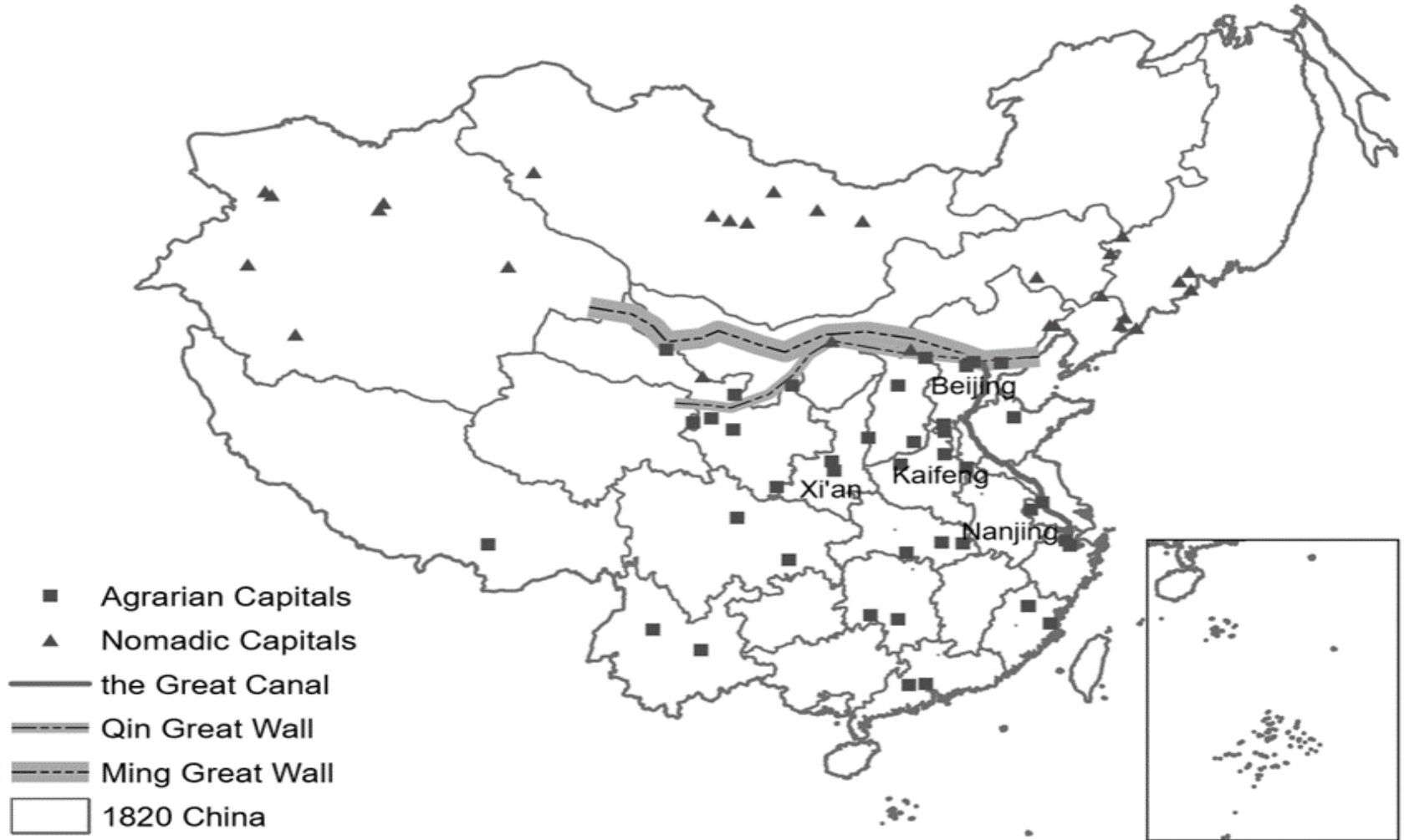- 1820 China

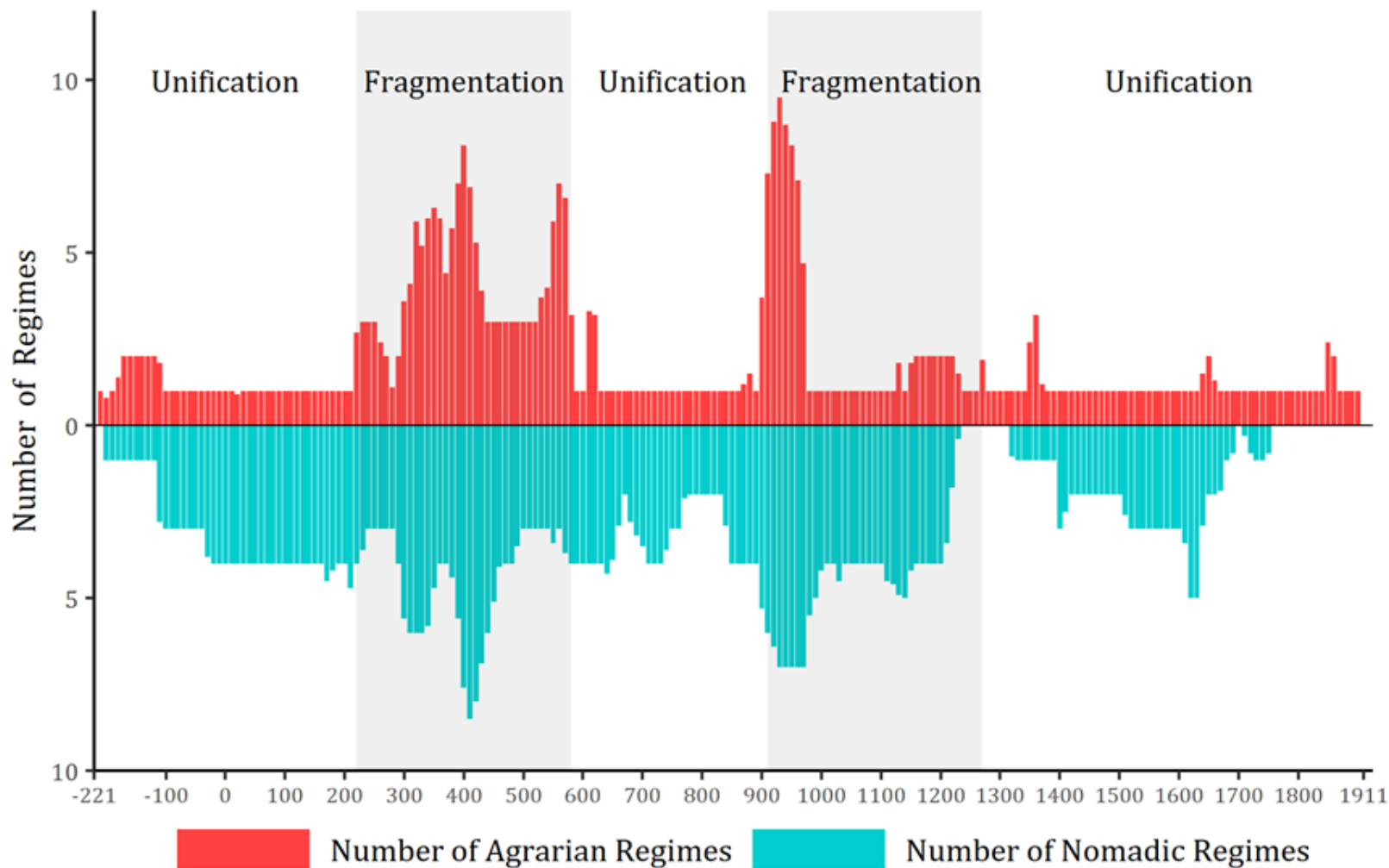Map labels: Beijing, Kaifeng, Xi'an, Nanjing

Figure 4. Agrarian and Nomadic Regimes in China during 221 BC – 1911 AD

Why was Northern China dominant? the Eurasian Steppe
(Ko et al a la Peter Turchin)

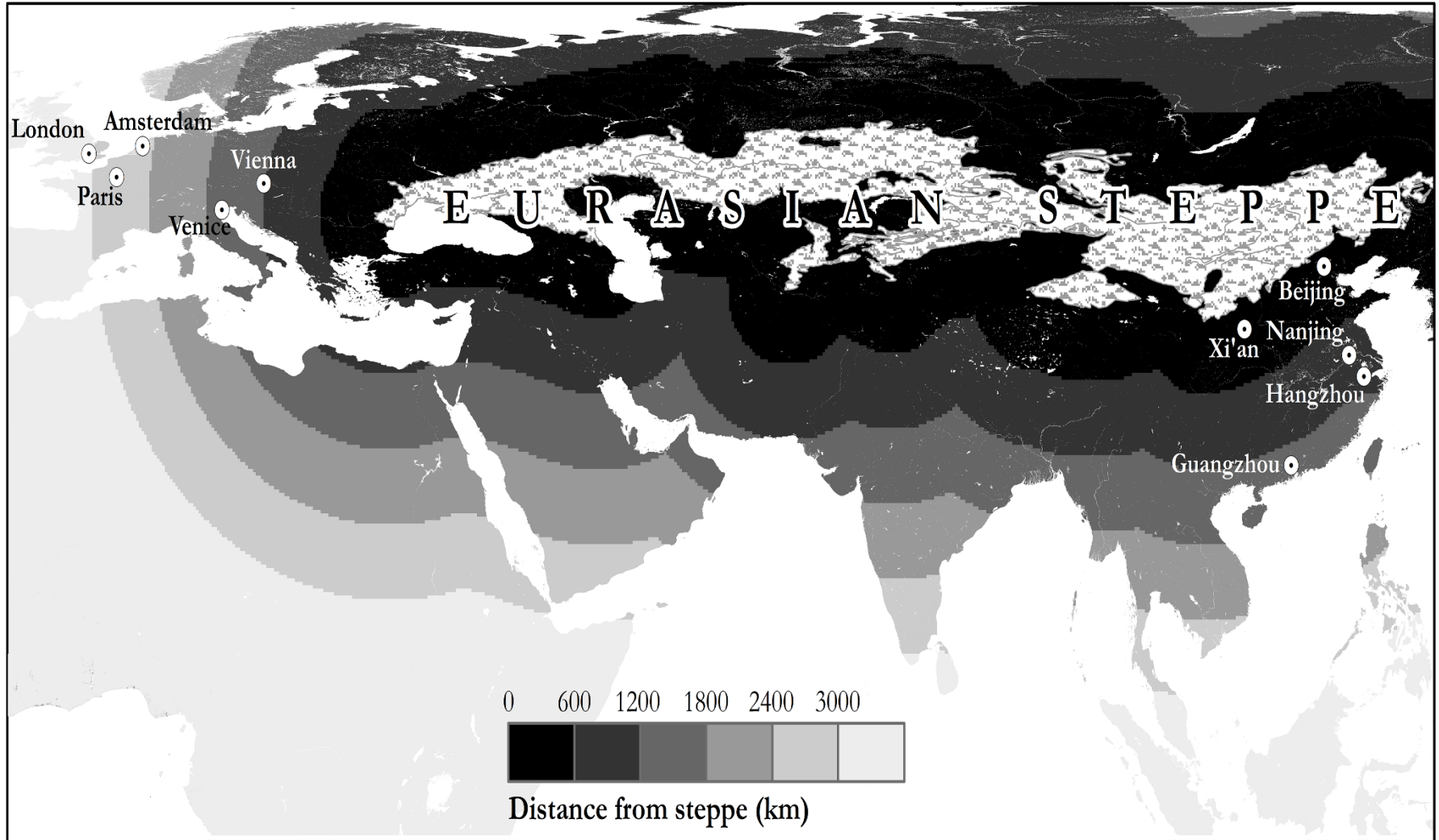# Figure 5. The Eastward drift of Agrarian Capitals (Migrating towards the North China plains)
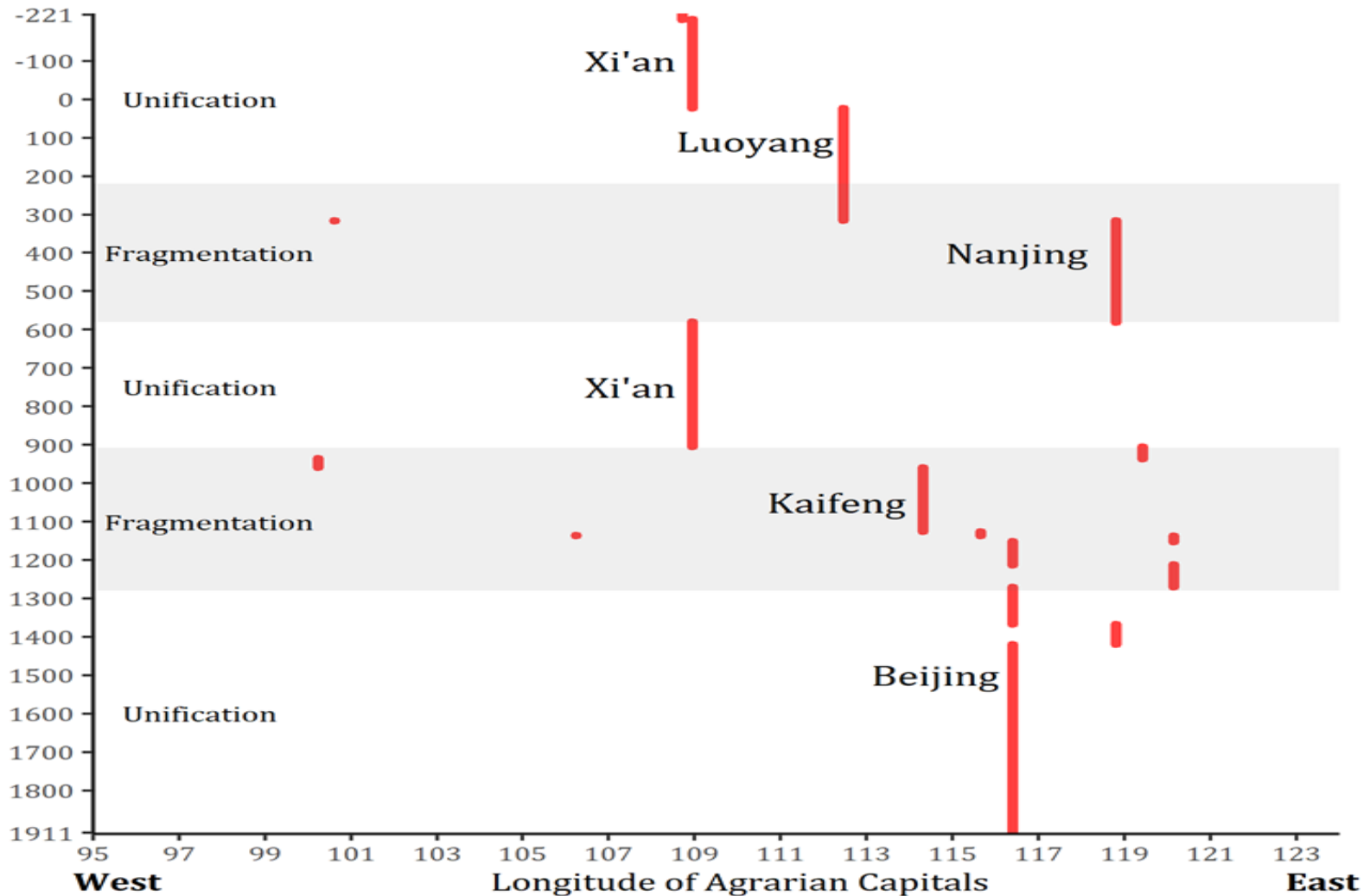
Figure 6. The Northward Drift of Agrarian Capitals
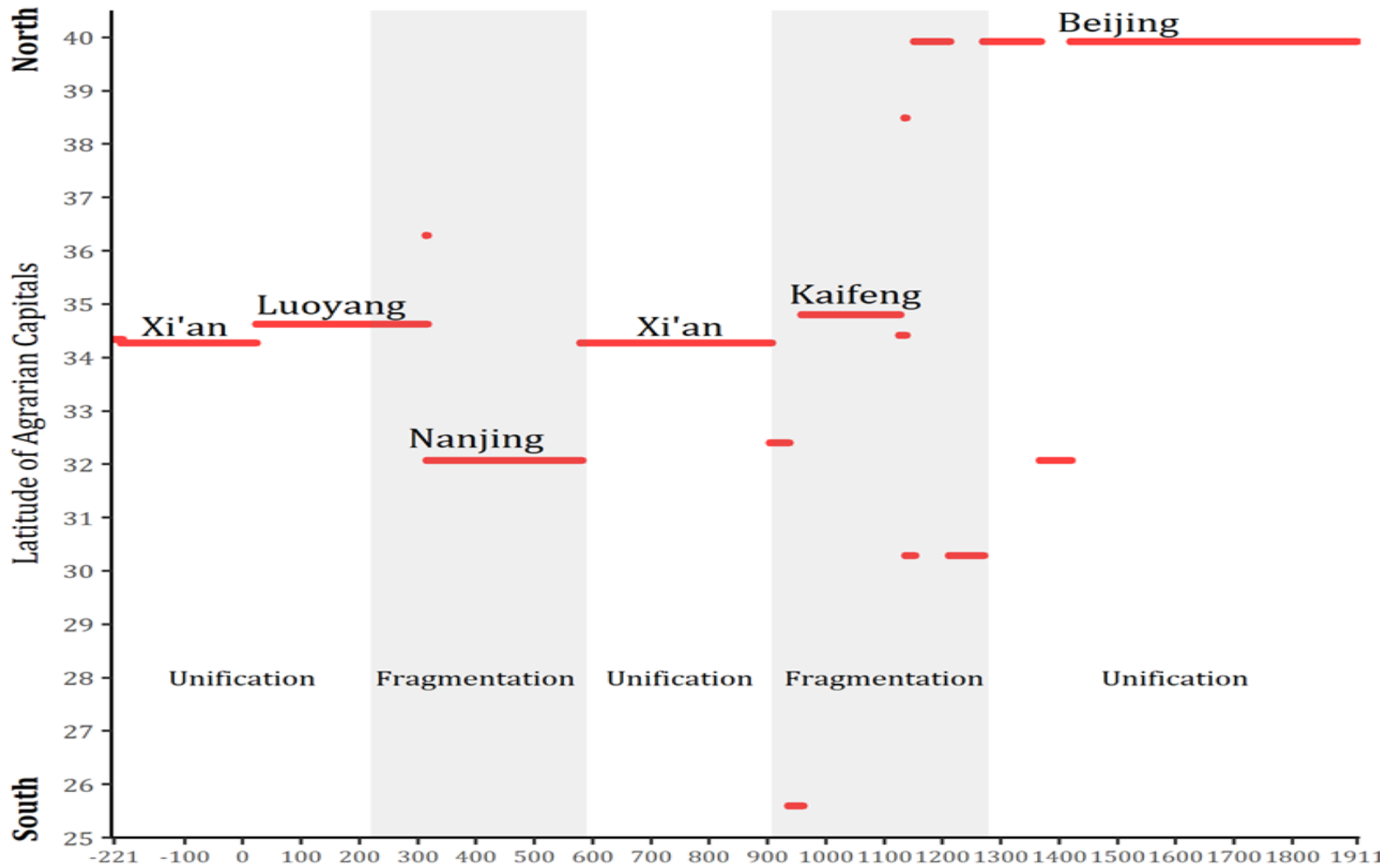
No trend in latitude for nomadic capitals
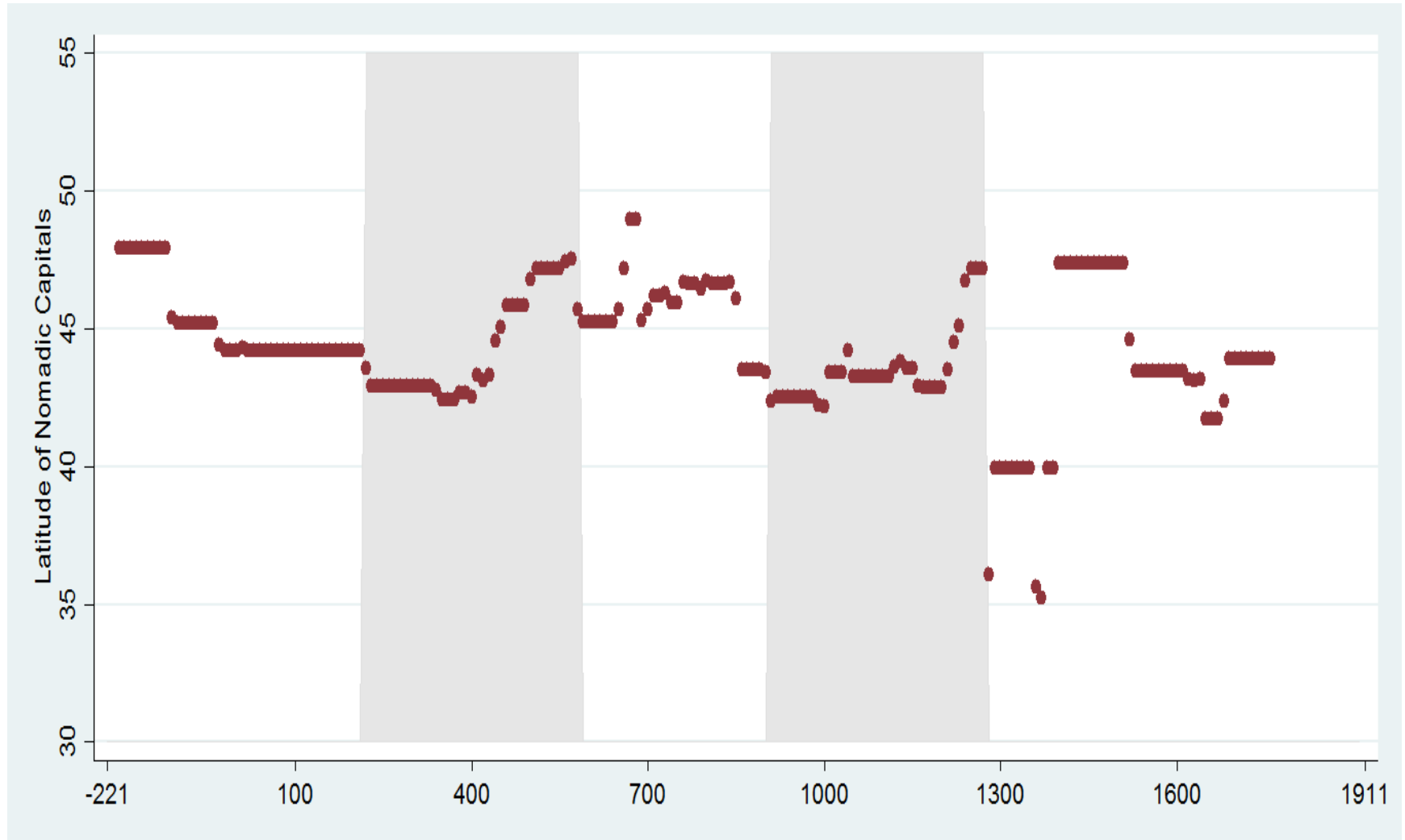
Westward drift of nomadic capitals
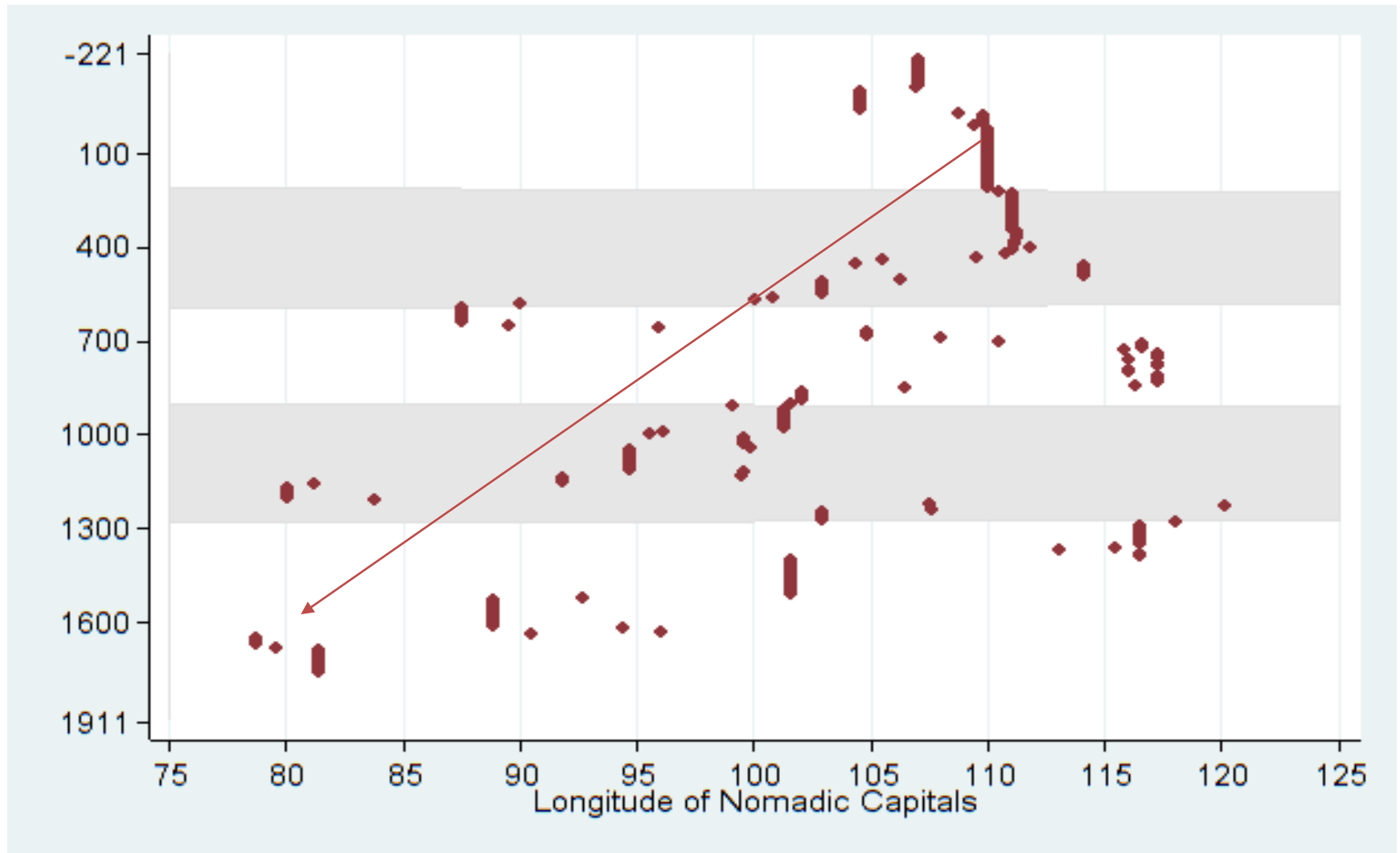
3.3 Chinese Barbarian Synthesis
Figure 7: The Number of Nomadic (Barbarian) Regimes (Converted) to Agrarian Regimes in 221 BC – 1911
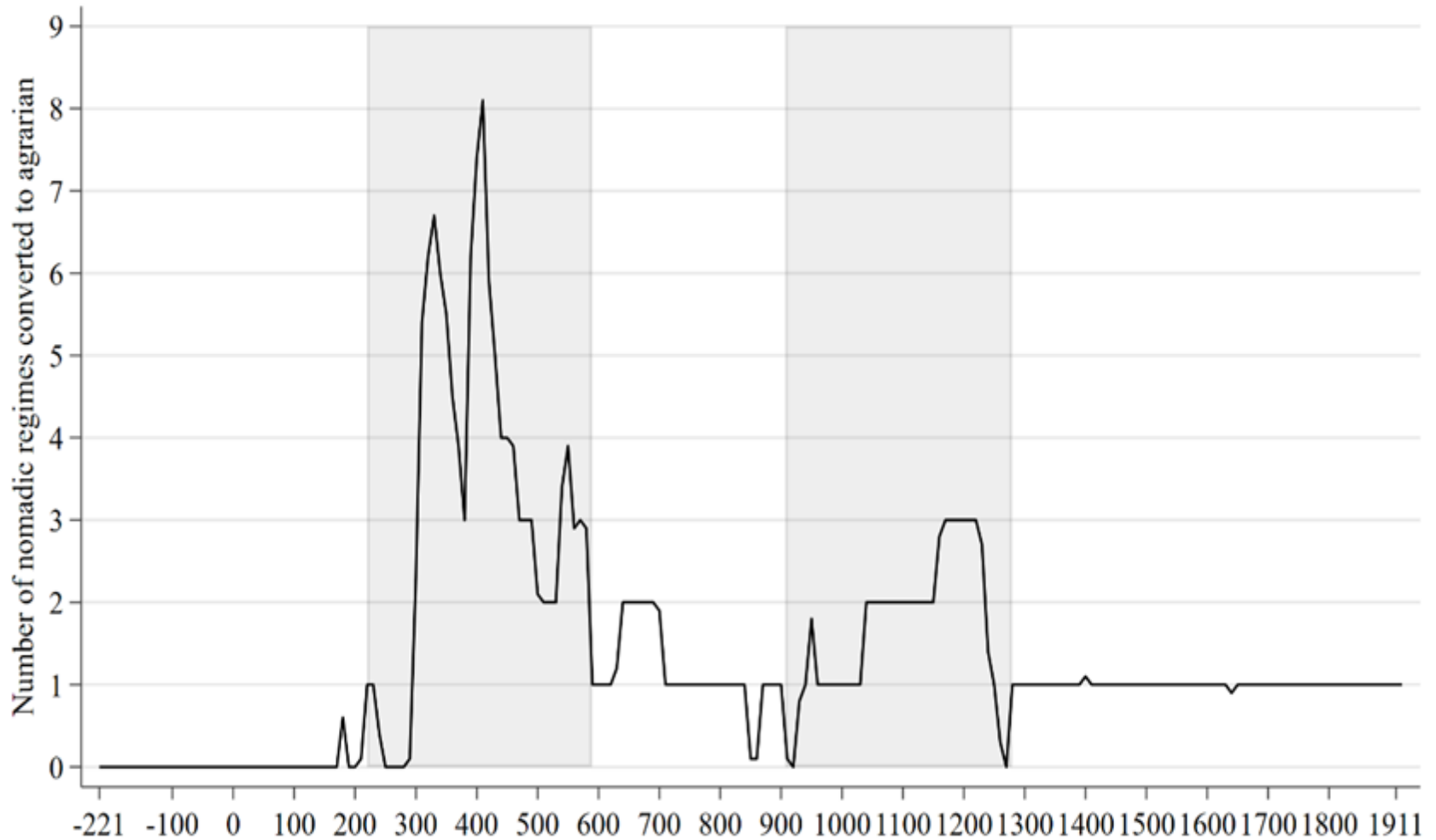
Figure 8: Word Frequency (Percentage Share) of the Chinese character "Han" 汉 (Chinese) versus "Barbarian" (divided into sum of 'Man-Yi-Rong-Di' 蛮夷戎狄and 'Rong-Di' 戎狄) in 221 BC – 1644
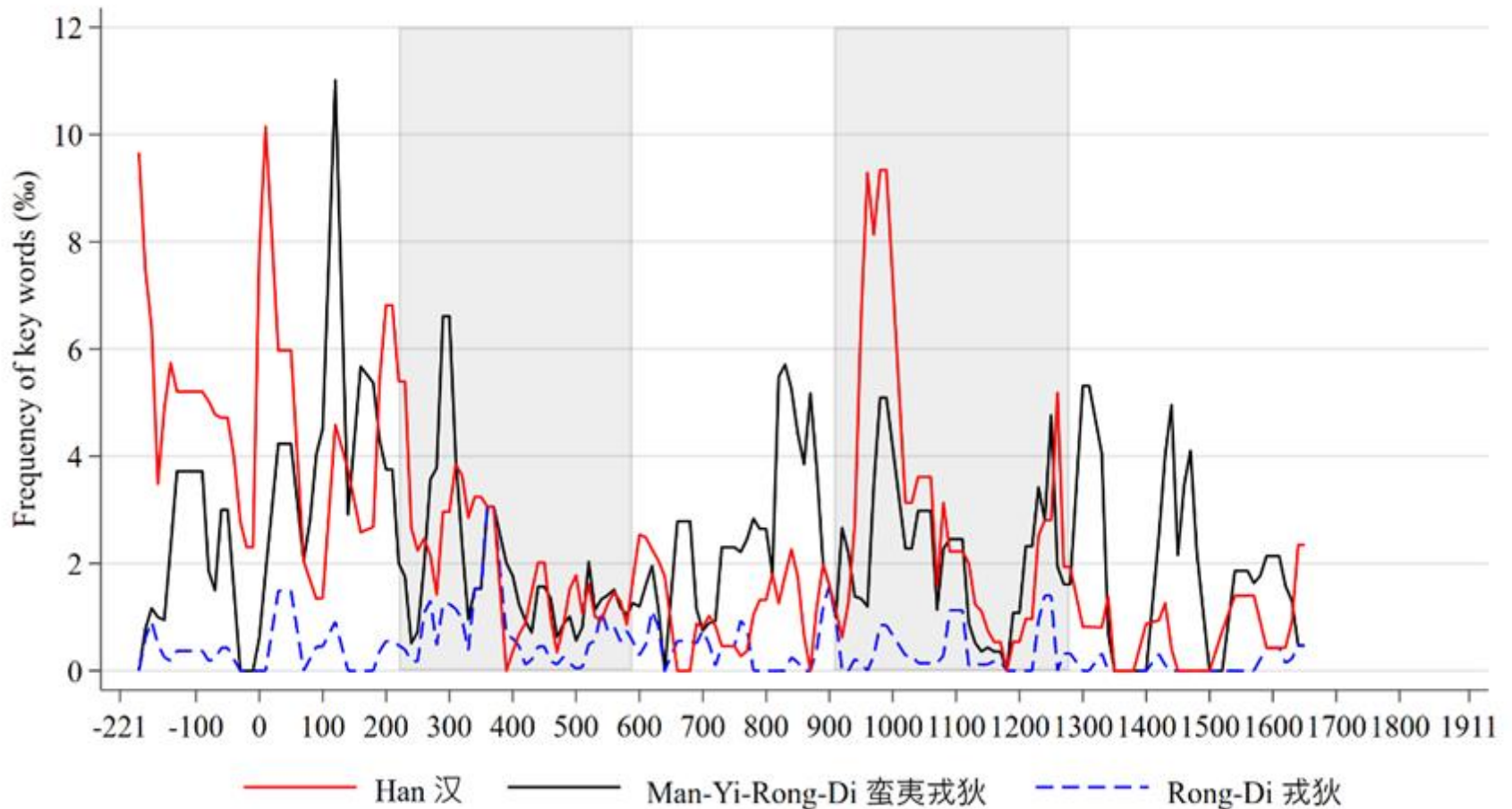
Qing China (1644-1911): The Agrarian-Nomadic Synthesis (Ming territory underlined)

(Qing) Size represents the additional Legitimacy

- Qing Yongzheng's dialogue with his Han (Song) Chinese nationalist prisoner:
  - 雍正 '大义觉密录':
  - 且自古中国一统之世，幅员不能广远，其中有不向化者，则斥之为夷狄。如三代以上之有苗、荆楚、玁狁，即今湖南、湖北、山西之地也。在今日而目为夷狄可乎？至于汉、唐、宋全盛之时，北狄、西戎世为边患，从未能臣服而有其地。是以有此疆彼界之分。自我朝入主中土，君临天下，并蒙古极边诸部落，俱归版图，是中国之疆土开拓广远，乃中国臣民之大幸，何得尚有华夷中外之分论哉！
  - 徒谓本朝以满洲之君，入为中国之主，妄生此疆彼界之私，遂故为讪谤诋讥之说耳。不知本朝之为满洲，犹中国之有籍贯。舜为东夷之人，文王为西夷之人，曾何损于圣德乎？

- Literary Inquisitions and the rise of Shiku Quanshu under Qianlong emperor (乾隆 文字狱，四库全书)

- Taiping Rebellion and the Rise of Hunan and Anhui Militia.

4. War
Defining Types of Warfare

- One of the Longest warfare in human history:
  - Over 1000 warfare incidences from 750 BC to 1911 ADD over 4000 miles from east to west.

- Agrarian-nomadic wars: between regimes inside and outside and Great Wall;

- Civil Wars: within the Great Wall between agrarian regimes with a capital;

- Rebellions: within the Great Wall by rebels prior to establishing official capitals.

Figure 9. Warfare by Types across Time
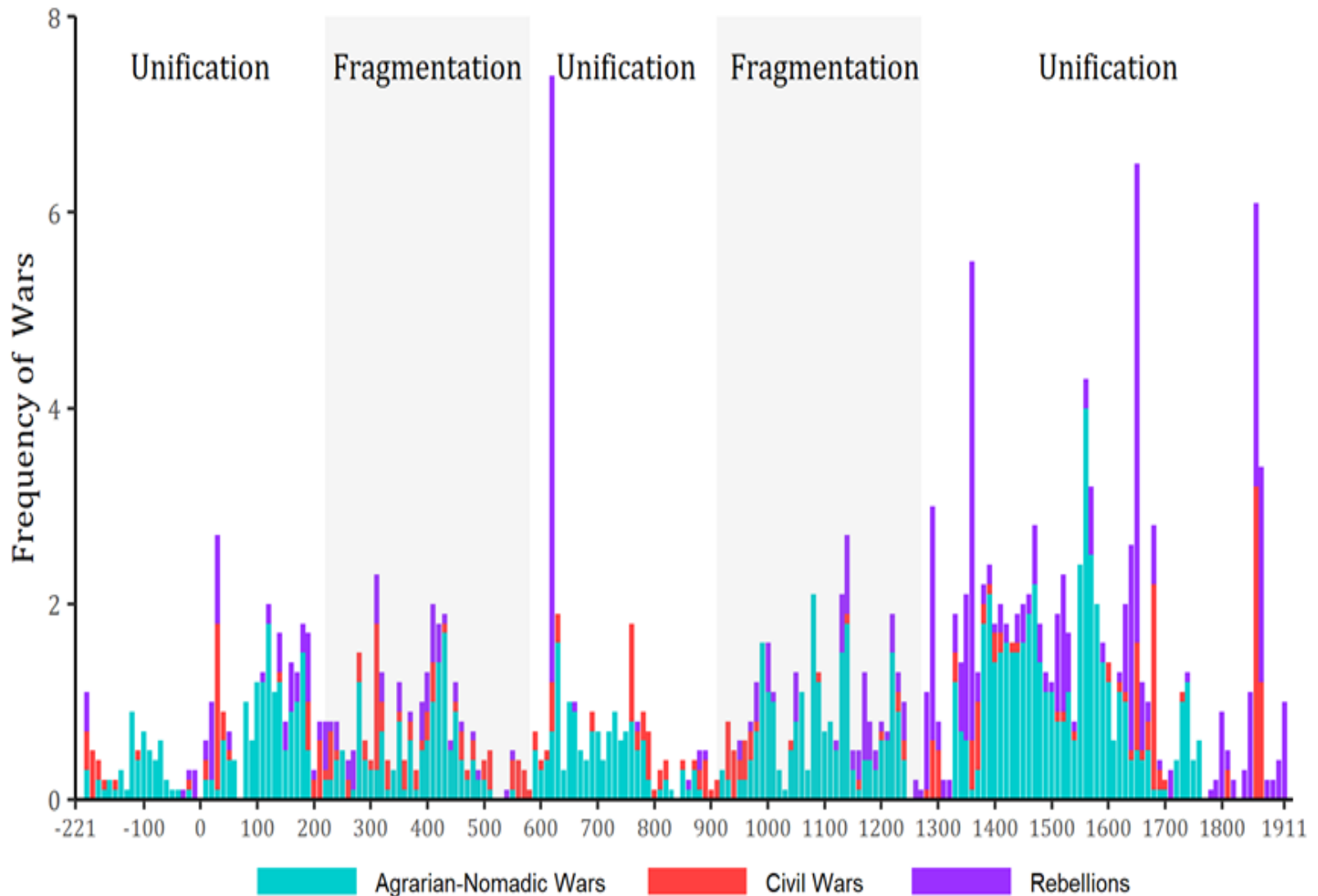
Figure 10. Warfare by Types across Time (Percentage)
(The reduction of Civil Wars and corresponding rise of rebellion under unification)
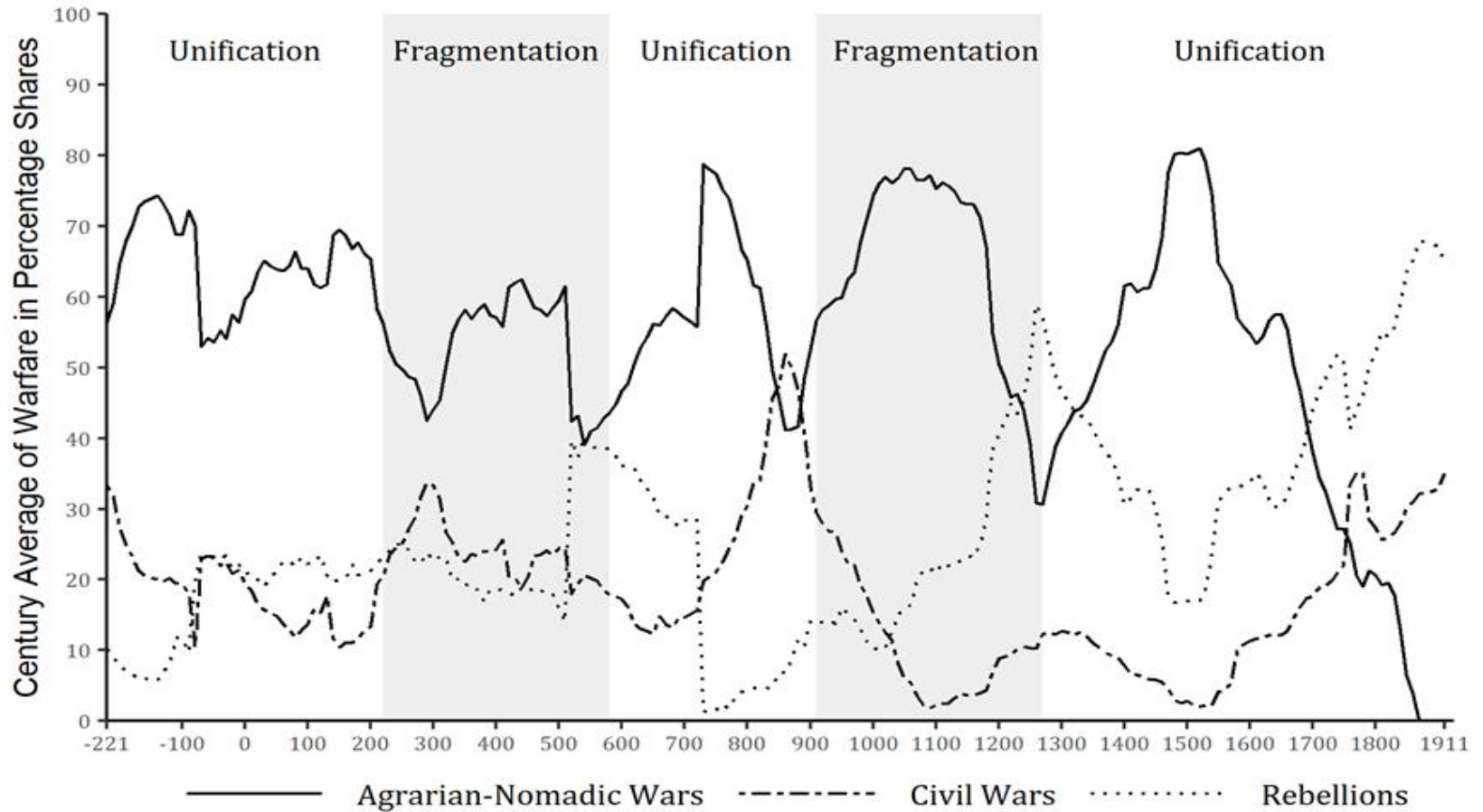
ARDL Model

- We assume that the dynamics relationship between war and size of nations (number of regimes) is as following:

$$y_t = \beta_0 + \sum_{i=1}^{p} \beta_{1,i} y_{t-i} + \sum_{i=0}^{q} \beta_{2,i} w_{t-i} + \sum_{i=0}^{J} \beta_{3,i}{}' W_{t-i} + X_t{}' \gamma + \varepsilon_t$$

- Here, t denotes decade,
- y is dependent variable which includes size of regime (y_1) and number of agrarian regimes (y_2).
- w is the key variable of our interest: incidences of Agrarian-nomadic wars.
- Vector W includes the two other types of wars: civil wars and rebellions. p, q and J are lag orders for y, w and W respectively.
- For the control variables, we have the exogenous climate data, denoted as vector X, that include the

Table 1. Summary Statistics

	Variables	Obs	Mean	SD	Source
y_1	Size of agrarian regime	214	814.732	514.193	A
y_2	Number of agrarian regimes	214	0.963	0.442	B C D
w_1	Agrarian-nomadic wars	214	0.463	0.491	F
w_2	Civil wars	214	0.139	0.265	F
w_3	Rebellions	214	0.321	0.828	F
x_1	High temperature	214	0.178	0.383	G
x_2	Serious locust plague	214	0.127	0.333	G
x_3	Heavy floods	214	0.145	0.353	G
x_4	Heavy droughts	214	0.154	0.362	G

Figure 12. Average Size of States (million km²)
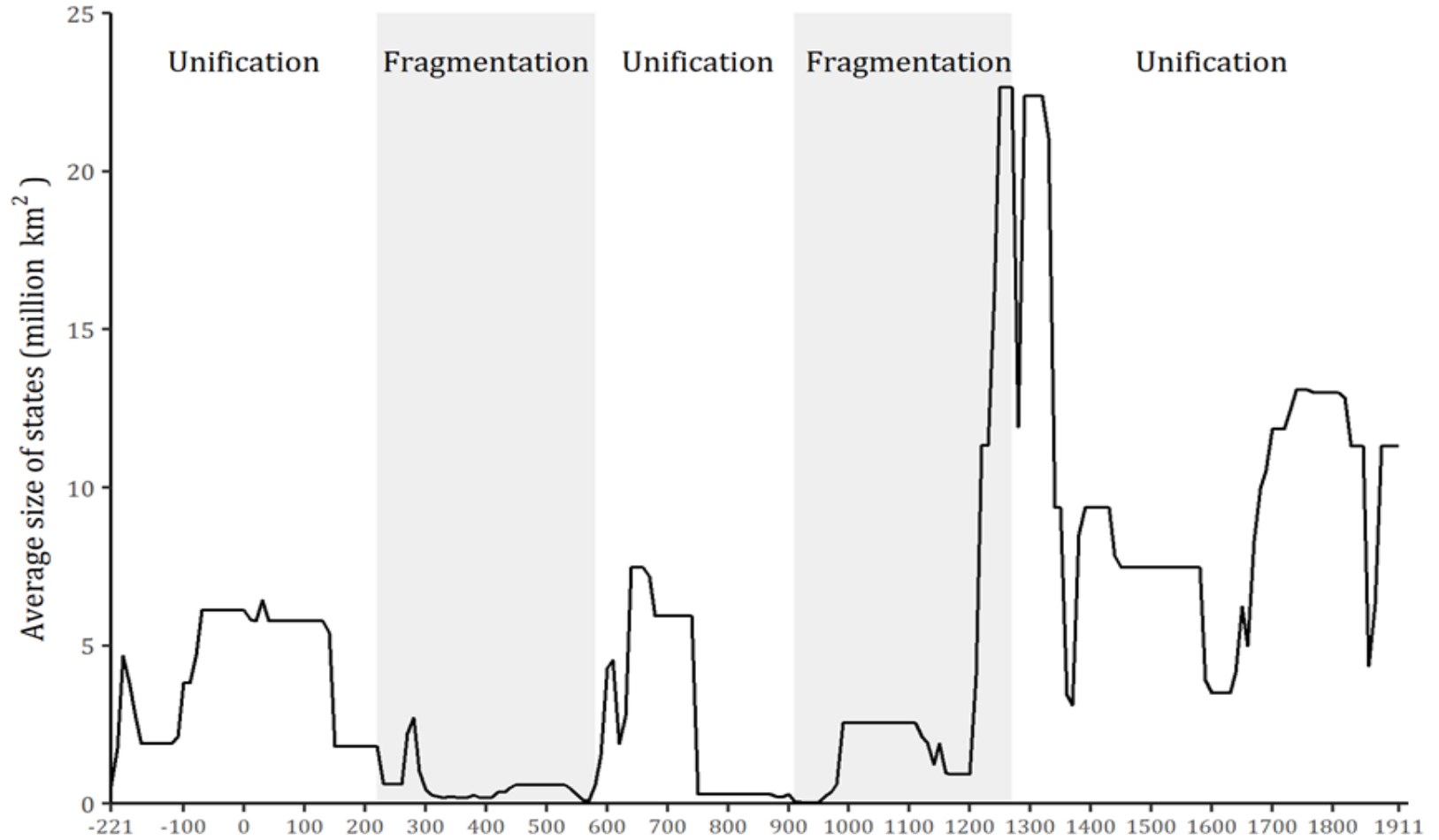
Long-run coefficients size and number of agrarian regimes are 433* and -0.16* only.

Table 1. Baseline Model: Agrarian-nomadic Wars and Size and Number of Agrarian Regimes

Y_i	(1) Size of Agrarian Regimes	(2) Number of Agrarian Regimes
Panel A: Long-run coefficients		
Dependent variable: Y_i		
Agrarian-nomadic wars	596.60**	-0.60**
	(293.11)	(0.28)
Civil wars	762.6	0.63
	(509.8)	(0.43)
Rebellions	391.1	-0.12
	(240.6)	(0.21)
Panel B: Short-run coefficients		
Dependent variable: ΔY_{it}		
L.ECTi	-0.11***	-0.11***
	(0.03)	(0.03)
LD. Yi	-0.05	0.19***
	(0.07)	(0.07)
L2D. Yi	0.11*	
	(0.07)	
L3D. Yi	0.14**	
	(0.07)	
D. Peasant uprisings	-86.96***	0.09***
	(20.27)	(0.02)
LD. Peasant uprisings	-76.50***	0.06***
	(16.51)	(0.02)
Constant	-22.42	0.15***
	(27.09)	(0.04)
Control for extreme weather	YES	YES
Time trend	YES	YES

An instrumental variable on the casual relationship between agrarian nomadic warfare and size and number of regimes

$$Y_t = \alpha + \beta_1 \widehat{War}_t + \gamma X_t^{'} + \varepsilon_t$$

$$\widehat{War}_t = \alpha + \alpha_1 Northtemp_t + X'_t + \varepsilon_t$$

$Northtemp_t$ is the deviation from average Northern temperature.

War is Agrarian-Nomadic Warfare

Table 3: IV Estimates Results

	First Stage	2SLS		
	(1) Agrarian-nomadic wars	(2) Size of nation	(3) Agrarian regimes	(4) Nomadic Regimes
Agrarian-nomadic wars		1,315***	-0.595**	-0.403
		(435.3)	(0.255)	(0.352)
North temperature	-0.484***			
	(0.161)			
Civil wars	-0.243**	161.8	0.194	0.188
	(0.094)	(172.0)	(0.175)	(0.144)
Rebellions	-0.038	102.4*	-0.0104	-0.173**
	(0.036)	(59.35)	(0.039)	(0.070)
High temperature	-0.202***	39.13	-0.153	0.0619
	(0.066)	(120.2)	(0.097)	(0.100)
Serious locust plague	0.050	-40.32	-0.133	0.002
	(0.154)	(211.1)	(0.105)	(0.140)
Heavy floods	-0.087	-22.19	0.121	0.232
	(0.088)	(179.5)	(0.106)	(0.150)
Heavy droughts	-0.262***	969.6***	-0.303***	-0.829***
	(0.082)	(161.5)	(0.103)	(0.155)
Constant	0.637***	-352.6	1.323***	1.603***
	(0.055)	(265.0)	(0.152)	(0.219)
Observations	190	190	190	190
R-squared	0.133			0.091

No effects between nomadic regimes and warfare

Table 4. Agrarian-Nomadic Wars and Nomadic Regimes

y_t	(1) Nomadic Regimes	(2) Nomadic Regimes (with time trend)
Panel A: Long-run coefficients		
Dependent variable: y_t		
Agrarian-nomadic wars α_2	-0.19	0.03
	(0. 36)	(0.28)
Civil wars α_{3-1}	0.20	0.11
	(0.65)	(0.49)
Peasant uprisings α_{3-2}	-0.41*	-0.23
	(0.22)	(0.17)
Panel B: Short-run coefficients		
Dependent variable: Δy_t		
$ECT_{t-1}\ \delta$	-0.06***	-0.08***
	(0.02)	(0.02)
LD. $\Delta y_t\ \theta_{11}$	0.32***	0.32***
	(0.07)	(0.07)
Constant	0.09***	0.14***
	(0.03)	(0.04)
Control for weather	YES	YES
Time trend	NO	YES

Regressions on Split Samples of Phases of Unification and Fragmentation

	(1)	(2)	(3)	(4)
	Unification		Fragmentation	
	Size	Number	Size	Number
Agrarian-nomadic wars α_2	210.27	-0.30	-110.17	-0.39*
	(153.93)	(0.18)	(227.95)	(0.22)
Civil wars α_{3-1}	386.10	0.03	26.30	1.14*
	(298.45)	(0.29)	(274.04)	(0.65)
Rebellions α_{3-2}	83.81	0.10	54.91	1.16**
	(119.57)	(0.14)	(298.41)	(0.46)
Control for extreme weather	YES	YES	YES	YES
Time trend	YES	YES	YES	YES
Adj. R^2	0.26	0.35	0.49	0.41
AIC	1919.92	-116.24	812.05	-33.53
BIC	1958.53	-74.66	847.08	-5.07
t-statistic on ECT	-4.20**	-3.07	-11.21***	-4.54**
Optimal lag	[2,0,0,2]	[3,0,0,2]	[4,0,0,1]	[2,0,2,0]
N	144	144	66	66

Conclusion: States and Wars

- A polity could mobilize resource for warfare through **financial capital, nationalism or pure coercion** dependent her underlying political structures (Zhao Dinxin).

- Relatively capital rich states with weak despotic power would more likely resort to the **first and second method**, leading these states down towards a path of some form of constrained political regime, civil society and constitutionalism.

- For China, the Legalist reform implemented by Shang Yang endowed imperial China with massive coercive power to employ the **third method** that is pure coercion (Acemoglu and Robinson 2019, chapter 8).

War and State Capacity in China

- In this context, state capacity to mobilize for external warfare, rather than serving as an impetus to the rise of common national interest in more constrained states were more likely to turn into tools of domestic political repression in coercive states.

- It is not a coincidence the heightened pace of agrarian nomadic warfare (and the corresponding reduction in the share of civil wars) from the tenth century onward in China corresponded to an increasing concentration of imperial power, the strengthening of imperial bureaucracy and the associated Civil Service Exam system and ultimately social control.

- Unification and State Capacity: the Secular decline in Tax Revenue from Song afterward (Hanhui Guan, Debin Ma and Runzhuo Zhao in progress).

The agrarian-nomadic synthesis and the importance of semi-nomads

- Imperial China's combination of coercion with unification under a single state or a cultural order is a singular phenomenon in world history.

- The unique geography of China on the easternmost of Eurasia bounded by Himalaya on the West and Pacific on the East has made possible a potentially closed space – or what some called "social cage or environmental circumscription" - except for the openings of her Northern and Southern frontiers;

- The Chinese empire eventually attained unity first by sealing off the Northern frontier with the Great Wall, then – when the first option failed - through the Agrarian-Nomadic synthesis.

- **China's open southern naval frontier had long posed no serious challenge until the fateful onset of Western imperialism in the 19th century.**

Japan: the counterfactual test? (Ma, Rubin and Yin in progress)

- Japan:
  - The import of Chinese ideology but the absence of nomadic threat;
  - The outcome is unity under (pre-Qin Chinese type of) "feudalism".
- Feudalism in Japan may have paved the way for Meiji Revolution in mid-19th century.
- Meiji Restoration in Japan versus Tongzhi Restoration in Qing China.
- The problem of ethnicity in 1911 Republican Revolution:
  - Beijing versus Nanjing and Yuan Shikai versus Sun Zhongshan

The Institutional variation: 郡县制 vs 封建制
Tokugawa Shogunate controlled 15 % of the arable land and the bulk of Japan was divided into 260-odd domains headed by a daimyo (local lord)