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Changing Commerce and Merchant Power in the Indian Ocean: Impacts on Afro-Asian 'Core' and 'Peripheral' Polities, ca. 300 BCE to 1800 CE

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Changing Commerce and Merchant Power in the Indian Ocean: Impacts on Afro-Asian 'Core' and 'Peripheral' Polities, ca. 300 BCE to 1800 CE

Between 300 BCE and 1800 CE, Indian Ocean commerce was managed by traders who bridged exchange networks across the edges and peripheries of empires and interaction spheres through trader alliance networks (TAN). Using Network Theory, we hypothesize that TAN were characterized by high Triadic Closure and relatively little political influence between 300 BCE–1400 CE, and shifted to Brokerage and high political influence after 1400 CE. These shifts and their impacts are tested through archaeological data from the Indian Ocean ports of Chaul, India, and Mtwapa, Kenya. These shifts enable understanding the emergence and impact of trader lobbies, pressure groups, and 'Great Firms' as global power brokers, and the rise of Predatory Commerce after 1600 CE that continues to this date.

maritime trade; commerce; Indian Ocean; closure; brokerage; Trader Alliance Networks (TAN)

Zwischen 300 v. Chr. und 1800 n. Chr. betrieben den Handel im Indischen Ozean Händler, die über die Händlerallianznetzwerke (TAN) den Austausch über die Ränder und Peripherien von Imperien ermöglichten. Unter Verwendung der Netzwerktheorie gehen wir davon aus, dass TAN durch eine hohe Triade-Schließung und wenig politischen Einfluss zwischen 300 v. Chr. und 1400 n. Chr. gekennzeichnet waren, und nach 1400 n. Chr. zu Brokerage und hohem politischem Einfluss verschoben wurden. Diese Verschiebungen und ihre Auswirkungen werden durch archäologische Daten aus zwei Häfen des Indischen Ozeans getestet. Diese Veränderungen machen die Entstehung und den Einfluss von Händler-Lobbys, Interessengruppen und ‚Great Firms' als globale Machtvermittler verständlich und den Aufstieg von Predatory Commerce nach 1600 CE, der bis heute andauert.

Seehandel; Handel; Indischer Ozean; closure; brokerage; Trader Alliance Networks (TAN)

1 Introduction

The papers in this volume address the dynamic interactions of edges and empires, and peripheries and cores. An edge or periphery is usually a construction of those living in empires and core polities, and historians, archaeologists, geographers, and sociologists, and particularly by scholars following World Systems approaches.[1] Despite numerous

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1 E.g., Frank 1993; Wallerstein 2004.

debates on cores and peripheries, there are nonetheless three truisms that are almost set in stone: (a) the terrestrial empires of Asia (South and East Asia, and the Middle East) and Europe (Mediterranean including North Africa) are included in the core, (b) South East and Central Asia and Sub-Saharan Africa (and to some extent, Northern Europe) are the 'eternal peripheries' of the pre-modern world, always on the edges, margins, and boundaries of empires and world systems, and (c) knowledge, technology, culture largely flowed from the core to periphery, from the empire to its edge.[2]

In this paper, we use the terms: "core/periphery" to indicate geographical position but without the assumptions of the flow of political and economic power and hierarchies outlined in these truisms. Instead we focus on the complex interaction systems of the Western Indian Ocean to examine:

a) *The traditional view* from World Systems Theory and Perspectives approaches[3] wherein the economic or political changes on the edge on within peripheral areas are the results of interaction with imperial centers or core regions leading to (1) active domination, and/or (2) passive hegemony within a core/center and periphery/edge hierarchy.

b) *The emerging view* that combines the Network Closure vs. Brokerage,[4] Trader-Diaspora/Distance Parity,[5] and Trading Systems[6] approaches wherein economic and political changes at the edges/peripheries are caused by structural changes in global, regional, and local interaction networks as traders respond to political and regulatory environments in both the empire/core and the edge/periphery.

We argue that these two views are not in opposition to each other, but that the emerging view helps to understand the inner mechanisms and power dynamics by which the World Systems or other pan-regional systems of exchange and interactions emerge, reproduce, and transform. Combined, these two approaches enable better analysis of core/periphery or center/edge interactions without assuming domination or hegemony from the core, whether passive or active, specifically the conditions under which changes in the core/empire lead to changes in the periphery/edge.

For the purposes of this paper, a periphery is defined as a set of nodes (settlements with clusters of economic actors) distributed sparsely around the edge of a political, economic, and social interaction sphere. An interaction sphere[7] is a complex network involving the exchange of goods and across distinct local populations distributed across a geographical area (fig. 1a).

Interaction spheres have various sub-networks linking densely clustered nodes (polities or settlements) characterized by intense production and distribution activities to settlements and societies in the periphery (fig. 1a). Core areas in other interaction spheres are usually linked to each other through alliances networks of global diasporan trader networks (fig. 1b). Peripheral societies usually have smaller production and distribution centers that are also more sparsely distributed compared to the cores of the interaction spheres. Peripheral production and distribution centers may be linked to each other through regional exchange networks, or through the cores. However, links between peripheral societies in different interaction spheres usually have to go through the core centers to link to other interaction spheres, as seen in figs. 1a and 1b.

2 Chase-Dunn and Hall 2000; Frank 1993; Abu-Lughod 1991.
3 Chase-Dunn and Hall 2000; Frank 1993; Peregrine and Feinman 1996; Wallerstein 2004.
4 Burt 2000.
5 Stein 1999.
6 Oka 2008; Oka 2018.
7 Caldwell 1964.

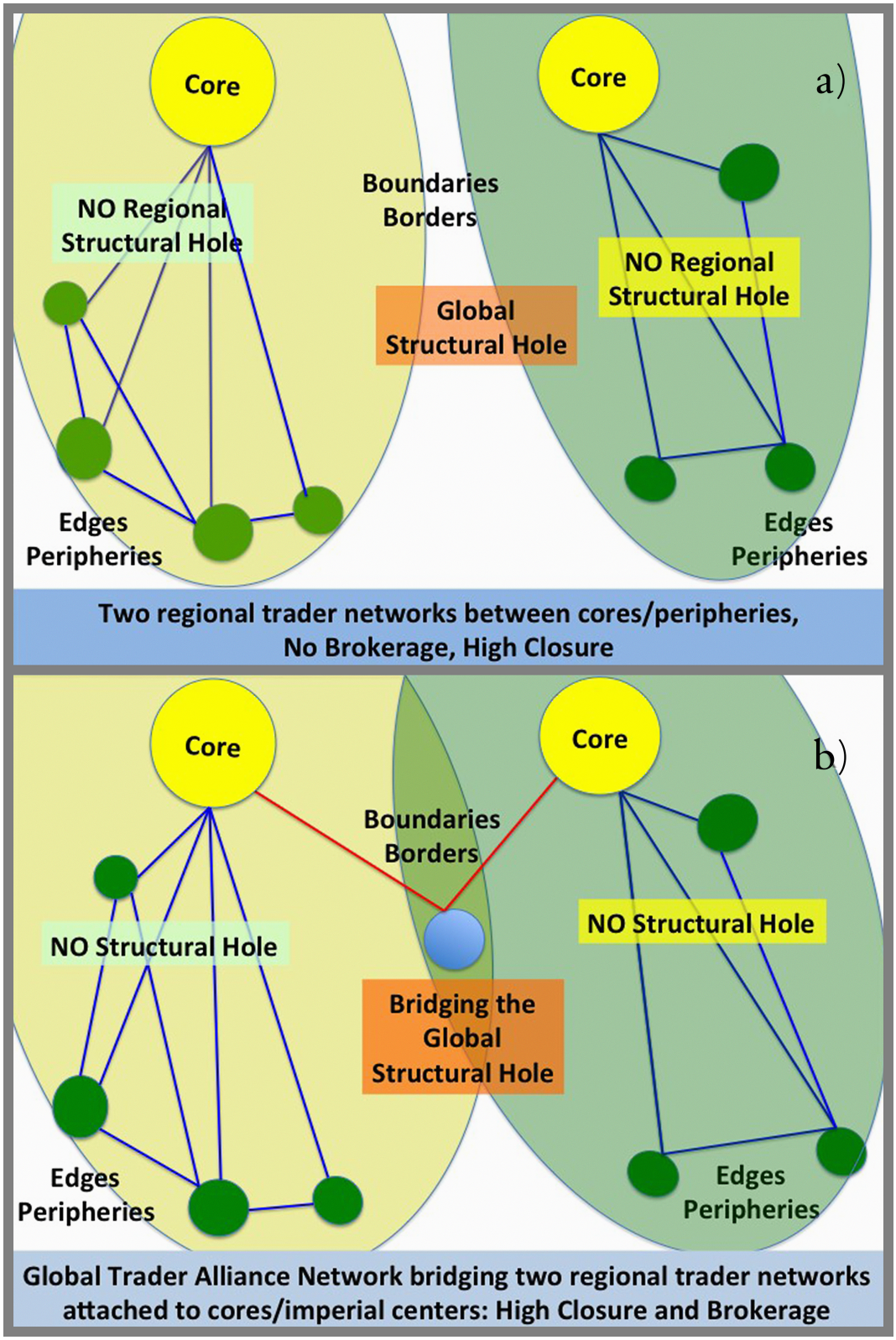


Fig. 1 | a) Regional Trade Networks within Interaction Spheres (shaded areas) linked to Cores; b) Global Diasporan Trader Networks linking Interaction Sphere Cores (shaded areas) and their Regional Trade Networks.

An edge is defined with respect to its location at the terrestrial boundaries of empires, largely linked to imperial centers and capitals through political and economic ties. Edge polities may enjoy varying degrees of political, economic, and social autonomy in return for revenues collected by the imperial centers, with local elites managing daily activities under the supervision of imperially appointed administrators. The amount of autonomy of an edge polity is directly correlated with the geographical and logistical distance between the imperial centers and the edges. Since most anthropological and historical work has debunked the 'myth of the cultural isolates', the question for Old World trading dynamics is not if, but how does change in the center/core affect the edge/periphery, and in return, how would changes in edges and peripheries have on cores? In other words, what are the mechanisms by which political economies transform?

In another perspective,[8] diffusion through overlapping trade networks is seen as a viable mechanism, especially for the pre-Bronze Age and Bronze Age period of Eurasia. However, we contend that the transfer of information, knowledge, and goods within and across regions transpired as an active process between interested actors. As the central explanatory framework that combines both the traditional World Systems Approaches and the emergent views that focus on actors as agents of structural transformation, we turn to the regional and global trader networks active in the Old World over the past 2500 years and before.[9] These networks either:

a) Form bridging alliances resulting in high closure between elites, producers, and consumers within and between core regions and empires, and their edges and peripheries. Actors using these alliances can utilize information on events, capital, supply, and demand across scales of interaction to generate sustainability and/or growth,[10]

And/or

b) Exist as influential nodes or sub-groups that broker links between production and consumption sectors within and across societies. Actors can, at best covertly affect the flows of goods and commodities across and within societies, and at worst, through their political connections, can form pressure groups, cabals, cartels within the political economy.[11]

Traders and businessmen, as actors within networks that span both internally and across interaction spheres and empires, respond to local, regional, and global events, and pay particular but not exclusive attention to events and processes in core regions and imperial centers.[12] Changes in the latter are usually transferred across the network and may affect the edges and peripheries. In turn, a large-scale transition across the networks that affects multiple edges and peripheries would have a reverse cumulative impact on core regions and imperial capitals. We showcase these transitions by describing the rise and fall of trade and commerce on edges and peripheries in the Indian Ocean (fig. 2).

In particular, we focus on the port city of Chaul on the Western Indian coast as an edge polity of the various South Asian empires and states (300 BCE–1800 CE) and the port-city of Mtwapa, a Swahili city state on the periphery of the Afrasian core interaction spheres (700–1800 CE) (fig. 3).

8 Warburton 2011.
9 Dercksen 1999; Sherratt 1997; Veenhof 1997.
10 Burt 2000; Curtin 1984; Oka 2008; Stein 1999.
11 Cohen 1971; Curtin 1984; Landa 1994; Oka 2008.
12 Oka and Kusimba 2008.

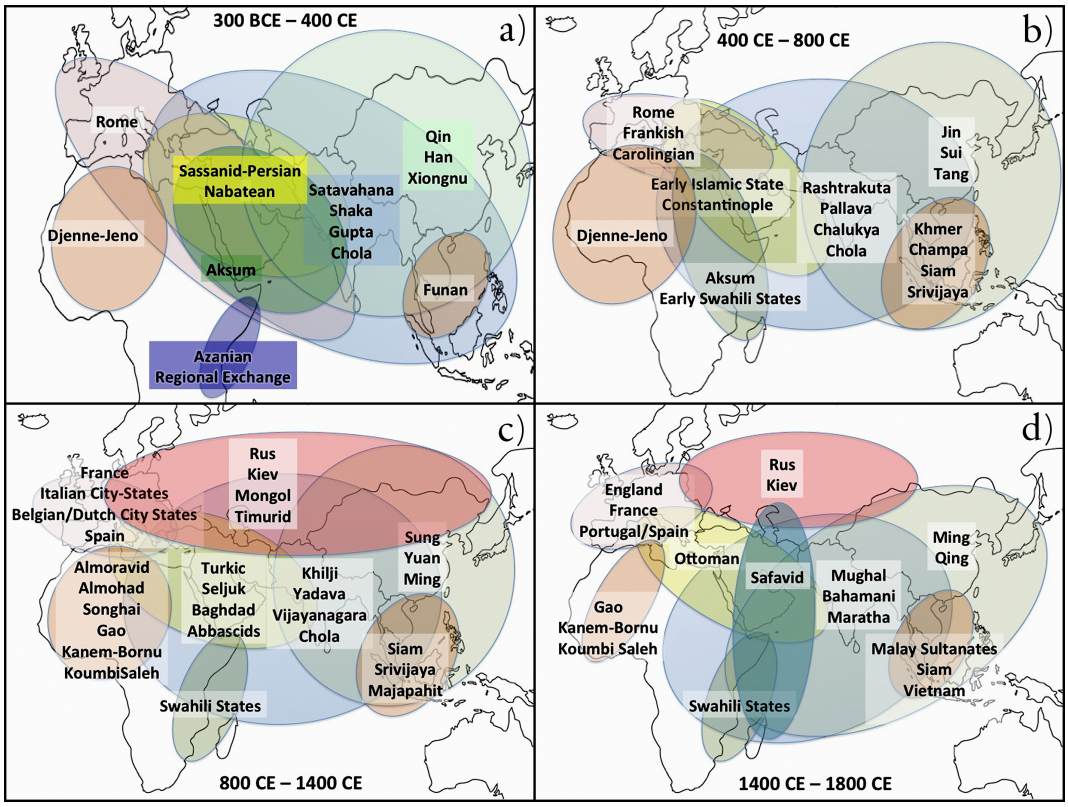


Fig. 2 | a)–d) Interaction Spheres and Cores in the Indian Ocean, 300 BCE–1800 CE.

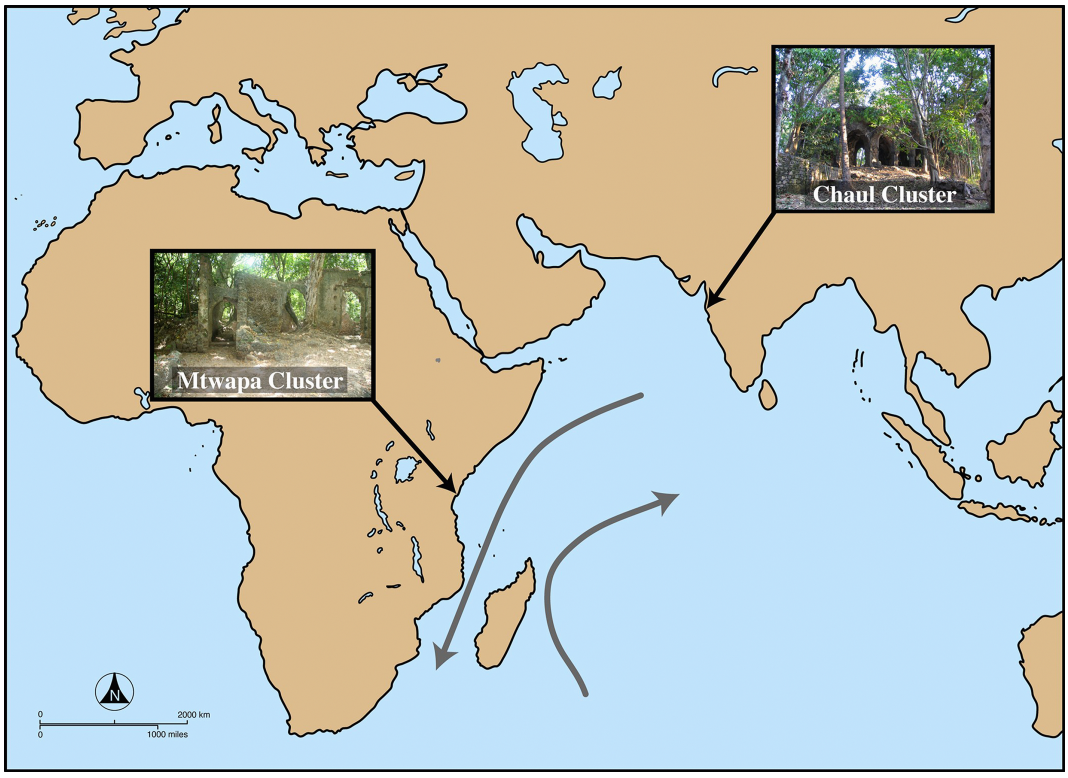


Fig. 3 | Chaul and Mtwapa in the Indian Ocean World.

2 Modeling trade networks

To effectively model the transitions in trader networks before and after 1400 CE, we turn to the concepts of Network Triadic Closure and Network Brokerage.[13] Specifically, network structure depends on the type, quality, and number of links between traders in the network. Burt (2000) differentiated between (1) networks characterized by high triadic closure (total number of closed triads within the network), where most or all nodes within a network were connected to each other by few links, and where removal of any one or cluster of nodes would not leave isolated nodes or clusters, i.e., no structural holes (fig. 4a), and (2) networks characterized by brokerage where a few nodes provide bridges between other nodes or sub-clusters of nodes. These nodes would not only have disproportionately more links than other members of the network, but their removal would generate isolated nodes or sub-networks, i.e. structural holes (fig. 4b).

Networks with high triadic closure are also characterized by resilience and durability, as the network itself can adapt to removal of a number of nodes, but are by necessity limited in their growth, as most of the nodes have parity maintained through self-restraint and censure either by internal or external mechanisms. On the other hand, networks with high brokerage may lead to the disproportionate growth of the nodes that provide the nodes that serve as the bridges between sub-clusters and networks, especially across geographical and/or ethnic boundaries. The removal of these nodes results in the isolation of nodes or sub-networks.

However, trade and exchange networks depicted in fig. 4 are also embedded within political networks within and between societies. Traders respond to changes in regulatory conditions (given by trade friendly political stability) to determine scale, diversity, and direction of business activities, primarily through alliance building with fellow traders and/or with political elites, apropos the modeled transition (fig. 5a).

The network model (fig. 5a) posits that in times of regulatory stress and burden, (specifically regimes characterized by trade unfriendliness and predatory regulations, along with the political instability that frequently occurred in many ancient states and polities), most traders and businessmen (like all T in fig. 5c.2) focus on the trader alliance network (TAN in fig. 5b) and develop cooperative sub-graphs and even cartels within these networks. They also maintain covert alliances with political elites to sustain commerce and ensure their survival (T-PAN figs. 5b and 5c.2). These network centric strategies not only ensure survival but may also enable profitability and limited growth even in adverse conditions. However, during periods of lowered regulation or deregulation (trade-friendliness) and political stability, some traders (e.g. T_1 in T-PAN, fig. 5c.1) will employ overt and strong political alliances to commandeer supplies, and capture markets, and local and regional officials and politicians, and even states. This enables overtly politically connected traders or PC to exploit their access to capital to coerce (and/or partner) with local elites to engage in behaviors that might be antithetical to public or common good, but in their own interests, e.g. raw material extraction, predatory imitative manufacture of local products, and capture of local markets through intentional dumping/flooding of cheap commodities. The rest of the traders (e.g. T_2–T_4) behave as network dependent traders (NDT) heavily invested in the TAN and only covertly within the T-PAN.[14]

13 Burt 2000.

14 The network model presented has been drawn from ethnographic research on more than 600 traders from Asia, Africa, Europe, and the Americas, at scales ranging from billionaires to street peddlers, and including traders, merchants, brokers, bankers, and entrepreneurial producers/industrialists (Oka, Kusimba, and Gogte 2009). Data on behaviors and trader alliance networks and trader-political alliance networks emerging in response to changing political and regulatory environments was collected systematically through intense interviews and observation. Epigraphic, archival, archaeological, and ethno-

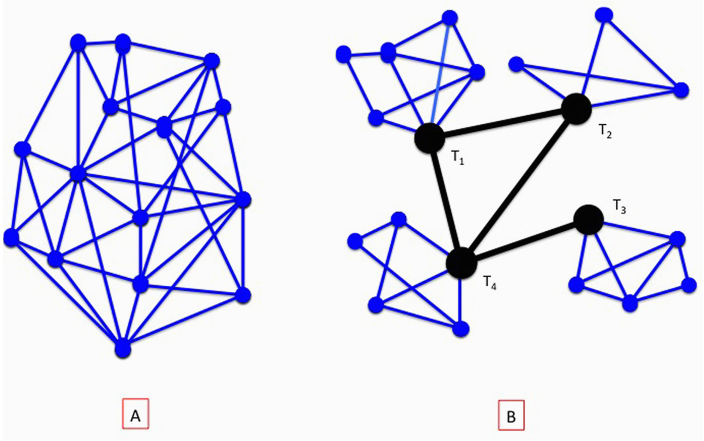


Fig. 4 | a) TAN with High Triadic Closure and Structural Balance, No Structural Holes; b) TAN with Lower Triadic Closure and Structural Balance, Structural Holes Bridged by T_1–T_4.

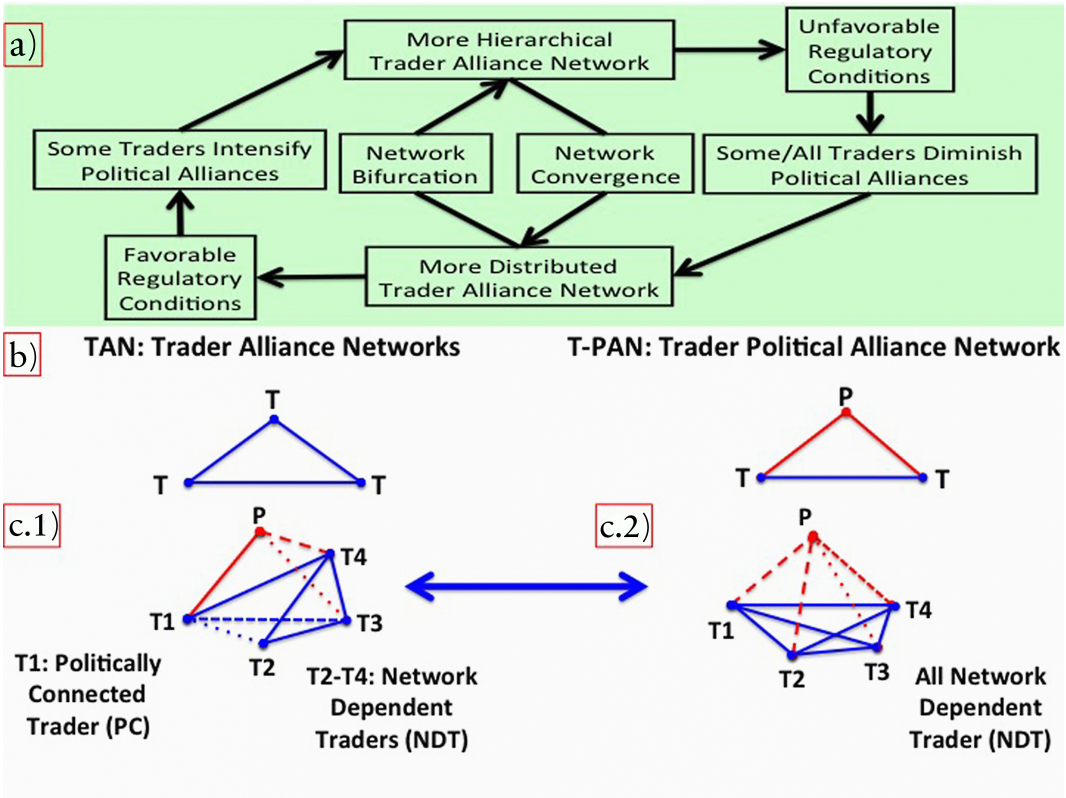


Fig. 5 | a) Modeled Transition of Trader Behaviors in response to Regulatory Conditions; b) Trader Alliance Networks (TAN) and Trader Political Alliance Networks (T-PAN); c) Transition in Trader Investment in TAN vs T-PAN.

Extending this analysis to exchange within and between interaction spheres and empires, traders use T-PAN either covertly (as NDT) or overtly (as PC) to bridge production areas and markets via their TAN, regional, and global levels of exchange and to link empires with their edges and cores with their peripheries, the following sequence is derived as depicted (fig. 6).

historical data have been used to ascertain the cross-cultural and cross-temporal applicability of the model (Oka 2008; Oka 2018; Oka, Kusimba, and Gogte 2009).

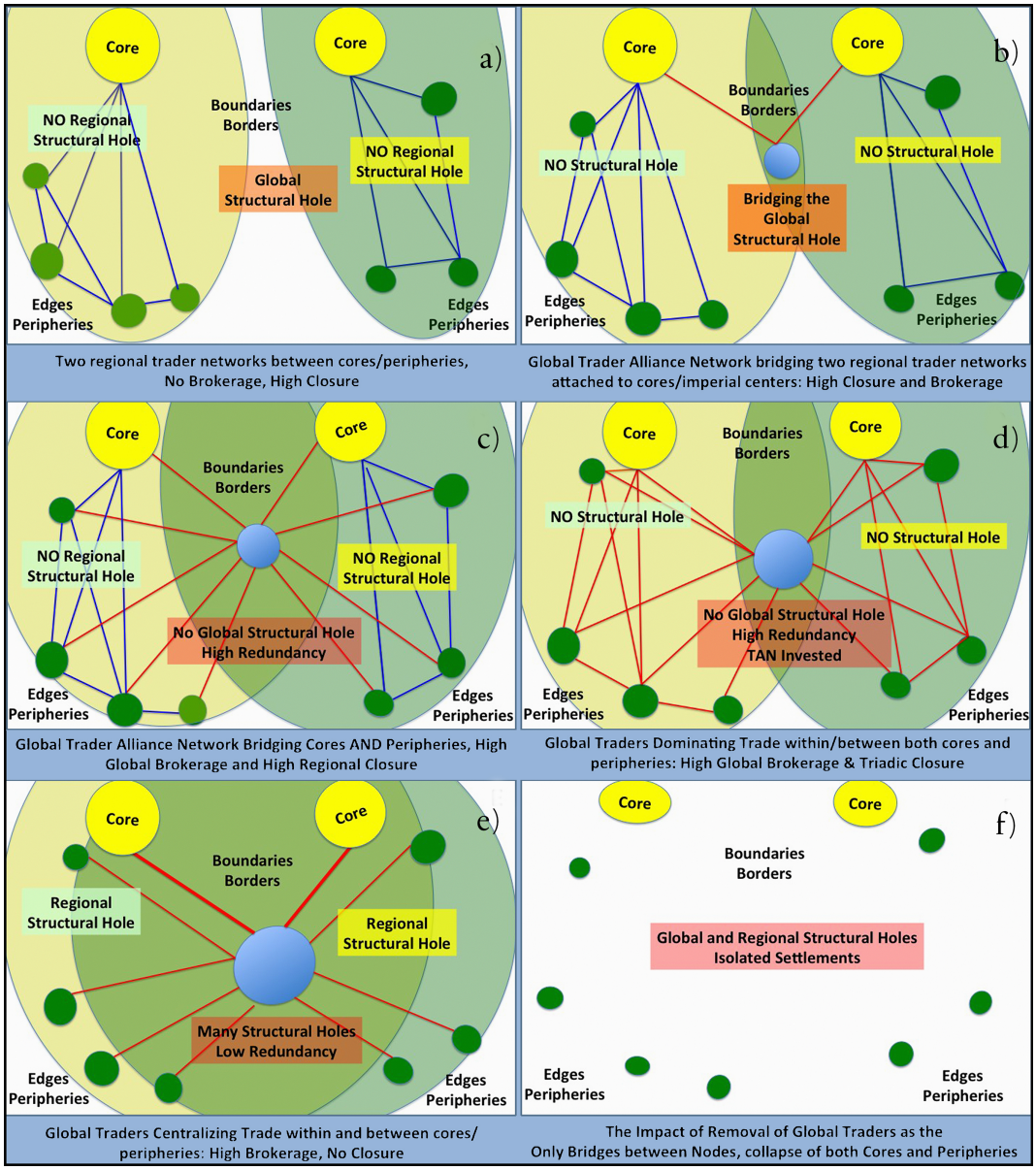


Fig. 6 | Global Networks and Regional Trade.

Here, two interaction spheres each with their own regional exchange networks linked to core empires (fig. 6a) can be linked either by a global trader networks between the cores areas (fig. 6b) or both core and peripheral areas (fig. 6c). These global trader networks are characterized by high triadic closure but have high social and economic capital solely by their ability to broker or bridge the regional networks within empires or cores and between empires and cores. The regional trading networks within or articulated within empires and cores also have high rates of network closure but without the brokering abilities social and economic capital of the global trading network. Often, the global trading network as seen in either fig. 6b or 6c collapses or downsizes due to political or other forms of instability, such as change in reigns, economic, policy, etc. Long-distance trade has high returns but also carries high risk, indicating that global traders will withdraw from unstable cores or peripheries if the risk of failure is higher than the expected profits. However, the decline of the global trader networks in situations depicted in figs. 6b and 6c usually leaves the regional trader network intact.

Under favorable trading conditions and political stability of empires/cores, traders within global networks use their greater access to information of resources, prices, and demands within and between regional exchange networks to capture local and regional markets. Specifically, networks of ethnic trading communities or other globally connected traders compete with regional traders and ultimately take over regional exchange networks (fig. 6d). This increasing brokerage both within and between regional, peripheral/edge, and imperial center/core exchange networks renders the global trader network almost indispensable for maintaining the flow of goods, services, and peoples between and within regions, as seen in fig. 6e when most regional and global trade links are largely managed by such trading groups. When globally connected networks, e.g., of Chinese merchants in Southeast Asia, or the South Asian traders in East and Southern Africa, replace or coopt regional trader networks, they become the sole or dominant brokers within both regional and global interaction networks within and between edges and peripheries, and imperial centers and cores. Individuals or sub-groups within these groups of global traders may attempt to maximize their dominance by minimizing or even eradicating their own diasporan network to become the primary and/or sole brokers.

On the one hand, these actions may result in greater flow of goods between distant regionals and the convergence of tastes, preferences, ideas, and prices, and to general economic growth.[15] But on the other hand, it may also lead to increasing ability of the traders to fix prices, hoard commodities, capture markets, dump cheap commodities, and to use their knowledge of the global to profit from the local. However, the indispensability of such networks characterized by brokerage becomes apparent when their disappearance or expulsion causes local, regional, or even global economic collapse (fig. 6f). This indispensability and need by local elites to maintain the regional and local economies leads to further enhancement of global trader status, often leading to competition between elites within and across peripheral areas for access to these traders. This in turn led to a moral hazard in which the global traders and their political elites allies may act with impunity and engage in behaviors (dumping of commodities, extraction of raw materials, market capture, disinvestment in local production) that might lead to increased profits for global traders and their allies in the short term but causing harm to local and regional social economies over the long term. How does this proposed sequence apply to the changes in the Indian Ocean world?

3 Closure and brokerage in Indian Ocean networks, 300 BCE–1800 CE

The world of the Indian Ocean and the Mediterranean and South Seas was characterized by the periodic and almost coterminous rise and fall of large polities and empires between 300 BCE–400 CE and 800–1400 CE (see figs. 2a–d). However, the tail ends of both these periods were also marked by increasing invasions especially through the movements of militaristic pastoralist groups in Central Asia, specifically, the invasions of the Goths, Huns, Xiongnu, and Yueh Chi between 400–800 CE and the Turks, Afghans, Mongols, and Timurids between 1100–1400 CE.[16] These invasions were correlated with the decline/collapse of many polities in Europe and Asia, especially towards the end of the Early Common Era, c. 300 CE, where the economic decline of empires and large states was hastened by regular invasions, leading to the 'dark ages' characterized by political decentralization and instability.[17]

15 O'Rourke and Williamson 2002.
16 Bronson 1988.
17 Hodges 2012.

Although we do not see a commensurate decline/collapse in the period between 1200 and 1400 CE, the continual invasions of Central Asian groups into South, West, and East Asia and into Europe ensured that any conquering groups would find it more difficult to maintain and consolidate power and control over the polity.[18] Even though each of these groups attempted to establish and consolidate their own polities, they in turn were subject to attacks by other groups pushing outwards from Central Asia. These attacks reached their crescendo with the rise of Genghis Khan in the 13th century and continued until the death of Tamerlane in 1403 CE, and the subsequent breakup of the Timurid polity. This allowed the nascent Ottoman Empire to expand into Europe, Central Asia, and North Africa in the 15th century and also provided the stability for the rise of the Safavid and the Mughal Empires from 1501 CE and 1526 CE respectively.[19]

There are undoubtedly other factors that contribute to political stability, such as the resilience of bureaucratic institutions, and the endurance of political elite networks.[20] However, there is usually a post-change ripple-effect, especially violent or rapid change, usually due to transitions in personnel and official appointments, and different taxation and revenue collection policies.[21] Traders in such situations have to forge different relationships and account for policy changes in their ongoing and planned commercial ventures. Hence, despite institutional stability in the Early Common Era across Eurasia and Africa, the dynamic changes in rulers, and general indifference or antipathy towards trade would have had similar responses from traders as did the political instability between 400–1400 CE, even though this period was marked by relative trade friendliness in South Asia and the Middle East/East Africa.[22]

As fig. 7 shows, the average reign of rulers in the Early Common Era (300 BCE–400 CE) was 12,2 years, the Interim Regionalization Period (400–800 CE) was 10,8 years, and the Medieval Era (800–1400 CE) was 12,6 years. However, the average reign of rulers during the Early Modern Era (1400–1800 CE) was 23,1 years.[23]

The overall system of instability in both political reigns and trade friendliness supports the contention that the bulk of commercial exchange prior to 1400 CE within and between empires/cores was managed by global networks of traders and merchants who emphasized self-restraint and controlled growth. The traders operating in these periods were at the mercy of the political and social elites and quick regime changes wherever they went and hence behaved in self-limited and self-restrained economic practices. They strenuously avoided self-aggrandizing and predatory activity that could bring them the ire of their social hosts and political patrons.

There is no evidence that prior to the 15th century CE, traders and merchants ever generated large firms that could override or strongly influence the decisions of political elites within whose territories they operated. Claims have been advanced that there may have been portfolio capitalists as early as the Early Common Era,[24] but these are probably

18 Allouche 1994.
19 Allouche 1994; Barzegar 2000.
20 Hunt and Murray 2005.
21 Jain 1990.
22 Oka 2008.
23 These figures were calculated by dividing the duration of individual empires/polities by the number of rulers during the period of rule, and controlling for the length of each epoch. The empires/polities (n=41) were chosen from Europe, (n=5), South Asia (n=12), East Asia (n=13), West Asia (n=6), West Africa (n=2) and East Africa (n=3). Analysis using both ANOVA and T-Tests showed no significant difference in mean reign durations in the three epochs prior to 1400 CE. However, the average reigns of polities in the periods prior to 1400 CE (between each epoch and all combination of epochs) and the polities from 1400–1800 CE is highly statistically significant ($p<0.0001$ for both ANOVA and T-Test) and of practical use (Cohen's d = 1.588627, Glass's delta = 2.665787, Hedges' g = 1.966272, on a scale of -3 [no effect] and +3 [maximum effect], suggesting a large increase in political stability after 1400 CE.
24 Bang 2007; Ray 2003.

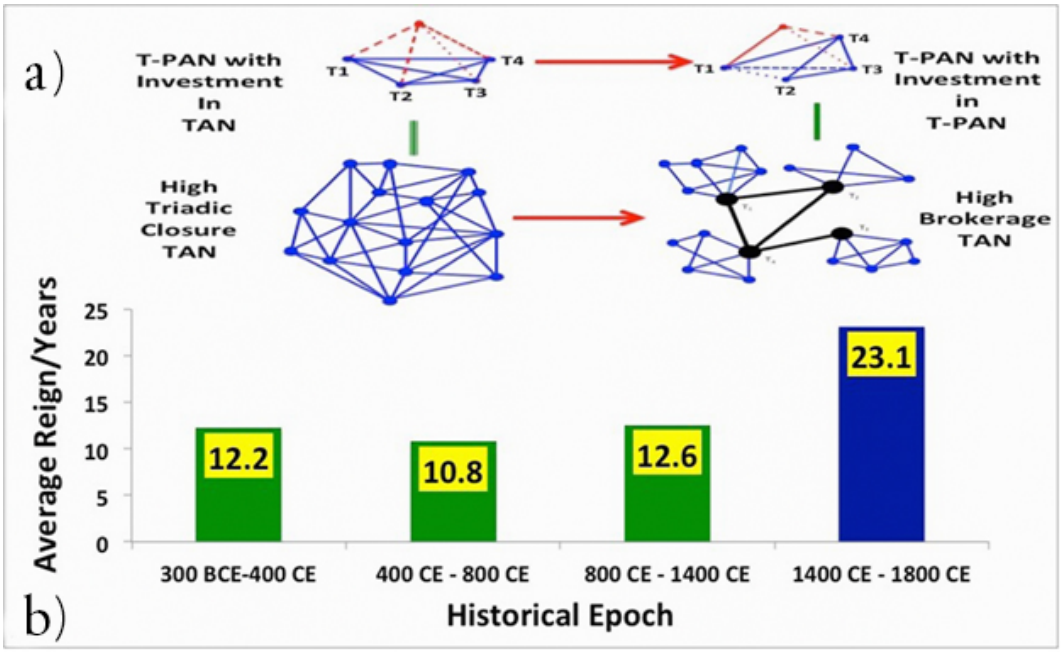


Fig. 7 | a) Trends in Political Stability in Europe, Asia, and Africa from 300 BCE to 1800 CE.; b) Correlation between Political and Regulatory Stability and TAN Structure before and after 1400 CE. Green Bar indicates association between T-PAN and TAN; Red Arrow indicates "Transition" in T-PAN/TAN.

illusory, as are the alleged cases on the 10th–13th century networks such as those of the Hadrami (Indian Ocean), Karimi (Mediterranean), Hanseatic (Baltic), and the Chettiar or Ayyavole guilds.[25] In most cases, even if incipiently present as disaporas and traders, these groups only became commercially prominent later (the Hadramis), were themselves (the Hansa) members of the urban ruling classes involved in commerce (rather than merchants gaining political influence) – or they were the ordinary trade diasporas, known for millennia (the Karimi) without particular power. Thus, although these groups may have gained some political influence and also invested in military outfits for protection, they were nevertheless limited in their territorial scope and enduring political power.[26] Investing in private military protection should rather be seen as a counter-strategy to the instability and frequent rise of predatory elites, the inability of political elites to protect traders and merchants within or beyond their borders, and/or to force political elites to protect trade and traders.[27]

In any case, the lack of a unified commercial and financial legal system between these empires and cores made it difficult for traders and merchants to seek redress and protection in the cases of disputes either amongst themselves or with local and regional partners.[28] They evolved their own systems of insurance and legal protection within their own networks that addressed issues such as contract/agreement enforcement and violation, disputes over prices, quality/quantity of merchandise, and other areas of difference.[29] While active punishment such as imprisonment or fines for transgressors could be sought through the political elites or regulatory bureaucracies, traders would often resort to punitive strategies within their networks including re-evaluation of individual or firm reputation for probity and trustworthiness, sanctioning the culprits against further

25 Abraham 1988; Gaimster 2018.
26 Jain 1990.
27 Greif, Milgrom, and Weingast 1994.
28 Jain 1990.
29 Goitein 1964; Jain 1990; Udovich 1970.

interactions, and even expulsion from the networks.[30] These strategies and adaptations evolved in response to the instability of the political landscape between 300 BCE and 1400 CE.

The large difference in the average length of rule by individual polities drawn from across the Old World in each epoch suggests that between 1400 and 1500 CE, the growing political stability, and the traders' awareness of this change would have been transmitted across the regional trader networks in Asia, Africa, and Europe, via the global connecting networks. Even accounting for a lag in information transfer, the late 15th and early 16th century would have been perceived by traders to be increasingly conducive for trading encounters, a perception that would be bolstered by the emergence of trade-friendly and/or stable states across Afro-Eurasia, for example, Vijayanagara, Bahamani, and Mughal (South Asia), Ming and Qing (East Asia), Ottoman and Safavid (West Asia), Hapsburgs (Europe), Mali (West Africa), and Gondar (East Africa).

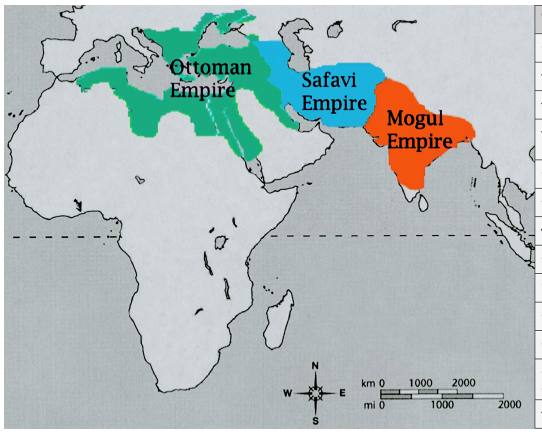
One outcome of the unprecedented growth in stability after 1400 CE was the rise of individual traders or firms with major influence over political elites within and across states, who diversified their portfolio to move from commerce to production and finance, and who successfully used their political alliances to capture markets, and force out competitors at all levels, positioning themselves as the brokers across structural holes. In other works[31] this period has been called (especially after 1500 CE) the Imperial or Islamic Détente, where the rise of three Muslim Empires across West and South Asia led to a marked decrease in wars of conquest (between each other) and a general growth in the stability needed to maintain large-scale entrepreneurial production and distribution, as well as financial institutions such as banks and insurance firms.

As seen in figs. 8a and 8b, these three imperial families controlled vast and economically rich areas across Asia and North Africa for over two centuries. They were also known for their trade-friendliness in the form of tax cuts and infrastructural support for entrepreneurial activities that included local and foreign traders. By the late 16th century CE, major conflicts between the consolidated imperial states (Ottoman, Mughal, Safavid, Ming) and emerging powers in the Indian Ocean (Portuguese, Siddi, Omani) were often resolved by merchant communities or individuals who used their ability to generate and control capital and credit as leverage during the discussions. One key event that speaks to this ability is the resolution of the impasse between the Mughal Emperor Akbar and the Portuguese, when the latter blocked the port of Surat in Gujarat, India in 1589 CE and refused passage to the emperor's mother in her voyage to Mecca. The impasse was resolved by an 'unnamed' Hindu merchant from Cambay, who brokered a deal using both the Portuguese and Mughal debt to him as collateral, and gained important concessions from both sides in return.

By the end of the 17th century, individual merchant princes active in the Indian Ocean trade became prominent power brokers in South Asia, e.g., Virji Vora and Musa Muhammad Ghafur of Surat and Jagat Sheth of Bengal. Such merchant princes often acted in concert with other portfolio capitalists to form pressure groups that lobbied for their agendas in the various imperial courts from South Asia to northern Europe. The end of the 17th century CE also witnessed the emergence of 'Great Firms' that diversified beyond trade and commerce to engage in financial activities that included the transfers of capital and credit, not only between traders but also between and within states and empires, often as agents of these polities. The prosperity of these empires led to growing demand for staples, comforts, and luxuries among the newly urban elites within these empires and to the development of vast manufacturing centers across Asia.

30 Oka and Kusimba 2008.

31 Oka 2008; Oka, Kusimba, and Gogte 2009; Oka, Dussubieux, et al. 2009.



Ottoman Sultans		Safavid Shahs		Mughal Padishahs	
Bayazid II	1481-1512	*Ismail I*	1507-1524	*Babur*	1526-1530
Salim I	1512-1520	*Tahmasp I*	1524-1576		
Suleiman I	1520-1566	*Ismail II*	1576-1578	*Humayun*	1530-1556
Salim II	1566-1574	*Muhammad Khuda Banda*	1578-1587	*Akbar*	1556-1605
Murad III	1574-1595	*Abbas I*	1587-1629		
Muhammad III	1595-1603	*Safi*	1629-1642	*Jahangir*	1605-1627
Ahmed	1603-1617	*Abbas II*	1642-1666		
Mustapha	1617-1623	*Suleiman*	1666-1694		
Osman	1671-1622			*Shah Jahan*	1627-1658
Murad IV	1623-1640	*Sultan Hussein*	1694-1722		
Ibrahim	1640-1648				
Muhammad IV	1648-1687	*Tahmasp II*	1722-1731	*Aurangzeb*	1658-1707
Suleiman	1687-1691	*Abbas III*	1731-1736		

Fig. 8 | a) The Imperial Détente: Ottoman, Safavid, and Mughal Empires, c. 1700 CE; b) The reigns of Ottoman, Safavid, and Mughal Imperial Families.

The question is, why did both Chaul and Mtwapa, both prominent ports in the trading complex of the Indian Ocean in 1500 CE decline from their former positions as thriving ports of trade after 1600 CE? This decline/collapse took place conterminously despite the obvious geographical, cultural, and political differences between these ports and during the greatest boom era in global economic growth? It must be remembered that during the Imperial Détente (1500 and 1800 CE), almost 70% of port-cities declined or were abandoned across the Indian Ocean littoral as well as the South China Sea and the Mediterranean. Explanations for this decline have ranged from climate change and the onset of the Little Ice Age (1350–1850 CE) to European colonialism, starting with the Portuguese in 1498 CE. While both were indeed powerful forces, close examination of the dynamics of trade, commerce, and production does not suggest a decline in overall economic growth in either Asia or Africa, rather the opposite. The decline or collapse of these port cities took place within an unprecedented global expansion of interregional trade in terms of scale, capitalization, and infrastructural support or political patronage of trade and commerce.

We argue that it was precisely these changes in socio-political attitudes towards trade, commerce, and entrepreneurial production that would simultaneously drive the decline of a large number of trading centers on the one hand and global economic growth on the other. In particular, we refer to the unprecedented increase in political stability and the associated changes in TAN and T-PAN, specifically the shift from network triadic closure to network brokerage (see figs. 5, 6, 7).

4 The Early Modern trade boom: collapse of Mtwapa and decline of Chaul

To understand the decline of Chaul from a primary trading and commercial entrepôt in the Indian Ocean to a small regional trade center and the collapse of Mtwapa from a primary port city on the southern Kenyan coast to an abandoned settlement, both by the late 18th century CE, we first place the transition in a large comparative and global context as described in fig. 9.

The establishment and reinforcement of regional exchange networks would ensure continuity of trade without the presence of global diasporan networks for most of the histories of both Chaul and Mtwapa prior to 1400 CE. However, after the boom in the economy following the stability of the 15th and 16th centuries, the shift to networks of brokerage should show the gradual emergence of trader activities that were formerly ab-

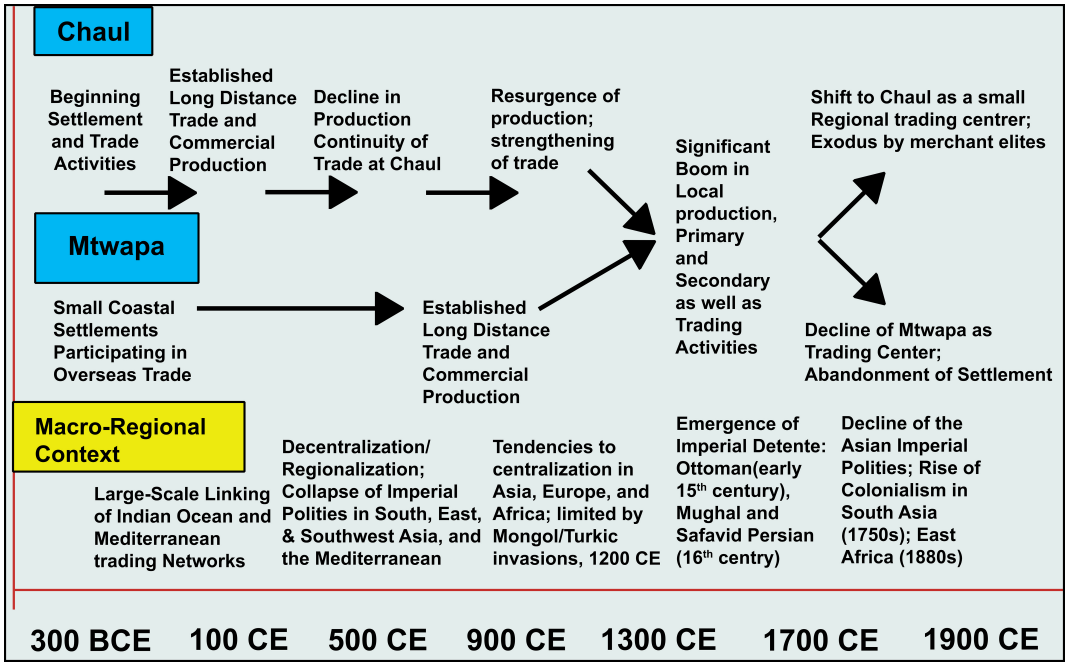


Fig. 9 | Timelines of Chaul and Mtwapa with respect to major global developments.

sent. These activities include a focus on raw material extraction and decreased investment in local production. The increasing export of raw material such as ivory and slaves along with other products would be paralleled by the emergence or enrichment of groups unassociated with production activities, and by the increased centralization of such activities within such groups. When such shifts start to affect the internal economy of the polity, mainly in the decrease of both primary and secondary sectors, the resulting loss of support, security, and infrastructure would culminate in capital and merchant flight towards the ports that continue to provide such amenities. When global trader networks shift their alliances, the outcomes would be determined by their ability to maintain their regional trading networks and their role in regional production systems. Hence, ports such as

- Mtwapa, un-articulated with external production systems would undergo economic collapse, due to the simultaneous collapse or decline of the internal economy at multiple scales. This collapse would be preceded by an increased centralization of wealth in areas unassociated with production activities, the decline of traditional production activities and areas (iron and cloth), and growing emphasis on extraction of raw materials such as ivory.
- Chaul, articulated with external production systems, and continuing to maintain regional trading networks operated by ethnic trading communities would decline to a regional port. This decline would be preceded by an increasing centralization of wealth areas unassociated with production activities, the decline of traditional production activities and areas (bead and glass making), and growing emphasis on extraction of raw materials such as areca nut and forest products.

We test these conjectured explanations for the collapse/decline of both these port cities using archaeological and historical data. Looking at the ivory exports from East Africa between 1500 and 1800 CE, we see an exponential growth in the export of raw ivory (fig. 10a), which is also correlated with the decreasing number of polities in the Indian Ocean (fig. 10b).

The shift to raw material extraction from East Africa (fig. 11a) especially after 1600 CE (fig. 11b) was initially favorable for trading ports in South Asia and other Asian core

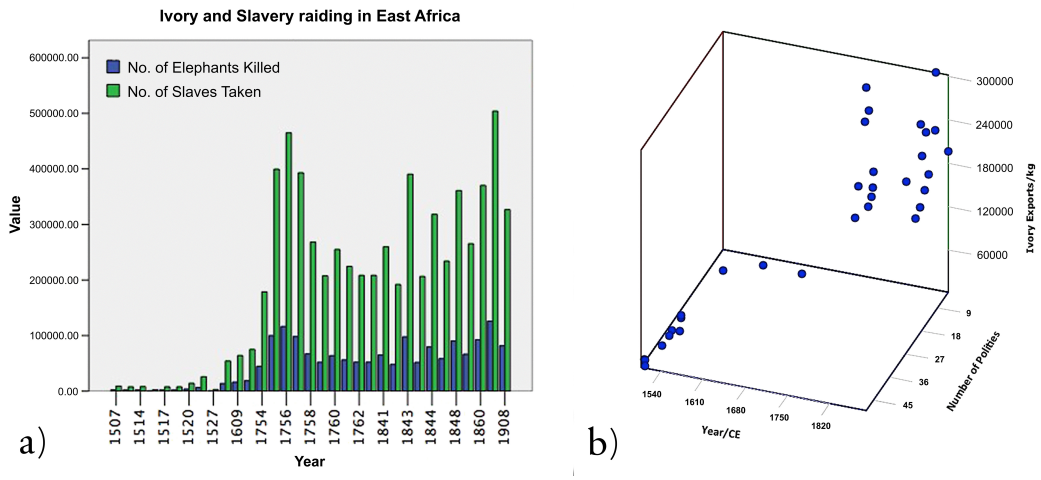


Fig. 10 | a) Growth in Ivory Exports from East Africa; b) Ivory exports from East vs. year vs. number of polities.

regions as the ivory would be imported, cut, and either re-exported to other markets in East and Southwest Asia or carved for consumption within South Asia.[32] During this period, South Asian merchants intensified their export of cloth, beads, and other desired commodities to East Africa and engaged in alliance building with local elites to shift their focus to raw materials. This process characterized the 17th century and was legitimated in 1698 CE, when the merchant cartel from Diu in India successfully obtained the exclusive rights for import of cloth into Mombasa and surrounding ports from the Omani rulers of the northern Swahili coast.[33] Swahili elites increasingly disinvested in local manufacture of these commodities and the metal, wood, crafts, cloth industries of East Africa underwent a severe decline. For ports such as Mtwapa, the focus on raw materials by the local elites and their foreign trading partners came at the expense of their own production systems that included iron and cloth production as well value-addition of local processing of hinterland raw materials such as ivory, animal skins, rock crystals, etc. Furthermore, most ivory and similar products extracted from the East African hinterlands were brought to the coast by slaves acquired in slave raiding ventures by coastal groups, ventures that were financed by South Asian portfolio capitalists and their firms based in Mombasa and Zanzibar.[34]

While the exponential growth in raw material exports is a significant outcome of the hypothesized shifts from networks characterized by closure to those characterized by brokerage, it is the archaeological data from these two ports that enables us to pin down the impacts of these shifts on the ports themselves. Previous analysis of prestige ceramics at Mtwapa suggested that between 1500 and 1600 CE and the institutionalization of the commercial impacts of the Islamic Détente, South Asian merchants changed their business strategies from self-restraint and cooperation with local elites and producers to a focus on raw material extraction, especially ivory and later slaves in the late 17th–19th centuries.

This shift initially brought great wealth to the ports, but this time, concentrated not in the areas of primary production but those localities unassociated with any local manufacture. However, these shifts also caused growing competition between local elites at Mtwapa, manifested through overt displays of lavish wealth and generosity in feasting

32 Kusimba 1999.
33 Newit 1987.
34 Disney and Booth 2000.

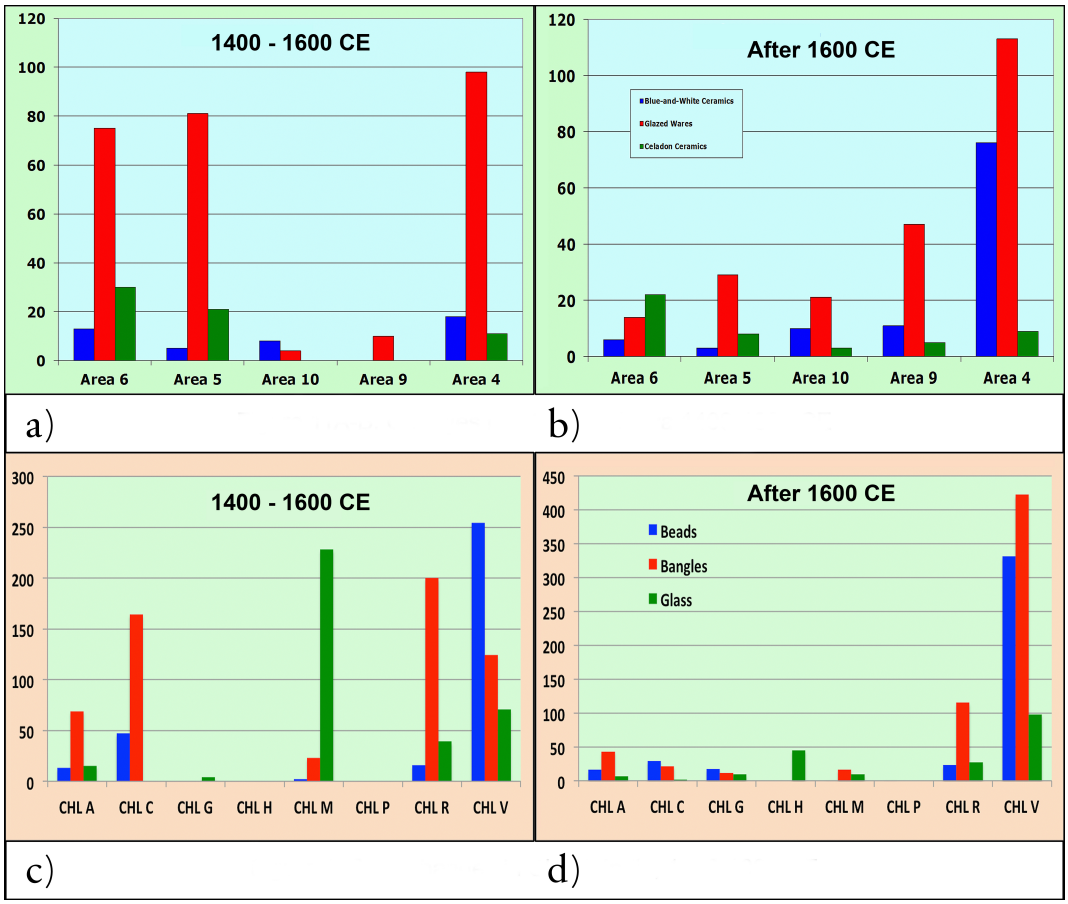


Fig. 11 | a)–b) Changes in Mtwapa, Kenya 1400–1800 CE; c)–d) Changes in Chaul, India, 1400–1800 CE.

rituals held in public spaces. As seen in figs. 11a and 11b, we see a growth in status of both Areas 9 and 10, and a decline in the status of Areas 5 (cloth) and 6 (iron). We also see a significant rise in the concentration of such preciosities in Area 4, a public feasting area adjacent to the Friday Mosque Complex after 1600 CE.

We hypothesized in Oka 2008 that similar processes would be seen in Chaul, being a port polity on the edge of the hinterland Bahamani, Mughal, and Maratha states, with growing ports such as Surat and Mumbai better able to provide security and financial infrastructure, and access to value-added commodities manufactured in the immediate hinterlands.

As seen in figs. 11c and 11d, we find the same patterns as Mtwapa in the distribution of artifacts: beads, bangles, and glass (bottles) that were made in Chaul. The former production areas, CHL A, C, M, and R decline after 1600 CE while areas CHL G and CHL H emerge, but these are not associated with any remains of manufacturing, for example debitage, slag, or fragments. On the other hand, there is a severe concentration of these three classes of artifacts at CHL V, which is the *Hamamkhana* or the public bath areas, indicating growth in competitive displays of wealth and generosity through feasting in public spaces.

The spatial and temporal patterns in the distribution of prestige artifacts in the pre- and post-1600 CE in both Chaul and Mtwapa indicate that the decline of the ports of the Western Indian Ocean (and most likely across the world) after 1500 CE might have been caused by the same global process: the rise of the Islamic détente, the arrival of Europeans, and the production boom in the core areas or imperial centers of Asia, that led to a change from trader networks characterized by brokerage as opposed to closure. These enabled

South Asian traders with great access to capital and goods to engage in activities that would have been discouraged prior to 1500 CE: dumping of cheap goods, oligopolies, cronyism, and focused investment in raw material extraction from the peripheries.

Most important, the emerging group of portfolio capitalists, bankers, and financiers, first in South Asia by the late 16th century CE[35] and subsequently across the world,[36] enjoyed significant influence over political elites, both with the cores and imperial centers, and on the edges and peripheries, and were hence empowered to take decisions such as withdrawing investment and capital from smaller ports to larger and secure ports and distribution/production centers.[37] While these decisions were economically expedient, they had tragic consequences for the residents of the smaller ports, as the local elites departed for the larger cities, given the spread of their kinship and friendship networks, followed by artisans and craftspeoples, leaving behind the workers, farmers, and other groups tied to the settlement itself.

Hence Mtwapa was occupied sparsely until 1820 CE, after which it was completely abandoned. In a similar vein, other Swahili ports such as Kilifi, Unguja, Mailndi, that witnessed the arrival of the Portuguese and the Omani declined, even as Mombasa and Lamu grew as a premier ports. In India, Chaul declined into a regional trade center, as did other ports on the West Coast, including Bassein, Sopara, Baruch, Daman, Diu, and later Surat and Khambat, while ports such as Mumbai, Cochin, grew into megaports. The coastal urban system shifted from a graduated settlement hierarchy of large cities, large towns, small towns, villages, and hamlets, to a more severe hierarchy of large/megaport-cities and small towns/village ports.

5 Conclusion

This volume is concerned with the complexities of interactions on the edges and peripheries of empires and interaction spheres or world systems. We proposed an analytical approach that combines both the structural heuristic benefits of understanding the power differentials between empires and their edges, and between cores and peripheries, and the specific focus on the mechanisms by which these power differentials can impact the edge/peripheral groups, *viz*., trader networks at different scales acting within and across interaction spheres. Looking at trader networks through the lens of closure *vs*. brokerage and the conditions of stability in which they operate and thrive enabled the generation of sequential understanding of their differential impacts.

In conditions of instability, such as those between 300 BCE and 1400 CE, traders engage in self-restraint and alliance building within their own networks, TAN, to mitigate against scapegoating, vilification, theft, assault, and murder. Interactions with political elite are seen as fleeting and uncertain, so any political alliances in the T-PAN are shared within TAN. However, sustained stability with the emergence of empires after 1400 CE saw a shift to different forms of alliance building within a sub-group of traders, namely portfolio capitalists, bankers, and financiers, when ability to access capital and credit emerges as the key determinant of the ability to broker transactions and relationships with political elites. In this case, the sub-group of politically-connected traders would hoard their political alliances, and thereby derive the legitimacy from their political elite clients to engage in predatory behaviors such as market capture/dominance, dumping of goods, extractive economies, and potentially tragic behavior such as capital/investment withdrawal.

35 Farooqi 1989.
36 Calmard 2000.
37 Oka 2008.

In sum, both Chaul (an edge port), and Mtwapa (a peripheral port-city) engaged in Indian Ocean trade survived and even thrived for over 1000 years. Chaul grew as a major port and production center specializing in cloth, glass, iron, and other value-added commodities after 300 BCE and declined only after 1700 CE when it became a regional trade center. Mtwapa arose ca. 700 CE and grew to prominence over the next eight centuries, as a center for the export of raw materials such as ivory, but also establishing local industries in cloth, iron, and crafts-production in wood, metal, and ivory. Numerous dynasties rose and fell in Asia during these periods, but neither port was affected adversely, as the trader network responded to the overall political instability and evolved a high measure of resilience. But after 1500 CE, and the growth of imperial détente/stability, there was a structural change in the trader network, now dominated by brokerage, and neither port was unable to adapt to the new financial and business realities.

Our explanation hence unpacks the complexities of why cores and empires affect their peripheries and edges at some periods and not others. The key determinants both changes in the empire/core stability, but also the responses of the primary groups responsible for disseminating information, capital, goods, and services across the different interaction spheres, and the relationships between these groups and the edge/peripheral political and economic elites. In so doing, we address both the strengths of the top-down approaches such as the world-systems approach, that do reflect a reality of power difference across interaction landscapes, but also the strengths of bottom-up or middle-range approaches that look closely at the mechanisms of these relationships, such as trader diaspora, distance parity, and network structural analysis. Further research will focus on expanding the analysis of both ports, to look at changes in other archaeological features, including architecture, changes in diet, livelihoods, and in other artifacts.

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