The Role of Local Trade Networks in the Indian Subcontinent during the Early Historic Period

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Abstract

A variety of trading and non-trading activities utilized and created land-based trade routes during the Early Historic period. The presence of local trade routes in the Indian subcontinent is documented by a common corpus of items such as fine ceramics, coins, and marine shells in archaeological sites. Archaeological fieldwork consisting of systematic survey at both the town-sized site of Kaundinyapura and the city of Sisupalgarh enables a detailed examination of the way in which trading networks provided goods that were part of the basic repertoire of household items

Introduction

Much has been written about the exchange networks of the Indian Ocean starting in the late first millennium B.C., when the Mediterranean, the Indian subcontinent and Southeast Asia sustained long-distance contacts. Trading-sites around the Indian Ocean have received special attention, as they were the places where foreign cultures met and where goods were exchanged. Marine ports offer a particularly dramatic scenario for the contemplation of foreign contact, since such contact could be achieved directly by traders sailing from the coasts of the Red Sea and the shores of Arabia to the Indian subcontinent. The long-distance trade which took place around the Indian Ocean during the Early Historic period (c. 3rd century B.C. to 4th century A.D.) was principally manifested in exotic commodities as documented by literary and archaeological sources (Begley and De Puma 1991; Ray and Salles 1996). A group of specialist traders is identified as responsible for the transport and exchange of goods across the oceans, and it is likely that specialized merchants continued to care for the shipments of exotica once they reached port (Casson 1989; Liu 1988; Will 1996).

While oceanic long-distance trade was almost exclusively devoted to high-value goods, the trade links between ports and the hinterland were of an entirely different nature: once on land, the movement of exotic goods inland to consumers took place along the same physical routes which were used to transport ordinary goods for local use such as agricultural produce, household implements, and domestic animals. These inland trade routes were used not only by traders moving their wares, but also by many different types of people who travelled for religious pilgrimages, military activities, and family relationships. The large-scale movement of people and goods indicates that hinterland-port relations were part of a widespread, thoroughly developed series of trade relations which thrived because of local needs.

From the point of view of port sites, hinterlands have a dual purpose: they are the source of desired exports, and a destination for imports. The presence of a trade hinterland as the source of desired goods is mentioned by the classical authors, whose limited descriptions indicate that inland towns are both the manufacturing-place of goods and the collection-point for goods coming from even greater distances. The *Periplus of the Erythraean Sea*, a merchant's document of the first century A.D. written in Greek, observes that the town of Ozênê (Ujjain) produced semi-precious stones and cloth of all kinds as well as being the collection-point for nard from the Himalayas (Casson 1989: 91). Being written from a Mediterranean point of view, the *Periplus* shows a merchant's concerns for profitable items for long-distance exchange, and says little about other types of trade goods which were primarily for local use.

Studies of exchange patterns from other parts of the world illustrate that while unusual items of commerce may not be equally accessible to all groups of people, they must physically travel along the same routes. In medieval Europe, saints' relics travelled via the same mechanisms as other elite commodities: by trade, gift or theft (Geary 1986). The fact that these relics had very special destinations (kings and churches) and a unique cultural signifi-

cance relative to other items of elite wealth did not matter with regards to their circulation in the society. Mary Helms (1979) provides another example of the paths which elite and common goods travel, when she discusses the *krun* game of Panama as a social occasion which brought together traders of all types of wares. Similarly, in the Early Historic period we see numerous opportunities for trade exercised at the local and regional level in connection with Buddhist practices (Ray 1986; Liu 1988) or political contact (Lyonnet 1994).

The distinctions between local, regional and long-distance trade can be considered to a certain extent artificial divisions along a continuum, since long-distance exchange can be achieved as the result of numerous small-distance transfers.[1] However, an examination of these levels of exchange and their practical effects can help to productively divide the discussion of exchange into coherent units of analysis. For the purposes of this article, the following definitions will be used (following Smith 2001a: 16). Local trade will be considered to be that which can be accomplished within a one-day travelling range by the fastest available means of transport. Local trade can be accomplished with very little infrastructure, since the traveller (either the buyer or the seller) does not spend time away from home and therefore does not require lodging facilities, overnight halts, or other investments in a non-home locus.

Intermediate, or regional, trade takes place within cultural units, utilizing the basic means of transport but often in a more efficiently organized manner or on a larger scale, such as with caravans of pack animals. Travel time includes nights spent away from the voyager's home and thus requires travellers' facilities such as caravanserais or the maintenance of personal hosting relations. Finally, long-distance exchange takes place across geographically-large expanses in which transport time is on the scale of weeks or months; such exchange may cross cultural or linguistic boundaries, but the effects of such boundaries are mitigated by specialized traders who negotiate contacts and transfers (Curtin 1984). Long-distance exchange may occur either as the result of single lengthy voyages (e.g. by sea as between the Mediterranean and India), or as the cumulative effect of successive local and regional transfers.

1 In this paper, I am using the words 'trade' and 'exchange' interchangeably, to signify the transfer of goods from one party to the other. While attempts to separate the subtleties of these two terms have been made (Ray 1993), achieving these distinctions consistently given the interchangeable use in general discourse means that it is probably more straightforward to consider them as two terms for the same thing, and to be specific about social implications when they can be discerned.

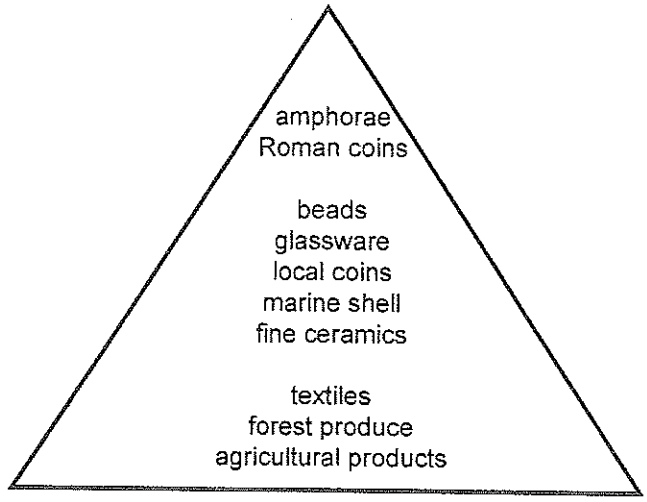

Fig. 1: Goods utilized at Early Historic sites in the subcontinent

Items of Local and Regional Exchange in the Subcontinent

The archaeological record permits us to examine the variety of items manufactured and traded *within* the Indian subcontinent. The pyramidal diagram (Fig. 1) indicates three types of trade goods found in Indian archaeological sites of the Early Historic period. The goods are listed in the order of the frequency of use, with the items at the top of the 'pyramid' being the most rare and representing goods arriving in the subcontinent as the result of Indian Ocean trade activities. The goods in the middle category are those found in almost all sites of the Early Historic period in India, and which are derived from raw materials available in the Indian subcontinent. The final category represents the types of goods which probably constituted the largest proportion of inland trade. These goods were traded between sites for domestic use, but also became part of the long-distance trade network because items such as forest products (skins) and agricultural products (wool, cotton, spices) were desired goods for overseas trade. However, these goods are perishable, so only indirect evidence of the production and consumption of these goods is usually found in archaeological sites. The most likely items to be found archaeologically are located in the middle category, consisting of durable goods whose distribution appears to be limited to the Indian subcontinent. Excavation reports from Early Historic sites throughout India consistently list a common catalog of items such as marine shells, ornaments, fine ceramics and coins. The widespread appearance of the same types of artefacts is due to two factors: the transfer of actual items, and the transmission of ideas and styles.

One particularly striking proof of the exchange of material items throughout the subcontinent in this period is found in the use of marine shells (Fig. 2). The large

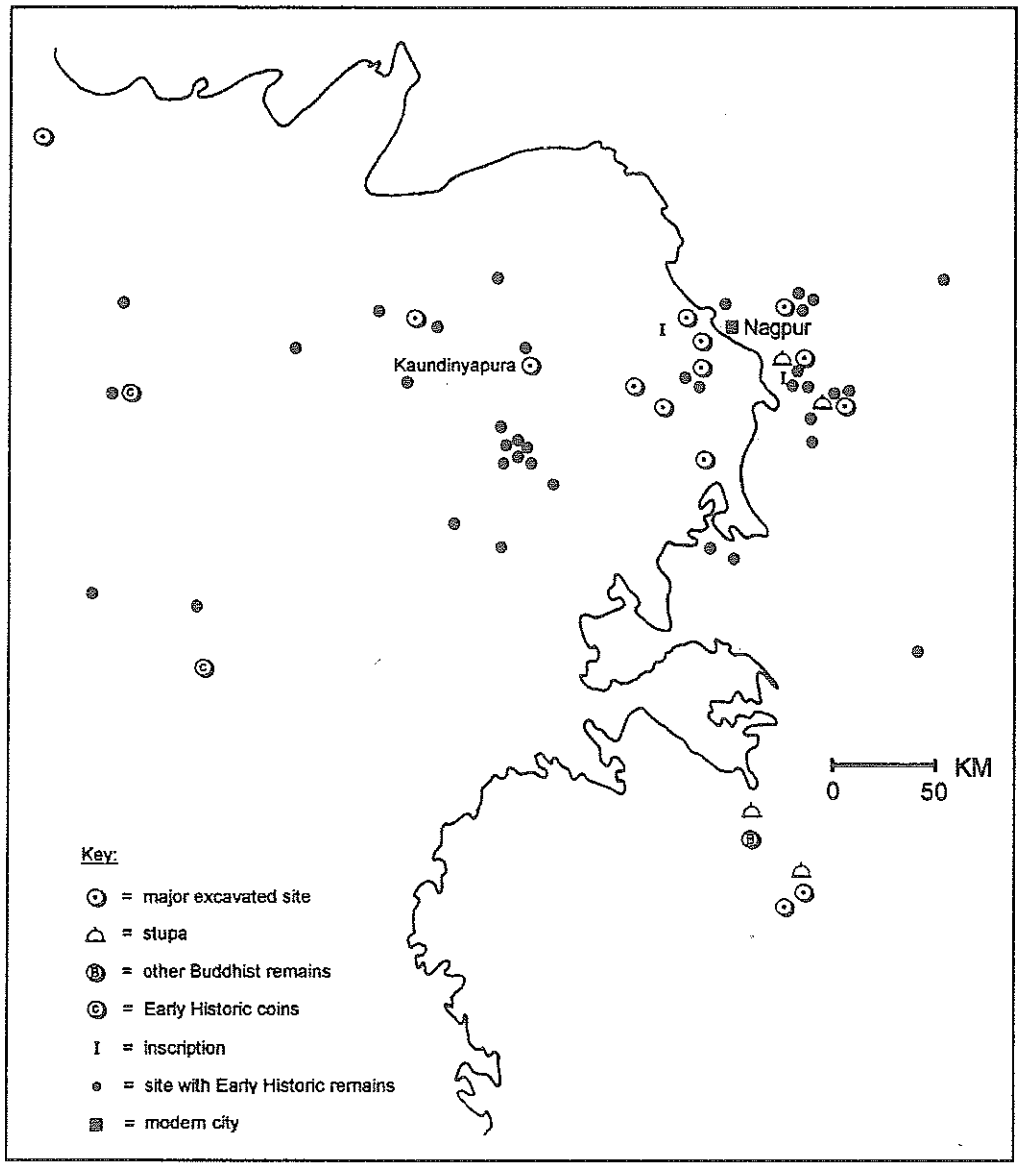

Fig. 2: Sites of the Early Historic period (3rd century B.C. to 4th century A.D.) for which substantial information is available about cultural assemblages. The information is compiled from excavation reports and IAR

gastropod *Turbinella pyrum* has a natural distribution on the southeastern and northwestern coasts of the subcontinent (Nagappan Nayar and Mahadevan 1974). However, it is found in many inland sites of the Early Historic period, in both whole and fragmentary form. The use of this shell appears to represent an interest limited to the Indian subcontinent: in a catalog of the types of marine shell found at archaeological sites in the Mediterranean, there is no mention of the *T. pyrum* species (Reese 1991). In the sites of the subcontinent, this marine shell was modified in a number of ways: whole shells were hollowed out for use as trumpets, but the shell was mostly used for making bangles and ornaments (Smith 1996). The discovery of shell fragments far in the interior indicates that whole shells were transported rather than the fragile bangles; because the shell is quite distinctive, it is easy to recognize fragmentary portions in the archaeological record. As the shells of the minimum appropriate size for making bangles represents at least 150 g, we can begin to see that regional exchange was not limited to very small items. The recovery of marine shells in the interior of the subcontinent indicates the transfer of both raw materials and technology and expertise, since the manufacture of bangles from the shell requires skill in breaking the interior of the shell, and

in sawing the upper rounded portion of the shell into bangles (Kenoyer 1983).

Other types of ornaments, such as beads and ear-spools, were also widespread in the Early Historic period. The existence of prevailing bead styles indicates that both actual beads and information about fashion circulated in the inland trade networks. Beads made from rare or distant raw materials, such as lapis lazuli, are sometimes recovered (e.g., at Mangalkot, Ray and Mukherjee 1992; and at Nevasa , Sankalia *et al.* 1960). At the same time, a consistent style of beads is noted from materials which are widely available, such as agate and freshwater shell. The presence of unfinished beads at many Early Historic sites suggests that beads were locally made, perhaps because the grinding and polishing of stone beads was a labour-intensive but not particularly skilled task.

Another indicator of flourishing trade in the subcontinent is found in the use of coins. As with the appearance of ornaments, the widespread distribution of coins indicates several levels of exchange activity, in the trade of physical coins as well as the understanding of the concept of coinage as a way to facilitate trade. The use of coinage dates to the fifth century B.C., when punch-marked coins began to be utilized in northern India. These earliest coins are metal strips or flanges onto which symbols have been cold-hammered. Later, these punch-marked coins were replaced by die-struck coins. The distribution of coins is varied: some coin series, thought to be 'local' issues, are found in limited areas. Other coin series, such as the Indo-Sassanian Kshatrapa coins, are found far from the homelands of the rulers associated with their issue (Shastri 1992b). Although the role of precious-metal coinage in the economy of the time is debated, it is argued that the Indo-Sassanian silver coin type is widespread due to political agents, even outside Kshatrapa dominions, who reproduced these coins because of their acceptance in trade (Jha 1991; Kumar 1986).

The practical use of coinage is indicated by the recovery of base-metal and copper issues which circulated in the Early Historic period. The presence of a large number of such coins throughout the subcontinent, when each type often had a restricted distribution, suggests the use of coinage in the fully modern sense as a standard of value and as a medium of exchange (Lahiri 1991; Mukherjee 1991). Coinage, with its depiction of portraits, script and symbols had the possibility of conveying multiple meanings, whether or not it was also utilized as a general-purpose money. Examples of the use of the coin-form as a symbolic token includes the duplication of metal coins in clay for use as ornaments, frequently known as terracotta bullae (for example, at Ujjain; see Gupta 1991; further examples are noted in Ray 1985). The variety of coin types and their distributions is a strong indicator of the levels of constant contact between regions, and the transfer of both material objects and information. In the distribution of coins, we have evidence both for the recognition of common forms and symbols, and of the presence of a market system in which coins facilitated exchange.

Other types of goods, such as ceramics, also provide evidence for the widespread distribution of prevailing styles as well as the transfer of actual objects. Many sites of the Early Historic period contain well-made ceramics, such as the Red Polished Wares recovered at many sites in the western subcontinent, and Rouletted Wares primarily distributed on the eastern coasts of India (for maps of distributions, see Begley 1991). There is clearly a similarity of ceramic forms and fabric throughout large regions of the subcontinent, though there are two potential difficulties in recognizing ware types and forms in published excavation reports. First, the number of vessels or fragments of vessels recovered from individual sites is not consistently noted, so that it is difficult to compare the frequency of use of particular forms from site to site. Secondly, terms such as 'Red Polished Ware' or 'Rouletted Ware' are often used as labels to identify a wide range of pottery within a site or region, a practice which obscures the variation between wares. Still, excavation reports do present a valuable opportunity to establish a presence-absence comparison between sites.

The first extensive description and discussion of Red Polished Ware was undertaken by B. Subbarao, who described this ware as having a fine levigated clay, fired to a uniform brick-red colour and having an outer surface which is polished with colours ranging from lacquer red to a dull brown (Subbarao 1953: 56). Found at many sites in Gujarat, especially in Saurashtra, this ware has been consistently associated with excavated strata ranging from the 1st to 5th centuries A.D. Subbarao's characterization of this ware indicates that it occurred in a number of fairly distinct forms: a thick spout with a narrow aperture commonly known as a 'sprinkler' (tall, thin necks with everted flat rims); fancy everted rims with external grooves, and shallow saucers (Subbarao 1953: 58; see also Liu 1988: fig. 2). Subsequent investigation of this ware type has increased the number of recognized forms, with Orton claiming to distinguish up to 160 stylistic variations in jar rims alone (Orton 1991: 46).

In the south and east of the subcontinent there are a group of wares known as Rouletted Wares, which are well-made ceramic forms with a rouletting or chattering design (for a summary of locations, see Ramachandran 1980; Walker and Santoso 1977-78). V. Begley characterizes this ware as being entirely different from the fine wares of the Western coast, with a very limited range of styles in a fabric which is predominantly gray (Begley 1991). The only shape in which this ware is found is a flat-bottomed dish with a distinctive pattern of concentric circular bands of tiny indentations in the interior (Krishna Deva in

Wheeler *et al.* 1946: 45). These wares have attracted attention not only because they are distinctive and well-manufactured, but also because of speculations that they were either direct Mediterranean imports, or made in the subcontinent in imitation of Mediterranean wares (e.g, Subbarao 1953; Begley 1991; Begley 1994). The debate is mostly grounded in stylistic analysis, since the chronology of the Indian archaeological sites is not well-enough controlled for fine-scaled breakdowns of chronology. However, several important observations can be made. First, the presence of a total artefact assemblage which contains many items and material elements not found outside of South Asia indicates a culture with sustained inventive capacity, so that the appearance of a new ceramic type is not necessarily the result of imposed exterior 'influence'.

Secondly, the appearance of Red Polished Ware and Rouletted wares in the Early Historic period do not represent the first occurrences of widespread ceramic styles. Earlier distributions of other fine wares include Northern Black Polished ware, known from the Ganga valley, and black-and-red wares associated with the Megalithic cultures of central and southern India. Finally, there is a long tradition of ceramic proficiency in the Indian subcontinent, utilizing a variety of sophisticated firing techniques, decoration, and form, so that it would not be out of place to regard the phenomena of 'Red Polished ware' and 'Rouletted ware' as being simply one aspect of a long ceramic tradition. As Orton observes for the Red Polished Ware of Gujarat, all of the forms (with the exception of the sprinkler and certain globular jars) can be found in the coarser associated wares of the Early Historic period (Orton 1991: 47). Increasingly, Rouletted Ware is also being seen not only as a local Indian product, but one which was then exported from the subcontinent into the wider world of the Indian Ocean as well (Ardika *et al.* 1993, 1997; Krishnan and Coningham 1997; Gogte 1997).

The archaeological evidence from the subcontinent indicates that many types of goods were manufactured, both from locally-available materials (such as clay in the making of ceramic vessels) and from non-local materials (as seen by marine-shell debris found hundreds of kilometres inland). In the analysis of early trade routes through which goods were transported, the identification of the production strategies utilized in the manufacture of finished products is as important as the identification of the raw materials used. The production of items for local and regional exchange within the subcontinent was the result of a variety of manufacturing techniques. The archaeological record provides evidence for specialized manufacture in items such as shell bangles and metal coins, where the manufacture of finished items could have been accomplished by single individuals or small teams. Evidence for the large-scale manufacturing of goods in this period is limited, though it appears that the concept of the large-scale organization of production was recognized as indicated by inscriptions which mention 'guilds' as donors to religious institutions (Ray 1986).

The guilds mentioned in the cave-inscriptions of Western India include weavers, potters, bamboo-workers, oil millers and 'dealers in water machines' (Ray 1985). The presence of what appears to be organized corporate bodies identified as makers of particular goods or holding market specialties indicates that certain craft activities were carried out on a scale of surplus production beyond household needs. Specialized manufacture implies trade, because the products of that manufacture were to be produced in sufficient quantities to be traded away from production areas. At the same time, there is also evidence for relatively unskilled and repetitive labour, such as that utilized in the manufacture of beads. The use of unskilled labour is also implied in the many mundane steps of the production process of ceramics, terracottas and clay ornaments: acquisition of fuel and clay, initial preparation of raw materials, and transportation of the finished products. Many of the trade items documented by the historical and archaeological record, including textiles and agricultural commodities, could have been produced at the household level utilizing surplus family labour. Households would have engaged in trade directly, through barter or sale, and may also have seen the results of their production pooled for exchange by guilds and merchants acting as middle-men.

The Mechanisms of Exchange in the Subcontinent

The distribution of goods such as coins, shell objects, and ornaments show that trade involved the transfer of 'information' and common values as well as the exchange of actual objects. The uniformity of material culture reflects other trends towards cultural unity in the subcontinent in the Early Historic period, such as the development of Buddhism and Jainism. The spread of Buddhism is manifested in the widespread appearance of similar iconography and a distinctive architectural mode in the Early Historic period. Starting in the 2nd century B.C., the simultaneous appearance of the Buddha image at sites as widespread as Nagarjunakonda and Mathura (about 1500 kilometres apart) signals the presence of travelling skilled artisans (Wayman and Rosen 1990). The similarities of form and design in Buddhist religious establishments such as Bharhut, Sanchi and Amaravati further indicate that artisans traveled the same routes as traders (Fig. 3). Nor was long-distance religious travel restricted to artisans: records of donations indicate that patrons of Buddhist establishments, from kings to commoners, also travelled from their residences to shrines. Inscriptions from the cave temples of western India and from the stupas at Sanchi in the north and Amaravati in the south indicate that ordinary

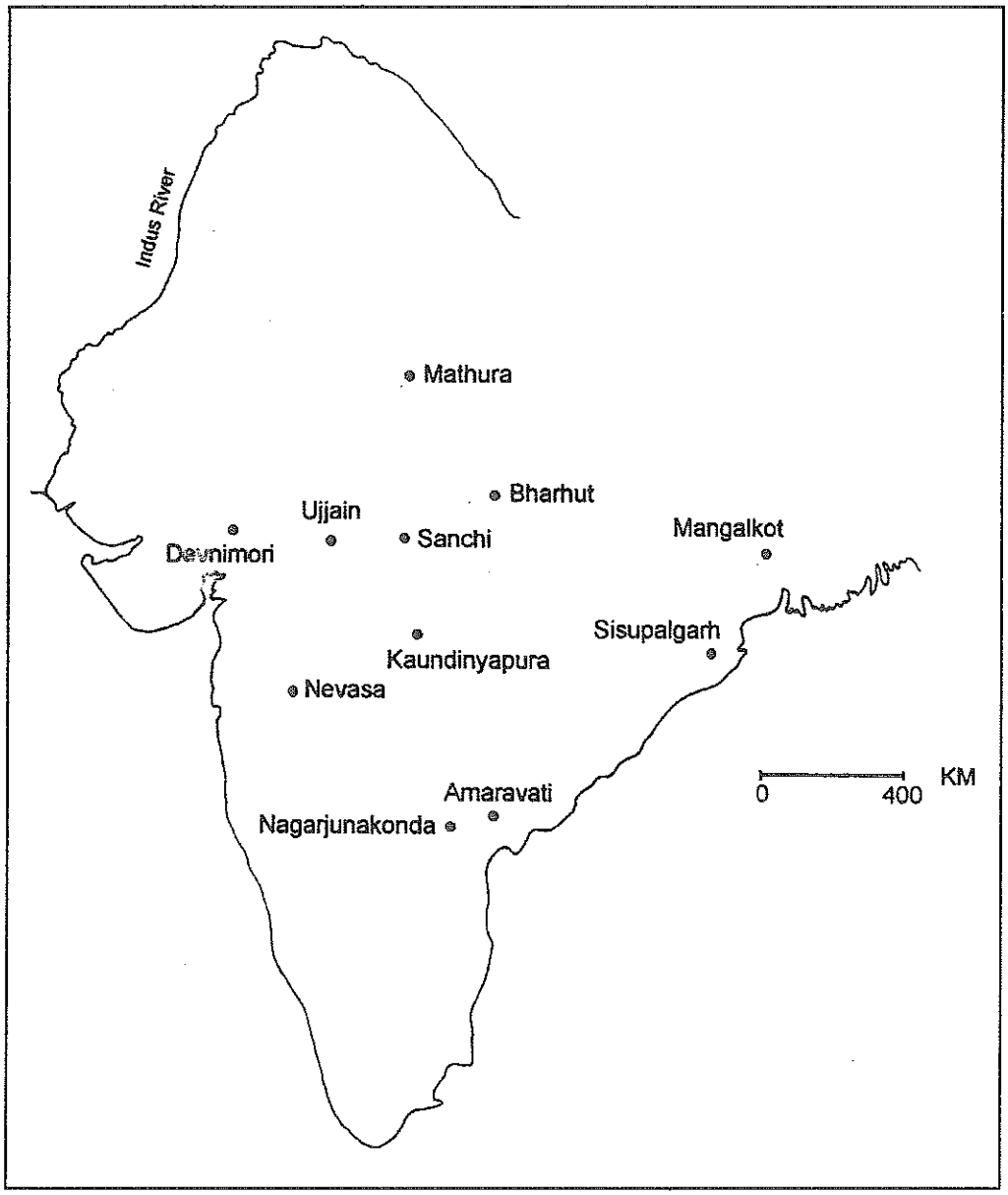

Fig. 3: Sites mentioned in the text

persons made pilgrimages; the inscriptions at Sanchi, which mention the donors' homes, show that people travelled substantial distances (Bajpai 1978).

In addition to the travel along local routes indicated by the trade of goods and the fulfilment of religious duties, many other circumstances compelled and invited travel in the Early Historic period. Rulers and their armies travelled about the landscape in cycles of conquest and administration. Periodic natural disasters such as floods and droughts may also have prompted the migration of individuals and families. Specialized occupations, such as herding, favour an itinerant lifestyle. Other occupations, such as iron working, may have likewise been mobile professions in areas where villages were too small to support full-time specialists. These specialized craftspeople would also have engaged in trade and transport activities for the collection of raw materials and for the distribution of finished products.

However, all of these movements of people and goods took place despite two very strong deterrents to travel: natural constraints and political constraints. Natural constraints to travel took the form of forests, difficult terrain, and seasonal extremes like monsoon rains (e.g. see Deloche 1980). Cultural constraints occurred in the form of

political instability during a time when the Indian subcontinent had no centralized political entities to provide internal security or protect trade routes. Between the short-lived Mauryan polity of the 3rd century B.C. and the relatively widespread Gupta 'empire' of the 4th century A.D. there was no large-scale unified government, and the political landscape of the subcontinent can be characterized as one composed of regional dynasties, with shifting control over territory and resources (Mirashi 1981). The ability of these dynasties to create surplus wealth was limited, so that there was little provision of the kind of infrastructure acknowledged as essential for trade in the modern world such as good roads, communications networks or security (Plattner 1989). It appears, thus, that trade took place on a highly flexible basis, in which traders and travellers exchanged information about appropriate trade routes, travelled in groups for safety, and altered their schedules to avoid times of seasonal weather extremes.

The flexibility of travel schedules under these types of natural and political conditions is illustrated by Early Historic written documents. Starting in the 2nd century B.C. the popularity of the Buddhist ethic was manifested through the construction of monasteries; these monasteries were to be inhabited during the rainy season, so that monks and nuns would have a home during the time when travel was impractical (Barnes 1995). Early European travellers' reports for the subcontinent similarly cite numerous examples of multiple routes: the specific route for any given journey was calculated on the basis of the current political regime in the region, the level of perceived banditry, the height of rivers and the location of fords, and hospitable places for overnight stops (e.g. Colebrooke 1790). Thus, the challenging conditions of both the physical and the political landscape were factors in establishing the routes and times of travel, but did not serve as deterrents to movement.

Regional and Local Exchange at the Site of Kaundinyapura

Archaeological and historical evidence indicates that towns and villages in Early Historic India were the focal-points of a very active trading environment. Any site could participate in trade through the production of some kind of tradable surplus, such as agricultural produce, raw materials, or finished products. At the same time, these towns and villages were stopping-points along the routes of travel for pilgrims, traders, and political figures. Two recent survey projects enable us to assess the extent to which local exchange was a significant component of economic activity.

The first project was carried out at the site of Kaundinyapura in central India, a site of approximately 6.5 hectares on the banks of the perennial Wardha River. The site today is still relatively undisturbed, enabling its ancient setting and the site layout to be discerned. A limited excavation in the 1960's provided an indication of the range of materials which could be expected (Dikshit 1968). In 1994 and 1995, a systematic surface survey and collection was carried out to document the way in which this town-sized site participated in the trade networks of the subcontinent, the way in which ordinary inhabitants had access to trade goods, and what they produced to finance their consumption (Smith 2000). A total of 169 surface sample units were collected at Kaundinyapura, with the most abundant category of artefacts consisting of ceramics. These ceramics indicated contact between the inhabitants of Kaundinyapura and other sites in the region, in both stylistic similarities as well as in material composition. In terms of stylistic similarities, Kaundinyapura contains Early Historic vessel forms also seen at contemporaneous sites in the region (i.e. within two hundred kilometres). One particularly striking type of ceramic consists of a high-fired, fine-paste ware which appears almost exclusively in a large-diameter shallow bowl form. The form and finish of this ceramic are identical to other contemporary sites in the region (Smith 2000). However, limited laboratory tests show the clay composition to be distinct from other sites and matches the profile of clay sources near Kaundinyapura, indicating that the Kaundinyapura ceramics were the result of a local manufacturing process (Smith 2001a: 85-87). Other items indicative of a local ceramic manufacture included bricks and tiles.

Another ceramic type which indicates contact between Kaundinyapura and other sites in the region is the micaceous ware. This ware consists of coarse, pale-red clay which contains up to 40% mica in the body. Although this ware is very fragmentary it appears to represent only one shape, that of a large form, probably a jar, with an everted plain rim. The presence of visible mica in some ceramics at Kaundinyapura is again indicative of the physical transfer of goods in the form of either finished products or raw materials. The geological formation of the Kaundinyapura area is entirely basaltic, being located at the eastern edge of the Deccan Basalt Province which covers most of west-central India. Geological consultations indicate that the nearest mica sources are located at least 100 kilometres away and to the east, beyond the edge of the Deccan basalts. In addition to ceramics, the surface survey recovered querns, grinding stones, and paving stone fragments made of sandstone, which like mica is only available at a minimum distance of 100 kilometres from the site. The location of Kaundinyapura with reference to other contemporary sites in the region shows that there was an abundance of sites in the area where the edge of the Deccan basalts met the older geologic formations of the eastern subcontinent (Fig. 4).

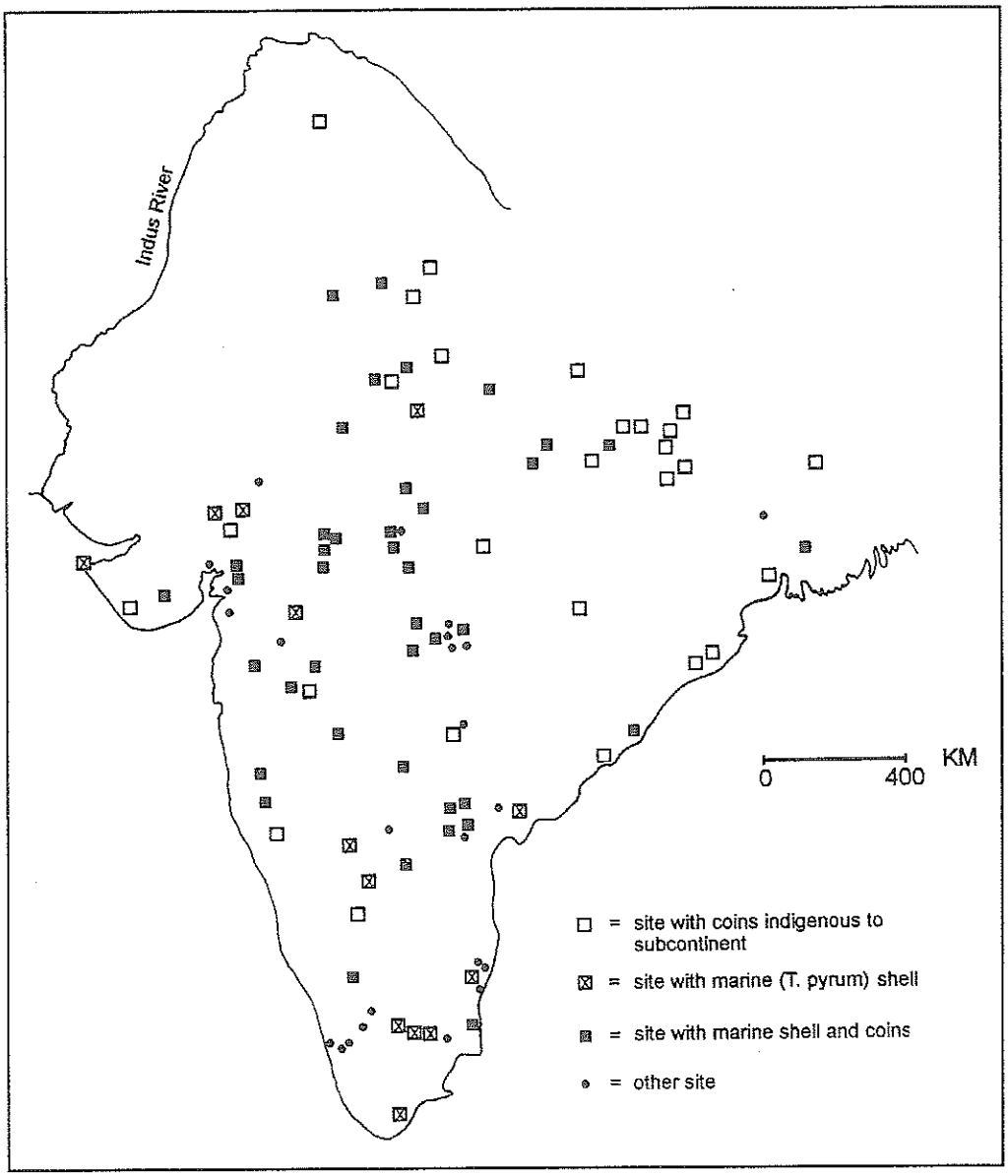

Fig. 4: Kaundinyapura and nearby Early Historic period sites. The area to the left of the line indicates the zone of the Deccan basalts. Information was gathered from excavation reports and from other sources such as IAR

While it would be easy to propose that these sites simply traded products from their immediate environments as a matter of economic efficiency, it appears that more complex social factors were part of the exchange process. At Kaundinyapura, basalt is readily available near the site and could have substituted for sandstone as a grinding tool. Similarly, the small technological advantage achieved by adding mica to pottery can also be realized using other materials (such as burnt or unburnt freshwater shell; Rice 1987:407). The value of sandstone and mica to the inhabitants of Kaundinyapura may have extended beyond their physical properties. Significantly, these items were distributed throughout the site, suggesting that they were items to which many persons had access. In addition, the apparent domestic nature of many of the non-local items, such as sandstone grinding tools, indicates that there was substantial trade in daily-use goods. These materials may be considered primarily 'utilitarian' but they also carry symbolic value as evidence of contact between people who traveled around the landscape for kinship, political, or religious reasons (Smith 1999). This factor is another way in which regional and local trade differs from exotic long-distance trade, in that the participants of the exchange network were not merely elites and specialized traders, but rather, a large percentage of households.

The materials at Kaundinyapura indicate that there was thriving local and regional exchange in a wide variety of materials, but that long-distance trade was limited to only a few items such as marine shell. There are almost no documented occurrences of Rouletted Wares in central India, and none were recovered among the 32,000 ceramic sherds analysed for this project. Sixteen percent of the total count of ceramics were of a bright red colour, red-slipped and of finely-levigated clay, but none of the shapes typically associated with the Red Polished Wares of the western coast were encountered at Kaundinyapura. Kaundinyapura and its neighbours shared their own tradition of finewares; it is not surprising that pottery and other durable goods were made of local materials rather than transported hundreds of kilometres from the coasts. The trade networks of central India were constructed primarily to meet local demands with regional materials, and did not depend on coastal peoples for any but the most exotic of goods (such as shell bangles).

The archaeological record at Kaundinyapura indicates that a variety of non-local goods such as sandstone and mica were utilized at the site. However, the habitation area of the site did not indicate what the ancient inhabitants were producing to finance their trade. The excavation reports contained mentions of shell-working debris and unfinished beads (Dikshit 1968), but the surface collection of the site did not reveal these materials in any quantity (either inside or outside of the collection units).[2] It may be that the site has been impacted by bead-collectors who have removed the majority of these surface materials. Residual evidence for bead-production is indicated by the recovery of small amounts of production debris (chipping waste, broken chert) in 51 of the collection units at Kaundinyapura. More substantial production activities, particularly those which required considerable space or produced noxious odours, may have been located away from the habitation portions of the site in the surrounding flatlands. Intensive field-walking around the site during the course of this project recovered no artefacts beyond the mounds and it appears that periodic flooding of the agricultural lands around the site has long since removed or obscured artefacts from any production-related subsidiary zones.

Important opportunities for surplus production were provided by the management of agricultural produce, domestic animals and forest products. Kaundinyapura is located in a rich zone of alluvial soil on the banks of the Wardha River, and the surrounding agricultural land would have been capable of producing an agricultural surplus beyond the needs of the site's inhabitants. The area around Kaundinyapura is now particularly noted for cotton production, which may have been a prominent cash crop in antiquity as well. It may have traded surplus produce to other agricultural regions, such as the areas which traditionally produced rice (such as the Chandrapur district, about 100 kilometres to the southeast; Grant 1984 [1870]). Inscriptions of the 4th century A.D. from the surrounding region indicate that the names of foods, such as plantains and rice, comprise parts of place names, so that certain places may have become known for particular foods, the surplus of which was traded away (Shastri 1992a). Although the transport system probably did not favour regular transfer of bulky foodstuffs, special-purpose foods and food during local famines might have been the subject of trade.

Surplus agricultural production as well as the availability of nearby grazing lands would also have enabled the production of domestic animals for household use or exchange, with the added benefit that animals are more easily transported to markets. Finally, numerous wild resources would have been available close to the site in antiquity. Early nineteenth century accounts indicate that forest cover along the Wardha River was substantially greater than at present. These forests are identified as containing a considerable number of useful products such as resins, gums and wood as well as animals valued for their skins; all of these natural products might have been exploited for the purposes of trade. Kaundinyapura's status as a regional centre, able to generate surplus income, is further seen through an examination of a contemporary settlement at Dhamantri, a site located 4 kilometres north and also along the Wardha River. This smaller site (0.75 ha) shows many similarities in locally-produced ceramics, but contains a much lower proportion of non-local goods such as micaceous ceramics and sandstone.

Regional and Local Exchange at the Site of Sisupalgarh

The information currently being generated through a systematic archaeological survey of the urban site of Sisupalgarh has also provided critical insights on the role of local exchange in the Early Historic period. Located in Orissa state, Sisupalgarh is a walled city of 130 hectares in size that presents evidence for large-scale labour investment in ramparts, columned buildings, and stone-lined tanks (Lal 1949; Smith 2001b). As at Kaundinyapura, these was relatively little occupation after the Early Historic period, so that again we can utilize the method of systematic surface collections to acquire data for the analysis of the inhabitants' economic life. Thus far, a total of 158 units have been collected ranging from 1 x 1.5 to 10 x 10 m (for a total of 6 760 m^2, principally concentrated on the interior of the rampart walls).

2 To be precise, these was one *T. pyrum* bangle fragment found in collection unit 204-37 and one undrilled carnelian bead near 204-37. The presence of these materials on the southwestern side of the site support the interpretation of this area of the site as an elite residential sector (Smith 2001: 96-101).

Ceramics comprise the majority of the artefacts recovered at the site, and while the analysis of the collected materials is not yet complete, visual assessment and sorting of nearly 70,000 sherds from the collection units indicates that there is little variability in the composition of the wares. The most significant distinction is in the quantity and fineness of sand in the paste, indicating that wares are likely to have been locally manufactured (given the alluvial surroundings of the site, perhaps within 3-5 kilometres; ongoing materials analysis is being undertaken in India to further evaluate the range of sources of ceramic production). Other artefacts recovered from the collection units also indicate a very local provenience of production and distribution. Bricks and tiles were likely to have been made from the same clay as locally-made ceramics. Laterite, carved into blocks and pillars, is available from a laterite plateau only one kilometre away. Sandstone, of various degrees of graininess and a variety of colours, is locally abundant and available from a distance of 6-10 kilometres.

Although our expectations are that cities pull in a vast economic hinterland that includes a significant amount of long-distance goods, examination of the collected materials to date at Sisupalgarh indicates otherwise. Clear evidence of regional and long-distance exchange at the site is limited, with four steatite fragments and one clearly non-local vessel fragment thus far constituting the most distinct 'imported' goods. The surprisingly low amount of evidence for even regional exchange at Sisupalgarh contrasts strongly with the data from Kaundinyapura that showed regionally-traded items forming a significant component of the domestic repertoire.

Many factors may have contributed to the distinctions that we see in the Kaundinyapura and Sisupalgarh data sets and to the counterintuitive suggestion that Early Historic towns may have been more reliant on regional exchange than cities were. Since both sites were studied from the collection of surface remains, they present comparable data sets; one potentially complicating factor at Sisupalgarh is that the uppermost remains at the site represent the latest occupations which may, at the end of the site's use-life, been relatively impoverished compared to earlier periods of occupation.[3] However, examination of the excavated materials from the entire stratigraphic sequence at Sisupalgarh indicates that pottery fabric is not highly variable over time, probably meaning that ceramics were primarily locally-made throughout the site's occupation.

The observations of the overwhelmingly local character of portable goods and architectural materials at Sisupalgarh indicates that we have probably underestimated the value of a locally-productive landscape in the success of cities. Such a perspective is suggested by H. Sarkar (1987: 635), who discusses the importance of agriculture as the basis for urban growth. Archaeological evidence of manufactured goods at sites such as Sisupalgarh indicates that the provision of much of the domestic non-comestible repertoire in cities was also locally-derived. Our expectations of significant long-distance exchange for cities may be skewed by observations of ports as a specialized city type which takes advantage of locations at zones of favourable transportation that are also located at ecotones (places of environmental change, such as desert/forest and land/sea). Non-port towns and cities may be radically different in their economic structure. Towns and cities grow from smaller origins not because of their long-distance contacts but because of robust local resources that can be used by a large segment of the population. Thus, even when long-distance goods are present in urban environments, we should consider them to be a *marker*, rather than a *cause*, of urban economic success.

Discussion and Conclusion

The observation that trade networks were primarily devoted to local needs has been an underlying theme in the analysis of Indian archaeological sites for many years, as the following example illustrates. In the excavations at Devnimori (located in the modern state of Gujarat), the artefacts recovered enable the identification of an Early Historic occupation: a stupa, Kshatrapa and Indo-Sassanian coins, Red Polished Ware, and a variety of beads (Mehta and Chowdhary 1966). Although the site is close to the areas of the western coast actively involved in trade in the Early Historic period, the only evidence for long-distance exchange at Devnimori consists of three amphora sherds. The authors commented that the use of predominantly local materials in the making of artefacts indicates that the 'settlement used the ideas current in Western India... (though) very few items came from far off countries' (Mehta and Chowdhary, 1966: 186). Although it was located in an area which gave it a geographical advantage in obtaining foreign trade goods, Devnimori's exchange networks did not make use of this potential. This apparent lack of importance of foreign trade in establishing or marking the site's prosperity indicates that the overall impact of long-distance exchange on the socio-political constructs of the subcontinent may be overestimated when exchange is investigated solely from the point of view of exotic commodities.

More recent scholars have also noted the strong regional continuities of material culture that were main-

3 I would like to thank R.K. Mohanty for this observation, which serves to highlight the idea that surface archaeology presents broad-scale patterns. The surface of an archaeological site is a two-dimensional remnant of three-dimensional stratigraphy, and as such provides a much larger picture of the site than excavation, but at the cost of a collapsed time depth that almost inevitably over-represents the latest period of the site's occupation.

tained over long periods of time in the Indian subcontinent. Lyonnet (1994: 263) has noted that the interactions of the Kushans in the northwest was marked by relatively few material additions on their part and that despite political changes 'the local culture(s) always proved to be very vibrant.' In a discussion of the effects and actions of the Satavahana polity, Sinopoli (2001: 173) has similarly observed that Satavahana political activities were conducted within a context of a 'pan-regional' material culture. Local trade is an integrative mechanism for population centers of any size; in the Early Historic period, this integrative mechanism, along with the religious institutions of Buddhism and Jainism, appears to have had a more significant continuity than any political entity. Ordinary goods, obtained through regular local and regional exchange, enabled individuals and households to signal their participation in a shared cultural system.

Archaeological evidence from the Indian subcontinent indicates that there were many, often overlapping, distributions of different types of goods. The trading networks in which Kaundinyapura and Sisupalgarh participated serve as examples of the many local and regional exchange networks which were present throughout the subcontinent in the Early Historic period. These functioned not only as trade routes moving local and long-distance goods, but were also social routes moving pilgrims and families, and political routes moving rulers and armies. An examination of the distribution of local and regional trade goods from individual trading sites, such as Kaundinyapura and Dhamantri, confirms that trade goods were a component of daily life and that individual households engaged in exchange. In cities such as Sisupalgarh, the size of the urban conglomeration itself (with a resultant specialized manufacture of items from abundant local materials) may have substituted for the wider regional reach that inhabitants of town-sized sites created for themselves.

The detailed examination of trade activities at Early Historic sites such as Kaundinyapura and Sisupalgarh provides evidence that exchange in the subcontinent was not limited to the elites and merchants of port cities. The energized and lively networks of exchange were supported by many different agents, in which the vast majority of exchange and transport activities moved goods made of local materials for local consumption. As nodes in long-distance networks, they were also used by pilgrims, conquerors, artisans, and traders of exotic goods as they moved across the larger distances that consisted of many local routes linked together.

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