**Leonid GRININ**

**THE SYSTEMIC POLITICAL, ECONOMIC, AND URBAN INTEGRATION SINCE THE RISE OF CITIES**

I’d like to touch upon three issues:

**1. The main phases of globalization and of the development of the Afroeurasian world-system in terms of the levels of spatial links.**

**2. The correlation between technological development, globalization, and political organization.**

**3. The correlation between urbanization and political development (statehood); the main phases of these processes.**

I find it reasonable to start with periodization of globalization processes in terms of expanding spatial links.

Our ideas of the main phases of historical globalization are reflected in Table 1 “Growth of globalization level in historical process”. Here one can distinguish seven periods. The given periodization is based on the principle of expanding spatial links between societies (see Grinin and Korotayev 2013a, 2013b). We can point to the expansion and integration of interacting networks from local level trough the level of transcontinental links to the planetary one. Actually, one can speak about historical globalization starting from the third phase when the regional-continental links had originated. Since the Age of Discovery the intercontinental links started to develop and by the early nineteenth century they became truly global.

*Table 1*

**Growth of globalization level in historical process**

|  |  |  |
| --- | --- | --- |
| Period number | Type of spatial links (globalization level) | Period dates |
| 1 | Local links  | Till the 7th – 6th millennium BCE  |
| 2 | Local-Regional links | From the 7th – 6th millennium till the second half of the 4th millennium BCE |
| 3 | Regional-continental links | From the second half of the 4th millennium BCE till the first half of the 1st millennium BCE  |
| 4 | Transcontinental links  | From the second half of the 1st millennium BCE till the late 15th century CE |
| 5 | Intercontinental (Oceanic) links  | From the late 15th century till the early 19th century  |
| 6 | Global links  | From the early 19th century till the 1960s and 1970s  |
| 7 | Planetary links  | From the last third of the 20th century till the mid-21st century  |

Table 2 “Growth of globalization level and the rise of the Afroeurasian world-system” shows the correlation between the phases of historical globalization and the phases of development of the Afroeurasian world-system (for our approach, see Grinin and Korotayev 2009a, 2012a). The evolution of this world-system evidently provided the basis for the qualitative development of globalization. Since any periodization requires its own basis to distinguish a number of time periods (about the procedure of periodization see Grinin 2007; Grinin, Korotayev 2009a) the congruence between two presented periodization cannot be complete.

*Table 2*

**Growth of globalization level and the rise of the Afroeurasian world-system**

|  |  |  |
| --- | --- | --- |
| Type of spatial links (globalization level) | Period | Phases of development of the Afroeurasian world-system  |
| Local links  | Till the 7th – 6th millennium BCE  |  |
| Local- Regional links | From the 7th – 6th millennium till the second half of the 4th millennium BCE | **the first phase:** From the 8th – 4th millennia BCE – the formation of contours and structure of the Middle Eastern core of the Afroeurasian world-system.  |
| Regional-continental links | From the second half of the 4th millennium BCE till the first half of the 1st millennium BCE  | **the second and third phases:** The 3rd and 2nd millennia BCE – the development of the Afroeurasian world-system centers during the Bronze Age (the second phase).From the first millennium BCE till 200 BCE – the Afroeurasian world-system as a belt of expanding empires and new civilizations (the third phase). |
| Transcontinental links  | From the second half of the 1st millennium BCE till the late 15th century CE | **the fourth and fifth phases:** From 200 BCE to the 14th century CE – the Afroeurasian world-system is integrated by the steppe periphery; the Afroeurasian world-system apogee: world religions and world trade. |
| Intercontinental (Oceanic) links  | From the late 15th century till the early 19th century  | **the sixth phase:** from the 15th to the 18th centuries – the transformation of the Afroeurasian world-system into the planetary World System. |
| Global links  | From the early 19th century till the 1960s and 1970s  | **the seventh phase:** From the beginning of the 19th century to the 20th century – the industrial World System and mature globalization. |
| Planetary links  | From the last third of the 20th century till the mid-21st century  | **subsequent phases:** Mature and integrated World System |

Again I want to mark the third period lasting from the second half of the fourth millennium to the first half of the first millennium BCE (which corresponds to the second and third phases of the development of the Afroeurasian world-system). It is important because this period was really crucial since it witnessed the main technological, urban, political, and cultural transformations which virtually triggered the historical globalization. In what follows, I will dwell on this.

I aim at revealing the important correlations between different variables. The most significant changes within the World System and globalization were definitely associated with crucial technological breakthroughs or production revolutions, namely, *Agrarian (or Neolithic)*, *Industrial*, and *Cybernetic* (Grinin 2007; Grinin A. L. and Grinin L. E. 2015a, 2015b; Grinin and Korotayev 2015).

Production Revolutions

**Cybernetic
Revolution**
(1950–2060/2070s)

**Industrial Revolution**
(the last third of the 15th – the first third of the
19th centuries)

**Agrarian
Revolution** (12,000–10,000 –5,500–3,000 BP)

**Fig. 1.** Production revolutions in history

Each production revolution launches a new production principle (see ibid.). Every revolution passes through three stages: two innovative phases and between them – a modernization phase (see Fig. 2).



**Fig. 2.** Phases of production revolutions

For example the phases of the Agrarian Revolution can be presented in the following way (see Table 3).

*Table 3*

**The phases of the Agrarian Revolution**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Phases** | **Type** | **Name** | **Dates** | **Changes** |
| Initial | Innovative | Manual agriculture | 10,000–7,000 BCE | Transition to primitive manual (hoe) agriculture and cattle-breeding |
| Intermediate | Modernization | Diffusion ofagriculture | 7,000–3,500 BCE | Emergence of new domesticated plants and animals, emergence of a complete set of agricultural instruments |
| Final | Innovative | Irrigated and plow agriculture | 3,500–1,500 (in Europe up to 500) BCE | Transition to irrigative or plow agriculture without irrigation  |

In Table 4 I present the correlations between the periods of globalization and such variables as spatial links, political organization and level of technological development.

Here I want to attract your attention to the point that every new phase of historical globalization closely correlates with a new level of development of productive forces. Thus, the origin of globalization and the formation of regional-continental links correlate with the final phase of the Agrarian revolution, which spread from the forth to the first millennia BCE to many parts of the Afroeurasian world-system. The Age of Discovery and the formation of intercontinental links correlate with the initial phase of the Industrial Revolution.

*Table 4*

**Correlation between spatial links, political organization and level of technology**

|  |  |  |  |
| --- | --- | --- | --- |
| Type of socio-spatial links | Period | Forms of political organization | Level of technology (production principles and production revolutions) |
| Local (Local-Regional) links  | Up to the second half of the 4th millennium BCE  | Pre-state (simple and medium complexity) political forms, the first complex polities  | Hunter-gatherer production principle. The initial and middle phases of the Agrarian revolution |
| Regional- Continental links  | The second half of the 4th millennium BCE – the first half of the 1st millennium BCE  | Early states and their analogues; the first empires  | The final phase of the Agrarian revolution (from Mesopotamia to Europe)  |
| Continental/ Transcontinental links  | The second half of the 1st millennium BCE – the late 15th century CE  | Rise of developed states and empires  | Agrarian production principle reaches its maturity |
| Intercontinental (oceanic) links  | The late 15thcentury – the early 19th century  | Rise of developed states, first mature states  | The initial phase of the Industrial revolution  |
| Global links  | The early 19thcentury – the 1960s and 1970s  | Mature states and early forms of supranational entities  | The final phase of the Industrial revolution. Maturity of the Industrial production principle  |
| Planetary links  | Starting from the last third of the 20th century  | Formation of supranational entities, washing out of state sovereignty, search for new types of political unions and entities, planetary governance forms  | The start and development of the Cybernetic revolution, whose final phase is forecasted for the 2030s and 2040s  |

Urbanization is closely connected with technological and political transformations and here we define this correlation. In the fourth millennium BCE, the Urban Revolution (the term was coined by Childe [1950; 1952]) took place in South Mesopotamia and at first in history urbanized societies had origin (*e.g*., Adams 1966, 1981; Bernbeck and Pollock 2005: 17; see also Pollock 2001: 45; Rothman 2004). This revolution, that later spread throughout the whole of Mesopotamia and wider, can be regarded as a multi-dimensional phase transition of the Afroeurasian world-system to a qualitatively new level of complexity (*e.g*., Berezkin 2007).

However, the very possibility of the occurrence of the Urban Revolution was undoubtedly provided by the final stage of the Agrarian Revolution in the Mesopotamia and resulting demographic changes.

The correlation between urbanization and political processes is also beyond any doubt. For example it appears necessary to note that the ‘urban’ pattern of the early state formation was one of the most wide-spread. Urbanization was connected with the concentration of people resulting from the forced merger of a few settlements usually because of the pressing military or other threats. Such a situation was typical in many regions: in Ancient Greece, Mesopotamia, (in particular in the period of the Urban revolution, *i.e*. in the late fourth and third millennia BCE), as well as in a number of European, Asian and African regions (*e.g*., in seventeenth-century South-East Madagascar several small states of the Betsileo originated in this way [Kottak 1980; Claessen 2002]). In Greece this process was called *synoikismos*.

Population concentration contributed in a rather significant way both to urbanization and state formation processes and to the increasing complexity. In particular, the contact density within a polity is a very important factor of state formation. The population concentration leads to the spatial structuring of settlements, to which archaeologists pay much attention. The higher the population density, the more pronounced is the structuring of society. And, since the density in urban communities is usually higher than in rural societies, the politogenetic processes within the former have certain peculiarities in comparison with the societies where rural settlements predominate. The patterns of statehood development are also different due to the existence or lack of cities political dominance on rural neighborhood.

All these, by the way, explain why we strongly disagree with Robert Carneiro's circumscription theory, which ignores the urban pattern of state-formation and thereby neglects that in cities the population and resource concentration plays a different role than in the one described in this theory (Carneiro 1970, 2012; Grinin and Korotayev 2012b). In the agrarian polity the population density may lead to the land shortage, social tension and wars, while in the cities the increasing population density may rather bring the emergence of new forms of government and statehood.

In the following Diagram we can see a close correlation between urbanization and political integration.

**Diagram 1.** Dynamics of World Urban Population (thousands) and the Size of the Territory Controlled by the Developed and Mature States and Their Analogues (thousands km2), till 1900 CE, logarithmic scale



*Source:* Korotayev and Grinin 2013 (based on data from Taagapera 1978a, 1978b, 1979, 1997).

What can we deduce from the diagram? *First.* A relatively rapid process of emergence and growth of cities in the Afroeurasian world-system was observed in the second half of the fourth millennium and *especially* in the first half of the third millennium BCE. In the same period we observe the rise of the first states (early or archaic) in Mesopotamia, Egypt, in the Minoan civilization on Crete, in Phoenicia, and also in Harappa, Mohenjo-daro and other cities of ancient Indus Valley Civilization. However, urbanization played the dominant role in the state formation process not in all these civilizations. For example, in Egypt its influence was less noticeable while the process of political centralization here had started earlier than in Mesopotamia due to the unique natural environment of the Nile valley).

*Second.* After this rise, the urbanization process significantly slowed down by the first millennium BCE. At the same time, during this period we can observe a growing political integration between the Afroeurasian world-system core societies, which was a consequence of rather complex military-political and other interactions.As a resultone could observe the increase of political complexity: from cities and small polities to large early and developed states (Grinin 2008, 2011, 2012). In the Diagram we can observe the rise of this new type of states starting from the late third millennium BCE (the grey curve raises almost perpendicularly to axis of abscisses). This rise of statehood and emergence of the first empires brought up the upswings and downswings of the cycles of political hegemony after the third millennium BCE (Frank and Gills 1993; see also Chase-Dunn *et al*. 2010). In the late third and second millennium BCE, in Mesopotamia one could observe the succession of the Akkadian Empire, the third Dynasty of Ur Kingdom, the Old Babylonian Kingdom, and the Assyrian Kingdom. In the second half of the second millennium BCE, one could see a vigorous hegemonic struggle between Assyria, New Kingdom of Egypt, Mitanni  and the Hittite Kingdom, yet some of these powers would unite against others (in the graph the period of oscillations in the second millennium BCE correlates with the period of the struggle for political hegemony).

So, the rapid urbanization in the fourth and third millennia BCE contributed to the emergence of new political structures (early states and their analogues [Grinin 2004, 2011, 2012a]). However, the transition to maturing political forms required no further increase in urbanization; thus, although the political integration in the third and second millennia proceeded rather actively, one does not observe any transition of urbanization to a new attractor. Yet, in the second half of the second millennium we observe a certain rise (this is mostly with account of Egypt where urbanization, unlike in Mesopotamia, actually followed the political process).

The slowdown of the urbanization process was also caused by the uncompleted Agrarian revolution in Europe. It could complete through the diffusion of the technology of plow non-irrigation agriculture based on the use of cultivation tools with iron working parts as well as iron axe and other iron tools (for more details see Korotayev and Grinin 2006, 2013; Grinin and Korotayev 2009a, 2009b, 2013). The diffusion of iron together with population growth in Europe and other parts of the Afroeurasian world-system brought a new increase both of urbanization and of state-formation (first, of the early states, and later – of the developed ones). As a result, in the second half of the first century BCE and in the first century CE we can also find a belt of expanding empires and new civilizations.

It is worth to mention as a very remarkable phenomenon an East/West synchrony in growth and decline of the population sizes of largest cities from 500 BCE to 1500 CE in West Asia and those in East Asia (Chase-Dunn and Manning 2002). There is a similar synchrony in the territorial sizes of the largest empires (Hall, Chase-Dunn, and Niemeyer 2009).

One observes the third wave of an explosive growth of cities and states of a new – mature – type (Grinin 2008, 2011, 2012) in connection with the Industrial Revolution whose origin we date to the end of the fifteenth century and which completed in the early nineteenth century (that actually coincides with the transition to the true globalization [about this revolution see e.g. Cipolla 1976; Allen 2009; Goldstone 2009; Mokyr 2010; our view see Grinin 2007; Grinin A. L. and Grinin L. E. 2015a, 2015b; Grinin and Korotayev 2015]). The increasing number of developed states in the sixteenth century was connected with the so-called Gunpowder revolution and other changes in the military art which forced the European and Asian States to change their organization.

Thus, we may say that during the whole period of historical globalization one can observe a close correlation between such important processes as technological transformations, spatial expansion of contact area, urbanization, political integration, and struggle for political hegemony (about various theories of cycles of political hegemony see *e.g.*, Modelski and Thompson 1996; Thompson 1988).

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