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Aspects of Hindu Administration

by

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(*Continued from page* 262 *of Volume XXXI, No.* 2 *January* 1960)

By the Gupta period, settled order and peace obviated much of central activity. Private initiative is freely operating on several matters which were dealt with by the state in the Mauryan period. Fa Hien refers to the elders and gentry instituting free hospitals in their cities. Guilds, towns and villages had their courts which normally disposed of all local cases, though appeal could be taken to the royal courts. Vigorous industrial life was fostered by the guilds. Charitable endowments were financed by grants of land assigned for a particular charitable purpose by private philanthropic persons or institutions. All the *Dharma Śāstras* of the period acknowledge the rights of communities to make their own laws which the king should not contravene. This type of central government based on the autonomy of local corporations continued under later dynasties e.g. the Cōḻas. Under the Cōḻas, the central government confined its attention to construction of big irrigation canals, foreign policy, defence, internal security, and advancement of popular economic welfare and culture. The Cōḻa Mahāsabha controlled all matters dealing with land, reclamation of forest and waste land, fostering agriculture, alienation of land for religious purposes, looking after irrigation canals, receiving deposits of money for charity, looking after temples, education, collection of land revenue, raising local cesses, police work, decisions of cases, maintenance of roads and communications, supervision of charitable endowments etc. The Mahāsabha looked after these through various committees (Vāriams). Among the committees mentioned in some inscriptions is the Udasina. This seems to refer to looking after foreigners. The number of committees and of their members varied from village to village. But, in all cases, service was honorary, though village officials were paid. Conveyance of land needed the sanction of the central government; but, all matters dealing with it were in the hands of the village community.

Though the central government carried out land surveys, changes in the classification of the lands in the village depended on the consent of the village community. The Ālaṅgudi record of Rājarāja shows that even famine relief was a local duty. Though punishment was pronounced by royal officials, the trial and decision of the cases remained in the hands of the village community. Big irrigation works were carried out by the central government, but their maintenance was a local liability. Matters of industry were regulated by the guilds, and there were some of a gigantic character.

Dr. Krishnaswami Aiyangar well analyses the nature of Cōḷa government in the last of his six Sir William Meyer Lectures on the Evolution of Administrative Institutions in South India. "Sometimes, they (the central government) interfered in provincial and even rural governments, but it was generally for purposes of correction and rectification and settlement of differences between neighbouring divisions. Sometimes, things were done which affected a large extent of the country at once. In such a case, general action was taken possibly perhaps even after previous consultation, and whatever action was taken was accepted, as far as our records go, without question". The central government only secured uniformity among the local bodies.

When we come to the polity of Vijayanagar we find that the circumstances of this age approach those of the Mauryan period. The origin of the empire was due to the resolve of the Hindus of the south to stem the stupendous wave of Muslim aggression by a concerted effort.[106] This work the state did for two centuries. So, the primary concern of the state was to organise and keep up its military and financial resources for this supreme object of resisting the danger from the Muslims. Though it is unsafe to stress this religious motive as the sole reason for the hostility between Vijayanagar and its Muslim neighbours and desire for security (particularly the control of the strategic area of the Raichur Doab) was often the dominant motive of war, there is

106. Sewell writes in his *Forgotten Empire* "Everything seemed to be leading up to one inevitable end — the ruin and devastation of the Hindu province, the annihilation of their old royal houses, the destruction of their religion, their temples, their cities. In order, therefore, to save all that they held most dear, the Hindus of the south combined and gathered in haste to the new standard of Vijayanagar which alone seemed to offer some hope of protection".

no gainsaying that chronic hostility prevailed between Vijayanagar and the Bāhmani Empire, and later between it and the Deccani Sultanates. This military necessity led to a certain increase of the functions of the state. The total burden of taxation was heavy, and nearly half of the revenue was spent on the army. Criminal law was very severe. Besides capital punishment, amputation of limbs was common. Treason was, often, punished by impaling alive on a wooden stake. There were other fanciful punishments like trampling by elephants. The governors of provinces were primarily military officials. Though the picture is that of a royal autocracy, scholars are divided in their opinion about the survival of local autonomous communities. Smith believes that the village autonomy of the past had disappeared. But, others differ from this view. Dr. Mahalingam, while believing that local self-government had declined, shows that rural assemblies continued in a few places collecting revenue and looking after police and justice. Dr. Krishnaswami Aiyangar thinks that, though there was a considerable reconstitution of provinces and the creation of even a certain number of military fiefs, otherwise the kings left the administration to continue along the lines on which it had been carried on under their predecessors. Dr. Krishnaswami Aiyangar reproduces practically the text of an inscription of Devarāya II of 1429[107] which deals with the proceedings of a popular assembly. Undeniably, there were well organised merchant guilds and craft guilds. Barbosa remarks "The king allows such freedom that every man may come and go and live according to his own creed without suffering any annoyance". The matter can be left here without further discussion.

To carry on the duties of the central administration, the king naturally had to employ an army of officials. As can be expected, this would be the most numerous in periods when state activity was at its highest as under the Mauryas. In the Vedic polity, when administration was rudimentary, the chief officials were the Senāni who commanded the army and the Purōhita, the king's chaplain. By the period of the Brāhamaṇas we find a number of household officials.[108] We hear little about the machinery for the

107. *Madras Epigraphic Report* (1915) pp. 106-108.

108. Fick (*Social Organisation in North East India in Buddha's Time*) deals with the king's officers in Ch. 5. Ch. 7 deals with the Purōhita and his share in the administration.

administration of justice. But the system of wergild is apparently in use e.g. a freeman had a wergild of 100 cows, cows being the unit of value. But, doubtless, there must have been some "botless" offences.

In the Mauryan period,[109] the king governed with the help of ministers called Mantrins. These Mantrins are mentioned already in the Mahābhārata and the Rāmāyaṇa as the king's counsellors. The Commander-in-chief is now called the Senāpati. The kingdom had developed into an empire and was divided into Āhāras, Viṣayas and Pradeśas. There were viceroys called Uparājās in the provinces. There were minor provinces under Rājukas and divisions under Prādeśikas. Subordinate local officials were the Sthānikas, the Gōpas and, finally, the Grāmaṇi (the village headman). The frontier governors were Antapālas. All the governors and the ministers perhaps formed a general class called Mahāmātras. This term seems to have been used even when Ajātaśatru was ruling over Magadha in the 5th century B.C. Below the Mahāmātras were the Adhyakṣas—superintendents in charge of particular matters, the particular sphere being indicated by the prefix attached to the term Adhyakṣa. Subordinate civil servants were the Yuktas and the Puruṣas. These terms "Adhyakṣa" and "Yukta" are found already in Pāṇini. The Amātya of the Mauryan period seems to have been an executive officer subordinate to the Mantrin. His rise to importance occurs later.

Even Dr. Smith is constrained to observe: "Examination of the departmental details increases our wonder that such an organisation could have been planned and efficiently operated in India in 300 B.C. Akbar had nothing like it, and it may be doubted if any of the ancient Greek cities were better organised", and "The credit of devising such efficient machinery must be divided between Chandragupta and his exceptionally able minister".[110]

109. Full details about administration in V. R. Ramachandra Dikshitar—*Mauryan Polity* (Chs. 3, 4 and 5 deal with the central adlministration, and Ch. 6, provincial and local government). Dr. Radhakumud Mookerji gives a detailed account of the administration in his *Chandragupta Maurya and His Times*.

110. *Oxford History of India*, p. 87 and p. 82. Ch. 5 in *Age of the Nandas and Mauryas* (ed. by Nilakanta Sastri 1952) deals with Mauryan government.

The administrative system was efficiently maintained by Aśōka. He was not a mere moralist. He "was no mere sermon-writer. He was a man of affairs, versed in the arts of peace and war, the capable ruler of an immense empire, a great man and a great king" in the words of Smith.

Megasthenes refers to officers in charge of irrigation canals and sluices. The Arthaśāstra refers to four methods of irrigation including the use of mechanical contrivances like windmills which were under the supervision of the Nāvādhyakṣa. The officers who measured land referred to by Megasthenes must be the Gōpa and Sthānika of the Arthaśāstra. The officers in charge of animals were the Gōdhyakṣa who kept a register of cattle, sheep, asses, camels, pigs and dogs, the Vivitādhyakṣa who supervised pastures and was evidently the officer in charge of the huntsmen referred to by Megasthenes, the Aśvādhyakṣa who looked after the upkeep of horses and the Hastyadhyakṣa who looked after elephants. The Sūnādhyakṣa enforced regulation against trespass into reserved forests, while the Kumyādhyakṣa controlled hunting forests. The importance attached to hunting is seen in the maxim of the Arthaśāstra:

Mrigavanam vihārārtham rājñah kārayet

The officers superintending trade and commerce, weights and measures etc., referred to by Megasthenes would be the Samsthādhyakṣa who regulated sale of commodities and weights and measures and the Lavanādhyakṣa who regulated trade in salt. The officers in charge of the markets referred to by Megasthenes are the Paṇyādhyakṣa and Śulkādhyakṣa. The Samāhartā looked after the census to which Megasthenes refers. The officers in charge of soldiers referred to by Megasthenes would be the Senāpati (Commander-in-chief) and Nāvādhyakṣa who was in charge of the navy and the Patyādhyakṣa who was in charge of the soldiers. The Rathādhyakṣa looked after chariots. The importance of elephants is indicated in the following maxim *Hastipradhānō vijayō rājñām*. Pirate ships were destroyed, *Himsikāh nirghātayet*.

The tax-collecting agency was efficiently looked after by the Samāhartā. The royal household was well organised. The female guards of the king referred to by Megasthenes were supervised by the Ganikādhyakṣa. The royal custom of massage to which

Megasthenes refers was looked after by the Samvāhaka. Regarding medical aid, there were physicians for men and beasts. There was a system of post-mortem (Āśumritakaparīkṣa). Medicinal plants and herbs were cultivated. There is no mention of any pestilence except famines. Megasthenes refers to officers in charge of roads. The usual vehicles of transport were the chariot (Ratha), the Śakaṭa drawn by camels, bulls or horses, the Śibika (palanquin), the Laghuyāna, the Gōliṅga and ships and boats of various kinds including skin-baskets and canoes (Plavas). There was an excellent system of account and audit and elaborate machinery to put down corruption.

Administration of justice was now more complex. There was an elaborate gradation of tribunals extending from the village pañcāyat (Grāmikas of the Arthasāstra) to the king at the top. The Arthaśāstra calls the civil courts by the name Dharmasthīya, and criminal courts, Kaṇṭakaśōdhana. Written documents were used as evidence. But, the original crudity of the system still left its marks in the use of trial by ordeal,[111] the use of spies even by magistrates, the application of torture and the gradation of punishment according to caste. A Brāhmaṇa should not be put to death; but only sent to the mines for life. Torture for forcing a confession should not be used in his case. The tribunal of officials who heard cases included three Brāhmaṇa exponents of law. Megasthenes refers to the severities of the punishments. Death with torture was a recognised penalty. Amongst the civil cases were Ṛiṇādhāna (Non-payment of debt), Sīmāvivāda (boundary disputes), Dāyavibhāga (partition) and Vivāhadharma (marriage affairs).

Succeeding dynasties continue an administrative system which might have been less elaborate but was organised on the same lines, though the particular designations of the officials changed often. Thus, under the Kuṣāna and Śaka rulers, there were terms used like Mahākṣātrapas and Kṣātrapas, terms evidently borrowed from the Persian title "Satrap". According to Lüders, Kaniṣka of the Ara record calls himself 'Kaisara'. In some regions of the north-west, we find military officials called by the Greek title of *Strategos*. All these were in charge of local regions.

111. Even under the Cōlas, though usage, documents and witnesses were taken into account, where these were lacking, recourse was had to trial by ordeal.

Similar officials under the Āndhra empire were the Mahābhōjas and Mahārathis. The Mahāsenāpatis of the Āndhra empire corresponded to the Senāpatis of the Mauryas. Dr. Gopalachari regards these, however, as feudatories in charge of local areas. The term Mahāmātra continued under the Āndhras. The Amātya[111a] of the Āndhras was in charge of districts called Āhāras. The Grāma under the Grāmika continued to be the lowest unit in the administration. From Rudradāman's Junagādh inscription, we learn that the king's councillors were called Mati-sacivas. These would correspond to the Mantrins. The Karma-sacivas referred to in the same record were executive officials.

The provinces of the Gupta empire were under Viceroys called Uparikas.[112] Frontier areas were governed by Gōptris. The provinces were styled Rāṣṭras, Deśas or Bhuktis. They were divided into districts called Viśayas,[113] the district officer being the Viśayapati. As usual, the Grāma continued to be the lowest unit under its headman, Grāmika. Bloch's excavations at Vaiśāli have revealed a large number of seals of the reign of Candra Gupta II. These belong to provincial officials and show that the civil service was highly organised. Inscriptions of Kumāra Gupta speak of viceroys like Ghaṭōtkaca Gupta and of several officials. Amongst the highest royal officials there was the Mantrin. But, the Senāpati is now called Mahādaṇḍanāyaka. Another important minister, Sandhivigrāhika, looked after foreign policy. The Basrah seals speak of an official called Kumarāmātya. Dr. Fleet interprets this term as the adviser of the Crown Prince, while others view him as a minister employed ever since the youth of the king. But, it seems to be better to follow Dr. Altekar's interpretation[114] of the term as meaning a special grade of officials like the Indian Civil Service of British India. Harisena who composed the Allahabad inscription of Samudra Gupta was a Kumarāmātya. Sometimes, civil and military offices were combined. Harisena was also a Mahādaṇḍanāyaka. The Mahādaṇḍanāyaka was the Commander-in-

111a. Suviśākha was an Āmātya under the Western Satrap ruler, Rudradāman.

112. Dr. Saletore (*Life in the Gupta Age*) deals with the pre-Gupta administration also in his chapter on Gupta administration. See also the valuable chapters on Gupta administration in R. D. Banerji's *Age of the Imperial Guptas* and ch. 14 in Majumdar and Altekar—*Vakata-Gupta Age*.

113. The term 'Viśaya' is found in Pāṇini.

114. *National History of India*, Vol. VI.

chief. The Vinayasthithisthāpaka was, perhaps, in charge of religion and morality. The Mahāpratīthāra was the Chamberlain. Pustakapālas kept records of all lands. The king issued edicts (Ājñās) through officials called Dūtakas.[115] The way in which these official terms change may be puzzling. Thus in the Maukhari state, the village headman was called a Bhōjaka. But, the main duties were almost always the same, and there was no great breach with the past. It is characteristic that Manu speaks of officials called Mahāmātras and Yuktas. All lands were carefully measured by officials called Sīmakāras.

Legal procedure is more advanced and received systematic exposition in the Dharma Śāstras. Manu's code is divided into 12 books and treats of both civil and criminal law. But, the code of Nārada is the first legal code which treats of law without bringing in religious and moral principles. Civil cases mentioned include debts, breach of contract, business partnership, partition of property and inheritance of women. Adoption of heirs is recognised. The rights of the *Pater Familias* are gradually restricted to the position of the manager of a joint family, all males getting at birth a share in the family property. Procedure and the use of evidence in the courts were regulated by definite provisions. Still, however, there is use of trial by ordeal. Manu mentions only ordeal of fire and water. Brihaspati notes 9 different kinds of ordeals. Ordeals continue under Harṣa also. Criminal law, as in the Mauryan Period, is, still, vitiated by the fact that all crimes were judged with reference to the caste of the criminal and his victim. The law was not the same for all. Altekar observes (*A Bird's-Eye view of the Hindu Polity*, Proceedings of the Indian History Congress, 1957): "The Ancient Indian State did not encourage one profession to trespass on the field of another, for society honestly believed that these fields were predestined by birth". It may be noted that, in Europe also, the clergy and the nobles enjoyed many unjust exemptions.

Harṣa's administration was more or less similar. Uparikas and Viśayapatis continued to hold their particular charges, and the Grāma was the lowest rung in the administrative areas. Feudatories (Sāmantas) continued. Yuan Chwang's statement that "a commission of officers held the land" perhaps refers

115. These should be distinguished from the Dūtas (Envoys).

to a council of ministers. But, there was no organised bureaucracy as under the Mauryas. The Mahābalādhikrita looked after the army. But, there was also a Senāpati. The minister of foreign policy was the Mahāsandhivigrahādhikrita. It is curious to note that the old term 'Adhyakṣa' was used as the appellation of the superintendents of the various departments. One particular department on which we get more information than in the past is that concerned with the keeping of records. From the beginning of organised government, Hindu states had carefully preserved official records. In the Gupta period the officials in their charge were Pustaka-pālas (record-keepers), and the Banskhera plate of Harṣa speaks of the Mahākṣapatalādikaranādhikrita (keeper of the records). Yuan Chwang says: "As to their (the Indians) archives and records, there are separate custodians of these.... In these, good and bad are recorded, and instances of public calamity and good fortune are set forth in detail.[116] When Kalhaṇa wrote his Rājataraṅgiṇī, he consulted the early records of Kāśmīr.[117] It is unfortunate that all these records, which should have been a mine of historical information regarding ancient India, have perished. In the sphere of administration of justice, Yuan Chwang's account indicates that trial by ordeal continued. He mentions also an ordeal by poisoning, and punishment included mutilation.[118]

The records of the Śālastambha dynasty which ruled Kāmarūpa in the 9th century mention officers called Mahāsainyapati and Balādhyakṣa. *The History and Culture of the Indian People* (Vol. 4) identifies them with the Mahābalādhikrita and Balādhikrita of Gupta records. Another officer of Kāmarūpa, Mahāpratīhāra, is an old Gupta officer.

Kalhaṇa mentions Daṇḍanāyaka (general), Pratīhāra (Chief of the Palace Guards) and Mahāsandhivigrāhika. The latter is mentioned also in the Rāṣṭrakūta records which mention also Balādhikrita and Daṇḍanāyaka.

116. Yuan Chwang's *Travels in India*. Translated by Watters. p. 154.

117. In the Kalacūri kingdom also, there was a Mahākshapatalika to keep records. See the account of administration in R. D. Banerji — *The Haihayas of Tripuri* (1922). The chief judge was the Mahākarnika and the chief treasurer, Mahācaṇḍakārika.

118. *Travels of Yuan Chwang*. Translated by Watters, pp. 171-2. See Dr. K. K. Pillay (*The Suchindram Temple*, 1953) for a description of the ordeal of dipping the hand into boiling ghee, which lingered in this area till 1834.

The chief minister in the Rājput states seems to have been called the Pradhān. But, the king was only the first amongst the nobles. There was a rough kind of feudalism, the chief holding land from the king on condition of military service and fidelity. These chiefs had their own vassals. As in European feudalism, the Rājput, on reaching age, was initiated into knighthood by a ceremony. He showed respect to women and developed a code of chivalry. He disliked manual work and made war his chief avocation. When not fighting, his main occupation was hunting or hawking. He built strong forts in inaccessible positions for defence, and private wars amongst the nobles flourished. The rural population was reduced to serfdom. As in Europe, bards and minstrels were patronised. Originally, as in all feudal states, the superior vassals formed the king's council, and, as they were jealous of their rights, the king could not be a despot. Feudal incidents like relief, escheat, aid and wardship were known. As in all feudal states, the clan system prevented political unity of Rājasthān, promoted internal dissensions and weakened central authority. It must be admitted that the government itself became bad. In Amber, the ruler farmed the lands to the highest bidder. Tod comments: "The love of country must be powerful indeed which can enchain a man to a land so misgoverned". The position in Mārwār was better, as the cultivator was here the proprietor, and the ruler could not violate his rights. The Brāhmaṇās and the Rājputs were considered to be superior to other classes. Tod himself admits that, unlike the Mahrāttas, there was no national head. Tod, who gives an elaborate account of Rājput organisation, draws, however, the comparison to European feudalism too closely.[119] Unlike Europe, local self-government flourished amongst the village communities as elsewhere in India. Subinfeudation was unknown. In towns, powerful guilds maintained their rights. Wars did not interfere with the rural population, and the testimony of Arab writers shows general prosperity. Al Birūni noted that the criminal law was mild. Later, the Rājput king shook off the control of the nobles. But, the state became weakened owing to incessant feuds and incapacity of the Rājputs to unite against a common enemy. If the Rājput race was not exterminated in the fury of the Muslim onslaught, the reason lay in their undying

119. A. C. Banerjee (*Rajput Studies*) gives a critical analysis of Tod's account.

spirit of defiance.[120] Tod aptly comments, "Rājasthan exhibits the sole example in the history of mankind of a people withstanding every outrage barbarity can inflict, or human nature to sustain and, bent to the earth, yet rising buoyant from the pressure and making calamity a whetstone to courage".

In the inscriptions of the 8th century, the term "Kāyasta" comes into use to describe the general class of officials. The Rājataraṅginī uses the word. The use of the term has been indeed traced to the Dharma Śāstra bearing the name of Viṣṇu, and it occurs in Gupta records. The use of this term to denote a caste (e.g., in Bengal) suggests that officials were recruited, not only from Brāhmaṇas, but from educated men of other castes, who, thus, got a higher social position.

The *Kuṟaḷ* mentions a complex government in which the South Indian king was helped by a number of officials. The general character of administrative arrangement was the same as in the North, the village community with its headman being the lowest unit of the administration. The *Kuṟaḷ*, which undoubtedly bears the impress of the Arthaśāstra in many particulars, attaches extreme importance to the use of ministers and a secret service. Punishment included mutilation. We get some more light on South Indian administration under the Pallavas. The Hirahadagalli grant of Śivaskandavarman (4th century A.D.) indicates that the administration was well organised. Dr. Krishnaswami Aiyangar, who had analysed this grant, brings out its marked resemblance to the Mauryan administration.[121] The Velūrpāḷayam plates of Nandivarman III[122] show that there are already present several features which we find in the later Cōḷa government, including a royal secretariat headed by a Secretary who took down the orders of the king. The autonomous village community is already closely

120. The bards reckon 36 clans. The most important were the Guhilas of S. Rājputāna, the Cāhamānas of Sākhambari, the Cālukyas of Anhilvāda, the Cāndellas of Jejekabhukti, the Kachapaghātas of Gwalior, the Cedis of Dāhala, the Paramāras of Mālwa, the Gāhadvālas of Kanauj, the Gūrjara-Pratihhāras of Kanauj, the Cāpotkaṭas of Anhilvāda (or Cāvaḍas or Cāpas), the Cūdāsmas of Junagādh, and the Tomaras of Dhillikā (Delhi).

121. *Evolution of Hindu Administrative Institutions in South India*, Lectures 3 and 4. The Mayīdavōlu grant of Śivaskandavarman is issued to a number of officials whose names are foreign to the Tamil country. The body of ministers were the Rahasyādhikadas. The districts were under Rāṣṭrikas. Desādhikadas were local officials.

122. *South Indian Inscriptions*, Vol. II, Part 5.

connected to the central government. The provinces of the Cōla Empire were called Maṇḍalams—a term which we find also in the North (e.g., under the Guptas and Kalacūris), but the divisions of the provinces had appellations like Vaḷanāḍu, Nāḍu, Kūṟṟam, and Ūr which are indigenous counterparts of terms used for similar areas in the north. Nilakanta Sastri (*Studies in Cola History and Administration*, p. 103) observes "The suggestion may be made that the Ur represents in every case the more primitive local organisation indigenous to the Tamil country as the lineal descendant of the ancient manṟam, and the Sabhā was, generally, a later superimposition". The Cōḻa Empire was divided at its height into 6 provinces. (1) The Toṇḍamaṇḍalam (the Pallava area near Madras). (2) Cōḻa maṇḍalam (Tanjore and Tiruciṟāppaḷḷi districts). (3) Rājarājamaṇḍalam (parts of Madurai and the south). (4) Koṅgumaṇḍalam (Salem and Coimbatore districts). (5) Gaṅgai-koṇḍa cōḻamaṇḍalam (Mysore area) and (6) Nikarili-cōḻamaṇḍalam (area north of Mysore extending to Cuddapah).

The chief functions of the centre were revenue administration and defence. There was not much of central administrative staff, as, in the Cōḻa Empire, many subjects were left to the administration of local bodies. In the reign of Rājarāja I and his son, we find that the king's secretary called Ōlaināyakam took down orders issued by the king. These had to be confirmed by an official called Peruntaram and then communicated to the Viḍai-adhikāri who sent them to the parties concerned.[123] As usual, there was a

123. Dr. Krishnaswami Aiyangār (*Evolution of Hindu Administrative Institutions in South India*. Lec. 6) deals with the officials like the Rāyasam, Tiruvāykeḷvi, Naḍuadhikāri etc., with quotations from relevant records. The Ōlaināyakam continued under the Pāṇḍyas. One of the records of the Madurai Nayāks of the 16th century refer to a Tirumandira Ōlaināyakam (*South Indian Inscriptions* V. 751).

A number of Cōḻa records show that the king was seated in a particular part of the palace and issued orders which were recorded by the Royal Secretary, approved then by the Ōlaināyakam and then despatched. A record of Kulōttuṅga III found at Tiruvāmiyūr informs us about various official activities. Under the Cōḻas, coronations were magnificent affairs. Choice of one of the sons as the Yuvarāja in the lifetime of the father obviated wars of succession. There was a special bodyguard for the king (Veḷaikkārar). Similar body guards existed in other states like the Sahavāsis of the Cālukyas, Garuḍās of the Hoysālas and the Āpattudavis of the Pāṇḍyas. The king was advised by a body of officers (Uḍankūṭṭam) who were in constant attendance on him. The Vāyil-ketpār who took down the oral orders of the king may be compared to the similar Rahasyādhikritas.

department of archives where royal orders were preserved. It is not surprising that they perished, as they must have been inscribed on palmyra leaves.—a fact which the term 'Ōlai Nāyakam' illustrates. The Adhikāris who were the executive officials perhaps correspond to the Adhyakṣas.

The Cōḻa administration of justice was characterised by surprising mildness. Capital punishment was rare, except for treason which was punished with death and confiscation of goods. Murder was distinguished from culpable homicide and unpremeditated manslaughter. Even in some cases of murder, death penalty was not inflicted. In case of some crimes, invocation of public opprobrium was made by punishments like riding on an ass.

The administrative system was more or less similar in the Pāṇḍyan and Cera territories e.g. the Veḷvikuḍi grant of the Pāṇḍyan king, Varaguṇa I, mentions officials of the central government connected with the grant of a land referred to in the record, and illustrates a general similarity with Pallava records. Inscriptions mention various officers in the Pāṇḍyan Kingdom; but, civil and military functions seem to have been combined.[124] Marco Polo, visiting the Pāṇḍyan Kingdom in the 13th century, speaks of the "Five kings of Ma'abar". Dr. Venkataramanayya (*Early Muslim Expansion in South India*) thinks that the land was governed by a college of five princes, all belonging to the royal family. "Each prince held sway over a part, though the seniormost was recognised as the head of the state. He, alone, was probably crowned". The other princes were simply local chiefs ruling as feudatories in parts of the country, while the main line perhaps ruled at Madurai. This might have misled foreign observers like Marco Polo to regard them as independent kings. This system of subordinate rulers was perhaps due to the increase in the extent of the kingdom.

Dr. Venkataramanayya suggests that, by the Cālukyan Period, the polity sketched by Kauṭilya had become transformed into what he calls a Niyōga system in which all government servants (Niyōgins) were divided into a number of classes according

124. Nilakaṇṭa Sāstri (*Paṇḍyan Kingdom*) gives an account of these officials.

to the kind of service they had to do. (Presidential Address to the second section of the Indian History Congress, 1946).

Gaṅga records speak of a Mahāmātra, a Rajjuka (perhaps a revenue official here), Rahasyādhika (Private Secretary) and Lekhaka (who kept records). We find the country divided into Viśayas as well as Nāḍus. Under the Eastern Cālukyas the land was divided into Rāṣṭras, Bhuktis and Viśayas. The empire of the Western Cālukya king, Vikramāditya VI (1076-1127) was organised into Rāṣṭras and Viśayas. The grāma was the lowest unit in all these cases. Bijjala was a Daṇḍanāyaka and Mahāmaṇḍaleśvara under Taila III. The Kadamba kingdom was divided into provinces, districts and smaller units and the king had a council of ministers, as in the Hoysāla kingdom. An inscription of Amōghavarṣa says that his daughter was in charge of a division of the kingdom. This shows that women were often employed in administrative positions of importance.[125] A central administration based on autonomous village communities is also indicated in Hoysāla records, and the military officials mentioned in them include the Dandanāyaka and the Sandhivigrahi. The latter were the agents of the king with their vassals. The inscriptions of Anantavarman Coḍa Gaṅga (1076-1147) found in the Śrikūrmam and Mūkhaliṅgam Temples[126] show that his empire was divided into Vaḷanāḍus and Nāḍus as well as Viśayas. He had amongst his ministers a Mahāsandhivigrāhika and Mahāsenāpati. Subordinate officials included a Daṇḍanāyaka. Village officers like the Karaṇam and Talavāri are mentioned.

Royal orders given orally were registered by secretaries in the Vijayanagar empire, the Nirvāhaka being the chief secretary. It is noteworthy that the Rāyasam continued as a general secretary. There was also a Daṇḍanāyaka. The Daṇḍanāyaka was, often, the chief minister, and, besides being in charge of the army, looked after justice. The Lehaka looked after correspondence.

125. Women were employed in administrative work. Akkādevi, sister of the Cālukyan king, Jayasimha II, ruled a province and carried on successful war. Rāṣṭrakūta princesses were well trained in government. Sīlabhaṭṭārika, queen of Dhruva, issued her own orders and gifted lands herself. Amōghavarṣa I (814-880) even employed courtesans in embassies, as they were held in great honour. Rāṣṭrakūta administration is surveyed in Dr. Altekar's *Rastrakutas and Their Times*, Part II.

126. *South Indian Inscriptions*, Vol. 5. Nos. 1005-1342.

Devarāya II had 20 ministers. Besides the ministers, the king consulted the Rājaguru. Nuniz says that, when robbery took place, the "captain" of the province where it occurred was responsible for the amount till the thief was found.

Abdur Razzak mentions that there was an elaborate secretariat and the records preserved were voluminous.[127] Even in the Vijayanagar period, trial by ordeal continued in the administration of criminal justice. But, one curious feature which had no counterpart elsewhere was that duels were resorted to with the leave of the state for settling quarrels.[128]

The Nāyak rulers followed the main lines of Vijayanagar polity with small variations. The principal official of the Nāyak state was the Daḷavāi who was also the commander of the army. But, the Rāyasam continued. In the Nāyak state of Madurai, provinces were held by hereditary fief-holders called Pāḷayakārar who had to contribute a third of the land revenue and a fixed military contingent. The village officials (Maṇiyakārar) collected the taxes and sent them to the Pālayakārar. When the king became weak, the petty feuds of these pālayakārars began to stain the history of South India.

Śivāji's administrative system merits survey as the last great governmental system of a Hindu prince. Dr. Sen has shown that much of his administrative machinery had its base in ancient Hindu customs, though contemporay Muslim influence also makes itself felt. The Aṣṭapradhān of Śivāji was a revival of the old Hindu council of ministers. These eight ministers were (1) the Mukyaprādhan (or the Peṣwā) who represented the king during his absence, (2) the Amātya (or Mazumdār) who looked after the finance, (3) the saciva (or surmis) who looked after royal correspondence, (4) the Mantri (or Waqi-Navis) the royal chronicler. He had charge of the royal household, besides recording court events. (5) the Sāmanta (or the Dabīr) who looked after war, (6) the Senāpati who commanded the army, (7) Nyāyādīś who looked after justice and (8) Dharmādyakṣa (or

127. *India in the Fifteenth Century* (Hakluyt Society) contains his diary.

128. Good accounts of the administration are in Dr. T. V. Mahalingam—*Administration and Social Life under Vijayangar* (1940), Dr. Saletore, *Social and Political Life in the Vijayanagara Empire*, 2 vols. (1934) and Dr. N. Venkataramanayya — *Studies in the History of the Third Dynasty of Vijayanagar*, Part 2.

Pandit Rao) who looked after religion and punished heretics. All the ministers (except the last two) had also military functions. Later on, Rājāram added another minister called Pratinidhi. Though Persian equivalents were also used, the names of these ministers go back to older times. There were 18 departments and a grade of officials.[129]

The centre of the empire was the Swarāj, a long, narrow strip including chiefly the Western Ghats and Konkan between Kalyān and Goa with some areas to the east of the mountains. The southern conquests included Western Karnāṭaka extending from Belgaum to the south of the Tuṅgabadrā. The latest acquisitions were Vellore, Jiñji etc. The empire was divided into provinces under Māmlatdars who were kept in check by the Aṣṭapradhān. The village officials were the headmen (patel) who collected revenue and maintained order and accountants (kulkarni) who kept accounts and who were hereditary. Before Śivāji, districts were also under hereditary officials called Deṣmuks and Deṣpandes who kept revenue accounts. Śivāji appointed his own revenue officials—the Sirsubedārs Subedārs etc., who were supervised by the Amātya. But, he did not abolish the older officers who were left without power.

The Peṣwā's dominance was a natural development when kingship failed. The rule of one man arose because it was needed to restore order. The Rājā at Satārā became ornamental, though the Peṣwā proposed to be his vicegerent and showed him respect in public. The focus of administration came to be the Peṣwā's secretariat headed by a Kārbhāri. The Aṣṭapradhān never met after Sāhu's time. The Peṣwā was helped by officials like the Dewān, the Potnis (treasurer) and the Fadnis (Registrar). In the towns, a kotwāl kept order. But, later on, administration degenerated when offices were farmed. Bāji Rao II even farmed the office of the māmlatdar who hence became corrupt and oppressed the peasants. Assignments of revenues which had been displaced in the Muslim states of the 18th century continued in the Mahratta states. Personal interest came to be more than public interest. Since tenure was uncertain, officials extorted perquisites, bribes and presents.

129. Sāhu committed the mistake, later, of permitting his officials to become hereditary.

The Mahratta rulers of Tanjore retained the Rāyasam and the Daḷavāi (or Senāpati). But, their other hereditary councillors included the Mantri, the Pratinidhi or Dewān, and the Ḍabīr. The office of the Mantri or Kārbāri was sometimes combined with that of the Daḷavāi. The Ḍabīr looked after revenue. The Karnam and the Kāvalkāran (watchman) continued in the villages, but a Havaldār kept the peace in the towns.[130]

When Haidar Ali rose to power in Mysore, the Mysore government was under officers called Cāvadis. Haidar abolished them and entrusted this work to departments called Kutceris. His chief minister was the Dewān, and there were ministers for war, revenue, commerce, finance, ordinance and navy. The chief local official, the Amildār, collected revenue and was the head of the local military. He was generally a revenue farmer, but had to act under official regulations, and peasants were protected against oppression.

Ranjit Singh displaced the confederacies which held power and unified the Sikh state.[131] Land revenue was collected directly from the ryots, though in the later period of the reign we find revenue-farming. Criminal law was unwritten. But, imprisonment was unknown and capital punishment rare. Dr. Sinha thinks (*Ranjit Singh* 1944) that there was greater safety on the highways than in British territory. Civil cases were decided by arbitration of pañcāyats. There was, in general, firm and just government. But, there were numerous imposts on almost all articles of use. There were heavy taxes on trade also. The land revenue was 2/5 of the produce and usually collected in kind. The country was divided into districts. When revenue-farmers (kardārs) arose, districts were leased out to them, and they functioned also as magistrates. Though the state was a despotism, it was supported by the people and limited by custom. Hindus and Muslims were employed without discrimination and there were also European officials. All these were chosen by merit. The national flag of the army was of saffron colour, and its war cry was Sat Śrī Akāl.

130. The persistence of the use of Persian terminology brought in by the Muslims along with the old Hindu terms is noteworthy. But, Dr. Saran [*Studies in Mediaeval Indian History* (1952)] regards the term 'kotwāl' as Hindu, and not Persian.

131. In the *Mahārāj Ranjit Singh Centenary Commemoration Volume* (1939), Prof. Kohli justifies on secular grounds Ranjit Singh's action. The Sikh national assembly did not meet after 1805.

With the development of powerful states in Ancient India, questions of foreign policy became important. India was no exception to the rule that land-lust made the rulers aggressive. Imperialism was known even in the period of the Brāhmaṇas when terms like Samrāṭ, Ekarāṭ and Cakravarti came into use. Caṇḍa Mahāsena was praised by a poet as

Prithivyām rājaputrāṇam udayāstamaya prabhuh

The traditional expedients of Hindu diplomacy in dealing with foes was Sāma (conciliation), Dāna (corruption through bribes), Bheda (fostering factions) and Daṇḍa (open war). It is noteworthy that the Mahābhārata, as well as Manu, while recommending these expedients, prefer the first. War should be the last resort after the other methods fail.

The epics and the Purāṇas refer to troop formations in Vyūhas e.g. lotus, circle etc.[132] That the art of war was systematically studied even later is seen in the Pāla kingdom where we have a reference to the Mahāvyūhapati, showing the importance of battle-formations. The Pālas also had a navy.[133] Foreign policy assumes great importance in the Arthaśāstra. An elaborate war-machine was to be kept up. The traditional four aṅgas of the Army were Chariots, Elephants, Cavalry and Infantry. Megasthenes mentions six boards of five members each to look after this force. While four boards looked after the 4 Aṅgas, one board was in charge of Admiralty, and another looked after transport and supplies. The art of war was systematically studied. Much attention was given to the building and maintenance of fortresses. Equipment was in great variety and suitable provisions were made for ambulance and nursing. Smith condemns the principles of foreign policy adumbrated by Kauṭilya as Machiavellian. The king was permitted to use all devices including treachery to defeat his enemy, and the policy to be followed was to regard the neighbouring state as the enemy and the alternate one as the ally. The inclusion of the Ally among the Saptāṅgas is said to be quite in consonance with the modern conceptions of Power Politics. This principle of determining enmity and alliance and use of spies of various kinds and espionage advocated by Kauṭilya were commonplaces even in European diplomacy. It may also be noted that the policy of Aśōka in renouncing war as an instrument of national policy was a departure from this tradition and has no counterpart in Europe. The noble words of Aśōka deserve to be inscribed in letters of gold on the structure of any international peace organisation. "The conquest of a country previously unconquered involves the slaughter, death and carrying away captive of the people. That is a matter of profound sorrow and regret to His Sacred Majesty".[134] Aśōka gave up henceforth the traditional policy of Digvijaya and adopted the ideal of Dharma-vijaya—spreading the gospel of virtue and good life. "The reverberation of the war-drum has become the reverberation of Dharma",[135] says he. Unfortunately, this gospel of Ahiṁsā in external policy (which again found an ardent champion in our land in Mahatma Gandhi) never took deep root in the country. Succeeding dynasties reverted to the policy of achieving imperialism by force, prompted by love of glory or mutual rivalries, and the annals of the history of our country are deeply stained by the bloodshed during the internecine wars between the different states of the country which ultimately weakened all the states and gave easy mastery over the country to foreign invaders, like the Turks and the British.

However, one important distinction between Hindu imperialism and imperialism elsewhere has to be noted. Conquest did not mean obliteration of the dynasty of the conquered state and its annexation. Subject to the formal recognition of the titular suzerainty of the emperor, symbolised in the payment of a stipulated tribute, the conquered dynasty continued to rule its own state.

132. *Niti Prakāśika*, a treatise on military science, describes regiments ranging from the Patti to the Akṣaukini (which is said to have consisted of 21870 chariots, ten times elephants, a hundred times to the elephants being horses and infantry hundred times the horses. More than 136 weapons are mentioned. Another work — *Hariharacaturaṅgam* — ascribed to *Godāvaramiśra*, a minister of King Pratāparudra of Orissa (16th century), describes the various classes of elephants and horses and rules to be followed in war.

133. V. R. R. Dikshitar (*War in Ancient India*) deals with weapons (ch. 3), divisions of the army (ch. 4), departments of the army (ch. 5), arrays (Vyūhas) and sieges (ch. 6), naval war (ch. 7) and diplomacy and diplomatic agents (chs. 8 and 9). Appendices deal with martial music, flags, etc. His assertion that India knew flying machines is questionable. Nilakanta Sastri in his paper on *Gleanings from the Matsya Purāna on War and Peace* (*Annals of Sri Venkatesvara Oriental Institute*, Tirupati, Vol. I, Part I, March, 1940) shows how many of the modern principles of strategy and diplomacy were known in Ancient India.

134. Rock Edict XIII.

135. Rock Edict IV.

Dr. R. K. Mookerji points out (*Local Government in Ancient India*) that the essence of the imperial system was the recognition of local autonomy. The injunction of the law-books that conquered communities must be guaranteed the use of their own laws and customs[136] is not a simple pious doctrine. We find concrete instances where vassal states were practically autonomous and enjoyed their own customs and rights. Regarded in this way, Vincent Smith's characterisation of Samudra Gupta as the 'Indian Napoleon' is an injustice to Samudra Gupta.

Another noteworthy characteristic of Hindu military expansion is the elaboration of rules which mitigated the horrors of warfare.[137] The Hindu code forbids slaughter of combatants fighting with another, those who submitted, those who were sleeping or who were without arms, those who were injured, those who fled, women, children, the aged and envoys. Use of invisible arms, treachery and poisonous weapons was tabooed as also attack at night. As Prof. Dikshitar points out, war did not affect social structure as it does today. Cultivated fields should not be devastated. Megasthenes noted that tillers of soil were in no danger even when battles raged near them. Private property should not be seized. The *Silappadhikāram* refers to the escape of men from the battle-field in the disguise of ascetics. Krisnadevarāya[138] returned the captured queen of the Gajapati ruler whom he defeated. War must be entered into only when all other methods have failed.[139] Kautilya also states "when the advantages procured by peace and war are equal, one should prefer peace.... And when employed, conquest must immediately be followed by conciliation."[140] At times, these rules might have been broken.[141] But, in general, warfare was humanised by the practical observance of these restraints. Naturally this became a disadvantage

136. *e.g. Gautama Dharma Śāstra* X 12-13, *Manu* 1, 118. *Yājñavalkya Dharma Śāstra*, 1, 342.

137. Prof. V. R. Ramachandra Dikshitar deals with these laws of war in ch. 2 of his *War in Ancient India*. The Śāstras always condemn Kūṭayuddha (unrighteous warfare). See also Hopkin's *Ethics of India* pp. 101 ff.

138. Sewell — *A Forgotten Empire*, p. 320.

139. *Arthaśāstra* VII. 100.

140. *Ibid.* Ch. XIV, 145-6.

141. Reference in *Puṛanāṇūru* 15 to ploughing the site of the enemy city with donkeys and sowing seeds of castor and cotton in it. The Cōla-Cālukya Wars and the wars of Vijayanagar with the Muslim kingdoms show departures from the accepted rules of warfare.

when facing the unconventional tactics of foreign enemies who disregarded this dharma of war.

Another factor which prevented the Hindu race from developing the vice of militarism was that, by conventional caste rules, the duty of fighting came to be limited to the Kṣatriyas. This became a serious weakness to the defence of India when the land was invaded by the Turks later. But, it had the merit that the masses, bred to the pursuits of peace, never resorted to bellicose activities, and, of all countries, India alone can claim the credit that she never waged an aggressive war beyond the confines of India. Even Hindu colonisation in the Malay Archipelago and Indo-China was not accompanied by any political or military control from India.

The account of the fights with the Hindus given by the Arabs in the 8th century and by the Turks in the 11th century show that methods of Hindu warfare stagnated. Chariots had been once important. When Porus fought with Alexander, he had 150 chariots. But, chariots became obsolete, perhaps from the 1st century A.D. Elephants formed, however, an important wing which was used to cover the infantry and also as battering rams in sieges. When the elephants turned and fled in panic, the infantry behind it was thrown into confusion; and this would have greatly helped the attacking enemy. Still, elephants were used in war till the 17th century. The infantry consisted mostly of archers, bows and arrows being used down to the end of the 16th century. Spears were also used, but not in concert as was done by the Macedonian phalanx or the Roman legion. Hence, the use of this weapon was ineffective. Cavalry was used on the flanks of the infantry; but, this arm was certainly weaker as compared to the quick-moving Turkish cavalry, the horses from Afghanistan and beyond being also of better breed. The fall of the king in battle often decided the issue of the battle and the Hindu army broke and fled.

Vijayanagar must have kept up a navy; but we have no details about it. The inferiority of Vijayanagar in its wars with the Bāhmanis was due to the fact that it relied on infantry and elephantry, while the Bāhmanis mainly used cavalry and artillery—the first use of artillery in India. The military camp was divided into streets and included markets, thus making it unwieldy. Nuniz describes the shields as so large that no armour was needed for the body. Military schools were also maintained.

The military system of Śivāji was as efficiently organised as the civil system. The hill fort with its adjoining territory was the military unit, and the state was connected by a chain of these forts which were carefully maintained. Every fort was under three officers of equal rank—Havildār, Sabnis and Sār-i-naubhat who would thus form a check on each other. The army consisted mainly of light infantry which predominated and light cavalry. The officers of the infantry were duly graded from the Nāik who commanded 9 soldiers to the Sār-i-naubhat of the Infantry who was the highest in rank. The officers of the cavalry ranged from the Havildār who commanded 25 men to the Sār-i-naubhat of the cavalry. The cavalry was in 2 classes—those who equipped their own horses and those who were supplied horses and arms by the state. Śivāji selected the men after a personal examination. Tactics of guerilla warfare were borrowed from the Turkish cavalry kept by Bijapur. Men were taught to feel pride in the red ochre-coloured flag of Śivāji.

Under the Peṣwās, the army degenerated into a horde of mercenaries of many races. The Mahrāṭṭas became confined to the cavalry. The infantry was composed mainly of men from North India, while the artillery was mainly in the hands of foreigners. Besides this army, feudal levies were contributed by Saramjamdārs (holders on military tenure in the conquered area outside Swarāj). Plunder came to be the main aim in war. The old religious and national sentiment disappeared.

Śivaji developed also a navy. Dr. Sen vindicates the Mahrāṭṭa seamen from the charge of piracy. But, the navy was not efficient. Dr. Sen remarks, "But for the suicidal feud of the Angria brothers and the blind jealousy of the Peṣwā, the Angria's fleet might have survived for a few years longer, but there could not be any doubt about its final collapse".[142]

It was only in the latter part of the 18th century that European methods of war began to spread. These were first used in Travancore and later in the Mahrāṭṭa states.

The use of elephants in war continued even after the Muslim conquest of India. Sykes (*History of Afghanistan*) says that Timūr, confronted by the elephant corps of the enemy, had buffaloes bound together to form obstacles to it with iron hooks fixed on stakes.

142. *Bhārata-Kaumudi* (Studies in Indology in honour of Dr. Radhakumud Mookerji). Part II, p. 778.

The land tax varied from a sixth to a twelfth (though Manu allows a fourth in emergencies) of the gross produce. It was the chief source of revenue. There were also taxes on commerce like tolls, royalties on mines and fisheries, profession taxes, excise duties, e.g., on liquor, dues from crown domains and profits of justice. Taxes were levied in both money and kind. It is noteworthy that this financial system continued under the later Muslim rulers. Payment of land revenue may be in cash or kind.

Taxation appears heavy in the Mauryan state, though the prosperity of the empire argues against overtaxation. The cost of government and expense of the huge army kept for defence led to heavy taxes like land tax, customs, excise, transport dues, sale taxes, profits of justice and licences on professions.

Megasthenes writes, "While the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of metals, for it contains much gold and silver and copper and iron in no small quantity and even tin and other metals which are employed in making articles of use and ornaments as well as the implements and accoutrements of war". The Arthaśāstra mentions also ocean mines (extraction of pearls, corals, conchshells and salt). Mines were a state monopoly and gave much revenue. Megasthenes remarks, "The greater part of the soil is under irrigation and consequently bear 2 crops in the course of a year.... some superintend the rivers, measure the land as in Egypt and inspect the sluices by which water is let out from the main canals into other branches so that everyone may have an equal supply of it". The Arthaśāstra shows that there were different kinds of water rates collected by the state according to different methods of cultivation. Baden Powell (*Indian Village Community*) thinks that theory of state ownership of land was of late origin. Anyway, evidence of Gupta inscriptions shows that the state could resume lands granted by it. Cōḷa records show that failure to pay the revenue led to the sale of the land by the state. Manu shows that it was quite common to assign the dues from a particular area of land as the salary of an officer or as an endowment for religion or charity.

In the Cōḷa empire, lands gifted to temples (Devadānam) and to Brāhmaṇās (Brahmadeyam) were tax free (iṟai ili). Inscriptions of the Cōḷas show that grants to temples were often made by regiments which kept up corporate organisations. Lands were classified into taxable and tax-free lands and the tax varied according to the land and the crop. The assessment was roughly 100 kalams of paddy for each veli of land.[143] (6⅔ acres). 2 kalams of paddy, a kalam being 24 measures, had a rough money value of one *kāsu*. Royal dues were taken in cash or kind. All lands did not pay the same revenue, and there were remissions in cases of floods and other calamities. Officers seem to have recieved assignments of lands or revenues. Lands were carefully surveyed and holdings registered. Land revenue (Āyam) was a sixth of the produce, but additional cesses were common. Default in land revenue led the state to sell the land. Voluntary payments were made by the people for particular purposes.

Sometimes, as under the Hoysālas, there were taxes on salt and betel leaves. Kauṭilya allows the king to take benevolences (praṇayas); but, the Kuṟaḷ condemns them. Pallava inscriptions mention[144] a number of taxes which includes taxes on manufacture of sugar, taxes on occupations and forced labour. Cōḷa records speak of taxes on looms (taṟi iṟai), on oil mills (cekkiṟai), salt tax (uppāyam), tolls (vaḷiāyam), tax on bazaars (angādippāttam) etc.

Vijayanagar inscriptions refer to a number of imposts including profession taxes. Abdur Razzak says that these were collected even from prostitutes. Nuniz declares that even the octroi duties were farmed out and that the provincial governors farmed the

143. The unit of land was the Veli. The unit of grain measure was the kalam (3 maunds). The gold kāsu was equivalent to 2 kalams of paddy. The standard dry measure was the marakkāl.

In South Indian inscriptions, we find figures attached to names of places e.g., Nolambavāḍi 2000, Gangavāḍi 96,000 etc. Fleet assumed that this number refers to the townships in the area. But, Rice thinks that the figures refer to the revenue paid or the value of the produce. An inscription of Rājarāja Cōḷa refers to "Iraṭṭappāḍi Eḻarai ilakkam."

144. Dr. S. Krishnaswāmi Aiyangār summarises the Taṇdantōṭṭam plates to illustrate the obligations of the different classes to the king or the men to whom the king transferred his rights (*Hindu Administrative Institutions in South India.*) Manufacture of salt and sugar seems to be a government monopoly.

revenues of the province. The land tax was a sixth of the produce, and it was fixed after careful measurement and classification of the lands. The statement of Nuniz that nine-tenth was collected by the state is unbelievable. There were numerous rent-free (sarva-mānyam) lands. An unpopular tax abolished by Sāluva Timma was the marriage tax. As under the Cōḷas, the unit of land measurement was the Veli (6⅔ acres), and of grain measurement, the kalam (24 measures). Octroi duties were collected on import, export and transit of goods. The Śrīrangam plates of Devarāya II show that taxes were levied on land, plantain trees, sugarcane, spices, flowers, looms, oil mills, cattle, sheep and irrigation. There were also crown lands, annual payments from vassals and provincial governors, customs duties, tolls, taxes on professions and houses, license fees of many kinds and profits of justice. Customs duties were productive because of prosperous commerce carried on in the ports.

Śivāji's land revenue policy was based on that of Todar Mal. The land was carefully measured and an estimate was made of the expected produce of each bigah. Two-fifths of it was taken by the state. Loans were given to the ryots for purchase of livestock, and extending cultivation which were recovered in easy, annual instalments. Farming of revenues was stopped and the assessment was collected by the state directly from the peasants. Usually, all officials were paid salaries. In cases where it was not done and he got an assignment of revenue on a particular area, he received no political authority in that area. But, these revenue rules prevailed only in the Swarāj (area directly ruled by Śivāji). The other areas (Moglai) where the Mahrāttas only claimed supremacy had to pay the Cauth and the Sardeṣmukhi (a fourth of the land revenue and an extra tenth). The total annual revenue was about 9 crores of rupees. But, Sarkar thinks that the actual collection was less than this estimate.

After Śivāji, a large part of the revenue of the state came from Cauth and Sardeṣmukhi. A quarter of the cauth went to the state and the rest divided amongst the Sirdārs (the nobles who ruled the conquered areas and maintained troops). When these areas were later annexed to the state, this three-quarter was assigned as jāgīrs. Other sources of revenue were land revenue in the old Mahrātta area, profits of justice and customs duties. The government also collected loans later on the security of revenues for a term of years. The old Indian practice of accumulating revenue in the treasury and drawing on this in emergencies disappeared and the rulers had to borrow. This was common also in Muslim states like Oudh and Arcot. This Public Debt became important in the 18th century.

We have seen that the Monarchical State was the typical one in India. But, our account would be incomplete without a glance at the republican experiment in Ancient India. Several distinguished writers have given detailed accounts about this.[145]

Greek writers who deal with Alexander's invasion of India refer to a large number of free tribes. A number of them seem to be oligarchies. e.g. Nysa which had a council and a President.[146] The Sabarcae[147] had a government of elders. Patala was governed by two kings as in Sparta, but, its Senate was dominant.

The *Mahābhārata* refers to the republican tribe called the Andhaka-Vriṣnis. Pāṇini refers to about 80 republics. The term 'Gaṇa' or 'Saṅgha' is applied in Sanskrit to the republics. Some, however, think that the Gaṇa means an individual republic, and the Saṅgha a federation of such republics. It is only the Buddhist works which give us more details.[148] But, naturally, most details are given only about the Śākyas. Administrative business and judicial work was done in the Santāgāras (Mote-Halls)[149] by the tribal assembly. Debates ended in agreed decision — not by majority vote, but unanimous. In case of disagreement, the matter was referred to arbitration by a committee. Only in case where agreement was not possible was the majority allowed to prevail. This seems to be a useful device which our modern democratic assemblies can also adopt. It will ensure that democracy is really government by discussion, and will also protect the rights of minorities. The rules for conducting the meetings of the congregation found in the *Vinaya Piṭaka* are evidently borrowed from the rules of the assembly considering political matters. These include an obligatory quorum, use of voting tickets (which were slips of wood) etc. The vote was called Caṇḍa. The ticket was a slip of wood (Salāka). A resolution (Pratijñā) sometimes had to receive 3 readings. The word 'Jñapti' is also used for a resolution. Buddha, born amongst a republican people, naturally adopted the name "Saṅghā" as well as the constitution of the republic in setting up his religious 'Saṅgha'. It is noteworthy that the executive officials of the Śākyas were called Rājas. But, these Rājas were elected, according to Rhys Davids, whose view Jayaswal and Dr. R. C. Majumdar follow. But, D. R. Bhandarkar and Dr. U. N. Ghoshal hold that there was hereditary kingship. In some other tribes, chiefs were called Gaṇa-Mukhyas or Sangha-Mukhyas. Thomas thinks that the term 'Gaṇa' means an oligarchy. But, Jayaswal holds that the term 'Gaṇa' refers to the whole body-politic and that the governing body (Gaṇa-Mukhyas) had a President (Pradhāna).

Some of the republican clans were federated. The most important example is the Vrijjian federation. According to Rhys Davids and Cunningham, this included 8 clans including the Lichchavis who were the most important.[150] According to Smith,

145. Dr. Bimalcharan Law in his *Kshatriya Clans in Buddhist India*, *Ancient Mid-Indian Kshatriya Tribes* and *Ancient Indian Tribes* describes their habitat, political and social conditions and the part played by them. His works are comprehensive and based on Samskrit, Pāli and Prākrit literature, though his account of tribes in the Deccan and South India is meagre.
The same writer in his *India as described by early texts of Buddhism and Jainism* deals with the politics and society of the period. R. D. Singh gives a short description of the social and cultural condition of the republics in the *Journal of the Benares Hindu University*, VI, pp. 72-91 though his description is detailed only about the Andhaka-Vriṣṇis, the Lichchavis and the Śākyas. A very good description is in Altekar's *The State in Ancient India* (1948). A list is given in Rhys Davids *Buddhist India*, p. 23. But, unlike the others, he confines himself to Buddhist works and ignores Brāhmanical and Jaina literature. Part I of Jayaswal's *Hindu Polity* deals with the Republics from 1000 B.C.—600 A.D. In Ch. 21 of this work, he discusses their ethnology. Prof. Ramachandra Dikshitar deals with the republican constitution in his article on *Gaṇa-rājya* in the Bhandarkar Research Institute Silver Jubilee Volume (1943). A description of the government of the Lichchavi republic is seen in S. V. Venkatesvara's *Indian Culture Through the Ages*, Vol. II, Ch. 2. Short descriptions are found in R. C. Majumdar's *Corporate Life in Ancient India* and R. K. Mookerji's *Local Government in Ancient India*. R. K. Mookherjee's *Hindu Civilisation* summarises the procedure in the Republican institutions (p. 209ff).

146. McCrindle *The Invasions of India by Alexander the Great*, pp. 79-81.

147. McCrindle. *Ibid.*, identifies them with the Ambasthas of the Mahabharata, pp. 155 and 252. But, some others identify the Abastanoi with the Ambasthas.

148. *Anguttara Nikāya*, Vol. 1, Mahāvagge, p. 213 gives a list of 16 Mahājanapadas which includes several republics.

149. *Ambattha Sūtta* speaks of the Mote-hall of the Śakyas, and the Mahāparinibbāna Sūtta, of the Mote-hall of the Mallas.

150. S. V. Venkatesvara — *Indian Culture Through the Ages*, Vol. II, Ch. 2 gives an account of the government of the Lichchavis.

these were of Tibetan origin. But, Indian tradition rightly regards them as Kṣatriyas. The ascription of a Mongolian origin to them because they followed Tibetan customs like exposure of the dead is wrong, because we find the Iranians following a similar custom. Some favour a foreign origin for them, because they were considered Vrātyas. But judging from Vedic evidence, Vrātyas seem also to be Aryans, though unorthodox. Some think that, amongst the Lichchavis, supreme power was vested in a class of privileged citizens. What is curious in their judicial system is that the person accused had to be tried by a succession of officials before his guilt could be established. Jayaswal considers the Yaudheyas as forming a great federation embracing the area between the Sutlej and the Yamuna, and believes that it was the largest federal republican state before the foundation of the United States of America. Thomas[151] considers that the Yaudheyas were under an oligarchy; but, Jayaswal differs from this view.[152]

Everything, however, was not rosy in the republic. *Samyutta Nikāya*[153] speaks of the government of the Kōliyas (people to the east of the Śākyas) employing a special police which had a bad reputation for violence and extortion. The Mallas (a people perhaps to the north of the Vrijjis) had similar officials.[154] Rhys Davids thinks that each clan had a similar set of officials.[155] But, the most important defect in the republic consisted of internal dissensions. In the Mahābārata, Bhīṣma warns the Gaṇas against this danger as more fatal than foreign aggression. But, just as the city states of Greece could never rise above *stasis*, the little republics of India were beset by internal quarrels. Mauryan imperialism destroyed many of them. The Śaka satraps of Mathura extinguished several. But, a few survived even down to the Gupta period. The ancient clan of the Lichchhavis supplied a queen to Chandra Gupta I who engraved in his coins the name of his spouse. The pride with which this connection to Lichchhavi blood is claimed by his successors induced Smith to think that the Lichchhavis might have been still a great power with

151. *Journal of the Royal Asiatic Society* 1915.

152. *Journal of the Bihar and Orissa Research Society*, Vol. I, pp. 173-178, "Republics in the *Mahābhārata*".

153. *Ibid.*, Volume IV, p. 341.

154. *Digha* II. 159, 161.

155. *Buddhist India*, p. 21.

their centre at Pāṭalīputra. Thus, according to him, Chandra Gupta succeeded to a power held by his wife's family. The *Cambridge Short History* agrees with this view. But, we know that Chandra Gupta's ancestors already held Pāṭalīputra, and Allen suggests that the pride in the Lichchhavi alliance was more due to the ancient lineage of the Lichchhavis than to any material advantage resulting to the Guptas. But, this could not be the sole explanation. Perhaps, Dr. Majumdar is right in holding that the Lichchhavis had a state in North Bihar, and the marriage united it with the Gupta principality of Magadha.[156] Samudra Gupta's Allahabad inscription mentions republican tribes like the Mālavas, the Yaudheyas, the Sanakāmikas, the Kākas, the Karaparikas, the Madrakas, the Arjunāyanas, the Prārjunas and the Ābhiras who submitted to him. Many republics, perhaps, ended now, and, by the end of the 5th century, the republic disappeared and monarchy became universal. The fall of the republics was not due merely to Gupta imperialism. From the 3rd century A.D. hereditary chiefs began to usurp power in these republics. The Mālavas, however, left one legacy,—an era called after them. A record of Kumāra Gupta was dated "when 493 years had elapsed from the tribal constitution of the Mālavas"[157] This Mālava era was referred to in various records, was called from the 9th century A.D. as the Vikrama Era and has continued under this new term. How did the Mālavas get this era? Rapson suggests that Azes I set up his era in 58 B.C., and it was adopted by the Mālavas who were living in the Punjāb and Rājputāna at the time, and it was transmitted to posterity by the Mālavas.[158]

In this short survey, I have not gone into many matters of administrative importance. Even those aspects which I have considered could be only surveyed cursorily. But, there is enough evidence to disprove the assertion of Professor Dunning that "the Aryans of Europe have shown themselves to be the only people

156. *National History of India*, Vol. 6.

157. The Mandasor inscription discovered by Fleet which records the building of a temple of the Sun by a guild of weavers in the reign of Kumara Gupta, when his governor, Bandhuvarman was ruling the area, contains the following passage:—

mālavānam gaṇasthityā yāte śatacatuṣṭaye|
trinvatyadhikebdānāmṛtau sevyaghanasvane||

which means that the temple was completed in the season when the sound of thunder is pleasing, when 493 years had elapsed from the tribal confederation of the Mālavas.

158. *Cambridge History of India*, Vol. 1.

to whom the term 'political' may be properly applied".[159] The lines of political development in Hindu India might not have followed the European pattern; but, they have none the less a unique and worthy place in the history of administration in the world.

APPENDIX

Ancient Hindu States mentioned in literature

The following list should not be regarded as in any sense representing contemporary states from the chronological point of view. Many tribes mentioned in the *Vedas* like the Anus and the Uśīnaras do not appear in later records. The list of powers given in the Mahābhārata as appearing on the sides of the Kauravas and the Pāṇḍavas does not contain some names appearing in the Buddhist list, and contains names not found in it. Pāṇini mentions 22 Janapadas, but does not mention any place south of the Vindhyas. The Buddhist and Jaina works refer to 16 Mahājanapadas and 12 minor states; but the list does not include Gujarāt, Sind, South India, Bengal and Assam. Writers who have dealt with Alexander's invasion mention tribes and states not referred to by other authorities. By the time of the Purāṇas, several states mentioned in early records have disappeared and new ones appear, and there is a traditional list of 56 states. By the end of the Hindu period, the names of several of these disappear.

Republics:

(1) Nysa (perhaps lying between the Kabul river and the Indus).

(2) The Siboi (somewhere below the junction of the Jhelum and the Chenab. (Śibis) capital Śibipura (Sharkot). In the Rig

159. *History of Political Theories, Ancient and Mediaeval.* The author of *Loyal India* asserts that democratic spirit and the representative principle were absent before the British came.

Janet (*History of the Science of Politics*) declares that "The orient, in general, India, in particular, did not conceive the idea of a state". Willoughby (*Political Theories of the Ancient World*) notes that "appeal to dogma, rather than to reason, has continued to be the one chief characteristic of oriental civilisation". Barker (*Political Thought of Plato and Aristotle*) contrasts what he considers the religious absorption of the people of India and Judaea and the reasoning spirit of the Greeks.

Veda, the Śibis are associated with the Uśīnaras. Weber regarded the Uśīnaras as the ancestors of the later Kurus and Pāñcālas. According to the Purāṇas, Uśīnara, descended from Anu, son of Yayāti, set up the state and was the father of Śibi.

(3) The Agalassoi (near the former).

(4) The Oxydrakai (between the Ravi and the Beas). These could be identified with the Kṣūdrakas.

(5) The Malloi (valley of the Ravi). These could be identified with the Mālavas. They migrated from the Punjāb to the Rājputāna by the end of the 1st century A.D. and ultimately settled in the region called Mālava after them. A beautiful description of this land is in Kālidāsa's *Meghasandesa*.

(6) The Abastanoi (The Lower Chenab). These could be identified with the Ambasthas mentioned in the Mahābhārata and by Patañjali.

(7) The Kurus do not appear as a people in the Rig Veda. They were in the neighbourhood of Delhi with their capital at Hastināpura. Another important town was Indraprastha, south of the Yamunā. The Kurus were important, while they were ruled by kings, Parīkṣit being the first great king. Rāyachaudhuri (*Political History of Ancient India*, p. 29) dates him to the 9th century B.C. His son, Janamejaya, was a great conqueror and performed a grand Aśvamedha. He is mentioned in the Aitereya and Śatapatha Brāhmaṇas. Later on, the dynasty disappeared and, by the Buddhist Period, the Kuru state was a republic. It lost all political importance by the 6th century B.C.

(8) The Pāñcālas also do not appear in the Rig Veda. They lived in Rohilkhand and central Doab in the modern U.P. Their chief capital was Ahicchatra (Ramnagar in Bareilly district). Cunningham noticed its site. But, systematic excavations began only recently (1940). The strata go down to the Mauryan period and extend from the 9th century A.D. (the topmost layer), thus confirming that the city continued to be important under the Guptas and Harṣa. Kānyākubja, another important city, was situated in this land. The king had a second capital in Kāmpilya (Kampil in Farukhābad area). By the Buddhist Period, the state was a republic.

(9) The Matsyas or Virāṭas are referred to in the Śatapatha Brāhmana and the Kauṣītaki Upaniṣad. They were to the west of the Yamunā and south of the Kurus. The tribe occupied parts

of Alwar, Jaipur and Bharatpur. The capital was Virātanagara (modern Bairāt). Originally a kingdom, the state also became a republic.

(10) The Madras were between Kāśmīr and Central Punjāb, with their capital at Sakala (Sialkot). They are referred to in the Vedas.

(11) The Sūrasenas, according to the Purāṇas, were first ruled by kings who were scions of the Yādava family. The capital was Mathura (south of the modern Muttra). The epics and Pāṇini mention the rule of the republican confederation of the Vriṣṇis here. Later, the land was conquered by Magadha.

(12) The Kāmbhōjas find reference in the Sāma Veda. These were, perhaps, in N.W. India, northwest of Gāndhāra in the Hindukush. Grierson locates them here (*Journal of the Royal Asiatic Society,* 1911) and holds that they spoke an Iranian tongue. These also passed from monarchy to republic.

(13) The Udumbaras and the Pulindas seem to have lived in the Punjab. The Arjunāyanas mentioned in Samudra Gupta's inscription are referred to by Pāṇini.

(14) The Videhas were in modern Tirhut (Bihar). The capital, Mithilā, was identified by Cunningham with Janakpur, a small town in Muzaffarpur area, on the border of Nepal. Videha is first referred to in the Śatapatha Brāhmaṇa. The most important king, Janaka, is mentioned in the Upaniṣads as the contemporary of Yājñavalkya. He is assigned by Rāyachaudhuri to the 7th century B.C. According to the Arthaśāstra, royalty was supplanted by a republic later. By the Buddhist period, the Videhas were part of the Vrijjian federation.

(15) The Vrijjians. According to Rhys Davids and Cunningham, these included 8 federated clans including the Lichchhavis, the Videhas, and the Jñatrikas (to which Vardhamana Mahāvīra belonged). The Lichchhavis were the most important, and their capital was Vaiśāli (identified with Basārh in Bihar) which was also the capital of the confederacy.

(16) The Mallas, who were, perhaps, to the north of the above on the mountain slopes, were ruled by a king in the days of the Mahābhārata. These, like the Videhas, seem to have changed from monarchy to a republic. In the Buddhist period, they had two branches (1) North Mallas with their capital at Kuśinagara. Cunningham identifies it with Kasiā in Gorakhpūr district (2) South Mallas with their capital at Pāvā (near Kuśinagara). Later on, Magadha conquered them.

(17) The Śākyas were to the south of the Himālayas (on the border of Nepal). Their capital was Kapilavāstu (modern Piprāhwā in U.P.). The state included Lumbini (identified with Rummeindei on the borders of Nepal).

(18) The Kōliyas were near the Śākyas, towards the east, with their capital at Ramgama.

(19) The Moriyas were in the Himālayan region with their capital at Pippalivana.

(20) Cedi (modern Bundelkhand) is mentioned in the Rig Veda. The capital was Suktimati. Later, the area passed under the Haihayas. According to the Purāṇas, the Haihayas (a branch of the Yādava line of the Lunar Dynasty) lived south of Mālwa. One of the kings, Mahiṣmat, founded Māhiṣmati. Kārtavīrya, another king, is referred to in the Purāṇas.

(21) Aśmaka, situated on the Gōdāvari, seems to have become a kingdom later. An inscription of the 6th century A.D. at Ajanta refers to the ministers of the rulers of Aśmaka. Daṇḍin's *Daśakumāracarita* mentions the kingdom. The Aśmakas mentioned by Pāṇini are identified by some with the Aśvakas whom the Mārkaṇḍeya Purāṇa places in the northwest.

Other tribes like the Yaudheyas (the Sutlej Valley) are mentioned in Samudra Gupta's inscription. The Yaudheyas spread their power in S. Punjāb and N. Rājasthān.

Kingdoms :

(1) Gāndhāra (Kābūl Valley in E. Afghanistan). It is mentioned in the Vedas. The capital was Takṣaśila. But, when Alexander invaded, there were a number of kingdoms in this region. Takṣaśila was a separate state in East Gāndhāra, with its capital at Takṣaśila. This ancient city has been excavated. It is 20 miles to the north of Rawalpindi and its ruins cover nearly 12 square miles. To the north of the Kabul river were the Aspasians. Near them were the Aśvakas (Assakanoi) with their capital at Messaga (near the Malakand Pass). Between the Kabul and the Indus was Puṣkalāvati, the capital of the same name being near Peshawar. A group of mounds at Cārsada is said to be the relic of this city.

(2) The kingdom of Abhisāra occupied parts of Kāśmīr.

(3) The kingdom of a chief called Paurava lay between the Jheelum and the Chenab.

(4) A king called Saubhūti ruled to the east of the Jheelum.

(5) The kingdom of Mūṣaka included a good part of Sind. This area is called in the *Purāṇas* Sindhu.

(6) Kekaya (Between Gandhara and the Beās in the Punjāb). According to the Purāṇas, the king was descended from Anu, son of Yayāti.

(7) Kāśmīra. This was included in Gāndhāra for a long time.

(8) Sālva. Perhaps, part of the valleys of the Beās and the Sutlej. But, some identify it with Alwar. The land is mentioned in the Śatapatha Brāhmaṇa.

(9) Nepāla was lesser in extent than modern Nepal. Appayya Dīkṣita describes the land in his *Kuvalayānandam*.

(10) Kāśi had its capital in Kāśi or Vārānasi, an ancient city bordered by the Varunā and the Asi. An Ajātaśatru of Kāśi is mentioned as Janaka's contemporary. Hoernle identified him with the Ajātaśatru mentioned in Buddhist literature. But, the latter Ajātaśatru appears as the king of Magadha. As Keith urges, Hoernle's view is not tenable. Excavations in Banāras (Rājghāt) have reached the Mauryan level and indicate that the city was perhaps the oldest in the world. In the 7th century, the kingdom was conquered by Magadha.

(11) Kōśala (modern Oudh). According to the Rāmāyaṇa, its capital was Ayōdhya. The royal family traced descent from the Vedic hero—Ikṣvāku. Some assign the rule of Rāma to the 7th century. The capital seems to have been later Sākata. After the death of Prasenajit, contemporary of Buddha, Kōsala became unimportant and was conquered by Magadha. In the Buddhist period, the capital was Śrāvastī. The river, Sarayu, divided it into 2 parts—North Kōśala with its capital, Śravasti (modern Sahet-Mehet) on the Nepal border and South Kōśala with its capital, Kusāvati. Its important cities were Sāketa and Ayōdhya, adjoining each other. It conquered Kāśi and the Sakyas of Kapilavastu. King Prasenajit was the contemporary of the Buddha. The land must be distinguished from Dakṣina Kōśala (near Vidarbha), often referred to in inscriptions. Ikṣvāku is mentioned in the Rig Veda.

(12) Avanti (Western Mālwa) had its capital in Ujjayinī. To the south was Māhiṣmati (modern Māndhāta on the Narmadā). Another important city was Vidiśa (Bhilsa).

(13) Vatsa, to the north-east of Avanti, was on the banks of the Gaṅgā. Its capital, Kauśāmbhi, is referred to in certain Vedas and Pāli works. Excavations at Kosam, a village on the Yamunā near Allahābād, have confirmed Cunningham's identification of it with Kauśāmbhi. Cunningham's identification was questioned, because it could not be reconciled with the description given by the Chinese pilgrims. But, the *Cambridge Indian History* points out that this description might have been originally incorrect or misinterpreted later and supports Cunningham. Remains of a big fortress, a great variety of coins found in it showing its commercial importance and two inscriptions actually found in its site referring to it as Kauśāmbhi settle the identification. King Udayana is mentioned in the Purāṇas. Kālidāsa says in his *Meghadūta* that several stories of Udayana were current in Avanti. Udayana, ruler of this area, is the hero of 3 dramas, Svapnavāsavadatta, Priyadarśika and Ratnāvali. According to the Priyadarśika, he conquered Kaliṅga. He was the great rival of Pradyōta of Avanti. Later, Pālaka of Avanti conquered the kingdom.

(14) Magadha comprised the Patna and Gaya districts of Bihar. Early kings like Jarāsandha and Brihadratha are mentioned in the Purāṇic lists. It is referred to only in the Atharva Veda. The earliest capital was Girivraja, later Rājagriha (modern Rājgir) and later Pāṭalīputra.

(15) Aṅga (East of Magadha). Its capital was Campā (near Bhagalpur). It was later annexed by Magadha. In the epics, it was the land to which Riśyaśringa brought rain, the land where Ambā and Ambālika were born and the land over which Karṇa ruled. As described in the Mahābhārata, it included the districts of Bhāgalpur and Monghyr. It was separated from Magadha by the river Campā. The capital, Campā, stood on the Gaṅgā and is identified by Cunningham with Champānagara near Bhāgalpur. Its king, Brahmadatta, was conquered by Bimbisāra of Magadha.

(16) Kaliṅga—Puri and Ganjam area—extended from Orissa to the mouth of the Gōdāvari. Its capital, Dantapura, is not yet identified.

(17) Vidarbha (Berar) had its capital at Kuṇḍina. The Aitereya Brāhmaṇa refers to its king, Bhīma.

(18) Contiguous to Vidarbha was Niṣada also referred to in the Purāṇas. The Mahābhārata refers to its king, Nala. It was a forest region in Central India.

(19) Vanga (East Bengal) is referred to in the Aitereya Brāhmaṇa. According to the Purāṇas, Aṅga, Vaṅga, Kaliṅga, Puṇḍra and Suhma were born to Queen Sudakṣinā (wife of Bali, descended from Anu, son of Yayāti), from the sage, Dīrghatamas.

The other states mentioned in the epics and the Purāṇas, besides those listed above, are:—

(1) Saurāṣṭra (Kathiawar).

(2) Gūrjara (whole or part of Gujarāt). Its people are also described in the *Viśvagunādarśa campu*.

(3) Ābhira (Northern Mahārāṣtra). Patañjali also refers to the people. They were a shepherd tribe. Vedānta Deśika describes them in the *Yādavābhyudayam*.

(4) Sauvīra (Lower Indus Valley).

(5) Lāṭa (South Gujarāt).

(6) Bāhlīka (perhaps the Balkh region).

(7, 8 & 9) Kirāṭa, Barbara and Pārvata (outlying Himalayan states).

(10) Gauḍa (part of Bengal).

(11) Kāmarūpa (Assam). One of its important cities, Prāgjyotiṣapura, was very ancient.

(12 & 13) Utkala and Oḍra (parts of Orissa).

(14) Āndhra (Between the Gōḍāvari and the Kriṣṇa).

(15) Pulinda (The Pulindas, Āndhras and the Bhōjas are mentioned in the *Aiteraya Brāhmaṇa* as the peoples of the south. The Purāṇas associate the Pulindas with the Vindhyan region. Dr. Bhandarkar holds that they lived near the Āndhras. Mr. Sathianathaier in his *Studies in the Ancient History of Toṇḍamaṇḍalam* identifies them with the Kurumbars of Toṇḍamaṇḍalam, an area which he regards as part of the Aśōkan empire.

(16) Mahārāṣtra (Western India). Perhaps identical with the Rāṣṭrikas of the Aśokan inscriptions.

(17) Kuṇtala (part of the Kannaḍa area), though some identify it with Vidarbha.

(18) Karṇāṭaka (Kannaḍa area).

(19) Kutaka (Coorg).

(20) Koṅkaṇa (Perhaps Koṅgu extending from the Anamalais to the Shevaroy Hills). Mr. Sathianathaier (*Studies in the Ancient History of Toṇḍamaṇḍalam*) identifies them with the Satyaputras of the Aśōkan inscriptions. Daṇḍin's *Daśakumāra-carita* mentions this kingdom.

(21) Keraḷa (Malabar, Cochin and North Travancore).

(22) Cōḷa (Tanjore, Tiruchirāpaḷḷi and part of Pudukōṭṭai).

(23) Pāṇḍya (Madurai, Rāmnād, Tirunelveli and South Travancore).

(24) Simhala (Ceylon).

The Purāṇic list includes Pārasīka (Persia),, Sīna (China) and Yōna (Greek communities). The others mentioned like Ārata, Kunti and Kuvinda are not satisfactorily identified. The word 'Yōna' occurs in the Aśōkan inscriptions.

S. B. Chaudhuri (*Ethnic Settlements in Ancient India*) tries to reconstruct the historical geography of Ancient India as gleaned from traditional material like the Purāṇas.

The oldest Pāli works give a list of 16 principal states. This perhaps reflects the position just before the rise of Buddhism. These are (1) Aṅga, (2) Magadha, (3) Kāśi, (4) Kōśala, (5) Vajji, (6) Malla, (7) Cedi, (8) Vatsa, (9) Kuru, (10) Pāñcāla, (11) Matsya, (12) Sūrasana, (13) Aśmaka, (14) Avanti, (15) Gāndhāra and (16) Kāmbhōja.

At the time of the Buddha, the names of the Śākyas, Kōliyas and Mōriyas appear amongst the states.

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LECTURE I

Balance of Payments Problems of Growing Economies

by

D. BRIGHT SINGH

The relation between balance of payments and National Income :

Of the total volume of goods and services produced by the people of a country in a given period of time the major part is for domestic use, while a smaller part is exported, or in the case of services, made available for the use of foreigners. These exports are normally balanced by imports. Since payments have to be made for the imports, the net additional income earned through foreign trade is the difference between the value of exports and imports. Imports constitute a part of current income; hence if exports exceed the imports of a country and the country has a surplus balance of payments, this excess is treated as investment for national accounting purposes. Thus total investment of a country in a period of time, say a year, is the sum of domestic investment and foreign investment in the form of a surplus earned in international trade. Realized savings are necessarily equal to domestic investment plus foreign investment. Hence income minus consumption is equal to domestic investment plus foreign investment. Therefore, when balance of payments is in equilibrium, it means that there is neither excess investment nor excess savings arising out of foreign trade. But if there is a balance of payments surplus, it means that there is excess investment which will have an inflationary or expansionary effect; and a balance of payments deficit is of the nature of excess savings and will have the opposite contractionary effect.

But how does a balance of payments surplus or deficit react on the domestic economy? Any increase in the exports of a country while imports remain constant means that there is an excess of external demand which will have an effect on the level of economic activity and national income of the country having an export surplus in the same manner as an increase in effective demand at home will have on national income. But this rise in domestic income in turn will attract more imports with the result that the total expansionary effect of an export surplus is reduced to the extent of the leakage involved in increased imports. This is so because increase in imports will raise the levels of activity in the countries whose goods are imported and therefore from the point of view of the importing country should be regarded as equivalent to savings in respect of their non-expansionary or even deflationary effect on income. This would also mean that if starting from a position of equilibrium in its external payments relations, a country experiences an increase in imports with exports remaining constant this would have a dampening effect on the level of activity and domestic income, the overall effect however being modified to the extent of this country's exports increasing in consequence of of the rise in the income in the foreign country.

Even as changes in balance of payments position affect domestic economic activity, shifts in the level of income of a country will react on its foreign trade and external payments. A rise in the level of money income means increased purchasing power; and this will be utilised for demanding more consumption goods and investment goods produced at home as well as abroad. In other words, a rise in income raises the level of consumption and investment at home and increases imports. If exports are not expanding proportionately, the country will have a balance of payments deficit. Here again, the size of the overall deficit is reduced to the extent that increased imports into one country add to the income of the exporting countries and thereby increase the demand for imports by the latter; ultimately, other factors remaining constant, equilibrium is reached through the interaction of balance of payments and income.

It can, however, be readily seen that the effect of variations in a country's balance of payments or income, on the economy and foreign trade of another or other countries, depends to a large extent on the size of the countries concerned, the standards of economic development attained by them, their relative position in international trade, i.e. their share in the total volume of international trade and the elasticity of demand and supply of their imports and exports. A large country with abundant natural

resources which is economically well developed and which commands a substantial proportion of world trade would through foreign trade exert a greater influence on other countries' income and balance of payments than if it were a small country. A small country by increasing its exports or imports will have a negligible impact on the foreign countries' level of activity and therefore the secondary effects following from the initial change will be correspondingly small.

The relation between balance of payments and national income is thus close. Economic growth implies rise in investments, greater employment, increase in aggregate and per capita incomes and hence larger consumption demands also. Changes in consumption and investment in turn would not only promote domestic economic activity but also lead to increased imports and exports. It is a fact of economic history that the volume of international trade—both exports and imports—increases with economic expansion. It thus follows that changes in the balance of payments position of particular countries are caused by differences in their rates of growth. In general, the richer and well developed countries of the world have higher rates of growth than the less developed ones. Apart from this difference in the rates of income expansion, structural and institutional factors also account for differences in balance of payments experience. In other words, although basically, the factors responsible for balance of payments difficulties of developed and under-developed countries are the same, yet the fact that the richer industrial countries are well developed, and have large resources which are easily shiftable not only reduces the severity of their external payments problems, but also explains why they are able to tide over a crisis with greater ease than under-developed countries. It is therefore not surprising that the nature of the balance of payments difficulties that confront countries like the U.S.A., United Kingdom, Canada or Germany is different from what countries like India, Ceylon, Malaya or some of the South American countries are facing in recent years.

Balance of Payments Problems of Developed Countries:

Essentially in developed as well as underdeveloped countries the trend in external payments is determined by the relative elasticity of supply of export goods and elasticity of demand for imports. In the less developed countries, however, these elasticities are determind by limits of physical requirements and supplies such as availability of materials, size of population etc., but in advanced economies the nature of these elasticities depends more on the level and composition of income, the trends in economic activity and technological factors. Broadly speaking, the balance of payments position of an advanced industrial economy — meaning thereby, a country with large national and per capita income, large volume of internal and external trade, better organised economy and high levels of investment is determined by three factors. (a) the pattern of investment in the country, (b) level of productivity, and (c) relation between its productive capacity and domestic effective demand.

(a) *The pattern of investment and balance of payments*: — Post-war economic recovery in some of the industrialised countries of the world has been marked by large investments in capital goods industry. This concentration of investment has been necessitated by the need for replacing capital equipment destroyed during the war and also because of the fact that in recent years there has been a large demand from underdeveloped and semi-industrialised countries for capital goods required for industrialisation. In short, both for domestic reconstruction and for maintaining the volume of exports, larger and larger investments have come to be shifted to capital goods industries. This imbalance in investment which results in the creation of large money incomes combined with shortage of consumption goods has produced inflationary conditions in these countries. At the same time, higher costs have stood in the way of expansion of exports. If in this context inflation is sought to be controlled through curbs on investment, it would not only set in motion deflationary forces at home, but would also affect adversely the external payments position of the country by restricting the supply of exportable goods. This according to Professor Nurkse has been the problem confronting the United Kingdom in recent years.[1] This problem according to him cannot be solved by import restrictions or exchange rate adjustments, but only by means of increasing domestic savings which would make room for an improvement in the foreign balance.

(b) *Relative levels of Productivity*: — It has also been argued that changes in the relative levels of productivity among

1. Bulletin of the Oxford University Institute of Statistics, February 1955, p. 38; and also *The Review of Economics and Statistics*, May, 1956, pp. 121-154.

industrial countries account for balance of payment difficulties of some as against others. If productivity is increasing steadily in one country as against another, the former will have a favourable balance of trade in so far as its costs of production will tend to decline and provide an advantage over competing rivals. This view has been put forward by Professor Hicks in his explanation of the balance of payments difficulties of the United Kingdom as against the U.S.A. in post-war years. According to him the dollar shortage for the United Kingdom is due to increasing productivity in the U.S.A. as a result of which money income in the latter country has risen less than output and prices have remained relatively low.[2] This theory has been subjected to much criticism. In fact increased productivity may as much improve as worsen the balance of trade. It is pointed out that increased productivity may be attended with both increased real and money incomes and if government is not doing anything to control inflation, and if income elasticity of demand in that country is positive there will be a deterioration in the balance of trade.[3] But from the same argument, it follows that if money income does not rise much, the effect of higher productivity will be favourable. Also if improvement in productivity is concentrated on import substitutes and results in the production of new and better products, imports will decline. In reality, it is not the relative changes in productivity that matter so much as what results from increased productivity—whether it raises disposable money income or not, whether the supply of export goods or import substitutes is increased, the sort of reaction that it causes on foreign countries etc. In other words, the final explanation rests on the effect of productivity on the elasticity of supply of exports and elasticity of demand for imports. As such this theory does not take us far in a correct understanding of the nature and causes of external payments difficulties among industrial countries.

(c) *Relations between productive capacity and effective demand at Home*:—The view that has gained some popularity in recent years is one that focuses attention upon the relationship between output capacity on the one hand and income rise and

2. Oxford Economic Papers, June 1953, J. R. Hicks, "An Inaugural Address," pp. 121-125.
3. Bulletin of the Oxford University Institute of Statistics, 1954. Henderson's article.

effective demand on the other. Taking again the case of the United Kingdom and the U.S.A., two leading industrial countries, the explanation of the favourable trend in the balance of payments of the U.S.A. as against the United Kingdom has been made along the lines of the above hypothesis. It has been contended that in recent years "full capacity output" of the U.S.A. has consistently exceeded actual output. Output capacity is dependent on the capital stock available for productive use. In the case of growing industries the building up of capital is continued through years of contraction as well as expansion because it is likely that long term projects initiated during periods of boom are carried over to some extent in periods of contraction; besides, long run favourable expectations induce investments even during periods of depression. Thus expansion of productive capacity is on the whole a continuous process; and since the capital stock built up in this manner is of a very durable nature, there is bound to be excess capacity. If this capital stock is to be fully utilised current income created through new investments should be correspondingly high. But if domestic demand does not rise adequately, producers try to sell their output outside the country so as to prevent prices falling very low at home. In fact even comparatively low prices abroad will not very much deter producers from attempting to push their sales in foreign countries, since their competitive strength is enhanced because of excess capital capacity. In other words, elasticity of supply in such countries is great, and in the face of relatively inelastic demand conditions at home, the excess output spills over into foreign countries in the form of larger exports.[4]

If the rate of growth of full capacity output is higher than that of actual output, the returns on domestic capital will fall and this will induce foreign investment. Hence it follows that the availability of openings for foreign investment would limit the reaction of excess capacity on inelastic demand at home resulting in increased exports. Thus before World War I when Britain was in a similar condition it was possible to find outlets of profitable investment overseas without difficulty. Such facilities are not available to the same extent for the U.S.A. today. Grants and loans advanced to foreign countries have eased the pressure only to a limited extent. In the absence of adequate outlets for excess savings, capital capacity has increased faster than domestic demand and brought about export surpluses and dollar shortage.

4. J. M. Letiche "Balance of Payments and Economic Growth (Harper)" 1959, p. 290.

The weakest link in the above argument is the lack of an adequate explanation for the emergence of excess capacity. It may be questioned whether income is not generated in the very process of creating this full capacity output. How then can we account for the relative deficiency of income created in this manner? If we start from a position when there is already full capacity output, it is plausible to argue that current investment does not generate income adequate enough to utilise fully the growing stock of capital. And if we confine our attention to comparatively recent years (i.e. the years after World War II) this assumption is not unreal in so far as the U.S.A. unlike other industrial countries, did not experience any large scale capital depletion so that as compared with the other countries U.S.A. started with excess capacity. Current investments then made further additions to this captial stock, while in other countries in the same period, much of current investment resulted in the building up of capital stock afresh from a very low level. This resulted in these countries in the release of income and purchasing power adequate enough to absorb the output of growing capital capacity. Furthermore, business fluctuations in America in recent years have been quite mild and the view that accretions to capital stock continued through periods of recession and expansion seems tenable.

Whatever be the explanation of the balance of payments difficulties of industrial economies—whether it is over investment leading to higher money incomes and necessitating larger demand, or higher levels of productivity giving an advantage to certain countries in the matter of exports—all these point to the fact that the problems pertaining to external balance of developed countries are different from that in semi-industrialised or primary goods producing countries. Generally speaking, in countries of the former group the strain in balance of payments is caused by such factors as changes in income, output and employment, rates of investment and effective demand.

Balance of Payments Problem of Under-developed Countries:

The balance of payments problems of underdeveloped countries arise out of certain factors which can be classified as internal and external. Among the domestic factors, the most important are changes in price level, increase in population and structural imbalances resulting from disparity in expansion as between industries and agriculture, between the public and private sectors and between industries. External factors comprise unfavourable terms of trade, cyclical changes in the levels of income of developed countries and movements of foreign capital.

The underdeveloped countries attempt to raise their income levels by stepping up their rate of capital formation. And this is sought to be achieved in many cases by the State initiating and engineering the process of growth. The greater interest taken by the state in this matter has frequently involved resorting to methods of financing which are of an inflationary nature. The result is a rise in real income and a greater rise in money incomes. Inflationary pressures generated in this manner have an adverse effect on the balance of payments position of these countries. A rise in real income raises the standard of life of the people, increases their capacity to consume, facilitates larger investment and thereby causes a greater demand for both consumption and investment goods; but if money income rises faster than real income—and this is the characteristic of inflation—excess demand creates a strain on domestic resources as well as on foreign balance. If exchange rate is unchanged, there is in the first place a tendency for imports to increase attracted by the price factor. Also inflation involves a shift in incomes towards the richer classes which helps in an increase in the demand for luxury goods. If restrictions are placed on the importation of such goods, it is likely that excess demand will make itself felt on domestic substitutes of imported luxuries with the result that a lesser volume of resources would be available for the production of export goods. Or, if it results in a decline in the resources necessary for the production of essential domestic consumption goods the shortage in this would aggravate inflationary pressures along the usual wage cost line. In short, the pressure on foreign balances only reflects the domestic imbalance inherent in inflation. Given the amount of domestic supply, excess demand manifests itself either in inflation at home or in pressure on demand for goods from outside or in both. The effect of the latter is balance of payments difficulties and deterioration in foreign balances.

Apart from inflationary methods of financing development, pressure on balance of payments is exerted through increased demand arising from growth of population. In most of the underdeveloped countries the rate of growth of population is high. Since capital is scarce, growth in numbers increases unemployment, reduces productivity, keeps down per capita incomes and prevents a widening of the savings margin which is essential for raising the level of income. On the other hand, there is need for additional food supplies and if conditions of domestic supply are inelastic, more and more imports become necessary with obvious effect on foreign balances. This has been well illustrated by recent trends in India.

Sectoral imbalance as a source of balance of payments difficulties has been emphasised by many economists. Sectoral imbalance means the development of one or two industries or one section of the economy at a faster rate than others. Sponsored economic growth involves in several cases the development of particular industries whose potentiality for growth is great or the development of which indirectly benefits other industries and thereby generates growth forces. But this artificial stimulus given to particular industries has a direct adverse effect on foreign balances. If the industry to which support is given, is not an efficient one, protection raises costs and prices and thus hampers the expansion of other industries which are export oriented and which depend on the protected industry for their raw materials. The higher costs of raw materials add to the cost of production and prices of export goods and affect their exports. In the final analysis the lagging of particular industries behind others when there is a general rise in the average level of production in a country is due to the lack of mobility of factors between industries, transport bottlenecks and the difficulty in adjusting or regulating the flow of resources according to requirements. Such factor rigidities are a characteristic feature of underdeveloped countries and account for not only slow rates of growth but also for lack of balance which causes external payments difficulties.

External factors which affect the foreign trade of semi-industrialised and primary goods producing countries spring from the trade relations between such countries and the advanced and industrial economies. Industrialization necessitates the importing of capital goods in under-developed countries. On the other hand, the imports of advanced countries are mostly primary products and food materials. Since the industrial countries have attained to a high standard of development and their per capita incomes are large, a rise in the income of such countries does not result in any great increase in the demand for consumption goods. Nor is the demand for raw materials likely to go up to any significant extent in so far as most of the advanced countries of the world are taking steps to make themselves less dependent on other countries in the matter raw materials by economising in the use of such goods and by developing many synthetic substitutes. Since by and large, the imports of industrial countries are the exports of primary goods producing countries, it follows that given a certain rate of increase in incomes between developed and under-developed countries, the imports of the latter increase to a much greater extent than the imports of the former and consequently their balance of payments position deteriorates. This is only aggravated by the fact that there has been a secular trend for income in industrial countries to go up at a much faster rate than incomes in primary goods producing countries so that the exports of the latter form a smaller and smaller proportion of the national incomes of the former.

For these reasons, the bargaining power of underdeveloped countries in the matter of foreign trade tends to weaken. Over the years, there has been a tendency for the prices of agricultural commodities to decline in terms of manufactured goods. As regards capital goods which are in great demand in the semi-industrialised and developing economies, supply is relatively inelastic in the economically advanced countries which export these goods, because of high levels of employment and full utilization of capacity in them. This explains why prohibitive prices are paid for them by countries where they are required for investment. This tendency for agricultural prices to sag in relation to the prices of manufactured products is illustrated in a United Nations Study. It has been pointed out that at the late stages of the depression of the 1930's a given quantity of the exports of the under-developed countries could pay for only 60% of the quantity of imported manufactured goods that they could buy at about the close of the 19th century.[5]

This unfavourable trend in the terms of trade has led to a belief especially in countries which are adversely affected by it, that the terms of trade are practically determined by the developed countries. This is attributed to their monopolistic advantage and the fact that restrictive practices are more common in manufactured goods than in primary products. This assumption however, is questionable. It is likely that under monopoly conditions prices will be relatively stable so that the long term prices under competition and monopoly may be the same. Moreover, if monopoly is due to or results in efficient production, the tendency for prices will be to decline rather than rise. It is also doubtful whether restrictive practices are more common in manufacturing industry than in agriculture. Nor can the fact be denied that the supply of manufactured goods increases faster than agricultural commodities which should for that reason depress the prices of the former as against the latter. If this has not happened, the explanation is to be found not in monopolistic organization in developed countries but in the effect of increased output on spendable income. In advanced countries money wages rise along with increased production so that higher factor incomes keep prices constant. But in the less developed countries increased productivity leads to fall in prices but not to higher incomes.[6]

5. Quoted in G. Myrdal *An International Economy*, 1956, p. 231.

As a matter of fact, the terms of trade of different countries are to be explained in terms of the ease or difficulty with which resources can be shifted from one enterprise to another with a view to secure attractive prices. The facility with which resources can be shifted depends on the nature of the resources, the skill, foresight and enterprise on the part of entrepreneurs and the mobility of labour. In reality, it is the shiftability of resources that facilitates the formation of monopolies. To the extent resources are shifted easily with a view to bringing about relative shortage in the supply of some commodities and increase in others, potential competition is eliminated and prices both internal and external are prevented from falling. Normally, the shiftability of resources in developed economies is greater than in the under-developed, mostly because the proportion of capital employed in production in the former is very much greater than in the latter. Among the factors of production capital is the most mobile. Even in agricultural operations the input of capital in countries like U.S.A. or Canada is several times greater than in countries like India or China. In the latter countries, since much labour is combined with a small amount of capital and since labour is tradi-

6. C. P. Kindleberger "The Terms of Trade — A European Case Study", 1956, pp. 242-257.

tion bound and by nature immobile, the scope for regulating output of different types of goods by shifting of resources is considerably limited. It is this difficulty to vary supply that affects prices and terms of trade more than any monopolistic restriction.[7]

Whatever be the causes for changes in terms of trade, the effect of such changes on balance of payments needs to be stressed. This is particularly so in the case of primary goods producing countries because of the high foreign trade ratio to national output in such countries. A small change in terms of trade would therefore have a disproportionately large effect on the domestic economy. It has been calculated that a 10% change in the terms of trade of under-developed countries would modify their capacity to import by as much as 1500 million dollars a year. The Secretariat of the Economic Commission for Latin America has estimated that the improvement in the terms of trade for Latin America from 1946 to 1952 made available to that continent more than 11,000 million dollars, i.e., about 4·3% of the aggregate product of the area for the whole seven year period.[8]

Foreign trade of underdeveloped countries is also very much susceptible to cyclical changes in the incomes of industrial economies. This is largely due to the fact that the degree of concentration of exports is greater in the less developed countries of the world than in the economically advanced ones. Roughly 90% of the foreign exchange earnings of the former are derived from the export of primary products. Since the ratio of their export earnings to national income is large, any variation in the demand for their exports will have a serious repercussion on their incomes. This explains why cyclical fluctuations in a large industrial country like the U.S.A. produce similar income changes in countries which are exporting primary commodities to the U.S.A. There in fact a very distinct and close correlation between the highs and lows of national income in U.S.A. on the one hand, and those of exports, exchange reserves and national incomes in the underdeveloped countries on the other. It is true that balance of payments disequilibrium is normally set aright through changes in income; but this is not applicable to the primary producing countries because the scope for such adjustments in these countries as

7. C. P. Kindleberger "The Terms of Trade — A European Case Study", 1956, pp. 253-54.

8. Quoted in G. Myrdal "An International Economy", 1956, p. 234.

against the high income countries is very limited. If the country is large, the increase in imports would itself encourage exports. Increase in imports means larger incomes in the foreign countries which export these goods. As a result of this rise in income, the foreign countries will increase their demand for imports. But this automatic adjustment is not possible in the matter of trade between a large industrial country on the one hand and a small underdeveloped one on the other.

It should further be observed that the income elasticity of demand for the articles imported by advanced countries is less than that of the imports of the primary goods producing countries. As the income of the latter group of countries increases, they require more and more of machines, plants and other capital goods for investment and a larger supply of luxury articles and other manufactured products for consumption. But food materials and other raw produce constitute the bulk of the imports of industrial economies, and the demand for these goods does not rise in proportion to income expansion.[9] As a result, in times of boom when world income is rising, the total imports into agricultural countries will be rising faster than those into the industrial countries; and in times of depression imports into agricultural countries will shrink to a greater extent than the imports into developed countries.[10]

Not only are fluctuations in export earnings considerable, but their effect on national income is also greater in underdeveloped than in developed countries. Generally the ratio of foreign reserves to money supply is high in the less developed countries. A favourable balance of trade therefore results in greater liquidity of money and this increased liquidity intensifies the upswing. Liquidity of money also facilitates speculation which adds to the inflationary pressures in the economy. When there is a decline in exports, fall in exchange reserves and decrease in money supply and bank reserves accelerate the down trend.[11]

9. Thus between 1938 and 1954, total production of industrial countries increased by 77%, but the quantities of foodstuffs taken increased by only 35. (Trends in International Trade—GATT, Geneva, 1958, p. 43.

10. Tse Chun Chang "Cyclical Movements in the Balance of Payments" (Cambridge), 1951, p. 51.

11. Henry C. Wallich "Underdeveloped Countries and the International Monetary Mechanism" in "In Money Trade and Economic Growth", p. 23.

Another external factor affecting the balance of payments position of underdeveloped countries is the availability of forign capital. The importance of foreign capital in the development of these countries cannot be exaggerated. But the fact that the inflow and outflow of foreign capital cannot be properly adjusted to the requirements of the economy constitutes a serious problem. In recent years, the inflow of foreign capital into the less developed countries of the world has decreased considerably. The large decrease in the inflow of private foreign capital has been offset only to a small extent by the availability of funds through international agencies like the International Bank for Reconstruction and Development and the International Monetary Fund and also from foreign governments. Private foreign capital apart from its inadequacy has an adverse effect on cyclical changes in the foreign reserves of underdeveloped countries in so far as it tends to vary directly with the level of business activity and the chances of profit making in the importing country and quite often inversely with the real needs of the country. In periods of boom it flows rather freely while in periods of recession, it tends to dry up — at the very time when it is needed most to bolster up the declining foreign reserves and thereby ensure stability in the domestic economy.

Recent Trends in Foreign Trade and Balance of Payments: If there is any single factor which has characterised the economies of both developed and underdeveloped countries of the world since the Korean boom of 1950-51, it is a remarkable rise in the levels of economic activity and increase in incomes. Recent developments in foreign trade, therefore, provide a case study which would help to examine the relationship between economic growth and balance of payments. It is also possible to test the validity of the hypothesis put forward to explain the trends in the balance of payments of countries of different standards of economic development. In both the groups of countries economic reconstruction in recent years has necessitated considerable changes in the structural pattern of their economies. There is, however, no uniformity in the impact of domestic expansion on external payments position. This is natural in view of the different stages of development attained by the various countries, differences in social and institutional factors, and in their resources position. For the developed countries, economic growth has implied mostly reconstruction or building upon a basic structure which had been impaired by war. The underdeveloped countries on the other hand have had to build up the basic structure itself in order to promote economic growth. Furthermore, the difference in the factor supply situation in the two groups of countries has created special problems in the matter of foreign trade in the semi-industrialised and predominantly agricultural countries.

(i) *The Developed Countries*:

The pattern of foreign trade of developed countries in recent years has been influenced mostly by three important factors (a) Changes in domestic demand, (b) structural changes in the economy, and (c) domestic price level.

(a) *Changes in domestic demand*: — Foreign trade and balance of payments experience of economically advanced countries in recent years does not bear out the hypothesis that differences in rates of growth have a direct influence on external balance. Between the years 1950 and 1955 increase in real output varied from 55% in the case of West Germany to 7% in Denmark. The assumption (which has been explained already) is that if the rate of growth of any country is out of step with the rest, there will be greater demand for imports which would adversely affect its balance of payments position. But the slow rate of growth in Denmark has not helped it to escape balance of payments difficulties and the high rate in Germany has not placed it in a more difficult situation than the rest. The United Kingdom has all along been experiencing balance of payments difficulties while its growth by 15% over these years has been quite moderate. On the other hand Canada with a much higher rate of 25% has combined economic advancement with external stability. In reality, the major source of trouble has been the nature and magnitude of domestic demand and the extent to which the economy concerned has been able to meet this demand out of domestic resources. If economic growth is attended with rise in domestic demand greater than increase in output, then this excess demand exerts a pressure on external balance. Thus the adverse effect on foreign balances is particularly marked when the resources of the country are fully utilized in the course of expansion so that supply becomes relatively inelastic. Since 1950, in Belgium, France, West Germany and the U.S.A. with elastic supply conditions external stability has not been threatened, while in countries like the Netherlands, Norway, Sweden, and the United Kingdom which have experienced the severest strain, domestic resources like labour and equipment have been nearly fully utilised leaving little margin for increasing output in response to internal demand. This explains why in the U.S.A. which registered a growth in output of 21%, rise in internal demand has had only an imperceptible effect on external balance.

(b) *Structural Changes in the Economy*: Structural changes relate mainly to the composition of exports and imports. These changes have been brought about by a shift in the nature of the external demand for the products of the developed countries, and the resulting variation in the composition of their imports, shifts in production and supply brought about by government policy and also by physical limitation such as shortage in the supply of raw materials necessary for the manufacture of traditional export goods. The adverse effect of these structural changes on balance of payments is due to the difficulty or inability to bring about an adequate change in the pattern of production in accordance with demand conditions. It is obvious that in countries where sources are varied and abundant, changes in demand can be easily met by varying the composition of output. One noteworthy feature about the recent trends in the foreign trade of industrial countries is a steady increase in the export of machinery, investment goods, chemicals and transport equipment and a corresponding decline in non-durable consumption goods especially textiles. Of the exports of manufactures from the leading industrial countries of the world between 1950 and 1955, machinery increased from 23 to 24·5%, and chemicals from 9·8 to 11·5% while textiles decreased from 17·9 to 10·7%.[12] Hence in the matter of foreign trade those countries benefited which were able to concentrate on the dynamic goods among the exports. Thus exports of Italy, France and the United Kingdom showed only slight improvement because of the large proportion of textiles in their exports, while in Germany there was a rapid rise in exports because of shift towards the expanding commodities. Changes in the pattern of exports have necessitated a corresponding change in imports as well. Increasing external demand for engineering products and investment goods has made it necessary to increase the imports of coal and fuel. Where this was not possible exports have suffered because of higher costs of production, or insufficient output. Increased consumption of coal in the United Kingdom and Germany converted the latter from a net exporter to a net importer.

12. World Economic Survey, 1956 (United Nations), p. 58.

For the same reason, the share of imports consisting of metal and metal products has risen markedly in France, West Germany, the United Kingdom and U.S.A. The import of steel in Western Europe has more than doubled since 1938.

Other factors also have contributed to change in the composition of imports. Thus technological development have brought about a decrease in the import of some of the traditional raw materials. The development of synthetic products such as synthetic rubber and synthetic textile fibres, the substitution of aluminium for steel and timber and the use of plastics in the place of a wide variety of natural materials, all these have significant consequences in the commodity distribution of imports of developed countries. Government policies have also affected the pattern of imports. In some cases the State has laid a general restriction on imports in order to facilitate the using of domestic resources. Governments of Western Europe have restricted certain imports in order to make the countries self-sufficient in the matter of food and essential raw materials. The direct effect of such restrictionist policy has on the whole been beneficial from the point of view of balance of payments at least in the short run. On the whole, the difficulty or ease with which some imports, hitherto considered as essential and basic have been restricted has had a direct effect on the external balances of the industrial countries.

(c) *Domestic Price Level*: Changes in price level have played an important part in expanding or contracting exports and imports. In the post-war years most countries have experienced a sharp rise in prices which in some countries have assumed an inflationary trend. Apart from the devaluation of 1949, and the commodity price boom of 1950-51, increased investment expenditure, rise in wages and higher import prices have been responsible for this up-trend in prices. The extent to which price rise has taken place has varied from country to country and this has affected their relative position in foreign trade. Rise in cost of living in 1950-55 ranged from 8% in Switzerland to 48% in Austria. In the U.S.A. it was 11%, in West Germany 10%, while in the United Kingdom, it was 31%. The effect of rising prices on the exports and imports of these countries is not clearly seen because the normal effect of domestic price rise on exports has been offset by other factors like trade and exchange controls adopted by governments. It has, however, been noted that "on the whole price changes in individual countries relatively greater or less than the average have been associated very roughly with relative quantum changes in the opposite direction".[13]

(ii) *The Under-developed Countries*

As between industrial and non-industrial economies, balance of payments trends of the latter have been influenced to a greater extent by external factors than in the case of former. This is as may be expected, in view of the fact that the export earnings of primary producers are derived from a relatively few articles which are exported to industrial countries.

Broadly speaking, four important features in the balance of payments experience of underdeveloped countries in recent years can be distinguished. Their imports from industrial countries have increased substantially, but their exports to these countries show a relative decline; also their balance of payments problem has been aggravated by adverse price trends and inadequate inflow of foreign capital.

(a) *Increase in imports from developed countries*:

Economic growth in underdeveloped countries has necessitated larger and larger imports from advanced countries. Between 1938 and 1957 world trade increased from 21,400 million dollars to 97,500 million dollars. In the same period, imports into non-industrial areas increased from 6600 million dollars to 34,300 million dollars. Thus between these two points of time while trade increased by 4½ times imports into non-industrial countries increased by more than 5 times. This increase in imports is accounted for mostly by capital goods. The share of capital goods in total imports increased from 19·7% in the pre-war years to 27·8% in 1954-55 against 29·0 % and 32·7% in the case of raw materials; the proportion of semi-manufactured goods remained more or less constant at 26·4% and 26·1%, while consumer goods declined substantially from 24·9% to 13·4%.[14] The rise in capital goods imports occurred in countries where total imports fell as well as in those where they increased. This shift in the composition of imports has been closely linked to the widespread intensification of investment activity in the primary producing countries since the close of the second world war. In many countries governments gave priority to the importation of capital goods.

13. World Economic Survey (United Nations), 1956, p. 75.
14. Trends in International Trade (GATT, Geneva), 1958, p. 46, Table 19.

Another noteworthy change in the pattern of imports has been the decline in the relative share of food imports in the net food importing countries. Thus in Malaya and Ceylon in the early post war years food imports constituted 47% and 57% respectively of total imports. Between 1948-49 and 1954-55 of the total increase in imports in these two countries food imports accounted for only 5% in Malaya, and 30% in Ceylon. Food imports in Egypt Pakistan and the Philippines decreased in absolute terms. In those countries which have made some progress in industrialization, there has been a sharp decline in the imports of manufactured goods. This trend is particularly noticeable in the Latin American Countries. But expansion in manufacturing production has caused in its turn an increase in the demand for imported industrial materials.

By and large then, economic growth in the underdeveloped countries of the world in the post-war years has been attended with an increase in the imports of capital or investment goods and industrial raw materials. Food imports in some of these countries have increased, while in others they have fallen. However, the rate of increase in food imports has been less than that under capital goods. And this has been brought about not only by increased domestic production, but also by government policy which has aimed at restricting unnecessary imports so as to save foreign resources for the importing of much needed capital equipment.

(b) *Decrease in exports to developed countries*:

While the demand for the export goods of developed countries has increased with economic development in the non-industrial countries, the demand for primary products (the export products of under-developed countries) has not increased in proportion to the rise in the national income of the advanced countries. In 1955-57 exports from non-industrial countries (excluding the U.S.S.R., Eastern Europe and China) increased from 28,220 million dollars to 30,880 million dollars i.e. by 9%, while in the same period exports of industrial countries rose from 53,440 million dollars to 66,690 million dollars or by 25%.[15] The demand for most of the industrial raw materials in World's markets has either stagnated or has been increasing haltingly except in the

15. Trends in International Trade, 1958. GATT, Geneva, p. 20.

case of fuels, particularly petroleum. From 5% of total export value in 1928 the relative importance of petroleum and petroleum products rose to 10% in 1937-38 and 20% in 1955. On the other hand, demand has been the weakest in respect of certain agricultural raw materials such as natural fibres. This has been largely due to technological developments in industrial countries which have made industries less dependent on imported raw materials. Also some of these advanced countries have been making successful attempts to become as far as possible self-sufficient in the matter of agricultural products.

Relative decline in the export of traditional articles has been due not only to fall in external demand but also to supply conditions. Some under-developed countries have been quick enough to adjust their export pattern to changing needs, by diversifying their exports and by increasing the output of commodities for which foreign markets are expanding. Thus while between 1950 and 1955, the proportion of tea exports of India in world markets declined from 46 to 40%, Ceylon maintained her tea exports more or less at a stable level. In the same period the share of cotton exports of Egypt declined from 15 to 12%, but Mexico and Brazil increased their share of cotton exports from 5 to 10% and 7 to 10% respectively. Apart from this, in several other countries fall in exports was due to increased domestic consumption of export commodities. Inflationary conditions, higher costs of production, governments' regulatory measures,, currency inconvertibility and other similar factors have also stood in the way of expansion of exports.

Disparity in the movement in exports of the under-developed countries to some extent accounts for differences in their rates of growth. On the whole, high rates of domestic economic growth have taken place in countries whose exports have shown the greatest buoyancy, while countries whose exports have been sluggish have registered only moderate rates of growth. Also, it is observed that countries which have increased their exports in step with domestic expansion have experienced less strain on the balance of payments fronts. As against this, countries like Argentina, Egypt, India or Pakistan whose exports have not risen substantially and as a result, import capacity has not much improved, have experienced continuing or increasing pressure on their external balances. To a large extent high rates of growth in Brazil, Columbia, Mexico, Peru and Venezuela (5 to 7% per year) were due to favourable trend in exports while in countries like Cuba slow increase in real product (about or less than 2·5% per year) can be attributed to stagnation or actual decline in exports.

It should, however, be added that the trend in exports affects the rate of domestic growth as much as the latter affects the former. The volume of exports of a country in any period of time is determined by external as well as internal factors. The decline in export earnings may be due to fall in external demand as well as to increased domestic absorption in which case a fall in exports may synchronise with domestic economic expansion. Furthermore, rapid economic development if it is attended with rising prices, attracts increased imports and adversely affects the volume of exports. Much, therefore, depends on the pattern of domestic growth and the extent to which growth depends on import goods and affects the supply of export commodities.

(c) *Adverse Price Trends*:

Any particular trend in balance of payments is the combined effect of relative movements in the volume of imports and exports and also the price factor. It is obvious that any adverse trend in the quantum of exports and imports may be offset by a favourable turn in the terms of trade. In the last few years terms of trade have on the whole moved against primary products, and in favour of manufactured goods. Thus between the last quarter of 1954 and the first quarter of 1958, the index number of prices of primary products (1953=100) declined from 103 to 96, while manufactured goods registered a rise from 98 to 107. Among the primary products, however, minerals including fuels moved up from 99 in 1954 to 119 in the first quarter of 1957 and then receded to 109 in the first quarter of 1958. As a result of the shift in the prices of manufactured goods and primary products, the terms of trade[16] of the latter against the former receded from 105 to 90.[17] From another point of view, while the index number of volume of exports (1928=100) from non-industrial countries (excluding the U.S.S.R., Eastern Europe and China) of the world increased from 138 in 1955 to 151 in 1957, the unit value remained constant (197). On the other hand, in the same period, while the index of volume of exports from industrial countries moved up from 139 to 162,

16. i.e., index numbers of prices of all primary products divided by that of manufactured products.

17. *Monthly Bulletin of Statistics (U.N.), June, 1958.*

the index number of the unit value of their exports rose from 83 to 193 i.e. an increase by about 133%. Even among the less developed countries, there is evidence to show that semi-industrialised countries like India have been the worst hit.

(d) *Financing of Deficits: Capital Inflow:*

An additional factor which has been responsible for the worsening of the balance of payments position of under-developed countries has been the large deficits on account of services—particularly transportation charges and returns on the investment of industrial countries. During the inter-war years, the net income accruing to the United Kingdom from her overseas investments averaged about 1000 million dollars a year. In recent years, similar earnings of the U.S.A. alone have exceeded 2000 million dollars. To some extent the burden of payments on account of this item by non-industrial countries has been eased by United States military spending abroad, and foreign travel. The overall position in this respect in recent years has been as follows:

TABLE I

Consolidated balance of payments[1] of the industrial Countries[2] with the rest of the world

(In thousand million dollars)

	1950	1952	1955
Current account			
(i) Net trade[3] (f.o.b.) ..	−1·40	+1·85	+1·17
(ii) Services[3] ..	+1·70	+2·05	+0·61
Private donations ..	−0·24	−0·20	−0·24
Record private capital[4] ..	−0·46	−1·65	−0·94
Official grants and loans[5] ..	−0·90	−1·75	−1·61
Multilateral settlements, official short term assets, monetary gold, errors and omissions (net) ..	+1·30	−0·30	+1·01

1. + credit; − debit.
2. U.S.A., Canada, Japan and OEEC Countries.
3. Excluding goods and services for military aid.
4. Short and long-term loans not including reinvestment.
5. Excluding military aid grants.

Source: Trends in International Trade, 1958 (GATT), p. 30, Table 8.

Since the close of the second world war private foreign lending has been rising only very slowly and has not reached its level in the late 1920s. As a proportion to the total imports into non-industrial areas, private foreign lending has been much less than it was in the 1920s. In 1956 only 6·5% of the visible imports into these regions was financed by private foreign lending whereas it was 14% in 1928. The more important recipient countries have been South and Central America, New Zealand, Australia and the Union of South Africa. Among the semi-industrialised countries, India has nearly ceased to attract long term private funds on balance; but the flow of such funds into oil exporting countries shows a remarkable increase in recent years. In 1954-56 the inflow of private foreign capital into non-industrial countries as a whole increased by 62%; in oil exporting countries, it went up by more than eleven times.

The relative inelasticity of private foreign capital has been to some extent offset by increases in official grants and government loans to underdeveloped countries. In 1956-57, of the total official loans and grants amounting to 2500 million dollars, U.S.A. contributed 45%, France 32%, and U.K. 6%, while the International Institutions accounted for 10%. Capital of this kind has moved mostly into non-oil exporting among the under-developed countries. There has, however, been wide disparity in these receipts calculated as per head. Thus in 1956-57, India received \$0·1 per head, while Laos received \$35·1. Together with private loans, official grants and loans contributed to the import capacity of non-industrial countries to the extent of 17% in 1956-57. Despite this assistance, trends in external trade have involved much strain on the foreign reserves of some at least—particularly the semi-industrialised—among the underdeveloped countries. This is indicated by the losses in gold and foreign exchange suffered by them. In 1950, the non-industrial countries held 28% of the world reserves (excluding that held in the International Institutions) but the proportion declined to less than 23% in 1957. The proportion held by semi-industrialised countries alone in 1950 was 12%, and it declined to 7·5% in 1957. On the other hand, among the under-developed countries the oil exporting countries substantially improved their position. Thus Venezuela increased its gold and dollar holdings almost four times between 1950 and 1957.

(e) *Disparity among the Underdeveloped countries in their balance of payments experience*

To say that the trends in the foreign trade of non-industrialised countries have on the whole moved adversely to them and that as between the industrial and non-industrial countries, the latter have experienced greater strain on their external balances is only a very general statement. Although these countries have on the whole fared badly, considerable disparity in the nature and intensity of the strain is noticeable. On the basis of this experience, it is possible to classify the underdeveloped countries into three broad categories. In the first group comprising Australia, Brazil, Burma, Chile, Columbia, New Zealand, Peru, Thailand and Turkey, economic growth has been quite rapid, but there has not been any great adverse developments in their balance of payments. Although imports into these countries increased considerably due to intensification of investment activity, their exports also correspondingly increased with the result that their import capacity moved in step with domestic growth. In the second group of countries which include Argentiina, Cuba, Egypt, India and Pakistan, economic growth has been quite moderate, but their export capacity expanded little in view of the sluggish nature of the external markets for their exports. The fall in the exports of Argentina has been attributed to the cost factor resulting from domestic inflation and the agricultural policy of the government. Balance of payments difficulties arising out of inadequate external demand for export goods and rising level of domestic incomes in these countries have been met largely by reducing imports and by conserving the supply of foreign exchange to import capital equipment. In Argentina, however, the difficulties necessitated a cutting of the import of capital equipment. Ceylon, Iraq, Malaya, Mexico, the Union of South Africa and Venezuela come under the third category. The export volume of these countries increased steadily, thanks to strong world demand for their exports. Their terms of trade also improved, while their import demand has been moderate. As in the other countries economic development involved substantial increases in imports, but imports have been kept within limits by augmenting domestic supplies of substitutes. Except in Malaya and Mexico, imports did not rise as fast as the increase in real product. This trend in imports combined with favourable circumstances operating on the export-side has helped these countries to register a high rate of economic growth without any great strain on their external balances.

LECTURE II

Economic Growth and Balance of Payments Problem in India

Economic growth in India since **1951-52**:

Economic growth is reflected mostly in a rise in per capita and aggregate national income. It involves increased production, larger investment and capital formation, increase in population and in aggregate demand and also a rise in the level of both exports and imports. Since the relation between rise in incomes and external trade is intimate, it is necessary to examine the pattern of economic growth in India in the last few years before we turn to an analysis of the developments in balance of payments. In so far as our main concern is the trend in external balance, it is important to concentrate on those aspects of growth that have a direct bearing on external trade and on the balance of payments situation.

Between 1951-52 and 1957-58, net output in India increased from Rs. 9,970 crores to Rs. 11,360 crores or by 14% at current prices, and from Rs. 9,100 crores to Rs. 10,830 crores, if expressed in 1948-49 prices. The average annual rate of increase has been steady except for a slight decline in 1957-58. With a rate of growth of population of about 2% per year, this rise in income in absolute terms has had only a negligible effect on per capita income. At current prices per capita income moved up from Rs. 274 to Rs. 289 during this period. At 1948-49, prices, the corresponding figures are Rs. 250 and Rs. 276.

Along with rise in incomes there has been a rise in the level of investment also. The First Five-year plan envisaged an increase in investment from of about 5% of the national income to about 7%. According to this estimate the aggregate investment over the five years in both the public and private sectors would be Rs. 3500 — 3600 crores. In actual fact the total investment in the First Plan period in the public sector amounted to Rs. 1500 crores and in the private sector about Rs. 1600 crores making an aggregate of Rs. 3100 crores. In absolute terms the level of investment at the end of the first plan period was about double what it was at the commencement of the plan period. The Second Five-Year Plan aims at an investment target of 11% of national income in

TABLE II

National income of India 1951-52—1957-58 (Crores of Rs.)

Net output	1957-58	1956-57	1955-56	1954-55	1953-54	1952-53	1951-52
1. At current prices ..	11,360	11,310	9,980	9,610	10,480	9,820	9,970
2. At 1948-49 prices ..	10,830	11,000	10,480	10,280	10,030	9,460	9,100
Per capita output							
1. At current prices ..	289·1	291·5	260·6	254·2	280·7	266·4	274·0
2. At 1948-49 prices ..	275·6	283·5	273·6	271·9	268·7	256·6	250·1

1960-61. But as between the public and the private sector, the second plan lays greater emphasis on the former. Of the aggregate investment envisaged over the five years 1956-57 to 1960-61, the public sector would account for Rs. 3800 crores and the private sector Rs. 2400 crores. Thus, while the ratio of public to private investment in the first plan period was 50: 50, in the second plan period the ratio will be 61 : 39. Looked at from another point of view, while investment in the private sector would increase by 50% in the second plan, that in the public sector would increase by 2½ times. This change in the relative significance of the two sectors has to be borne in mind in view of its bearing on the balance of payments problem. Separate figures relating to investment in the private sector as well as investment in the States out of the budgetary resources of the States are not available, but the data relating to net capital formation at the Centre—including that in the States financed from grants and loans from the Centre indicate the considerable step up in investment expenditure in recent years, particularly since the commencement of the Second Plan period. Total net capital formation out of the budgetary resources of the Central Government increased from Rs. 160 crores in 1951-52 to Rs. 431 crores in 1955-56 and to about Rs. 800 crores in 1958-59.

Another important aspect of the investment programme is the greater emphasis laid on industries and particularly the building up of major industries in the Second Plan. Of the total outlay of Rs. 2356 crores provided for in the First Plan, long and medium industries and mineral development absorbed Rs. 149 crores or 6·3%, while village and small industries accounted for Rs. 30 crores or 1·3%. As envisaged in the Second Plan, of the total outlay of Rs. 4800 crores, Rs. 690 crores or 14·4% will be on large and medium industries and mining and Rs. 200 crores or 4·1% on village and small industries.

The discrepancy in the variation between money incomes and real output indicates the gap between total spendings of the community and the availabiliy of real output. Against an increase in real national income of 19% between 1951-52 and 1957-58, money supply increased from Rs. 1787 crores to Rs. 2389 crores or by about 33%. But while total income increased, the response in output has not been equal. This is indicated by the trends in production in the country. At the rate of increase of 2% per year population would have risen from 362 millions in 1950-51 to 434 millions in 1960-61. It is now estimated that food production at the end of the second plan would at least have reached 75 million tons which is not much of an improvement over the position in 1955-56 and would not be sufficient to raise the per capita consumption of food to any noticeable extent. Rise in the standard of life of the people obviously involves greater consumption of manufactured consumption goods, but the supply of such consumption goods has not very much improved. Thus, output of the Textiles manufacturing industry has gained only about 12% since 1950-51. Also industrial expansion increases the demand for industrial raw materials like cotton, jute, etc. Here again supply has not responded favourably to demand. In brief, the domestic supply of industrial raw materials, manufactured consumption goods and food grains has not improved to the extent necessary to meet the rising demand.

With larger spendings and relatively inelastic supply of goods, the price level in the country has been steadily going up. A rise in price level in one county in relation to that in other counries normally has an adverse repercussion on foreign trade and affects external balance. In India in recent years, signs of inflationary pressures in the economy have become more and more visible. The decline in prices towards the close of the First Plan period was due largely to the considerable improvement in agricultural and industrial production. But even in 1954-55, prices had started rising because of the marked rise in investment activity in the last two years of the plan and deficit financing on a large scale. With the commencement of the Second Plan period, the rise in prices has become more spectacular. The larger doses of deficit financing which amounted to Rs. 238 crores in 1956-57, Rs. 464 crores in 1957-58 and Rs. 215 crores in 1958-59 and a corresponding expansion of bank credit reflect the magnitude of excess demand in the country arising from both the public and private sectors. The rate of increase in prices since 1956--57 has exceeded increase in money supply. This indicates a fall in the liquidity preference and increase in the velocity of circulation of money, which again is a symptom of inflationary pressure. Factor prices have also been rising fast. By and large, money income of wage earners in the last two years or so has kept pace with rise in cost of living. This would lead to the inference that wage trends in India have reached a stage in which they constitute as much a cause as a result of inflation. Tendency for speculative holding of goods which has become pronounced is a further sign of inflation.

The significance of the various aspects of economic growth in India in recent years in the balance of payments trends can be summarised as follows: First there has been a moderate rise in income at the rate of 2·3% per year; domestic production has not kept pace with domestic requirements; there has been a sharp rise in investment activity, particularly in the public sector; these factors have led to a substantial rise in price level. It is against the background of these facts that the trend in balance of payments has to be examined.

Balance of payments trends in India since 1951-52.

The trends in the balance of payments of India since the commencement of the period of planned development falls into three well-marked phases: (i) Decline in both exports and imports between 1951-52 and 1953-54 and a relatively stable position in respect of foreign reserves, (ii) Steady and gradual rise in exports and imports in the last two years of the First Five-Year Plan, i.e. 1954-56, (iii) The third period commencing from the first year of the second plan is marked by a rapid rise in imports with exports remaining more or less constant with the result that foreign reserves of the country have seriously declined. This is shown in the following table: —

TABLE III

Trends in India's Foreign Trade 1950-51—1959-60 (Crores of Rs.)

Year	Imports	Exports	Net
	First Plan Period		
1950-51 1st Quarter	149·3	121·4	— 27·9
2nd "	148·9	144·1	— 4·8
3rd "	151·7	182·9	+ 31·2
4th "	200·4	198·4	— 2·0
Total for the year	650·3	646·8	— 3·5
1951-52 1st Quarter	220·1	195·6	— 24·5
2nd "	218·5	181·1	— 37·4
3rd "	242·9	174·3	— 68·6
4th "	281·4	179·1	—102·3
Total for the year	962·9	730·1	—232·8

Year	Imports	Exports	Net
1952-53 1st Quarter	188·4	156·3	− 32·1
2nd „	161·6	164·9	+ 3·6
3rd „	136·6	148·6	+ 8·0
4th „	142·5	131·8	− 10·7
Total for the year	629·1	601·6	− 31·1
1953-54 1st Quarter	164·9	124·1	− 40·8
2nd „	151·1	128·9	− 22·2
3rd „	132·5	151·3	+ 18·8
4th „	143·3	135·4	− 7·9
Total for the year	591·8	539·7	− 52·1
1954-55 1st Quarter	159·4	123·6	− 35·8
2nd „	164·6	128·6	− 36·0
3rd „	172·2	160·0	− 12·0
4th „	187·6	184·4	− 3·2
Total for the year	683·8	596·6	− 87·0
1955-56 1st Quarter	176·0	153·8	− 22·2
2nd „	179·3	149·2	− 30·1
3rd „	185·8	165·1	− 20·7
4th „	209·5	173·0	− 36·5
Total for the year	750·6	641·1	−109·5
Second Plan Period			
1956-57 1st Quarter	230·2	153·5	− 76·7
2nd „	246·6	134·8	−111·8
3rd „	294·0	171·5	−122·5
4th „	305·7	179·2	−128·5
Total for the year	1076·5	639·0	−439·5
1957-58 1st Quarter	323·1	204·6	−118·5
2nd „	299·1	136·9	−162·2
3rd „	288·6	177·7	−110·9
4th „	264·0	149·7	−114·3
Total for the year	1174·8	668·9	−505·9

Year	Imports	Exports	Net
1958-59 1st Quarter	277·2	127·0	−150·2
2nd „	248·8	126·5	−122·3
3rd „	254·5	161·9	− 92·6
4th „	266·0	160·7	−105·3
Total for the year	1046·5	576·1	−470·4
1959-60 1st Quarter	133·8	135·4	+ 1·6
2nd „	124·0	135·4	+ 11·4

Source: India's Balance of Payments, 1948-49—1955-56 (Reserve Bank of India, 1957), and Monthly Bulletin (R.B.I.) Jan. 60.

(i) *1951-52 to 1953-54*: The year 1951-52 witnessed a serious decline in the foreign reserves position of the country. In the last quarter of 1951-52, imports touched the peak level of Rs. 281 crores, while exports declined from Rs. 198 crores in the fourth quarter of 1950-51 to Rs. 179 crores in the corresponding quarter of 1951-52. For the year as a whole, the figures for imports and exports were Rs. 963 crores and Rs. 730 crores and the decline in foreign reserves was of the order of Rs. 181 crores from Rs. 913 crores at the end of 1950-51 to Rs. 732 crores at the end of the next year. This adverse turn was due partly to external factors.—the Korean flare up and its aftermath. The large inflationary potential inherited in the western countries from the Second World war was further augmented by large government budget deficits and the marked step up in domestic investment activity, particularly in stock building following the Korean war boom period. Cost of imports therefore rose. The deficit in the balance of trade widened because of domestic factors also—mostly of a structural nature that came over the economy—the partitioning of the country. The acute shortages in the industrial raw materials like raw cotton and raw jute as a result of partition swelled up the imports of that year considerably, while the shortage of food because of failure of the monsoons aggravated the situation.

The slight improvement in the foreign reserves position of the country in the period 1951-52 to 1953-54 was due to a sharp fall in imports. Although exports also declined fromRs. 730 crores to

Rs. 602 crores, the decline in imports was much greater. From the high level of Rs. 963 crores in 1951-52 imports came down to Rs. 629 crores in 1952-53 and Rs. 592 crores in 1953-54. Thus between these two points of time, while exports declined by 16%, imports declined by 34%. The major cause for this down trend in the volume of trade of the country was the appearance of recessionary conditions both in India and abroad. With the ending of the Korean war boom and the slackening of the investment and stock piling activity in the industrial countries and the development of mild recessionary conditions in America in the summer of 1953, there was a decline in both the volume and the prices of Indian exports. The decline in imports which was sharper than the decline in exports was due partly to the slackening of economic activity at home and partly to the tighter import policy of the government period. The trade deficit narrowed from Rs. 102 crores in the last quarter of 1951-52 to Rs. 31 crores for the whole of 1952-53.

Second Period 1954-55 *to* 1955-56: The last two years of the First Five-Year Plan were marked by a steady expansion both in exports and in imports. This was the combined effect of a significant step up in the level of investment activity at home, a similar rise in most countries abroad and a trend towards progressive trade liberalisation abroad as well as in India. The outlay on planned development in India (government investment) rose from the average of Rs. 290 crores in the first three years of the First Plan to Rs. 476 crores in 1954-55 and Rs. 667 crores in 1955-56. In 1955-56, there was an all-round expansion in production, particularly in industrial production, and also a rise in investment and personal consumption associated with a worldwide boom. World agricultural output surpassed the high level attained in 1954. Industrial production in the world as a whole recorded a rise of 10% in 1955 after a year of stable output in 1954. The rise was striking in West Germany, U.S.A., France, Canada and Japan with increases of 14%, 11%, 9% and 8% respectively. There was a marked increase in the rate of investment, which resulted in substantial growth in national incomes. Thus in U.S.A. the gross national product at the beginning of 1956 was running at an annual rate of about $400 billion or 10% above the average level of 1954. Accompanying the higher levels of investment and production, there was also a tendency for the building up of inventories. In the U.S.A., while in the third quarter of 1954, there had been an inventory liquidation at an annual rate of $5·4 billion, in the fourth quarter of 1955 there was inventory accumulation at the rate of $ 5·1 billion. The volume of world trade as a result increased by about 10% over 1954 to reach a new post-war peak.[1]

These factors explain the rise in imports as well as exports of India. Imports rose from Rs. 592 crores in 1953-54 to Rs. 751 crores in 1955-56. Simultaneously, exports also increased from Rs. 540 crores to Rs. 641 crores and the trade deficit widened from Rs. 52 crores to about Rs. 110 crores. The rise in the value of exports was due wholly to increase in the quantum of exports the index of which at 115 (1952-53) nearly reached the previous high level of 117 in 1950-51. Among the articles of exports, those which registered the highest rises were tea, metallic ores, vegetable oils, and raw cotton, while hides and skins, raw and tanned, remained practically stationary and cotton manufactures and jute manufactures declined.

Imports increased both in terms of value and also in volume. In terms of value, imports increased by about 20%. A change in the composition of imports is also noticeable. Food imports show a sharp decline from Rs. 228 crores in 1951-52 to only about Rs. 18 crores, in 1955-56. Imports of raw jute also declined to a small fraction of what they were in the first period. On the other hand, imports of producer goods like iron and steel manufactures, machinery, vehicles, etc., rose. The value of imports of machinery including locomotives increased from Rs. 88 crores in 1953-54 to Rs. 120 crores in 1955-56; iron and steel manufactures from Rs. 20 crores to Rs. 67 crores; and vehicles from Rs. 26 crores to Rs. 58 crores. The change in the composition of imports is due primarily to the improved agricultural conditions, and increased output of raw materials in the country and it also reflects the higher levels of investment activity necessitating the import of capital goods for use both in the public and in the private sectors.

Third Period (*Since* 1956-57). The up-trend in imports and exports which started in 1955-56 was considerably accelerated with the commencement of the Second Plan. Imports rose from about Rs 750 crores in the last year of the 1st plan to Rs. 1175 crores in 1957-58, but receded a little to Rs. 1047 crores in 1958-59. Similar-

1. Report on Currency and Finance, 1955-56, Reserve Bank of India.

ly exports rose from about Rs. 640 crores in 1955-56 to Rs. 669 crores in 1957-58 and receded to Rs. 576 crores in 1958-59. Simultaneously, trade deficit widened from Rs. 110 crores in 1955-56 to Rs. 506 crores in 1957-58 and was Rs. 470 crores in 1958-59. An analysis of quarterly figures shows that the peak level in both imports and exports was reached in the first quarter of 1957-58 (i.e April-June 1957) with Rs. 323 crores and Rs. 205 crores respectively.

It is thus possible to account for the remarkable change that has come over our balance of payments position in the Second Plan period as compared with the First Plan. The obvious explanation for this trend is the considerable increase in the level of economic activity in the country in recent years. There has also been substantial increase in the import of food and manufactured consumption goods. On the other hand, exports have remained on the whole stagnant. In 1958-59, the value of exports was actually less than in the last year of the First plan.

Tight control over imports and earnest attempts to promote exports have resulted in a narrowing of the balance of payments deficit to a substantial extent in 1958-59. Over the year 1959, the index of exports (1952-53: 100) rose from 90 in January to 94 in September, while the index of imports (1952-53: 100) decreased from 93 to 86 in the same period. Among the articles which account for this change, exports of food materials and crude raw materials show a substantial improvement, while manufactured goods have remained more or less static. Among the imports, the index of food materials receded from 101 at the beginning of 1959 to 93 in September. Chemicals show a rise, manufactured goods are constant, while machinery and transport equipment rose from 93 in January to 129 in June, but receded to 61 in August and slightly rose to 77 in September of 1959

The Relation between Foreign Trade and Domestic Economic Activity :

A temporary balance of payments deficit due to short-run factors such as a short fall in the supply of export goods or a sudden rise in imports due to similar short run causes does not constitute a threat to the stability of the economy. Such minor fluctuations may be considered as quite normal in a growing economy. But if external deficits become chronic and are due to growing imbalance

in the domestic economy and result in a rapid exhaustion of the foreign reserves of a country, such a trend may be considered as constituting a crisis. Looked at in this manner we may say that there was no balance of payments crisis during the course of the First Plan. External instability assumed serious proportions and developed into some sort of crisis only in the Second Plan period.

The balance of payments position in the First Plan period was far more satisfactory than was originally expected. Against an estimated average annual deficit of Rs. 180-200 crores the actual deficit turned out to be much less, the deficit of Rs. 163 crores in 1951-52 being followed by surpluses of Rs. 60 crores, Rs. 47 crores, Rs. 6 crores and Rs 15 crores in the next four years. For the entire five year period the deficit totalled only Rs. 30 crores. As against the drawing down of Rs. 290 crores of sterling balances envisaged in the plan, the actual drawal was Rs. 138 crores. The availability of the U.S.A. Wheat Loan in 1951-52 and the large increases in domestic output thereafter, the abatement of inflationary pressures and the low level of machinery and capital goods imports almost until the last year of the Plan contributed to the unexpectedly stable balance of payments position in the First Plan period.[2]

The large deficit in Foreign Trade in the Second Plan period has to be explained partly by the lack of expansion of our exports. In 1958-59 imports declined slightly by Rs. 128·3 crores from Rs. 1174·8 crores in 1957-58 to Rs. 1046·5 crores or by 11 per cent; but exports declined more heavily from Rs. 668·9 crores to Rs. 576·1 crores or by 14 per cent. This failure of exports to expand may be attributed to the following causes: — On the domesic side, decrease in the production of traditional export goods and failure to shift resources to a sufficient extent to the production of new articles of export are responsible; an additional factor is that industrialization of the economy absorbed more and more of the tradiional articles of export namely industrial raw materials. On the external side should be mentioned the slackness in the off-take of export goods because of fluctuations in the levels of economic activity in the foreign countries; also the secular trend for export of raw materials to decline in proportion to the rise in incomes of industrial countries should have played a significant

2. Review of the First Five Year Plan (Planning Commission, Govt. of of India), 1957, p. 11.

part. Lastly, the price factor should also to be taken into account. Domestic inflation and rise in costs as compared with the level of prices in foreign countries must also have hampered exports.

Of the total value of exports of India, tea accounts for 23 per cent, jute manufactures 17·5 per cent and cotton piece goods 8 per cent. Together they form about half the total value of exports. Hence fluctuations in the exports of these articles have a considerable influence on the value of total exports of the country. But it is disappointing to find that production of these goods has not been increasing to any notable extent. Among the plantation crops the index number of production (year ended June 1950 — 100) of coffee and rubber moved up from 112 to 221 points and 94 to 146 respectively between 1950-51 and 1957-58 while that of tea, the chief export article of the country, gained only 11 points from 104 to 115. Jute improved from 106 to 132. On the manufactures side, while industrial production in the country improved by about 40 per cent between 1951 and 1958, Cotton yarn and jute textiles have increased by only 23 per cent. Production of cotton cloth rose by about 15 per cent in 1956 since 1951 but receded to nearly the 1951 level in 1958. It is meaningless to expect buoyancy in exports when supply is relatively inelastic. It is also worth observing that in the last ten years or so there has been no change in the composition of exports.

Apart from lack of response in production, the failure of exports to increase has to be ascribed partly to increasing domestic absorption of articles of export because of industrialization in the country. With rising levels of personal incomes demand for exportable consumer goods should also have substantially risen.

On the demand side also there has not been any encouraging signs. Use of substitutes, the manufacturing of synthetic products, conservation and better utilization and economizing in the use of domestic materials and attempts to make themselves self-sufficient in the matter of some of the imported raw materials—all these should have contributed to prevent any rise in the demand for such materials in advanced industrial countries even when their national incomes have risen rapidly. Apart from these, fluctuations in economic activity in industrial centres continues to exert an adverse effect on the foreign trade of primary producers and semi-industrialized countries like India. As a result of the recession

in 1957-58 in U.S.A. and the West European countries, exports of staple commodities like tea, jute manufactures, cotton manufactures, raw cotton and vegetable oils in India showed substantial declines.

The price factor also has played a part in the stagnation of exports. Inflationary conditions at home, increasing domestic demand, rising costs of production all these have made it difficult to maintain competitive prices of our export products abroad. The weakening of the sales of the cotton manufactures in the South East Asian markets has been ascribed to growing competition from countries like Japan and China. Restrictive import policy adopted in recent years has in turn an adverse effect on exports. It has been mentioned that restrictive import policy has tended to divert supplies of exportable raw materials and finished goods to the domestic market and this has to a large extent curtailed the volume of Indian products available for export as well as raised their domestic prices.[3]

While exports have stagnated, imports have increased enormously; and practically the entire increase has been on government account. Also, of the total imports for use in the public sector, the major part is made up of machinery, transport equipment and other capital goods. Imports averaged Rs. 724 crores per year between 1951-52 and 1955-56. Over the three years 1956-57 to 1958-59, they have averaged Rs. 1117 crores per year representing a rise of 54 per cent. Of the total value of imports in these three years, government imports account for Rs. 1325 crores or roughly 40 per cent and import for the private sector Rs. 2026 crores or 60 per cent. From another point of view while the annual average of imports in 1956-57 to 1958-59 increased by 54 per cent over the average for the previous five years, imports on government account increased by 140 per cent and private imports by less than 25 per cent. Over the first three years of the Second Plan, imports on government account have considerably increased, while imports for the private sector have decreased. And this has been due largely to government control measures. Thus in 1957-58 government imports rose by Rs. 201 crores while

3. Report on Currency and Finance (Reserve Bank of India), 1958-59, p. 75.

private imports dropped by Rs. 122 crores. The fall in imports to the extent of Rs. 157 crores in 1958-59 was due entirely to the private sector. As compared with the previous year, private imports declined by Rs. 177 crores while government imports rose by Rs. 19 crores. The public sector imports, continuing the rising trend since the close of 1956, rose to the high level of Rs. 528 crores in 1958-59 accounting for 50 per cent of the total import bill. It should be added that the bulk of government imports has been capital goods. Of the total government imports in the years 1956-57—1958-59 food materials account for about Rs. 390 crores while much of the balance of about Rs. 930 crores constituted machinery and other capital equipment.

It is necessary at this stage to emphasise the implications of increased imports resulting from a rapid rise in investment activity in an underdeveloped or semi-industrialised economy like India. We have seen that the increase in imports has been due mostly to investment activity in the state. As between government imports of capital goods and private imports of the same category, the former have a greater inflationary potential. Government investments are on large capital-intensive schemes like hydro-electric projects, steel plants and other works which absorb a large amount of capital and add considerably to capital formation, but do not result in a quick expansion in the supply of consumption goods. On the other hand, the capital investment schemes in the private sector are by and large for the expansion of and the building up of industries which though release large money incomes result quickly in increased output of consumption goods. Thus if Government investment increases at the expense of investment in the private sector the effect is the creation of large money incomes and a rise in effective demand in the community. To the extent capital formation produces a large expansion in money incomes the result must be increased demand for consumption goods. And in the absence of an elastic supply of goods of this group, there is bound to be a spill over into imported consumption goods. Any further restriction of the import of consumer goods and the maintenance of the imports of capital goods would only aggravate the trend of effective demand outrunning the resources available for consumption and if import is blocked, would impinge on the exports. In the case of trade between two industrial countries of nearly equal size and importance, excess of imports resulting from rise in income in one would be offset to some extent by

the rise in the incomes of the country having an export surplus, with the result that that country will increase its imports from the other, so that balance would be restored between the two. This is not possible if trade is between a semi-industrialized country like India on the one hand and the industrially advanced countries on the other. The fact that the former is a very much smaller country in comparison with others prevents rise in its imports exerting any corrective influence. If the demand for import of capital goods is continuously maintained and the supply of consumption goods becomes inelastic there will be inflation which in its turn would hamper exports. Since the offsetting effect of an increased demand for the exports of this country does not follow (because the elasticity of demand for the products of the semi-industrial country in the advanced country is great while the elasticity of demand of the advanced country's products namely capital equipment is limited in the underdeveloped countries) the beneficial effect of foreign trade becomes one sided. The way out of this difficulty appears to be then that either the underdeveloped country should reduce its imports for capital formation or the developed country should be prepared to import more of the other country's export goods. It is obvious that if the former is not possible it calls for a more generous attitude on the part of industrial countries in the matter of their foreign trade with underdeveloped countries.

The financing of balance of payments deficits

With imports at Rs. 3622 crores and exports Rs. 3109 crores, the trade deficit of India during the First Five Year Plan amounted to Rs. 513 crores. Net invisibles excluding official donations were Rs. 388 crores leaving a balance of payments deficit of Rs. 125 crores. Allowing for official donations of Rs. 95·9 crores, the net deficit amounted to Rs. 29·1 crores. Net capital outflow on account of private capital and other official and banking transactions totalled Rs. 106·8 crores. These add up on the debit side to Rs. 135·9 crores. Against this has to be set official loans for Rs. 100·4 crores and drawing on foreign exchange reserves to the extent of Rs. 121·3 crores making a total of Rs. 221·7 crores. The difference of Rs. 85·8 crores (Rs. 221·7 crores—Rs. 135·9 crores) is accounted for as errors and omissions. These details are given in the following table.

TABLE IV

Balance of Payments—First Plan period 1951·52 *to* 1955-56.

		(In crores of rupees)
Imports	..	3622·0
Exports	..	3109·0
Balance of Trade	..	−513·0
Net invisibles	..	+388·0
Balance of payments	..	−125·0
Official donations	..	+95·9
Official loans	..	+100·4
Capital—private	..	−37·0
— Other official and banking	..	−69·8
Errors and Omissions	..	−85·8
Change in foreign exchange reserves	..	−121·3

Source: India's Balance of Payments 1948-49—1955-56 (Reserve Bank of India), p. 25.

The major items that constitute official and banking transactions are the long term and short term loans. Long term loans include the drawings on the U.S.A. Food Loans, and on the I.B.R.D. loans and receipts under the U.S. Technical Cooperation Agreement. The short term loans under this head cover mostly the net movements in the foreign assets of the Reserve Bank of India, the Government and commercial banks and net movements in the short-term liabilities of the Reserve Bank and the commercial banks to foreign official and banking institutions.

Over the period of 3½ years from April 1956 to September 1959 imports amounted to Rs. 3819·4 crores, and exports Rs. 2078·5 crores. The trade deficit was Rs. 1740·9 crores. Net invisibles excluding official donations showed a surplus of Rs. 337·9 crores and the balance of payments deficit amounted to Rs. 1403·0 crores. This deficit was covered by official donations to the extent of Rs. 139·3 crores, official loans Rs. 453·1 crores, other capital transactions Rs. 295·4 crores and withdrawals from foreign reserves Rs. 554·9 crores leaving a margin of Rs. 39·7 crores which is accounted for as 'errors and omissions'.

TABLE V

India's overall balance of payments—April 1956 to September 1959

(In crores of rupees)

	1956-57	1957-58	1958-59*	First half of 1959-60	Total
Imports ..	1095·6	1204·2	1046·5	473·1	3819·4
Exports ..	635·1	594·7	576·1	272·6	2078·5
Trade deficit ..	−460·5	−609·5	−470·4	−200·5	−1740·9
Net invisibles excluding official donations ..	+109·0	+100·9	+90·7	+37·3	+337·9
Current balance ..	−351·5	−508·6	−379·7	−163·2	−1403·0
Official donations ..	+44·7	+32·7	+40·9	+21·0	+139·3
Official loans ..	+60·1	+92·3	+216·7	+84·0	+453·1
Other capital transactions ..	+36·1	+127·8	+103·5	+28·0	+295·4
Errors & Omissions ..	−10·7	−4·1	−28·0	+3·1	−39·7
Change in foreign exchange reserves ..	−221·3	−259·1	−46·6	−27·1	−554·9

* Preliminary figures.

Source: Reports on Currency and Finance and Reserve Bank Monthly Bulletin January 1960.

It is worth noting that external assistance has played a large part in relieving the pressure on foreign exchange reserves. The large increase under official loans in 1958-59 was mainly responsible for reducing the drawals on foreign reserves, from about Rs. 260 crores in 1957-58 to about Rs. 47 crores in 1958-59. The main sources of contribution under this head are IBRD loans, PL480, Indo-American Technical Co-operation Programme, IMF Credit and Russian Credit under the Bhilai Project. During the First Plan period, India received external assistance to the tune of Rs. 405 crores. Of this only part was utilized before 1956-57 and the carry over available for utilization in the Second Plan was Rs. 190 crores. External assistance increased substantially in the Second Plan period. New lines of credit plus grants made since 1956-57 along with the balance of Rs. 190 crores left over from the First Plan amounted to Rs. 1216 crores (as at the end of March 1959). It is estimated that Rs. 697 crores will have been utilized in the first three years of the Second Plan leaving a balance of Rs. 519 crores for utilization in the remaining period.

The Present Position and Future Prospects

Since the beginning of 1959 there has been some improvement in India's external balances. This has been due to steadiness in imports, increase in exports and larger inflow of capital from abroad. Over the year 1958-59 imports were lower by Rs. 157 crores than in the previous year. Comparing the calendar year 1959 with 1958, we find that imports have remained more or less constant—Rs. 864 crores in 1958 and Rs. 869 crores in 1959.

A welcome feature has been the improvement in exports. In the first half of 1959 exports at Rs. 297 crores were 7 and 3 per cent higher than in the first and second halves of 1958 respectively. To some extent this was due to the disappearance of recessionary conditions in the Western industrial countries.[4] In the second half of 1959 exports showed further improvement, reaching a record figure of Rs. 71 crores in the last month of 1959. For the year 1959 as a whole, exports totalled Rs. 626 crores—an increase of Rs. 58 crores over that for the year 1958. As a result, the net trade deficit came down to Rs. 243 crores in 1959 as against Rs. 296 crores in the previous year.

4. Monthly Bulletin (January 1960). Reserve Bank of India.

Apart from the favourable trends in exports and imports, there has been larger capital inflow which has further helped in reducing the current account deficit. The receipts on capital account in the first three-quarters of 1959 amounted to Rs. 223 crores against Rs. 217 crores for the whole of 1958-59 and Rs. 92 crores in 1957-58. The overall effect of this improvement is reflected in lesser strain on our foreign reserves. Withdrawal from foreign exchange reserves dropped to Rs. 47 crores in 1958-59 from the high amount of Rs. 260 crores in the previous year. The first half of 1959 saw an overall rise in the foreign exchange reserves of Rs. 12 crores. In July-September 1959, foreign reserves declined by only Rs. 4·5 crores. Our sterling balances which stood at Rs. 193 crores at the end of January 1959 had improved to Rs. 213 crores on the 1st of January 1960; and this in spite of the purchases of gold worth Rs. 18 crores in September and October 1959 as part payment for our increased subscription to the International Monetary Fund.

This development in our balance of payments position should not however lead to any slackening of our attempt at further improving it. The demand on foreign resources will continue to be high in the remaining period of the Second Plan. And the problem is likely to assume new diamensions in the Third Plan period. The import demands of development are heavy and they will become heavier still. Within the Second Plan period some new and heavy industries remain to be started. Apart from heavy industries, small and medium industries are also coming up. All these necessitate the importing of more machinery and an increasing quantity of raw materials to feed the industries. It is therefore inevitable that in the coming years our import figures will be going up. Hence, the earning of the necessary foreign exchange will continue to be a pressing problem.

It is practically certain that the foreign exchange requirements of the Third Plan will be much higher than of the Second Plan. This is because of three reasons. In the first place, since great emphasis is likely to be laid on capital goods and heavy industries there is bound to be greater need for the importing of capital equipment and machinery on a large scale. Secondly, domestic savings have not shown any great expansion in the last few years. At any rate it is doubtful whether increase in the mobilisation of internal resources will be in proportion to the increase in the size of the Third Plan. Thirdly, the problem of repayment of loans already taken and the need for interest payments on a large scale will arise in the next plan period which would also necessitate substantial foreign exchange earnings.

The Third Plan may be assumed to involve an outlay of between Rs. 900 and Rs. 10,000 crores. It is indicated that the total allocation to industry in the Third Plan might be around Rs. 1500 crores.[5] The need for the building up of capital goods industries for generating self supporting forces of growth cannot be disputed. It is by this means that the rate of increase in national income can be stepped up to any appreciable extent, so that savings would increase even when a good proportion of the annual addition to income is used up for consumption by a rapidly growing population. On certain assumptions it is possible to make a rough estimate of the imports of capital equipment necessary in a semi-industrialized country like India. If net investment is 7 per cent of national income and depreciation allowances amount to 5 per cent, gross investment is 12 per cent of national income. Capital-output ratio in India is estimated to be about 2·5 : 1. If so, net investment of 7 per cent of national income would yield an addition to income of 2·8 per cent. If population is increasing at 2 per cent annually, increase in per capita income amounts to only 0·8 per cent per year. If it is desired to increase income by an additional 2 per cent, then net investment has to be increased by 5 per cent that is the rate of net investment will have to rise from 7 per cent to 12 per cent. Gross investment would then rise to 12+5=17 per cent, i.e., gross investment has to increase by 42 per cent (from 12 to 17 per cent). Imports of capital goods may be assumed to rise in the same ratio as the rise in gross capital investment i.e., by 42 per cent. It is estimated that in semi-industrialised countries imports of capital goods form about 28 per cent of total imports.[6] If capital investment is to go up by 42 per cent, then imports of capital goods will have to increase by $0 \cdot 28 \times 42 =$ about 11·75%. At 28 per cent of the total imports, the value of capital goods imported in India will be roughly Rs. 300 crores. According to the above calculation this amount will have to rise to about Rs. 335 crores. Thus over the five years the aggregate value of capital goods imports will be of the order of Rs. 1675 crores. This is only a rough calculation, but it indicates the extent to which foreign exchange requirements would increase if a certain rate of growth of national income is desired.

5. Speech of the Union Minister for Commerce and Industry in the Rajya Sabha, February 26, 1960. ('Hindu' dated February 28, 1960).

6. Trends in International Trade (GATT), Geneva, October 1958, p. 50.

Emphasis is to be laid on capital goods industries not only because of their importance in generating economic growth, but also from the point of view of their effect in making the economy self sufficient in the matter of machines and capital goods. Initially this involves a large amount of foreign exchange but in the long run manufacturing of machines and other capital goods would result in the economizing of foreign exchange. This has been illustrated by Prof. Mahalanobis in a recent article.[7] He points out that in order to import an additional 2·2 million tons of food to provide for a population growing at the rate of 5 millions a year we would require foreign exchange of Rs. 30 crores a year or Rs. 150 crores for five years. But if domestic production is to be increased to this extent by importing fertilizers, we will require Rs. 135 crores over five years. If a fertilizer factory to produce this much of fertilizers is to be set up, it will cost Rs. 20 crores per year of which foreign exchange component will be only Rs. 12 crores, and over five years total cost will be Rs. 100 crores of which foreign exchange required will be of Rs. 60 crores. Finally, if a plant is to be set up to manufacture machinery for producing fertilizers the cost over the five years will be lower still with even less requirement of foreign exchange. This, however, is only an illustration and the inference is that it applies to other machine-making industries as well.

Another reason why foreign exchange requirements will loom large in the Third Five Year Plan is the fact that repayments of loans taken so far will start in the course of the next plan period and besides that, heavy interest payments will have to be made. It is seen that for a majority of obligations incurred so far, the peak of repayment will start in or about 1960. According to a calculation made by the government early in 1959 the loan repayment obligations of the country will be Rs. 23 crores in 1958-59 Rs. 35 crores in 1959-60, Rs. 92 crores in 1960-61, Rs. 23 crores in 1961-62, Rs. 107 crores in 1962-63, Rs. 48 crores in 1963-64 and Rs. 35 crores in 1964-65. If the additional loans taken since this calculation was made and are likely to be taken in the next few

7. "Foreign exchange problem of planned development," P. C. Mahalanobis, Asian Studies, January, 1959, p. 13.

years are also to be included, the principal and interest payment obligations on account of foreign loans over the Third Plan period will be of the order of Rs. 500 crores, or an average of Rs. 100 crores a year.[8]

Considering these facts it becomes obvious that the foreign exchange requirements in the Third Plan will be a larger proportion of the total outlay envisaged than in the Second Plan. Experience in the current plan period shows that exports are not likely to increase appreciably, certainly not to the extent that imports would go up. The foreign exchange gap is, therefore, likely to widen further. In view of the need for increasing imports of capital goods and the payments to be made on account of debt obligations, it will not be far wrong to assume that this gap will be of the order of Rs. 2000 to Rs. 2500 crores which will have to be covered by foreign aid in the form of loans and grants.

Conclusion :

Basically a balance of payments disequilibrium results from and reflects domestic imbalance. In a growing economy the latter arises out of investment outrunning savings as a result of which excess demand creates inflationary pressures. This, in turn, attracts imports and in the absence of effective countervailing forces causes external disequilibrium. This would suggest that external imbalance arising from excess investment of this nature can be controlled only by stepping down the level of investment in the country. Such a measure, however sound it may appear in theory, is of little use in an underdeveloped country and may in some instances lead to very adverse developments. If for e.g., in India emphasis is shifted from basic industries to minor industries and agricultural production, it is possible to bring about a quicker return in the form of increased production and higher levels of employment. But with a high rate of increase in population and high marginal propensity to consume much of the marginal increase in incomes will be absorbed in consumption, savings will be meagre and the economy will continue to move in the vicious Malthusian under employment equilibrium. In order to lift up the economy from this state, large initial investment is needed—investment particularly in basic industries, so as to generate self-sustaining forces of growth. In other words reducing the scale of investment in the interest of securing external equilibrium appears to be an unwise step and would defeat the very purpose of economic planning in the country.

8. "Servicing of foreign debt" by Dr. P. S. Lokanathan (Symposium on *Our Foreign Indebtedness* — Kalki — Madras, 1958).

If reduction in the scale of investment is to be ruled out, the means to control balance of payments difficulties without affecting the rate of domestic economic growth are to be found primarily in three lines of action viz., increased and proper use of foreign aid, promotion of exports and control of imports.

The need of external aid for the development of the economy like ours cannot be exaggerated. The role that external aid has played in India's economic progress in recent years and the extent to which external resources of this kind have helped of late, in easing the balance of payments pressure have already been mentioned. It is, however, necessary at this stage to stress the importance of the proper utilization of foreign aid. By this is meant the making use of foreign loans and grants in such a way as to maximize the returns from such aid from the point of view of its effect on economic growth, and at the same time reduce as far as possible the strain involved in the servicing of such loans and in the repayment of the principal. In his famous article[9] on the "Balance of Payments Problems of Countries reconstructing with the help of foreign loans," J. J. Polak has clearly shown the effects on domestic investment and on the balance of payments position of a country, of various types of foreign loans. Such effects depends in the main on the size, continuity and time period over which the foreign loan flows and also on the type of investments for which these loans are utilized. According to him three types of investments are to be distinguished; investment which results (i) in the production of goods which replace imports or increase exports; (ii) goods which replace similar goods previously sold on the domestic market and goods sold abroad and (iii) goods sold on the home market in addition to those previously sold and in excess of the increase in demand resulting from the rise in incomes. It is obvious that number one will have a favourable effect, the second a neutral effect and the third an adverse effect on external payments. Apart from the nature of the investment, the length of time over which foreign loans flow, the steadiness in the rate of inflow and the marginal propensity to consume in the

9. Quarterly Journal of Economics, February, 1943, p. 208-240.

borrowing country have also a direct bearing on balance of payments. How far an analysis of this nature will have practical significance in the context of development in a semi-industrialized country like India requires closer examination. Nevertheless, it draws attention to the implications of different types of foreign loans and the types of investment in which they are incorporated and thus points to the need for an examination and careful scrutiny of different investment projects requiring foreign capital before it is actually drawn and used for the purpose.

Over the First Five Year Plan period foreign capital utilized fell short of the actual amount available, and in the Second Plan it is hoped that external funds in the form of aid and grants are likely to be around Rs. 1,000 crores which exceeds the target by Rs. 200 crores. It is, however, doubtful whether the inflow of foreign capital of this nature in the Third Plan period would reach the size mentioned before, namely Rs. 2000 to Rs. 2500 crores. Also, there is reason to question whether the economy would be able to bear foreign capital of this order. If then there is a possibility of actuals falling short of targets, we have no other alternative but to turn to changes in exports and imports for additional earnings of foreign exchange.

Much has been talked about export promotion in recent years and much seems to have been done along this line. It is, however, clear by now that our attempts at export promotion have not borne much fruit. It is true that exports have looked up since the beginning of 1959, but what is required to maintain external balance without relying too much on foreign aid is a far greater expansion in exports. The reasons for this lack of buoyancy on the export front have already been stated. The export policy in the present context that would really serve the purpose is not straining ourselves unduly to expand the exports of traditional articles but trying to shift resources to new enterprises and lines of production which would bring out new goods — dynamic articles of export as they are called. These commodities should be of such a nature as to meet the needs of different economies which are at different stages of economic development and the markets for which therefore would be expanding and not shrinking. In short, a structural change in the composition of exports is what is required. This is the lesson that we learn from the balance of payments experience of industrial countries in the post-war years. This is no argument for slackening our efforts to promote the export of

articles like tea, cotton, rubber and jute and cotton textiles, but a call for redrawing our exports pattern and for concentrating on those lines of enterprise which will really yield satisfactory returns. There is thus need for greater vision, alertness and enthusiasm, in fact true entrepreneurship on the part of private businessmen as well as the government. For this reason sufficient incentives are to be offered by government to the private sector at least in a negative manner by reexamining their fiscal, tax and exchange policy, while the private sector on its part should adopt a more dynamic attitude in opening up new lines of enterprise and investment. It is upto private enterprise to maintain quality of exports and promote larger trade through more prompt and efficient service.

There is in fact little justification for satisfaction in finding the exports of industrial raw materials increasing. The Second Five Year Plan envisages an increase in output of agriculture and allied pursuits by 18 per cent in the years 1956-61 while the products of mining are expected to go up by 58 per cent and that of factory establishments by 64 per cent. If these are to be the relative rates of growth of agriculture which supplies raw materials and factory establishments which absorb these materials, it would necessarily involve a reduction in our exports of primary goods. It stands to reason whether there is scope at all in an industrially developing economy to maintain, much less expand, the export of industrial raw materials like iron ore, vegetable oils, oil cakes, raw cotton, and jute and yarn. It is obvious that our export earnings will improve substantially if processing of these raw materials is done in the country and they are exported as end-products rather than primary commodities.

There is no denying the fact that our markets for raw materials as well as finished products are maintained or expanded with the greatest difficulty. It is true also that our manufactured products have to compete with similar products of much stronger rivals. This is precisely the reason why we have to find out new markets for our exports. The possibility of considerably increasing the exports of our manufactured cosumption goods and small machinery to countries which are even less developed than ours is to be fully investigated and exploited. The fact is that all those countries which are broadldy categorized as underdeveloped countries but which in actual fact are of different standards of development, have awakened to the needs of building up their economies through industrialization. There is therefore an opportunity to sell the products of a semi-industrialized country in the markets of other countries which are at a lower stage of development. Is it too much to visualize a situation in which India would be able to build up a sufficient margin of external surplus in her trade with other non-industrial countries which would help to balance partly at least the possible deficits with the industrial countries?

As stated earlier, imports of capital goods are bound to increase substantially in the next few years. Nor is there any great scope for further restricting (except to the extent that food imports can be stopped when the country becomes self-sufficient) the import of the few items of manufactured consumption goods. Since our consumption level is already low, it is unwise to think of further pressing it down. Domestic consumption can, however, be regulated in a manner which would help not so much in restricting imports as in promoting exports. Thus wastes arising out of the production of a wide variety of more or less similar consumption goods can be avoided if consumption of some of the manufactured goods can be standardised. In a country where per capita income is very low and where resources are very much limited, it is certainly uneconomic to produce and distribute a wide variety of more or less similar products particularly of the quasi-luxury category. Greater attention is to be devoted to utility than variety or superficial attractiveness. Of the consumer goods produced in the country for domestic use as well as for exports, it should be possible to discriminate between the two and standardize the first group as far as possible. In cases of consumption goods produced at home and which are competing with similar imported goods, it would be advantageous to increase domestic output by means of large scale standardized methods of production and altogether stop imports. Such standardized products can then become virtual import substitutes. In so far as expansion of production in this manner would not involve a proportionate increase in the use of resources as it would if variety is required, there is real economizing and there would not be any adverse effect on the scale of output of other exportable commodities. Obviously, measures to expand exports and to restrict imports would tell on the consumption habits of all classes of consumers particularly, the well-to-do and richer classes. But this is a cost worth paying in order to build up our economy rapidly with minimum danger to internal or external stability.

Sir Alladi Krishnaswami Aiyar Shashtiabdhi Poorthi Endowment Lectures, 1959-60

Developments in Central Banking in India Since Independence

by

B. Rama Rao

Lecture I

CONTROL OF COMMERCIAL BANKING AND EXTENSION OF BANKING FACILITIES

I am greatly honoured by the kind invitation extended to me by the Syndicate of the Madras University to deliver the Sir Alladi Krishnaswami Aiyar Shashtiabdhi Poorthi Endowment Lectures for the year 1959-60. I knew Sir Alladi as an eminent jurist, who was closely associated with the drafting of the Indian Constitution. I was interested to learn from the invitation conveyed to me that he was also very interested in Economics and allied subjects. Under the terms of his Endowment, I was requested to choose for my lectures any of the following subjects:—

(1) Finance
(2) International trade
(3) Taxation
(4) Currency
(5) Industry and International Organization.

I have chosen as the subject of these lectures "Developments in Central Banking in India since Independence", as I was for over 7½ years Governor of the Reserve Bank during this period and, in fact, was closely associated with the initiation of many of these developments. I can, therefore, speak with some authority and knowledge on this subject. I will deal with the subject in three parts:—

(a) "Control of Commercial Banking and Extension of Banking facilities".
(b) "Inflation and Monetary policy".
(c) "Rural Finance."

Origin and Functions of the Reserve Bank

2. I will explain briefly the genesis of the Reserve Bank in India. The question of the establishment of a Central Bank in India received prominence as a result of the recommendations of the Royal Commission on Indian Currency and Finance, which reported in 1926. An attempt was made by the Government in 1927 to create a Reserve Bank on the lines suggested by the Commission, but it proved abortive owing to political opposition. The question was actively revived subsequently during the discussions at the Round Table Conference and at the meetings of the Joint Select Committees of Parliament on the "Constitution of the India Bill" during the years 1931-34. I happened to be a Secretary of the Conference and the Adviser to the Indian Delegation. Strong opinions had been expressed not only by the British Delegation to the Conference, but also by the Monetary Authorities in England that any transfer of responsibility at the Centre without adequate safeguards would endanger the stability of the Indian currency and of the financial system, in view of the possibility of political interference by inexperienced Indian Ministers. Indeed, it was made clear that the transfer of responsibility at the Centre to Indian Ministers responsible to the Legislature would be conditional on the establishment of a Central Bank which would be free from political influence.

3. It was under these circumstances that the Reserve Bank of India Act was passed in 1934. The constitution of the Bank followed more or less the traditional pattern of the Central Banks in Western Europe. The share capital was entirely owned by private shareholders. Official control was limited to the appointment by the Central Government of the Governor and 2 Deputy Governors "after consideration of the recommendations made by the Central Board in that behalf". There was, however, an important provision designed to safeguard public interest. The Government were empowered to supersede the Central Board, if it failed to carry out any of its statutory obligations. The primary function assigned by the statute to the Reserve Bank was, as in the case of other Central Banks, the regulation of the monetary system of the country with a view "to the promotion and the maintenance of economic stability." There was, however, a significant departure from the traditional functions of Central Banks in other countries. Under the pressure of Indian public opinion expressed in the Legislative Assembly, the statute contained a

directive to the Reserve Bank to take an active part in the development of Agricultural Credit and Rural Co-operative organisations.

4. My association with the Reserve Bank in 1949 almost synchronized with two outstanding events in the banking history of this country, namely, the nationalization of the Reserve Bank and the passing of the Banking Companies Act, 1949, which gave the Reserve Bank comprehensive and effective powers of control and supervision over the entire banking system. The Government had also announced in the previous year that it was their intention to nationalise the Imperial Bank of India as early as possible.

5. During the 3 months I was unofficially attached to the Bank before I became Governor, I had the opportunity of studying the economic developments in the country in the preceding years, during a considerable portion of which the country was almost completely absorbed in the war effort. Three outstanding features of the Indian economy prominently attracted my attention:—

(a) The growth of a large number of unsound mushroom banks before the War, and the disturbing banking situation that had developed during the war years.

(b) The alarming inflationary situation that had developed as a result of war finance and concentration on war industries with the inevitable neglect of agriculture and consumer industries.

(c) The almost total absence of banking facilities outside large towns and the almost complete dependence of agriculturists on money-lenders who charged extortionate rates of interest.

We were then on the eve of an industrial revolution, and planned development of industry and agriculture had been announced as the official economic policy of the Government. Many of you are, I presume, students of economics and it is not necessary for me to emphasise that no rapid development of industry or agriculture is possible without adequate credit facilities and mobilisation of the savings of the people in a form that could be made available for development. One of the essential requisites for a widespread expansion of industries on a large scale throughout the country is a sound and stable banking system. The new nationalized Reserve Bank which had been given extensive powers over the economic structure of the country would not have justified its existence if it did not make, so far as it lay in its power, a determined effort to remove the obstacles in the way of development and if it did not make a positive contribution to the planned development of the country.

Banking Situation after the War

6. The most urgent problem was the rapidly deteriorating banking situation, which I shall deal with in my present lecture. The picture of banking in India as it emerged out of the War would perhaps be clearer if I presented it to you in a historical setting. India had had its own indigenous system of banking for centuries, which met the requirements of a primitive economy, but joint-stock banking on the basis of limited liability developed only after 1860. The earlier banks had their branches mainly in major ports and other economic centres, and they were primarily engaged in the financing of the internal and external trade of the country. Failures of banks were not uncommon in those early years. Nevertheless the number of these banks rose from 2 in 1870 to 38 in 1934. After 1940, largely under the stimulus of the inflationary conditions created by the war, there was a phenomenal increase of the number of new banks and their branches. The development was absolutely uncontrolled and indiscriminate. Any financial adventurer who required money for a speculative venture or for financing a business in which he was interested, started a bank with many branches and collected substantial deposits by the offer of high rates of interest and by lavish advertisement. The total number of offices of banks rose from 1,951 in 1939 to the fantastic figure of 5,521 in 1946. One bank with a capital of less than Rs. 2 lakhs opened more than 75 branches. Another bank which described itself as "millionaire bank" had a capital of less than Rs. 30,000/-. Actually, the Registrars of Companies were not even able to trace the whereabouts of many banks. Some of these new banks were managed by dishonest or inexperienced men. The funds deposited by the public were often utilised to acquire control over non-banking companies by the purchase of their shares at highly inflated prices. Other conspicuous features of these mushroom banks were the inter-locking of shares between the banks and other companies in which the management was interested, large unsecured advances to persons connected with the management, advances against speculative shares when

prices were very high and advances against immoveable property, which could not be recovered easily in an emergency. After this hectic and un-controlled expansion there was, of course, the inevitable crash. In West Bengal, the position was specially grave. Four scheduled banks and a large number of non-scheduled banks failed. The amount of money lost, mostly the savings of the middle classes, was over Rs. 26 crores. Between 1939 and 1949, as many as 588 banks had failed in the various States.

7. To deal with a crisis of this magnitude, the ReserveBank had in the earlier years no adequate powers of control or regulation. Commercial banks were governed by the Company Law applicable to ordinary non-banking companies, and the permission of the Reserve Bank was not required even for the floatation of a new bank. My predecessors, Sir C. D. Deshmukh and Sir James Taylor were, of course, fully aware of the dangerous situation that had been developing and had devoted considerable attention to the problem of the control and regulation of banking by comprehensive legislation. There had been sporadic failures of banks before the Reserve Bank had come into existence. Analysing the causes of these failures the Central Banking Enquiry Committee which reported in 1931 had come to the conclusion that the provisions of the Indian Companies Act at the time were quite inadequate to deal effectively with banking malpractices and recommended comprehensive legislation covering the organization, management, audit and liquidation of banks. The Companies Act was thereupon amended in 1936, and a separate chapter relating to banking companies was added. These provisions, however, proved ineffective and difficult to administer.

Banking Legislation

8. As some of you in Madras may remember, the Travancore National & Quilon Bank failed in 1938 and the subsequent crisis in Southern India emphasised the urgency of more effective methods for the control of banking. The Central Board of the Reserve Bank submitted in 1939 proposals for legislation in the form of a draft bill, which was subsequently circulated for public opinion. Some of the provisions, however, became controversial, and the Government decided not to undertake any comprehensive legislation during the war period when the entire energies of the Government were inevitably concentrated on the war effort. Certain interim measures were, however, taken to regulate and

control by legislation such of the banking developments as required immediate attention. New powers were given to the Reserve Bank under—

(1) The Banking Companies (Restriction of Branches) Act, 1946.
(2) The Banking Companies (Inspection) Ordinance, 1946.
(3) The Banking Companies (Control) Ordinance, 1948.

Most of the provisions in these enactments were subsequently embodied in the Banking Companies Act in 1949, which I shall presently deal with. As I have stated, this Act gave the Reserve Bank very comprehensive and effective powers of supervision and control over the entire banking system. The tragic experience of the preceding years had clearly demonstrated that special powers were essential for the establishment of a stable banking system in India. It is not necessary for me to refer in detail to the provisions of this Act, which you will find described in any text-book on Indian banking. I will refer only to two or three important provisions, which have enabled the Reserve Bank to deal successfully with the problems arising from the chaotic condition in which the banking system had emerged out of the war period.

9. Perhaps, the most effective of the supervisory powers conferred on the Reserve Bank is the right to inspect banking companies at any time. The Reserve Bank is empowered to inspect any banking company with the object of satisfying itself regarding the eligibility for a licence, opening of branches, amalgamation, compliance with the directives issued by the Reserve Bank, etc.

10. Another important feature is the provision regarding licensing. The Reserve Bank is required before granting a licence, to satisfy itself by inspecting the books of accounts and methods of operation of the banking company, whether it is in a position to pay its depositors in full as their claims accrued and that its affairs were not conducted to the detriment of its creditors.

System of Inspection

11. The United States of America and some of the Western European countries had passed through similar crises in the past. I had been an Ambassador in America immediately before I took charge of the Reserve Bank, and I had the opportunity of studying the system of inspection which had been established in that country, and which has largely contributed to the establishment of one of the finest banking systems in the world. In the United States, the inspections of all National Banks, which include the majority of the banks belonging to the Federal Reserve System, are conducted by the Comptroller of the Currency. The other banks which belong to the system are supervised by the State Authorities and are inspected by them with the co-operation of Federal Reserve Banks. Banks that are not members of the Federal Reserve System but are insured by the Federal Deposit Insurance Corporation, are examined by the Corporation and the State Authorities. Every bank is subject to inspection, but in the course of years a high standard of integrity and sound banking practices has been established, and these inspections are now tending to be nominal in most cases.

12. The banking situation in India obviously demanded drastic remedies. Although inspection was not a statutory obligation under the Banking Companies Act, 1949, I decided soon after I took charge of the Reserve Bank in July 1949 to organize an efficient machinery for the systematic and periodical inspection of all banking companies in the country irrespective of their size and standing. This policy was announced in a Press Communique issued on July 29, 1949. I explained in this Communique that the intention was to inspect every bank at least once and to complete the first round of inspections of all the banks in the country as early as possible. The ultimate aim was to create an organisation for the annual inspection of every bank. These inspections were designed to be an integral part of the statutory functions assigned to the Reserve Bank. It was made clear that the primary object of the inspections would be to assist the banks in the establishment of sound banking traditions by drawing their attention to defects or unsatisfactory features in working methods before they assumed serious proportions necessitating drastic action.

13. The task of evolving an efficient machinery and organisation for conducting the inspections of all the banks was a formidable one. It is obvious that the inspections of banks many of which are administered by eminent businessmen and financiers required a staff possessing not merely adequate banking experience and knowledge, but also a high standard of integrity and considerable tact in dealing with bank personnel. The problem, however, had to be faced. By a careful process of selection, qualified and experienced officers from some of the bigger and well-established commercial banks were recruited and specially trained.

The work of inspection was also decentralized by the opening of offices at various important centres in the country so that there could be continuity of contact between the inspectorate and the banking institutions. A very efficient organisation was thus created in the course of two or three years. If India has today a stable banking system which could compare favourably with that in many Western European countries, it is largely due to the efficiency of the inspection system. I may take this opportunity to pay a tribute to the members of the Inspection staff, who have made a significant contribution to the development of sound banking in this country by the high standard of efficiency and integrity they have maintained. There have been comparatively few liquidations of banks since the inspection of the Inspection system. The great majority of the banks which have ceased to function during the last seven or eight years were deliberately put out of existence by the Reserve Bank by the refusal of a licence or other measures, since they failed to meet the statutory requirements of the Banking Companies Act. An eminent Indian industrialist who is also the Head of a big bank once paid a high compliment to our inspection staff. He told me how grateful he was to these inspectors, for their reports gave him a great deal of important information about the working of the bank, which he was not in a position to acquire in the course of his daily association with the institution. A British banker also once paid a high tribute to the efficiency of our inspection system.

14. I will explain to you briefly how by a judicious use of the powers of licensing and inspection, a large number of banks have been nursed patiently sometimes for years and restored to health. All the big established banks were, of course, given a licence at any early stage. In other cases, if serious defects were observed in the course of inspection, the banks were required to take appropriate action and submit periodical reports as to the progress made in the removal of these defects. In some cases, the banks were persuaded to appoint competent and experienced banking advisers to help them in the process of rehabilitation. In a few rare cases, banks were induced to retired senior executives guilty of unethical conduct. Under the Banking Companies Act, a bank can continue to function without a licence, unless and until a licence was definitely refused by the Reserve Bank. Only in cases in which a bank was unable to show any improvement was a licence refused. The inspection reports were always kept

confidential and the bank was given every opportunity of reforming itself before this extreme step was taken. The Reserve Bank deliberately demanded a high standard of banking methods and working for the grant of a licence. You will be surprised to learn that at the end of March 1960, only 47 scheduled banks and 15 non-scheduled banks had received licences, but these licensed banks and four other banks which do not require a licence held 94% of the total deposits of all banking companies in India.

Bankers' Training College

15. I must now make a brief reference to the Bankers Training College, which was instituted in 1954. The periodical and systematic inspections conducted by the Reserve Bank Inspectorate had revealed that many of the defects found in the working of the commercial banks were not in a large number of cases due to consciously practised dishonesty, but to lack of experience and proper training in methods of banking. Many of the executives in charge of the smaller banks were ignorant of the recognised principles of sound banking and in many cases functioned as money-lenders. Apart from this, as well-established banks extended their activities and opened new branches, there was a demand for trained personnel. I informally discussed the question with the representatives of the Indian Bank's Association and the Indian Institute of Bankers in 1956 and drew up a scheme for the establishment of a Staff Training College similar to the institutions attached to the big banks in the United Kingdom, Australia and other countries. The training was to be essentially practical in character. To ensure that the Training College was established and conducted on right lines, the services of two experienced experts from one of the "Big Five" banks in the United Kingdom were secured under the Colombo Plan. The response from the banks to the establishment of this College was extremely encouraging. During the 5 years of its existence, the College has been in a position to afford training facilities not only to banks in India, but also to banking institutions in neighbouring countries such as Nepal and Burma. The scope of the activities of the College has been further developed by my successor, and an intermediate course is proposed to be started shortly for imparting training in internal banking accounts, audit, etc. I understand that in response to the suggestion made at the conference of representatives of the State Financial Corporation in November

1957, it has been decided that facilities should also be provided at the Training College for the training of the supervisory staff of these Corporations by the end of May 1960. The College has completed 27 courses of training of 8 weeks each. The total number of candidates from commercial banks all over the country who were trained during these courses was 661.

Extension of Banking Facilities

16. As I stated earlier in this lecture, one of the serious defects in the economic structure of India, as of old undeveloped countries, was the lack of banking and credit facilities outside the commercial centres and bigger towns. Most of you who are students of economics know, that for the rapid development of the country in the public as well as private sector, three basic requirements—apart from capital investment—are esential, namely, (i) cheap credit, (ii) cheap power and (iii) adequate communications. The importance of widespread credit facilities, both from the point of view of development as well as the dispersal of industries in semi-urban areas, cannot be too strongly emphasised. Banking facilities in India, particularly outside the bigger towns, were, and still are, to a considerable extent seriously inadequate. The total number of banking offices was absurdly small for a vast country with an enormous population such as India. Conditions in the United Kingdom are, of course, not at all analogous to those in India, but it may interest you to know that one of the "Big Five" banks in the United Kingdom had in 1949 almost as many branches as all the scheduled banks in the whole of India. Apart from the provision of credit facilities, the extension of stable and well-managed banks in semi-urban and rural areas is essential for the mobilisation of savings in these regions. Investment capital must largely, as you all know, be ultimately provided from savings. The expansion of banking facilities was a matter which required immediate attention, since, as I told you earlier, India had decided on planned development of Industry and Agriculture.

Soon after I took charge of the Reserve Bank I submitted to Dr. Mathai, who was then Finance Minister, the outlines of a scheme for a wide extension of the Imperial Bank of India to the semi-urban regions. There were, in 1949, 1500 treasuries and subtreasuries that were doing Government work, managing currency chests, receiving revenue and making disbursements on behalf of

Government. These treasuries, of course, did not provide credit facilities; but wherever there were branches of the Imperial Bank all the Government work including the management of the currency chests was done by the bank, which also provided credit facilities on a commercial basis. My suggestion briefly was that the Imperial Bank should, as rapidly as possible, take over all the treasuries and sub-treasuries at taluq headquarters in the semi-urban areas. The Government had already declared in 1948 that it was their policy to nationalise the Imperial Bank as early as possible.

17. At my request, the Finance Ministry, appointed a Committee, which was presided over by Sir Purshotamdas Thakurdas, to examine the question of extension of credit facilities and to enquire into other matters connected with rural credit. The Committee made several valuable recommendations. In regard to the extension of banking facilities, it considered that the Imperial Bank by virtue of its position appeared to be the best medium. In pursuance of this recommendation, the Imperial Bank agreed to open 114 branches during the period from 1st July 1951 to the 30th June 1956. Actually, it was able to open only 63 offices. Apart from the difficulties in regard to adequate staff, securing of premises, etc., the Imperial Bank had real practical difficulties in carrying out the ambitious plan of extending banking facilities to the rural areas. The new branches would not, of course, be remunerative for several years and the Board of the Imperial Bank could ont ignore the interests of the shareholders who elected them. These difficulties were experienced in a greater degree by other commercial banks. It was clear that private enterprise could not in the foreseeable future be in a position to provide the credit facilities required for the rapid development of industries in semi-urban areas and that Government would be obliged to organise this essential service without which planned development of medium and small-scale industries would be extremely difficult.

Establishment of the State Bank of India

18. It is against this background that the question of the nationalisation of the Imperial Bank which had already been declared to be the policy of the Government assumed considerable importance in 1955. In the meanwhile, the Rural Credit Survey Committee of the Reserve Bank which had been appointed in 1951 submitted a monumental report and made detailed recom-

mendations for a comprehensive re-organization of credit facilities in the rural areas. One of these recommendatoins was for the nationalisation of the Imperial Bank of India with major State-partnership. It was under these circumstances that the State Bank of India was established on 1st July 1955. One of the important statutory provisions in the Act made it obligatory for the State Bank to open not less than 400 branches within five years of the commencement of its operation. Most of these branches would be in the district and sub-divisional centres. The State Bank was also required to maintain a special "Integration and Development Fund" to be created out of the dividends payable to the Reserve Bank on the shares of the State Bank held by it. The Bank was required to provide remittance and other facilities to Co-operative Banks and other institutions. It was also expected that it would play an important role in mobilising rural savings and in meeting the credit requirements of agricultural marketing and of small-scale industries in the rural areas.

19. As a result of the establishment of the State Bank, there has been a significant expansion of banking facilities. By the end of Decemer 1959, the bank had opened 359 branches at centres approved by the Central Government. Out of these, as many as 280 are in rural or semi-urban regions with a population of 30,000 or less, and 125 at centres where no other commercial bank is operating at present. The expansion of the activities of the bank was accompanied by a phenomenal increase in its resources, which rose from Rs. 202 crores on 1st July 1955 to Rs. 581 crores at the end of 1959. These deposits, however, include a considerable portion of the funds in respect of imports from U.S.A. under Public Law 480. But, the expansion in internal deposits was also very significant. The bank has been able to mobilise savings from the rural areas to an appreciable extent even within the short period of its existence, the deposits received at the 262 new branches opened up to the end of 1958 being over Rs. 21 crores. The bank has also instituted a scheme at certain selected centres for financing small-scale industries. The scheme has since been extended to all the branches of the State Bank in India. The bank is thus beginning to play a significant role in the development of industries in the semi-urban areas of the country.

Bill Market Scheme

20. I will conclude this lecture with a brief description of the Bill Market Scheme, to which the businessmen attach very great

importance, and which was described by a financial journal as an outstanding development in the credit structure of the country in the post-war years. For many years the absence of an organized Bill Market in our credit mechanism was regarded as a serious defect. The problem of creating such a market was investigated by the Indian Central Banking Enquiry Committee, but there were many practical difficulties in the way of the emergence of such a market. The Reserve Bank had not been in existence at that time and the Imperial Bank functioned as a banker's bank only to a limited extent. Since the Imperial Bank was a commercial bank which competed with other banks, the latter were naturaly reluctant to disclose their bill portfolio to a rival institution. Government securities consequently become a more popular form of assets than trade bills. Apart from this, the system of cash credit in India offered, as in many Western countries, definite advantages from the point of view of the lenders as well as the borrowers; for, under this system, interest is normally charged only on the credits actually utilised and the bank could also withdraw the credit in the event of deterioration in the financial position of the borrowing party. With the establishment of the Reserve Bank in 1934, banks could offer commercial bills for rediscount, but in actual practice they expanded credit during the busy season either by borrowing against Government securities or selling such securities to the Reserve Bank.

It was not till the end of December 1951 when the new monetary policy (which I shall deal with in my next lecture) was introduced that the question of basing, as far as possible, expansion of seasonal currency on self-liquidating bills assumed considerable importance. In January 1952, I prepared in consultation with one or two leading bankers a tentative scheme to some extent based on the procedure under the Indian Paper Currency Act, by which the old Imperial Bank of India was permitted to borrow funds from the Controller of Currency against internal bills drawn for financing bona-fide trade or by the conversion of advances granted for the same purpose into usance bills. I discussed it subsequently with the representatives of the bigger scheduled banks. Under this scheme, the Reserve Bank undertook to make demand loans to eligible scheduled banks against the security of usance promissory notes of their constituents under Section 17 (iv) (c) of the Reserve Bank of India Act. The prescribed procedure required the banks to convert the demand promissory notes obtained by them from their constituents in respect of loans, overdrafts or cash credits granted by them into usance/promissory notes maturing within 90 days. The scheme, I may explain, provided for the lodgment of bills as security for advances by the Reserve Bank and not for their discount with it. The borrowing banks could withdraw any of these bills at any time or replace them by other eligible bills. Part payment was also permitted. The banks were thus in a position to minimise interest charges by borrowing according to their requirements and by remitting surplus funds to reduce their indebtedness.

21. The expression "Bill Market" is a misnomer, for the scheme was not designed with the intention of creating a market for bills. The system, however, is very flexible, and it can be claimed that it combines the advantages of the cash credit system with those of bills of exchange. The object of the scheme was primarily to provide a self-liquidating instrument for the expansion of seasonal currency, and this was fully achieved. The banks very quickly familiarised themselves with the formalities required for the operation of the scheme and after a very short experimental period, it was made a permanent feature of the credit system of the country. The success of the scheme exceeded my expectations and in a normal year advances to banks on usance bills are now more than 60 per cent. of the total advances to banks. As a precautionary measure, the scheme was confined in the initial stages to scheduled banks with deposits of over Rs. 10 crores, but in July 1954 it was extended to all licensed scheduled banks irrespective of their size or deposits. During the last 3 years, the scheme has been further extended in its scope and it now covers export bills.

Lecture II

INFLATION AND MONETARY POLICY

Inflation during the War

As I stated in my last lecture, a highly inflationary situation developed during the second World War and the subsequent years. This was a world-wide phenomenon which largely resulted from the technique adopted for war financing, namely, heavy borrowing from the banking system and the concentration of the energies of the people on the war effort. The degree of inflation, however, varied in different countries. For instance, in the United Kingdom the cost of living index went up by only about 40 per cent. This moderate increase was largely due to the effective fiscal and other measures taken by the Government. There was a severe restriction on spending by means of heavy taxation, compulsory savings and other measures, and there was a very efficient system of rationing of all articles of common consumption.

In India, there were certain special factors which stimulated the inflationary pressure, some of which I shall describe presently: (a) Firstly large sums of money were spent by the American and the British Governments for the maintenance of their fighting forces in India during the war and for the supply of stores etc. to allied troops stationed in the adjoining areas, such as the Middle East. The money due to India for supplies and services to these forces and for the materials exported for war purposes was paid in sterling, which was accumulated in the United Kingdom. Under the Reserve Bank of India Act, there was a statutory obligation on the Bank to issue in India rupees without limit in exchange for sterling deposited to its credit at the Bank of England. As a result of this requirement, large sums of rupees had to be issued in India against sterling balances accumulated in England. The notes in circulation shot up from Rs. 196 crores in 1939 (Annual average) to Rs. 1,211 crores in 1947, while the foreign assets of the Reserve Bank rose from Rs. 79 crores to Rs. 1,587 crores. India had no option or discretion in regard to this matter. British Government securities constituted the bulk of the sterling assets which the Reserve Bank accepted in return for the disbursement of rupees issued in India, which, of course, resulted in a big increase of money in the hands of the public, including workers and the producers of the primary commodities, not all of which could in practice be withdrawn by taxation and borrowing. (b) Secondly, industrial production was largely concentrated on war requirements while consumer goods were inevitably neglected. Thus, while on the one hand, the notes in circulation and deposit money together increased at a phenomenal rate, there was very little increase in the production of foodgrains or other articles of common consumption. The food position was aggravated by the partition of India, since the area which formed the new State of Pakistan had supplied a large quantity of foodgrains and certain raw materials essential to Indian industry, such as raw jute and raw cotton. The supply of rice from Burma was also cut off after the occupation of that country by Japan. (c) Thirdly, the scarcity of shipping space, the consequent severe contraction of foreign supplies and the difficulties of transport for civilian goods further curtailed the volume of goods available for the use of civilian population. Hoarding, speculation and profiteering resulted in the maldistribution and shortages of food-stuffs, cloth and other essential articles. (d) Fourthly, the economic situation was aggravated by the premature and rather unfortunate experiment of partial decontrol in 1947, when the country was experiencing serious transport difficulties and industrial production was steadily falling owing to industrial strikes and other causes and when the gap between the Government revenue and disbursements was appreciably widening. The conditions requisite for a successful relaxation of economic control and the restoration of a free market were thus totally absent, and the result was that prices were stabilised for sometime at a figure between the black-market and the official rates. The index of wholesale prices (August 1939=100) which had stood at 250 at the end of the war period and had risen to 284 in January 1947 shot up to 390 by July 1948. The Government were obliged to re-impose the controls, but a permanent increase in prices had already taken place. Even after the re-imposition of controls, prices remained well above the previous level.

2. It is against this background that the monetary policies pursued in the immediate post-war years should be considered. During the war years, colossal sums of money had to be borrowed to finance war requirements and the Government adopted a policy of maintaining low interest rates with a view to facilitating Government borrowing. In pursuance of this policy, it was the

normal practice for the Reserve Bank to buy Government securities offered to it for sale at market prices. Scheduled banks generally provided themselves with funds required for purposes of credit expansion, especially in the busy season, by selling Government securities in their portfolio to the Reserve Bank. Such sales were of fairly large dimensions from the year 1946-47 onwards.

The policy of cheap money was not, however, peculiar to India. In the United States, interest rates were deliberately pegged comparatively low during the war, but after 1947, there was a retreat from this policy. In India too, it was realised by the Reserve Bank that the policy of cheap money could not be pursued indefinitely without serious inflationary developments. In August 1946, my predecessor, Mr. C. D. Deshmukh, speaking at the annual general meeting of the Reserve Bank, sounded a note of caution regarding the further cheapening of money and emphasised the need to consolidate the progress already achieved. The policy could not, however, be completely abandoned, because official support to the gilt-edged market had become necessary in this country in order to prevent the development of disorderly conditions in the security market. There was also considerable selling pressure from the scheduled banks, who were trying to transfer their investments in Government bonds to more remunerative assets, such as loans to business and industry. As a result of this policy, the holdings of Government securities of the Reserve Bank rose by over Rs. 150 crores between 1948 and 1951.

Devaluation of the Rupee

3. It was in this highly inflationary situation that India was forced to devalue her Rupee in 1949. The simultaneous devaluation of sterling in September 1949 by the United Kingdom and other currencies by a large number of countries associated with sterling was perhaps the most outstanding financial development of the post-war period. The basic cause of the devaluation was the serious distortion in international payments, which was one of the inevitable consequences of the war. Among the long-term factors that forced the United Kingdom in 1949 to devalue sterling was the severe deterioration in her external payments position. The United Kingdom was a major creditor nation in the world before the war. Its annual income from external investments before the war was of the order of £ 200 million. She emerged from the war as a debtor nation owing colossal sums of money to America and

with large accumulations in London of sterling balances belonging to India and other countries. Her abnormal dependence on dollar markets and the persistence of inflationary pressure at home were further causes of economic deterioration. The cumulative effect of the operation of all these factors was a decline in the gold and dollar reserves of the United Kingdom from $ 2696 million in December 1947 to $ 1856 million at the end of 1948 and to $ 1651 million at the end of June 1949.

4. Under these circumstances, the devaluation of sterling was regarded by most foreign countries as almost inevitable, in spite of the categorical statement made by Sir Stafford Cripps, then Chancellor of the Exchequer, that he had no intention of devaluing sterling. It was also generally known that the International Monetary Fund favoured the devaluation of the pound and many other currencies. In view of the uncertainties in regard to the future of the sterling, traders sought to safeguard their position and the sterling rate in the U.S.A. market was at a discount of 20 per cent of the then existing official parity. Exporters to the United Kingdom attempted to expedite deliveries and obtain payments as quickly as possible, while importers from the United Kingdom held back their orders and deferred payment in the expectation that sterling would shortly be available on cheaper terms. These influences were reinforced by a short-term flight of capital despite the existence of exchange control. There was also considerable withdrawal of funds from the United Kingdom by foreign banks and others. In the 11 weeks from June 13, to September 18, 1949, the gold and dollar resources of the U.K. declined further by nearly 20 per cent. The devaluation had thus become almost inevitable. I remember that soon after I reached New York in September 1949 to attend the meetings of the International Monetary Fund and the World Bank, I asked some of the leading financiers in Wall Street whether they thought that U.K. would devalue sterling. The answer was that the devaluation was an absolute certainty and that the decision would be forced upon the U.K. by the *tremendous* pressure of speculative activity. This is an illustration of the serious influence which speculation can exert on the exchange position of a country, when its reserves are not adequate for dealing with the crisis.

5. As you all know, India devalued the rupee to the same extent as sterling. You may legitimately ask why this step was necessary when the pattern of the Indian economy was substantially

different from that of the United Kingdom and we had a large accumulation of sterling reserves in England. As Dr. Mathai who was then Finance Minister, explained to the Indian Parliament, the devaluation of the Indian rupee in the context of the devaluation by the United Kingdom and a number of other countries associated with sterling was a "defensive measure" essential in order to preserve our external trade. Nearly 75 per cent of the export trade of India was with countries that had devalued their currencies, and what was of still greater relevance many of our competitors in regard to exports belonged to the same group. It was obvious that if we failed to devalue, not only would our exports to these countries drop substantially, but some of our principal articles of export might, in course of time, lose their markets altogether, leaving the field clear for Lancashire piecegoods, Ceylon tea, East-African groundnuts, manganese and Dundee jute goods. Had we failed to devalue, our balance of payments position would have worsened and our import trade seriously affected. As you know, the way to acquire the funds for our imports is normally through our exports.

6. While devaluation of the Indian rupee was generally recognised to be inevitable, the question was discussed whether we would be justified in devaluing the rupee to the same extent as the pound sterling. There is no doubt that the magnitude of the devaluation in the United Kingdom came as a surprise not only to us, but also to the monetary authorities in other countries. Sir Stafford Cripps justified the low parity on the grounds that it was essential to fix it low enough to be capable of being held and to make it quite obvious to all that there would be no further devaluation. Sterling was then the most important international currency and a second devaluation would, of course, have shaken the confidence of other countries in the stability of sterling as an international currency. Had we decided to devalue to a lesser extent, the same difficulty about the maintenance of our export trade would of course have arisen, and, apart from this, speculative pressure as in the case of the United Kingdom would ultimately have driven us to devaluation to the fullest extent. In the meanwhile, in the process of supporting the external value of the rupee, we would have frittered away an appreciable portion of our sterling balances, the conservation of which was of great importance, especially in view of the large number of schemes of development which the Government were considering, and which required foreign exchange.

7. When the Indian rupee was devalued, it was naturally feared that the developing inflationary pressure would be further strengthened. With a view to curbing this tendency, the Reserve Bank decided to make use of the powers given to it under the Banking Companies Act and a programme designed to conserve the country's resources in foreign exchange and to curb the price level was launched. I had a meeting with the leading bankers, to whom I made a personal appeal to refrain from granting advances for hoarding or speculative purposes. In order to make this appeal effective, scheduled banks were required, under the Banking Companies Act, to notify daily any change in the line of credit extended and the margins given in respect of all advances of Rs. 1 lakh and over, and to certify that no advances above those limits were made for speculative purposes. Monthly returns of all advances against essential commodities and bullion were subsequently called for. The banks fully co-operated in these efforts to curb inflation, as is evident from the fact that the quarterly survey of advances for the fiscal year 1949-50 disclosed no excessive credit expansion for speculative purposes. It is also significant that devaluation was not followed by a general rise in prices. The wholesale price index which had stood at 390 in the middle of 1948 and had been fluctuating between 370 and 390 between May 1948 and September 1949 rose by only 3 points from 390 to 393 in October 1949. Thereafter, it declined by stages to 381 although it commenced rising again in subsequent months.

New Monetary Policy

8. The inflationary stimulus imparted to the economic system by devaluation had hardly been brought under control, when in June 1950 the outbreak of hostilities in Korea brought a world-wide inflationary situation which, of course, affected India as well. The Korean boom was essentially a raw material boom arising primarily from the operation of external factors. The stock-piling demand pushed up the prices of several internationally traded strategic materials to abnormal heights. The index of industrial raw materials which stood at 490 on the eve of the Korean war spurted by approximately 40 per cent to 689 by the middle of 1951. The general index of wholesale prices also moved up from 393 in May 1950 to 458 in April 1951. After this, however, the international tension eased considerably and there was a decline of stock-piling activity. A number of distinctly disinflationary forces such as an improvement in the supply situation following larger

imports and liberal foreign assistance began to operate. There were, however, indications that private investment in the trading sector continued to be high. The level of bank advances in the slack season of 1951 was abnormally high, the contraction in the bank credit being only Rs. 86 crores as against the expansion of Rs. 180 crores in the preceding busy season. Part of the increased liquidity in the system indicated higher investment in stocks. It became clear that unless an effective check was put on credit expansion during the busy season of 1951-1952, the decline in the general price level since 1951 might even be reversed. The banks continued to increase their resourcs by further sales of their holdings of gilt-edged securities to the Reserve Bank. The monetization of the public debt, which this implied, was an important factor which contributed to the price inflation during this period. I will explain briefly how this happens. Huge loans were floated by Government during war-time, the object of which was to withdraw from the public a portion of the increased purchasing power generated by war activities and deficit finance. Persuasive pressure was exercised over banks and other institutions as well as on the public to subscribe to these loans liberally. When there were other more remunerative means of investment, the public and the banks naturally sold their Government bonds mainly to the Reserve Bank at the market rate, since there was no restriction on such purchases by the Bank. So you see that the process of borrowing which was intended partly to be a disinflationary measure in effect resulted in deficit financing subsequently, for the Reserve Bank ultimately paid the money against the securities lodged with it.

9. The situation called for a drastic change in the monetary policy. Two significant changes were announced by the Reserve Bank with the commencement of the busy season in 1951.

Firstly, with effect from November 15, 1951, the Bank Rate was raised from 3 per cent at which level it had stood since 1935, to 3½ per cent.

Secondly, simultaneously with the raising of the Bank Rate, the Reserve Bank announced that during the ensuing busy season, it would save in exceptional circumstances, refrain from *buying* Government securities to meet the seasonal requirements of scheduled banks. It was, however, made clear that the Bank would, as a normal practice, *advance* money at the prevailing Bank Rate against Government and other eligible securities.

A few weeks after the announcement of these monetary measures in November 1951, I introduced the Bill Market Scheme, the main features of which I have described to you in my last lecture. As I have stated, it was mainly designed to introduce a certain measure of elasticity in the credit structure. Developments during the late forties and early fifties had emphasised the importance of basing seasonal expansion of currency on self-liquidating bills as far as possible.

10. As a result of the change in Bank Rate there was the inevitable steep fall in the prices of Government securities. The effect of the new monetary policy was the end of the automatic expansion of liquidity in the system through the purchases of the Reserve Bank in the open market, for when the banks borrow from the Reserve Bank at the bank rate by pledging securities, there was an obligation to repay the advances in 3 months. The change in the monetary policy incidentally restored to the Reserve Bank the initiative in regard to open market operations which it had lost in the post-war years and enabled the Bank to acquire a greater measure of control than it ever had over the banking system.

11. The new monetary policy undoubtedly helped to curb the inflationary tendencies during the first Five Year Plan, but, in my opinion, the principal factor that brought about a remarkably steady price level during the first Plan period was the striking increase in production. Mainly owing to favourable monsoons, production of foodgrains increased from 50 million tons to nearly 65 million tons at the end of the period, an increase of nearly 30 per cent. The figures relating to the industrial sphere were equally striking. For instance, the production of mill cloth went up from 3780 million yards to over 5100 million yards, an increase of 32·7 per cent.

12. The increase in the bank rate was intended to be a warning signal, for, apart from its psychological effect, I doubt if under Indian conditions a slight increase of the rate can have any appreciable influence on the inflationary situation. There have been no significant changes in the Bank Rate since 1951. The minor change in May 1957 from 3½ per cent to 4 per cent had no monetary implications. The Budget of December 1956 had raised the stamp duty on usance bills by 40 times with effect from February 1, 1957. It was explained in the Parliament at the time that this change had been designed to be a "fiscal measure with a monetary intent." Incidentally, it had resulted in the raising of the effective rate of borrowing against usance bills to 4 per cent, while the rate for advances against Government securities remained at 3½ per cent. This disparity would have seriously affected the working of the Bill Market Scheme, to which the business community attached great importance. Consequently, the lending rate against Government securities was raised by the Reserve Bank to 4 per cent. The subsequent increase in the Bank Rate on May 15, 1957, was thus a mere formality, since the rate of borrowing against usance bills and against Government securities had already been raised to 4 per cent.

There was no further increases in the Bank Rate in the following years, although there was an abnormal rise in the Bank Rate in the United Kingdom and certain other countries in Europe. It may be noted that in the series of measures recently announced by the Reserve Bank to curb the inflationary pressure, of which there have recently been definite indications in the Indian economy, no change in the Bank Rate has been made.

Operation of the Bank Rate in India

13. What is the significance to be attached to this omission? Is an increase in the bank rate considered undesirable under present conditions in India? I am no longer connected with the Reserve Bank, and cannot therefore answer these questions authoritatively. I will, however, discuss these issues in general terms, and explain why four years ago when many countries were raising their bank rates, I considered it unnecessary to recommend any such increase in India and preferred to apply a new technique, which had been made possible by the exercise of the powers vested in the Reserve Bank under the Banking Companies Act.

Many of you who have read text-books on Economics are no doubt familiar with the mechanism of the bank rate and its effect on the credit structure. It is designed to restrain investment and discourage hoarding and building up of stocks. As I have stated earlier, it also serves as a warning signal to the economy in general and the banking system in particular about tightening of credit.

14. Let us consider the operation of changes in the bank rate on the three important sections into which the business and the developmental activity of the country is divided.

(a) The public sector, which owing to the policy of planned development is by far the most important sector in this context.

(b) The private sector, including the important agricultural sector.

(c) The trading sector.

So far as the public sector is concerned, a higher bank rate would raise the cost of Government borrowings when they are attempting to raise enormous sums of money for the Plan. The Government would be stultifying themselves in their efforts to increase production by rapid development, if after having decided on an ambitious programme of expenditure, they imposed impediments in their way by raising the rates of interest on Government loans. If they wished to discourage spending in the public sector, the obvious and simple remedy would be to adopt a more modest programme of expenditure. This was the method adopted in the United Kingdom, when the Government had to operate outside the monetary field. Expenditure which is in the nature of investment in the public sector can be more easily curtailed by administrative decisions with relatively quick results.

In the private sector, although there has been a substantial increase in production, there is no justification for discouraging investment. The raising of interest rates and the discouragement of investment would also impose further obstacles in the way of development in this sector. When we are attempting to stimulate production in this sector, it would hardly be desirable to raise the rates of interest for business advances and for loans to agriculturists for purchase of pumps, etc., and other agricultural improvements.

It is in the sphere of the private trading sector that the bank-rate can be more effectively applied when there is speculative hoarding of stocks with the assistance of bank advances in order to raise prices. Even in this sphere, however, with effective control over the banks under the Banking Companies Act and an efficient system of inspections, it is possible for the Reserve Bank to apply the credit squeeze to the private trading sector directly on a selective basis without increasing the bank-rate.

Selective Credit Squeeze

15. Let me briefly describe to you these regulatory powers. Under the Reserve Bank Act all scheduled banks are required to deposit with the Bank a certain percentage of their time and demand liabilities. The percentage can be varied by the Reserve

Bank within fairly wide limits, if it desires to regulate the total volume of bank credit.

Apart from this, the Reserve Bank can under the Banking Companies Act regulate credit for specific purposes or for specific branches of economic activity, whenever it is considered necessary to do so in the public interests. In the exercise of these powers, the Reserve Bank may issue directives to banking companies generally or individually or on a regional basis as to the purposes for which advances may or may not be made, the margins to be maintained in respect of secured advances and even the rates of interest on advances. In most of the Western countries, the Central Banks do not possess these wide powers over the commercial banks to control credit on a selective or qualitative basis. They are, therefore, obliged to use the bank-rate mechanism and other general instruments of credit regulation. In India control on a selective basis, can be applied to the trading sector, without any disturbing effect on the public sector or the private productive sector which changes in the bank-rate normally involve.

I applied the selective credit squeeze for the first time in 1956, when there were indications of speculative holding of agricultural commodities. The system was intended to be flexible, and the directives were modified or withdrawn when they had served their purpose. It has been improved upon subsequently and various refinements have been introduced.

16. The bank rate and credit squeeze mechanism, I must explain, can only be effective when speculators hoard stocks with the help of bank advances. There is a vast amount of business activity in India outside the banking field, and hoarding can still go on with advances from non-banking sources. Even when the mechanism is effective, its effects can only be temporary. It can be no substitute for fiscal and disinflationary measures designed to produce a balanced economy. In one of a series of articles I wrote 3 years ago for a Bombay Journal on "Inflation and Deficit Finance", after emphasising the vital importance of increased production, I stated that

> "monetary weapons alone cannot curb inflationary pressure. They can only serve as palliatives while the basic causes of inflation are in the process of being removed."

I was rather interested to see that the Radcliffe Committee dealing solely with the conditions in the United Kingdom has made a similar observation in its recently published report. The report says—

"When all has been said on the possibility of monetary action and all its likely efficacy, our conclusion is that monetary measures alone cannot be relied upon to keep a nice balance in the economy subject to major strains from both, without and within. Monetary measures can help, that is all".

Causes of Inflation

17. The part which the Reserve Bank can play in the campaign against inflation is, therefore, very limited under present conditions in India. It can advise Government, but it has very little control over the basic causes of inflation. I will mention two of the most important of these factors which have contributed to the inflationary pressure. They are:—

(1) Firstly, the failure of the rate of production, especially of foodgrains, to keep pace with the alarming growth of the population.

(2) Secondly, deficit financing and other Governmental policies which have tended to increase the supply of money with the population.

18. The population problem, although extremely important and urgent, is outside the scope of this lecture. So, I will merely draw attention to the seriousness of the problem in our plans for raising the standard of living. The population of India which was 252 million in 1921 rose to 280 million in 1931, to 319 million in 1941 and to 361 million in 1951. The Second Plan assumed that the population would rise to 408 million in 1960-1961, but later estimates seem to indicate that 430 million would be nearer the mark. You can imagine what strain would be imposed on the economy by an addition of about 70 millions in 10 years. We have to feed this extra population and we have also to provide all the services such as education, medical facilities, public health, etc., for which a modern Government accepts responsibility. The problem is further complicated by the fact that the experience of Western countries shows that people begin to consider limiting their families only after they have had direct experience of better conditions of life. Although determined efforts should and would probably be made to arrest the growth of the population, no significant results can be expected in the next generation owing to difficulties arising from social and religious prejudices and the conditions of living in Indian villages.

The difficulties in regard to population, which I have indicated, emphasise the vital importance of production, both in the public and private sectors, to curb inflationary pressure. It is of the utmost importance that all administrative and other impediments in the way of development in the private sector, to which prominent attention has recently been drawn by leading industrialists, are removed. Over *90* per cent of the total production (net domestic product) is still in the private sector, which includes practically the entire agricultural sector and the industrial sector which produces the common articles of consumption. The first impact of any increased purchasing power is on food, clothing, etc., which are almost entirely outside the public sector.

Deficit Finance

19. The question of deficit financing has attracted a great deal of attention during recent years. The question should, however, be considered pragmatically and not from a doctrinaire point of view. Nations have been forced to use it during war time on a colossal scale for unproductive schemes, often with disastrous consequences. It can, however, be utilised on a limited scale during peace time, provided adequate precautions are taken and the economic situation is kept constantly under review. In the article I wrote for a Bombay journal about 3 years ago, I attempted to explain briefly and in simple language free from economic jargon the process by which inflationary pressure is normally generated as a result of deficit financing even for productive schemes. If I may, I will repeat to some extent what I wrote—

"The execution of a big productive scheme such as an irrigation project or a new steel plant takes several years. During this period, while there is an addition to purchasing power as a result of the increased expenditure, there is no corresponding addition to production until the scheme begins to operate. There is consequently a greater demand for articles consumed by the classes whose purchasing power has been increased, and the prices of these consumer goods will tend to rise, unless the increased demand is met from other sources or the purchasing power of these and other classes is reduced by new taxation designed for the purpose or by mobilisation of small savings.

If, however, the time lag between expenditure and production is very short (as in the case of tube wells and other minor irrigation works) the increased production will to a large extent nullify the effect of the increased purchasing power and no appreciable inflation results. On the other hand, if the developmental expenditure is on schemes which will not be productive in the immediate future the inflationary pressure will be greater.

Since we are contemplating a series of development plans, it should also be noted that the dangers of inflation are greater in the initial stages, for when the productive schemes in the earlier plans have commenced operation, the increased purchasing power resulting from the expenditure on subsequent schemes is to a certain extent counteracted by the increased production resulting from the completed schemes."

At the time I wrote this article I expressed the view that the most difficult period in our economic development would be the following five or six years when we would be spending enormous sums of money on irrigation projects, new steel plants, etc. I pointed out that once these colossal schemes started production, the inflationary pressure would be relaxed. But owing to organisational defects and difficulties, however, it would seem that full production will not begin for a considerably long time. Our difficulties consequently will, I am afraid, continue to exist for a much longer period.

20. I have tried to explain to you the economic consequences and implications of deficit finance, because there seems to be an impression in certain sections that deficit financing is a pernicious system in all cases and circumstances. It is certainly an unmitigated, though very necessary, evil during war time, when it is utilised for financing defence expenditure, which, of course, must necessarily be unproductive. Even in peace time, it should be condemned as a means of raising money for unproductive schemes. It can, however, be justified in the case of schemes which are productive within a short period. I gave you the instances of tube wells and other minor irrigation, which are productive within a season. Even in the case of big irrigation schemes, which take a long time to execute, the inflationary effect can be minimised, if all the technical and other resources available are concentrated on one or two schemes, and the projects completed quickly. The advantage of taking up one or two schemes at a time is that when

the subsequent schemes are started, the earlier schemes will have begun to produce. The increased production, as I have explained, will to some extent, neutralise the increasing purchasing power generated by the heavy expenditure during the period of execution.

21. In determining the magnitude of deficit finance, which the economy can bear without significant inflationary results, we have to consider not only increased production but also other disinflationary factors in operation. For instance, foreign aid and purchases of grain and other raw materials from U.S.A. under Public Law 480 are two such important factors. Under the latter, India purchases grain, but does not have to pay for it for several years. In the meanwhile, the counter-part funds provided by the sale of the grain to consumers in India remove an equivalent amount of purchasing power. It, therefore, operates as a disinflationary measure.

22. In conclusion, I may add that the Reserve Bank has no power to restrict deficit financing, for which the decision is taken solely by the Government. It can, with the economic indicators and statistical material at its disposal, of course, advise. But, that is all. It is, however, gratifying to learn from Press reports that the provision for deficit financing in the Third Plan would be much smaller than in the Second Plan; a figure of Rs. 550 crores has been mentioned, as compared to an actual of Rs. 1150-1200 crores in the Second Plan. Caution in the matter of deficit financing is particularly called for on account of the rather low level of our foreign exchange reserves, which provided an adequate cushion against the inflationary impact of deficit financing in the earlier years.

LECTURE III

RURAL FINANCE

Co-operative Credit

In my first lecture I explained to you the circumstances under which the Reserve Bank of India Act was passed in 1934. I told you that, while the constitution of the Bank followed more or less the traditional pattern of Central Banks in Western Europe, there was one important departure from the normal functions assigned to Central Banks in those countries. Under the pressure of Indian public opinion, the statute contained a directive to the Reserve Bank that it should take a prominent part in the development of agricultural credit and rural co-operative organisation.

2. When I was Governor of the Reserve Bank, many Americans, who were interested in agricultural finance and economics, while very appreciative of the work done by the Bank asked me why the Reserve Bank was intruding into the domain of rural credit, which according to conceptions in Western Europe and America was outside the normal activity of a Central Bank. A conclusive answer to this question would, of course, be that it was a statutory obligation imposed on the Reserve Bank, but the provision is also justified on the merits. In India, as in many other undeveloped countries, the vast majority of the population is dependent on agriculture, and institutional credit for agricultural operations is generally inadequate or not available at all. The Reserve Bank could not have justified its existence in India, if it confined its activities to the industrial sector and completely ignored the agricultural sector, on the prosperity of which industrial development, to a large extent, depends. No apology is, therefore, needed for the enormous interest which has been taken by the Reserve Bank in rural finance and co-operatives during the last two decades.

3. Many of you are probably familiar with the origin of the co-operative movement in this country. The problem of agricultural indebtedness had become urgent even before the beginning of this century. The credit facilities afforded by the Government in the form of 'takavi' loans were quite inadequate and almost insignificant. The Famine Commission of 1901 and the Indian

Irrigation Commission of 1904 which examined the working of the 'takavi' machinery made several recommendations to improve its working, but these loans were no adequate substitute for the moneylenders' credit, which was remarkably prompt and flexible, as compared to the governmental machinery with all the red-tape associated with it. It was under these circumstances that the co-operative movement was launched in 1904. Although the movement was started as a result of the recommendation of the Famine Commission, most of the co-operative societies that were started, were largely guided in their working by the exhaustive report by Sir Frederick Nicholson, a Madras Civilian, who had made an intensive study of co-operatives in Europe on behalf of the Government of Madras in 1895-97.

4. I will not tire you by describing the work of the numerous Commissions and Committees who have subsequently examined the development of Co-operation in India, for I am primarily concerned in this lecture with the part played by the Reserve Bank in this movement.

The Reserve Bank of India Act, 1934, defined the functions of the Agricultural Department, which the Bank was directed to organise. These were—

"(1) to maintain an expert staff to study all questions of agricultural credit and be available for consultation by the Central Government, Provincial Governments, Provincial Co-operative Banks and other banking organisations;

(2) to co-ordinate the operations of the Bank in connection with agricultural credit and its relations with Provincial Co-operative Banks, and other banks and organisations engaged in the business of agricultural credit."

It was also required to submit to the Government, proprosals for legislation on the improvement of the machinery dealing with agricultural finance. These reports which were submitted in 1936 and 1937 described the special features of agricultural finance in India and the part played by various agencies, i.e., the Government, commercial banks, moneylenders and co-operative banks. The reports suggested that with a view to controlling the rates of of interest charged by the moneylenders and their methods of business, appropriate legislation for the regulation of moneylending should be passed by the States. While expressing the view that progress of co-operative credit had been disappointing, the Reserve

Bank nevertheless considered that the co-operative movement was still the best agency for the provision of agricultural credit and that it could play an adequate part provided the organisation was re-constructed and re-vitalised.

5. As I stated in my first lecture, soon after I joined the Reserve Bank in 1949, the Government at my request appointed "The Rural Banking Enquiry Committee" which was presided over by Sir Purushotamdas Thakurdas. This Committee made important recmmendations for the extension of rural banking, for the extension of remittance facilities to co-operative and other banks, the removal of impediments in the way of the extension of modern banking to rural areas, extension of rural credit, development of warehousing, etc. Many of these recommendations were subsequently implemented.

An informal conference was convened in February, 1951 to discuss the role of the Reserve Bank in rural finance. The operations of the Reserve Bank in this sphere were restricted by statute to short-term agricultural credit. Even these were mainly confined to States which were organisationally well-developed. The conference suggested the amendment of the law with a view to the extension of facilities for medium-term agricultural credit and short-term credit for small-scale industries. As a preliminary to the reorganisation of the co-operative framework, it recommended the planning and conduct of an all-India rural credit survey by a small expert committee.

All-India Rural Credit Survey

6. In pursuance of this recommedation, the Reserve Bank appointed in 1951 a Committee of Experts to make a comprehensive survey based on detailed enquiries by specially qualified officials and non-officials in hundreds of typical villages scattered all over the country. They produced in 1954 a monumental report on the whole question of rural credit and rural development. This exhaustive enquiry revealed that co-operative credit societies on the old basis had been a complete failure. The movement had attracted quite a number of dedicated workers. Nevertheless, after 50 years of endeavour, only 3 per cent of agricultural credit was supplied by these societies, while the moneylenders and others, in spite of drastic restrictive legislation in many states, were flourishing and continued to provide the bulk of the credit for rural agricultural operations. The report summarised the causes of this

failure in the following passage, which I quote, since the report is a very bulky volume and many of you have not probably read it:—

"In considering the record of the co-operative credit movement in the Indian village, it has accordingly to be remembered that in India, as wholly distinguished from other countries, there has been a unique combination of the following features:

(1) a socio-economic structure largely based on caste within the village,

(2) the linking up of the upper parts of that structure to a cash economy and an administration centralised in the urban sector, and

(3) the fact that the linking up took place as the outcome of the three processes which historically happened to operate together in India, viz., colonial rule and administration, commercialisation of agriculure and urbanisation of industry."

The Committee had, of course, discussed the problems of rural finance with prominent leaders of the co-operative movement and other experts, and they summarised their conclusions in their report from which I will quote another extract:

"One of the prior objectives of policy has to be the creation of conditions in which the co-operative and other institutions will function effectively in the interest of rural production and for the benefit of the rural producer, and not as hitherto be largely stultified by the operation of more powerful private interest; for this, the necessary assistance, in the form of finance, technical personnel, etc., and not merely advice, supervision and administration, has to come from the State; hence State partnership in some of the more strategic institutions, co-operative and other, existing or new, is recommended as an important feature of the reorganisation that should take place. Institutional development, with the object mentioned and on the basis of State partnership, should extend to

(i) co-operative credit,

(ii) co-operative economic activity, especially processing and marketing,

(iii) storage and warehousing and

(iv) commercial banking as represented by the important sector of State-associated banks."

The Committee further recommended:

"(a) the gradual establishment, at the primary base of large-sized primary credit societies, channelling through this structure of not only agricultural credit but eventually also rural industrial credit,

(b) the progressive organisation, on a co-operative basis of marketing and processing with the needed financial, administrative and technical assistance from the State and the development of storage and warehousing through State-partnered organisation at the all-India and State levels, and

(c) the progressive organisation on a co-operative basis of as large a sector of rural economic activity as possible e.g. farming, irrigation, transport, milk supply, dairying, live stocks breeding, cottage industries, etc., with financial, administrative and technical assistance from the State."

7. These recommendations were considered in detail by the Reserve Bank's Advisory Committee on Agriculture and Co-operation, which included many of the veteran leaders of the co-operative movement and others who had dedicated themselves to co-operative activity. The Advisory Committee unanimously approved them. Subsequently, the proposals were discussed at 3 conferences specially convened for the purpose in different parts of India, which were attended by all the leading regional representatives of the co-operative movement in the various States. Finally, there was a conference in Delhi of State Ministers convened by the Union Minister for Agriculture and Co-operation to consider these recommendations. The proposals and the programme of the Rural Credit Survey Committee were finally accepted by the Planning Commission and by the Central and State Governments.

In the course of these discussions it was explained that the programme was intended to be flexible and subject to modification in the light of experience. It was made clear that larger societies would be organised only where owing to unfavourable local conditions small individual societies confined to the village were

not likely to be a success. It was the intention of the Rural Credit Survey Committee that the reorganised co-operative structure should work in close co-operation with the community projects and extension schemes which the Government had undertaken. State participation would operate only as a stimulating factor and would not be made a justification for any active interference in the day-to-day administration of the co-operative societies. It was also explained that apart from the reasons given in the Report, State participation would be essential if co-operative credit societies were to mobilise rural savings, since the villagers could not be expected to deposit their hard-earned savings in an institution in the financial stability of which they had no confidence.

8. The scheme has been in operation for about 3 years and a certain measure of progress has been achieved according to the Nijalingappa Report on co-operative farming which has recently been published. Advances by the Reserve Bank to State co-operative institutions at a concessional rate have gone up from less than Rs. 1 crore in 1950 to over Rs. 70 crores in 1958-59. The emphasis laid by the Rural Credit Committee on marketing and processing societies has resulted in the establishment of co-operative marketing societies in all States but one. There have been significant developments in the sphere of sugarcane processing. Processing of other commodities such as cotton and paddy also received some attention. The nationalised State Bank has extended its activities to the co-operative sphere, and is now playing a significant role in the development of these institutions.

9. Progress, it will be observed, has been appreciable, but it has inevitably been slow, as the new schemes have been in operation for only a few years. The movement would have certainly gathered greater momentum, if Government policy had been more consistent and helpful. One would have expected that a scheme which had been accepted by the Union Government and all the States after prolonged discussion, and careful and exhaustive consideration would have been given every encouragement or at least a reasonable trial. Unfortunately, ever since the inception of the scheme, progress has been impeded by vacillations in Government policy and the introduction of ideological issues. The objectives of the scheme, viz., adequate credit facilities for agricultural operations and higher yield from land for the farmers seems to have been forgotten in the ideological discussions and futile controversies of the last few years.

Co-operative Farming

10. You will observe that there is no mention of co-operative farming in the programme adopted on the recommendations of the Rural Credit Survey Committee. I may explain that this omission was not accidental. Frankly, I was myself very much attracted at one stage by the idea of co-operative farming on a voluntary basis, for large-scale farming on the basis of joint cultivation has obvious advantages not only from the economic but also from the sociological as well as political points of view. I actually discussed it informally with some of the members of the Rural Survey Committee, but on further consideration I found that the practical difficulties were almost insuperable under Indian conditions.

The issue has recently become highly controversial, and the University is not perhaps the most appropriate forum for a discussion of the political and ideological implications of this proposal. I may, however, state that co-operative farming on a voluntary basis will not, in my opinion, facilitate the establishment of a communist system. Indeed, as I explained in an article which I wrote for the "Hindu" last year, a comprehensive application of the co-operative idea not only to agricultural services, but also to minor industries, especially those connected with agriculture, would be the most effective obstacle to communistic developments in the sphere of rural finance.

11. There has been a great deal of confused thinking in regard to the scheme for co-operative farming embodied in the much-discussed Nagpur resolution, because the nature of the co-operative farming society contemplated was never clearly explained in the initial stages. The linking up of co-operatives with village panchayats, the proposal to vest them with adequate powers and the speeches of Congress leaders in defence of the scheme certainly gave the impression that the original plan was for the organisation of a single co-operative farm for the entire village as in China and Israel. Subsequent statements of policy have, however, referred to joint farms not necessarily for the whole village. The Nijalingappa group which was appointed by Government to consider the financial, administrative and other details connected with the Nagpur scheme, has further clarified the point by defining co-operative farming as "voluntary association of cultivators for better utilisation of resources." You will observe that the

objective of the resolution has undergone substantial modification since the Nagpur meeting.

12. I will try to deal with the subject today objectively and primarily from the practical standpoint. I have explained the practical difficulties in regard to co-operative farming in recent articles that I have written. Some of the points, however, can bear repetition and emphasis, for the Congress seem to have committed themselves very deeply to an idealistic venture, before the practical aspects had been examined by experienced officials and non-officials intimately acquainted with village life.

Many of you have probably lived in villages or have had professional or administrative contact with village life in this country. As you all know, one of the prominent characteristics of Indian villages is the deep-rooted and almost sentimental attachment to land. For centuries, if not for thousands of years, it has been the main, if not the only, source of occupation and livelihood for the vast majority of the rural population. In the case of small farmers, the entire family works on the land to get what it can out of the family holding, even if cultivation is not remunerative in the economic sense. For, there is no alternative occupation for most of the villagers. Apart from this, the land provides some measure of security for the farmer. Whenever he is in financial difficulties owing to failure of rain, loss of cattle, socially obligatory expenditure on marriages etc., he is in a position to pledge his land for a loan from the moneylender; for, there are no institutional credit facilities provided in the village. It is this vital dependence of the farmer on land for his living that differentiates a co-operative farming society from all other co-operatives and presents an almost insuperable obstacle to the rapid introduction on a voluntary basis of co-operative farms throughout the country.

13. In the case of an ordinary co-operative society for purchase of stores and seeds, marketing and other agricultural services, the farmer can be persuaded to buy a share for a few rupees out of his savings. If the co-operative venture proves a failure, he loses only these few rupees, which would not make very much difference in regard to his way of living. In the case of a co-operative farming society, however, the farmer will be expected to contribute his entire holding to the common pool, retaining only an intangible legal title to his land. Is it easy to persuade the farmers to gamble with their land, which is the main source of their livelihood and on which the economic security of their family

depends, in the hope of deriving at some future date some advantage, tangible or intangible, through co-operative farming? You can hardly expect the farmer to have implicit faith in the promises and expectations of the Government, however well-intentioned they may be. The success of other Government village development schemes has, even according to official appraisals, not been so striking as to inspire confidence among the farmers that if they joined the co-operative farming society, there would be a substantial increase in production and their earnings would be higher. The findings of the Nijalingappa group report, which I referred to earlier, certainly do not confirm the assumption underlying the scheme that increased production will invariably result.

14. Let us now consider the other serious practical difficulties in the way of organising farming co-operatives, for which neither the Nijalingappa group nor the sponsors of the Nagpur resolution have indicated any satisfactory solution.

Firstly, the main advantage of co-operative farms is, as you all know, that it facilitates cultivation of land in appropriately large compact blocks, which makes it possible to apply scientific methods of cultivation. Since recent statements of Congress leaders have emphasised the voluntary nature of the movement, the first question that arises is: how will such large blocks be constituted if some of the farmers refused to join the society? There would be small 'islands' of individual holdings scattered over the co-operative farm. It is presumed that the provisions of the Land Acquisition Act will not be utilised to force the farmer to give up his farm in view of the specific recommendation by the Nijalingappa group that the growth of co-operatives should be entirely spontaneous and that no legislative pressure should be applied. No satisfactory solution to this has been indicated in the Nijalingappa group report.

Secondly, most farmers would be reluctant to pool their land for co-operative farming, unless they were assured that they could withdraw from the society if they were not satisfied either with the results or with the administration of the farm. It is obvious that if some of the farmers withdrew, the same difficulty about discontiguous plots in the co-operative farm would arise. The Nijalingappa group report has suggested that in such cases lands of equal productivity, and not necessarily the same piece or area of land, should be given at the periphery without dislocating the scheme. Can you expect the farmer to believe that he would

get a fair deal under such a system, especially as the decision in regard to the nature of the land to be given to him in exchange will depend on the lower strata of the administrative hierarchy which has unfortunately low standards of integrity and impartiality?

Thirdly, the problem of evolving a formula for the distribution of the produce from the co-operative farms on an equitable basis has not been adequately dealt with either by the Nijalingappa group or by the sponsors of the scheme. The Nagpur resolution states that "the farmers would get a share from the net produce of the co-operative farm in proportion to the land they have contributed." This may be practicable in areas where there is uniformity in regard to fertility, facilities for irrigation and productivity. Such conditions do not, however, prevail in the vast majority of villages. In an ordinary typical village, say, in Southern India, the cultivated land consists of hundreds of individual holdings, some classed as dry and some as wet, some irrigated by wells constructed by the owners while others are completely dependent on the rain-fall, some intensively cultivated by the farmer who has spent money, time and energy in improving the land,, while some others are comparatively barren or neglected and so on. It is obvious that the distribution of the production on the basis of area as suggested in the Nagpur resolution would be very inequitable in these cases and quite unacceptable to the more enterprising farmer, who would, of course, refuse to join the society under such conditions.

15. I have tried to explain why co-operative farms of the type contemplated in the Nagpur Resolution are quite impracticable in most parts of India. There seem, however, to be indications of a growing sense of realism in regard to this policy, for recent statements have laid emphasis on service co-operatives rather than on co-operative farming which seems to have been relegated to the distant future.

16. Our immediate need, as I emphasised in my second lecture, is for an enormous increase in production of foodgrains, which is imperative in view of the alarming growth of the population. Co-operative farming and all other schemes must be judged primarily from this standpoint, viz., whether they are likely to result in increased production.

According to the statistics given in the Nijalingappa group report, Japan has got one of the highest rates of productivity for paddy, wheat and maize. The yield per acre in lbs. in Japan is nearly 3½ times that in India in respect of rice and wheat. After the abolition of feudal estates by General McArther about 12 years ago, Japan consists of millions of small holdings. Co-operative farming societies are not common, but Japan has a very highly developed system of service co-operatives. If we concentrate on service co-operatives without laying stress on co-operative farming even as a remote ideal, we shall undoubtedly achieve better and quicker results. The Nijalingappa Group has rightly emphasised the importance of spontaneity in regard to development of joint farming. Spontaneity should obviously be the basis of Government policy.

Some Aspects of Religion as Revealed by Early Monuments and Literature of the South

by

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South India, and, particularly, the Tamil country, presents a good scope for study of the development of religion, endowed, as it is, with a large number of religious monuments and monumental sculptures amply supplemented by an indigenous literature that also affords material for the periods lacking in monuments. In fact, these two sources help us to understand the growth and evolution of some religious creeds and connected iconography. In these lectures, it will be our endeavour to study certain aspects of the subject with particular reference to Hinduism; the word is meant in its general sense which would connote the religion of the *Vēdas* and the *Āgamas*. Of course, the other creeds or religions of the Ājīvakas, Jainas and Bauddhas will also lend themselves to such a study, too vast to be covered at present. At the outset it will be remembered that the *Vedic* cult and other northern creeds came in successive waves making peaceful penetration into Peninsular India. It will be interesting, briefly to note, the then extant beliefs as revealed by the earlier monuments and literature of the local people, who gradually absorbed the incoming creeds and ideas resulting ultimately in a syncretic religion that was at the same time eclectic. In the process it will be seen that much was taken from the new religions and their iconography as well as given to them. This resulted in a later repayment of South India to the North in the matter of further evolved religious forms and thought, for example, the contribution made by the great seers, Śaṅkara, Rāmānuja and Madhva, to mention only the most outstanding.

THE MEGALITHIC CULT

The earliest extant monuments in the South which deserve our consideration here are the megaliths, which strongly betray a culture and tradition peculiar to the South.[1] These megaliths which are essentially post-ex-carnation burials are different from the earlier neolithic and later post-cremation burials. Though varied in their architectural nature and methods of construction, they have, besides their characteristic association with large stones, as the very nomenclature would indicate, some essential common features, particularly, in their significance and contents, marking them out as belonging to the same culture-complex. The grave-goods include, in addition to the relatively larger or smaller parts of the carnal (*i.e.*, fractional) remains, iron implements and weapons and pottery of a definite black-and-red type and particularl shapes. They are mostly found on the sloping, uncultivable ground at the foot of the hills or rocky outcrops, forming the water-spreads of large and shallow irrigation tanks. These tanks were in turn formed by bunding up a suitable length further down the slope to impound the rain water from the hilly uplands, or brought by streams from higher elevations. On the other side of the bund, the ground was cleared and cultivated, the fields being irrigated by letting the stored up water through sluices pierced through the bund and channels leading away from them. The vast number of such monuments, which literally occur in thousands, their ubiquity, density and spacial distribution (they are found in almost all the districts of South India) all indicate a number of generations of a vast and settled agricultural people, growing irrigated crops such as rice. Their contents by themselves denote a highly advanced material culture, domestication of animals, including the horse, and great reverence for the dead.

The monuments by their very nature of construction would have involved the efforts of the entire community, since the construction of each one of them, including the transport and erection of huge slabs and boulders of stones could not have been the result of a few men's labour. In contrast, the habitations of these peoples were perhaps of humbler type, of an easily perishable nature that could not endure, so well, as their funerary structures have done. In this respect they are paralleled by the great temples of enduring stone, of a later epoch in juxtaposition with contemporary secular structures of timber and brick which have perished as a result of the onslaughts of time, weather and other natural agencies. The megalithic monuments, therefore, are

1. For a fuller account of recent megalithic studies see *Ancient India*, Nos. 2: (1946), 4: (1947-48); 5: (1949); 8: (1952); 9: (1953); and 15: (1959) and *Transactions of the Archaeoloical Society of South India*, (1958-59).

eloquent about the great veneration and devotion to the dead and belief in *post-mortem* existence, at least in the spirit world.

This is borne out by the ample testimony of the earlier strata of the extant *Śaṅgam* literatuure of the Tamils, which are at least contemporary with the later half of the megalithic phase. This literature, a compilation of earlier poems in later times without due reference to chronology and containing much that resulted from the impact of the northern peoples, their religions and creeds, echoes in its scattered descriptions these funerary practices. We find that king and nobleman, the commoner and peasant, men and women were interred in such a manner, the cult of cremation according to the *Vēdic* rites gradually replacing it, when at last such earlier practices became almost a memory, and that too much distorted as time went by. This one could see from the few references to them in later Tamil literature and late commentaries of the earlier literature, all in the first half of the second millennium after Christ.

To the megalithic monuments involving the use of stones, and the urn burials which is one of the elements of the megalithic complex, we have fairly numerous references in the *Śaṅgam* works, entire word pictures of the *iḍukāḍu* or the necropolis, where the dead were exposed and their remains buried and where the erections were both funerary and commemorative monuments. Next only to the numerous references to the *tāḷi*, (which originally seems to have signified 'burial' in general, but subsequently came to denote the pottery urn or sacrophagus commonly used as interring vessels) we have many references to the *naḍu-kal* or the 'erected stone' both sepulchral and commemorative. The *Tolkāppiyam*, a grammar belonging to the latter part of the *Śaṅgam* period has the following definition:

kāṭchi kālkōḷ nīrpaḍai naḍukal
śirttaku śiṟrappiṉ perumpaḍai vāḷttal
(*Tol., Poruḷ;* 2:5)

The much later commentator, without a correct knowledge of the original tradition, (as he and others have done in the case of the '*tāḷi*') would interpret the first three (*kāṭchi, kālkōḷ* and *nīrpaḍai*) as the quest for a suitable stone, the marking of the figure of the dead person on it, and its ceremonial bath. But in the context of what we have at present come to know of the material objects and the culture revealed by the megalithic monuments, *kāṭchi* probably meant the lying-in-state for some time, as is even now the practice, so that all the relatives and friends can assemble and do the ceremonial wailing. *Kālkōḷ*, likewise probably meant the exposure of the body to the elements, as would be the case in excarnation, clearly indicated by the many megalithic monuments excavated and studied. *Kāl*, according to the contemporary *Paripāḍal* (3:77)[2] meant the five elements, the compound in that case meaning (to attain) "the nature of the five elements (*iyaṟkai eydutal*)". *Nīrpaḍai* would then refer to the ceremonial washing or purification of the few picked bones left after exposure at a much later date and its burial, and *naḍukal* the erection of the stone (megalith) over it. This was to be followed by *perumpaḍai*, the great offering, perhaps with heaps of cooked rice (*peruṁ-cōṟu* in other contexts) and other food, and by *vāḻttal*—praise or adoration, perhaps with song and dance. The custom of worship and offering *peruṁpaḍai* or *peruṁcōṟu* for the first time, or periodically thereafter, in honour or in memory of the dead will be clear from other references in the same literature.

Peyarum pīḍum eḻudi adar toṟum
pīli śūṭṭiya piṟaṅgu nilai naḍukal
(*Aham*, 67:9-10; 131:10-11)
Naḍukal piṟaṅgiya uval iḍu paṟandalai
(*Puṟam*, 314:3)
Vil ēr vāḻkkai viḻuttoḍai maṟavar
val āṉ paḍukkai-k-kaḍavuḷ pēṇmār,
naḍukal pīli śūṭṭi, tuḍippaḍuttu
tōppi-k-kaḷḷoḍu turū-u-p-pali koḍukkum
(*Aham*, 35:6-9)
il aḍu kaḷḷiṉ śil kuḍi-c-ciṟūr
puḍai naḍu kalliṉ nāṭ pali ūṭṭi
nal nīraṭṭi, ney-ṉ naṟai koḷī iya
(*Puṟam*, 329: 1-3)

Interestingly enough the *Piṅgaḷa Nigaṇḍu* gives the meaning '*mudukāḍu*' to the word *piṟaṅgiyal*. The decoration of the *naḍukal* with flower garlands and peacock plumes, with shield and lance, offerings including liquor, and worship, are referred to in all the *Śaṅgam* works. The term *eḻuttu* in this and other similar contexts (*e.g. Aiṅguṟunūṟu* 352: 2; *Aham*, 67: 9) perhaps refers to

2. See the commentary of Parimēlaḻakar—'*Kāl*' means the five *bhūtas* or elements—Dr. Swaminatha Iyer's edition, 1956, p. 25. The next two lines elaborate this idea.

working with paint and brush on the *naḍukal*, for no carved or engraved or sculptured specimens are to be seen. But in the excavations in Nāgārjunakoṇḍa, where *Prākrit* and Sanskrit inscriptions of the early centuries of the Christian era were in vogue, such memorial stones called '*chāya-kaba*' with *Prākṛit* inscriptions of the Ikshvāku period (third century A.D.) have been unearthed. (*Vide Indian Archaeology—A Review*, 1955-56, p. 24).

Most significant of all was the conception that the dead person became the *naḍukal* itself, as could be gathered from many contexts: *e.g.*

Naṉandalai ulakam arandai tūṅga
keḍu il nal iśai śūḍi,
naḍukal āyiṉaṉ puravalaṉ eṉavē
(*Puṟam*, 221: 11-13)
Ūr naṉi iṟanda pār mudir paṟandalai,
.. ..
.. ..
pal āṉ kōvalar paḍalai śūṭṭa
kal āyiṉaiyē
(*Puṟam*, 265: 1-5)

The concept of the stone commemorating the dead, or even personifying the dead person, and becoming divine thereby is emphasised in all the contexts.[3]

Peyar maruṅgu arimār
Kal eṟindu eḻudiya nal arai marā atta
Kaḍavuḷ ōṅgiya kāḍu ēśu kavalai
(*Pattup., Malaipaḍu*, 394-96)

The *Śilappadikāram* (v: line 127) refers to a temple with an erect stone as the object of worship—*neḍuṁ kal niṉṟa maṉṟam*.

This strong tradition of associating stone with the dead, has endured for a long time among the peoples of the south, particularly the Tamils who refer to the two great events in a man's life by the significant saying "*kalyāṇam* and *kalleḍuppu*", the former referring to wedlock and the latter referring to death euphemistically, as raising of the stone memorial. This, as we

3. For other references to *naḍukal* and its worship *see Aham*, 297: 6-7; *Aiṅguṟunūṟu*, 352:2; *Puṟam*, 223: 3; 232: 3-6; 260: 25-28; 263:8, 264: 1-4, 306: 3-4. For references to *peruṁ cōṟu see Padiṟṟuppattu*, 30: 43-44, *Aham*, 233: 7-10; *Puṟam* 2: 16, 261: 2-4; Paṭṭiṉappālai, lines 78-79.

would see later, was the obvious reason for the non-adoption of stone as the building material for temples and sacred edifices, and the making of images for worship, till about the 7th-8th centuries A.D., while in contrast stone was used in the architecture and sculpture of the Buddhist monuments which centred round the *stūpa* which was essentially funerary—the *dhatu-garbha*, prior to and in the early centuries of the Christian era. This would explain the paucity of standing religious edifices of the Brahmanical religion till they were excavated out of rock or built of stone in the 7th-8th centuries A.D. and after.

The same custom has continued in the erection—*kaṉṉāḍu* (as the Kuḷidikki inscription calls it), or *vīrakkal* or hero-stones, bearing inscriptions with or without sculptures and other symbols. Such hero-stones abound in many districts of Tamilnad today, including the outlying Kannada and Telugu areas, and they are locally called *Paṭṭavaṉ-kal, Paṭṭavan* denoting the deified person who died as a hero, or immolated himself in observance of a vow.

Likewise, the deification of women who performed *sati*, was a growing cult, ever since the idea of *karpu* gained dominance and this *Pattiṉi* cult was a very strong one for centuries later from the time of the *Śilappadikāram*. We have the earliest references to the wife desiring burial along with her dead husband in *Puṟam* 256 where she impores the potter to make the burial urn for the dead husband big enough for her also, who like a little lizard sticking to the wheel of the chariot has been attached to her lord in all the vicissitudes of life.

The concept of *kaṟpu* or chastity and Arundhatī as the ideal thereof, is mentioned in the earliest of the works—*Aiṅguṟunūṟu* (441). *Puṟam* 246 purports to be the words of *Peuṅgō-p-peṇḍu* the queen of Bhūta Pāṇḍiyaṉ when she committed *sati* on the funeral pyre of her husband. Material relics of such *sati* practices in the 3rd-4th centuries A.D., including inscribed and sculptured stones showing the *sati* descending into the fire pit, and other relics have been recently excavated in Nāgārjunakoṇḍa.[4]

The instance of a woman called Tirumāvuṇṇi cutting off one of her breasts, standing under the *vēṅgai* (*Pterocarpus*) tree in which resided a god, in *Naṟṟiṇai* 216 and an old verse called *Pattiṉi-c-ceyyuḷ* quoted in the *Yāpparuṅgalam* (p. 351), probably

4. *Indian Archaeology*—A Review, 1958-59, p. 8.

supplied the theme to the Kaṇṇaki story in the *Śilappadikāram*.[5] The deification of the legendary Kaṇṇaki as *Pattiṉi-k-kaḍavuḷ*, the fetching of a stone for that purpose from the north and her identification with Durgā or Bhagavatī are well known. Such stones with inscriptions and sculptural representations in relief, often shown as an arm bent up at right angles at the elbow, palm facing out, are called in the Kannada districts as *tōḷ-kai-koṭṭa-kamba*. They are generally called *Māsatikals* (*mahā-sati-kal*). Often a *vīrakal* and *māsatikal* are combined in one showing the husband and the wife, who performed *sati*, together at the top in their heavenly abode and with inscriptions below. They are found in many districts of South India, even as far south as Teṉkāśi in the Tirunelvēli District up till very late mediaeval times.

The *Kandu*, perhaps a pillar or post (wooden), planted on a platform set up in the *podiyil* and believed to be the abode of, or representation of, a deity was also an aniconic object of worship in early times as will be seen from the following:

marai ēṟu śorinda, māttāṭ kandin
śurai ivar podiyil aṁ guḍi-c-cīṟūr

(*Aham*, 287: 4-5)

Kali keḻu kaḍavuḷ kandam kai viḍa-
bali kaṉ māṟiya pāl paḍu podiyil

(*Puṟam*, 52: 12-13)

Koṇḍi makaḷir, uṉtuṟai mūḻki,
andi māṭṭiya nandā viḷakkiṉ
malaṟ aṇi meḻukkam, ēṟi-p-palar toḻa
vambala śēkkum kanduḍai-p-podiyil
parunilai neḍun tūṉ olka-t-tīṇḍi

(*Paṭṭinappālai*, 246-249)

The *Kalittogai* (120: 16) refers to *Kandu ādal śāṉṟavar* (the great becoming the *kandu*).

The *Kandaḷi* mentioned as an object of hymns in *Tolkāppiyam* (*Poruḷ*, ii, 33) was perhaps the same as the *Kandu*. *Kandaḷi* is also

5. Vaiyapuri Pillai: *History of Tamil Language and Literature*, (1956), pp. 146-47 and *Ilakkiya Maṇi Mālāi*, (Madras 1954), pp. 146-52,

mentioned as one of the patron deities of the merchant guilds of the mediaeval times.

The *Maṉimēkalai* (Ch. 28: 185) describes a *Kandiṟ-pāvai* or goddess residing (or represented) in the *Kandu*. Naccinārkiṉiyār's explanation of *kandaḷi* as the principle beyond all manifested ones which stands alone, without form and without attachment, is a very late idea echoing the evolved concept of abstract god-head of his own times, which was not so well understood in those early periods of *Śaṅgam* literature. Even to-day it is not unusual for a tree or small stone or brick or even a platform bare, or with a spear, sickle or club planted on it, to be conceived as the representation of a village god and such are to be found in every village of the Tamil country.

Curiously enough a number of memorial slabs of crudely dressed stones, found in the Tirukkōyilūr Taluk of South Arcot District, with inscriptions of the 10th-11th century A.D., but without any sculptured representations on them, are called *taṟi* in their inscriptions. *Taṟi* like *Kandu* would mean an upright pillar or post. These stones are commemorative of certain vows called *paraṇi* or *nōṉbu*, as stated in the same inscriptions, fulfilled by women whose names are also mentioned.[6]

Another object of worship by the fisher-folk on the sea shore was the toothed rostrum of the gravid shark or saw-fish planted on the sandy beach adorned with flowers and worshipped with offering, song and dance. Such a worship is described in the *Paṭṭiṉap-pālai* (83-89).

> *nilavu aḍainda iruḷ pōla*
> *valai uṉaṅgum maṉal muṉṟil;*
> *vīḻ-t-tāḻai-tāṭ tāḻnda*
> *veṇ kūtāḷattu-t-taṉ pūṅ kōdaiyar*
> *śinai-c-cuṟavin kōḍu naṭṭu*
> *maṉai-c-cērttiya val aṉaṅgiṉāṉ*

Besides these were the gods and spirits residing in trees, hills, rivers, tanks, and in the cross-roads as local guardians. Many of the trees were totem gods, and this tradition continued in later times, particularly in the Śaivite temples as the *sthalavṛiksha*, eg. *Tillai, Vaṉṉi* etc.

6. *Annual Report, South Indian Epigraphy*, 1938, Part II, para. 81.

In the time of the *Maṉimēkalai*, when cremation became more common, the necropolis as described in the story of the *Śakkara-vāḷakōṭṭam*, contained brick-built memorial shrines, for the saints (*aruntavar*), kings, *satis*, who gave up their lives along with their husbands, and for other people, with their various *varṇas* and sexes indicated, raised in their honour by their relatives (*Maṇi*, VI, 54-59). These were found along with the temple of Durgā and the megalithic monuments (*Niṟai-kal-teṟṟi*) and *kandus* or posts representing deities to which *balis* (offerings) were made.

Advent of Stone for Sacred Purposes

When Pallava Mahēndravarman I excavated his first cave temple without the use of the traditional brick, timber, mortar and metal in Maṇḍagappaṭṭu for the Trimūrti (Brahma, Vishṇu and Śiva) as he proclaims in his inscription there, he calls himself a *vichitra-chitta*. He could claim to be so (or was called so) for more than one reason. He was the first to create such permanent abodes of god in hard and enduring stone in a land of brick-and-timber temples. Secondly, even at that, he was the first to excavate into hard rocks like granite, while his contemporaries and rivals in war and art, the Chāḷukyas, did create such temples in the softer sandstone, following the tradition of the Mauryas and the Guptas and of the Āndhras and Ikshvākus, who instead of sandstone chose the softer trap rocks of Western India and the Palnāḍ lime-stone of the east coast of Āndhra for their work. Mahēndra's cave temples were really an achievement when viewed against that background, since for nearly a thousand years after Aśoka and Daśaratha made their first and last excavations of the caves in the granite of Barābar and Nāgārjuni hills near Gaya and changed over to the softer sandstone for the pillars, sculptures and other erections thus starting a long tradition of work on softer stones.

The hard nature of the material, the difficulty involved and time taken in working it, limited, not only the size of Mahēndra's cave temples, but also their sculptures and embelishments, as compared with the contemporary work of the Chāḷukyas and the earlier dynasties who could work with greater ease on the softer stones, resulting in greater quantity of sculptural and other embellishment. Subsequently Mahēndra excavated cave temples dedicated solely either to Vishṇu, as at Mahēndravāḍi and Māmaṇḍūr (first cave temple) or to Śiva as at Vallam (upper cave), Daḷavāṉūr, Śīyamaṅgalam and Tiruchirāpaḷḷi (upper cave). The caves at Pallāvaram, Māmaṇḍūr (second cave), etc., were dedicated to more than one god, having three or five shrine cells.

The simple type of cave temple continued to be excavated by the successors of Mahēndra and after some time by the contemporary Pāṇḍyas, the Adigaimāns and Muttaraiyars in their respective territories, in hard granite. Māmalla by himself made innovations and started another series of cave temples with more ornate facades and pillars and also the monolithic *vimānas* popularly called *rathas*, all confined to Mahābalipuram.

It was Paramēśvaravarman I who made the first experiment at Kūram, and Tirukkaḻukuṉṟam to erect structural temples, which were real constructions, out of slabs of granite. Following him Rājasimha perfected the technique and erected the earliest structural temples extant as such, as in Mahābalipuram, Kāñchī and Panamalai. While the cave temples imitated the interior aspects of contemporary brick and timber structural temples, the *rathas* and structural temples were stone reproductions of both the exterior and interior aspects of brick and timber temples even to the minutest detail.

A close scrutiny of the earlier cave temples and *rathas* reveals that though Mahēndra and Māmalla deviated from the traditional materials of construction, they perhaps could not do so in respect of the principal image consecrated. In the earlier and contemporary temples, the principal object of worship consecrated was a painting on the wall or one fixed to the wall, or picked out or moulded in stucco and painted, or of wood, carved and appropriately painted. Among the many references in the *Śaṅgam* and post-*Śaṅgam* works, we can quote the following in support of this fact.

Iṭṭikai neduṁ śuvar viṭṭam vīḻndeṉa
maṇi-p-puṟā-t-tuṟanda maraṁ śōr māḍattu
eḻudu aṇi kaḍavuḷ ....

(*Aham*, 167: 13-15)

.... *kēḻ koḷa-k*
kāḻpuṉaindu iyaṟṟiya vaṉappu amai nōṉ śuvar-p-
pāvaiyum bali *eṉa-p-perā- a;*

(*Aham*, 369: 6-8)

kayaṁ kaṇḍaṉṉa vayaṅguḍai nagarattu,
śembu iyaṉṟaṉṉa seṁ śuvar puṉaindu

(*Pattupāṭṭu, Maduraik.*, 11: 484-85)

avar avar tām tām aṟindavāṟu ētti
ivar ivar eṁ perumāṉ eṉṟu, śuvar miśai-c-
cārttiyum vaittum toḻuvar: ulaku aḷanda
mūrti uruvē mudal.

(*Divya Prabandham*—2095—Poygai Āḻvār—*Iyaṟpā*, verse 14).

The *Avanti-Sundarī-Kathā-Sāra*[7] narrates how the queen of Rājahamsa offered worship to Guha in the cave temple and saw the wall painting (*bhitti citra*) of Guha playing beside his parents (evidenty the Sōmaskanda panel), and a son was born to her, as a result of her wish and prayer.

Even today many of the great temples have their principal images in worship in the *garbhagṛiha* made of stucco eg. the Raṅganātha in Śrīraṅgam and the Anantapadmanābha in Trivandrum, or of wood eg. in the Vishṇu temple at Tirukkōyilūr, and the earlier image of Attivaradar of the Varadarājaperumāḷ temple in Kāñchī, which is kept inside the tank to be taken out periodically. Mahēndra and Māmalla could not, therefore, make the principal images in the sanctum of their temples, in stone, even as bas-reliefs on the wall. As such, all these cave temples have empty shrines with tell-tale traces of the original painted image on the wall, or with small platforms for brick and stucco images against the hind wall, or with square or rectangular depressions on the hind wall of the sanctum for the insertion of carved wooden plaques.

The recent finds in the Nāgārjunakoṇḍa excavations of the remains of the brick temple of *Ashṭabhujasvāmi* of about the 3rd-4th century A.D., and of a lime stone slab with a large slot for the insertion of the base of a wooden image,[8] with an inscription in front of the slot, further confirm this. The inscription refers to the consecration of *Ashṭabhujasvāmi* (eight armed Vishṇu) made of *audumbara* wood (fig-wood), a material described in all *Śilpa* and *Āgama* literature as the most suitable for making images. Even the later *Āgama* and *Śilpa* texts traditionally prescribe wood as the first material, then others, such as *kaḍi śarkarā* (mortar) or paint (*citra*) and metal, and, last of all, stone. Even the stone images were to be plastered and painted appropriately, a thing to

7. Ed. Harihara Sastri—Kuppuswami Sastri Research Institute, Madras (1957); III, vv. 37-38.

8. *Indian Archaeology—A Review*, 1958-59, p. 8.

be seen in many temples even today. It was only in the time of Paramēśvaravarman I, that we see bas-reliefs in stone carved on the back walls of the sanctum in the cave temples and *rathas*, he completed or made, and such reliefs are to be found in the structural temples of Rājasimha also. The contemporary Pāṇḍyas, and kings of other dynasties, who excavated cave temples, dating after the time of Paramēśvara I (670-700 A.D.) had bas-reliefs of the concerned deities carved on the back walls of the sanctum of their cave temples or had rock-cut *liṅgas*. The next step was the installation of slabs containing bas-reliefs or high reliefs of the deities at the centre of the floor of the sanctum to be followed later by sculptures in round, of stone.

The tradition of associating stone with the funeral was so strong that all this could not happen even at the outset, and at least a section of the people had to reconcile themselves to the use, for sacred purposes, of the prohibited material that was more instinctively associated with the funeral. Even so the contemporary leaders of religious thought, the early Nāyaṉmārs, and the Āḻvārs, the exponents of the strong *bhakti* movement, who made it a point to travel widely and visit every shrine and sing their hymns, have bye-passed these innovations. Not one of the rock-cut cave temples, nor even the great contemporary achievements in sculpture and architecture, has been referred to by them in any of the thousands of hymns they have sung. On the other hand they have sung about what would appear to be small and architecturally insignificant temples, and even gods in humbler habitations. Their orthodoxy appears so strong. It is only one of the Āḻvārs, *viz.*, Tirumaṅgai, that refers to the Paramēccura-viṇṇagaram, built by the Pallava—identified as the stone temple in Kāñchī, now called the Vaikuṇṭha-p-perumāḷ, built by Nandivarman Pallavamalla. Otherwise these stone temples had to wait till the time of the Chōḻas, to become important by their own additions of accessory structures to existing ones and also by their building stone temples in a number of places, or re-building in stone many of the earlier brick and timber structures hallowed by the Śaiva and Vaishṇava saints. Side by side the custom of building memorial shrines, referred to earlier in the *Maṇimēkalai*, in stone became also common in later Pallava and early Chōḻa times. Such were called *Paḷḷippaḍai*.[9] The shrines in a line outside the Kailāsanātha temple, Kāñcī, at least some of them, *eg.* the Nityavinītēśvara, seem to be such memorial shrines. This is reminiscent of the *Dēvarāja* cult, which had a much wider development in the Far East.

9. *Annual Report, South Indian Epigraphy*, 429 of 1902; 230 of 1903; and 271 of 1927; *South Indian Inscriptions*, III, 16.

It was then, over this strong substratum of a cult of the worship of the great dead, symbolised by lithic monuments, intermixed with the animistic and shamanistic concepts, that the four great creeds of the north *viz.*, those of the *Vēdic* Hindus, Jains, the Ājīvakas and the Bauddhas were superimposed. They actively penetrated in waves starting from a time three or four centuries, if not earlier, before the commencement of the Christian era. This gave a spurt not only to the rise and growth of literature, but also gradually influenced local religion and beliefs, the incoming faiths getting themselves transformed in the process by their contact with the existing culture which by all evidences, literary and material, was an advanced one. It was a process not only of introduction but also of transformation by assimilation and identification with the local gods and beliefs.

The Early Religious Cults

Taking into consideration the Hindu impact, we find in the earlier strata of the *Śaṅgam* literature, belonging to the first half of the first millennium A.D., references to *Vēdic* ideas, customs and sacrifices and to the Hindu gods in their new habitations, forms and attributes mixed with much that was indigenous. In the absence of any contemporary iconographic representations, plastic or graphic, we have to seek for information only from the literary sources. The syncretic forms of Māyōṉ and Vāliyōṉ or Nāgar, the local forms of Kṛshṇa and Balarāma, Śevvēḷ or Neḍuvēḷ, the Murugaṉ of the Tamils corresponding to Kārttikēya-Skanda-Vaiśākha-Subrahmaṇya, the three-eyed Śiva, Koṟṟavai or Aiyai, or Kāḍurai Kaḍavuḷ also called Kāṉ-amar-śelvi, the aspect of Durgā, have been evolved. Vēndaṉ or the lord of the celestials, *i.e.*, Indra, and Varuṇa, Brahmā the creator, and Ādiśēsha, are also referred to.

Vishnu

The *Bhāgavata* cult of Kṛishṇa and Balarāma, or Vāsudēva-Saṁkarshaṇa was popular as in contemporary north India. They are described respectively as dark and white complexioned. Māyōṉ's flag was the kite and his symbol or weapon the *nēmi* or discus, while Vāliyoṉ's was the palmyra and his weapon the *nāñjil* or *mēḻi*, the plough. (*Puṟam*, 46 and 58). In *Puṟam* 58 Māyōṉ is described as Veyyōn (the Sun god) that bears the kite (*garuḍa*) flag, suggesting a synthesis of Sūrya and Vishṇu. The still earlier *Naṟṟiṇai* (32: 1-2) uses in a simile the contrasting colours of Māyōn and Vāliyōn.

kaḍal vaḷar puri vaḷai puraiyum mēṉi,
aḍal ven nāñjil, paṉai-k-koḍiyōṉum;
maṉṉuru tirumaṇi puraiyum mēṉi,
viṇ-uyar-puṭkoḍi, viṟal veyyōṉum

(*Puṟam*, 56: 3-6).

pāl niṟa uruvin paṉai-k-koḍiyōṉum
nīl niṟa uruviṉ nēmiyōṉum

(*Puṟam*, 58: 14-15)

māyōṉ aṉṉa māl varai-k-kavā aṉ
vāliyōṉ aṉṉa vayaṅgu veḷ aruvi

(*Naṟṟiṇai*, 32: 1-2)

Vishṇu as Anantaśāyi is described in the later *Pattuppāṭṭu* collection, in which the reclining deity is mentioned in the *Perumbāṇāṟṟuppaḍai* (lines 371-73), and in the description of Kāñcī (lines 492-405) the city is likened to the lotus that bears Brahmā of the four faces and who rose out of the navel of Neḍiyōṉ (Vishṇu). Again as Trivikrama and the one who bears *Tiru* (*Śrī*) in his chest, he is mentioned in the same poem (lines 29-31). The story of Vishṇu coming as a dwarf and subsequently assuming the Trivikrama form to measure the earth is referred to in *Maṇimēkalai* (xix: 51-52) and the discomfiture of Bali in *Tirukkuṟaḷ* (61:10). The *Mullaippāṭṭu* (lines 1-3) of the *Pattupāṭṭu* collection refers to Vishṇu as the holder of the conch and discus who also rose up in stature as Trivikrama.

The *Paripāḍal*, a post-Saṅgam collection, dating between the 5th and 7th centuries A.D., which had eight long poems on Vishṇu, of which six complete ones and stray verses of the rest are extant, shows a full development of the forms and attributes of Vishṇu and his different iconic forms such as Varāha, Trivikrama, Narasimha, Kṛishṇa, in his Viśvarūpa form as Virāṭpurusha, and also in the four *vyūha* forms—Vāsudēva, Saṁkarshaṇa, Kāma or Pradyumna and Aniruddha.

Śeṅgaṭ Kāri! Karuṁ kaṇ veḷḷai!
Poṉkaṭpaccai! Paiṅkaṉ mā-al!

(*Paripāḍal*, 3: 81-82)

In another context, (4: 36-42) it mentions their flags as *Palmyra, Plough, Elephant* and *Garuḍa*. Significantly enough the elephant, as one of the flags is substituted for the usual *Makara* flag of Pradyumna. *Paripāḍal* (15) refers to Tirumāliruṅkuṉṟam as the abode of both Balarāma and Kṛishṇa.

The *Śilappadikāram* mentions in many contexts the temples dedicated to Māyōṉ and Vāliyōṉ

Vāl vaḷar mēṉi Vāliyōṉ Kōyilum
Nīla mēṉi Neḍiyōṉ Kōyilum

(v: lines 171-172)

Pukar veḷḷai nāgar taṁ kōṭṭam

(ix: line 10)

Mēḷi valaṉ uyartta veḷḷai nagaramum

(xiv: line 9)

The shrines in the three contexts are called *kōṭṭam, kōyil* and *nagaram*.[10]

A Pallava Grantha inscription (650-700 A.D.) in florid script in the Ādivarāha cave temple at Māmallalpuam enumerates, for the first time, the ten *avatārs* or incarnations of Vishṇu as follows:

Matsyaḥ—Kūrmō—Varāhaścha—Nārasiṁhaś cha Vāmanaḥ |
Rāmō Rāmaścha Rāmaścha Buddhaḥ Kalki cha tē daśāḥ ||

10. The term *kōyil* (*kō-il*) used to denote an abode of a god, as against its real connotation of a king's abode or palace (as obtains in Malayalam even today) indicates clearly the late character of *Śilappadikāram*. Such a term is unusual even in the early lithic inscriptions of the 7th-10th centuries A.D. *i.e.*, in the time of the Pallavas and Pāṇḍyas of that period but found frequently in the *Tēvāram* and *Prabandham*. The term *kōyil* referring to a temple occurs only rarely, in three cases, for the first time, *viz.*, in the Pallava inscription at Śiṟṟambākkam (*Epigraphia Indica* xxxii, p. 290) of the first year of Paramēśvaravarman I (670-700), in the sixth year of Māṟañjaḍaiyan in Tirupparankuṉṟam (773 A.D.) and in the recently discovered Pāṇḍya inscription in the cave temple at Malaiyaḍikkuṟichi of seventeenth year of Māṟan Śēndan (8th-9th centuries A. D.) where the respective cave temples are called *Kō-il* and *Kaṟṟirukkōyil* (*Kal-tiru-k-kōyil*). The term *Kōṭṭam* in the latter *Śilpa* works denotes a rectangular shrine with a wagon top or *śāla* roof which is invariably a feature of *dēvī* shrines. *Nagaram* is significant. The term also occurs in the sense of a temple in *Pattuppāṭṭu* (*Maduraikkāñji*, line 484) and *Paripāḍal*—(*Tiraṭṭu*—lines 49, 59, and 60)

Significantly enough Kṛshṇa is omitted but in his place Buddha is mentioned as the ninth incarnation. Paraśurāma is referred to as *maṉ maruṅgaṟutta maḷuvā neḍiyōṉ* in *Maṇimēkalai* (22: 25) and as *maḷuvāḷan maṉṉar maruṅgaṟuttu māl,* in the *Tolkāppiyam* (*Puṟat: Sutra* 13). The *Śilappadikāram* (xi: 35-51) describes the recumbent form of Vishṇu on the serpent couch in Śrīraṅgam and the standing form of Vishṇu in Tiruvēṅgaḍam, again pointing out to its late date.

Of the three, Balarāma, Kṛishṇa and Subhadrā, the last is not mentioned in the earlier texts as such, though Durgā, who is associated in one of her aspects with Kṛishṇa and Balarāma as Ēkānaṁśa or Subhadrā, is mentioned as the sister of Māyōṉ, (*Māl-avar-k-ku-iḷangiḷai*) in *Śilappadikāram* (xii: line 68). But on the other hand Māyōṉ is associated with Piññai or Nappiññai or Napiṉṉai, one of the *āychchiyar* (*gōpis*) as his favourite *dēvi*. Vāliyōṉ or Veḷḷai Nāgar (Balarāma), Māyōṉ (Vāsudēva) and Nappiṉṉai (associated with Nīlā-dēvī in later times) are impersonated in the dance called *Āychchiyar Kuravai,* which is the theme of Chapter xvii of *Śilappadikāram.* The Kṛishṇa-Nappiṉṉai cult is referred to profusely in *Nālāyira-Prabandham, eg.* by Āṇḍāḷ in her *Tiruppāvai* (verse 19, line 19), assignable to the second half of the 9th century A.D. This combination is also referred to by Sundarar in the *Tēvāram* (7875: 7th *Tirumuṟai,* 63rd decad, v. 7, line 1) as "*Piṉṉai nambum puyattāṉ Neḍumāl*". Kṛishṇa is said to have married *Nappiṉṉai* in the traditional manner after a bull baiting contest (*kol-ēṟu-taḻuvudal*) in which he embraced and defeated seven bulls, eg. *Prabandham,* 3168; *Tiruvāymoḻi,* 3, 5: v. 4—has "*vambu aviḻ Kōdai poruttā, māl viḍai*

and it perhaps refers to the type of a temple of the *nāgara* class of the *Śilpa* texts denoting a square *vimāna* with a four-sided domical roof.

Kayam kaṇḍaṉṉa vayaṅguḍai nagarattu
(*Maduraik,* line 484)
Iru kēḻ utti aṇinda eruttiṉ
varai keḻu śelvaṉ nagar
(*Paripāḍal-Tiraṭṭu,* lines 48-49)
Pūmuḍi nāgar nagar
(ibid., line 59)
Kuḷavāiy amarndāṉ nagar
(ibid., line 63).

The word '*Nagaram*' is used in the sense of a temple, in an Eastern Chāḷukya copper-plate of Kali Vishṇuvardhana (847-49 A.D.): No. 1 of 1953-54, *Annual Report on Indian Epigraphy,* 1953-54, p. 2, para 2.

ēḻum aḍartta Śempavaḷa-t-tiralvāyaṉ". The fight with the seven bulls is also referred to by Appar in *Tēvāram* (4638: 4th *Tirumuṟai,* 49th *padikam,* v. 5, line 1) as "*Ēṟuḍan ēḻu-aḍarndāṉ*".

This peculiar Tamil tradition was strong even in the time of the *Jīvakachintāmaṇi,* assignable to the first half of the 10th century A.D. Incidentally this also brings the date of the *Śilappadikāṟam* nearer to *Āṇḍāḷ* and *Chintāmaṇi.* This association of Balarāma, Kṛishṇa and Nappiṉṉai, is reflected in the only sculpture of the kind in Māmallapuram, *viz.,* the famous Gōvardhana scene, in the so called Kṛishṇa maṇḍapa. This is a large rock relief depicting the story of Kṛishṇa holding up the hill Gōvardhana as an umbrella, to protect his community of cowherds along with their kine, from the wrath of Indra. Under this shelter are shown cowherds, their women and children, with their cattle and other belongings, all crowding into the shelter. On the right half of the panel stands Balarāma, leaning affectionately over the shoulders of a nearby cowherd, and next to him stands Kṛishṇa with a woman, marked out from the rest by her costume and pose and leaning on an attendant lady nearby. Her importance would clearly make her out as Nappiṉṉai, the beloved of Kṛishṇa. But for this, and another sculpture relating to Kālīyamardana, on one of the storeys of the Dharmarāja ratha, *Bhāgavata scenes relating to the* Kṛishṇa episodes are absent in the Pallava and contemporary rock-cut architecture of the Tamil country.

Of the *Rāmayāṇa,* not even one scene or episode is represented till we come to the early Chōḷa temples of 9th-10th centuries A.D. *eg.* Nāgēśvara (Kumbakōṇam), Vīraṭṭānēśvara (Kaṇḍiyūr) and the Śiva temple in Puñjai. The *Saṅgam* classics, have references to these and the hymns of the Āḻvārs and the Nāyaṉmārs are replete with these. The *Mahābhārata* epic, too, seems to have been rendered into Tamil during this period. The author of this epic Bhāratam-pāḍiya Perundēvanār, (*c. 10th century A.D.*) has contributed the invocatory verses in praise of Śiva, Murugaṉ and Tirumāl to the different *Saṅgam* collections. The first verses of the imprecation at the beginning of *Kuṟuntokai and Naṟṟiṇai,* seem almost like a translation of a *ślōka* in *Vishṇu Sahasranāma.* This absence of sculptures relating to these epics and *purāṇas* in the earlier monuments is in marked contrast to what obtains in the contemporary Chāḷukyan and Rāshṭrakūṭa monuments in Bādāmi, Paṭṭadakkal and Ellōra and in South-East Asia, *eg.* the temple at Prāmbanam.

The principal forms of Vishṇu, in accordance with the iconographic concepts described in the *Śaṅgam* literature and the devotional literature of the Āḻvārs, are found reproduced in sculpture in the cave, monolithic and structural temples of the Pallavas, and the cave and monolithic temples of the Pāṇḍyas, Muttaraiyars and Adigamāṉs. They are the standing, seated and reclining forms of Vishṇu and his other forms as Varāha, Narasimha, Trivikrama, and Harihara. The standing form is found in the Trimūrti cave temple at Māmallapuram, in the cave temple in Kīḻmāvilaṅgai and in one of the shrines of the lower cave temple in Tiruchirāpaḷḷi to mention a few. It occurs also as exterior sculptures on the walls of the early temples in many cases, *eg*. in the Dharmarāja ratha and Ādivarāha cave temple in Māmallapuram and in the cave temples in Tirumalaipuram and Śevilippaṭṭi and on the walls of the structural Vaikuṇṭhaperumāḷ temple in Kāñchī. The seated forms are fewer and occur in the eastern sanctum dedicated to Vishṇu in the cave temple in Tirupparaṅkuṉṟam, in the central shrine in Kūram Vishṇu temple (late Pallava), in the *maṇḍapa* of the Narasimha cave in Nāmakkal, in one of the three panels to the east of the facade of the Tirupparaṅkuṉṟam cave temple and on the walls of the Vaikuṇṭhapperumāḷ in Kāñchī. The reclining forms occupying the principal shrines are many, *eg*., the shrine between the two Śiva temples in the Shore temple complex at Māmallapuram, in the cave temples in Śiṅgavaram, Malaiyaḍippaṭṭi, Tirumeyyam and Tiruttaṅgāl. The classic example is the one on the wall of the *maṇḍapa* of the Mahishāmardinī cave temple, Māmallapuram.

Varāha, the principal deity in the Ādivarāha cave temple, even to-day, is a stucco image. This form in stone is found again in the *maṇḍapa* of the Varāha cave temple in the same place, on the east of the facade of the Tirupparaṅkuṉṟam cave temple and in the Raṅganātha cave in Nāmakkal. Narasimha was the principal deity in the Mahēndravāḍi cave temple and perhaps also of the Māmaṇḍūr cave temple I, and is in stone in the cave temple in Śiṅgapperumāḷ Kōil, as also in the cave temple in Ānamalai (770 A.D.) and in the Narasimha cave temple, Nāmakkal. He is shown again on the panel to the east of the facade of the Tirupparaṅkuṉṟam cave temple.

Trivikrama is to be found in the Varāha and Ādivarāha cave temple *maṇḍapas* in Māmallapuram and in the *maṇḍapas* of both the cave temples in Nāmakkal. Varāha, Narasimha and Trivikrama,

besides being some of the earliest *avatāra* concepts, seem to have had an additional significance in connection with the imperial or *chakravarti* concept, for, Varāha would symbolise the redemption of the kingdom from evil, Narasimha, power and might and Trivikrama, conquest of other domains; as would be clear from the similes in royal *praśastis*. As such these have been the favourites of many great dynasties, *e.g*. the Guptas, Chāḷukyas and Pallavas. The concept of Harihara, described by the early Āḻvārs and Nāyaṉmārs, is amply exemplified in many places, *eg*., in the Dharmarāja ratha and Ādivarāha cave temple, Māmallapuram, in Nāmakkal and in other places.

SURYA

That the sun was an object of worship from the early times is to be inferred from such references to its power and worship in the earlier *Śaṅgam*, and post-*Śaṅgam* classics.

munnīr mīmiśai-p-palar toḻa-t-tōṉṟi
ēmura viḷaṅgiya śuḍariṉum

(*Naṟṟiṇai*: 283: 6-7)

tayaṅgu tirai-p-peruṅkaḍal, ulaku toḻa-t-tōṉṟi
vayaṅgu kadir virinda, urukeḻu maṇḍilam

(*Aham*: 263: 1-2)

aruṁ tiral kaḍavuḷ śellūr kuṅā adu
peruṁ kaḍal mūḻkiṟṟu āki

(*Aham*: 90: 9-10)

Ñāyiṟu pōṟṟudum, Ñāyiṟu pōṟṟudum

(*Śilappadikāram*: 1: 4-6)

ulaku-toḻu-maṇḍilam

(*ibid*. 14: 5)

ulakam uvappa valaṉ ērpu tiri taru
palar pukaḻ Ñāyiṟu................

(*Pattuppāṭṭu-Tirumurugu*: 1-2)

Sculptures of Sūrya are to be found in the early Pallava monuments, *eg*., in the eastern face of the second *tala* of the Dharmarāja ratha, Māmallapuram and further south in the lower rock-cut cave in Tiruchirāpaḷḷi The Kāvēripākkam Sūrya (Madras Museum) is an example of the late Pallava period. A sculpture of

Sūrya, originally belonging to one of the *parivāra* shrines, of the close of the Pallava period (903 A.D.) is found inside the temple of Vīraṭṭānēśvara at Tiruttaṇi, Chingleput District. His image is often found on the wall niches of structural temples, and in separate shrines forming the *ashṭaparivāra* of early Chōḷa temples as in Tirukkaṭṭaḷai Sundarēśvara, and also in Tirupparāytturai as stated by its inscription.[11] The image of Sūryadēva here is mentioned again in other Parakēsari (early Chōḷa) inscriptions (177 of 1907).[12] Another image in Tirumudukuṉṟam (Vṛiddhāchalam) of the time of Parakēsari is mentioned in another inscription.[13] A temple for Sūrya called Śri Gaṇḍarāditta-Ādittagaram was constructed in the 40th year of Parāntaka I Chōḷa in Jambai, perhaps as one of the *parivāra* shrines in Nagarīśvaram temple there.[14]

The Sūrya images of South India, in contrast to the earlier Sūrya images of Northern India lack the *udīcyavēsha,* consisting of close fitting garment over the body and top boots of the legs, and are shown bare-footed.

A new feature of the *Tāntric* worship of Sūrya is found introduced in the time of Rājēndra Chōḷa I, for in his Gaṅgaikoṇḍa-chōḷapuram temple is seen a *Sūrya yantra,* which is in the form of a blooming lotus or *padma* on a square pedestal, with wheels on either side and drawn by seven horses in front. The plinth of the temple, excavated recently, to the north of the main *vimāna* was evidently a Sūrya temple, where this *yantra,* now located in the *mahāmaṇḍapa* of the main temple, was perhaps originally installed. A Gahadavāla inscription with an incomplete Gahadavāla *praśasti,* dated in the 41st year of Kulōttuṅga Chōḷa I (1111 A.D.) is an indication of the emphasis given to Sūrya worship in the Tamil country by the association of the Gahadavāla kings with the Chōḷa capital.[15] This impetus is marked by the construction of the great Sun temple called Kulōttuṅga Chōḷa Mārtāṇḍālaya by Kulōttuṅga I in Sūryanār Kōvil in the Tanjore District, where the god is called Kulōttuṅga Chōḷa Mārtāṇḍa.[16]

11. *Annual Report, South Indian Epigraphy,* 1903, No. 258. *South Indian Inscriptions,* VIII, 560.

12. *Annual Report, South Indian Epigraphy,* 1907, No. 177.

13. *Annual Report, South Indian Epigraphy,* 1908, No. 56.

14. *Annual Report, South Indian Epigraphy,* 1937-38, Nos. 443, 442 and 441.

15. *Annual Report, South Indian Epigraphy,* 1908, No. 29, Part II, 58-60.

16. *ibid.,* 1927, Nos. 229 and 231.

In this connection it will be remembered that the worship and cult of Sūrya was reestablished in proper form by Śaṅkara in the beginning of the 9th century A.D.

Devi Cults

The concept of Durgā as the dweller in the hilly areas is first indicated in her original role as *Koṟṟavai* or *Veṟṟimaḍantai* (Goddess of Victory) with her abode in the *Vākai* tree in *Padiṟṟuppattu* (66) and by *Kuṟuntokai* (218: 1) where she is called *Śūli* the wielder of the *Śūla* (trident) to whom vows are made.

> *"viḍar-mukai-aḍukkattu-viṟal keḻu śūlikku*
> *kaḍaṉum pūṇām*
>
> (*Kuṟuntokai*: 218: 1)

And again as *Kāṉ-amar-śelvi,* the great goddess, the denizen of the forest, she is described in *Ahanānūṟu* (345: 3-7). The *Kāḍurai Kaḍavuḷ* of *Porunarāṟṟuppaḍai* (line 52) in the *Pattuppāṭṭu* collection, as also the *Tunaṅgaiyañ-celvi* of *Perumbāṉ-āṟṟuppaḍai* (line 459) of the same collection refer to the same goddess, the latter referring to her as one who dances the *tuṇaṅgai* dance. The *Kalittokai* (89: 8) and *Tolkāppiyam* (*Meyp., Sūtra* 12, *Pēr.*) echo the same sense of the she-devils presuming to teach one or two steps or poses (*naḍi*) in dancing to the great goddess. The *Maṇimēkalai* (Ch. vi: 50-53) in the story of the *Śakkravāḷa-k-kōṭṭam,* refers to the temple (*kōṭṭam*) of *Kāḍamar-Śelvi* (Durgā or Chaṇḍikā) with the sacrificial altar in its front yard and surrounded by tall posts with the severed heads suspended from them.

> *ulaiyā-uḷḷamōḍu-uyir-k-kaḍaṉ-iṟuttōr*
> *talai tūṅgu neḍumaram tāḻndu puṟam cuṟṟip-*
> *pīḍikai-ōṅgiya perumbali muṉṟiṟ-k*
> *Kāḍamar śelvi kaḻi perum kōṭṭamum*
>
> (*Maṇi.* vi: 50-53)

The same *Kāḍamarśelvi* occurs in another context in *Maṇimēkalai* (xviii: 115). She is designated as the goddess of war and again as the ancient goddess (*Paḻaiyōḷ*) in *Tirumurugāṟṟuppaḍai* (lines 258-59), a much later inclusion forming the invocatory poem of the *Pattuppāṭṭu* collection. The *Paripāḍal* collection seems to have had a poem on *Kāḍukāḷ* according to the later commentaries of Iṟaiyanār (*Ahapporuḷ* Sūtra 1) and that of Pērāśiriyar (on *Poruḷadikāram, Śeyyuḷ,* Sūtra 149) of the *Tolkāppiyam.*

Kāḍukaḷ is said to be the corruption of *Kāḍukiḻāḷ*, which again in the commentary of *Takkayāgapparaṇi* (54-*urai*) is given as *Kāṉa-nāḍi* or *Vaṉa-Durgā*. Even in the *Tēvāram* times she is denoted as *Kāḍukāḷ*. The *Maṇimēkalai* echoes in another context (xx: 115-116) the *Vindhyāvāsinī* concept of Durgā,

> *andaram-śelvōr andari irunda*
> *vinda mālvarai mīmiśai-p-pōkār*
> (*Maṇi.*: xx: 115-116)

The *Āgama* and *Śilpa* texts — the *Vaikhānasa-Āgama* for example, assign to the Durgā figure a place in the *dēvakōshṭha* outside the northern wall of the *ardhamaṇḍapa* of a Śaiva temple as *Vindhyāvāsinī*, a feature that becomes common from the close of the 8th century onwards, the corresponding southern niche containing Gaṇapati. This form of standing Durgā, often on the head of a buffalo (*Mahisha*), is described in *Śilappadikāram* (xx, 34-35) as

> *aḍarttu-eḻu-kurudi aḍaṅgā-p-paśum-tuṇi-p*
> *piḍar-t-talai-p-pīṭam-ēṟiya maḍakkoḍi*
> *veṟṟivēl taḍakkai-k-koṟṟavai,*

The *Śilappadikāram* in the *Vēṭṭuvavari* (Ch. xii) gives a fuller concept both of the cult and iconography of Durgā or *Koṟṟavai*[17] in a vivid manner. She is described as having a body, the colour (dark blue) of which resembles that of a flower of the *Kāyā* (*Memecylon edule*), with lips red like the coral, teeth white and the neck dark, with a third eye on the crescent like forehead, holding the discus and conch, sword and *śūla* (spear) and the bow which was the *mēru* (*neḍumalai*) strung with the snake *Vāsuki* as its *ñāṇ*, wearing the skin of a tiger and a belt (*mēkalai*) of lion's skin, a *kaḻal* (hero's calf-band) on one leg and *śilambu* (woman's anklet) on the other, with the coiffre of *jaṭa* adorned by a serpent and the crescent moon, covering herself with the hide of the elephant as *uttarīya* (*ēkāśam*), wearing a snake as her breast band (*kaccu*), carrying a standard of lion (*āḷikkoḍi*). She is said to have fought with the *asuras*, and destroyed Dāruka and Mahishāsura, kicked the *Śakaṭa* and walked over the *Marudam* (Arjuna) tree and felled it. She is also said to have assumed legs of wood and fought when the *asuras* assuming the forms of

17. Perhaps the Sanskrit name *Kōṭavī* (or *Kōṭarī*) is derived from the Tamil form *Koṟṟavai*.

snakes and scorpions crawled under her feet to torment her. This concept lent the name to the dance pertaining to Durgā— *Marakkāl āṭṭam, Māyavaḷ-āḍiya marakkāl āḍalum* (*Śilappadikāram*, vii, 59). She is said to have swallowed poison with immunity and described as occupying half the body of the three-eyed Śiva as *maṅgai* (*Umā*) (*Śilappadikāram*, xx: 38) and as one (*Bhadrakāḷi*) who made the *Iṟaivaṉ* (Śiva) dance (*āḍalkaṇḍaruḷiya aṇaṅgu*). Thus she combined in her the concepts of Śiva and Vishṇu and Umā and in her attributes the three *guṇas*.

What is most interesting is the attribution of the stag or buck (*kalaimān*) as her vehicle, a feature rare in iconographic texts and perhaps peculiar to the Tamil country, and found particularly in the sculptures of the Pallavas and contemporary Pāṇḍyas and other dynasties dating between the second half of the 7th to the close of the 10th centuries A.D. The most noteworthy sculpture showing Durgā on a deer is from the Tanjore district now in the Madras Museum (9th century A.D.). There are references to her mount as the darting deer (*pāy-kalai*) in her descriptions as *Pāy-Kalai-p-pāvai* (line 70); *Kalai-p-pari-ūrdi*, and as one who is mounted on the *kalai* with screwed up black horns (*kariya-tiri-k-kōṭṭu-k-kalai* or *tiri-tari-kōṭṭu-k-kalai*). The stag as the mount of Durgā is also mentioned by Sambandar in his *Tēvāram* (2390: 2nd *Tirumuṟai*, 85th *padikam*, v. 31) as follows: —

> ... ...
> *Tirumakaḷ Kalaiyadūrdi Śeyamādu Bhūmi*
> *tiśai Deyvamāna palavum, aru nedi nalla nalla,*
> *avai nalla nalla aḍiyār avarkku mikavē*

Kamban in his description of the fortification of Ayōdyā (*Bālakāṇḍam*: 3, v. 8) says:

> *Kāvalin, Kalaiyūr Kaṉṉiyai okkum*

attesting to the persistence of this form in still later times.

Her other and more usual mount, the lion, is also mentioned as '*śeṅgaṉ-arimāṉ-śiṅgaviḍai*'. She is described by such names as Amari, Kumari, Gouri, Śamari, Śūli, Nīli, Aiyai (Āryā), Śeyyavaḷ, Koṟṟavai, Nallāḷ, Kaṉṉi, Śaṅkari etc. She is also said to be *Ñāṉakkoḷundu*, goddess of higher knowledge (*Āykalai*) and the hidden secret of the *Vēdas*, and in another context *Māyaval* (*Śilappadikāram*, vi: 59) pointing to the beginnings of the concept of the Dēvi being both *Vidyā-śakti* (supreme knowledge) and *Māyā-śakti* (nescience).

As has been said before, she was considered to be the younger sister of *Māl* (Vishṇu) and called *Mālavar-k-kiḷaṅgiḷai* in *Śilappadikāram* (vi. 59). In this context the close association of Anantaśāyi Vishṇu with Durgā, in many cave and structural temples of the Tamil country dating from the middle of the seventh to the ninth centuries is significant. The famous combination of Anantaśāyin and Mahishamardinī sculptures in the Mahishamardinī cave temple at Māmallapuram is an outstanding example. In the same place just to the south of the rock-cut Anantaśāyin, sculptured on top of a low outcrop, between the eastern and western Śiva shrines of the Shore temple complex, is another Durgā sculpture inside the niche cut into the chest of a seated lion, sculptured in the round and squatting on a pedestal cut out of the same rock as the one containing Anantaśāyin. In addition, just to its north, and between it and the reclining Vishṇu is a recumbent stag, Durgā's other mount, in the characteristic sleeping pose of the caprines, with its head thrown back beside its body. In the Siṅgavaram cave temple, dedicated to Anantaśāyin, there is a niche with a beautiful Durgā on the flank of the rock next to the facade. Far south in the Pāṇḍya country at Tiruttaṅgāl is a cave temple dedicated to Anantaśāyin and round the rock on the south is a similar niche containing Durgā. At Malaiyadippaṭṭi in the former Pudukkōṭṭai State (now in Tiruchirāpaḷḷi District) the rock wall of the Śiva cave temple adjoining the Anantaśāyin cave temple contains a Mahishamardinī scene, like the one in the Mahishamardinī cave at Māmallapuram. These cannot be dismissed as mere coincidences; and, considered in the context of the first mention of the relationship of Vishṇu and Durgā in the *Śilappadikāram*, would indicate the contemporaneity of the epic with this period.

Again in the same work, (xx: 37) she is referred to as "the one that comes after the six", *viz.*, Chāmuṇḍā (Piḍāri) who comes last in the series after the six *mātṛikās* in the Saptamātṛikā groups.

"aṟuvarkku-iḷaiya-naṅgai".

SAPTAMATRIKAS

This indirectly presupposes a cult of Mātṛigaṇas or the Saptamātṛikās. These are significantly absent in the cave temples or monoliths of the Pallavas in the Toṇḍaimaṇḍalam dating between 600 and 700 A.D. They are found for the first time in the Kailāsanātha temple at Kāñchī, built by Rājasimha (700-730 A.D.) and that too in the cloister built by his son Mahēndraavarman III and, as

such, would not date earlier than 720 A.D. In the cave temples of the Muttaraiyars who were occupying the Chōḷa country, and of the Pāṇḍyas, belonging to the 8th century and later, they are found either as a part of the cave temple or in association with them. Such cave temples are the Śiva cave temple in Tirugōkarṇam and that in Malaiyaḍippaṭṭi excavated by a Muttaraiya in the 16th year of Dantivrman Pallava (812 A.D.), both in the Pudukkōṭṭai area (Tiruchirāpaḷḷi District) Kuṉṉattūr in Madurai District and Tirukkaḷākkuḍi in the Rāmanāthapuram District.

A separate temple was built and dedicated to the Saptamātṛikās in the time of Dantivarman Pallava (796-846 A.D.) at Ālambākkam in the Tiruchirāpaḷḷi District and the place is called Dantivarmachaturvēdimaṅgalam in one of its early inscriptions,[18] of the time of the early Chōḷa Rājakēsari (Āditya I). That there was a temple of the Saptamātṛikās in Vēḷachēri, Chingleput District in the middle of the 10th century A.D. is clear from an inscription[19] of Pārthivēndravarman referring to gifts to such a temple. The last of the Pallava series of the 10th century A.D. is to be found in the Vīraṭṭāṇēśvara temple (all-stone) at Tiruttaṇi, Chingleput District built at the close of the reign of Aparājita Pallava (903 A.D.). This particular group of Saptamātṛikās is interesting in that each of the mātṛikās has her respective mount shown as her *lāñchana* in front of the pedestal, a feature unusual in the Tamil country, but characteristic of the Chāḷukyan area. The Saptamātṛikās are to be found in the structural temples of the Pallava-Chōḷa transition period and in all early Chōḷa temples up to the time of Rājēndra Chōḷa II, or till the close of the 11th century A.D. or later. In these early Chōḷa temples, particularly in those having the *ashṭaparivāra* shrines, they have a separate shrine, a rectangular *āyatāśra* one on the southern side of the *pradakshiṇa*. In all the Saptamātṛikā groups, the constituents are Brāhmī, Māhēśvarī, Kaumārī, Vaishṇavī, Vārāhī, Indrāṇī and Chāmuṇḍā, with Vīṇādhara Śiva (Dakshiṇāmūrti) often taking the place of Vīrabhadra at the beginning of the series as the guardian deity and Gaṇēśa always at the end of the series.

The restriction of the list of *Mātṛigaṇas* to seven goddesses points to a date after the *Bṛihatsamhitā* of Varāhamihira (550

18. *Annual Report, South Indian Epigraphy,* 1909, No. 705.
19. *Annual Report South Indian Epigraphy,* 1911, No. 316; *South Indian Inscriptions* III, 191.

A.D.) which is silent about the numbers. Even in the *Mārkaṇḍēya purāṇa* (Ch. 88), the number and iconography or forms of the *mātṛikās* or *śaktis* are undefined and varying. Their number is definitely restricted to seven in the familiar early Chāḷukyan *praśastis* (*Hāritīputrāṇām sapta mātṛbhirabhivardhitānām*, etc.). It would appear that this cult with a fixed number and definite iconography, as found in the early Chāḷukyan examples, migrated from the Chāḷukyan country to Orissa on the north-east and the Pāṇḍya and Pallava countries in the south and east of their territories. The cult seems to have lost its prominence in the Tamil country after the close of the 11th century. The last inscription in the Saptamātṛikā temple, called Śelliyammaṉ temple, at Ālambākkam, referred to above, is of the 31st year of Chōḷa Rājādhirāja dēva I (1049-50 A.D.) mentioning endowments to the temple of Saptamātṛikās for the conduct of their worship.[20] If the evidence of the sculptures is any indication, this would again point to a date later than the 7th century for the *Śilappadikāram*, the earliest Tamil work to mention the *Saptamātṛikās* in association with Durgā (Chāmuṇḍā or Mahishamardinī).

JYESHTHA

The cult of Jyēshṭhā seems to have had almost a parallel existence in the Tamil country. Though the worship of Jyēshṭhā seems to have been peculiar to the south, she is not seen either in the earlier Pallava cave temples or *rathas* or in association with them. But she is seen for the first time in the Kailāsanātha temple at Kāñchī (730 A.D.) and subsequently in the other Pallava, Pāṇḍya and Chōḷa temples, all over the Tamil country till the close of the 11th century A.D.

In Tirupparaṅkuṉṟam near Madurai two inscriptions in Sanskrit and Tamil in the cave temple on the northern side of the hill, now called the Subrahmaṇya temple, refer to the excavation of the cave temple by Śāttaṉ Gaṇavati, the minister of the Pāṇḍya Māṟaṉ Śaḍaiyaṉ; and the relevant Tamil inscription also mentions that his wife added to it a shrine for Durgā and excavated another cave temple near it for Jyēshṭhā in the year 773 A.D. Gopinatha Rao[21] who has not seen this cave temple, which can be approached only through a tunnel in the later masonry of the *maṇḍapa*,

20. *Annual Report, South Indian Epigraphy*, 1909, No. 700.
21. *Hindu Iconography*, Vol. I, pp. 391-93.

wrongly supposes that the present image worshipped as Subrahmaṇya was originally the Jyēshṭhā referred to. The *ashṭaparivāra* shrines in the early Chōḷa temples included one for Jyēshṭhā with another for the Saptamātṛikās as in Tirukkaṭṭalai (Pudukkoṭṭai). A Chōḷa inscription from Tirupparāyttuṟai (Tiruchirāpaḷḷi)[22] enumerates the *ashṭaparivāra* including Jyēshṭhā—called Tirukkēṭṭai-k-kiḷatti, as also the inscription at Eṟumbūr[23] of the 27th year of Rājēndra I. She is mentioned for the first time in Tamil literature in the Vaishṇava hymns called *Nālāyira-Divya Prabandham*, by one of the early Āḷvars, Toṇḍar-aḍi-p-poḍi:

> *Nāṭṭiṉāṉ deyvam eṅgum; nalladu ōr aruḷ taṉṉālē*
> *kāṭṭiṉāṉ tiruvaraṅgam, uypavarkku uyyum vaṇṇam*
> *kēṭṭirē nambi mīrkāḷ Geruḍavāhaṉaṉum niṟka-c*
> *Cēṭṭai taṉ maḍi yakattu-c-celvam pārttu irukkiṉṟīrē*
>
> (*Divya Prabandham*, 880); Toṇḍaraḍippoḍi, *Tirumālai* 10).

The Āḷvār's reference in derision to the foolish worship of Jyēshṭhā by people in the vain hope of acquiring the fulfilment of their desires, while there was the great God Vishṇu, the conferer of all boons, whom they forgot altogether, speaks of the great popularity of this cult. We can place Toṇḍar-aḍi-p-poḍi or Vipra Nārāyaṇa round about 850 A.D.[24]

That she was the goddess of evil and was propitiated for warding off evil will be clear from a stray verse in the *Nandi-k-kalambakam* where she is said to be the elder sister (*Jyēshṭhā*) of Lakshmī.

> *'Śeyya kamala-t-tiruvukku muṉpiṟanda, taiyal uravu tavirttōmē.'*

22. *South Indian Inscriptions*, Vol. VIII, No. 560.
23. *Annual Report, South Indian Epigraphy*, 1919, No. 318.
24. Toṇḍāradippoḍi's *Tiruppaḷḷiyeḻucci* is earlier than the *Tiruppaḷḷiyeḻucci* of Māṇikkavācakar and his *Tirumālai*; later than Appar, since its very form is moulded after Appar's *Tirunēriśai*, and the second half of *Tirumālai* 34 is almost identical (except for insignificant variations) with that of Appar IV: 75; 3. The second half of *Tirumālai* 17 is also identical with the last two lines of the *Tiru-k-kuṉṟun-tāṇḍakam* 13 of Appar. This would place the *Tirumālai* in the second half of the 9th century A.D. Vaiyapuri Pillai-*History of Tamil Language and Literature*, Madras (1956), pp. 121-22.

Incidentally it may be mentioned that the Bōdhāyana-*Gṛihya-Sūtra* contains a chapter dealing with the worship of Jyēshṭhā, and the *Vishṇudharmōttara* mentions eight kinds of Jyēshṭhā images. Perhaps here we have an indication of the date of these two works also. The *Śēndan Divākaram,* the earliest *Nigaṇḍu* or lexicon in Tamil, of the 10th century A.D.[25] mentions the Tamil names of Jyēshṭhā, eight in number as follows:—

> *Mugadi, Thauvai, Kalati, Mūdēvi, Kūkkai-k-Koḍiyāḷ* (one with the crow as banner), *Kaḷudai vāhani* (She of the donkey mount), *Śēṭṭai* (Jyēshṭhā) and *Keḍalaṇaṅgu* (*Alakshmī* or goddess of evil).

Though the worship of Jyēshṭhā has been discontinued long ago, and the Jyēshṭhā idols in the early temples are now found cast off or relegated to an obscure corner, a faint echo of people seeking prosperity from the 'lap of Jyēshṭhā' as Toṇḍaraḍippoḍi says in his hymn, is to be found even to-day in an unusual practice obtaining in the Kāmākshī temple at Kāñchīpuram. The *Kuṁkuma* (saffron powder) *prasādam* of Kāmākshī is not to be straightaway worn on the forehead, as in all the other temples, but has to be taken back and worn only after throwing it on the lap of a Jyēshṭhā image installed in a niche in the north wall of the *garbhagṛiha,* disfigured though by a vertical groove cut from the face down to the folded legs.

Thus among the Dēvīs, Durgā seems to have held a high place and special shrines were dedicated to her as could be seen from the literary references quoted. The cave temple called Kōṭi-kal maṇḍapa and the Draupadi ratha in Māmallapuram are the earliest extant examples (640-700 A.D.). A natural gorge in Paṇamalai, serving as a shrine of Durgā as Simhavāhanī, one of the earliest specimens of the kind, was consecrated by Rājasimha Pallava (700-730 A.D.) as his inscription there would indicate.[26] Another specimen from Kaṇḍiyūr, Vīraṭṭānēśvara is a fine sculpture belonging to the early tenth century.[27] Reference has already been made to

25. *Vaiyapuri Pillai,* Ibid, pp. 164-65. The worship of *Jyēshthā* of the universe in visible form" and as the presiding deity of Kukkanūru is described in Kalachuri Singhana's copper-plate dated 1183 A.D. from Ittagi, Raichur District (*Annual Report, Indian Epigraphy,* 1953-54, No. 12 of App. A. and p. 2; *Indian Antiquary* Vol. IV, 274 ff.)

26. *South Indian Inscriptions,* Vol. I, no. 31.

27. *Transactions of the Archaeological Society of South India,* 1956-57, p. 41-43.

the addition of a Durgā shrine in the Tirupparaṅkuṉṟam cave temple by the wife of Śāttan Gaṇavati, the Pāṇḍya minister in 773 A.D. along with a separate excavation for Jyēshṭhā. According to the Tiruvālaṅgāḍu plates[28] Vijayālaya, the first of the Imperial Chōḷa line, erected a shrine for Niśumbhasūdinī (Durgā) in his capital city at Tanjore, which he founded in about 850 A.D. The sculpture shows Durgā seated, with one of the two demons, (Śumbha and Niśumbha) lying prostrate in front of the pedestal and the other being trampled by the left leg of the goddess.[29]

NAVAKANDAM AND HEAD OFFERING TO DURGA

But the more ubiquitous form is that of Durga standing over the severed head of a buffalo, or a *padmapītha.* In some Durgā panels of this period may be seen a devotee offering his own head by cutting it off at the neck or making a part offering by cutting his left wrist, while another devotee on the other side sits adoring. On top are also shown flying attendants, flanked at the corners by a lion and stag, the two mounts of Durgā already mentioned. In one of them by the side of Durgā is also a *dhvajastambha* with a *śūla* ensign on top. Such panels are found in the Varāha cave temple and the Ādivarāha cave temple in Māmallapuram and on the rock face adjoining the facade of the Pallava rock-cut cave temple in Śiṅgavaram in the Pallava country of Toṇḍaimaṇḍalam, in the lower rock-cut cave temple in Tiruchirāpaḷḷi in the territory of the Muttaraiyars who were then in possession of this part of the Chōḷa country, in the Pallava-chōḷa transition temples in Puñjai (Nanippaḷḷi of the *Tēvāram*) and Puḷḷamaṅgai, Tanjore District, in the Durgā shrine at the centre of the *maṇḍapa* in the Pāṇḍya cave temple at Tirupparaṅkuṉṟam, and near the Anantaśāyī cave temple at Tiruttaṅgāl in the Pāṇḍya country.

An inscribed slab[30] in the Subramaṇya temple in Mallam (Gūdūr Taluk, Nellore) dated in the 20th year of Kampavarman Pallava (968 A.D.) contains a sculpture of a decapitated man, his right hand holding a sword and the left holding his own severed head by its locks. The inscription refers to him as Okkaṇḍanāgaṉ Okkatindaṉ Paṭṭi Pōttaṉ and that he severed his own head as the

28. *South Indian Inscriptions,* Vol. III, no. 205.

29. *Transactions of the Archaeological Society of South India,* 1956-57, pp. 41-43.

30. *South Indian Inscriptions,* Vol. XII, no. 106.

final offering and placed it on the altar, after offering *navakandam*, i.e., flesh from nine parts of his body; and an endowment of lands was made to his relative Pattai Pōttan, in recognition of the act and a stone monument (*Kalnādu* — perhaps the inscribed *nadukal* itself) was erected as a memorial.

Okkondan nāgan Okkatindan Pattai Pōttan
mētavam purinda denru bhatārikku
nava kandan kuduttu kunraka-t-talai
aruttu pīdilikai mēl vaittā nukku
Tiruvānmūr ūrār vaitta parisā-vadu.

There are similar slabs depicting head offering in the Madras Museum collection, and some slabs of this type are found also in the vicinity of the Tiruvorriyūr temple.

For one who reads the elaborate descriptions of this act of head offering to Durgā and the worship of Durgā by the warriors (Maravar or Eyinar or Mallar) as a prize for the victory vouchsafed by the goddess (*kadan-iruttal* or *śūrttal*) in the *Vēttuvavari* and *Indravilavūr edutta kāthai* of *Śilappadikāram* (xx, and v. 11, 75-90) these would strike as exact sculptural representations of the poetic descriptions. This kind of vow was taken by the warrior class when they desired victory for their king in battles or even in their cattle raiding expeditions and hunts. The goddess is believed to have gone always in front of them assuring protection and victory. Along with the many instances cited above, this would also go to confirm the contemporaneity of the literary versions supplied by the *Manimēkalai* and *Śilappadikāram* with the earlier at least of the sculptural depictions. Such head offerings are described again in the *Kalingattupparani* (*Kōyil* 21) and in the Sanskrit work *Daśakumāra-Carita* in the narration of the *Śaiva Vrittānta* of Upākaravarma. The *Kālikā purāna* (Ch. 70) describes also the rituals connected with such human sacrifices. Among the sculpture panels referred to, those depicting the cutting of the left wrist by the devotee would perhaps represent the first stage of the *navakandam* offering and those depicting decapitation, the final phase of the act, called in the inscription *mē tavam* (highest penance).

SIVA-SAKTI AND VAISHNAVI—ARDHANARI AND HARIHARA

The concept of Durgā was more Śaivite even in the *Śilappadikāram*. Her Vaishnavite attributes, *viz.*, conch and discus, and the complexion apart, she is described as having the *jata* secured

by the serpent, and adorned by the crescent moon, the serpent again as her ornament, the tiger skin garment, the blackened neck resulting from the swallowing of the poison, from the effects of which, however, she was immune, and most of all, her sharing the body with the three-eyed god Śiva.

"Kannudal-pāka-māludaiyāl"; "Kannudalōn pākattu mangai"
(*Śilappadikāram*: 22)

She is also called Kanni, Śankarī and Gourī. Here we have the suggestion of the Śakti concept, with the Ardhanārī concept combined, in addition to her equation with Vishnu as Śiva's half, as conceived by Appar in the *Tēvāram* (4556—*Tirumurai*, iv, decad 10, v. No. 5—Tiruvaiyāru).

"ari-yalāl-dēvi-illai-Aiyan-Aiyāranārkkē"

The Ardhanārī concept is referred to in other contexts in the *Tēvāram* and *Tiruvācakam* (e.g., Sambandar, *Tēvāram* 2388 and 3937; Appar 4789 and 6717 and Mānikkavācakar, *Tiruvācakam*, 456).

The *Prabandhams* also refer to the Harihara concept (*eg.* Pēyālvār, *pāśuram* 2344). The equation of Harihara with Ardhanārī, emphasising the benign forms of Śakti combining the three *gunas*, finds a development in the Lalitā cult, which became a special feature of the South. This would also reflect the Śiva-Śakti concept where the Śakti, if feminine is Durgā and if masculine Vishnu.

The earliest Pallava Ardhanārī is found on the Dharmarāja ratha, where the Pārvatī half too has two hands like the Śiva half. The other Pallava Ardhanārīs are one in Kāñchīpuram, and another from Māmallapuram now in the Madras Museum. In the early Chōla temples from about the time of Āditya I the Ardhanārī form replaces the Vishnu sculpture in the niche on the hind wall of the sanctum of a Śiva temple, as for example the unique seated form in the Kandiyūr temple[31] and the standing forms in the Nāgēśvara temple in Kumbakonam and in the Mūvarkōil, Kodumbālūr, and though this gave place to the Lingōdbhava or Annāmalaiyār form, in many instances, it persisted till about the 13th

31. *Transactions of the Archaeological Society of South India*, 1957-58, pp. 80-83.

century, for in the back wall of the sanctum of the Jambukēśvara temple in Nārttāmalai, built in 1205 A.D., we find an Ardhanārī.[32] However Ardhanārī forms are found in other places on the sanctum wall as in the great temples of Tanjore and Gaṅgaikoṇḍachōḷapuram. The earliest Harihara forms are found in the Dharmarāja ratha and Ādivarāha cave temple in Māmallapuram, in the cave temple No. 3 at Kunnakkuḍi, in the Mūvarkōil and in the temples of Tanjore and Gaṅgaikoṇḍachōḷapuram. Sometimes the place of Vishṇu on the back wall of the sanctum of a Śiva temple is taken by Harihara.

As we have seen, the worship of the Mātṛikās, Jyēshṭhā, etc., continued till about the close of the 11th century A.D., even after the influence of the *bhakti* movements of the Nāyanmārs and Āḷvārs, of whom one has strongly criticised the worship of Jyēshṭhā, and the reformation brought about in the worship of Śakti by Saṅkara, in the first half of the 9th century A.D. In the early Chōḷa times, such goddesses as Durgā, under the names Kālapiḍārī, Durgā Paramēśvarī, Ēmaḷattu Durgaiyār Ōmkāra Sundarī and Piḍārī and others such as Śribhaṭārakī, Sarasvatī, Mahāmōḍi, Saptamātṛkā and Śēṭṭaiyar (Jyēshṭhā) continued in worship as evidenced by the inscriptions (*vide* Sastri: Cōḷas, p. 646). The shrines of Durgā, referred to as *munṟil* in *Śilappadikāram* are called *Tirumuṟṟam* or *Śattimuṟṟam*, as distinguished from the *Śrī Kōyil of* Śiva and Vishṇu.

KAMA-K-KOTTAM-LALITA CULT

It was only from the time of Rājēndra Chōḷa I, in the second quarter of the 11th century, as I have discussed elsewhere[33] that Amman shrines, popularly so called and forming separate shrines for *dēvīs*, were built. This constitutes a characteristic feature of the Tamilian temples, not found elsewhere. Such are called *Tirukkāmak-kōṭṭam,* and they formed an important unit of the temple complex built from this time onwards, and were further added to the pre-existing temples which did not possess them in their original composition, as for instance the Great Temples in Tanjore and Gaṅgaikoṇḍachōḷapuram. Thus each temple, whether Śiva or Vishṇu, came to have a shrine for the *dēvī* with the name appro-

32. *Manual of the Pudukkottai State* II, ii, p. 1078.
33. *Tirukkāmakōṭṭam — Proceedings of the All India Oriental Conference,* 1946.

priate to that of the principal deity, *viz.,* Bṛhadīśvara or Peruvuḍaiyār and Bṛihannāyakī or Periyanāyakī, Raṅganātha and Raṅganāyakī, Sundarēśvara and Mīnākshī, Ēkāmrēśvara and Kāmākshī. Such combinations familiar to every one can be quoted in thousands from all over the Tamil country and Kerala or wherever the Tamils built a temple complex after the middle of the 12th century. The example of the modern Viśālākshī temple in Kāśi (Vāraṇāśi) is the most outstanding.

The name *kāmak-k-kōṭṭam* for the *dēvī* shrine was evidently after the name of the most important shrine or seat of the *dēvī* or *dēvī* cult in Kāñchīpuram, where she is called Kāmākshī. The insatllation of the *Śricakra* here by Śaṅkara, made this place an important *Śaktipīṭha* even as was the case of Kashmir and some other places in India. The earliest epigraphical reference to Kāmakōṭi of Kāñchī, so far known, is the undated inscription from Gōṭlagaṭṭu in Nellore District[34] and another dated 1259 A.D. from Tripurāntakam in the Kurnool District,[35] both mentioning a chief, Pallava-Irumaḍi Bāsava Śaṅkara Allāḍa Prēmaya Dēva, lord of Kāñcīpura, a devotee of Kāmakōṭyāmbikā and the recipient of many boons from her. The Tripurāntakam temple itself was built in 1255 A.D. under the orders of Kākatīya Gaṇapati. Among the Kāmākshī temples in the other parts of the Tamil country, which derived their names in imitation of the one in Kāñchī, the earliest one in Dharmapuri, Saḷem District, is as old as the 11th century A.D.[36] This will take the antiquity of the Kāmākshī temple in Kāñchī to a period earlier than the 11th century, though the present structure or its inscriptions do not date earlier than the 14th century A.D. The find of many Buddhist sculptures in the temple precincts and the presence of a Jaina *mānastambha,* sticking out from the roof of the entrance *maṇḍapa* of the inner enclosure makes us look for the original site of the temple elsewhere in Kāñchī. The three Nāyanmārs, Appar, Sundarar and Sambandar refer to the Kāmakōṭṭam and to Kāmakkoḍi as follows: —

> *Eḻunda tirai nadi-t-tivalai naṉainda tiṅgaḷ iḷanilā-t-tikaḻkiṉṟa vaḷar śaḍaiyaṉē, koḷum-pavaḷa-c-ceṅgaṉi vāy-k-kāmakkōṭṭi koṅgai-iṇai amarporudu kōlaṅkoṇḍa, taḷum-buḷavē, varaimār-pil veṇṇū-luṇḍē, śānda moḍu śa-*

34. *Nellore Inscriptions* No. 16.
35. *Annual Report, South Indian Epigraphy,* 1905, no. 217.
36. *Annual Report, South Indian Epigraphy,* 1901, no. 307.

ndanattin alaru tangi, alundiya śen tiru vuruvilven-
nirrānē, avanākil Adigai Vīraṭṭānamē

(Appar-*Tēvāram* 6285; 6th *Tirumurai*, 4th decad, verse 10).

Nacci-t-toluvīrkāḷ namakku-idu śollīr
kacci-p-poli Kāmakoḍiyuḍan kūḍi
iccit-t-irumbūlai-iḍan-konḍa Īśan
ucci-t-talaiyir, balikonḍu-ḷa-lūnē

(Sambandar, *Tēvāram* 1855, 2nd *Tirumurai* 36th decad, v. 4)

Vāriruṅ-kuḷal vāneḍuṅkan malaimakaḷ madu vimmu
konrai-t, tār-iruntaḍamārpu nīṅgāt-t-Taiyalāḷ
ulakuyyavaitta,
kār irum poḷir kacci mūdūr Kāmakōṭṭam unḍāka nīr pōy
ūriḍum piccai koḷvadu ennē Ōṇa kāndanraḷiyuḷīrē

(Sundarar, *Tēvāram* 7271; 7th *Tirumurai*, 5th decad, v. 6).

While the first is a reference to the incident in the Puranic story of Umā (Kāmakkoḍi or Kāmalatā) embracing Śiva (Kamba or the support for the creeper) and leaving the marks of her breasts on the chest of Śiva, the two others are in the nature of a *nindā-stuti* asking Śiva why he should go about begging in the streets, when the Kāmakkoḍi had come to keep house for him in the Kāmakkōṭṭam. Kamakkoḍi is taken to be the same as Kāmākshī or Kāmakkanni. A *Saṅgam* poetess of Madurai, bearing the name Kāma-k-kanni is the author of *Narrinai* 243 and the appellation would indicate the antiquity of this name. This, like Kayarkanni (Mīnākshī), was perhaps in ancient times the name of the patron deity of the place, even as Campā was of Puhār, Mahālakshmī of Kolhapur, Kāḷī of Kāḷighāṭ and Mahākāḷī of Ujjayini. Kanni may also be interpreted in the sense of a pair or couple (*mithuna*), as it is used to denote a couplet or distich (as suggested by her other name Kanni in *Manimēkalai* 22:27), in poetry and the pair of opposed flowers forming a unit in a plaited garland. If it be so, Kāma-kanni would mean the loving pair and Kayarkanni, the *mīna-mithuna*, an ancient auspicious motif. The idea of the patron deity is emphasised by a quotation of the commentator of *Śilappadikāram*, v. 11. 95-98:—

Kacci-vaḷai-k-kaicci Kāma Kōṭṭam-Kāval
mecci-inidu-irukkum-mey-c-Cāttan kai-c-cenḍu

Evidently she was worshipped as a form of Durgā and a temple called Ādi-pīṭhā Paramēśvarī temple, in the vicinity of the modern temple of Kāmākshī, containing a very old seated four-armed sculpture with three human heads on the pedestal, was perhaps the original site where the *Śaktipīṭha* was installed, after the reformation of the worship by Śaṅkara.

GANESA

The cult of Gaṇēśa, who forms a component of the Sapta-mātṛikā series, often found included along with Jyēshṭhā (as on either side of the facades of the two cave temples in Vallam of a later date) is not referred to in the *Saṅgam* classics. He is singularly absent as a contemporary sculpture in the earlier Pallava cave temples and *rathas* till the time of Rājasimha (700-730 A.D.) and even then towards the close of his period, whereas he is to be seen in contemporary Chāḷukyan sculpture.

In the Rāmānuja maṇḍapa cave temple in Māmallapuram, which according to its inscription was excavated by Paramēśvaravarman I, and dedicated to Śiva primarily, though the other two shrine cells, all now destroyed, could have been meant for Brahmā and Vishṇu, is an interesting *bhūtavari*. It is a frieze of *bhūtas* and *gaṇas* over the beam of the facade and below the overhanging cornice or *kapōta*. Of the twenty-seven *bhūtagaṇas* in the frieze, the central one is a pot-bellied *Kumbhōdara* and while twelve on either side of him carry over their shoulders two enormous garlands, a familiar motif in the earlier Buddhist *stūpas* of the Andhra country, the two extreme *bhūtas*, one at either end, are reclining and supporting the *kapōta*. Of these, the seventh *gaṇa* from the south has the head of an elephant over a human body suggesting that he was only one among the anthropomorphic or therianthropic *gaṇas* or *bhūtas* comprising such friezes and not a god of importance, having a special place in the pantheon installed in temple shrines. This is perhaps the earliest representation of the form in Pallava times. The same is again found as an ornament of the *kuḍu* arches in the earlier structural temples of Rājasimha, *eg.* in the Shore temple, and not even in a niche or *devakōshṭha* on any of their walls.

In all Pallava sculpture in Toṇḍaimaṇḍalam, he is shown for the first time occupying a place of importance, as a recognised cult deity at the end of the Saptamātṛikā series, in one of the cloister shrines of the Kailāsanātha temple, Kāñchī, the latest of Rajasimha's temples, while he forms a small *tōraṇa* crest over the niches on the walls of the main *vimāna*. He is found in the later structural temples of the Pallavas, eg. Mātaṅgēśvara in Kāñchī and Vīraṭṭāṇēśvara in Tiruttaṇi. Gaṇēśa again occurs as a constituent of the cave temples, of the Pāṇḍyas and Muttaraiyars in the farther south, again dating after 700 A.D. He is found mostly in his *valampuri* form, with his trunk coiled to his right, on the side wall or hind wall of the *ardhamaṇḍapa* of these cave temples, as in Tirugōkarṇam, Malayakkōvil, Kuṉṉāṇḍārkōil, all in the Pudukkōṭṭai area of the Tiruchirāpaḷḷi District, in the lower cave temple at Tiruchirāpaḷḷi and the Siva cave-temple in Tiruveḷḷaṟai in the same district. Further south, in the Pāṇḍya country, he is seen in the cave temples in Kuṉṟakkuḍi, Piḷḷaiyārpaṭṭi, Tirupparaṅkuṉṟam (northern or Subrahmaṇya cave), Śevilippaṭṭi, Tirumalāpuram, Kuṉṉattur (Nīlakaṇṭhēśvara) etc., and on the flank of the facade, in the cave temples in Vallam, Kuḍumiyāmalai, Dēvarmalai, Tirukkaḷākkuḍi etc.

This would indicate the popularity of this cult in the Tamil country soon after 700 A.D. which was its probable date of advent from the Chāḷukyan area, along with cults like the Saptamātṛikā, represented earlier in that region. The absence of any marked variety as described in *Śilpa* and *Āgamic* works in the iconographic forms of the examples cited, except one example of a standing form as in the lower cave temple in Tiruchirāpaḷḷi, while all the others are sitting, would also indicate that it was not a cult which had entered earlier and had been undergoing development, marked by local characteristics, except the *valampuri* form, as in the case of other cults discussed above.

In structural temples of the Pallava-Chōḷa transition and in early Chōḷa temples as in Tirukkaṭṭalai, Tiruppaḷātturai, Eṟumbūr, Kaliyāppaṭṭi, Paṉaṅguḍi, and Vijayālaya Chōḷiśvaram, the first among the *ashṭaparivāra* shrines round the central *vimāna* is a Gaṇapati shrine. In the larger temples of the later Pallavas and early Chōḷas and thereafter, he always comes to occupy the southern *devakōshṭha* or niche of the *ardhamaṇḍapa*, while the corresponding northern one contained a standing Durga, as in the Muktēśvara, Iravātanēśvara and Tripurāntakēśvara in Kāñchīpuram and the Vīraṭṭānēśvara in Tiruttaṇi among the Pallava series ending with the tenth century A.D. The cult has spread so much that Gaṇēśa today is one of the most popular and important deities found everywhere, in larger temples as one among

the many subsidiary deities, but also as the presiding deity in individual shrines as well as under tree shades, tank bunds and river banks.

In this context of the appearance of the Gaṇapati sculptures after 700 A.D. are to be viewed the references, (about ten in number), to Gaṇēśa in the *Tēvāram* collection. They are:

(1) *pala pala kāmattarāki paḍai-t-teḻuvār maṉa-t-tuḷḷē*
kalamalakkiṭṭu-t-tiriyum Gaṇapati eṉṉum kaḷiṟum

(Appar: *Tēvāram* 4173; 4th *Tirumuṟai*, 2nd *padikam*, v. 5, lines 1-2 Tiru Adigai vīraṭṭānam).

(2) *Nāraṇaṉ-oḍu-Nāṉmukaṉ Indiraṉ*
Vāraṇaṉ Kumaraṉ vaṇaṅguṁ kaḻaṟ
Pūraṇaṉ ....

(Appar: *Tēvāram* 5889; 5th *Tirumuṟai*, 65th *padikam*, v. 10, lines 1-3. Tiruppūvaṉūr).

(3) *Kai-vēḻamukattavaṉai-p-paḍaittār pōlum*
Gayāsuraṉai avaṉāṟ kolvittār pōlum ....

(Appar: *Tēvāram* 6776; 6th *Tirumuṟai*, 53rd *padikam*, v. 4, lines 1-2; Tiruvīḻimiḻalai).

(4) *Melliyalum Viṉāyakaṉum tōṉṟakkaṇḍēṉ*

(Appar: *Tēvāram* 7015; 6th *Tirumuṟai*, 77th *padikam*, line 3; Tiruvāymūr).

(5) *sandanaṉ malar aṇi tāḷ śaḍaiyaṉ*
tarta madattavaṉ tāḍai yō tāṉ

(Sambandar: *Tēvāram* 1239; 1st *Tirumuṟai* 115th *padikam*, v. 2 lines 1-2; Tiru Irāmanadīccuram).

(6) *neruppuru veḷ viḍai mēṉiyarēṟuvar neṟṟiyiṉ kaṇ*
maruppuṟu vaṉ kaṇṇar tātai yai-k-kāṭṭuvār mā Murugaṉ
viruppuṟu pāmbukku mey-t-tandaiyār viṟal mātavarvāḻ
poruppuṟu māḷikai-t-teṉ puṟa vat-t-aṇi puṉṉiyaṉē

(Sambandar: *Tēvāram* 1266; 1st *Tirumuṟai*, 117th *padikam*, v. 8 lines 1-4. Tirup-pairama puram)

The fourth line here suggests the installation of Gaṇēśa on the south wall niche of the *ardhamaṇḍapa* as a custom contemporary with Sambandar and incidentally indicate his date as about 730 A.D.

(7) *piḍi yadaṉ uru vumai koḷa miku kariyadu*
vaḍi koḍu taṉa daḍi vaḻipaḍu mavar iḍar

kaḍi Gaṇapati vara varuḷiṉaṉ miku koḍai
vaḍi viṉar payil vali vala muṟai yiṟaiyē

(Sambandar: *Tēvāram* 1330; 1st *Tirumuṟai*, 123rd *padikam*, v. 5, lines 1-4 Tiruvalivalam).

(8) *Śerṟiṭṭē verṟiccēr tikaḻnda tumbi moymburuñ*
cērē vārā nīḷ kōdai-t-teriyiḷai paḍi yaduvāy
Orṟaiccēr murṟar kombuḍai-t-taḍakkai mukkaṇ mik-
kōvādē pāymātānatturu pukar muka viraiyai-p-
Perṟiṭṭē marṟippār poruttu mikka dukkamum
pērā nōy tāmē yāmaippirivu śeydavaṇadiḍaṅ
Karṟiṭṭē yeṭṭ-eṭṭu-k-kalai-t-turai-k-karai-c-celak
kāṉādārēśērā mey-k-kaḻumala vaḷanagarē

(Sambandar: *Tēvāram*, 1364; 1st *Tirumuṟai*, 126th *padikam*, v. 6. Tirukkaḻumalam).

(9) *Kariyiṉ māmuka muḍaiya Gaṇapati tātai pal-pūdam*
Tiriya il bali-k-kēkuñ celuñjuḍar śērtaru mūdūr

(Sambandar: *Tēvāram*, 2509; 2nd *Tirumuṟai*, 29th *padikam*, v. 3, lines 1-2 Śīrkāḻi)

(10) *maṇṇuḷakum viṇṇuḷakum ummadē ātchi*
malaiyaraiyaṉ porpāvai Śiruvanaiyum tērēn
eṇṇiliyuṉ peruvayiṟan Gaṇapati-yoṉṟariyāṉ
emberumāṉ idu takavō-viyambi aruḷ śeyyīr

(Sundarar: *Tēvāram*, 7699; 7th *Tirumuṟai*, 46th *padikam*, v. 9 lines 1-4 Tirunāgai-k-kārōṇam).

The *Paripāḍal* in its description of the different forms and names of Vishṇu and his identity with other gods, calls him as *Aiṅgai-m-mainda*—the son with five hands—perhaps Gaṇapati (3: 37), in which case, the late date of the *Paripāḍal* collection will also be indicated.

These references from the *Tēvāram* would show that the concept of Gaṇapati in its developed stage was known to the three Nāyaṇmārs, Appar, Sambandar and Sundarar. Sundarar, at any rate, is believed to have lived sufficiently later than 730 A.D. But the date of the two earlier saints, has been largely derived from the supposed identity of Guṇadhara of the later *Periyapurāṇam* tradition with Guṇabhara, the surname of Mahendra Pallava I, and hence their contemporaneity with that king. This would be much earlier than the date afforded by sculptural evidence. In this connection one has to remember also the other *Periyapurāṇam* tradition of the identication of Śiruttoṇḍanāyaṉār, with Parañjōti, who is again believed to have been the general of the Pallava (Narasimhavarman Māmalla, and to have taken part in the Vātāpi invasion. The contemporaneity of Śiṟuttoṇḍar and Sambandar is believed to be suggested by the *palaśruti* afforded by *Tēvāram* 3480 (3rd *Tirumuṟai*, 63rd *padikam*, v. 10—Tiruchengāṭṭāṅguḍi).

Śendaṉ pūmpuṉal paranda Śeṅgāṭṭāṅguḍimēya
Venda nīṟ-aṇi mārpan Śiruttoṇḍaṉ vēṇḍa
Andaṉ pūṁ kali-k-kāḻi yaḍikaḷaiyē-yaḍi paravum
Śandaṁ koḷ Śambandaṉ tamiḻ uraippōr takkōrē

There is also another tradition of the meeting of Sambandar and Tirumaṅgai Āḻvār embodied in two old stray verses (599, 600 of the *Peruntokai* collection by M. Raghava Iyengar), each purporting to be sung by one in praise of the other. The same is to be found in the *Divya-Sūri-charitam* and *Guruparamparābhāvam* of the Vaishṇavas.

The *Tēvāram* hymns cited, clearly show that Gaṇapati was not only firmly incorporated into the pantheon, but also his filial relationship to Śiva was known by the time the hymns were sung. While Appar in his *Tēvāram* hymn 5889 mentions Gaṇēśa as having worshipped Śiva, along with Vishṇu, Brahmā, Indra, and Kumāra, he calls Śiva the father of Āṟumugaṉ and Āṉaimugaṉ in his verse 6984. In another verse (6379) he refers to Gaṇēśa as the remover of obstacles—*Vikkiṉa Vināyakar*. Sambandar narrates briefly the local story of the origin of Gaṇēśa in the verse quoted above (1330). If the appearance of the sculptures in the second quarter of the eighth century is any indication, more reliable than the late literary traditions, it would point to the posibility of a later date to the *Tēvāram* of the two earlier saints, or at least to the particular hymn in question. The absence of any mention of Gaṇēśa in the post-*Śaṅgam* works in contrast to his mention in the *Tēvāram* would also indicate a chronological gap between the two.

Murugan

The cult of Murugaṉ was very old in the Tamil country and in the numerous references to him in the earliest strata of the literature we get a glimpse of his original form and worship. The *Aiṅguṟunūṟu* (308) refers to his great hill abode "*murugar mā-malai*".

The *Padirruppattu* (2nd decad, lines 5-8) refers to his fight with Śūran and his hordes with his *eḥḥu* (*vēl*) ruddy with blood, mounted on his elephant;

> *Anaṅguḍai avuṇar ēmam puṇarkkum*
> *śūruḍai muḷumudal taḍinda pēr iśai,*
> *kaḍuñjiṇa viṛal vēl kaḷiṛu ūrndāṅgu—*
> *śevvāy eḥḥaṁ vilaṅgunar aṟuppa,*

His might was worshipped, and the worship consisted of the possessed dance—*veṟiyāṭṭu*, by the folk of the hilly tracts. He was called '*Sē-ey, Neḍuvēḷ* or *Murugu*', was considered to live in, or be represented by, the Kaḍambu tree, was decorated by oleander garlands and offered preparations out of the *tiṇai* (*setaria*) and had goats or rams sacrificed—*Aiṅguṟunūṟu* (vv. 245, 247 and 249), *Naṟṟiṇai* (vv. 34, 47, 82, 225), *Kuṟuntokai* (vv. 111, 214, 263, 360 and 362), *Padiṟṟuppattu* (v. 26), *Ahaṉāṉūṟu* (1:3; 59; 11; 98:10; 158:16) and *Puṟaṉāṉūṟu* (162-12; 23:3-4, 14; 56:7-8; 14; 56:7-8; 295:15; 299:6). His association was with the Kaḍambu tree and hence his name Kaḍamban — *Kār-alar-Kaḍambaṉ*, as in *Maṇimēkalai* (4:49) — is referred to also by the other works of the later period, *viz*., *Perumbāṇāṟṟup-paḍai* (75), *Paripāḍal* (19:2 and 2:104) and *Śilappadikāram* (24-*Pāṭṭumaḍai Nēriśai*). *Naṟṟiṇai* (82) mentions for the first time his consort, *Vaḷḷi—Murugu puṇarndu iyaṉṟa Vaḷḷi* and *Aham* (59 and 149) makes, perhaps, the first reference to Tirupparaṅkuṉṟam as the seat of Murugaṉ, describing him as the wielder of the leaf-shaped *vēl* and the destroyer of Śūrapaṉmaṉ and his kin. The second place of Murugaṉ, as *Neḍuvēḷ*, mentioned in the earlier texts (*Puṟam* 55) is *Śendil* or *Śīr-Alaivāy* (Tirucendūr) which is also referred to in *Śilappadikāram* (24), profuse in its reference to Murugaṉ and his cult. A temple for Murugaṉ—Murugaṉ Kōṭṭam —is mentioned in *Puṟam* (299:6). The *Śilappadikāram* (24: *Pāṭ-ṭumaḍai* 8) mentions *Ēraham*, besides *Śeṅgōḍu* and *Veṇkuṉṟu* as his aobdes. It is only the *Tirumurugāṟṟuppḍai* that mentions all the six abodes, *viz*., *Paraṅkuṉṟu, Śīr-Alaivāy, Āvinaṉkuḍi, Ēraham, Paḻamudirśōlai* and *Kuṉṟutōrāḍal*, the last general abode being referred to in the same general term earlier in *Kuriñjippāṭṭu* (lines 208-9).

In the *Pattuppāṭṭu* collection the *Perumbāṇāṟṟuppaḍai* (lines 457-9) describes Murugaṉ as the son of the goddess (Umā) that dances the *tuṇaṅgai*, and as one who killed the fierce Śūraṉ in the vast expanse of the sea. The *Maduraikkāñji* of the same collection

mentions him, as the wearer of the garland of Kaḍamba flowers, and also the 'possessed' dancers, the Vēlaṉ and Śāliṉi (lines 610-16); as also the *Paṭṭiṉappālai* (lines 154-55) which refers to the *veṟiyāḍal*. The *Kalittokai* too mentions him as *Sevvēḷ* (93:25-29) who killed the Śūraṉ.

The *Paripāḍal* has eight long poems on Murugaṉ (Nos. 5, 8, 9, 14, 17, 18, 19 and 21). They describe him as the rider on the elephant called *Piṇimukam*, the wielder of the *vēl* (spear) and the destroyer of Śūraṉ, who took the form of a mango tree, and as the god who cleft asunder the hill called *Kiravuñcham* (*Krauñcha*). The story of his birth is also narrated. He is described as the off-spring of the god that destroyed the three cities (Śiva), generated in the womb of Umā, when at the request of Indra, the foetus was split into many parts, and given to him. From him the *ṛishis* took the parts and sacrificed them into the fire, and gave them as *avi* (*havirbhāga*) to all the six *Krittikā patnis*, Arundati excepted. And to each of them was born a child, all laid on one lotus blossom in the *poygai* (pond) in the *Himalaya* (*Śaravaṇa-p-poygai*), so that they reunited into one. This incorporates the Skanda-Kārttikēya-Śaravaṇabhava-Shaṇmukha cult with Murugaṉ. Even as a child Murugaṉ is said to have withstood a further attack by Indra's *vajra* when he split again into six only to reunite, and the awestruck Indra made Murugaṉ, the Commander—'*Sēnāpati*' of the celestials and gave his daughter Devāṉai (Dāvasēna) in marriage to him. Indra gave him also the peacock, Agni the pet cock, Yama the goat, and the other gods, the weapons and attributes, *viz*., the *maraṉ*, sword, spear, axe, battle-axe (*maḻu*), the *kaṇicci* and *kaṇali*, *mālai* (*akshamāla*) and bell which he held in his twelve hands. Another context mentions the *pāśa* as one of them. This would show that as Dēvasēnāpati he was armed with all the weapons and attributes of the other *dēvas* produced from their own bodies (*śakti*). Tirupparaṅkuṉṟam was his abode where all the gods went to worship him. His consort was Vaḷḷi and he was installed there in the temple as the god of the Kaḍambu and the beloved son (Skanda-Māśilāmaṇi) of the god with the darkened throat (*Nīlakaṇṭha;* Śiva) and the goddess who was without ble-mish (Māśili-Umā). His espousing Vaḷḷi the offspring of the deer, by the *kaḷavu* method, is said to have often made his other spouse, Dēvāṉai, the daughter of Indra, jealous and weep. He is stated to have married Vaḷḷi in his earthly abode while Dēvāṉai was his celestial spouse. His mount is mentioned as the elephant—*piṇi-mukam ūrndu*—in some contexts (5:2) and as the peacock—*mayiṉ-*

mēl-ñāyiṟu—in others (18:26). The peacock banner is mentioned along with the elephant mount in another place (17:48). The cock is mentioned only as his pet. His body is likened to the colour of fire, his garment and garland red, the colour of the shaft of his *vēl* coral and his face was like the rising sun.

The *Tirumurugāṟṟuppaḍai,* forming the later invocatory piece, by Nakkīrar, to a collection of earlier poems in the *Pattuppāṭṭu,* is a more elaborate description not only of the god, but also of his six abodes (later called *paḍai-vīḍu*), on which are based practically all the later concepts of Murugaṉ revealed in mediaeval sculpture, and the much later *Tiruppugaḻ.*

The elephant mount is not commonly found or mentioned in sculptures or texts outside the Tamil country, and this concept persists in the Tamil country till the close of the tenth or eleventh century A.D. The *Padiṟṟuppattu* (11:6) and the *Puṟam* (56: 7-8) are perhaps, the first to mention this

> *"kaḍum-ciṉa-viṟal vēḻ kaḻiṟu ūrndāṅgu"*
> (*Padiṟṟuppattu*)
>
> *maṇi-mayil uyariya-māṟā veṉṟi-p*
> *piṇi muka ūrdi — oṉ Śeyyōṉum eṉa*
> (*Puṟam*)

The peacock as the banner is first mentioned in *Aham,* and later in the *Paripāḍal,* quoted above, and again in the *Tirumurugāṟṟuppaḍai* (line 122) where too the mount is said to be the elephant:

> *pal poṟi maññai vel koḍi uyariya*
> *oḍiyā viḻaviṉ Neḍiyōṉ kuṉṟattu*
> (*Aham*: 149: 15-16).

The *Śilappadikāram* (14:10) is the first to mention a temple of the god whose banner was the cock, instead of the peacock.

> *Kōḻi-c-cēvaṟ-koḍiyōṉ kōṭṭamum*

as also *Tirumurugāṟṟuppaḍai* (line 38)

> *Kōḻi-ōṅgiya veṉṟaḍu viṟaṟkoḍi*

The cock banner along with the *śakti* or *vēl* is mentioned in *Bṛihatsamhitā* (Ch. 57) dated c. 550 A.D. as "*Skandaḥ Kumārarūpaḥ śakti dharō barhi kētuścha*". The *Mahābhārata* (III, 231, 16) associates the cock as his pet and plaything—*tvam krīḍasē Shaṇmukha kukkuṭēna yathēshṭa nānāvidha kāmarūpi. Murugaṉ* as the six-faced God finds mention for the first time in the *Śilappadikāram* (5:170)—*Aṟumuka-c-cevvēḻ aṇi tikaḻ kōyilum,* and the *Tirumurugāṟṟuppaḍai* (lines 91-118) explains the significance of each one of the six faces and twelve arms. However, six-faced forms of Murugaṉ, known as Āṟumukam or Shaṇmukha is not known from early sculpture in the Tamil country except perhaps one from Kāñchī now in the Madras Museum, c. tenth century A.D. The *Tevāram* has nearly forty references to Murugaṉ, where in most of them Śiva is extolled as the father of *Kumaraṉ,* also called *Śēndaṉ, Kaḍambaṉ, Vēḻ, Kandaṉ, Murugavēḻ, Śaravaṇattāṉ, Vēlaṉ* and in one instance *Āṟumukaṉ,* who was the husband of *Vaḻḻi,* the *Kuṟava* maiden, and who weilded the cock banner and destroyed Sūrapaṉmaṉ.

Evidences, numismatic, sculptural and epigraphic, are numerous, showing that Skanda was as much popular in the rest of India as in Tamiḻakam, from the beginning of the Christian era. The coins of Huvishka and the Yaudhēyas, the sculptures of the Guptas, Ikshvākus, Chāḻukyas and Rāshṭrakūṭas, and the inscriptions of the early Pallavas and Kadambas attest to this. Recently a Kārttikēya temple in brick has been excavated in the Ikshvāku capital of Vijayāpuri in Nāgārjunakoṇḍa and two sculptures of Skanda, as Kumāra, holding his pet cock in his left arm pressed against the hip, illustrate the reference made to this feature ("*Śelvavaraṇam*", *Paripāḍal,* 5:58).

As against this wealth of references early and contemporary in the indigenous literature, and the profusion of scriptural, numismatic and epigraphic evidence from outside, it is surprising to note that, excepting one or two cases, temples dedicated solely to Skanda as the principal deity are not seen and even the number and variety of sculptures representing him in the Tamil country during the period 600-1000 A.D. are rather meagre. The Sahadēva ratha in Māmallapuram was perhaps intended for Skanda, but one cannot be sure about this even. The sculpture of a two-armed deity seated on the neck of an elephant in the upper tier of the eastern face of the Arjuna ratha, generally supposed to represent Indra, may alternatively be Skanda, judging from the literary references cited above, particularly the *Tirumurugāṟṟuppadai* (109-110). The posture of one hand, the right, wielding the *aṅkuśa* and the other placed on the left thigh covered by the fine cloth garment is described as follows:—

> *nalam peṟu kaliṅgattu kuṟaṅgin miśaiyaśai iya-*
> *torukai, aṅkusaṅ kaḍāva voru kai*

There is a similar sculpture on the east of the upper tier of Mūvar Kōvil *vimāna* in Koḍumbāḷūr. The earliest principal representations in some of the Mahēndra and Māmalla cave temples and *rathas* dedicated to Śiva seem to have been Sōmaskanda panels in painting, stucco or wooden relief with Skanda, represented as a child on the lap of Umā. From the time of Paramēśvaravarman I to the time of Dantivarman Pallavamalla, these are carved as stone reliefs on the hind wall of the sanctum of the cave and structural temples. They are absent in the Muttaraiyar and Pāṇḍya cave temples, and among the latter the Tirupparaṅkuṉṟam cave temple alone contains a Sōmaskanda group in the sanctum of the Śiva shrine. On the eastern face of the ground floor or first *tala* of the Dharmarāja ratha youthful Skanda is sculptured in the niche at the southern end. In the northern shrine of the Trimūrti cave temple, he is represented as Brahma-Śāstā, youthful, four-armed and with the attributes of Brahmā, thus showing his superiority over Brahmā. Instead of interpreting this by the usual *Āgamic* story used by Gopinatha Rao to explain this sculpture, it may perhaps be taken to illustrate the almost contemporary local version embodied in the *Tirumurugāṟṟuppaḍai* (150-170). This refers to the cursing of Brahmā by Murugaṉ and his imprisonment, and the deputation of the *dēvas* including Śiva and Vishṇu for his release.

In the Pāṇḍya country in which and on the borders of which, the earlier *Saṅgam* and post-Saṅgam works locate the earlier known Murugaṉ temples, the sculptures again are not many. The rock-cut cave temple (9th century A.D.) called Lāḍankōvil, adjoining the Narasimha cave temple in Āṉaimalai, Madurai District, is the only example of a cave temple solely dedicated to Subrahmaṇya. He is seated in the sanctum with his consort Vaḷḷi, also seated, to his left. The most interesting feature of this temple is the presence of both the peacock and cock *dhvajas* sculptured in the shallow niches one either side of the shrine entrance. Perhaps this marks the transition phase, when the peacock banner of the earlier texts gave place to the cock banner of later descriptions (*Śilappadikāram, Tirumurugāṟṟuppaḍai* and *Tēvāram*) and the peacock became more the mount. In the Tirupparaṅkuṉṟam cave temple, where Subrahmaṇya happens to be the chief deity in worship to-day, he occupies a subsidiary place on the back wall of the rock-cut *maṇḍapa* facing north, into which the two principal rock-cut shrines dedicated to Śiva and Vishṇu situated on the western and eastern ends face. The original dedication of the temple was to Śiva, as the principal deity, in 773 A.D. according

to the inscription there. The Durgā shrine at the centre of the hind wall of the *maṇḍapa* was a slightly later addition formed by scooping away on either side of it, and it is in these two scooped-in parts that we find Subrahmaṇya on the east and Gaṇapati on the west of the Durgā shrine. Gopinatha Rao, while looking for Jyēshṭhā mentioned in the inscription referred to mistook the Subrahmaṇya figure, now covered with stucco, for a camouflaged Jyēshṭhā. Hence his remarks mentioned already. Subrahmaṇya, four-armed, is seated, with his consort by his side on his left and a *ṛishi*-like figure on the right. In front of the seat is a group of sculptures showing the peacock, the elephant, two *gaṇas*, a ram and another *gaṇa* holding aloft a *kukkuṭadhvaja* or cock-banner. On the lateral wall of the Durgā shrine, adjacent to Subrahmaṇya, is Brahmā. Over Subrahmaṇya are shown Sūrya and Chandra in the flying posture.

Another interesting sculpture of Subrahmaṇya as Kumāra is found in the rock-cut Śiva cave temple called Malaikkoḷundīśvaram in Tirumalai, Rāmanāthapuram District. The sculpture occupies a large niche on the wall of the rock-cut *maṇḍapa* in front of the shrine cell. Kumāra, is shown standing as a youth in *dvibhaṅga*, his left hand placed on the raised up left hip in *kaṭi* and the right hanging down with palm in front of his right thigh. To his right is a dwarf *gaṇa* holding the long stalk of an umbrella, slant over the head of Kumāra, suggesting the story of his dancing the *Kuḍaiāttam*, with the slant parasol as the screen, during his battle with the *avuṇar*, as described in *Śilappadikāram* (22:52-53). On the same side is planted a tall *dhvajastambha* with a cock ensign on top. To the left of Kumāra is a kneeling devotee. In front of the pedestal are carved the reliefs of a ram on the right and a peacock on the left facing each other.

These two sculptures would clearly indicate that, in addition to the Elephant and Peacock mounts, Subrahmaṇya had sometimes a third mount the Ram, as suggested in the *Tirumurugāṟṟuppaḍai* (210), where it is called *takar* (ram)

takaraṉ-maññaiyaṉ pukar
il śēvalaṁ koḍiya neḍiyōṉ

The *Purapporuḷ Veṇbāmālai* also describes his ram mount as *ēḻakam*.

Ēḻakam mērkoṇḍu Iḷaiyōṉ ikal veṉṟāṉ

This would emphasise his association with an aspect of Agni, whose vehicle it is. The cock banner in the latter example is in accordance with the later concepts. The peculiarities in these two sculptures, particularly, the *ram*, are not described by Gopinatha Rao.

The lower rock-cut cave temple in Tiruchirāpaḷḷi contains on the back wall of the *maṇḍapa*, which has two shrines one at either end dedicated to Śiva and Vishṇu as in Tirupparaṅkuṉṟam, a standing figure of Subrahmaṇya as Kumāra, four-armed. He occupies the second niche from the west, next to that of Gaṇapati. On the northern face of the second storey of the Pāṇḍya monolithic *vimāna*, the Veṭṭuvāṉkōvil in Kaḻugumalai, is a fine seated form of Subrahmaṇya, four-armed, holding a rosary in one hand, the upper left, and what appears to be *śakti* in the upper right. An almost similar but slightly later sculpture belonging to the Pallava-Chōḷa transition, perhaps in the time of Aparājita (885-903), is known from Tiruvoṟṟiyūr. An example of Subrahmaṇya as *Śikhivāhana* (*Tārakāri*) is found in one of the panels in the Puñjai temple, Tanjore District, and another seated figure of large dimensions, now unfortunately broken, with a comparatively small peacock below, from Kāñchīpuram, now placed in the Madras Museum, can be attributed to the tenth century A.D. The Pāṇḍya cave temple in Mūvaraiveṉṟāṉ, Rāmanāthapuram District, dedicated to Śiva, contains in the *maṇḍapa* a sculpture of *Śikhivāhana*, *i.e.*, Subrahmaṇya on the peacock, which is obviously a later addition of the eleventh century A.D. The sculpture relief of Subrahmaṇya with Vaḷḷi and Dēvasēna, standing on the hind wall of the rock-cut *maṇḍapa* of the Śiva cave temple called Umaiyāṇḍar temple in Tirupparaṅkuṉṟam is likewise a later addition to the Pāṇḍya cave temple and is later than the 11th century A.D.

The construction of a temple solely dedicated to Subrahmaṇya, in Kaṉṉaṉūr in the Pudukkōṭṭai area of the present Tiruchirāpaḷḷi district, in the middle of the tenth century A.D. marks perhaps the fresh spurt that the Murugaṉ cult had, from this time onwards. Till then, the rise of the *Bhakti* movement, giving greater prominence to Śiva and Vishṇu by the Nāyaṉmārs and Āḻvārs seems to have lessened the importance of the Murugaṉ of earlier times. The Bālasubrahmaṇya temple in Kaṉṉaṉūr is unique in being an all-stone structural temple of the Pallava-Chōḷa transition. Much like all the Śiva temples of the period having the *nandi* at the four corners round the *grīva* above the shrine, it has four elephants, the

vāhana of Subrahmaṇya at the four corners on top of the *vimāna* round the *grīva* and another elephant placed in front of the shrine, again like the *nandi* of a Śiva temple. The original idol in the sanctum is unfortunately broken. The inscriptions also call it the Bālasubrahmaṇya temple. The earlier forms of Subrahmaṇya of the Pallava-Chōḷa transition in the Pudukkōṭṭai area (*Pudukkōṭṭai State Manual*, II, 1, p. 698) are represented with the hand in position called 'ciṉmudrā' or with the *akshamālā* along with the characteristic weapon *śakti* as in the Kaṉṉaṉur temple and in the subshrine of the Tirukkaṭṭalai Śiva temple. The one in the subshrine of the Nārttāmalai Vijayālayachōḷīśvaram has a flaming head-dress. The figure on the upper tier of the Kaṉṉaṉūr *vimāna* on the southern side is that of Daṇḍapāṇi. In the 9th century temple at Kaṇḍiyūr the standing two-armed figure of Kumāra, holding a *śakti* in his right and a conch in his left hand is unique. Perhaps the conch symbolises him as a victor in battle.[37]

In the great temple at Tanjore are epigraphical references to Rājarāja I and his relatives presenting bronze images—of Subrahmaṇya, along with those of Gaṇapati, Vishṇu and Sūrya and other icons of Śiva. Like the other five contemporary cults, the Kaumāra cult also received the reformatory touches of Śaṅkara in the first quarter of the ninth century A.D.

BRAHMA

The concept of Brahmā as the creator of the universe was known from very early times as evidenced by references to him in the *Puṟanāṉūṟu* (194:5) and *Naṟṟiṇai* (240:1)

"Paḍaittōṉ maṉṟa, appaṇpilāḷaṉ"
and
"Aytē kamma, ivvulaku paḍaittōṉē"

He is called *"toḍaṅkaṟkaṉ tōṉṟiya mudiyavaṉ"*, *i.e.* "He, the primordial who appeared at the very beginning of creation" in *Kalittokai* (1:2 line 1). His lotus seat, and his origin from the navel of Vishṇu are referred to in the post-*Saṅgam* works. The trinity

37. *Transactions of the Archaeological Society of South India*, 1957-58—pp. 54-55, where the author of the article takes the conch to symbolise the *praṇava* and hence identifies the form as Dēśika-Subramaṇya or Svaminātha or Gurumūrti, a concept, which appears to have not so much developed as in later times.

Brahmā, Vishṇu and Śiva as the chief Gods, and their respective duties are indicated in *Tirumurugāṟṟuppaḍai* (160-63). The three gods are also freely mentioned in their respective capacities in the hymns of the Nāyanmārs and Āḻvārs with Śiva as the dominant of the three by the former and Vishṇu by the latter. For example the eighth verse in the decads of Sambandar extols Śiva as greater than Brahmā and Vishṇu.

TRIMURTI

The first creation of Pallava Mahēndravarman I was the cave temple at Maṇḍagappaṭṭu with three shrine cells, where in his own inscription he says that he made this divine abode called '*Lakshitāyatanam*' (after his own title *Lakshita*) in equal importance, for the gods Brahmā, Īśvara and Vishṇu. It was only after this very first in the new mode of excavation of temples, into the live rock, for the Trimurtis that he started making separate temples for Śiva or Vishṇu. Māmalla again has his earlier cave temple in Tirukkaḻukunṟam, completed immediately after his conquest of Vātāpi (642 A.D.), where the main shrine is dedicated to Śiva, with sculptures of Vishṇu and Brahmā, one on either side of the shrine entrance. Again Paramēśvaravarman I excavated the so-called Rāmānuja maṇḍapa cave temple and the Dharmarāja maṇḍapa cave temple, called Atyanta-kāma Pallavēśvaram in Māmallapuram, with three shrine cells, apparently for the Trimūrti, the central one being for Śiva.

In the Trimūrti cave temple in Māmallapuram, datable towards the close of Paramēśvara's reign (700 A.D.) significantly enough, the place of Brahmā in his shrine on the north is taken by Brahmaśāsta, indicating the dominance of Subrahmaṇya, or his equation with Brahmā. In the structural temples of Rājasimha, *eg.* the Shore temple, the Kailāsanātha temple and the Panamalai temple, Brahmā and Vishṇu find their places on the inner faces of either walls of the *antarāla* or vestibule flanking the passage into the shrine. This practice continues till the later Pallava times, while in the Vīraṭṭāṇēśvara temple at Tiruttani, as also in many of the early Chōḻa temples, Brahmā occupies the northern niche on the outer wall of the *vimāna*, and Vishṇu is relegated to the western niche behind the sanctum, who in the early Chōḻa times is often displaced by forms of Harihara or Ardhanārī, which again by about the middle of the tenth century give place to the Liṅgapurāṇamūrti or Aṇṇāmalaiyār. In the case of the Pāṇḍya monolithic temple, Veṭṭuvāṇkōil in Kaḻugumalai, the place of Brahmā on the northern side of the *grīva* is taken by Subrahmaṇya, as in the Trimūrti cave temple. Separate shrines for Brahmā are evident from the large early Chōḻa sculptures of Brahmā in the round from Tiruvaiyāṟu, Karuttaṭṭāṅkuḍi and Kaṇḍiyūr in the Tanjore District. While in all the sculptural representations Brahmā is shown with four faces (three visible in bas-reliefs) and without a beard, there are a few, as in the example from the wall niche in Kaṇḍiyūr, where he is shown bearded as in the northern examples.[38]

The combination in about the middle of the eighth century A.D. of the Trimūrti concept and the gods of the *shaṇmata* or six creeds viz., *Śaiva, Vaishṇava, Gāṇapatya, Kaumāra, Saura* and *Śākta* is remarkably illustrated in the lower rock-cut cave temple in Tiruchirāpaḷḷi. It consists of a long rock-cut *maṇḍapa* facing south with two shrine cells, one at either end, east and west. The east facing shrine is dedicated to Śiva and is empty as in all earlier examples, the west facing one dedicated to Vishṇu containing his sculpture. The back wall of the *maṇḍapa* in between has five large niches with five prominent sculptures of Gaṇēśa, Kumāra, Brahmā, Sūrya and Durgā, from west to east in the order mentioned. Thus with Śiva and Vishṇu in either end shrine, and Brahmā in the middle niche at the centre of the *maṇḍapa*, the Trimūrti group is complete, and, excluding him the rest will make up the *shaṇmata* group. This is anticipated slightly earlier in the Trimūrti cave temple of Paramēśvaravarman I at Māmallapuram where we have a combination of Brahmā and Subrahmaṇya in the northern shrine, Śiva in the middle shrine, Vishṇu in the southern shrine and a Durgā niche to the south of it. Gaṇapati and Sūrya alone are omitted.

This norm set by this combination in the heart of the Chōḻa country, lying between the Pallava country in the north and the Pāṇḍya country in the south, was apparently followed up in the respective regions with slight variations. Thus in the Pallava country, where the construction of stone structural temples was in vogue by this time, the arrangement came to be as follows:—Ganapati in the niche on the south wall of the *ardhamaṇḍapa,* and Dakshiṇāmūrti in the south wall of the *garbhagriha,* Vishṇu in the west, and Brahmā on the north

38. *Transactions of the Archaeological Society of South India*, 1957-58, fig. 8.

walls of the *garbhagṛiha* and Durgā on the north wall of the *ardhamaṇḍapa* with the elimination of Sūrya and Subrahmaṇya, perhaps because the former was represented by Vishṇu and the latter, as Dēśika, was represented by Brahmā or Dakshiṇāmūrti. Such an arrangement is found in the Muktēśvara, Iravātanēśvara and Tripurāntakēśvara temples in Kāñchī and the Vīraṭṭānēśvara in Tiruttaṇi. This becomes a feature of the temples of the Pallava-Chōḷa transition and subsequent Chōḷa temples, throughout the Tamil country.

In the Pāṇḍya country, where cave temples were excavated till the close of the tenth century, the Tirupparaṅkuṇṛam cave temple, of plan almost similar to the lower cave temple at Tiru-chirāpaḷḷi has its *maṇḍapa* facing north with shrine cells for Śvia in the form of Sōmāskanda (and *liṅga*), and Vishnu on the west and east ends. Soon after the excavation of the cave temple by Śāttan Gaṇavati in 773 A.D., his wife added the Durgā shrine by excavating into the back wall of the *maṇḍapa* at its centre with sculptures of Subrahmaṇya and Gaṇapati in the recesses of equal dimension to its west and east. Here the Sūrya of the *shaṇmata* is shown over Subrahmaṇya and Brahmā of the Trimūrti group on the adjacent wall. The cave temples at Tirumalāpuram, Tirunelvēli District and Śevilippaṭṭi, Rāmanāthapuram District, having a single shrine cell for Śiva in each case, have sculptures of Gaṇapati, Vishṇu, and Brahmā, Sūrya and Subrahmaṇya being omitted. Sūrya and Subrahmaṇya, however, did not remain out of the group in worship for long, for soon in the Pallava-Chōḷa transition and early Chōla temples they found separate shrines in the *ashṭaparivāra,* or the eight shrines surrounding the main *vimāna,* a scheme which continued till the close of the eleventh century A.D.

It may be recalled here that close on this, in the first quarter of the ninth century A.D., Saṅkara reformed the six cults *viz.,* those of Śiva, Vishṇu, Gaṇapati, Kumāra (Subrahmaṇya), Sūrya and Śakti, extolling at the same time the concept of Śiva as the teacher *par excellence*—Dakshiṇāmūrti.

CHANDESA

Commencing from the period of the Pallava-Chōḷa transition (850-950 A.D.) the *ashṭaparivāra* included also the shrine of Chaṇḍēśa or Chaṇḍikēśvara (or Taṇḍēśvara in inscriptions) fol-

lowing the impetus given by the *Tēvāram* hymnists. This became a regular, and dominant feature of the Śiva temples of the Tamil country in the succeeding epochs. The earliest sculpture depicting the story of Śiva blessing Chaṇḍēśa and making him his primary servant—*mūlabhṛitya*—is to be found in Māmallapuram. One is on the second *tala* of the Dharmarāja ratha which was brought to its present stage of completion by Paramēśvaravarman I (670-700 A.D.). The sculpture inside the central shrine of the Mahisha-mardinī cave temple, where also work continued to be done till the time of Paramēśvara I, is unique among the Sōmāskanda sculptures in that it contains besides the usual Śiva, Umā and Skanda, with Vishṇu and Brahmā in the background on either side, a recumbent *nandi* and a devotee, kneeling, and Śiva holding what appears to be a garland in one of his hands, suggesting the Chaṇḍēśānugraha form.

There are about eighteen references to the story of Chaṇḍēśa in the hymns of Appar, Sambandar and Sundarar in the *Tēvāram,* eight by Appar (4627, 4636, 4792, 4808, 5243, 5928, 5965 and 6431), seven by Sambandar (521, 670, 1147, 3378, 3805 and 4039), and four by Sundarar (7382, 7619, 7786 and 8121). Māṇikkavācakar refers to him in the *Tiruvācakam,* 319 (*Tiruttōṇōkkam,* 7).

A few more sculptures of Chaṇḍēśānugrahamūrti, are to be found in the structural temples of the Pallavas. It was Rajaraja Chōḷa I who built a prominent and separate shrine for Chaṇḍēśa, immediately to the north of the vestibule of the main *vimāna* in Tanjore and thereafter it has become a regular feature, occupying the same place in the plan of all Śiva temples till today in the south. The best sculpture of Chaṇḍēśānugrahamūrti is the well-known one on the northern wing of the eastern face of the main *vimāna* in Gaṅgaikoṇḍachōḷapuram, built by Rājēndra Chōḷa I. If instead of a mere sculpture depicting the story of Chaṇḍēśa, as in the Māmallapuram sculptures, mentioned, and, as many other stories relating to Siva's deeds are, Chaṇḍēśa comes to occupy a position equal to that of the other deities in the *ashṭaparivāra* pantheon of the Pallava-Chōḷa transition, it is because of the recognition of his greatness and divinity by the Nāyaṇmārs. This again may possibly be an indication of the period of the three Nāyaṇmārs as between 650-850 A.D. It is to be noted also that in this respect Chaṇḍēśa has come to enjoy a unique preference among the earlier devotees, prior to the *Tēvāram* hymnists.

Śiva

Even the earliest mention of Śiva in the *Aham* and *Puṟam* collections reveal a developed iconographic concept of Śiva the god, who is not identified with any pre-existing local god under a local name, as Vishṇu, Balarāma and Subrahmaṇya, for example, were under such local names as Māyōṉ, Vāliyōṉ or Murugaṉ. His abode is the *Āl* or *Ālam* (*pipal*) tree and he is the three-eyed god, who gave the four ancient works—the *vēdas*, and the place of his worship was the open space in front of the tree—*ālamuṟṟam*.

> *nāṉmaṟai mudu nūl mukkaṭ śelvaṉ*
> *ālamuṟṟam*

(*Aham*, 181: 16-17)

Again, *Puṟam* (166: 1-4), states that the thoroughly conceived ancient work, consisting of four divisions—the *vēdas* and the six parts or *aṅgas*—were ever residing in the mouth of Śiva, the primordial being of the hoary past.

> *naṉṟu āynda nīḷ nimir śaḍai*
> *mudu mudalvaṉ vāy pōkādu,*
> *oṉṟu purinda īr-iraṇḍiṉ,*
> *āṟu uṇarnda oru mudu nūl*

(*Puṟam*, 166: 1-4)

The idea is repeated many times in the *Tēvāram* and *Tiruvācakam* hymns.

Naṟṟiṇai (343: 4) and *Puṟam* (198: 9; 199: 1) speak of the divinity of the *Āl* tree as *Kaḍavuḷ ālam*, due to its being the residence of god, evidently Śiva, as would be clear from the other descriptions, *eg., Kalittokai* (81: 7; 83: 14), *Śiṟupāṇāṟṟuppaḍai* (line 97) of the *Pattuppāṭṭu* collection. The *Maṇimēkalai* (3: 144) and *Śilappadikāram* (Ch. 24) refer to Śiva as *Ālamar-Śelvaṉ*, while the *Tirumurugāṟṟuppaḍai* (1-256) gives the variant *Āl-keḷu-kaḍavuḷ*. *Puṟam* (56) describes him as the god with matted locks, ruddy like the fire, and the blackened throat (*Nīlakaṇṭha*), who wields the invincible weapon called *maḻu* (axe) and who holds aloft the banner of the bull.

> *ēṟṟu valaṉ uyariya eri maruḷ avir śaḍai*
> *māṟṟu arum kaṇicci maṇi miḍaṟṟōṉum.*

(*Puṟam*, 56: 1-2)

Again *Puṟam* (55: 1-5) describes him as the god of the dark throat (*Nīlakaṇṭha*) with a third eye in his forehead, who wielding the bow, that was the great mountain (*mēru*) strung by the snake (*Vāsuki*), destroyed the three cities (*tripura*) and vouchsafed victory to the mighty gods (as Tripurāntaka).

> *oṅgu malai peru vil pāmbu ñāṇ koḷī-ī*
> *oru kaṇai koṇḍu mū eyil uḍaṟṟi*
> *peru viṟal amararkku veṉṟi tanda*
> *kaṟai miḍaṟṟu aṇṇal Kāmar-śeṉṉi*
> *piṟai nudal viḷaṅgum oru kaṇ*

(*Puṟam*, 55: 1-5)

The third eye and the black throat (*Trinētra* and *Nīlakaṇṭha*) are described again in *Puṟam* (91: 5) as

> *pāl purai piṟai nudal polinda śeṉṉi*
> *nīlamaṇi miḍaṟṟu oruvaṉ*

(*Puṟam*, 91: 5-6)

The *Kalittokai* in two contexts (i, 2, lines 1-5 and ii, 38, lines 1-5) describes Śiva as Tripurāntaka with three eyes (*Mukkaṇṇāṉ*) who at the request of the gods headed by the Patriarch who appeared even at the very beginning (Brahmā) destroyed the three cities and as one who wielded the mountain as his bow and punished the ten-headed *arakkaṉ* (*Rāvaṇa*) when he tried to uplift the Himālaya, where he was seated along with his consort Umā (Umā-sahita).

> *toḍangaṟ kaṇ tōṉṟiya mudiyavaṉ mudalāka,*
> *aḍaṅgādār miḍal śāya amarar vandu irattaliṉ,*
> *maḍaṅgal pōl śinai-imayam śey avuṇarai-k*
> *kaḍandu aḍu muṉpoḍu Mukkaṇṇāṉ mū eyilum*
> *udaṉṟakkāl*

(*Kalittokai*, i, 2: lines 1-5)

and

> *imaiya vil vāṅgiya īrñjaḍai andaṇaṉ*
> *umai amarndu uyar malai irundaṉaṉāka,*
> *ai-iru talaiyiṉ arakkar kōmāṉ*
> *toḍip-poli taḍak-kaiyiṉ kīḻ pukundu, am malai*
> *edukkal śellādu uḻappavaṉ pōla*

(*Kalittogai*, ii, 38: lines 1-4)

The *Tirumurugāṟṟuppaḍai* (lines 151-54) of the *Pattuppāṭṭu* collection, has again the same Umā-Mahēśvara, Ardhanārī, Vṛishabhadhvaja and Tripurāntaka concepts.

> ... ... *veḷ ēṟu*
> *valam vayiṉ uyariya, palar pukaḻ tiṇi tōḷ*
> *Umai amarndu viḷaṅgum, imaiyā Mukkaṇ*
> *mū-eyil murukkiya, muraṇ miku-śelvaṉuṁ*

The *Maṇimēkalai* (i, 54-55) describes him as the god with the third eye in the fore-head and as the first among the gods, the godlings of the city coming last in the series.

> *nudal viḻi nāṭṭattu Iṟaiyōṉ mudalāka-p*
> *pativāḷ śadukkattu-t-teyvam īṟu āka*

The *Śilappadikāram* in two contexts (6:40-45; 28:66-75) describes Śiva as the dancer, dancing the mode called *Koḍukoṭṭi* or *Koṭṭic-cēdam* (the dance of victory) along with Umā, and the dance called *Pāṇḍaraṅgam* for Brahmā, as the charioteer of *Tripurāntaka*, to witness

> *Tiripuram eriya-t-tēvar vēṇḍa,*
> *eri muka-p-pērambu ēval kēṭpa,*
> *Umaiyavaḷ oru tiraṉāka, ōṅgiya*
> *Imaiyavaṉ āḍiya Koḍukkoṭṭi āḍalum;*
> *tēr muṉ niṉṟa tiśai mukaṉ kāṇa,*
>
> *Pāradi (Bhārati) yāḍiya viyaṉ Pāṇḍaraṅgamum;*

and :

> *Tirunilai-c-cēvaḍi śilambu vāy pulambavum,*
> *pari taru śeṅ kaiyil paḍu paṟai ārppavum,*
> *seṅ-kaṇ āyiram tirukkurippu aruḷavum,*
> *śeñjaḍai śeṉṟu tiśai mukam alambavum;*
> *pāḍakam padaiyādu, śūḍakam tuḷaṅgādu*
> *mēkalai oliyādu, meṉmulai aśaiyādu,*
> *vār kuḻai āḍādu, maṇi-k-kuḻal aviḻādu,*
> *Umaiyavaḷ oru tiran āka, ōṅgiya*
> *Imaiyavaṉ āḍiya, Koṭṭi-c-cēdam*

Kāḷī (Durgā) making Śiva dance, as mentioned in *Śilappadikāram* (20:34-40) has already been referred to. This image of the dancer with the *jaṭa-maṇḍala* whisking in space and Umā watching or dancing anticipate some features of the *Ānanda tāṇḍava* iconography of later times, peculiar to the Tamil country. The same work (2:38-39) hints at the Chandraśēkhara aspect of Śiva as one

"who wore with grace the crescent moon while the gods stood adoring him".

> *Kuḻavi-t-tiṅgaḷ imaiyavar ētta*
> *aḻakoḍu muḍitta ....*
> .. .. ..
> *periyōṉ taruka-tiru nudal*

From thousands of hymns in the *Tēvāram* we get an idea of the iconography of some of the important forms or aspects of Siva such as Ardhanārī (3937) Umāmahēśvara (97), Ēkapāda (234), Ekapāda Trimūrti (1382), Gaṅgādhara (2567), Gaṅgā visarjana (4113), Kaṅkāḷa (6528), Kalyāṇasundara (7380), Gajāri (1988, 4472), Kāmadahana (4819), Kālāri (212), Kirāta (6585), Harihara (4804), Sadāśiva (3545), Chaṇḍēśānugraha (6413), Chandraśēkhara (1), Sōmāskanda (6498), Dakshiṇāmūrti (7894), Tripurāntaka (113), Pāśupata (6743), Bikshāṭana (12), Bhujaṅgatrāsa (2), Bhairava (2891), Ṛishabārūḍa (1), Lingōdbhava (138, 6175, 6984), Vishāpaharaṇa (2) and Jalandhara (4112).

Such rare forms, including some dancing ones, as Garuḍāntika (6780), Kūrmasamhāra (2), Sakala Śiva (3545), Chakradāna (4638), Chaṇḍatāṇḍava (4824), Sadānṛitta (4528), Śarabhamūrti (7275), Śārdūlahara (733), Simhaghna (8235), Dakshayajñahata (7191), Brahmaśiraḥ-khaṇḍa (1411), Raktabikshāprasādana (7183), and Varāhasamhāra (2) are also mentioned.

Many of the common ones are mostly found in the sculptures of the period between 600 and 1000 A.D. in the Pallava, Pāṇḍya, Muttaraiya, and early Chōḷa temples.

In the eighth verse of every one of his decads, Sambandar refers to the incident of Rāvaṇa trying to lift the *Kailāsa* on which Śiva and Umā were seated and to Śiva's pressing it down by his toe, causing Rāvaṇa's discomfiture. This story in sculpture occurs for the first time in the late Pallava structural temples dating after 730 A.D. *eg.* in the Muktēśvara, Mātaṅgēśvara and Piravātanēśvara in Kāñchī, and in the Tirupparaṅkuṉṟam Pāṇḍya cave temple (773 A.D.) to the west of its facade. Similar sculptures in Ellora, also belong to a period after 750 A.D. Such a sculpture is absent in the Pallava-Chōḷa transition or early Chōḷa times, and is again to be found as a rare instance in the Paḻaiyāṟai temple dating after 1100 A.D. This again seems to be indicative of the contemporaneity of the Nāyaṉmārs and the Kalittokai with this period 700-850 A.D.

Dakshinamurti

Perhaps the references to Śiva as the lord of the four *vēdas* and as one seated under the banyan tree in the *Ahanāṉūṟu* are the germs of the later concept of Dakshiṇāmūrti. Earlier sculptures of Śiva as Mahāyōgi, are known from elsewhere.

ñālam nāṟum nalaṁ keḻu nalliśai
nāṉ maṟai mudu nūl mukkaṭ-celvan
ālamuṟṟam kaviṉ peṟa-t-tai iya
poygai śūḻnda poḻil maṉai makalir

(*Aham* 181: 15-18).

But the earliest sculpture of Śiva as Dakshiṇāmūrti, perhaps another unique southern concept, is in the Kailāsanātha temple in Kāñchī (730 A.D.) where it occurs on the southern wall of the *vimānas* of the Rājasimhēśvara and Mahēndravarmēśvara and on the southern wall of the Olakkaṇṇēśvara in Māmallapuram, also built by Rājasimha (700-730 A.D.). Subsequently the sculpture occurs in the Muktēśvara, Airāvatēśvara, Iravātanēśvara, Piravātanēśvara and Tripurāntakēśvara in Kāñchī, on the southern side of the second storey of the Pāṇḍya monolith called Veṭṭuvāṉ Kōil in Kaḻugumalai, and on the south wall of the *vimāna* of the Vīraṭṭānēśvara at Tiruttaṇi, built in Pallava Aparājita's time (903 A.D.). It becomes a regular component of all Śiva temples thereafter, placed in its different forms in the niches of the various *talas* or storeys of the *vimāna*. Sambandar refers to Dakshiṇāmūrti, the *Guru* or teacher as follows:

nūl aḍainda kolkaiyāḻē nuṉṉaḍi kūḍutaṟku
māl aḍainda nālvar kēṭka nalkiya nallaṟattai
ālaḍainda nīḻal mēvi arumaṟai śoṉṉadu eṉṉē
śēlaḍainda taṇkaḻaṉi-c-Cēyñalūr mēyavaṉē

(*Tēvāram* 515; 1st *Tirumuṟai*, 48th decad, verse 1).

Sundarar has it as follows:—

kāḍu pottarai-k-kiṉṉarar uḻuvai kaḍikkum paṉṉakam
piḍi-p-paruñjīyam, kōḍiṉ mātavar kuḻuvuḍaṉ
kēṭpa kōla ālniḻar kīḻ aṟam pakara

(*Tēvāram*, 7894; 7th *Tirumuṟai*, 65th decad, verse 9).

Appar refers to him as the *Guru* himself in two places (5566, 6934). The Vaishṇavite version in the *Prabandham* is that Śiva's sitting under the banyan tree and preaching to the four disciples was by the blessings of Vishṇu.

These appear to be only an elaboration of the earlier ideas of the *Alamar śelvan* or *Āl keḻu Kaḍavuḷ* and of Śiva being the repository of the wisdom of the *Vēdas*, reflected amply in earlier literature. The conception of Śiva as the expounder of the truth of the *Vēdas*, seated under the banyan or pipal tree, with four disciples, and often a deer under him is strongly reminiscent of a similar and well known concept of the Buddha represented in the earlier sculptures, to which perhaps the Dakshiṇāmūrti concept may be traced. In the Orissan and Eastern Chalukyan (Biccavolu-East Godavari) temples (8th century) Lakuliśa occupies the place of Dakshiṇāmurti. Saṅkara too, who extolled this concept of Dakshiṇāmūrti, had four disciples. Significantly enough, the Dakshiṇāmūrti form, recognised as such, is found for the first time in the Chaḷukyan area, in the Saṅgamēśvara at Paṭṭadakkal, built between 700 and 730 A.D. in the time of Chāḷukya Vijayāditya with the help of architects from the south, and modelled after the Pallava structural temples of Rājasimha. The earlier Dakshiṇāmūrtis are of the *yōga* or *vyākhya* type (meditation and exposition) as in the Pallava examples cited and in the Pallava-Chōḷa transition period. The *Vīṇādhara* form often occurs as in the Mūvarkōil, Koḍumbāḷūr and is mentioned by Appar (5214) and Sambandar (2388). The Dakshiṇāmūrti from the Vīraṭṭānēśvara at Kaṇḍiyūr is seated in half profile in a very easy posture with both legs bent at the knees and crossed over, a rather peculiar and characteristic pose.[39] The *Jñāna* form is found as in Tiruvēṅgaivāśal, where he is again seated in the *utkuṭikāsana*, a pose suitable for meditation.[40] Another specimen of Jñāna Dakshiṇāmūrti is to be seen on the south wall of the sanctum of the Jambukēśvaram temple in Nārttāmalai[41] built in the year 1205 A.D. It is not also uncommon to find the different forms of Dakshiṇāmūrti on the southern side of the various *talas* of a storeyed *vimāna*. The concept of Dakshiṇāmūrti becomes more clear in the *Tiruvācakam* hymns of Māṇikkavācakar (270 and 287), *viz.*, the conception that Śiva sat under the *āl* tree and expounded the eternal truth to the four *munis* (Sanaka, Sanandana, Sanātana and Sanatkumāra) who desired to hear the same.

39. *Transactions of the Archaeological Society of South India*, 1955-56.
40. Gopinatha Rao, *Hindu Iconography* II, i, pl. LXXV, fig. 1.
41. *Manual of the Pudukottai State*, II, ii, p. 1078.

naṉṟāka nālvarkkum nāṉmaṟaiyiṉ uṭ poruḷai
aṉṟu āliṉ kīḻirundu, aṅgu, aṟam uraittāṉ
(*Tiruvācakam*, 12—*Tiruccāḻal*: 16, lines 1-2)

and

aṉṟu āla niḻal kīḻ arumaṟaikaḷ tāṉaruḷi
(*Tiruvācakam*, 12—*Tiruppūvalli*: 13, line 1)

It is to be noted here that many early temples of Śiva are named after the *ālam* tree, such a Ālaṅgāḍu, Tiruvālaṅgāḍu Tiruvālaṉtuṟai, Ālanguḍi, and Tiruvāḻīśvaram.

NATARAJA—ADAVALLAN

The dance of Śiva was an absorbing theme and is mentioned in the literature of the pre-*Tēvāram* and *Tēvāram* times including the *Tiruvācakam*. In fact the Tamils had concepts of particular types of dances for the different gods, as occasionally mentioned in the earlier works and more elaborately described in the *Silappadikāram* (6:38-64), *Koḍukoṭṭi* of Śiva, *Pāṇḍaraṅgam* of Bhārati, *Alliyattokuti* and *Mallāḍal* of Vishṇu *Tuḍi* and *Kuḍai* of Murugaṉ, *Kuḍakkūttu* of Kṛishṇa, *Pēḍi* of Kāmaṉ or Manmatha, *Marakkāl* of Durgā, *Pāvai* of Śeyyōḷ (Lakshmī) and the *Kaḍaiyam* of Indrāṇi.

The dances of Śiva and their sublimation into the Ānanda tāṇḍava of *Naṭēśa* or *Āḍavallāṉ*, the Lord of dance, is perhaps the most important contribution of the Tamil country in the realm of concepts, art and iconography.[41a] This climax, evidently, had not been reached in the time of the *Tēvāram* hymnists as will be clear from a close scrutiny of their references to Śiva's dance, particularly those referring to the poses or attributes suggesting iconography. Sambanda (576) mentions his dancing as *Puyaṅgar* (*Bhujaṅga trāsa*), and *Kāḷitaṉ-periya Kūttu* (124) or *Kālikatāṇḍava* with the fire in one hand. In another decad (2881) he mentions the *Kuñcita* pose of the leg—*Kaḷal vaḷar kāl kuñcittu āḍiṉāṉum*. His dancing to pacify Umā, who was jealous of his having received Gaṅgā on his head, to the recitation of *Sāmagāna*, is mentioned by Appar (4428), a theme elaborated in early sculpture, as for example in the Mūvarkoil, Koḍumbāḷūr and in Tiruvāḻīśvaram. In another decad (4528) he describes Śiva's dance as follows: "the anklets of the legs jingling, with the fire in the hand that was extended, the tresses sweeping the directions, the Lord danceth". The famous verse of Appar (4941) beginning '*Kuṉitta puruvamum*' and referring to his '*eḍutta poṟpādam*' (*Kuñcita*), is too well known to be recited. Śiva's dancing the *vaṭṭu* with the heads of Vishṇu and Brahmā is also mentioned by Appar (6885). It is Sundarar alone who gives in one *padikam* (8137) the attributes held in three of the four hands of Śiva, dancing in Siṟṟambalam, as *ḍamaru*, bowl of fire, and snake. Maṇikkavācakar's *Tiruvācakam*, repeats the same ideas.

41a. P. R. Srinivasan has dealt with this subject at some length in *Roop-Lekha*, Vol. XXVI and XXVII.

The sculptures of the period amply corroborate the hymnists, again indicating their mutual chronological relation. The earliest sculpture of dancing Śiva was discovered recently as a small panel on top of one of the facade pilasters of the rock-cut cave temple in Śīyamaṅgalam excavated by Mahēndravarman I (c. 630 A.D.). It is a four-armed *bhujaṅgatrāsa* form holding aloft a serpent over the head, with another serpent rearing up by the side, as in the early Chāḷukyan example in Bādāmi and later ones in that area. The pose of the legs almost resembles that of the Ānanda tāṇḍava form, which is rather rare in early sculpture, both in the Tamil and Chāḷukya areas. On the northern wall of the second *tala* of the Dharmarāja ratha is a sculpture of Śiva dancing before Taṇḍu, who is imitating him. In the Kailāsanātha temple, Kāñchī, the peculiar pose of *talasamsphōṭita*, which appears to have been a favourite of Rājasimha, is to be seen frequently. Two dancing forms of Śiva in the Pāṇḍya cave temples in Śevilippaṭṭi and Tirumalaipuram are of the four-armed *chatura* variety.

The only example of an eight-armed dancing Śiva is to be found in the Pāṇḍya cave temple III in Kuṉṟakkuḍi, where the pose of the legs is again *chatura*. Such forms are also to be found in the later Pallava structural temples in Kāñchī *eg.* the Mātaṅgēśvara. The concepts of the greatness of Śiva and Vishṇu alike in being eight-armed are indicated by the Ashṭabhujasvāmi temple with inscription recently excavated in Nāgārjunakoṇḍa, by the name Aṭṭabuyakaram for the Vishṇu temple of Kāñchī in the *Prabandham* hymns and the mention by Tirumaṅgai in his Tirunaraiyūr *padikam* of Kō-Ceṅgaṇāṉ, as the one who built many temples for *eṇḍōl-Īśar* or Śiva (*Prabandham* 1505—*Periya Tirumoḻi*, vi, 6, v. 8-Tirunaraiyūr) and also *Kalittokai* (i). The restriction in the Tamil country to eight, and more often four, hands of dancing Śiva, is in marked contrast to what one finds in the contemporary Chāḷukyan and Rāshṭrakūṭa examples with as many as sixteen or eighteen hands.

It is only in the eighth century A.D. that we find the figure of the recumbent or crouching *Muyalakan̲* of *gaṇa*-like form, called also *Apasmāra*, below the feet of the dancer. The example on the west of the facade of the Tirupparaṅkun̲ram cave temple (773 A.D.) of Śiva dancing in *chatura* over *Muyalakan̲* watched by Umā and other celestials, with Vishṇu and others playing on musical instruments, is the earliest of the kind in the Tamil country. An almost identical bronze, four-armed and dancing in *chatura* over recumbent *muyalakan* is known from a rare collection in the Bank of Italy assignable to the late 9th century A.D.[42] Similar forms of about the same date as Tirupparaṅkun̲ram, particularly with *Muyalakan̲*, occur in the Virūpāksha, where the pose is almost *ūrdhvajānu* and in Mallikārjuna where it is *chatura*, both temples of Chāḷukyan origin in Paṭṭadakkal, dating between 733-46 A.D. In Aihoḷē (temple No. 9) we get both the eight-armed *ūrdhvajānu* and the four-armed *chatura* with *Muyalakan̲* below. The much damaged dancing Śiva, over the facade of the Mogalrājapuram cave temple in Vijayawada of the same date and of Eastern Chāḷukya (Vēṅgīchāḷukya) origin[43] is a peculiar type of eight-armed *ūrdhvajānu* with *Apasmāra* below, and similar in this and other respects to the Nallūr Naṭarāja bronze of the later Pallava period, or the Pallava-Chōḷa transition. The Kūram Naṭarāja of the late Pallava period is a four-armed *ūrdhvajānu* dancing on *Muyalakan̲*. The fragmentary Pallava painting in Rājasimha's temple in Panamalai depicts the *ūrdhvatāṇḍava*. The earliest representation of the typical Naṭarāja in the *ānanda tāṇḍava* form is to be found among the small and exquisite panels over the *garbhagriha* of the Tiruvālīśvaram temple in the Tirunelvēli District (c. 900-950 A.D.), probably of Pāṇḍya origin. Subsequent Naṭarāja forms in the typical pose, in stone and bronze *eg.* the Tiruvālaṅgāḍu specimens are too well known to be detailed here.

While the Tiruvālīśvaram Naṭarāja sets the earlier limit for the *ānanda tāṇḍava* specimen with *Muyalakan̲*, it also seems to set the later limits for the Nāyan̲mārs. The mention of *Muyalakan̲* by

42. Raghavan, V. *Indian Antiquities in Europe; Transactions of the Archaeological Society of South India*, 1956, fig. 7.

43. This and other cave temples of Bezwada are obviously not of Vishṇukuṇḍin or Pallava origin, as supposed by Dubreuil (*The Pallavas*, pp. 33, 35) or Longhurst (*Pallava Architecture* I, pp. 5, 24-27) and following them others. Other architectural features apart,, the presence of *Muyalakan̲* below dancing Śiva is itself sufficiently indicative of their date.

the earliet of the *Tēvāram* saints, in four contexts (Appar-*Tēvāram* 5130, 6590, 7139 and 7185) is of importance in this connection as it would point to his date, in the above sculptural context as round about the commencement of the 8th century A.D. He speaks of Śiva's subjugation of the ferocious *Muyalakan̲*, by trampling over him and his subsequent protection under his feet. It is Māṇikkavācakar alone that refers to the *Ananda tāṇḍava* as *ānanda-k-kūttu* in his *Tiruvācakam* (588: *Tiruvārttai*, 43, verse 3) indicating again his later date. He also mentions in his *Tiruvācakam*, (3: *Kīrtti-t-tiru akaval*, line 138) that Śiva danced for the sake of Patañjali.

Siva Linga

It has already been stated that the sanctums in the early Pallava cave temples dating upto 730 A.D. in Toṇḍaimaṇḍalam and dedicated to Śiva were devoid of a '*liṅga*' of Pallava origin.[44] Even in the structural temples of Rājasimha with the Sōmāskanda relief on the hind wall of the sanctum, forming the primary object of worship, the installation of the '*liṅgas*' was an afterthought, as the *in situ* evidences would indicate. For example, in the Kailāsanātha at Kāñchī the *āvuḍaiyar* base is too large for the floor area of the sanctum, occupying, as it does, the entire space and requiring secondary adjustment of the floor stones, leaving no circumambulatory space. The top of the '*liṅga*', too, hides as in many other cases, the Sōmāskanda panel behind. In another case a vertical groove has been cut on the northern wall of the sanctum to help in slipping down into position of the part of the *āvuḍaiyār* with the projecting spout. Even these '*liṅgas*' in the Pallava structural temples, are of black stone, a material different from that of the construction, polished, and faceted, the facets being sixteen, reminiscent of the sixteen *kalas* of Sōma or Śiva. The cylindrical polished '*liṅgas*' of the same material that came in later lack often the *sutra* markings. In the southern group of cave temples of Pāṇḍya or Muttaraiyar origin, the '*liṅgas*' in the sanctum are cut *in situ* out of the same rock, as are sometimes the *nandis* in the *maṇḍapas* too, eg., Tirumayam and Tirumalāpuram. Except in three instances, *viz.*, Tirupparaṅkun̲ram, Pirāṉmalai, and Tirumalai (Rāmanāthapuram), there is no bas-relief on the hind wall of the

44. The only aberrant example is the cave temple at Mēlachēri of doubtful origin, that contains a rock-cut *liṅga*, as is to be found in the cave temples of the *Pāṇḍyas* and Muttaraiyars in the south, and dating after 700 A.D. See *Ancient India*, No. 14 (1958), p. 122.

sanctum in these temples and some others like the Umaiyāṇḍār cave temple in Tirupparaṅkuṉṟam are devoid of even the rock-cut *'liṅga'*. In the lower rock-cut cave temple at Tiruchirāpaḷḷi with two shrnines, one at either end of the *maṇḍapa*, the Vishṇu sanctum at the eastern end contains a bas-relief sculpture of Vishṇu, while the Śiva sanctum at the western end, has neither a Sōmāskanda panel nor a *liṅga*, either rock-cut or installed. This cave temple is non-Pallava, and is datable from other considerations to the middle of the 8th century A.D. In the Pāṇḍya cave temple at Tirupparaṅkuṉṟam excavated in 773 A.D., of almost similar design, the Vishṇu sanctum contains a Vishṇu relief and the Śiva sanctum a Sōmāskanda panel on its back wall and the *liṅga* in front is installed and not rock-cut. These mark therefore the transition from the worship of the iconic (Sōmāskanda) to the aniconic form (Śiva *liṅga*) round about 800 A.D., a reversal of what obtained earlier, and what has been persisting in the lower substrata of society throughout.

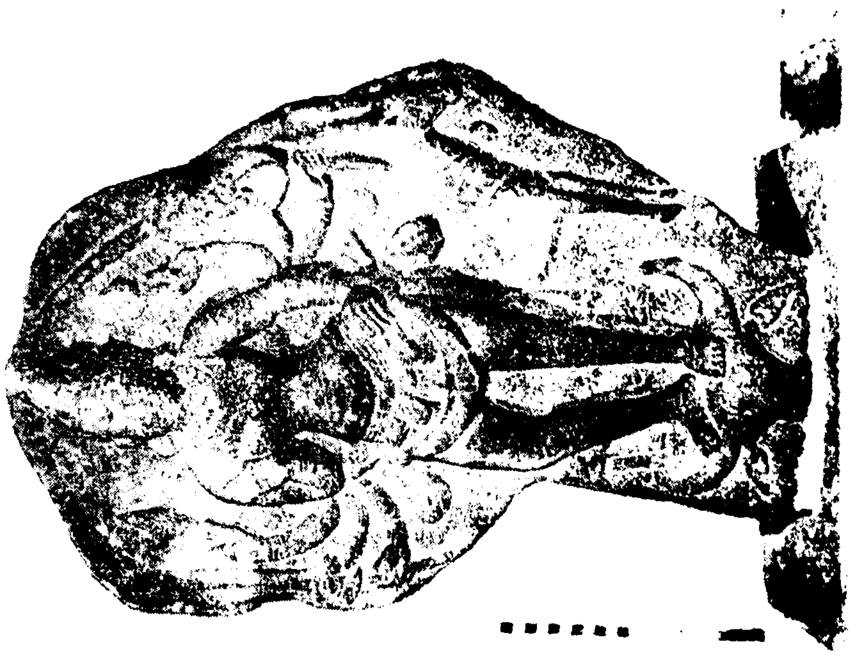
In the decads of Sambandar the ninth verse refers to the attempts of Vishṇu and Brahmā to find out the feet or origin and the crest or end of Śiva's form, who is, in all these contexts, a huge pillar of fire or light (*alaṟ piḷambu* or *talaṟ piḷambu*) transcending all space as *śōdi-liṅga* (6577)—*Jyōtir-liṅga*. Māṇikka-vācakar conveys the same idea in his *Tiruvācakam*, 459, 155, 175, 260, etc. This could be symbolised only by a tall pillar *tāṇu* (*sthāṇu*) see Appar (4627, 4636, 5243, 6577, 6584) and Sambandar (20, 138, 214, 675, and 1420 and *Taṉiyaṉ* 7695). In other places, the symbolic representation is called *Tāparam* (*sthāvara*) meaning both a shrine, and a fixed symbol or representation, a hold-fast (*paṟṟuk-koḍu*) synonymous with the *kandu* or *taṟi* or *kambam* described earlier, to which one's mind is to be tethered. It would, therefore, be more logical to assume that the early *'liṅgas'* of the temples in the Tamil country were only the reintroduction of the earlier *kandu* in a new form, totally devoid of phallic or fertility associations ascribed by some. Owing perhaps to the puritanic views and the strong *bhakti* movements of the *Nāyaṉmārs* of the period the concept of the *liṅga*, as well as its form, was purely a symbol of a cosmic pillar of fire and light. As such it was uninfluenced by the fertility and phallic ideas as elsewhere for which we have evidences from the recent excavations in Nāgārjunakoṇḍa of the Ikshvāku period, 3-5th centuries A.D. and the early Chāḷukya sculptures, which too reveal a continuity of such concepts in the numerous erotic sculptures and representations of Śiva with the

Krishna, Nappiṉṉai and Balarāma, Gōvardhana scene, Mahābalipuram. See page 147.

Harihara, Ādivarāha cave temple, Mahābalipuram. See page 148.

PLATE II

B. Durgā with lion mount, Panamalai. See page 158.



A. Durgā with deer mount (Tanjore), Madras Museum. See page 153.

PLATE III

Durgā, Varāha cave temple, Mahābalipuram. See page 159.

Durgā, Ādivarāha cave temple, Mahābalipuram. See page 159.

PLATE IV

Durgā, Draupadi ratha, Mahābalipuram. See page 158.

Durgā, Śingavaram. See page 159.

PLATE V

A. Ardhanāri (four-armed). Draupadī ratha, Mahābalipuram. See page 161.

B. Ardhanāri (seated) Kaṇḍiyur, See page 161.

C. Ardhanāri, Koḍumbāḷūr See page 161.

PLATE VI

Brahma (bearded). Kaṇḍiyūr. See page 179.

Brahma (without beard). Kaṇḍiyūr. See page 179.

PLATE VII

A

B

Subrahmaṇya's banners. (A) Peacock; (B) Cock, Lāḍankōvil, Ānamalai (Madurai). See page 174.

Dancing Śiva. Śiyamangalam. See page 189.

Subrahmanya. Tirumalai (Ramanāthapuram). See page 175.

Natēsa, Tiruvālīśvaram. See page 190.

Dancing Śiva. Cave temple. Tirupparankunram. See page 190.

PLATE X

ūrdhva mēḍhra, in one case double. That the contemporary revivalistic movements prevented such ideas spreading into the Tamil country will be clear, when one sees how this cult from the Chāḷukya country did travel in other directions eastward to Kaliṅga and north and westward to Central India and Gujarat, reaching its climax in the mediaeval period in Kōnārak and Khajuraho to name the most outstanding. Significantly enough such *mithuna* or *maithuna* sculptures or such representations of Śiva or the gods are singularly absent in the temples of the Tamil area till the Vijayanagara times, after which, when the entire south came under their rule, one sees stray examples here and there in the *gōpuras* or the pillars of the *maṇḍapas*, and more often in the wooden temple cars.

The other aniconic representation of Śiva was the ant-hill and he is referred to as *puṟṟiḍam koṇḍār*, the *prithvīliṅga*, as in Kāñchī, Tiruvārūr, and Tiruvoṟṟiyūr. The earliest references to the practice of representing Śiva by a mound of heaped-up earth are in the contexts where the three *Nāyaṉmārs* refer to Chaṇḍēśa and his story. Appar (4627 and 4636) says that Chaṇḍēśa made a form of his god, the *tāparam*, by heaping up sand under the *Ātti* tree (another species of *Ficus* to which *Āl* belongs). Sambandar (670) says that Chaṇḍēśa made the *iliṅgam* with sand, and Sundarar (7382, 7786) also states that the '*liṅga*' was made of sand or white sand (*Kōla veṇ maṇal*). This is again stressed by the question 'what if the earth itself becomes the *Kamba*—' (*vāṉam tuḷangil eṉ? maṉ Kambamākil eṉ?* — Appar, 5215)'. Even in a reference by Appar to *mānasika* or mental worship of Śiva (*Tēvāram*, 4897) the body is to be made the temple and the inner mind the *liṅga* or symbol of Śiva.

> *kāyamē kōyilāka, kaḍimaṉam aḍimaiyāka,*
> *vāymaiyē tūymaiyāka, maṉamaṇi iliṅgamāka,*
> *nēyamē neyyum pālā niṟaiya nīr amaiya*
> *āṭṭi-p-pūśaṉai īśaṉārkku-p-pōṟṟavi-k-kāṭṭiṉōmē*

The concept of *Tāparam* is also indicated by Sundarar (7893) in the context of his reference to the worship of Śiva by Agastya —"*Śandi mūṉṟilum tāparam niṟutti, śakaḷi śeydu iraiñjiya Agattiyar tamakku*". That Śiva appeared in a '*liṅga*' is echoed by Appar (6173). That a *liṅga purāṇa* was known in Appar's time is clear from his reference to Śiva (6173) as *Liṅga-purāṇattu-uḷḷāṉ*, of which there is another reference in the *Prabandhas*—

(Nammāḻvār 3334—*Tiruvāymoḻi, Nammāḻvār,* 4: 10, 5) as "*iliṅgattu-iṭṭa-purāṇārum*".

It is these contemporary concepts that underlie the two earliest representations of Śiva as emerging from the '*liṅga*', on the wall of the shrine of the Kailāsanātha, Kāñchī (730 A.D.) and on the wall of the rock-cut *maṇḍapa* of the Śiva cave temple in Tirumayam in the Pāṇḍya country, where it is a regular pillar extending from floor to ceiling, shown as if it would extend even beyond. This *Liṅga-purāṇa-dēvar,* as he is more correctly called in the Tamil descriptions, or Aṇṇāmalaiyār of later nomenclature, becomes a regular feature of the Śiva temples dating from 900-1000 A.D., occupying the *dēvakōshṭha* on the hind wall of the *vimāna* replacing the earlier Vishṇu, Harihara or Ardhanārī forms. In this indigenous concept of gods residing in pillars (*kandu*), or emerging out of them, that was prevalent from remoter times in the Tamil country, the emergence of Śiva, in the context of the *Liṅgapurāṇa* story, may suggest the Śaivite parallel to the story of Vishṇu emerging as Narasimha from the pillar. From what has been stated it would be clear, that the solitary example of the Guḍimallam *liṅga,* on the northern borders of the Tamil country, could not be as old as the 2nd-1st centuries B.C. as held by some, since for one thing, stone *liṅgas* did not exist in South India at that time. It could represent only the southward extension of the phallic and fertility cults noticed in the Andhra and Chāḷukya areas which ended on the borders of the Tamil country. This stray example is in an apsidal stone temple of about the eleventh century A.D. and there are no other associated antiquities to show such a very early date as the centuries B.C. Here the two-armed figure said to represent Śiva stands on the head of a crouching *gaṇa,* and this concept, occurs for the first time in the figure of a four-armed Śiva standing on the crouching *gaṇa* on the southern wall niche of the *vimāna* in the Virūpāksha temple at Paṭṭaḍakkal. The supposed resemblance of the Guḍimallam liṅga figure to a Sāñchi Yaksha can at best be only accidental and not conclusive of its date.

Reference has already been made to the supposed contemporaneity of Appar with Mahēndravarman. It is based on the version of Śēkkiḻār who wrote some four hundred years later. According to him, after his conversion from Jainism to Śaivism by Appar, the Pallava or Kāḍava king demolished a number of Jain institutions '*Paḷḷis* and *pāḷis*' in Pāṭalīputra (modern Cuddalore), and with the materials thus obtained, constructed the *Kuṇadara-vīccuram* in Tiruvadigai (*Periyapurāṇam—Tirunāvukkaraśu Nāyaṉār Purāṇm,* vv. 145-46). The name Guṇadhara has been equated with Guṇabhara, which was one of the titles of Mahēndravarman I, and some of the subsequent editions have even corrected the text accordingly. This rather arbitrary identification apart, based on what we know from architectural history of the South Indian temples, there could not have been a stone temple (*paḷḷi*) or stone-built monastery (*pāḷi*) in Pāṭaliīputra in the time of Mahēndra I, but only brick and timber structures. Only a stone structure, when dismantled, can yield material for re-building elsewhere and not a brick and timber structure, the dismantling of which will yield only useless debris. Further this does not appear to be supported by any internal evidence in the *Tēvāram* itself. Mahēdravarman's capital, Kāñchī was equally a home of the Buddhists and Jains, and he does not seem to have carried on this crusade in his own capital as a zealous Śaivite convert.

The Tiruchirāpaḷḷi cave-temple inscription of Mahēndravarman I, has also been quoted in support of a part of this story, *viz.,* his conversion to Śaivism from Jainism or his return to the proper faith from his 'hostile conduct', which is taken to be connoted by the words '*vipaksha vṛitti*' in the inscription. And on this tenuous thesis the cave temple with its painting in Śittaṉṉavāśal was also attributed to him. As such the Śittaṉṉavāśal cave temple has been stated to be the earliest cave temple that he excavated when he was a Jaina, even in the face of his own unambiguous statement which he has made in his Maṇḍagappaṭṭu cave temple inscription. The very wording of this inscription would show that it was composed in a mood of exultation resulting from a first achievement which was the creation of a cave temple in stone, a permanent and imperishable material, without dependence on the conventional and perishable materials. Had he excavated the Śittaṉṉavāśal cave temple earlier, the inscription must have been properly there and it would have been meaningless in Maṇḍagappaṭṭu. Further we have to remember that *Śittaṉṉavāśal* in the contemporary Pāṇḍya domain, was outside the Pallava borders, which in Mahēndra's time reached only up to the Kāvērī with Tiruchirāpaḷḷi on its south bank, and one cannot expect an innovator like Mahēndra to go out of his own domains and create a cave temple and thereafter make another in his own territory and exult over the latter as a unique achievement. It should be remembered in this connection that no inscription definitely attributable to Mahēndra or his successors is to be found south of Tiruchirāpaḷḷi till the time of Nandi II. In fact after Mahēndra's Tiruchirāpaḷḷi inscription and before Nandivarman II, no Pallava inscription has been found in the Chōḷa country which was in the hands of the Muttaraiyars and Pāṇḍyas. An architectural study of Mahēndra's cave temples would show that the Tiruchirāpaḷḷi example was one of the latest of the series of his cave temples, with Maṇḍagappaṭṭu starting the list.

Again in the context of our definite knowledge, that the earlier Pallava cave temple, namely those of Mahēndra and Māmalla, did not contain a *liṅga*, the usual interpretation given to the term in his Tiruchirāpaḷḷi inscription will require reconsideration. The inscription which is in two parts on either side of the Gaṅgādhara panel is numbered as two different inscriptions Nos. 33 and 34 by the Epigraphist, though they reveal a continuity of purport and, No. 34 will appear to be the earlier and 33 the later part of a single inscription. The words *liṅgēna liṅginī jñānam*' need not as Hultzsch and scholars following him have assumed, have a reference to the *liṅga* in a Śiva temple as the term is ordinarily understood. Taken with the equivalent '*Harasya tanu*' and '*tanu*' elsewhere in the inscription, it may connote a body or form, referring to the cave temple itself, which is amply made clear by the term '*śilāmayam tanu*'. Even Hultzsch, the editor of the inscription has been aware of the inadequacy of his translation, and the apparent contradiction.[45]

In this connection it,.may be noted that the name Guṇabhara occurs in the *Prabandham* (2474; *Iyaṟpā, Tiruvandādi* 4: 93) where Tirumaḷiśai Āḷvār addresses the Lord as 'Kōṉē-kuṇapparaṉē' giving him a royal attribute as 'Koṉ' and describing him as the repository of all virtues (*guṇas*). The date of this Āḷvar is believed to be later than Mahēndra, and as c. 850 A.D.[46] when no contemporary

45. *South Indian Inscriptions*, I, p. 29. In the note below he says that "the whole verse is a *double entendre* and it contains allusions to Indian logic (*tarka śāstra*) in which *liṅgin* means the subject of a proposition, *liṅga* the predicate, and *vipaksha* an instance on the opposite side'. This inscription has been noticed more fully in a forthcoming publication of mine, shortly to be published.

46. Vaiyapuri Pillai, *History of Tamil Language and Literature*, Madras 1956), pp. 120-21. If the tradition of his meeting the three Āḷvārs is any indication, his date may be in the later part of the 7th century A.D.

king had the title *gunabhara*. The term *Guṇadhara-Īśvaram* likewise must have been after one of Śiva's names—*Guṇadhara* the bearer of all *guṇas* (perhaps the *trigunas*), and need not necessarily reflect the name of any contemporary king. But two obviously Pallava constructions, *viz.*, Mahēndrappaḷḷi and Pallavanīccuram were noticed by the Nāyaṉmāṟs and sung by them because they were of the conventional type of brick and timber, and not the stone excavations or constructions as many others not noticed by them were.

Architectural and antiquarian history does not take the date of the founding of Māmallapuram earlier than Narasiṁhavarman Māmalla (630-660 A.D.). Bhūtattāḷvār who is reputed to be a native of Kaḍaṉmallai, another name of the same place given to it in the *prabandhams* of the later Āḷvārs, refers to the place as 'Māmallai'. This would clearly denote the origin of the place name as after Māmalla and no earlier name has been known for this place. The verse has a list of other sacred places also of which Tañjai is one (*Prabandham* 2251; *Iyaṟpa Tiruvandādi* 2: 70, Bhūtattāḷvār). The earliest reference to Tañjai is perhaps in the short inscription in the natural cavern on the Tiruchirāpaḷḷi rock reading '*Taṁcha haṟaka*' attributed to Mahēndravarman I and believed, perhaps rightly so, to refer to Tañjai, the modern Tanjore.[47] It rose to importance in the time of the Muttaraiyars who became powerful after Māmalla's time when the Pallavas lost hold of the Chōḷa country on the banks of the Kāvērī, and Vijayālaya Chōḷa founded his capital there, after defeating the Muttaraiyars. It is not mentioned in the earlier *Saṅgam* or post-*Saṅgam* classics. These would indicate a date in the second half of the 7th century A.D. for Bhūtattāḷvār.

That the Śaiva and Vaishṇava *bhakti* movements could not have started earlier than the middle of the seventh century A.D. seems to be indicated also by another independent evidence. Yuan Chwang who visited South India in 642 A.D. and wrote about Kāñchī, has not noticed the movement. It cannot be said that he was unaware of contemporary religious trends for he notices the worshippers of the Dēva (Śiva) in Maharashtra who 'covered themselves with ashes' and in speaking of South India he expresses regret that his own creed of Buddhism was on the wane and

47. *Annual Report, South Indian Epigraphy*, 1937-38, no. 135, aso part II, para 3.

repeatedly remarks that it had yielded to Digambara Jainism—mark, not to Śaivism as in Maharashtra. This would again place the *Tēvāram*, and the *Prabandham* likewise, after the first half of the seventh century A.D. which is borne out by the sculptural and iconographic evidences discussed above.

While only the most important aspects of concepts and god-heads could be taken up for study here, enough material remains for a similar study of the other forms of the major gods, and minor forms of god-heads like Indra, Dikpalas etc. A complete study of all the forms, will therefore be desirable in the present context of material evidence that has accumulated. The object of the present study would be achieved, if it has stimulated such an all-sided enquiry, from the literary, archaeological, architectural and sculptural stand-points.

Illustrations:

Plates I, II-B, III, IV V-A, VII, VIII, IX & X.
—*Courtesy Department of Archaeology, Government of India.*

Plates II-A, V-B & C, VI.
—*Courtesy Madras Government Museum, Madras.*

Public Enterprises in India

by

A. K. CHANDA

Comptroller & Auditor General of India

LECTURE I

CONCEPT OF PUBLIC ENTERPRISE

I have chosen 'Concept of Public Enterprise' as the subject of my address to you today. It is rather a controversial subject, but my purpose is not to add another faggot to the flame of controversy but to provoke constructive thinking on the future development of the public sector in India.

The growth and expansion of the public sector have been conditioned by several impulses and circumstances. The first and foremost is that certain types of economic activity cannot attract private investment capial. The all-round development of transport facilities, water and power resources, is basic to the economy of a nation. While private capital would be attracted to remunerative sectors in these fields on a selective basis, it could not be induced to participate in schemes whose aim would be to bring backward and depressed areas also within their scope. The responsibility for development devolves, therefore, on the State. The second reason is the political and social philosophy of public control over national resources. The outstanding example is the postwar nationalisation of basic utilities and industries in the United Kingdom and France. The third and the least important is the fortuitous nationalisation of certain important industrial units in economic distress on the Continent of Europe. But this list is neither comprehensive nor exhaustive.

Till the close of the 19th century, the function of the State was to govern. It hardly ever engaged itself in industrial or economic activities. The policy of laissez-faire dominated the economic scene and it was left largely to the initiative of entrepreneurs to regulate the pace of industrial expansion. The collectivism of the 20th century introduced, however, a new concept of State. The regulation of the economic life of the nation became one of its more important functions, but there was still a hesitation to go beyond regulatory measures and enter the field of industrial activity. Though it was recognized that the political strength of a nation depended on its industrial power and its war potential on its economic strength, the necessary measure of development was sought to be achieved mainly through encouragement and assistance to private enterprise. But when the two World Wars, more particularly the second, called for the total mobilisation of national resources, it was no longer possible to rely on private effort alone; it became necessary to establish large production units in the public sector. The emergency swept away the cobwebs of inhibition and established public enterprise on a firm foundation and over a wide field of industrial production. The ideologies of political parties, meanwhile, underwent a significant change. The socialistic conception took gradual shape and form. This had also a profound effect on the orientation of the functions of the State and led to the adoption of public enterprise as the appropriate instrument for economic growth.

Public enterprise has now become a permanent and important sector of national economic life in almost all countries. Even countries with great industrial strength, like U.S. and the U.K., have not remained untouched by this new development. By reason of their public ownership, operating largely in a monopolistic field, public enterprises depend on popular support for their growth and expansion. Increasingly large investment of national resources in their creation have also developed a continuing public interest in their management and control.

It might be useful here to analyse and discuss the growth, expansion and scope of the public sector in the industrially powerful countries.

In U.S., on the legality of government corporations being questioned at the turn of the century, the Supreme Court held that 'the government corporation was a constitutional means of executing all legitimate powers of the Federal Government'. This having cleared the decks and consequent upon the enactment of an act on June 28, 1902, the United States acquired all the stock and pro-

perty of the Panama Railroad Company. This was the first instance of complete government ownership of a business organisation in U.S. Hardly any appreciable use of the corporate form was, however, made by the government until the first World War. During the years 1916-18, several corporations had to be created for assistance in the prosecution of the war.

The basic reason for the use of such corporate form was stated in one of the judgements of the U.S. Supreme Court: 'Indeed, an important, if not the chief, reason for employing incorporated agencies was to enable them to employ commercial methods and to conduct their operations with a freedom supposed to be inconsistent with accountability to the Treasury under its established procedure of audit and control over the financial transactions of the United States.'

The Budget and Accounting Act of 1921 which introduced an independent audit for government expenditure did not mention government corporations as being subject to its provisions. Since 1921, however, the financing of government corporations increased tremendously. With the creation of the Reconstruction Finance Corporation in 1932, a new era in governmental administration and in the utilisation of corporate form in conducting governmental functions opened up. During the period of depression, in the thirties, a large number of such other corporations were created to abate its hardship. This was followed during Second World War by the creation of several other corporations.

The increase in the use of corporate form had a tremendous effect on national finances. The corporations employed thousands of workers and controlled billions of dollars of government money which they spent or invested in every type of activity including production, transportation, utility, loans and subsidies. It, therefore, became evident that some means must be found to coordinate the financial programmes of these corporations with that of the government as a whole, and place the corporations under accounting control.

On several occasions during 1935 and thereafter, Executive Orders were issued requesting certain government corporations to submit annual estimates of their administrative expenses to the Director of the Bureau of the Budget for his approval. The Executive control over the finances of the corporations was partially supplemented by a Congressional enactment in regard to administrative expenses in 1936.

The impact of the operations of government corporations upon the Federal Finances continued to be a matter of great importance. On February 24, 1945, Congress enacted legislation which brought all government corporations under a commercial type of audit by the Comptroller-General.

The importance attached to the subject of Congressional control over government corporations during this period would be evident from the following statement of the Comptroller General of the United States. The Comptroller General, appearing before the Senate Sub-Committee on Banking and Currency on April 20, 1945, remarked as follows:

'During this 25 years (1921-1946) Government Corporations have assumed a tremendously increased importance in their financial activities and their impact upon our daily lives. There is hardly a person in this country who has not felt, directly or indirectly, the effects of the farm and food programs of the Commodity Credit Corporation. Congress has entrusted billions of dollars of public money to such enterprises......

I am firmly of the opinion that if the present trend continues, that is, the creation of Government Corporations, or if it is not curbed, we will soon have a Government by Government Corporations. A large segment of the Government is today operating independently of Congressional control and free from accountability to the Executive. Indeed, this thing we call 'Government' has reached such gargantuan proportions that it is sprawled all over the lot. It has become greater than Congress, its creator, and at times it arrogantly snaps its fingers in the face of Congress.'

As a logical sequel to the trend of increasing legislative control over government corporations, Congress enacted the Government Corporation Control Act of 1945. The purpose of the Act was to bring government corporations and their transactions and operations under annual scrutiny by the Congress and provide current financial control thereof. The Act divided the corporations into two categories: wholly-owned government corporations and mixed ownership corporations. The provisions regulating wholly-owned corporations were naturally made more stringent than those relating to mixed ownership corporations. The former are required to prepare and submit annual budget programmes to the bureau of the Budget conforming in form and content to any directions the Bureau may issue. Their budgets are business-type but comprehensive and include the results of operation of the last financial year and estimates for current and ensuing fiscal years. The budget programmes, as modified, amended or revised by the President, are included in the budget estimates presented to the Congress for provision for funds or other financial resources. The Act made the Comptroller-General responsible for the audit of these corporations as also of the mixed ownership ones in accordance with the principles and procedure applicable to commercial corporate transactions and under such rules and regulations as may be prescribed by the Comptroller-General. In the case of mixed ownership corporations, approval of the budgets was dispensed with, but audit by Comptroller-General was retained. The Act reserved also to the Treasury the power to regulate financial and banking arrangements and also credit facilities of both types of enterprises.

The weight given to the theory of the autonomous corporation has never been justified by practice in the United States. It is largely fictional. Both the President's Committee on administrative management and the Hoover Commission have rejected the theory of the autonomous corporation. The President's Committee recommended that 'each government corporation should be placed in a supervisory agency in an appropriate department'. The Hoover Commission observed: 'The significant differences between business enterprises and other government activities do not relate to purpose but are to be found in the nature of the activity, operating practices, method of financing and internal organisation....Business enterprises do not and should not derive any special organisational status from the fact that they are business enterprises and not some other type of governmental activity.....Any attempt to deal with them as things apart can create serious organisational problems.'

In Canada, the first Crown company came to be established as early as 1852, in connection with the provision of harbour facilities. A number of Harbour Commissions was formed in the following years. They were coalesced in 1936 into the National Harbour Board. By 1939, Crown corporations had been established in many varying forms and for many purposes. They were used for the management of transport services such as railways, shipping and air services, the administration of harbour facilities and even the marketing of wheat. They were all constituted as bodies corporate by special Acts of Parliament which defined their purposes, powers and responsibilities, provided in varying measures for the appropriation of funds, prescribed accounting and audit ararngements and provided for the submission of financial statements through the Ministers to Parliament.

In the postwar period, as the work of government became more complex, greater reliance came to be placed on Crown corporations as the appropriate instrument for administering and managing many public services in which business enterprises and public accountability were suitably combined.

The use of the corporate device to harmonise public responsibility in the development of economic resources and the provision of public services with the pursuit of commercial and industrial objectives has led to the adoption of many different forms and formulae of management. The most usual practice has been to set up a corporation under the provisions of a special Act o Parliament which defines its purpose and sets forth its powers anc responsibilities.

In order to establish a more uniform system of financial and budgetery control and of accounting, auditing and reporting for Crown corporations generally, the Financial Administration Act was enacted in 1951 and brought into operation by a proclamation on October 1, 1952.

One of the more interesting features of the new legislation is the attempt that has been made to define and classify Crown corporations. The Act defines a Crown corporation as a corporation that is ultimately accountable, through a Minister, to Parliament for the conduct of its affairs and establishes three classes of corporation: departmental, agency and proprietory.

Departmental corporations: A departmental corporation is responsible for administrative, Supervisory or regulatory services of a governmental nature. These corporations perform essentially departmental functions and are indistinguishable from them. They are subject to day-to-day ministerial control, their financial requirements are met by demands for grants and appropriations made by the House and they are governed by general financial rules and regulations.

Agency corporations: An agency corporation is responsible for the management of trading or service operations on a quasi-

commercial basis or for the management of procurement, construction or disposal activities on behalf of the Crown. Like departmental corporations, they are subject to a considerable degree of ministerial control. But they function as agents of the Ministers within a framework of broad directives. When they supply goods and render services to departments, they obtain reimbursements from the departments. When they sell subsidised goods and services to the public, their deficits are met out of direct appropriations. Their accountability arises from the need for parliamentary appropriations.

Proprietory corporations: A proprietory corporation is responsible for the management of lending or financial operations, or for the management of commercial or industrial operations involving the production of or dealing in goods and the supplying of services to the public, and is ordinarily required to conduct its operations without parliamentary appropriations. These corporations are given a considerable degree of latitude and autonomy in management. The role of the Minister is comparable to that of equity shareholders in his right to appoint the Board and to receive periodic reports of performance. The right of intervention has been given to the Minister to proffer advice or directions should this necessity arise.

Both agency and proprietory corporations are subject to the provisions of the Crown Corporation Act. There is provision in the Act for the control and regulation of such matters as corporation budget and bank accounts, the turning over to the Receiver General of surplus money, limited loans for working capital purposes, the awarding of contracts and the establishment of reserves, the keeping and auditing of accounts, and the preparation of financial statements and reports and their submission to Parliament through the appropriate Minister. A further form of control is exercised by Parliament through the power to vote financial assistance.

Prior to 1952, Crown corporations did not pay corporate income taxes. However, the Income Tax Act was later amended, so that in respect of financial years commencing after January 1, 1952, proprietory Crown corporations pay such taxes on income earned in the same manner as any privately owned corporation. One desirable result of this amendment is that the financial statements of these Crown companies are now more comparable with those of private industry, with which in some instances they are in competition, and thus it is easier to assess the relative efficiency of their operations.

The Act provides that the capital budgets of both agency and proprietory corporations as approved by the Governor-General-in-Council shall be laid annually before Parliament. These capital budgets are not prepared in great detail. Only the major projects and major categories of expenditure are set out. They give estimates of capital expenditure, increases in working capital with an indication of the sources from which the funds required will be obtained. Agency corporations are required, in addition, to submit their operating budgets for the approval of the Ministers concerned and may be required to have their contractual commitments scrutinised and regulated in accordance with the directions of the government. There is no provision for their operating budgets being placed before the House.

It has been claimed by Professor J. E. Hodgetts that in Canada, 'As an administrative device the public corporation has happily not settled down to a fixed mould and for this reason it has that looseness of form which will permit the continuous adjustments which are necessary to meet the claims of responsible government.'

In the U.K., postwar nationalisation had a conscious and direct purpose. It was to give shape to the political and social ideology of the labour party. In pursuance of this philosophy, nationalisation sought to bring under public ownership, utilities, industries and social services, which had a direct impact on the every day life of the citizen. Its aim was to prevent continuance of economic and industrial power in private hands. The industries nationalised since the war in the U.K., are statutory monopolies of major industries. The government did not create new enterprises. It only took over going concerns, reorganised them, and gave them a national purpose. These corporations occupy a crucial position in Britain's economic life.

The term 'public corporation' as applicable in the U. K. is of a fairly recent origin, making its first appearance in 1926 in a report on broadcasting. Since then, and especially since post-war nationalisation, the term has come into fairly general use.

A public corporation is normally created by special statute or (exceptionally) by charter. It does not, like commercial company, come into existence automatically, on fulfilment of certain

conditions. It has no shares and no shareholders, either private or public. Its shareholder, in a symbolic sense, is the nation represented through government and parliament. The responsibility of the public corporation is to the government, represented by the competent Minister, and through the Minister to Parliament. The administration of the public corporaion is entirely in the hands of a Board which is appointed by the competent Minister, sometimes after and mostly without consultation with any special group or industry, but invariably not on a basis of representation of special interests. Neither the Board members nor any employees of a Board are civil servants.

Where a public corporation needs capital—those of an essentially administrative character do not—it is provided in the case of public corporations managing nationalised industries, through assets taken over from private ownership and capitalised through the issue of interest-bearing stock.

Such stock is either government stock or, in most cases, stock issued by the public corporation with a Treasury guarantee. The financial assets of public corporations which have not acquired the assets of formerly private industries (such as the Airways Corporations) consist of corporation stock with a Treasury guarantee, supplemented by the power of the Miniser to give certain Exchequer grants during the formative period.The industrial public corporations have furthermore the power to borrow money, with the consent of their supervising Minister and the Treasury, within limits fixed by the Acts. The public corporation has the legal status of a corporate body with independent legal personality. They are all supervised by independent accounting and auditing organisation as well as some form of public control. But the type of accounting and public control varies according to the type of public corporation. All public corporations have a dual nature; they are instruments of national policy but they are autonomous units, with legal independence and certain aspects of commercial undertakings. The degree of independence varies, however, according to the type and purpose of the public corporation.

With the return of the Conservative Party to power, the trend of nationalisation has been reversed and private enterprise has been re-established in some of the industries earlier nationalised. But the Conservative Party fo to-day is a progressive party. It is more socialistically oriented than the Labour Party in the twenties. It is now admitted that the Labour Party suffered its recent massive defeat at the polls due to its blind adherence to an inflexible policy of wide-scale nationalisation. But all this is not germane to my subject.

This resumé indicates that different impulses and ideologies have influenced the course and pace of nationalisation in the three industrially developed countries mentioned. It shows also that the corporate device has been generally adopted, internal adjustments have been made within its frame to take account of the nature of the programme of an enterprise, its operational and financial requirements and the impact of its activities on national economy. The form of management has not fortunately settled into a fixed mould, but has retained flexibility to respond to differing needs and the genius of the people. As a result, the form of management varies from country to country. Constitutional and historical factors have also introduced special organisational features which cannot be universally or even uniformly adopted. Even within a country, different forms run in parallel to regulate different types of economic activity. The recognizable forms are departmental management, including inter-departmental and inter-State Boards or Committees, public corporations, mixed ownership corporations, Joint Stock Companies and operating agencies.

Before the corporate device was adopted as suitable for public enterprises, it was usual to entrust them to departmental agencies. No distinction was then drawn between public enterprise and traditional government functions. In many coutries, rail transport and postal and telegraph services were, on nationalisation, entrusted to departments of govt. and continue to be so administered. While the rigidity of normal departmental control had been abated by endowing the department responsible, with authority appropriate to its responsibilities, it retains, nevertheless, all other attributes of a department. Its employees are civil servants, it is subject to budget, accounting and audit control applicable to other government activities, it is financed by annual appropriations and a major share of its revenues is paid into the Treasury, it is not taxed on its profits and it enjoys sovereign immunity of the State and cannot be sued without the consent of government. Despite these special provisions, this form of management does not always provide the flexibility essential to efficient and economic operation.

It has been generally recognised that controls which are applicable to departmental activities cannot be satisfactorily employed in public enterprises. Their operational and financial require-

ments are also incompatible with the normal government administrative and financial structure. They have to be given the form and authority needed to fulfil the very purpose for which they have been created. In the words of Herbert Morrison, 'When we come to a highly commercial enterprise which is very tricky—on which one has to think out a lot of day-to-day problems, to think quickly and chance one's arm, like transport and mining and other industries with which we have been dealing or with which we may deal—then we have to get a more subtle instrument, more adaptable, more capable of quick movement and less liable to be bound down by tradition and rules..... I am certain that if we run these public corporations—highly commercial, highly industrial, highly economic—on the basis of meticulous accountability to political channels, we are going to ruin the commercial enterprise and the adventurous spirit of these public corporations in their work'. It is on these considerations that public enterprises are being organised and operated on business lines with a comparable degree of elasticity of control and business efficiency as private enterprise. But autonomy, which is inherent in any form of public enterprise, does not mean an abdication of governmental responsibility and authority. Nor does it mean the abrogation of parliamentary control. The problem is to find a systematised and streamlined parliamentary control in which the esentials will remain and the irritants disappear, in which the undertakings will be free to function without undue let and hindrance; a freedom which will be scupulously honoured, so long as they function economically and efficiently.

It is on these weighty considerations that the corporate device has been widely adopted. A public corporation is created by special statute which defines its powers and privileges, also its relations to departments of government. Though it is wholly State-owned, it has a separate legal entity, and is exempt from regulatory and prohibitory statutes applicable to expenditure of public funds. It is not subject to normal budget, accounting and audit controls, and its employees are not necessarily civil servants. While, usually, clothed with the powers of government, it is not inhibited in the exercise of these powers by being made to conform to all the standards of government regulations and procedures.

Countries on the continent of Europe have tended to favour mixed ownership corporations. In U. S. also, a few such corporations are encountered. In such a corporation, the capital stock is owned by government and the public in varying proportions. The Boards represent participating financial interests in the ratio of participation. These corporations operate over a wider industrial field than elsewhere and it is difficult to distinguish them from private enterprises. Except where the State has a majority investment, their operation and financial arrangements conform to commercial usage. This blending of private ownership may create difficulties and there may even be conflict of purpose, but admittedly there are compensating advantages. I propose to discuss this more fully in dealing with the development of the public sector in India.

The United States has recently introduced a new technique for the administration of public enterprises by entering into an operating contract with some well established and organized private enterprise on payment of all costs and a fixed fee. While ownership and control of policy remain with the State, the contractor has freedom to operate the units as a subsidiary, applying the same standards as to his own business. This makes available to the State the management skill and 'know-how' of private industry. It endows the unit with maximum flexibility in management, but a possible drawback is that, in the absence of any incentive, the units may not be operated with economy and efficiency.

The Joint Stock Company, operating under a commercial code, is very widely used in many countries for enterprises either wholly or partly owned by government. Where it is wholly state-owned, the rights of the shareholders to decide on dividends, to appoint directors or auditors and other matters vest in the government. In such cases, it is difficult to draw a distinction between a public corporation and a company. It is a distinction of form rather than of substance. It is only suitable where an enterprise has been set up with a definite prospect and intention of disposing of all or part of it to private interest or to public, or where it is intended to restrict the requirements of accountability to the minimum.

I have hardly the time to discuss several important general issues, such as the structure, composition and functions of the top management and its relations with government, the financing of public enterprise, its employment policy and its commercial and economic aspects. But I shall endeavour briefly to discuss the controversial issue of accountability.

The methods by which accountability is secured vary from country to country, depending on the constitution and the nature of the enterprises established. But, generally speaking, whether they are created as public corporations by individual statutes or incorporated as companies under the provisions of Company Law, they are subject to ministerial control in matters of policy. There is provision for issue of directions to safeguard national interest and to ensure consistency in the policy of government. It is not possible to draw a clear line of distinction between public corporations and public companies. It is often a matter of pure form or accident and not one which should justify a different treatment.

In some countries like the U.K., audit by the statutory authority is excluded and there is also no legislative compulsion or even a convention to place the capital or operating budgets of the public enterprises before the House. In such cases, the medium of accountability comes to be limited to questions in Parliament, and these too on matters for which the Minister can be held to account as having responsibility. Questions relating to day-to-day management are not usually admitted for reply. Even if admitted, the Ministers may decline to reply on the ground that their responsibility is not attracted. Questions may also be tabled on the exercise of directional powers. But Ministers hardly ever use their statutory powers to influence the management of public enterprises. The mere existence of these powers gives them an opportunity to influence the Boards indirectly without taking recourse to the issue of formal directives. In the words of Ernest Davies, 'Whereas parliamentary control is more theoretical than actual, ministerial control is in practice more real than is publicly admitted......By refraining from exercising their directional powers over the Boards and preferring to influence them through consultation, they (the Ministers) escape responsibility.' This practice of evading responsibility has diminished public accountability to an extent not comtemplated. In India too, we have the classic example of the Life Insurance Corporation, where its investments were influenced without recourse to a formal directive.

A measure of control can also be exercised in such cases through debates on the published reports and accounts of public enterprises, which are placed on the table of the House. It is not a normal feature to debate these reports as a matter of course. A debate on a particular enterprise has to be specifically demanded. Further, the reports are not prepared in form and details suitable for a parliamentary discussion. Even if a debate takes place, it is usually desultory and uninformed and seldom ever on the basis of the reports presented.

A further control is possible through the examination by one or other standing committees of the House. But this examination is of doubtful utility. A U. N. publication on the organisation and administration of public enterprises in the industrial field stresses this point with reference to the U.K. by saying, 'Public enterprises, like the old departments, come under the jurisdiction of the committee on public accounts. This committee is gravely handicapped because it cannot utilise the Comptroller and Auditor General and his staff and has no other means to audit these activities. Its control has thus proved to be more potential than real.'

This analysis should establish that in certain countries, of the three conventional methods of securing accountability, only the medium through questions is generally available. But even this limited method cannot be used as fully as in the case of departmental activities, to elicit required information on the management and operation of an undertaking. It is only in such cases that doubts about fulfilment of accountability should arise. These lacunae could, of course, be largely removed by making suitable legislative provisions, as has been done in the North Americas.

In Canada, where Crown companies occupy a central place in the economy of the country, the arrangements which have been introduced have been considered adequate both for purposes of parliamentary control as well as for managerial autonomy. The same is the position in the U.S.A. The question of accountability has been treated as settled and resolved by statutes which bring into being individual corporations or regulate the formation of companies under an enabling legislation. In neither of thes countries, has there been any major controversy on the subject of accountability.

The question of accountability has risen in an acute form in the United Kingdom. The ideological differences between the two major poltical parties have only lent an edge to it. The U.K. did not also avail herself of the longer experience gained in these two countries and adopt the provisions made for securing accountability. The House was persuaded to impose a self-denying ordinance on itself. Parliamentary control was limited to the barest minimum. It made no provision for budget estimates of the enterprises and statements on their financial expectations being placed before the House for approval or even information, nor did it make any provision for the audit of the accounts of these enterprises by the Comptroller and Auditor General. Quite understandably, the issue of accountability became important in the U.K.

The need for accountability arises also on two other important considerations. One is the use that the government may make of a public enterprise to advance and further an executive policy, even though this may not fall within the scope and purpose of the enterprise or be in its financial interest. An example is the recent investment of the Life Insurance Corporation's funds to suport a falling market. The second is that though the enterprises are created out of public funds, their control and management have been entrusted to boards, whose members are largely disinterested in their efficient operation. While in the case of a private enterprise those in control have a significant financial stake in the concern and are also vitally interested in its financial operations, there is no such incentive in the case of State undertakings. These are managed by officials without any direct financial interest; their remunerations or service prospects are not affected in any way by the degree of efficiency and economy with which they are administered.

In the U.K., there does not seem to be any possibility of an agreement being reached between the two major political parties on the question of nationalisation and its usefulness in an expanding economy. Sir Winston Churchill, in a speech in 1950, summed up the attitude of the Conservative Party on the policy of nationalisation. He said: 'Nationalised industries are monopolies in the worst sense of the word. If a private business should become a monopoly and abuses its power, there is no difficulty in dealing with it; but government monopoly has behind it the whole strength of the government, and in a socialistic government, the Ministers themselves have a political interest in trying to bolster it up so as to justify their own policy and conduct'. As a result, the issue of accountability has become the lash for attacking the policy of nationalisation.

The breeze of controversy blew over the seven seas and rustled Indian opinion also. There have been discussions in the House, in the press and other learned societies, to consider how best the accountability of State enterprises can be enforced and secured.

We do not seem to have considered that the structures of the enterprises in the two countries and the control arrangements are entirely different. The question should not be agitated as an abstract principle; it has to be viewed and considered in its application in Indian conditions.

The measure of direct control which Indian Parliament exercises over economic activities is, naturally, regulated by the form of management adopted. In the case of departmental units, the control of Parliament is absolute, as their annual requirements of finance are presented to the House in the form of demands for grants. Similar control exists over the commodity Boards, as Parliament has to approve their annual budgets, as also, the appropriations of the cess collected. In the case of statutory corporations, the control of Parliament is well-defined and certain matters are, specifically, reserved for its consideration. In the case of state enterprises incorporated as companies, control is, however, of necessity, more indirect.

It is mainly in regard to the last category that a controversy has developed on the question of accountability, as an offshoot of the larger controversy in the U.K. It is necessary, therefore, to examine the manner in which accountability is now fulfilled.

In India, both nationalisation and the formation of public enterprises have been effected by an appropriation out of the Consolidated Fund by Parliament. This procedure affords the House an opportunity of discussing an investment and the form in which it is proposed to be made. The scrutiny of one of Parliament's watchdogs, the Estimates Committee, extends automatically to these enterprises by reason of parliamentary appropriation. Secondly, the medium of questions is available for eliciting information. Though in theory, questions are to be limited to matters within the Minister's responsibility, he has been accepting and answering questions which relate to matters wholly within the purview of the Boards of Directors. While it is undesirable that Ministers should, by answering such questions, accept responsibility outside the scope of powers reserved to them, nevertheless, by doing so, they are keeping the House better informed of the management of these enterprises than elsewhere. Thirdly, by the new Companies Act of 1956, all government companies as defined in the Act come under the overriding audit control of the Comptroller and Auditor General. Though the normal provision

is to entrust the audit to public auditors, they have to be appointed in consultation with him. They have to work under his general direction and in accordance with any instructions he chooses to issue. He also conducts a supplementary test audit. In other words, though the form may be different, the contents of such audit do not differ in substance from the audit of departmental expenditure. The annual reports of the enterprises, together with the financial statements and the observations of the Comptroller and Auditor General, are placed before the House and subsequently examined by the Public Accounts Committee with the assistance of the Comptroller and Auditor General.

This examination is detailed and comprehensive. The importance of audit by Comptroller and Auditor General and review by the Public Accounts Committee as ingredients of accountability should not be lightly dismissed. The processes in India are thus not so limited as in the U.K. and the requirements of public accountability of these enterprises are largely met. Difficulty arises only in respect of statutory corporations, where the audit of the Comptroller and Auditor General is excluded. The only medium available is reduced to questions, subject to limitations, arising out of the inherent autonomy of the corporations.

Apprehensions have been expressed that if this exclusion were to be extended and the State were to choose to erect corporations for the administration of activities now performed by departments, a situation may arise in which there will be a government by corporations. This will remove these corporations from the control of Parliament and the concept of accountability of the Executive to Parliament will be largely destroyed. I do not visualise such a situation to arise, but it is necessary to sound a note of warning.

An unfortunate trend however in the control of state undertakings has recently manifested itself, which makes it difficult for the government to ask Parliament to abate its examination of their administration. The purpose of adopting the company form of management was to give these enterprises flexibility in operation and to free them from the application of rules and regulations framed for the normal activities of the administration. This purpose has now come to be largely defeated since the control of the enterprises has been placed in the hands of permanent officials who are nominated to the Boards of Directors. A few non-officails have also been appointed to the boards, but they are in a minority;

they have, further, no financial stakes in the companies and are largely unconcerned with their efficient administration. The non-official directors drawn from trade and industry are not generally in sympathy with the policy of nationalisation; they concern themselves mainly with safeguarding the interests of private industries in the same fields of production. The official members representing various ministries look to their ministers for direction, and matters brought up before the board are often reserved for further consideration by the Government. In the present situation, a great deal has to be said for the criticism that the facade of autonomy has been erected mainly to defeat parliamentary control. If public enterprise is to fulfil its purpose, a self-denying ordinance should be accepted by the Ministers and the Boards should be so reconstituted as to give them real independence and the strength to resist unwarranted ministerial pressure. But all this is unlikely to eventuate and Parliament should consider a curb on the formation of companies at pleasure under the enabling legislation.

I have attempted in my talk today to present to you the image of public enterprise in a general way. I shall analyse tomorrow the trends in the development of the public sector in India, and suggest some adjustments in its philosophy.

LECTURE II

PUBLIC SECTOR IN INDIA

Before independence, India fulfilled primarily a complementary role in the economy of the British Empire. She still retained the essential characteristics of an agricultural economy, and continued to be a reservoir of raw materials which were exported in bulk to support manufacturing units located elsewhere. Her industrial development was therefore unco-ordinated and unimpressive. No planned efforts had been made to mobilize her enormous resources of raw materials, and natural advantages in establishing economic production, more particularly in the field of basic industries, had also come to be consistently disregarded. The partition of the counrty in 1947 brought a further imbalance in her industrial production by severing the traditional and established sources of raw material supply from her jute, cotton textiles, and a few other processing industries.

The British Government in India had pursued a policy of laissez-faire and had carried it to such extremes that it did not even consider it necessary for the State to provide such essential facilities as irrigation and transport, though in pre-British days, wherever stable government existed, the provision of these two essential amenities was considered a responsibility of the Ruler. It was only after a disastrous attempt to provide irrigation through private epterprise that this responsibility was assumed by he State. Similar attempts were made to develop rail transport through private enterprise, even to the extent of guaranteeing a fixed return on the capital invested, but this policy was also doomed to failure.

In 1905, a department of Commerce and Industry was constituted in the Government of India, and shortly thereafter, the decision was taken that government should organize pioneer concerns, as the first step towards industrial development. But this decision was negatived by the Secretary of State, and government rested content with imparting industrial instruction. The Industrial Commission (1916-18) made comprehensive proposals for both assistance to industries, as well as the creation of industrial enterprises under the direct aegies of government. But these recommendations were ignored and the development of State industries was confined to the field of defence production and to the provision of repair and maintenance facilities to the railways and the Post and Telegraph Department. But, nevertheless, the first act of nationalisation had to be undertaken in the early twenties by the acquisition of the East Indian and the North Western Railways. The process of acquiring the other railway systems, as their options fell due, was completed before independence. But they were not given the corporate form and were administered by a Railway Board. This Board had certain statutory functions, but was, nevertheless, a department of government. The State had also participated in the equity capital of the Reserve Bank which was charged with the responsibility of note issues and administering the currency reserves and made responsible for the indirect economic development of the country by extending credit facilities where necessary.

It was only during the second World War, when India became the base for mounting an offensive against Japan, that the necessity for rapid industrialisation was being increasingly felt. Due mainly to transport difficulties and the requirements in the other theatres of war, the necessary flow of material could not be maintained in the Indian theatre. This deficiency was sought to be met by the enlargement of Ordnance Factories and by assistance to industry. It was only towards the closing years of the war that planning was undertaken to mobilize the vast industrial potential of the country in a planned an regimented manner. A department of planning was constituted in 1944 with this purpose in view. A statement of industrial policy issued in 1945 envisaged that if adequate private capital was not forthcoming, basic industries of national importance, such as aircraft, automobiles, iron and steel, machine tools, chemicals and dyes, tractors etc., should be developed by the State. Planning was also undertaken for the Sindri Fertilizer Factory, the Chittaranjan Locomotive Works and the Indian Telephone Industries. But no significant progress had been made with the plans when India attained freedom in 1947.

The constitution of the National Government in 1947 brought, however, a new sense of urgency to this vital question, Although the unstable and abnormal conditions which followed in the wake of partition were an obstacle to its immediate consideration, the Government issued in April 1948 its Industrial Policy Resolution, defining clearly its objective in the field of industrial development. This was to promote a rapid rise in the standard of life of the

people, by exploiting the latent resources of the country, by increasing production and by offering opportunities to all for employment in the service of the community. It was recognized that for fulfilling these objectives careful planning and integrated effort over the whole field of national activity was essential, with the state progressively playing a more positive role in securing a continuous increase in production and its equitable distribution. At the same time the importance of individual and corporate initiative in supplementing industrial expansion was not overlooked. To ensure a more balanced development of her industrial potential, special treatment was to be accorded to industries vital to India's economic life, by reserving to the state the exclusive right to establish new units. But the part that private enterprise should play was, equally, recognized by allowing private units, already established, every freedom to develop for an initial period of ten years, during which all facilities for efficient working and reasonable expansion would be afforded to them. Even in this reserved field, if the national interests so demanded, the co-operation of private enterprise would be enlisted, but it would be subject to such control and regulation as might be necessary. The rest of the industrial field was left open to private enterprise, but it was made clear that where the progress of an industry was unsatisfactory, the state would intervene and participate in its development.

The basic principle of this policy resolution was that both state and private enterprises should fulfil a complementary role in the industrial development of the country. The picturesque phrase 'mixed economy' was also coined to express this intention. Generally speaking, state intervention was to be limited to projects the scope and magnitude of which placed them beyond the capacity of private enterprise to undertake, and also those whose future development could not, in the interests of national economy, be left wholly to be regulated by private enterprise, actuated by profit motive.

In 1956, an examination was undertaken to ascertain the extent to which this policy had succeeded in accelerating the industrialisation of the country. Many important changes and developments had taken place in the intervening period of eight years, which, by themselves, called for a review and adjustment of the earlier policy. The Constitution Act of India had been enacted in 1950, embodying the conception of a welfare state which had, subsequently, been clarified to imply the evolution of a socialistic pattern of society as the objective of the state's social and economic policy. Planning had proceeded on an organized basis through the agency of the Planning Commission, constituted in March, 1950, and the first five-year plan, with its primary objective of securing self-sufficiency in agricultural production, had also been completed. The second plan, which was then in the final stages of making, had shifted emphasis to the development of industries and transport facilities. Against this background, a new approach and a restatement of policy had become imperative.

While not disturbing the conception of the complementary roles of the public and private sectors, the Industrial Policy Resolution of 1956 gave a new orientation and meaning to the role of the state in India's industrial development. It had become essential to accelerate the rate of past economic growth, further to speed up industrialisation and, in particular, to develop heavy industries and machine-tool industries. The state had therefore to assume a predominant and direct responsibility for setting up new production units, developing transport facilities and undertaking state trading on an increasing scale. This involved a reclassification of industries, with reference to their importance in the national economy, and an enlargement of the scope of state enterprises. To dissipate the misgivings of the private sector, the resolution reaffirmed that it should continue to play its appropriate part in the planned national development and that it would be afforded opportunities to develop and expand the scope of its production. Further, it reassured the private sector that there was no intention of nationalising established industries even in the reserved field, and that the principle of state-ownership would not be applied in a restrictive manner to hinder the expansion of the existing privately-owned units.

But future development had, of necessity, to be fitted into the framework of the social and economic policy of the state. This implied a measure of control and regulation; but the purpose of this was not to hamper initiative but to secure a more balanced development and the mobilization of the limited resources of competent manpower and finance to serve the best interests of national economy. The revised policy was comprehensive in its scope, and assigned to cottage, village and small-scale industries their proper places in the plan of national development.

A controversy has been whipped up in India by those interested that public enterprise is being unnecessarily encouraged in the

field of private enterprise. A suspicion has even been created in the minds of the industrialists in U.S. and some of the western democracies that India is bent on a policy of nationalisation even without adequate compensation. It is perhaps not appreciated that the share of government in the generation of the total national product in India is, even now, of the order of 10 per cent of the total. As much as 90 per cent of the total income in the country is generated by the private sector. Even by comparison with avodedly free enterprise countries, such as the United States, the share of the government in total economic activity in India is amongst the lowest in the world. In U.S., the total government expenditure amounts to 20 per cent of the total gross national product. In the U.K. and France, the share of the state in total economic activities is even higher.

The ghost of arbitrary nationalisation of private industry in India has also been laid to rest by the statement made by the Prime Minister: "Let the State go on building up its plants and industries as far as its resources permit. Why should we fritter away our energy in pushing out somebody who is doing it in the private sector? There is no reason except that the private sector might build up monopoly, might be building economic power to come in the way of our growth. I can understand, 'prevent that, control that, plan for that'; but when there is such a vast field to cover it is foolish to take charge of the whole field when you are totally incapable of using that huge area yourself. Therefore, you must not only permit the private sector, but I say, encourage it in its own field."

It is perhaps unnecessary to stress that the recent large-scale expansion of private industry out of its own internal resources has been made possible by the tax-rebates and tax exemptions granted by the government. I should also mention that even in the reserved field of iron and steel, government have not only encouraged expansion in the privately owned units, but have gone to the extent of guaranteeing the loans which they have obtained from international banking sources. This should be proof enough, indeed if any proof is required, that the economic policy of government has been oriented to secure the maximum degree of industrialisation in co-operation with private industries. The purpose of government is to ensure that instead of duplication or overlaping, the two sectors operate and develop hand-in-hand in a closely integrated economy. But the extent to which this purpose is being fulfilled is a different matter.

The question of the form of management of industrial enterprises, established and financed wholly or predominantly by government, had also been carefully considered in 1950. It was acknowledged that, subject to the observance of certain general principles, the organisation of management suitable for each industrial undertaking must, necessarily, be determined with reference to its particular requirements. With the exception of the ordnance factories and the railway manufacturing and maintenance units, which were allowed to continue to form an integral part of the departments administering them, it was recognized that departmental management was, generally, unsuitable for other industrial establishments. The method of recruitment, the regulation of scales of pay, conditions of service and discipline of employees, the procedure for financial conrol, the system of accounting and the methods of procurement applicable to the normal activities of government could not obviously be adopted for the efficient administration of industrial enterprises. Moreover, when government undertook industrial activities side by side and, sometimes, in competition with private enterprise, competitive efficiency and mass production became important, if not essential. A reliable standard of comparison had to be established. This could be done only if the state units were managed on commercial lines, if they adopted commercial forms of accounting and if they were operated, financed and taxed in the same manner as enterprises in the private sector. The largest measure of financial and administrative autonomy commensurate with public accountability had therefore to be conferred on the agencies responsible for these undertakings. The contents of autonomy varied naturally from case to case, and certain specified matters had also to be reserved for the government's decision.

In accordance with the principles mentioned above, the form of management adopted for state enterprises varied from unit to unit, depending on their peculiar needs and requirements. Thus ordnance factories and railway production units, such as the Chittaranjan Locomotive Works and the Perambur Integral Coach Building Factory, are under departmental management. Statutory corporations have been set up for administering the multi-purpose River Valley Project in the Damodar Valley, Indian Airlines and the Air India International. Similarly, statutory boards have been formed for dealing with certain industries, like tea, coffee, rubber, coal etc. The rest of the state enterprises, such as

the steel, the machine tool and the fertilizer plants, have been incorporated as private limited companies.

The recent trend is that all manufacturing units in the public sector should be organised as companies. Till recently, the policy was for a department of government to be dircetly responsible for a production unit until such time as the unit was ready to go into production. The idea underlying this arrangement was that there were special advantages to be obtained by the project being directly administered in the initial stages, by a government department. Recently, however, this policy has been abandoned and new projects are being organized as companies from the beginning.

The organization of public enterprises as Joint Stock Companies came in for severe criticism as this form was largely fictional, and my predecessor went to the length of calling it a fraud on the Constitution. The objection was that government being the only shareholder, the provisions of Company Law had no significance and that the purpose behind this move was merely to remove these enterprises from the scope of conventional accountability. A recent provision in the Company Law has fully met this criticism. Provision has been made for the audit of these companies by the Comptroller and Auditor General and the examination of his report by the Committee on Public Accounts.

The structure of State enterprise, incorporated as a company, does not differ substantially from the structure of private enterprise. Certain functions and powers have, however, been reserved to the President. The power to appoint the Directors, including the Chairman and the Managing Director, flows logically from his status as the sole shareholder. The other provisions, more particularly, the right to issue directives, are inherent in the character of a public enterprise as an apparatus for the furtherance of the State's economic policy. This provision is necessary to safeguard national intersets and to ensure that the policy of government as a while is free from contradictions. It is not intended to influence or direct day to day administration or the execution of approved policy. Another important reservation is the authority conferred on the Comptroller and Auditor General to conduct a supplementary or test audit and to direct the auditors appointed at the ordinary annual meeting, the manner in which they should fulfil their responsibilities. This reservation again recognizes the constitutional position and functions of the Comptroller and Auditor General in securing the accountability of the executive in regard to the outgo of monies from the Consolidated Fund. The provision for the approval of President to capital expenditure exceeding Rs. 10 lakhs and to appointments to posts on maximum salary of Rs. 2000/- and over is, however, questionable. If incorrectly used, it may result in political interference and encroachments on the autonomy of the companies and may even affect their efficient operation and management. Though these reserve powers are important, they are not unreasonable and, if applied in the manner intended, they should not interfere with the autonomy of the companies.

The processes antecedent to the establishment of an enterprise are important in their impact on the economics of production. While the determination of the industries to be developed and expanded and the targets to be reached, whether in the public or the private sector, is now a function of the Planning Commission, it is for the entrepreneurs to decide upon the number and size of the production units, to select foreign associates where necessary, to settle the scope and terms of such asscoiation, and finally, to determine the location of the plant. These aspects of planning are as important as the arrangements for subsequent management and operation of the units established. It would be stating the obvious that any lacuna in planning, in the selection of associates and location, would adversely affect their stability, efficiency and competitive capacity.

In the public sector, these responsibilities of promoters devolve upon the Ministry in charge of the industry concerned. The knowledge, maturity and experience needed for the adequate fulfilment of these responsibilities are, unfortunately, not always in evidence. The dispersal of the industries in several Ministries of Government comes in the way of providing for specialisation, for pooling of experience and for co-ordination of policy. It is common knowledge that the shipbuilding industry suffered a setback because the foreign associates selected were unsuitable and also unequal to their task. It is also well known that the Konar Dam, an important component of the Damodar Valley Corporation, constructed at a cost of over Rs. 11 crores and "dedicated to the people of India" by the Prime Minister in faith and expectation has not generated one kilowatt of power or irrigated one acre of land; its utility as a flood control measure is also seriously in question. It is perhaps not so well known that the production of steel in the public sector has been delayed by over eighteen months as a result of indecision on the size of the Rourkela plant. The

obvious decision to have a capacity of a million tons was taken only after detailed plans and estimates had been prepared for a half-a-million ton unit at considerable cost and effort. A comprehensive assessment of the waste that has taken place of our limited resources as a result of faulty planning and execution would, I fear, present a staggering picture.

The selection of efficient and knowledgeable associates of proved integrity is not enough by itself; the determination of the degree of association, advice and assistance needed is equally important. Till 1955, the policy was to give the foreign associates, wherever they were needed, a financial stake in the industrial projects. It was considered that their participation in equity capital would secure economic construction, adherence to target dates of completion and also subsequently the economic operation of installed capacity. There was no provision for the payment of any interest on the share capital and the associates had, therefore, to rely on the profits made by the companies for a return on the capital they had invested. This continued association and interest provided for the efficient operation of the production units; it eased also the foreign exchange difficulties. Our wellknown deficiencies of competent technical personnel and of foreign exchange were thus substantially met by this policy. Additionally, it encouraged the now much sought after foreign participation in India's economic development. Obviously, a review of policy is urgently called for.

The selection of a suitable location for a particular industrial unit has necessarily to be determined on economic considerations, on an examination of the availability of resources of raw materials, transport and manpower locally, and its proximity to areas of consumption. But, not inoften, political and even parochial considerations intervene, and these weighty material considerations are brushed aside and the advice of technical and administrative agencies ignored. If industrial development is to proceed on sound and economic lines, the location of industries should be determined entirely on larger national interest, on the economics of production and distribution. There have been suggestions that the sites of the refineries in the eastern zone were decided upon on political, rather than economic considerations. There was also, earlier, an unseemly controversy over the location of the steel plants. Any yielding to political and provincial pressure is not only detrimental to our economic development on a competitive basis, but it weakens also the delicate fabric of our national unity.

It is necessary now to examine how far the basic requirements of autonomy and accountability have, in practice, been realised in our expanding field of State enterprises. Once planning and other preliminaries for establishing a production unit have been settled, it is usual to entrust the residual work for its completion and subsequent operation to a Board of Directors. Initially, it was the policy to constitute the Boards with a majority of senior officials, with a leavening of people with industrial and labour backgrounds. Neither elements had any financial or other interests in the efficiency and economy of operations. The contents of autonomy came thus to be regulated largely by the official bloc, not infrequently, acting in accordance with the wishes of their political chiefs. The accustomed methods of departmental work and regulations, the usual leisurely consideration of problems and their unimaginative treatment came to permeate and even dilute the autonomy which was considered essential in public enterprises. The finance representative arrogated to himself, often, the right of veto through the provision for the reservation of an item by the Chairman for the consideration of government, non-officials, some wedded to the philosophy of private enterprise, were disinclined to make their weight felt in management. Sometimes decisions were taken by a committee of official Directors, and contracts concluded before they were reported to the Board for ratification. The experience and wisdom of the non-officials came, thus, to be lost in the conduct of the affairs of the concern. To give an example mentioned in the Audit Report of 1958, depreciated machinery, originally costing Rs. 60 lakhs, was hired by Hindustan Steel for a period of less than three years for a sum of Rs. 75 lakhs, Rs. 50 lakhs as rental, Rs. 10 lakhs for spares and Rs. 15 lakhs for labour and supervision on repairs! A non-official Director protested when the agreement already concluded was brought before the Board for confirmation—a voice in wilderness. The same audit report mentioned also a case of an award of a contract (at the instance of government by reason of all capital works costing Rs. 10 lakhs requiring government approval) to a firm of contractors whose organisation, competence and technical knowledge to undertake a work of that magnitude were admittedly inadequate and whose integrity even was in question. Needless to say, assistance on a massive scale and at considerable cost had to be afforded to the contractor to get the work executed, even though these heroic measures failed to secure completion within the time stipulated. Recently, the

official Chairman has been replaced in some of these companies by a non-official, but the basic composition has been left undisturbed.

This brings me to a consideration of a weakness inherent in the organisation of State enterprises. While, in a private enterprise, those in control have a direct and continuing interest on its efficient and economic management for a return on the money they have invested, there is no such incentive in a public enterprise. Neither the official nor the non-official Directors have a financial or any other stake in the concern. This is not to suggest that there is any dereliction of duty on their part, but to state an obvious position.

In view of the increasing importance of public enterprises in our economy, the Congress Parliamentary Party appointed a sub-committee to study the questions of autonomy and accountability in all their aspects and make suitable recommendations. The report of the sub-committee makes, indeed strange reading. The central theme therein runs counter both to the concept of autonomy, as also of accountability. The sub-committee recommends that the Boards should, hereafter, be composed of permanent officials (mostly technical) drawn from the unit itself, with a Chairman named by the Minister with powers to over-ride the Board in all matters relating to management and control. A Board thus constituted will be no more than a committee of management. It will not have any of the attributes of autonomy, nor will it have the benefit of wider knowledge and experience now available in the consideration of its problems. The sub-committee also assigns to the Minister an unusual and unaccustomed role. In its own words, "apart from 'directives', the Minister may and will give guidance from experience and from a correct appreciation of the constitutional issues. It does not appear to us the correct procedure to lay down the specific issues on which such guidance may or may not be issued. The government alone should, in the exercise of their responsibility, make this decision and also as to what kind of directive or other procedures should be followed. It may range from a letter or talk of caution, a discussion, a reproval, mild or otherwise". This would enlarge the functions of the Minister beyond his legitimate field of policy-making to the field of executive administration. While strengthening his control, it would diminish parliamentary control to a corresponding extent. By sheltering behind a facade of autonomy, the Minister will escape accountability even though his control over these undertakings will be no less pervasive than his control over his Ministry for which he is fully accountable. In the ultimate analysis, the recommendations are a negation of the accepted and well-understood concepts of autonomy and accountability.

The execution of the industrial component of our Five Year Plan requires substantial financial resources both internal and external, and a corps of competent administrative and technical personnel. We are admittedly deficient in both.

The foreign exchange requirements of the Plan are sought to be met by obtaining loans from foreign governments and international financial organisations, and by procurement of capital equipment on deferred payment terms.

Negotiations for loans cover, usually, the annual shortfalls of foreign exchange and not of the entire plan period. In any case, the negotiations are not easy and are often hampered by conditions of purchases, etc., which are not always to our financial advantage. The loans already obtained and to be obtained are creating progressively an increasing repayment liability and in foreign currencies, which we may not be able to honour fully when the time comes. Procurement on deferred payment terms adds to the capital cost of a project and may even affect its economics of production.

The internal financial resources available for the plan are insufficient and have to be augmented by recourse to deficit financing, but this has to be kept within limits to curb and control the resultant inflationary trends. The deficiency in technical personnel for planning and management is, similarly, sought to be removed by appointing foreign technical consultants and advisory managerial personnel. The foreign associates have no financial stake in the projects and can hardly be expected to be greatly interested in their speedy and economic completion and their efficient operation.

The difficulties are great, but they could perhaps be appreciably lessened by suitably adjusting the capital structure, organisation and methods of operation of our State enterprises.

If the foreign associates are allowed to participate in the equity capital to the extent of say 25% (in the case of Rourkela it was 20% subject to a ceiling), it will go a long way in bridging our foreign exchange gap. The investments will not create any liability for payment of interest or for repayment of capital. There will arise only a repatriation liability of dividends when declared.

The Estimates Committee have recommended that 25% of the equity capital of State enterprises should also be made available for public subscription. This recommendation, if accepted, will look after a substantial part of the rupee requirements of the projects, reducing the volume of deficit financing. Joint participation of foreign interests and the public should be allowed and encouraged up to 49%, the State retaining controlling financial interest and also controlling representation on the Boards. This reconstruction of capital structure will give us the benefit of foreign investments, easing foreign exchange difficulties and continued technical association in management, ensuring greater efficiency. It would enlist, also, public investment and participation in management which would make it more broad based.

Recently, Mr. Krupp has offered assistance in the expansion of the Rourkela Steel Plant. American industrialists are also interested in participation. Despite their pronounced bias and preference for private enterprise, they recognize now that in the Indian context State participation in industrial expansion is inescapable. We have, however, to safeguard that our economy does not come to be dominated by foreign interests. Such a safeguard is inherent in the form of association suggested and is equally inherent in our non-aligned policy of economic co-operation.

A solution on these lines will solve, largely, the controversy on the accountability of these enterprises. As the enterprises would be of mixed ownership, the interests of government would be those of a shareholder (as is the position in Canada). While policy would continue to be determined by government, through its majority representation, the day-to-day management would be in the hands of a more expert board which would represent wider interests and should be more businesslike and efficiency-minded. It would be continuously interested in the financial results of management and operation, which is not the case now. It should also generate public confidence in the ability of the State enterprises to run efficiently and economically. This reorganisation of State enterprises is permissive in terms of the Industrial Policy Resolution, and its adoption, in the conditions prevailing, will be fully justified. Incidentally, it will bring the public and private sectors closer to each other and remove the present attitude of suspicion and hostility.

It would be advisable to set up a small board of about half-a-dozen full-time directors to take over planning functions now dispersed in various Ministries and to enforce uniformity in employment and commercial policies and in the pattern of association of foreign firms. Its individual member could-co-ordinate and control industrial units on a zonal or functional basis. Each enterprise would then need only a managing director or a general manager, releasing personnel for a better disposition and utilization. This board should be both the holding and the managing board of all the companies formed and grow gradually into the specialised agency for industrial development in the public sector, giving continuity both in policy and management. It should be in the same relations to the P.M., as the Chiefs of Staffs Committee is to him in war. This would ensure resolute direction and eliminate interference in its work. A possible objection to my suggestion may be that I am advocating a state managing agency. Despite the decision to abolish gradually this system, subjecting it meanwhile to undue restrictions, I see, personally, nothing wrong in creating such an organisation. Past industrial development has, in the main, been possible through the initiative and enterprise of well-run managing agents with imagination and integrity. To brush aside this mechanism as outmoded would be to ignore history and might even retard our economic growth. If a few such agencies have misbehaved, it is a question of taking appropriate action rather than condemning the whole system and plan for its extinction.

To remove delays which inevitably arise as a result of the foreign exchange, import and other controls, it should be provided that once a project has been approved by the Planning Commission and the necessary allocation of resources has been made by Parliament, the formal sanction to the project should carry with it, automatically, necessary releases of foreign exchange, the issue of import licences and allocation of controlled commodities. These time-consuming processes not only delay execution, but also add to the capital cost. There should also be a decentralisation of authority and functions to foster the growth of initiative and responsibility at all executive levels.

This reorientation of policy should bring greater realism in planning, competence and wider interest in management, and should, lastly, give the public a feeling of partnership and confidence in the ability of the State enterprises to make a significant contribution towards building a new India, industrially strong and economically viable.

Book Reviews

Chetana's Catalogue: Published by Chetana Ltd., 34, Rampart Row, Bombay, Price Rs. 3/-, pp. 332.

For the first time an attempt to bring to the attention of the world of book-lovers available literature on matters religious, cultural and philosophical in one simple handy volume has been made by Chetana Ltd., Bombay. Books on (1) classical Hinduism comprising the Vedas and the Vedic studies, Prasthānatraya, Itihāsas, Purāṇas, Dharma Śāstras, six systems of Indian philosophy, and general treatises on Indian philosophy; (2) Post-classical cults comprising the Āgamas, Lives of saints and their teachings, modern teachers and schools, (3) Non-vedic Religions like Jainism, Buddhism, Sikhism, Zoroastrianism and Islam, and (4) Miscellaneous, comprising Indological studies, Hindu Astrology and Astronomy, Gandhiana and general books on philosophy and religion.

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Civilization or Chaos: Irene Conybeare, published by Chetana Ltd., Bombay—Second Edition, 1959, p. 247, Price Rs. 10.50.

Miss I. H. Conybeare studies the maladies infesting the present day world and asks "Quo Vadis"?

The trouble with our world is not so much over-mechanisation and artificiality as the shocking phenomenon of intellectual equipment outstripping moral and spiritual development. This lag must have to be made up and the compensation should come from the spiritual depths. This, no human agency will be able to supply. Divine intervention, the Christ—or Buddhic consciousness could alone save humanity from slipping into the precipitous crisis of wholesale degeneracy and ultimate destruction. In fact, Miss Conybeare believes that the pitch and intensity of the degeneracy of man's morals and corruption of his spiritual core will dangerously increase and the civilization in its present form will collapse, yielding place to a new humanity, where the head and the heart would have been synthesized, where facts would have found their roots in values, science and mysticism would have been unified, East and West would have met. (p. xxvi).

Lord Krishna has said that he would appear from age to age whenever there is decline of virtue and resurgence of evil for the reestablishment of justice and virtue. The rot that has set in our civilization will require a Divine Lord to come and cleanse it. The perfect Masters, who are expressions of God, will act when man sinks on his knees smitten by penitance for his power-intoxicated pride of intellectual possessions.

Miss Irene Conybeare, with the above theme as the backdrop, discusses in vivid detail the influence and significance of Avatārs, like Jesus Christ, Mohammed and Helal, Buddha and Krishna, Meher Baba, Lao-Tse and Confucius. These are the 'Living Dead' (Maj-Zoob-e-Kamil as Sufis would call them) free from all illusions of duality yet moving about like other lesser men, *Jivan Muktas* of the Hindu religion. These liberated souls in embodiment supply the spiritual impulse to humanity.

The author believes that the perfect Masters of the past such as Zoroaster, Rama, Krishna, Buddha and Mohammed are as much *avatārs* as Lord Jesus. Fixed dogmas with regard to the meaning of life in religions are deprecated for the reason that the whence and whither must remain for ever unknown. The mystery of life is not a problem to be solved, but a reality to be experienced. The human mind so long as it dwells in illusions of the world cannot see the truth (p. 20). For truth we must turn to men of vision, the masters and *muktas*.

Miss Conybeare recognizes Master Meher Baba as an *Avatār* of this epoch. She shows in her study a keen evaluation of the Christian Theology and Higher Criticism and the faiths of the East.

This is a book, couched in forcible style, bound to stir one's thought and heart.

Outlines of Vedanta. R. Krishnaswamy Iyer. Publishers: Chetana Ltd., Bombay, pp. 163, Price (Indian Edition) Rs. 4.50.

This is from the pen of Sri R. Krishnaswamy Iyer who has already given us *Dialogues with the Guru, The Call of the Jagadguru, Sparks from a Divine Anvil, Thoughts from the Gita* and *Thoughts from the Eternal Law*. The present volume is the revised and enlarged edition of his *Thoughts from the Vedanta* with a change in the title.

The place of reasoning, sensory experience and authority in the determination of truth and right conduct is investigated by the author. Reason is found wanting. Being inferential in character, reason has its roots in direct sensory experience and this latter source of knowledge is by no means infallible. Where doubt is hard to dispel, authority compelling faith and infallible because of the acknowledgedly pure source should be our guide. The utterances and insights of the Āgamas, the Āptas and the Ācāryas constitute the 'word' a faith in which is indispensable for the realization of truth and goodness. The Śāstras prescribe the path of conduct and by following this prescription mind and body get purified and, as a result of this even sensory perceptions and insights become increasingly clear and certain. Refined powers of reasoning and accuracy of insight result from purity of mind. And it is the faith in the 'word' that governs the knowledge of the goal, the means of attaining it, the desire for such an attainment and the practical activity towards it (pp. 9-29).

The author discusses the 'epithets' of God like omnipotence and omnipresence and tries to show that they are meaningful only in a system like Advaita though other philosophies and religions may use them. For, these epithets presuppose the 'absolute identity of God and the Universe' (p. 49).

Realization of the absolute oneness of the individual and Brahman is possible by an analysis of the essence of things and of the perceiving ego, by an enlargement of conception so as to penetrate into the layers of existence subjectively and objectively, and by love and service.

Self-enquiry in the form of "Who am I?" is the method *par excellence* to grasp the oneness of the non-dual self. This question "Who am I?", enlarged would read: "Who, among so many things that appear to be the 'I', am I?" This inquiry persistently pursued will gradually lead to realization (1) of the distinction between '*person*' and '*thing*', (2) of the identity between '*thing*' and the Supreme Entity, (3) of the identity between '*person*' and the Supreme Entity and (4) of the absolute truth that the Supreme Truth alone is real, and not '*person*' or '*thing*' as such (p. 88).

The author discusses the problems of creation and would endorse Gauḍapāda's declaration that non-origination is the truth and one cannot intelligibly speak of creation (p. 122-127).

The book, written in clear style, not encumbered with too many technical details and phraseology with a view to make the principles of Vedānta readily understandable to all is full of homely examples and throbs with the force of faith and conviction.

Chetana Ltd., deserves our thanks for sponsoring this publication. The volume is neatly bound and printing is well-executed.

Stay with God: Francis Brabazon, Garuda Books, (P.O. Box 6. Woombye, (Queensland), Australia, pp. 166, price Rs. 7/-.

Stay with God is a lyric work by Francis Brabazon, the Australian poet and playwright. The work is a 'statement in Illusion on Reality' and the statement is fivefold: (1) The occurrence of Reality in illusion, which is treated of in Book I and is synonymous with the biography of Meher Baba, one of the Perfect Masters or Avatārs who is the same as was called "Zarathustra gleaming bright and pure intelligence, Krishna, glorious player of heart-music, Rama of love's bow and streaming arrows, Buddha of immaculate compassion, Isa, perfect divine swordsman, Mohammed, Perfect Man living with men." (p. 54).

(2) Illusion sings to Reality in Book II where the little soul of man pines for reality and surrenders to the nameless peace. "Cease, cease—'Swallow thy Breath Every moment'.

(3) Book III is an exposition of Meher Baba's "*God Speaks*". Reality asked itself the question "Who am I?" and experiencing contrariety objectivized itself into the finite worlds. Creation was there with roots above and fruit and foliage below. But reality built no houses, "only dreamed a dream". "The house (so carefully built) crumbling bit by bit, before the same fire which baked its bricks, to dust under His glorious feet, to sing his praise or silently adore".

(4) The soul transcends its smallness, by "unlearning its learning, unhoping its hopes"; because Self is not any of the conditions it imagines, neither somebody nor nobody. Beneath the fret and restriction is the restlessness to reach the Self.

(5) Book V tells us that any culture worth its name must rest on the acceptance of the God-Man and must model itself on the Divine Beauty of God-Man or Avatār. God-Men in society are Beauty incarnate, the picture of the Art of Life. When there are no God-Men, there is drought, "the science of Self dumped in favour of star measurements and behaviour of atoms, the singing of Avatār's deeds replaced by soul's sprawl hugged in tightness to itself". Art is dead if it had not remained living in the hearts of God's saints. When art is vulgarised, conceptual verities are forgotten. The real art of men is to model their flesh upon the pattern of His perfect Manhood, dreaming His loveliness and truth, and delineating in work and works the dreamed Image of His Reality.

'Stay with God', says the author, "In whatever shape He shapes you and work your works within the boundaries of that shape" (p. 154).

The book is really inspiring and sounds a spiritual call. The binding and printing have been very neatly executed. Valuable explanatory notes are appended at the end.

P. K. Sundaram

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