



# World GDP during 0 CE

## Share of Countries/Regions in World GDP (0 CE)

Year	0 CE
Total Western Europe	10.8
Eastern Europe	1.9
Former USSR	1.5
Total Western offshoots	0.5
Total Latin America	2.2
Japan	1.2
China	26.2
India	32.9
Other Asia	16.1
Total Asia (excluding Japan)	75.1
Africa	6.8
<b>World</b>	<b>100</b>

India alone  
was  
contributing  
almost one-  
third of the  
Global GDP

What do these  
figures tell you about  
the Indian Economy?

Source: Maddison, Angus, The World Economy – A Millennial Perspective, 1<sup>st</sup> Indian Ed., Overseas Press (India) Private Limited, New Delhi, 2003

# World GDP during 0 CE

- Superior economic performance of India
- Strong fundamentals including high levels of skills and talented citizens
- Well – developed economic status
- High levels of performance of different sectors

# World GDP during 0 CE

“China and India combined used to produce nearly half of the world’s economic output in 1820 compared to just 1.8% for the U.S.” (Michael Milken, Chairman of Milken Institute, The Wall street Journal, Tuesday, September 19, 2006- Opinion page article: ‘Seventh Decade-The Boom Generation)

# Ancient Indian Economy

- Vital sectors that contribute to growth of economy:
  - Agriculture and Food Production
  - Industry
  - Services/ Trade
  
- Other Critical Sectors:
  - Education
  - Science and Technology

# Ancient Indian Economy

- Agriculture was the main occupation with crafts, manufacturing and trade following it
- Mostly village-based and the villages were largely self-sustaining
- Well-developed cities with perfect planning
- Agriculture supplied the raw materials for textiles and crafts
- Fine balance among different sectors
- Developed a scientific system for running the government and managing economy
- Making wealth as the most important activity

# Agriculture and Food Production

- Rock Shelters of Bhimbetka humans lived throughout the Upper Paleolithic (10th to 8th millennia BCE), revealing cave paintings dated to nearly 100,000 years; the Sivaliks and the Potwar (Pakistan) region also exhibit many vertebrate fossil remains and paleolithic tools.
- Jean-Francois Jarrige, the French excavator, noted that by 6000 BCE, Mehrgarh, one of India's ancient settlements, had a veritable agricultural economy solidly established.
- Randhawa, an agricultural scientist, quoted that Indians cultivated wheat, barley, peas, date palms and cotton, more than 4500 years ago

# Agriculture and Food Production

- Pereira, in his book *Tending the Earth*, mentioned
  - Earliest sample of cotton cloth discovered in India was in the ruins of Harappa around 5000 years ago.
  - Evidence of rice cultivated in India goes back to 4300 years
- The Greek historian Megasthenese noted that the greater part of soil was under irrigation

# Agriculture and Food Production

- Diodorus Siculus, who visited India around the first century BCE, mentioned about the fertility of lands and production of different varieties of cereals and fruits.
- Major General Alexander Walker who had served in the East India Company, had noted that the Hindoos had developed superior tools and techniques in agriculture – Drill Plough, which had been in use in India from the remotest times, but is said to have been first used in Europe much later in 1662

# Agriculture and Food Production

- Western agricultural scientists of the 20<sup>th</sup> century mention as to how the Indian farmers used compost and organic manure.
- Albert Howard, the noted agricultural scientist, regarded the Indian farmers as 'professors' and "decided that he could not do better than watch their operations"
- Evidence from ancient texts from different regions of India suggest that there was high level of agricultural productivity and production; No scarcity or famine

# Agriculture and Food Production

*‘Cambridge Encyclopedia of India, Pakistan, Bangladesh and Srilanka’, 1989, says:*

“The whole of South India is dotted with tanks. A British expert writing in the 1850s estimated that the total number of such tanks in the Madras Presidency to be over 50,000. Another estimate indicated that in the 18<sup>th</sup> century, there were more than 38,000 tanks in the region that later constituted the Mysore State. It is therefore, a fair estimate that there were over a lakh tanks in the whole of South India.”

# Industry

- Eminent archaeologist Chhabra had noted that in the ancient world, India was in the forefront in the field of shipbuilding.
- Basham, in his book, '*The Wonder that was India*' mentions that there were different sizes of industries about 2300 years ago (Mauryan State).
- Kennedy, presented the shares of manufacturing output of different countries in the world during 1750 – India's share was almost 1/4<sup>th</sup> of the global output. (This is after, destruction during foreign rule of about 600 years)

# Industry

- In 1750 India's share of World's Manufacturing Output was 24.5% and that of the West (including America) 18.2%. By 1913 India's share dropped to 1.7% and the West's share increased to 81.6%.

(Source: Paul Bairoch, "International Industrialization levels from 1750 to 1980", Journal of European Economic History, 11 (Fall 1982), P 269-334).

# Industry

Paul Bairoch confirms that India had a 25 per cent share of the global trade in textiles in the early 18th century. “The Main Trends in National Economic Disparities since the Industrial Revolution”, in P. Bairoch and M. Levy-Leboyer, eds, *Disparities in Economic Development since the Industrial Revolution*, Macmillan, New York, 1981.

# Industry

<b>Relative Shares of World Manufacturing Output (1750)</b>	
Europe as a whole	23.2
United States	0.1
Japan	3.8
<b>China</b>	<b>32.8</b>
<b>India</b>	<b>24.5</b>

Source: Kennedy, Paul S., *The Rise and Fall of the Great Powers – Economic Change and Military Conflict from 1500-2000*, Fontana Press, London, 1988, p. 190.

# Trade

- Most important activity after agriculture and industry
- Signifies diversified economy
- Extended to many countries across the globe – sea trade
- Cotton textile and pepper export
- Massive favorable balance of trade (settled in Gold)
- Economic centre of the Indian Ocean region
- Major trading power

# Services

- Well developed Shipping Industry
- Banking
- The annual revenues of the Mogul emperor Aurangzeb (1659-1701) are said to have amounted to \$450,000,000, more than ten times those of (his contemporary) Louis XIV.

(John Kautsky, The Politics of Aristocratic Empires, University of North Carolina Press, Chapel Hill, 1982, p. 188.)

# Education

- Traditional Indian system divided a person's life into four stages – *Brahmacharya*, the first stage was devoted to education
- Earliest documented university in Takshila, about 2700 years ago. Had more than 10,500 students pursuing studies in more than 60 different subjects
- India was the pioneer in higher education in the world
- Centre of higher education. Several Universities like Takshila, Nalanda, Vikramsheela, Kashi

# Education

- Literacy rate was very high
- Education widespread; all castes communities
- Further centers include Odantapuri (from the Gupta period to the to the Muslim conquest), Nagarjunakonda (800-1040), Sharada Peeth, in modern day period to the Arab raids), Kanchipuram, in Tamil Nadu, in Orissa. In Sri Lanka, Sunethradevi Pirivena founded circa 1415 AD.
- <http://www.aicte-india.org/downloads/ancient.pdf>

# Education

- **Takshashila /Taxila**, in ancient India (modern-day Pakistan), was Hindu/Buddha centre of learning. It may have dated back to at least 500-1000 BC. The school consisted of several monasteries without large dormitories or lecture halls where the instruction was most likely provided on an individualistic basis/ small group.
- Takshashila is described in some detail in later Jātaka tales, written in Sri Lanka around 500 AD.
- It became a noted centre of learning at least several centuries BC, and continued to attract students until the destruction of the city in the fifth century AD.

# Education

- Takshashila is perhaps best known because of its association with Chanakya. The famous treatise Arthashastra (Sanskrit for The knowledge of Economics) by Chanakya, is composed in Takshashila. Chanakya (or Kautilya), the Maurya Emperor Chandragupta and the Ayurvedic healer Charaka studied at Taxila.
- Generally, a student entered Takshashila at the age of sixteen. The Vedas and the Eighteen Arts, which included skills such as archery, hunting, and elephant lore, were taught, in addition to its law school, medical school, and school of military science

# Education

- Nalanda was established in the fifth century AD in Bihar, India and survived until circa 1200 AD. It was devoted to Hindu/Buddha studies, and trained students in fine arts, medicine, mathematics, astronomy, politics and the art of war.
- It had eight separate compounds, ten temples, meditation halls, classrooms, lakes and parks.
- It had a nine-story library where monks meticulously copied books and documents so that individual scholars could have their own collections. Library of over 9 million manuscripts

# Education

- It had accommodation for 10,000 students and 2,000 professors. Nalanda attracted students and scholars from most parts of the world including Sri Lanka, Korea, Japan, China, Tibet, Indonesia, Persia and Turkey.
- At the beginning of the 12th Century, the Muslim invader Bakhtiyar Khalji sacked the university. The whole library was burnt and most of the scholars/ students killed.

# Education

- Further centers include Varanasi in Uttar Pradesh, Kanchipuram, in Tamil Nadu, Telhara in Bihar (probably older than Nalanda), Odantapuri, in Bihar (circa 550 - 1040), Somapura, in Bangladesh (from the Gupta period to the Turkic Muslim conquest), Sharada Peeth, Kashmir, Jagaddala Mahavihara, in Bengal (from the Pala period to the Turkic Muslim conquest), NagarjunaKonda, in Andhra Pradesh, Vikramashila, in Bihar (circa 800-1040), Valabhi, in Gujarat (from the Maitrak period to the Arab raids), Manyakheta, in Karnataka, Pushpagiri, Odisha (300 AD). Mahavihara, Abhayagiri Vihāra, and Jetavanaramaya, in Sri Lanka. The Academy of Gundishapur, Ancient Persia.

# Education when Britishers arrived

Educational survey, by William Adam. there existed about 1,00,000 village schools in Bengal and Bihar around the 1830s. Thomas Munro, had observed that 'every village had a school'. Observations made by Dr. G.W.Leitner in 1882 show that the spread of education in the Punjab around 1850 was of a similar extent. At about the same time, England had very few schools for the children of ordinary people till about 1800

# Education when Britishers arrived

- The education was taken by students of all castes and religions, in all parts of India. Girls also were enrolled in good numbers.
- Adam's report: On average there were around 100 institutions of higher learning in each district of Bengal, and consequently, he concluded that the 18 districts of Bengal had about 1,800 such institutions.”

According to this hard data, in terms of the content, the proportion of those attending institutional school education in India in 1800 is certainly not inferior to what obtained in England then; and in many respects Indian schooling seems to have been much more extensive. The content of studies was better in India than in England. The method of school teaching was superior in India at that time. The school attendance, especially in the district of Madras Presidency, even in the decayed state of the period 1822-25, was proportionately far higher than the numbers in all variety of schools in England in 1800.

Institutions of higher learning a total of 1,094 such places, in Madras Presidency. The largest number of these, 279, were in the district of Rajahmundry with a total of 1,454 scholars; Coimbatore came 173 (724 scholars); Guntoor 171 (with 939 scholars); Tanjore 109 (with 769 scholars); Nellore 107; North Arcot 69 (with 418 scholars); Salem 53 (with 324 scholars); Chingleput 51 (with 398 scholars); Masulipatarn 49 (with 199 scholars); Bellary 23; Trichnopoly (with 131 scholars) and Malabar with one old institution with 75 scholars.

- There is a sense of widespread neglect and decay in the field of indigenous education within a few decades after the onset of British rule.
- Madras Presidency data (1822-25), the report of W. Adam on Bengal and Bihar (1835-38), and the Punjab survey by G.W. Leitner.
- Dharampal, 2000. Introduction in *The Beautiful Tree*, Volume III. Pp. 07-86. Mapusa: Other India Press.

# Science and Technology

- India pioneered innovations in various fields of science
- Laid the foundations for modern science
- Albert Einstein, one of the greatest scientists of the modern times, had noted: “We owe a lot to the Indians, who taught us how to count, without which no worthwhile scientific discovery could have been made.”

# Science and Technology

- Quoting Teresi's references to India, Shashi Tharoor notes: "India invented modern numerals (known to the world as 'Arabic' numerals because the West got them from Arabs, who learned them from us!). It was an Indian who first conceived of the zero, shunya; the concept of nothingness, shunyata, integral to Hindu and Buddhist thinking, simply did not exist in the West."
- Concept of infinite sets of rational numbers was understood by Jain thinkers in the 6<sup>th</sup> century BC

# Science and Technology

- The Sulba Sutras, composed between 800 and 500 BC, demonstrate that India had Pythagoras' theorem before the great Greek was born, and a way of getting the square root of 2 correct to five decimal places
- Sushruta defined the function of the heart 2600 years ago. In the West, Harvey could do it only during the 17th century. It is said that Sushruta conducted surgeries even in those days (Source: *Pride of India*, Samskrita Bharati, New Delhi, 2006)

# Ethics in Economics

- Ancient society emphasized higher principles in business and creating wealth
- Objective of agriculture was not just high levels of production, but the ultimate aim was to make food available to all
- Discipline of taking care encompassed not only human beings, but also animals, birds, insects and all aspects of nature
- Emphasized significance of earning wealth through proper methods in all possible ways

# Ethics in Economics

While discussing the structure of business in ancient India, Basham notes that the ancient Indian business functioned on higher ideals, even when making money was the objective. To quote: “Thus the ideals of ancient India, while not perhaps the same as those of the acquisitive West, by no means excluded money-making. India had not only a class of luxury-loving and pleasure-seeking dilettanti, but also one of wealth-seeking merchants and prosperous craftsmen, who, though less respected than the brahmans and warriors were honored in society.”

# Government and Business

- Codes of conduct and general rules regulating businesses: Family–run business enterprises, Individually owned business enterprises, *Gana, Pani, Puga, Vrata, Samgha, Nigama, Sreni*
- Well defined systems were in place. Evidences show that there were arrangements in the society to take care of all the travellers, including those with merchandise
- Government and Society took joint responsibility with regard to all travellers, including those with merchandise, in Bengal

# Business and Trade

- Indian system permitted interference of the government in business, in the interests of the society
- Required traders and businessman to follow basic norms
- Any misuse or exploitation by the merchants and traders was considered a serious and punishable offence. The testimony of Megasthenes, corroborated by the *Arthashastra*, shows that in Mauryan times, prices were regulated by market officials

# Character and Principles in Business and Trade

- Conduct of Indians was appreciable and fair
- Marco Polo, praised the merchants of Lata, saying ‘you must know that these Abraiaman are the best merchants in the World, and the most truthful, for they would not tell a lie for anything on earth,’ and ‘if a foreign merchant who does not know the ways of the country applies to them and entrusts his goods to him, they will take charge of these, and sell them in the most loyal manner, seeking zealously the profit of the foreigner and asking no commission except what he pleases to bestow.’

# Superior Society backed by Economic Prosperity

- Different sources present India as the most prosperous economy with people of high calibre and superior qualities
- Indians have never tried to own their knowledge and practices, as they believe everything is the sum total of the accumulated experiences of the society –*Even after sister Nivedita compelled scientist J.C.Bose, he refused to get a patent for his discovery. With the result, Marconi was identified with wireless communication, till it was proved otherwise after so many years*

Noted American author, **Sunderland** had underlined the prosperity of India at the time of the arrival of the British in the following words: “This wealth was created by the Hindus’ vast and varied industries...India was a far greater industrial and manufacturing nation than any in Europe or than any other in Asia...Such was the India which the British found when they came.”

# Drain of Wealth by British

Dadabhai Naoroji was the first man to say that internal factors were not the reasons of poverty in India but poverty was caused by the colonial rule that was draining the wealth and prosperity of India. The drain of wealth was the portion of India's wealth and economy that was not available to Indians. The Drain of Wealth theory was systemically initiated by Dadabhai Naoroji in 1867 and further analysed and developed by R.C. Dutt, M.G Ranade etc

In 1867, Dadabhai Naoroji put forward the 'drain of wealth' theory in which he stated that the Britain was completely draining India. He mentioned this theory in his book *Poverty and Un-British Rule in India*. He put forward the idea that Britain was draining and bleeding India.”

# Drain of Wealth by British

Further in his book , he stated the loss of 200-300 million pounds of revenue to Britain. Dadabhai Naoroji considered it as a major evil of British in India.

Naoroji observed in 1880, *“It is not the pitiless operations of economic laws, but it is thoughtless and pitiless action of the British policy; it is pitiless eating of India’s substance in India and further pitiless drain to England, in short it is pitiless perversion of Economic Laws by the sad bleeding to which India is subjected, that is destroying India.”*

On the footsteps of Dadabhai Naoroji, R. C. Dutt also promoted the same theory by keeping it as a major theme of his book *Economic History in India*.

# Drain of Wealth by British

John Sullivan, President of the Board of Revenue, Madras, had wrote—*“Our system acts very much like a sponge, drawing up all the good things from the banks of the Ganges, and squeezing them down on the banks of the Thames.”*

# Marx and Max Weber on India

- In the year 1853, before he wrote the Das capital, Karl Marx wrote couple of articles which showed his understanding about India. He said that economically if you look at the country, every village is an economic unit, a tariff unit, and it doesn't import or export anything. It produces and consumes making the producer the consumer as well and there is no economic inequality because no one has any power over others. This was called the primitive socialism in the communist terminology.

- But Marx said there was something very wrong with this society- they worshiped monkeys, and cows. He considered man as *'the sovereign of nature'*, and accuses Hindus of degrading that man by *'worship of nature'*. Thus, such a backward society can never progress and carry out a revolution which is necessary for the advancement of human race.

- It is necessary to destroy the social base and even though it is a painful destruction, it is a pleasurable destruction as well. This is what Karl Marx said. He never came to India, never read any Indian literature, never met any Indian but he wrote about India. And Marx became one of the most powerful thinkers influencing the Indian intellectual establishment. And our academics are still under the grip of these powerful thoughts.

- Western anthropology is founded on methodological individualism which delegitimises all relations even family ties
- Another person, Max Weber, a German philosopher is less known but he was a more powerful social thinker. In 1925 Max Weber wrote a book on Hinduism and Buddhism. He said that two societies can never come up- China and India, because they believe in Karma and rebirth, which is anti-enterprise, anti-entrepreneurial development, and so these two nations can never develop.....

But a remarkable u-turn took place in 1970s, when Japan began rising as an economic power. The west was surprised, because economic development, economic progress is supposed to be the preserve of the west. How could Japan, a Buddhist country from Asia, develop?

Studies have shown that two great thought leaders of the West, Karl Marx and Max Weber, neither of whom ever visited India, have and still continue to exert dominant influence on Indian thinking on sociology and economic development. Take Weber first. Modern West is rooted in Weber's concept of methodological individualism that saw society as a collection of individuals, rather than individuals as components of the society.

While communism believed in social engineering through revolution and state, capitalism trusted the efficient market hypothesis based on methodological individualism to achieve the very end. Scholars like Karl Popper said there was “no such thing as society”. Traditional society was seen as an impediment to individualism that produced entrepreneurs who disturbed static societies and turned them dynamic. Weber also believed that Catholic-Hindu-Buddhist cultures discouraged individualism and hence lacked entrepreneurial spirit, whereas Protestantism encouraged both. He added that belief in karma, rebirth and caste-base made Hindu-Buddhist culture inappropriate for modern capitalism.

Indians, mostly defined themselves through Karl Marx, through Max Weber, and then came Professor Raj Krishna. He was asked in 1978, “*why India is growing so slowly?*” He said it is the ‘*Hindu rate of growth*’. Actually it was socialistic rate of growth.

# Economic Thoughts of Ambedkar

**2017**



# Education

- **Columbia University**
- M.A., 1915, *Ancient Indian Commerce.*
- MA, 1916, *National Dividend of India-A Historic and Analytical Study*
- PhD, 1917, "The Evolution of Provincial Finance in British India",

# Education

- **London School of Economics**
- DSc, 1927, "The Problem of the Rupee: Its Origin and Its Solution", (is a magnum opus and seen as a major contribution to the field of monetary economics)
- <http://www.ambedkar.org/ambcd/28H.%20Problem%20of%20Rupee%20CHAPTER%20VII.htm>
- recommended that the Indian currency should be replaced every 10 years to end the menace of hoarding of rupees and checking inflation.

- Ambedkar presented a perceptive critique of Marxism in his essay, "Buddha or Karl Marx" 1956

- <http://www.ambedkar.org/ambcd/20.Buddha%20or%20Karl%20Marx.htm>

The Russians are proud of their Communism. But they forget that the wonder of all wonders is that the Buddha established Communism so far as the Sangh was concerned without dictatorship. It may be that it was a communism on a very small scale but it was communism without dictatorship a miracle which Lenin failed to do.

The Buddha's method was different. His method was to change the mind of man: to alter his disposition: so that whatever man does, he does it voluntarily without the use of force or compulsion. His main means to alter the disposition of men was his Dhamma and the constant preaching of his Dhamma. The Buddha's way was not to force people to do what they did not like to do although it was good for them. His way was to alter the disposition of men so that they would do voluntarily what they would not otherwise do.

It has been claimed that the Communist Dictatorship in Russia has wonderful achievements to its credit. There can be no denial of it. That is why I say that a Russian Dictatorship would be good for all backward countries. But this is no argument for permanent Dictatorship. Humanity does not only want economic values, it also wants spiritual values to be retained. Permanent Dictatorship has paid no attention to spiritual values and does not seem to intend to. For man needs material comforts. But the Communist Philosophy seems to be equally wrong for the aim of their philosophy seems to be fatten pigs as though men are no better than pigs. Man must grow materially as well as spiritually.

# Buddha or Karl Marx

- Such is the gospel the Buddha enunciated as a result of his enlightenment to end the sorrow and misery in the world.
- It is clear that the means adopted by the Buddha were to convert a man by changing his moral disposition to follow the path voluntarily.
- The means adopted by the Communists are equally clear, short and swift. They are (1) Violence and (2) Dictatorship of the Proletariat.

# WHO WERE THE SHUDRAS ?

- The *Shudras* were one of the Aryan communities of the Solar race.
- The *Shudras* did not form a separate *Varna*. They ranked as part of the Kshatriya *Varna* in the Indo-Aryan society.
- <http://www.ambedkar.org/ambcd/38A.%20Who%20were%20the%20Shudras%20Preface.htm>

# Commercial Relations Of India In The Middle Ages

- ***Or The Rise Of Islam And The Expansion Of Western Europe***

- <http://www.ambedkar.org/ambcd/47.Commercial%20Relations%20of%20India%20in%20the%20Middle%20Ages.htm>
- The birth of Islam is synchronous with the consolidation of Papal power in Rome under Gregory the Great. It was the era of theocracies and the east was once more spreading a wave of religion that had almost succeeded in Mohomedanizing the entire continent of Europe. Not to speak of Africa and Asia and like many big things ;

# ANCIENT INDIAN COMMERCE

- <http://www.ambedkar.org/ambcd/46.%20Ancient%20Indian%20Commerce.htm>
- In Europe, whatever light or civilization there was, was confined to the Eastern basin of the Mediterranean [being constantly fed by the Orient] barring which the entire continent of Europe was in barbarism till very late

- The civilization of India is one of the oldest but like all of them has come to a dead stop : but it has lived to revive and we may hope never to die again.
- All these factors have from time immemorial combined to bestow upon her the economic self-sufficiency which has been the privilege of a few nations on the face of this planet today.

- **1. Agricultural Organisation:**
- Very early we find the ancient Hindoos living a village life : Agriculture is known as the highest occupation and the Indian proverb puts the merchantman second to the farmer and the soldier occupies the last place in social gradation.

- Independent landholder was regarded respectfully but work on the farm of a capitalist was greatly disapproved. There is no evidence to definitely say whether or not there was feudalism in village community.
- There was a great deal of co-operation among villagers for building and repairing roads and tanks and municipal buildings

- The Hindoo devotion to the Cow has been an enigma to most of the foreigners and above all has been an efficient lore in the hands of those half-baked theological failures who go to India to conduct their missionary propaganda for blackmailing the Hindoo.

- **II. Organisation of Labour, Industry and Commerce:**
- Be it said to the credit of the Hindoos that slavery paid a very little role in their economic life. Capture, judicial punishment, voluntary self-degradation and debt were the four principal causes by which individuals become slaves.

- But there is considerable evidence to show that kindly treatment was the rule and manumission was always possible.
- From among the industrial classes the following are mentioned :—
- (a) The *vaddhaki* is an embodiment of a carpenter, ship-builder, cart-maker and an architect.

- (b) The *Kammara* is a generic term for a metal craftsman producing "iron implement, from a ploughshare or an axe or for that matter, an iron house, down to a razor, or the finest of needles, capable of floating in water, or again, statues of gold or silver work."

- (c) The *Pasanakottaka* is a generic term for a mason " not only quarrying and shaping stones. .. .. but as capable of hallowing a cavity in a crystal, a matter probably of requiring superior tools."

- " A considerable degree of Organisation characterized all the trading industries. Certain trades were localised in special villages, either suburban and ancillary to the large cities, or themselves forming centres of traffic with surrounding villages

- e. g. the wood-work and metal work industries and pottery..... within the cities trades appear to have been localized in special streets e. g. those of ivory workers and of dyers."