This paper is one in a series on issues in the comparative study of civilizations. Using a definition of "civilization" which treats civilizations as politico-social transaction networks of cities and their populations, earlier papers in the sequence (e.g., Wilkinson 1985, 1986, 1987a, 1987b, 1988, 1991) have derived a taxonomy of civilizations which has in turn been employed for comparative empirical data-gathering and theoretical development.

The current paper, using as its data source a set of lists of great global cities at various dates, is an attempt to allocate each city on the list to that constellation of cities, that "civilization," to which it most clearly politically appertains by reason of politico-military transactional linkage.

Table 21

Cities and Their Civilizations: AD 1200

(73 cities, 255 thousand to under 40 thousand, listed by Chandler, 1987:472.)

OLD OIKUMENE: 72 cities

Central civilization: Fez, Cairo, Constantinople, Palermo, Marrakesh, Seville, Paris, Baghdad, Damietta, Damascus, Rayy, Tiflis, Konia (= Iconium), Venice, Bokhara, Isfahan, Delhi, Milan, Samarkand, Cordova, Granada, Ghor (Afghanistan), Qus, Rabat, Alexandria, Cologne, Mosul, Basra, Bougie, Kayseri, Qom, Merv, Aleppo, Sivas, Herat (Afghanistan), London, Rouen, Ceuta (Morocco), Acre, Qish (Persia), Leon (Spain) (41).

[Indic civilization. Polonnaruwa, Puri, Gaur, Cambay, Kalinjar (Chandellas), Kanchi (6).]


Japanese civilization. Kamakura, Kyoto (2).

OTHER OIKUMENES: 1 city.

Mexican civilization. Tenayuca (1).

* "Cities, civilizations and Oikumenes: I" was published in Comparative Civilizations Review 27 (Fall 1992):51-87.
AD 1200. (Table 21) Genghis Khan is about to begin a famous career. Hsi-Hsia, Ch’in and Sung states are of major importance in the Far East. The Holy Roman Empire is in Welf-Waiblinger civil war. Minamoto military rule in Japan is declining. The Near East is between crusades. Mohammed of Ghor has conquered North India.

Again, the issue of the autonomy, hence the continued separate existence, of Indic civilization has to be addressed. In addition to Ghazni and Lehore, on this list Ghor, Delhi (conquered from Ghor 1193), and Herat serve as politico-military connectors. A case could be made for merging the Indic into the Central list as of AD 1200: note how the number of cities assignable to a separate "Indic" network has declined since AD 1000. But see remarks to subsequent tables for the other side of the argument.

Comparable data: McEvedy's nearest map (Medieval, AD 1212) omits Damietta, Rayy, Tiflis, Konia, Cordova, Granada, Qus, Alexandria, Mosul, Bougie, Kayseri, Qom, Sivas, London, Rouen, Ceuta, Acre, Qish, Leon (19 cities) from its over 30,000 set; adds to that set Genoa, Florence, Rome, Naples, Mahdia, Salonika, Antioch, Hamadan, Shiraz, Siraf, Nishapur, Urganj (12 cities); and has beyond its perimeter Marrakesh, Delhi, Samarkand, Rabat, Ghor (5 cities). It shows 29 cities, with a discrepancy of (12 added + 19 omitted)/(29 in McEvedy + 36 available from Chandler) = 31/65 = 47.7%.

Vs. its 75-city Chandler and Fox predecessor (1974:311-76 entries are shown, but Ninghsia appears twice), this list omits Ghazni, Nishapur, Gurganj, Otrar, Lahore; Cuttack, Nadiya, Quilon, Gangaikondapuram, Dhar, Chitor, Tanjore, Kalyan the Later, Warangal; Songdo, Liaoyang, Pyongyang, Binhdinh; Cholula; and Ife (20 cities), while adding Qus, Bougie, Qom, Sivas, London, Rouen, Ceuta, Qish, Leon; Puri, Kanchi; Shangjao, Hweining, Kingtechen, Fuchow, Siangyang; Haripunjai; and Tenayuca (18 cities). They differ then by (20 + 18)/(73 + 75) = 38/148 = 25.7%.
Table 22
Cities and Their Civilizations: AD 1300

(75 cities, 432 thousand to 40 thousand, listed by Chandler, 1987:474.)

OLD OIKUMENE: 74 cities


West African civilization. Njimiye (Bornu), Mali (2).

Indic civilization. Delhi, Gaur, Cuttack (Orissa), Warangal, Madurai, Quilon, Kayal (Pandyas), Thana (8).

Far Eastern civilization. Hangchow, Peking, Canton, Sian, Nanking, Soochow, Angkor, Kaifeng, Yangchow, Wuchang, Chuanchow, Fuchow, Chengdu, Ningshia, Yunnanfu, Kingtehchen, Kashgar, Taiyuan, Vijaya (= Binhdinh; Champa), Sukotai (Siam), Turfan (Turkestan) (21).

Japanese civilization. Kamakura, Kyoto (2).

Indonesian civilization. Majapahit (1).

OTHER OIKUMENES: 1 city.

Mexican civilization. Texcoco (1).

AD 1300. (Table 22) Temur Oljaitu rules for the Yuan in China. Ala-ud-din Khalji rules northern India from Delhi. Egypt is ruled by Mameluke sultans, France by Philip II Augustus, Morocco by the Marinid sultan, Persia by the Mongol Il-Khans. Venice and Genoa have concluded a naval war in the Eastern Mediterranean.

This table marks the reappearance of West African civilization on the "megalopolist." However, on Chandler’s list of "Cities of Africa" (1987:55) collected for a threshold of 20,000 for AD 800, 1000 and 1200, there appear for West Africa not only Gao AD 800 (included in Table 17), but Ghana AD 1000 (at 30,000, under the 40,000 threshold for Table 19) and AD 1200 (at 25,000, under the 40,000 threshold for Table 21). Tademekka and Manan are also listed for AD 1000, and Zagha, Gao, Bussa, Kano, Njimiye and Ngala for AD 1200, all at or over 20,000 but under 40,000. Thus the disappearance of West Africa from the "megalopolists" of AD 900-1200 (Tables 18-21) was not sufficient evidence of a suspension, end or fall of West African civilization. The same principle may be applied to the fall of Indic civilization from the
"megalopolists" of 1600-1360 BC (Tables 5, 6), though there the "sub-megalopolitan" data are lacking.

_Sarai_ was the headquarters of the Golden Horde. At this date I believe it would have been Old Sarai; at the Volga's mouth, rather than New Sarai, in the great bend of the lower Volga, now in Russia. Almost all the cities which connected Indic to Central networks have vanished from this list in the wake of the Mongol devastation of Transoxania, Afghanistan and Persia: not only Ghor and Herat, but also Rayy, Samarkand and Bokhara. Consequently _Delhi_ is reassigned to Indic civilization, perhaps itself now more autonomous (separated from the Central network) than in 1200.

As compared to its 76-city predecessor (Chandler and Fox, 1974:313), this list omits Maragheh (Persia), Hamadan, Mecca, Mosul, Shiraz, Valencia; Oyo, Kano; Dhar, Chitor, Gangaikondapuram, Anhilvada, Calicut, Goa, Sonargaon (Bengal), Benares; Songdo, Tali, Virapura, Siyangang, Aksu (Sinkiang), Loyang, Pyongyang, Hsuchow; and Cholula (25 cities). It adds Damascus, Bougie, London, Ghent, Baghdad, Caffa, Naples, Cordova, Ceuta, Yezd, Sale; Mali; Madurai, Kayal, Thana; Ninghsia, Yunnanfu, Kashgar, Taiyuan, Vijaya, Turfan; Majapahit; and Texcoco (24 cities), for a difference of \( \frac{25 + 24}{75 + 76} = \frac{49}{151} = 32.5\% \)
Table 23
Cities and Their Civilizations: AD 1400

(75 cities, 487 thousand to 45 thousand, listed by Chandler, 1987:476.)

OLD OIKUMENE: 72 cities


West African civilization. Mali, Oyo (Yoruba) (2).

Indic civilization. Vijayanagar, Gulbarga (Bahmanids), Cuttack, Quilon, Cambay, Pandua (= Firozabad, Bengal), Anhilvada, Calicut (8).

Far Eastern civilization. Nanking, Hangchow, Canton, Peking, Soochow, Sian, Seoul (Korea), Kaifeng, Wuchang, Fuchow, Kingtehchen, Ayutia (Siam), Chuanchow, Ningpo, Yangchow, Nanchang, Taiyuan, Vijaya, Chengdu, Yunnanfu, Pegu (Burma), Ava (Burma), Luang Prabang (Laos), Hanoi (Annam) (24).

Japanese civilization. Kyoto (1).

OTHER OIKUMENES: 3 cities.

Mexican civilization. Azcapotzalco, Texcoco (2).

Peruvian civilization. Riobamba (1).

AD 1400. (Table 23) Tamerlane has conquered Persia and Mesopotamia, and assaulted the Delhi sultanate, the Ottoman sultan Bayazid I, the Mamluks, and Toqtamish Khan of the Golden Horde. Henry IV of England and Charles VI of France have paused in the Hundred Years’ War. The Ming dynasty has just ended the founding reign of Tai Tsu. The Ashikaga shogunate is at its height under retired shogun Yoshimitsu.

The return of Samarkand marks the re-extension of Central civilization toward Indic. Hanoi and Luang Prabang mark the arrivals of two more ethnicities to prominence in the Far Eastern civilizational melange. Riobamba signals the first appearance of Peruvian civilization in this list. Whether it has an Andean oikumene to itself, or shared a single New World oikumene with Mexican civilization, remains to be argued.

Comparison data: As compared to its 75-city predecessor (Chandler and Fox, 1974:315), this list omits Bokhara, Mecca; Gaur, Penukonda, Kamatapur, Jaunpur, Benares, Chitor, Goa; Hsuchow, Ankgor; Kamakura, Yoshino; Majapahit; and Metalanim (Nan Matol, Pohnpei), 15 cities. It adds Sultanija, London, Karaman, Qus, Valencia, Toledo; Oyo; Kingtehchen, Nanchang, Vijaya, Yunnanfu, Luang Prabang, Hanoi;
Azcapotzalco; and Riobamba (15 cities), for a difference of \((15 + 15)/(75 + 85) = 30/150 = 20\%\).

**Table 24**

Cities and Their Civilizations: AD 1500

(75 cities, 672 thousand to 45 thousand, listed by Chandler, 1987:478.)

**OLD OIKUMENE:** 72 cities


**West African civilization.** Gao, Oyo, Kano (3).

**Indic civilization.** Vijayanagar, Gaur, Cuttack, Ahmedabad, Delhi, Mandu (Malwa), Cambay, Ahmednagar (Nizamshahis), Amber, Burhanpur, Chitor, Jaunpur, Satgaon, Tatta (14).


**OTHER OIKUMENES:** 3 cities.

**Mexican civilization.** Tenochtitlan, Texcoco (2).

**Peruvian civilization.** Cuzco (1).

**AD 1500.** (Table 24) The Ming Empire is at its peak strength. Japan is in a century of civil war. Ottoman Turkey under Bayazid II is at war with Venice. Louis XII of France and Ferdinand of Spain are intervening in Italy. Basil III is expanding the Russian state. Persia is in chaos.

This is the last time when the case for an autonomous Indic network will seen at all persuasive. If it still exists, the operations of Portuguese, Egyptians, Ottomans and Gujaratis around Diu, and the Mogul movement from Samarkand to Kabul, Lahore, Delhi, and Agra, fairly decisively link (or re-link) the Indic to the Central network in the 16th century. **Arakan,** Muslim, is arguably assignable to Indic (vs. Far Eastern) civilization, but seems to have had most of its fights with Burma, and is herein classified accordingly.

**Comparison data:** McEvedy's nearest large-scale map (Medieval, 1478), for most of the Central area, and with a lower bound of 30,000, contains 38 cities, omits Adrianople, Prague, Lisbon, Smolensk, Tirgovishtea, Rouen, Pskov, and Bursa (8 cities), adds Barcelona, Brussels, Antwerp, Lubeck, Cologne, Verona, Rome, Palermo, Novgorod, Salonika, Baghdad, Basra, Isfahan, Nishapur,
Herat and Khiva (16 cities). It does not cover the area of Samarkand, Marrakesh, and Hormuz (3 cities). The discrepancy is accordingly $(8 + 16)/(38 + (33-3)) = 24/68 = 35.3\%$.

Vs. the corresponding table in Chandler and Fox (1974:317), with 75 cities, this list omits Lyon, Brescia, Tours, Mecca, Nuremberg; Penukonda, Gwalior, Bidar, Quilon, Chanderi, Calicut, Srinagar, Ningpo, Kingtehchen, Pyongyang, Tientsin, Chiengmai, Hanoi; Sakai; and Utatlan (20 cities). It adds Moscow, London, Smolensk, Marrakesh, Tirgovishtea, Hormuz, Seville, Bursa; Kano; Ahmednagar, Amber, Jaunpur, Satgaon, Tatta; Pegu, Turfan, Yunnanfu, Arakan, Nanchang; and Cuzco (20 cities), for a difference of $(20 + 20)/(75 + 75) = 40/150 = 26.7\%$.

Table 25

Cities and Their Civilizations: AD 1600

(75 cities, 706 thousand to 60 thousand, listed by Chandler, 1987:481.)

OLD OIKUMENE: 75 cities


Japanese civilization. Osaka, Kyoto, Sumpu, Yamaguchi, Yedo (5).
AD 1600. (Table 25) Tokugawa Ieyasu has become effective ruler of Japan. The long Wan Li reign of the Ming Dynasty in China is past its midpoint. The Mogul Emperor Akbar has founded a new religion and a new city. Shah Abbas the Great rules Persia. Mohammed III is Ottoman Sultan, Rudolph II Hapsburg Emperor, Henry IV King of France, Elizabeth Queen of England, Philip III King of Spain.

The Old Oikumene has now expanded to encompass its last remaining competitor(s?), the single or several New World Oikumene(s) encompassing Mexican, Peruvian and Chibchan civilizations. This global reach is however temporary; one oikumene will have escaped by the next table.

Agra and Goa reflect the Mogul and Portuguese connections that have also led to the inclusion of the Indic in the Central network in this table. The presence of Potosi (now in Bolivia) in the Central list reflects the Spanish conquest of the Peruvian and Mexican states, and the engulfment of their civilizations by Central civilization. The presence of Kazargamu, Oyo and Katsina on the Central list similarly reflects the incorporation of West African civilization by Moroccan agency.

Adding Agra and Goa to Bijapur, Ahmedabad, Hyderabad, Patna, Rajmahal, Surat, Ahmednagar, Udaipur, Cambay, Penukonda, Cuttack, and Hooghly, one sees 15 Indic cities in the 53 Central cities in this list.

Vs. its 75-city Chandler and Fox predecessor (1974:319), this list omits Lahore, Lyon, Jodhpur, Toledo, Smyrna, Chandragiri, Mexico City, Burhanpur, Golconda, Srinagar, Tours, Benin, Barcelona, Smolensk, Tientsin, Yangchow; and Nagoya (17 cities), adding Goa, Messina, Bologna, Aleppo, Penukonda, Cuttack, Kazargamu, Damascus, Zaria, Oyo, Bucharest, Katsina; Changchun, Hsuchow, Toungoo; Sumpu and Yamaguchi (17 cities) for a difference of \((17 + 17)/(75 + 75) = 34/150 = 22.7\%\).
Table 26
Cities and Their Civilizations: AD 1700

(75 cities, 700 thousand to 60 thousand, listed by Chandler, 1987:483.)

OLD OIKUMENE: 69 cities

**Central civilization.** Constantinople, London, Paris, Ahmedabad, Isfahan, Amsterdam, Naples, Aurangabad (Moguls), Lisbon, Cairo, Dacca, Venice, Rome, Smyrna, Srinagar, Palermo, Moscow, Milan, Madrid, Vienna, Patna, Lyon, Algiers, Adrianople, Mexico City, Potosi, Seville, Dublin, Bokhara, Fez, Tabriz, Marseille, Benares, **Gondar,** Meknes, Bednur (India), Agra, Damascus, Brussels, Tunis, Florence, Allep, Antwerp, Genoa, Rouen, Hamburg, Puebla (Mexico), Bologna, Copenhagen, Qazvin (50).


OTHER OIKUMENES: 6 cities.

**Japanese civilization.** Yedo, Osaka, Kyoto, Kanazawa, Nagoya, Sendai (6).

**AD 1700.** (Table 26) William III King of England and Louis XIV of France are at pause in their series of great wars. Turkey is being chewed at by Peter the Great of Russia and Leopold I of Austria. The Safavid Persian dynasty is declining under Shah Hussein, the Mogul dynasty under Aurangzeb. The Manchu dynasty is at a zenith in the Kang Hsi reign. Tsunayoshi is Tokugawa shogun.

**Gondar** is included in the Central list, rather than being assigned to a separate Ethiopian civilization, to reflect its fighting with neighboring Islamic states linked up to the Central network. Gondar can also be on the Central list on account of its friends: Portuguese designed its palace; its head bishop (*abuna*) customarily came from the Egyptian Copts.

Tokugawa isolationism has taken Japan out of the Old Oikumene into an oikumene of its own, where it remains until Table 28, AD 1900.

**Comparison data:** McEvedy’s nearest map (*Modern*, 1715), for the Euro-Mediterranean only, omits as under 30,000 none of the Central cities listed by Chandler for this area (the first occasion of so great correspondence between the two sets of data); shows as under 50,000 Adrianople and Dublin; and adds as over 50,000 Ghent, The Hague, Haarlem, Valencia, Toulouse, Turin, Messina, Berlin, Danzig, Stockholm, and St. Petersburg (founded 1703),
hence reflecting no inconsistency by its exclusion from Chandler’s list).

Vs. its 75-city predecessor (Chandler and Fox, 1974:321), this list omits Delhi, Surat, Hyderabad, Jodhpur, Lahore, Bijapur, Barcelona, Oruro, Oyo, Granada; Mukden, Fatshan, Chengtu, Amoy, and Macao (15 cities), while adding Bokhara, Bednur, Florence, Antwerp, Genoa, Rouen, Puebla, Bologna, Copenhagen; Ava, Hsuchow, Chinkiang; Kanazawa, Nagoya and Sendai (15 cities), for a discrepancy of $(15 + 15)/75 + 75) = 30/150 = 20\%$.

Table 27

<table>
<thead>
<tr>
<th>Cities and Their Civilizations: AD 1800</th>
</tr>
</thead>
<tbody>
<tr>
<td>(75 cities, 1,100 thousand to 77 thousand, listed by Chandler, 1987:485.)</td>
</tr>
<tr>
<td>OLD OIKUMENE: 71 cities</td>
</tr>
<tr>
<td>OTHER OIKUMENES: 4 cities.</td>
</tr>
<tr>
<td>Japanese civilization. Yedo, Osaka, Kyoto, Nagoya (4).</td>
</tr>
</tbody>
</table>

AD 1800. (Table 27) Napoleonic France is at war with Austria and Britain, Fath Ali Shah is involved with Britain and Russia. Lord Mornington, governor-general, is expanding British control in India. The Manchu Empire is entering a crisis of revolts in the Chia Ching reign; the Tokagawa shogunate is in decline under Ienari.

Vs. its 76-city predecessor (Chandler and Fox, 1974:323), this list omits Srinagar, Meknes, Poona, Batavia, Jogjakarta, Genoa; Nanking, Mukden, Chungking, Chinkiang, Nanchang; and Kanazawa (12 cities), while adding Glasgow, Baroda, Edinburgh, Manchester, Rouen, Baghdad, Oyo, Peshawar, Prague; Changsha and Kaifeng (11 cities), for a difference of $(12 + 11)/(75 + 76) = 23/151 = 15.2\%$, the smallest yet.


Table 28

Cities and Their Civilizations: AD 1900

| Cities in Old Oikumene | | Cities in Far Eastern Civilization | | Cities in Japanese Civilization |
|------------------------|-----------------|-------------------------------|--------------------------------|

AD 1900. (Table 28) Victoria nears the end of a reign of great economic increase in Britain. Britain, Republican France, the German Empire under Wilhelm II, Austria-Hungary under Franz Josef, the Russian Empire under Nicholas II, are the recognized great powers. The United States of America (William Mckinley, President) and Japan (Meiji emperor) are rising powers. Britain rules India. An international expedition has intervened in China's Boxer Rebellion.

The Ruhr is listed by Chandler as a city: it is usually treated as a multi-city metropolitan region, but since Chandler means by "city" not a municipal jurisdiction but an urban area (1987:1), it properly appears on his list.

This table marks the (approximate) end of all oikumenes but the Old Oikumene, and the (approximate) end of all civilizations but Central civilization. The "opening" of Japan to trade terminated its private oikumene; and at some time between the Opium Wars and World War I, Japan and all the states of Far Eastern civilization were enrolled in the politico-military system of Central civilization. For comparison purposes, however, this Table assumes that the engulfment had not quite occurred by AD 1900, and so gives separate lists for Central, Far Eastern and Japanese civilizations.

As compared to the first 75 entities on Chandler and Fox's (1974:330) list of the "World's Largest Urban Areas" for 1900, this list omits Bangkok, Soochow, Chengtu and Fuchow (4 cities), while...
adding Mexico City, Lodz, Frankfurt; and Hangchow (4 cities), for a discrepancy of \( \frac{4 + 4}{75 + 75} = \frac{8}{150} = 5.3\% \), which must be considered minimal.

**Discussion**

*Data-taxonomy problems.* Most cities could be allocated among the civilizations posited in the assumptions of the paper. Some cities at the fringes of two civilizations were difficult to allocate (Arakan AD 1500) or jittered back and forth (Delhi: Central AD 1200, Indic 1300 and 1500, Central 1800) as civilizational frontiers shifted. Three Iberian cities could not be allocated to any civilization: Setubal and Cordova (1600 BC), Cordova again (1350 BC), and Seville (1200 BC). Do they represent additional civilizations? surprising extensions? or population over-estimates? Ctesiphon (1360 BC) was problematic in a different way, i.e., chronologically.

*Data problems.* Comparison of the data used for these tables with earlier data (Chandler and Fox, 1974), and with data implied in another set of sources, a series of maps and atlases (McEvedy, 1961, 1967, 1972, 1982), suggests a need for caution in interpreting the results of this work, since the data are only fairly stable from source to source. The later data are stabler; still, even a 5% data shift in 13 years impels reserve. Some earlier discrepancies are very high. Much work remains to be done in this area: the existing efforts are Homeric in heroic scope; an Alexandrian follow-up is now desirable.

*Cultural notes.* Some interesting patterns are suggested on inspection of the tables. E.g. Far Eastern civilization's list of cities normally shows a preponderance of "Chinese" cities, but rarely an overwhelming preponderance; centers, often large, from a dozen other ethnicities, suggest a significant degree of polycultural diversity throughout this civilization's historical career, indeed a near-continuous inflow of variety produced by geographic expansion of the politico-military network, with delayed or restricted acculturation and homogenization.

On another subject of current interest: with a few striking exceptions (Constantinople, later Paris, Naples, London, etc.) the preponderance of cities of Central civilization from AD 800 to AD
1300 were Muslim-rule. The medieval "rise of the West" can be followed demographically by noting the ascents of Paris, Venice, Prague, etc.; after some centuries of shifting balance, there is a striking shift toward a Christian-ruled preponderance for AD 1800 and 1900. And for 2000?

Civilizational coupling and engulfment. Given that civilizations, when they expand in space, may and do collide and fuse, and that they may fuse in relatively egalitarian ("coupling") or inegalitarian ("engulfment") styles, the city tables provide a useful perspective on actual couplings and engulfments of civilizations in the past, by allowing some comparison of the "citification" of the civilizations that fused.

The sole civilizational "coupling" appears to have been that of Egyptian and Mesopotamian civilizations, around 1500 BC. The nearest earlier table (Table 5, 1600 BC) contains 4 Egyptian and 5 Mesopotamian cities. The nearest later table (Table 6, 1360 BC) shows 12 cities (of size sufficient to reach the table threshold) in Central civilization: four (Thebes, Memphis, Amarna, Heliopolis) would clearly be Egyptian, five (Dur-Kurigalzu, Nineveh, Susa, Erech, Washshukani) Mesopotamian, and three (Khattushash, Ugarit, Hazor) occupied the former joint semiperiphery of the two former civilizations. These results are certainly consistent with the idea of a relative equality between the two civilizations in the process of their fusion into one.

All civilizational "engulfments" were carried out by Central civilization. It first engulfed Aegean civilization. The table nearest to this engulfment, 650 BC, shows Central with 11 cities and Aegean with 1: data quite consistent with the idea that this fusion took place on unequal terms.

The next engulfment is of Indie by Central. The process is protracted, and was temporarily reversed - see Tables 17-25 for AD 800 - AD 1600. The Central/Indic city ratios for AD 800 - AD 1600 are respectively:
These figures appear consistent with the idea that a narrow margin of material superiority was slowly, with difficulty, and against strong resistance, finally exploited by the engulfing civilization. In this connection, it is worth noting that as of AD 1600 (table 25), the Indic region of Central civilization contained the latter’s second largest city (Agra), as well as 15/53 or 28.3% of all Central civilization’s cities.

Between AD 1100 and AD 1200 Central civilization engulfed Irish, with great speed; no Irish city made the relevant list for AD 1100. (Dublin is shown at 4-5,000, a possible under-estimate, c. 1050, and at 18,000, a possible over-estimate, for 1171 in Chandler, 1987:183). Again the speed and direction of engulfment appear quite consistent with the demographic data.

Next engulfed, again very abruptly, were Mexican, Peruvian, Chibchan, West African and Indonesian civilizations. The nearest relevant list, for AD 1500, shows 33 Central, 2 Mexican, 1 Peruvian, no Chibchan (but Chandler estimates Bogota’s AD 1500 population at 20,000; 1987:41), 3 West African and no Indonesian megacities. The conclusion is the same.

Last to be engulfed were Far Eastern and Japanese civilizations. The nearest relevant table, for AD 1900, shows 66 Central, 6 Far Eastern, and 3 Japanese cities.

This is the most advantageous ratio Central civilization ever possessed vis-á-vis its Far Eastern competitors. By comparison, the Central/Far Eastern ratio, from their first co-appearance in the Old Oikumene, is as follows:

<table>
<thead>
<tr>
<th>Table</th>
<th>AD</th>
<th>Ratio</th>
</tr>
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<tbody>
<tr>
<td>17</td>
<td>800</td>
<td>23/10 = 2.3</td>
</tr>
<tr>
<td>18</td>
<td>900</td>
<td>25/12 = 2.1</td>
</tr>
<tr>
<td>19</td>
<td>1000</td>
<td>29/11 = 2.6</td>
</tr>
<tr>
<td>20</td>
<td>1100</td>
<td>33/9 = 3.7</td>
</tr>
<tr>
<td>21</td>
<td>1200</td>
<td>41/6 = 6.8</td>
</tr>
<tr>
<td>22</td>
<td>1300</td>
<td>40/8 = 5.0</td>
</tr>
<tr>
<td>23</td>
<td>1400</td>
<td>37/8 = 4.6</td>
</tr>
<tr>
<td>24</td>
<td>1500</td>
<td>33/14 = 2.4</td>
</tr>
<tr>
<td>25</td>
<td>1600</td>
<td>38/15 = 2.5</td>
</tr>
</tbody>
</table>
Table | AD  | Ratio  \\
---|-----|--------
16  | 622 | 19/15  = 1.3 
17  | 800 | 23/16  = 1.4 
18  | 900 | 25/20  = 1.3 
19  | 1000| 29/26  = 1.1 
20  | 1100| 33/25  = 1.3 
21  | 1200| 41/23  = 1.8 
22  | 1300| 40/21  = 1.9 
23  | 1400| 37/24  = 1.5 
24  | 1500| 33/22  = 1.5 
25  | 1600| 53/17  = 3.1 
26  | 1700| 50/19  = 2.6 
27  | 1800| 53/18  = 2.9 
28  | 1900| 66/6   = 11.0 

The surge from 2.9/1 to 11/1 between 1800 and 1900 is striking. Equally striking are the two minima, 1.1/1 in AD 1000 and 1.5/1 in AD 1400 - AD 1500, what might be called the "Sung minimum" and the "Ming minimum." If the line of speculation herein developed is correct, fusion of Central with Far Eastern civilizations might have been accomplished at these historical moments on a basis of relative equality; but AD 1000 was not a moment of notable politico-military expansion on either civilization's part, 15th century Ming expansionism was aborted, and 15th century Central expansion was inchoate.

Until the naval expansion of Western Europe, no effective Central-Japanese fusion was physically possible. The ratios from AD 1600 are:

Table | AD  | Ratio  \\
---|-----|--------  
25  | 1600| 53/5   = 10.6 
26  | 1700| 50/6   = 8.3 
27  | 1800| 53/4   = 13.3 
28  | 1900| 66/3   = 22.0 

On the one hand, there is a drastic change between 1800 and 1900, consistent with the preceding line of speculation. On the other hand, the Central-Japanese ratio was always very unbalanced, and an earlier fusion might have been expected. Presumably the intervening and unengulfed mass of Far Eastern civilization disrupted the workings of whatever mechanism one might want to propose, as did the rigorous isolationism of a politically united Japanese civilization. Steamships surely mattered.
No strong theory of civilizational fusion asserts itself inductively from amongst these figures. But still, if one were to hypothesize that what makes the difference between a relatively egalitarian fusion of colliding civilizations ("coupling") and a relatively inequalitarian fusion ("engulfment") is the relative "size" of the civilizations that fuse, and were then to assume that number of large cities in some way indexes civilizational size, one would find no notable disconfirmations in the data. The engulfment cases would also invite the hypothesis that the speed of civilizational engulfment is partly a function of the degree of inequality of civilizational size.

Oikumene and civilizations. It proved possible on the whole to correlate "civilizations" (politico-militarily linked urban networks) with "oikumenes" (economically linked urban networks). What similarities and differences exist in the nature and development of oikumenes, as trading areas, and civilizations, as systems of states and empires?

A world economy, lacking a coextensive world polity, but containing world polities of smaller area than its own, existed from (at least) the 4th millennium BC (when it linked the world polities of Egyptian and Mesopotamian civilizations) to the 19th century AD (when a world polity became global, and coextensive with the world economy that had theretofore contained it). Other such "oikumenes," trade-linked but not politico-militarily bonded, probably connected Chibchan with Peruvian civilization, and may have linked Mexican with Mississippian and/or Mexican with Peruvian civilization. But it is particularly noteworthy that Central civilization, from c. 1500 BC to c. AD 1900, formed a politically coherent social system smaller than, nested within, expanding in pace with and into the space pioneered by, an economically coherent but politically unlinked oikumene. Because that oikumene seems to have been the globe's oldest "world economy," it is designated herein the Old Oikumene. The Old Oikumene is not only the eldest of the several members of its species (there have been Indic, Far Eastern, and Japanese oikumenes at least, in addition to those of the New World); in its expansion it, like Central civilization, engrossed all others, and, today grown to global scope and (for the first time) coextensive with a polity, is the sole survivor of its species.
Oikumenes contain civilizations, but not the reverse. Oikumenes organize larger areas more weakly. Why should this be? Perhaps because politico-military ties (rule, attack, threat, alliance) are more costly for actors to maintain than economic ties; or because they impose a net economic loss on the whole system that maintains them, while trade ties produce a net gain. Politics (or political economy) may be a negative-sum game, economics a positive-sum game. Western neoclassical economists would be happy to think so; redistributionists would not.

Oikumenes tend to expand. Despite occasional setbacks (reflected here by losses of urban populations, i.e., by absolute and relative falls of cities from the "megalopolists"), there have been underlying upward trends in numbers of megacities and in their sizes (represented by the changes from Table 2, containing 8 cities with a lower population threshold of c. 30,000 to Table 28, containing 75 cities with a lower threshold of 350,000). Oikumenes tend to expand in area as well as in human and urban numbers; the Old Oikumene expanded from the Middle East to global scope, in the process colliding with and absorbing the other oikumenes.

There is a parallelism between the tendency of oikumenes to expand, collide and merge and that of civilizations to do the same. But there is also a major differences: namely, the apparent absence of the distinction between the inegalitarian "engulfment" and egalitarian "coupling" relationships in oikumenical fusion. In particular, during the interval between the fusions of the Old Oikumene with Indic and Far Eastern Oikumenes, and the later fusion of Central civilization with Indic and Far Eastern civilizations, i.e., between about 326 BC and AD 1000-1600 in the Indic case, and between about AD 622 (if this is the right date!) and AD 1900 in the Far Eastern case, it is hard to make the case for any kind of extreme inequality in the transactions between the formerly separate oikumenes. Intense complaints and resistance seem to appear as a result not of economic penetration, but of politico-military penetration, not of oikumenical fusion but of civilizational fusion, in which politico-military predominance also alters the terms of economic redistribution in the direction of the penetrating powers.
Civilizations follow oikumenes, and "the flag follows trade," and not the reverse. There appears to be a powerful economic incentive, once trading areas have expanded beyond the politico-military reach of the powers in a civilization's political system, for those powers to extend the reach of their rule, violence, threat and power-bargaining. No doubt there is a reciprocal incentive for traders and colonists to get outside civilizations' polities, then to reach back for economic ties. Economy flees polity, which pursues.

Cosmopoleis of the Old Oikumene. Nonetheless oikumenes do not allocate their benefits equally and impartially, except in the malthusian sense that populations "granted" a surplus tend to use it to become numerous and poor rather than few and rich (though elites within such populations seem to tend to do the opposite). On the assumption that a notable growth (or shift) in megalopolitan population implies, and results from, a notable growth (or relative shift), of "wealth," the question of which world city was the largest when becomes of theoretical interest.

Chandler (1987:527) has created a "List of cities that could have been the largest" on the globe, from 3100 BC to the present. All but one (Changan from 195 BC) fall within the spatio-temporal boundaries of the Old Oikumene. It is of interest to note the often dramatic geographic shifts in relative wealth implied by the displacement of cities. Chandler's list, so far as it pertains to the Old Oikumene, is here classified by civilization.

<table>
<thead>
<tr>
<th>Civilization</th>
<th>City</th>
<th>Dates</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Egyptian</td>
<td>Memphis</td>
<td>3100-2240 BC</td>
<td>860</td>
</tr>
<tr>
<td>2. Mesopotamian</td>
<td>Akkad</td>
<td>2240-2075</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>Lagash</td>
<td>2075-2030</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Ur</td>
<td>2030-1980</td>
<td>50</td>
</tr>
<tr>
<td>3. Egyptian</td>
<td>Thebes</td>
<td>1980-1770</td>
<td>210</td>
</tr>
<tr>
<td>4. Mesopotamian</td>
<td>Babylon</td>
<td>1770-1670</td>
<td>100</td>
</tr>
<tr>
<td>5. Egyptian</td>
<td>Avaris</td>
<td>1670-1557</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Memphis</td>
<td>1557-1400</td>
<td>157</td>
</tr>
</tbody>
</table>

Given 1500 BC as an end-date for the coexistence of separate Egyptian and Mesopotamian civilizations in the Old Oikumene, it is worth noting that Egypt provided the Old Oikumene with its "cosmopolis" for 1240/1600 or 77.5%, Mesopotamia for only 360/1000 = 22.5% of the period covered.
The "cosmopolis" of the Old Oikumene remained within Central civilization (Memphis, 1500-1400 BC; Thebes, 1400-668 BC; Nineveh, 668-612; Babylon 612-320) during the period in which Central and Aegean civilizations coexisted in the Old Oikumene, down to the engulfment of the latter by the former (see Chandler, 1987:527).

Shortly after the reentry of Indic civilization into the Old Oikumene (which we have set more or less arbitrarily at 326 BC), a pattern of cosmopolitan oscillation re-establishes itself, taking further shape with the entry of Far Eastern civilization into the Old Oikumene about AD 622 (again, if that date be correct): see Table 29, drawn from Chandler's "Table of World's Largest Cities."
## Table 29

Largest Cities in the Old Oikumene (After Chandler, 1987:460-492.)

<table>
<thead>
<tr>
<th>Date</th>
<th>Civilization</th>
<th>City</th>
<th>Size (000's)</th>
<th>Competing Civilization(s) and City(ies)</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2250 BC</td>
<td>Egyptian</td>
<td>Memphis</td>
<td>--</td>
<td>Mesopotamian Akkad</td>
<td>--</td>
</tr>
<tr>
<td>2000 BC</td>
<td>Mesopotamia</td>
<td>Ur</td>
<td>65</td>
<td>Egyptian Memphis</td>
<td>60</td>
</tr>
<tr>
<td>1800 BC</td>
<td>Egyptian</td>
<td>Thebes</td>
<td>--</td>
<td>Mesopotamian Isin</td>
<td>--</td>
</tr>
<tr>
<td>1600 BC</td>
<td>Egyptian</td>
<td>Avaris</td>
<td>100</td>
<td>Mesopotamian Babylon</td>
<td>60</td>
</tr>
<tr>
<td>1360 BC</td>
<td>Central</td>
<td>Thebes</td>
<td>80</td>
<td>Aegian Knossos</td>
<td>30</td>
</tr>
<tr>
<td>1200 BC</td>
<td>Central</td>
<td>Memphis</td>
<td>50</td>
<td>Aegian Mycenaean</td>
<td>30</td>
</tr>
<tr>
<td>1000 BC</td>
<td>Central</td>
<td>Thebes</td>
<td>--</td>
<td>(No Aegian Megalopolis)</td>
<td>--</td>
</tr>
<tr>
<td>800 BC</td>
<td>Central</td>
<td>Thebes</td>
<td>--</td>
<td>(No Aegian Megalopolis)</td>
<td>--</td>
</tr>
<tr>
<td>650 BC</td>
<td>Central</td>
<td>Nineveh</td>
<td>120</td>
<td>Aegian Miletus</td>
<td>50</td>
</tr>
<tr>
<td>430 BC</td>
<td>Central</td>
<td>Babylon</td>
<td>200</td>
<td>(Old Oikumene mono-civilizational)</td>
<td></td>
</tr>
<tr>
<td>200 BC</td>
<td>Indic</td>
<td>Patna</td>
<td>350</td>
<td>Central Alexandria</td>
<td>300</td>
</tr>
<tr>
<td>AD 100</td>
<td>Central</td>
<td>Rome</td>
<td>450</td>
<td>Far Eastern Loyang</td>
<td>420</td>
</tr>
<tr>
<td>AD 361</td>
<td>Central</td>
<td>Constantinople</td>
<td>300</td>
<td>Indic Anuradhapura</td>
<td>150</td>
</tr>
<tr>
<td>AD 500</td>
<td>Central</td>
<td>Constantinople</td>
<td>400</td>
<td>Far Eastern Nanking</td>
<td>150</td>
</tr>
<tr>
<td>AD 622</td>
<td>Central</td>
<td>Ctesiphon</td>
<td>500</td>
<td>Far Eastern Changan</td>
<td>400</td>
</tr>
<tr>
<td>AD 800</td>
<td>Central</td>
<td>Baghdad</td>
<td>700</td>
<td>Far Eastern Changan</td>
<td>600</td>
</tr>
<tr>
<td>AD 900</td>
<td>Central</td>
<td>Baghdad</td>
<td>900</td>
<td>Japanese Kyoto</td>
<td>200</td>
</tr>
<tr>
<td>AD 1000</td>
<td>Central</td>
<td>Cordova</td>
<td>450</td>
<td>Indic Kannauj</td>
<td>80</td>
</tr>
<tr>
<td>AD 1200</td>
<td>Far Eastern</td>
<td>Kaifeng</td>
<td>255</td>
<td>Japanese Kyoto</td>
<td>175</td>
</tr>
<tr>
<td>AD 1300</td>
<td>Far Eastern</td>
<td>Hangchow</td>
<td>432</td>
<td>Indic Kannauj</td>
<td>150</td>
</tr>
<tr>
<td>AD 1400</td>
<td>Far Eastern</td>
<td>Nanking</td>
<td>487</td>
<td>Japanese Changan</td>
<td>400</td>
</tr>
<tr>
<td>AD 1500</td>
<td>Far Eastern</td>
<td>Peking</td>
<td>672</td>
<td>Central Cairo</td>
<td>360</td>
</tr>
<tr>
<td>AD 1700</td>
<td>Central</td>
<td>Constantinople</td>
<td>700</td>
<td>Japanese Kyoto</td>
<td>150</td>
</tr>
<tr>
<td>AD 1800</td>
<td>Far Eastern</td>
<td>Peking</td>
<td>1,100</td>
<td>Far Eastern Peking</td>
<td>650</td>
</tr>
<tr>
<td>AD 1900</td>
<td>Central</td>
<td>London</td>
<td>6,480</td>
<td>Central London</td>
<td>861</td>
</tr>
<tr>
<td></td>
<td>Far Eastern</td>
<td>Peking</td>
<td>1,100</td>
<td>Japanese Tokyo</td>
<td>1,997</td>
</tr>
</tbody>
</table>

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Intercivilizational transfers of cosmopolitan primacy have been more frequent than Table 29 reveals, as can be seen in Table 30, derived from Chandler’s separate table (1987:527) of "Cities that can have been the largest."

<table>
<thead>
<tr>
<th>Date</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>2240 BC</td>
<td>Egyptian (Memphis)</td>
<td>Mesopotamian (Agade)</td>
</tr>
<tr>
<td>1980 BC</td>
<td>Mesopotamian (Ur)</td>
<td>Egyptian (Thebes)</td>
</tr>
<tr>
<td>1770 BC</td>
<td>Egyptian (Thebes)</td>
<td>Mesopotamian (Babylon)</td>
</tr>
<tr>
<td>1670 BC</td>
<td>Mesopotamian (Babylon)</td>
<td>Egyptian (Avaris)</td>
</tr>
<tr>
<td>300 BC</td>
<td>Central (Alexandria)</td>
<td>Indic (Patna)</td>
</tr>
<tr>
<td>Between 195 and 25 BC</td>
<td>Indic (Patna)</td>
<td>Central (Rome)</td>
</tr>
<tr>
<td>637 AD</td>
<td>Central (Ctesiphon)</td>
<td>Far Eastern (Changan)</td>
</tr>
<tr>
<td>775 AD</td>
<td>Far Eastern (Changan)</td>
<td>Central (Bagdad)</td>
</tr>
<tr>
<td>1013 AD</td>
<td>Central (Cordova)</td>
<td>Far Eastern (Kaifeng)</td>
</tr>
<tr>
<td>1127 AD</td>
<td>Far Eastern (Kaifeng)</td>
<td>Central (Constantinople)</td>
</tr>
<tr>
<td>1180 AD</td>
<td>Central (Fez)</td>
<td>Far Eastern (Hangchow)</td>
</tr>
<tr>
<td>1315 AD</td>
<td>Far Eastern (Hangchow)</td>
<td>Central (Cairo)</td>
</tr>
<tr>
<td>1348 AD</td>
<td>Central (Cairo)</td>
<td>Far Eastern (Hangchow)</td>
</tr>
<tr>
<td>1650 AD</td>
<td>Far Eastern (Peking)</td>
<td>Central (Constantinople)</td>
</tr>
<tr>
<td>1710 AD</td>
<td>Central (Constantinople)</td>
<td>Far Eastern (Peking)</td>
</tr>
<tr>
<td>1825 AD</td>
<td>Far Eastern (Peking)</td>
<td>Central (London)</td>
</tr>
</tbody>
</table>

An examination of these transfers should reveal something of the dynamics of oikumenical economic competition when direct politico-military attack, predation, and extraction (by one cosmopolis from the other) cannot account for relative success.

1. **2240 BC: Memphis to Akkad.** Both are capital cities. As of 2240, however, the old kingdom of Egypt was losing central control over its nomes (6th Dynasty, reign of Pepi II), while the Sargonid empire of Akkad was at its greatest extent and centralization (reign of Naram-Sin). The cause of the demographic shift would seem then to be most likely a civilizational (and political) coincidence, rather than an oikumenical phenomenon: a political weakening of Memphis in Egypt (i.e., a loss of ability to extract surplus from the Egyptian economy and devote it to sustaining state retainers - courtiers, priests, soldiers, taxmasters, scribes, entertainers - and hence the population of the capital) that happened to coincide with an increase in the politico-military ability of Agade.
to extract revenue from its civilization’s share of the Old Oikumene. (Cf. Chandler, 1987:523-526 concerning this and later transitions.)

2. 980 BC: Ur to Thebes. This too appears related to imperial consolidation and weakening: while the 3rd dynasty of Ur had peaked and begun to lose bits of the Mesopotamian universal state (reign of Shusin), a Theban (XIth) dynasty had just reunited the Egyptian universal state and founded the Middle Kingdom.

3. 1770 BC: Thebes to Babylon. Again a dynastic and imperial collapse in Egypt, a consolidation in Mesopotamia. The 1st dynasty of Babylon was on its way up to its Hammurabic peak; the Egyptian Middle Kingdom had broken into the contemporaneous XIIIth and XIVth dynasties.

4. 1670 BC: Babylon to Avaris. The same story, with the rise of the Hyksos empire (XVth dynasty) in Egypt, while the Sea Lands were throwing off the Babylonian yoke in Mesopotamia (reign of Shamshuiluna).

5. 300 BC: Alexandria to Patna. In this case, Alexandria had not been the capital of the Macedonian universal empire - there had been no genuine politico-military capital city, since the ruler, Alexander, ruled from his army. Alexandria’s preeminence was commercially based; nevertheless its decline seems attributable to the political fragmentation of the Macedonian empire under the Diadochi. Patna’s rise, meanwhile, is on the more standard pattern; it was the capital of the expanding Maurya empire (reign of Chandragupta).

6. Between 195 and 25 BC: Patna to Rome. The uncertain date is caused by the intrusion, in Chandler’s list (1987:527) of the (arguably) largest cities in the world, of Changan 195-25 BC; in this period we have sited Changan outside the Old Oikumene. But regardless of the date, the process by which Rome surpassed Patna seems to be identical to cases 1-4, i.e., imperial consolidation and extraction: the Maurya empire fragmented after 184 BC, while Rome acquired the universal empire of Central civilization.

7. AD 637: Ctesiphon to Changan. Again the transfer is between imperial capitals. Ctesiphon flourished as the capital of the Sassanid Persian empire until conquered and sacked by the Arabs in 637; Changan was the western capital of the Tang dynasty, at
this time in a period of conquest and expansion (reign of Tai Tsung).

8. **AD 775: Changan to Baghdad.** Again an imperial fall and rise: the Tang lost control of Nanchao, Turkestan and Tibet; in 763, Changan was sacked by Tibetans. Meanwhile Baghdad was founded (762) as the capital of the Abbasid Caliphate and Arab empire, still expanding in 775 under Al-Mansur and Al-Mahdi.

9. **AD 1013: Cordova to Kaifeng.** The Omayyad Caliphate ruled a large and extremely prosperous state in Central civilization from its capital of Cordova, but collapsed into civil war, and Cordova was sacked in 1013. Under the Northern Sung, Kaifeng was capital of most of China; it displaced Cordova on the list simply because the Northern Sung Empire remained stable while that of Cordova collapsed.

10. **AD 1127: Kaifeng to Constantinople.** 1126 marks the collapse of the Northern Sung state under Chin attack; meanwhile the Byzantine empire under John I Comnenus had expanded in Anatolia (against the Seljuk Turks), defeated the Patzinaks in the Balkans, intervened in Hungary, and extended its influence over Syria and Armenia.

11. **AD 1180: Fez to Hangchow.** This case involves a partial anomaly. Fez was an imperial capital (Almohads or Muwahids), but of an expanding rather than a declining state. Hangchow achieved its status when the fall of Kaifeng and the Northern Sung state in 1126 was followed by the formation of a Southern Sung state, capital Hangchow, 1135, which attained peace and stability in 1141 and then entered a period of rapid economic and demographic growth. That both cities should be imperial capitals is normal; that the cosmopolitan succession should pass because of relatively faster economic-demographic (vs. imperial) growth is the anomaly.

12. **AD 1315: Hangchow to Cairo.** Mongols set up their capital at Peking (1267) and then destroyed the Southern Sung state, depriving Hangchow, which remained a prosperous port, of capital-city status (1276). Meanwhile, the Mameluke state of Egypt had expanded into Syria.

13. **AD 1348: Cairo to Hangchow.** This transfer involves a double anomaly. Cairo was depopulated by the Black Death; and,
because the Mongols had depopulated North China, Peking, the capital, was not the largest city in China.

14. **AD 1650: Peking to Constantinople.** Peking, as the Ming capital, had flourished; but it was twice conquered in the Ming collapse in 1644, and suppressed and depopulated by the first Manchu (Ching) emperors. Constantinople was the capital of the largest Central state, the Ottoman Turkish empire, which had reached its peak in the 1580’s but was able to defer major decline until the 1680’s. It thus "surpassed" Peking on this occasion because the Ming empire did, and the Ottoman did not, collapse.

15. **AD 1710: Constantinople to Peking.** Ch’ing China was at its peak of order, prosperity and cultural attainment under the Kang Hsi emperor; the imperial capital Peking flourished accordingly, while the Turkish empire had begun to lose provinces. Apparently Peking outcompeted Constantinople demographically as a result.

16. **AD 1825: Peking to London.** On the Far Eastern side, the relative demographic decline of Peking is closely related to the politico-military decline of the Manchu empire of which it was the capital: both rebellion and provincial autonomy were on the rise, so that the ability of the Central government to extract from the provinces and support the capital’s population was constrained. But on the Central side, the relative rise of London is most anomalous. Britain was far less populous a state than Manchu China (and indeed less populous than its Central rivals Russia, Austria, France and Turkey); was at an imperial ebb, having lost its first (American) empire and not yet gained (except via the East India Company) its second (Indian-African) empire; could not muster the strongest army in Central civilization; and was recovering from a recent (post-Napoleonic-War) economic depression and crisis. London’s demographic growth must largely be attributed to economic development - to industrialization and the growth of trade - rather than to politico-military extraction. This point should not be pushed too far, however: the populations of Liverpool, Manchester, Glasgow, Birmingham and Leeds taken together did not equal London’s, a fact that seems to call for political rather than economic explanation. Nonetheless, the transfer of cosmopolitan primacy from Peking to London seems to compel an explanation more dependent upon economic and less upon politico-military factors.
than any other in the collection, even no. 11 (AD 1180, Fez to Hangchow).

Nonetheless, once more, the general picture one draws from Table 30 is that the "competition" between civilizations in the Old Oikumene for demographic primacy has been largely an epiphenomenal accident due to synchronous imperial consolidations and collapses which collect and disperse state-dependent capital-city populations. There is no obvious reason to believe, then, that these shifts -- notably the shuttle of primacy between Egyptian and Mesopotamian civilizations, and later, between Central and Far Eastern civilizations -- reflect real competitive processes at the level of the oikumenical economy. Only the final primacy shift, from Peking to London, seems to deviate markedly from the epiphenomenal toward the systemic-competitive model; and even that shift is not complete and clear-cut.

Relationship to other current work. There are some apparent, though not in principle unresolvable, discrepancies between the treatment of cities date herein and the recent and current findings of other workers, notably Barry K. Gills and Andre Gunder Frank (1990; cf. Frank, 1990, esp. 228-233). On the one hand, their argument that "the world system developed from its origins in Mesopotamia, Egypt and Indus, into the 'Asio-Afro-European ecumene' and incorporated the Western hemisphere after AD 1500" (1990:19) is virtually identical to and confirmed by the interpretation of Chandler's city data herein, though I prefer the term "Old Oikumene" to both "the world system" and "the 'Asio-Afro-European ecumene.'"

Furthermore, I fully concur with their defense (1990:23) of Central Asia's very important and unduly neglected role in the development of "the world system" (for me, of Central civilization and of the Old Oikumene).

On the other hand, I feel compelled to use a substantially later dating of the incorporation of several key areas into "an overarching system of inter-penetrating and competitive super-accumulation" (1950:19) than is implied in their work, which brings the Indus zone into the "world system" by about 2700 BC (1990:21) and China apparently by 500 BC (1990:23). To the extent that I am constrained by Chandler's data, I see the Indus as inside the Old
Oikumene in the "snapshot" for 1800 BC (Table 4), but Indic civilization as outside the Old Oikumene in 1200, 1000, 800, 650 and even 430 BC (Tables 7-11), and not back until 200 BC (Table 12). To that same extent, I see Far Eastern civilization as outside the Old Oikumene up to and in the AD 500 "snapshot" (Table 15) and inside it only in and after the AD 622 "snapshot" (Table 16).

The reasons for our differences are two, and the same in these two cases. (I have no argument whatever with their date of AD 1500 for the beginning of the incorporation of the New World Oikumenes by the Old Oikumene, though, precisely because my tables are discrete "snapshots" of historical moments rather than continuous-process records, these oikumenes only vanish in Table 25 for AD 1600.) One reason is approachable by theory, one by research. The theoretical reason is that I am unwilling to accept that the connection of two oikumenes has produced a single system until the trade routes that connect the two have been studded with entrepot cities whose population and polity are pretty clearly sustained by brokering (and guarding, warehousing, servicing, repackaging, rerouting, and parasitizing) the trade. Thus the rise of Rayy, Balkh, Broach and Taxila are to me important and necessary indicators of the reincorporation of Indic civilization's private oikumene into the Old Oikumene by 200 BC; the rise of Samarkand and Kashgar serve similarly as indicators of the incorporation of the Far Eastern oikumene into the Old Oikumene by AD 622.

The researchable reason might however reduce or even resolve our chronological disagreement without requiring changes in theory on either side. Chandler's 1987 data takes the threshold of city size down only to 30,000 in 430 BC (Table 11), and to 40,000 in AD 500 (Table 15). Were data to be collected down to the threshold of 10,000 for which I have argued, it may be taken as certain that each of these tables would be greatly expanded by one or two orders of magnitude. Inspection of the Chandler tables suggest very strongly that city sizes form a near-Zipfian distribution - the larger the fewer; the smaller the size the more cities at that size. In the process of such expansion, it is highly probable that many cities which, like Samarkand and Kashgar, crossed a 40,000 threshold by AD 622, would have crossed a 10,000 threshold by AD 500, and
not impossible that they did so much earlier, or that other cities on the same route crossed the lower threshold long before those crossed the higher. It is therefore quite conceivable that further research will fully resolve our chronological disagreements, with or without a resolution of our theoretical differences.

A second difference between the argument developed here and that of Frank and Gills has to do with the system-level phenomenology of my "Old Oikumene" and their "world system." I have not located prior to the 19th century the phenomenon they characterize as "superhegemony:" a "privileged position ... in which one zone of the world system and its constituent ruling-propertied classes are able to accumulate surplus more effectively and concentrate accumulation at the expense of other zones ..." (Gills and Frank, 1990:35).

I prefer (to "superhegemony") the term "parahegemony," based on the multiple connotations of the prefix "para-:" related to; almost; closely resembling the true form; abnormal; beyond. "Parahegemony" is a position in an oikumene in which the parahegemon derives economic benefits similar to those which a true hegemon is able to extract by the use or threat of force. But the parahegemon does so without the need to spend on force, because it has the economic advantage of being a highly privileged forereacher (a center of invention, and/or saving and investment, and/or entrepreneurship) and/or a rentier (monopolizing a scarce resource, a trade-route intersection or choke point, an enormous market, etc.); and because it has the politico-military advantage of being strong enough to defend its centers and monopolies, or of being outside the politico-military striking range of its rivals and/or victims.

The terminological difference is not crucial. "Parahegemony" could not unreasonably be called "superhegemony," even though it involves less relative power than "hegemony," because it may be more secure, less assailable, cheaper to maintain than genuine politico-military hegemony.

There have, I believe, been recognizable parahegemons in the old oikumene. Britain, often mistakenly styled "hegemonic" in the 19th century, was a parahegemon - able to defend itself from anyone though not to conquer or control any of its great-power rivals;
advantaged by being first or fastest in industrial development and then in finance.

So, after World War II, was the United States parahegemonic rather than hegemonic? The U.S. was incapable of compelling positive compliance by Russia (Stalin's violation of Yalta), China (failure of the Marshall Mission; failure of the 1950 Acheson initiative), France (General Intractability of General DeGaulle), India (defection from 1950 Korean War support coalition; foundation of Nonaligned Movement), even North Korea (1950-53) or North Vietnam (1954). It was however, fully capable of defending itself, all its trade routes and major trading partners, and it possessed relative superiority in agricultural and industrial capacity and in innovative capacity and achievement. By contract, the position of the United States in 1991 is far closer to hegemony than to parahegemony: it is better able to coerce, and less able to compete.

But were there pre-19th century parahegemons? I have not found their trace in the Chandler data. The historical traces of oikumenical parahegemony ought to include cosmopolitan accumulation of wealth; and, if we accept that a "wealthy" cosmopolis will contain a luxuriating patriciate and a proliferant and/or immigrative plebs, remarkable growth in population ought to be as usable a sign of parahegemony as would be the accumulation of palaces and temples, pleasaunces and theaters, monuments and brothels, warehouses and ministries, harems and hippodromes.

The largest city in an oikumene is, then, perhaps also the sign of the oikumenical parahegemony of the state within which it lies. But there are other possible explanations for cosmopolitan size. A city might be largest by reason of direct hegemony (not parahegemony) over the oikumene as a whole. Or it might be largest for reasons accidental to the oikumene but well-grounded for some region within the oikumene, e.g., because its state was locally hegemonic (or parahegemonic) to the most populous or wealthiest region within the oikumene.

In the review of Chandler's list of "Cities that can have been the largest" at Table 30, most such seem to have their status plausibly explained on grounds that relate to their regional rather than their oikumenical role. Most commonly they rose in population as their
state acquired hegemony, empire or universal empire, not within the whole of the Old Oikumene but within a civilization that was a politico-militarily linked region within the economically bound system of the oikumene; and they fell in size in proportion as the scope of the regional domination of their state shrank.

On the whole, therefore, the achievement of oikumenical parahegemony seems to be a relatively recent phenomenon. Why? The answer is no doubt partly to be found by closer examination of the rise of 19th century London and 20th century New York; but also in the failure to reach parahegemony of earlier plausible candidates. These would be those cities that acquired large populations without acquiring empires large enough to account for those populations, and which accordingly probably prospered mainly through success in trade, but which never rose to demographic primacy: perhaps this list should include Kerma (Nubia), Hazor, Ugarit, Saba (Yemen), Hastinapura, Miletus, Broach and Canton; surely it would include Tyre, Athens, Carthage and Venice. If the experience of the latter quartet is characteristic, then the usual pattern of failure on the road to parahegemony is dual: one becomes a target for the attacks of dominant powers on their way to hegemony or universal empire, and is thereby distracted from wealth-seeking to defense, or destroyed, or taken over and drained; and/or one turns from the road to economic parahegemony to the parallel but different road to politico-military hegemony, and finds oneself unfitted to be a hegemon by just those social characteristics that made one a fit candidate for parahegemony, e.g., perhaps an open, fluid, volatile, mercantile social order.*

Since Gills and Frank do not as yet ascribe "superhegemony" to any particular pre-19th century state, it cannot be said that we are as yet in substantive disagreement. But I am now pessimistic about the likelihood that empirical research will in future locate such an

* Whether the United States has acquired the attributes needed by a hegemon, and in the process lost those required of a parahegemon, is a question that might be raised in this connection; but not in this paper.
entity, while I believe they remain rather more hopeful. To the extent that their "superhegemon" and my "parahegemon" mean the same thing theoretically - the overlap is not complete, but substantial - this difference of expectations is also resolvable by research rather than otherwise.

Speculations. The size structure of each civilization’s city complex at each moment is likely connected to the structure of its polity and economy. The demographic trajectories described by civilizations’ urban populations over time should be indicative of underlying social processes, as should the turnover on the city lists of each civilization over time.

Summary and Conclusions

Redefining or reconceiving a “civilization” as usually a politically bonded multiurban polyculture, an attempt was made to sort an existing collection of city-size data in accordance with a civilizational taxonomy derived from the redefinition. The attempt was largely successful. A few failures suggest a research agenda; a few ambiguous cases imply system-boundary problems of theory and research.

The constellations of cities within each civilization at a given moment may suggest hypotheses about the economic, political and cultural balances within that civilization. The relative sizes of civilizations (in terms of city numbers) can be hypothetically related to the results of their collisional interactions.

Oikumenes contain civilizations. Both oikumenes and civilizations tend to expand, the civilizations’ boundaries pursuing those of the oikumenes that contain them. Oikumenes, like civilizations, collide and merge as the result of their expansion; unlike civilizations, their mergers tend to be relatively egalitarian couplings. No clear system-level processes exist that give or remove primacy of wealth and population to or from chief cities of the civilizations in polycivilizational oikumenes; urban primacy at the oikumene-level appears to be mostly an epiphenomenon of synchronous imperial unions and collapses at the civilization level. It would seem consistent to expect that in a monocivilizational oikumene (like the current one), economic inequality is likelier to be the result of
politico-military than of purely economic processes; but this is not shown to be necessarily the case, only plausibly.

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BIBLIOGRAPHY


THE FIGURE NUMBERS CORRESPOND TO TABLE NUMBERS

Figure 22. Cities, Civilizations and the Old Oikumene in A.D. 1200

Figure 23. Cities, Civilizations and the Old Oikumene in A.D. 1300

Figure 24. Cities, Civilizations and the Old Oikumene in A.D. 1400

Figure 25. Cities, Civilizations and the Old Oikumene in A.D. 1500

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Figure 26. Cities, Civilizations and the Old Oikumene in A.D. 1600

Figure 27. Cities, Civilizations and the Old Oikumene in A.D. 1700