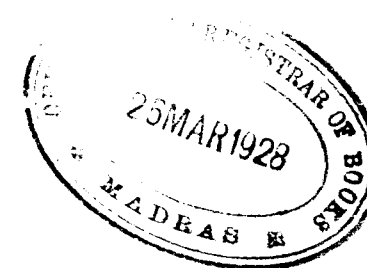


1833

THE : :
MADRAS : :
GEOGRAPHICAL :
ASSOCIATION :



VOL. 2. ISSUE No. 3

PUBLISHED BY
THE M. G. ASSOCIATION.
GOPALAPURAM.
CATHEDRAL POST :: MADRAS.
Price Rs. 2/-

THE MADRAS GEOGRAPHICAL ASSOCIATION

RULES.

1. The name of the Association shall be 'The Madras Geographical Association.'

Objects.

2. The objects of the Association shall be:—

- (A) To promote geographical knowledge ;
- (B) To secure for geography its proper place in the High School, the University and its constituent and affiliated colleges ;
- (C) To help to improve the methods of teaching Geography ;
- (D) To work for a School of Geography being started ;
- (E) To promote studies about South India from various standpoints.

3. These objects shall be secured by:—

- (A) Holding meetings and conferences, and publishing periodicals and occasional bulletins ;
- (B) Organizing geographical exhibitions and excursions ;
- (C) Helping in the preparation of geography books in the languages current in the Presidency ;
- (D) Forming a central library of geographical literature; and collecting maps, charts, plans, models, slides and instruments ;
- (E) Providing for circulation to members, of books, periodicals, and other collections ;
- (F) And by such other ways as are deemed necessary to effectuate the objects of the Association.

Membership.

4. The membership of the Association shall be open to all those who are interested in the promotion of geographical knowledge or in the teaching of geography.

5. There shall be two classes of members, honorary and ordinary.

6. Honorary members are those who shall be so elected by the council by the majority thereof present at its meeting. They shall be exempt from liability to pay subscription, and shall have all the privileges of ordinary members, except voting.

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— THE JOURNAL OF —

The Madras Geographical Association.

Vol. II.

October 1927.

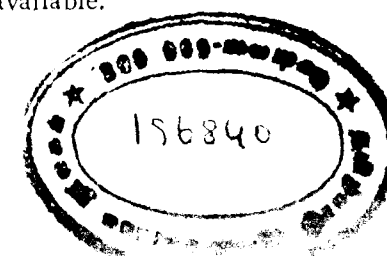
No. 3.

Stages in the Growth of the City of Madras.

I. Introduction.

It is intended in this paper to trace the history of the City of Madras in its different stages of growth from the beginnings of the native town, through its subsequent expansion and the absorption of neighbouring suburbs. Madras lacks in records of its early topography. (1). The probable extent of the land originally granted to the English settlers has to be deduced from the "village boundaries" of the map of 1733 extending from Ennore in the North to Triplicane in the South which Mr. Talboys Wheeler had before him when writing in 1861—6 his interesting series of sketches. The original of this map has, however, been lost. Fryer in his *New Account of East India and Persia* (1698) gives a conventional and inaccurate plan of Fort St. George dating from about 1673. A large scale map of the Fort and Town of Madras, surveyed and drawn by order of Governor Thomas Pitt, an engraved copy of which has been found in the Bodleian Library, has been very largely made use of by Colonel H. D. Love in his reconstruction of Madras as it appeared in the last years of the 17th and the 1st decade of the 18th centuries. Other plans of the Fort as it stood in the time of the Carnatic Wars and in later times have also been made available to the student.

The tracing of the expansion of the Factory and Town during the first years of the growth of the settlement is very difficult, owing to the lack of official documents and records at the Presidency which go back only to 1678, and the Consultations are but sparsely preserved between 1670, the date of the earliest document, and 1678 the year from which a continuous series is available.



II. The Earliest Settlement.

When Francis Day got the first grant (2) for Madras from Damarla Venkatadri (or Venkatapati) who was the Governor of all the coast-country from Pulicat to San Thome under the Raja of Chandragiri, the name of Chennapatnam was given to the settlement at the desire of the Naik after his father Chennappa. Later on the English factor Greenhill visited Raja Sri Ranga Raya in 1645 either at Vellore or Chandragiri and obtained a *cowle* (3) securing some new privileges in addition to what had already been got under the earlier grant, viz., the right to administer justice and an additional piece of ground known as the Narimedu (Jackal Ground) which was probably the northern bank of the Elambore (North) River, near the present General Hospital, and was known as Hoghill.

This last grant makes a difference between the village of Madraspatnam and the new town rapidly growing up round the Fort which is called "Zera Ranga Rayapatnam, my town." Other records distinguish the place called Madraspatnam from the Fort and Town of Chennapatnam. It may be inferred therefore that Chennapatnam or (Srirangarayapatnam) was the name given to the new town of the English; while "Madraspatnam is the separate, though possibly contiguous old town." The name Srirangarayapatnam gave way to Chennapatnam which has come to be applied to the whole city. The village called Madraspatnam existed prior to the English settlement of 1639—40 and it was situated to the north of modern Fort St. George, i.e., the site of Chennapatnam. (4) The space intervening between the two sites was rapidly built over, so that the two towns became one continuous town. And "a single designation being required for the united towns, the English preferred Madraspatnam, with which they had from the first been familiar, while the Indians elected to adopt Chinapatnam." (5) The official centre of the settlement came to be called Fort St. George.

The name of Sri Rangarayapatnam ceased to be used in a very short time, though it was intended by the Raya as a special mark of favour to the English settlers. The fact that the family of Damarla Venkatapathi, descendants of Chennappa, were in disgrace under Sri Rangaraya, may have prompted the latter to give a different name to the settlement. There is a tradition (of course to be rejec-

ted) that the purpose of the Raya was expressly "defeated by the local Naik who managed to get it called after his own father, Chennappa." This could not have been the case since Sri Rangaraya succeeded to the throne only two years after the establishment of the settlement which was called from the very beginning Chennapatnam. According to Mr. Foster, this legend seems to have been originated by Walter Hamilton [*Gazetteer of Hindostan* (1820) Vol. II, p. 413] who may possibly have seen a copy of the grant of Sri Rangaraya among the official records and conceived this explanation of the "double nomenclature" (6).

It may be, after all, that a hamlet of the name of Chennai was existing even before Day pitched upon the site; and that the Naik of the district, son of one Chennappa would seek to connect this place-name with his father's name.

III. Old and Black New Towns.

The Temple of Madras marked in Thomas Pitt's map of 1710 as the "Great Pagoda in Black Town" (7) was built on the present site of the Madras High Court grounds. It was demolished owing to military exigencies in 1757; and an equal area in Peddanaickenpetta was assigned whereon were built the twin temples of Chennai Kesava Perumal and Chennai Mallikeswarar, together known as the Town Temple. Fryer gives an account of the Great Pagoda as it stood in the Old Black Town; and we have evidence that in 1646, one Naga Pattan who came along with the English from Armagon to Madras and was the Company's gun powder maker, made an endowment to the Chennai Kesava Perumal Temple; and another endowment to the same temple was made two years later by Beri Thirumanna who was employed as merchant or broker and who is referred to, in a record of 1662 as "Timane the Company's ancient Broker." It is claimed that Beri Thimmanna caused two Pagodas to be built, just as there were twin pagodas in the later Town Temple (8).

The old pagoda was demolished along with the houses on the north front of the Fort and its bricks used up in the work of strengthening the Fort itself. Compensation was of course given and a new site offered in China Bazar of 24,000 square feet in 1766,

Manali Muthukrishna Mudali who was Governor Pigot's *Dubash* about 1760 is said to have built at his own expense the two temples of Chennai Kesava Perumal and Chennai Malleswaran and to have endowed them with lands on which "boutiques were afterwards erected." Muthukrishna Mudali built the temple partly with his own funds and partly with subscriptions collected from the inhabitants and the compensation paid by Government. He became the first warden of the temple; and since his death in 1792 the management has remained in his family.

The native town (Gentoo or Black Town) situated close to the north of the Fort was originally built in the form of a square and was in 1700 about a mile and a half in circumference. It was surrounded with a bastioned brick wall (9) and was bounded on the west by an irrigation channel which ran along the continuation of the present Popham's Broadway; and on the north by the present Esplanade and China Bazaar Streets. The suburbs to the north and west of the Town were Muthialpetta to the east of Broadway and Peddunaickenpetta to the West which continued south down to the Company's Garden by the river. Peddunaickanpetta was bounded on the west by the north river (now Cochrane's canal) and on the east by the drainage Channel of Popham's Broadway. Both the Pettas were defended by redoubts or out-choultries erected by the heads of the different castes and bearing their names (like Sunkuram's Choultry, Ball Chetty's Choultry, Ganga Ram's Choultry, Badriah's Choultry and Kalastri Choultry (10). When the English regained possession of Madras in 1749 from the French who had captured it 3 years before, they found about half the Black Town and the whole of its fortifications demolished; (11) Particularly houses which lay very near the Fort within 400 yards of it were demolished in 1757 owing to military exigencies. The Old Black Town was at first unfortified. European residents had some habitation in the Black Town which was also known as the Out Town, the Malabar Town, or the Gentu Town; while the White Town was sometimes designated the Christian Town. It came to be first walled with mud and had two gates of brick opening into the White Town. (12) Though proposals were made from time to time for building a masonry rampart in place of the mud walls, it was only Governor Thomas Pitt that built a brick wall

about the town regularly fortified with bastions and outworks and mounted with artillery. A wet ditch existed on the outer side of the north and west faces of the wall (13); and an attempt was made to erect a wall on the east side—at the time of the scare of the Maratha invasion of 1740.

After the disappearance of the Old Black Town, the name of Black Town came to be applied to Muthialpetta and Peddunaickanpetta jointly, both formerly suburbs of Old Black Town. The Peddunaick was the watchman of the Town, assisted by a number of *taliars* (or constables) whose *mirasi* lands were situated in the present Peddunaickanpet portion of the City. The garden houses of the English factors were situated in this suburb at first, and it contained also the Company's New Garden House begun by Governor Master. Muthialpet was originally occupied by the Left Hand castes; and the other *petta* appropriated to the Right Hand castes. Two streets in Peddunaickanpetta were inhabited mainly by the Left Hand; and in 1707 there was a serious dispute which caused bloodshed and was not ended for nearly a year; and it required all the ability of Governor Pitt to end it. Between the two *pettas* there was an open space containing gardens and a portion of the Company's paddy-fields. Much of the northern part and the north-western part of the Peddunaickanpet continued to be cultivated land even as late as 1755. Gradually this *petta* ceased to be the fashionable European quarter that it was about 1700.

The low-lying region between the two *pettas* was known as Attapollam. Mr. Stephen Popham who originally came out as Secretary to the Advocate General of Bengal and later settled at Madras as Solicitor and who was a very enterprising, though eccentric man, reclaimed and developed this waste land, dug a channel and cross-drains, raised the level with earth brought from Hoghill (*Narimedu*) and gradually built over the whole area (1778—79). "The main north and south street which traverses it is known as Popham's Broadway. The central canal was afterwards covered in but the paved open channel across the Esplanade may still be seen." The high ground of Hoghill on which houses were built was the south-eastern portion of Peddunaickpet. It was the site which was marked out in the time of Governor Langhorne (1670—78) as the ground for a new fort in the event of the old one being washed away

by the sea. After great difficulty the house-owners were compensated elsewhere with lots of land; and the hill itself was cleared and levelled, part of the earth being transported to Popham's ground and filled in Mannady Street (1781). "The removal of Hoghill and its buildings accounts for the present curiously indented outline of Peddanaikanpeta on its south-east side, and the abrupt terminations of some of its north and south streets. The margin of the western esplanade is now occupied by the Ordnance Lines" (14). The fear of an invasion by Hyder Ali and the urgings of Sir Eyre Coote hastened this process of clearing Hoghill which was in close proximity to the Fort and from the narrowly-packed houses of which an enemy might easily injure the Fort. A scheme for the fortifying of New Black Town was put forward soon after the English regained possession of the city in 1749. During the Seven Years War when the city was in danger of an attack or seige by Lally, the river to the west of Black Town was proposed to be dammed, so that the water would flood the neighbourhood; and the bound hedge to the north was to be strengthened (15). In 1769 (March) Engineer Call submitted plans and a detailed report as to the erection of bastions for the ramparts covering the town on its north and west sides, which had begun to be erected about half a dozen years previously. Hyder Ali's raid of 1767 which had thrown the inhabitants into a state of panic "emphasized the need for protection," but the work was actively undertaken only in 1769. "The rampart, as constructed, covered the north and west fronts of modern Black (George) Town and a portion of the south part (16). It consisted of seventeen bastions connected by curtains averaging 200 yards in length. The line of the north face presented a slightly convex part towards Tandore (Tondiarpet). The alignment of the west face which followed the north river was nearly straight. The Town gateways and the works behind the wall not being part of the contract were constructed by the Engineer. In May 1772, the ditch was still unfinished, and little had been done to the intended glacis and covered way. This great work involved the construction of three and a half miles of rampart. In the secure times of the 19th century swords were beaten into ploughshares. The western face was demolished about the middle of the 19th century; (17) but portions of some of the bastions and curtains in the north front still remain

to testify to the excellence of Benfield's materials and workmanship" (18).

The lines of communication within the ramparts on the northern and western sides are called now respectively Old Jail Street and Wall Tax Road (19).

IV. Chintadripettah.

The suburb of Chintadripettah was founded in the time of Governor Morton Pitt (1730—35) as a weaver's village. This Governor had a map of Madras and its suburban villages drawn up in 1733 which indicated the village boundaries and the names of the principal streets and gardens. About that time the number of the inhabitants of the settlement was estimated to be about 100,000. The Directors were lately seriously complaining of Madras diminishing export of calicoes; and in a letter they despaired of "ever seeing Madras retrieve its ancient glory of sending several thousand bales of calicoes in a season, which was the constant practice for so many years." Governor Morton Pitt consequently determined to encourage calico printing in Madras and sent to Salem and other places for spinners and weavers. He resumed the possession of what was known as Sunkah Rama's (20) Garden which "occupied a peninsula formed by a loop of the Triplicane River and lay to the west of the Island between Consiry (Karanesvara) Pagoda and Pundamallee Watching place (perhaps Periamet on the Poonamallee Road)." Only spinners, weavers, painters, washers and dyers with the priests and other attendants of the temple were admitted to the new village, and a "special officer was to allot grounds to selected applicants." "The streets were to be laid out without reference to caste distinctions;" and the inhabitants should settle their civil disputes by arbitration (21). The village began to grow and the houses to rise; and by the beginning of 1737, 230 families had been settled. In 1738 it was expected that the village would export more than 7,500 pieces of calico, besides dimities, fine rumals, etc. Two merchants, Chinnathambi Mudali and Vennala Narayan Chetty were to help the weavers to settle down with advances from Government. Audiappa Narayan (*alias* Vennala Narayan) was the great promoter of this village; he founded the Chintadripet Temple and died in 1743, before he could completely repay the advances he

had received from Government. Later on a mint was built in the village. It was raided by Haidar Ali's troops in 1767, and for some time it was a perfect island, when the neck of the loop of the river was crossed by a channel.

V. Triplicane.

The first suburban village to be acquired was Triplicane remarkable for its ancient temple of Sri Parthasarathi Swami to which also Beri Timmappa, one of the founders of the Madras Temple made some benefactions (22). There is no certainty about the exact date of its acquisition by the English; but the year 1658 "seems the likeliest date on account of several reasons. It was acquired from the representative of the Sultan of Golconda; but was shortly afterwards resumed by Neknam Khan, the representative of the Sultan. It was only in 1676 that the King of Golconda gave the English a *farman* which not only confirmed the English right to Madras, but "specially recognised Triplicane as British Territory" (23). The Great Temple of Triplicane, like the town pagoda of Black Town was managed by the Company's Chief Merchants (24) under the control of Government and "the revenues were derived partly from endowments of land and partly from a tax on imports and exports which was paid voluntarily with the customs dues." The village was raided by Nawab Daud Khan early in 1702; but continued to grow along with the town. A bridge connected the Island with the village and carried the main road from the Fort to San Thome and the Mount; while there was another bridge across the North River from Peddunaickanpeta to Triplicane. In a survey made in 1727 for purposes of revenue assessments, we find that the inhabitants of Triplicane were "mostly Brahminies maintained by the Merchants and poor Painters, Gardeners and other Labouring People." It played a part in the French capture of Madras in 1746 and in the subsequent raid made by the Nawab's troops on the French. Gradually Triplicane came to be a favourite residential suburb; and a map of 1755 shows that it contained several substantial residences, (25) bordering on the Mount Road, just about the time when Peddunaickpetta was losing popularity. Triplicane became very popular by the close of the 18th century with its Government House Park (26) with the vast enclosure of the Nawab's Palace (27) and with

numbers of Suburban residences along the principal streets. Nor were there wanting bickerings and disputes in the Temple. In 1780 there arose a serious dispute between the Thengalai and Vadagalai Brahmins regarding service in the Temple, the investigation over which was delayed for a long time owing to the scare of Haidar's raids resulting in the interdiction of prayers for some time. The dispute continued for some years; an attempt was made by Government to end the quarrel in 1790. When the trouble re-appeared five years later the Government of Lord Hobart declined to interfere at all, "not thinking it advisable to interfere in the religious disputes of the natives, lest by giving a decision on grounds of which they are not certain, it might become a cause of dissensions serious in their consequences to the peace of the Inhabitants."

VI. San Thome and Mylapore.

San Thome, associated in tradition with the Apostle Thomas, was formed as a Portuguese settlement in or about 1522 whose original designation was San Thome de Meliapor. It is conjectured that "a monastic settlement was formed at San Thome about 1522, that a town gradually grew up around the Church and that down to 1550 the place possessed little importance." It had become a prosperous town by the time that Caesar Frederike visited it, (1567). Its golden age lasted but for a short time, as, early in the following century, it was disorganised by foreign aggressions and domestic strife. It seems to have been a well fortified place (28) strong enough to resist successfully the frequent attacks of the Dutch and other rivals. When the English settled at Fort St. George "a large number of Portuguese, both home and country born, deserted San Thome for Madras." It gradually lost strength until attacked by the Dutch and by the Sultan of Golconda, it fell into the hands of the latter (1662) and later on came under French control (1672). "The French occupation of San Thome which lasted a little over two years was one long period of beleaguerment"—first by the forces of Golconda alone and then by the united troops of the Moslem power and the Dutch. It capitulated in August 1674 and was delivered by the Dutch to the Sultan of Golconda. Of course the English Governor tried to persuade the Sultan to demolish its fortifications. A proposal which was entertained by the

Moslems of restoring San Thome to the French was nipped in the bud by the combined efforts of the Dutch and the English who continued to have some of the fortifications demolished; it was only the Muslim Governor of the place that prevented the complete demolition of the fortifications and of the buildings too as was originally intended.

After this the English tried to get from the Sultan a grant in perpetuity of the place; and their Chief Merchant (Casa Verona) who farmed it from the Moslem ruler endeavoured to re-populate the place and spent large sums in house-building. They were suspicious of the growing Moslem Town and even entertained an idea of wresting it by force from the Sultan who was now in his last gasp. When the Sultanate of Golconda was extinguished by Aurangazib, they resumed negotiations for securing the place; and they had come to very near possession; but the fruit was snatched away from their hands at the last moment (1688). But Portuguese authority seems to have been limited to the European quarter; and the all-powerful Muslim Governor demolished the remaining fortifications very effectively so that there remains at the present day no trace of of them at all. The Mughal ruler of the Carnatic, Daud Khan, who was generally hostile to the English proposed to develop San Thome at the expense of Madras and even had a rampart of earth erected round the town. The remains of a redoubt to the south of the present Cathedral testify to this. But the Mughal Emperor would not give his sanction to the project; and the scheme came to nothing. But it was from San Thome that Daud Khan frequently threatened the safety of Madras. Alexander Hamilton, writing about the place in 1710 says that it had but very little trade and its inhabitants who were but few, reduced to great poverty. The jealousy that the English entertained of the decaying place was so great that they persecuted a few Armenians who were suspected of a plan to establish a mercantile centre there, and confined Coja Saffur (an Armenian) in their Fort, and thus pulled up "that insolent weed of ill-humour by the root."

San Thome continued under the rule of the Nawab of the Carnatic and finally became British territory only in 1749 when Admiral Boscawen took possession of it on behalf of Muhammad Ali, fearing that the French or the Portuguese might forestall him.

Indeed Dupleix had formed designs for the acquisition of the place, as a set-off against the loss of Madras. The settlement suffered all the vicissitudes to which Madras was exposed in the course of the wars with the French and with Haidar Ali.

The adjacent village of Mylapore is an old one and is supposed to be the *Malli-arpha* mentioned by Ptolemy. It has venerable associations with the sage Tiruvalluvar and some of the Saiva Saints. Governor Pitt desired to acquire it for the English; and it was finally acquired by the English by a grant of Nawab Muhammad Ali in October 1749. In a map of 1798, only the large tank and Luz Church were marked; while to the east of the Church a large garden house was shown.

VII. Other Suburban Acquisitions.

While Triplicane was the first suburban acquisition, made some twenty years after the foundation of Madras, the Madras Factors were not idle; they were suspicious of the French who were making in Governor Langhorne's time (1672—78) strenuous attempts to get possession from the Moslems of some villages in the vicinity. They applied to the Sultan of Golconda after the evacuation of San Thome by the French, (1674) for permission to get either in perpetuity or in leasehold, the villages of Tiruvottiyur and Egmore lying to the north and west of Madras, besides the town of San Thome. Governor Streynsham Master repeated the endeavour in 1678; and in 1692 when Mughal authority had superseded that of Golconda, Governor Yale applied in 1692 to the Mughal representative, the Nawab Zulfikar Khan, for a free grant of the villages of Egmore and Purasawalkam on the West and Tondiarpet on the North whose revenue then amounted to about 300 pagodas per annum, along with a request for the right to coin rupees at Madras with the Mughul's stamp and for the remission of the annual rent due from Madras and Triplicane. Only the request to coin rupees was granted; and the other two were referred to the Emperor. A *parwana* was given by Nawab Assad Khan, the Mughal Vizier, early in 1693, for the occupation of these villages. There were some difficulties about the actual British occupation of these villages; Egmore was the first to be occupied; and the trouble of having the occupation entered in the

books of the Mughal *Kanungos* was compounded by the promise of an annual payment. In the same year a *parwana* was obtained from the Nawab Designate of the Carnatic for six villages to the north including Tiruvottiyur, Kattivakkam and Eranavore. But these villages were not occupied till 1708.

Egmore, Purasawalkam and Tondiarpet were known as the three old towns; or including Triplicane "the four old towns." The three villages were for some years leased out to the Company's Chief Merchant and others like Serappa and Kalavay Chetty (Collaway Chetty) and Venkata Chetti. After the troubles with Daud Khan were over, a grant was given by him for the five villages, Tiruvottiyur, Nungambakkam, Vyasarpady (Vasalavada), Catawak (near Ennore) and Satangadu (west of Tiruvottiyur) for a rent of 1560 pagodas (September, 1708). These were henceforward known as the "five new villages." The "Old villages" were directly taken over by Government in 1720, but two years afterwards leased out. The "five villages" were temporarily resumed by the Moslems in 1711 and given up permanently to the English ally under the Mughal's farman of 1717. In 1773, the Nawab Saudat-ullah Khan demanded the restoration of the "five new villages" together with arrears of revenue due from them; but he gave way on the English Governor putting up a bold front. A few years before, a similar claim was made for the restoration of the "old villages" to the Mughal Nawab; but the matter was ended amicably through the good offices of Sunkah Rama, the Company's Chief Merchant.

The native Choultry at Egmore was soon converted into a guard house and redoubt "which would preserve the Towns from being pillaged (and) would be great relief to the poor soldiers when sick." Later on it was converted into a powder-mill at the time of the French wars. The Powder-mill was blown up by Lally. The Redoubt gradually fell into ruins; in 1793 a proposal was made to have it reconstructed. Ultimately alterations were made in the building which was converted into the Government Press (1800). In the 1798 map of Madras it is shown as a square redoubt.

Periamet, the Great Metta was the place of toll, "the Junckan beyond the river," was possibly the "Pundamally watching place"

which formed the northern limit of the weavers' village of Chintadripet. It was for long in native hands and it continued to be so even under the British, an octroi station, a Land Customs House with the usual godowns and Customs Choultry.

The village of Vepery, lying wedged in between Egmore and Purasawalkam (known also as Ypere, Vipery, Ipere in the records) was mixed up with the Company's villages, "intermixt in the middle of our new Towns and in the troublesome place for receiving the Nabob's Junkam." The English applied for its grant, soon after they got the old villages, *ie.*, in 1695. But it was only in 1742 that they received it from the young orphan Nawab Muhammad Said of Arcot. That Nawab was a guest of the English Governor at Madras at the time when his father Safdar Ali was assassinated and he showed his gratitude to his host by granting the English the five villages of Eranavore, Sadiankuppam (both near Thiruvottiyur), Vepery, Perambore and Pudupak as well as the right of coining Arcot rupees and pagodas. While about 1750 Triplicane was the favourite residential quarter for the Europeans, and substantial residences near Government House had arisen, there were a few residences erected in Egmore and Vepery also. Edmund Maskelyne, Clive's brother-in-law obtained a piece of land in the angle formed by the present Perambore Barracks Road and the Purasawalkam High Road which was later on bought by the Nawab and is even now called Maskelyne Tottam. Gradually the number of such residences increased not only in Vepery but also in Komaleswaranpet, Pudupet, Pudupak and in the large space of ground known as the Choultry Plain. This last was the area which lay to the South of the Triplicane River—which lay between the Triplicane San Thome Road on the east, and the long Tank on the west including the villages of Nungambakkam, Tenampet and Royapet. It was traversed as far as the Long Tank by the high road from the Fort to the Mount. It was so called from White's Choultry which was a prominent sight in the locality, and the first residential building on the plain is supposed to be "Mackey's Gardens" built by George Mackey. There had grown up by 1780 about 500 to 600 garden houses in the Choultry Plain.

Thus through the eighteenth century the acquisition of land by the Europeans for garden houses and residences was going on to the south-west of the Fort. "As the British acquired the suburban villages, Peddunaickanpetta lost popularity, and Triplicane rose in favour as a residential quarter. Prior to the capture of Madras (by the French) a group of country mansions had arisen on the south side of Triplicane bridge and when the Company purchased one of them for the use of the Governor, the area traversed by the Mount Road was marked as the building site of the future. That area was the Choultry Plain where uncultivated ground was available." (29).

Thus grew the City of Madras and gradually it absorbed the different suburbs 29 (A) of to-day. It has had necessarily to become "the city of distances" which name it deserves in a peculiarly appropriate manner; "for within its limits there are some magnificent spaces." The original nucleus, the native town was not laid out on any definite plan; nor was any definite scheme followed except here and there on the building in of the suburbs. The City has got more than a due share of mean slums and narrow straggling streets; because it had to be allowed to grow just as it would. "But Madras is a fine city nevertheless, with a number of stately buildings, both public and private and with great possibilities." Its greatest charm lies in its steady growth and expansion. "The City has grown from strength to strength and in its story there is much inspiration." (30)

C. S. SRINIVASA CHARI, M.A.

Professor of History, Pachaiyappa's College, Madras.

An ordinary meeting of the Association was held on Thursday the 11th August 1927 in the Singarachari Hall, Hindu High School, Triplicane, when Mr. C. S. Srinivasachari, M.A., Professor of History, Pachaiyappa's College, read a paper on the Growth of the City of Madras: Rao Saheb Dr. S. Krishnaswami Ayyangar, M.A., Ph. D., M.R.A.S., University Professor of Indian History presided.

After Mr. Srinivasachari's paper (printed above) was read, Mr. N. Subrahmanyam pointed out the name of the river Cooum being connected with a tank and a village of the same name in the North Arcot District, referred to the condition of Popham's Broadway a generation ago, and suggested the re-construction of the Pre-Euro-

pean History of Mylapore, Triplicane, etc., as a topic to be worked up from the songs and poems of Saivite and Vaishnavite saints, and from ancient inscriptions.

The Chairman, in bringing the proceedings to a close, spoke at length on the circumstances which led to the grant of the piece of land, now occupied by the fort, to the English settlers. As the lecturer had said, this piece of land was known as *Narimedu* (jackal mound) and it lay with its surroundings between Pulicat, a Dutch possession, and San Thome, a Portuguese colony. The relationship between these two foreign nations were not always friendly, and their fights interfered with the peace of the land lying between them. In order to prevent the fight and to preserve the peace of the land, the then chief of the land, Venkatappa Naick granted the 'jackal's mound' to Francis Day, an English merchant. Chennapatnam came into being long before Day received this gift. The town sprang up as a sort of interposition between the two foreign nations. This fact was mentioned in a Telugu book 'Bahuleswara Charita.' The town was probably called Madhyarazu Patnam—'the town of the Razu situated in the middle' and Madhyarazu Patnam might have been the popular name of the town, and it might have been corrupted into Madras Patnam.

The Chairman congratulated the lecturer on the thorough manner with which he had dealt with the History of Madras. He was of opinion that if they went back anteriorly to the British occupation, the history would have been much more interesting. The whole city contained about 20 villages, and the history of each village would surely be very interesting. He hoped that the Geographical Association would take up this suggestion and do something in this direction.

With a vote of thanks proposed by Mr. A. Swaminatha Iyer to the Chairman and the lecturer, the meeting terminated.

N. B.—Old Maps of Madras are given in the next number as an Appendix to this volume.

Foot Notes.

(1)

Love—List of Pictures in Government House, Madras; *Vestiges of Old Madras*. Vol. I Introduction (pp. 3—4.)

(2)

The *Firman* (copy) is preserved in three copies (O. C. 1690, 1695, and 1751) the last of which is alone dated, 22nd July (August) 1639, and gives power to the English to build a fort and castle in or about Madraspatnam. (I. O. Records given by W. Foster in his *Founding of Fort St. George* (1902) and by H. D. Love *Vestiges of Old Madras* (1913) Vol. I p. 17.

(3)

This was an addition to the earlier *cowle* of Raja Venkatapati (1642) which was a simple confirmation of the original Naik's grant. It is dated October, November 1645. The goldplate *cowles* embodying these grants seem to have been lost, but translations of them have been preserved.

(4)

Fryer who visited Madras in 1673, showed in his plan "Madirass the Indian Town with flat houses," immediately to the north of the European walled town; and Madraspatnam is probably to be found on the site of the northern esplanade of the modern Fort." (*Vestiges* Vol. I taken from Fryer's *New Account of East India and Persia*, 1698.)

(5)

Vestiges of Old Madras Vol. I p. 85. Madras occurs in many forms Maddaraspatnam, Madraspatnam Madrassapattam etc. According to one version, there was a fisherman's *coopum* the head man of which was a Christian named Madaresan who continued to persuade Mr. Day to call the settlement after his own name. The name however existed even before the settlement of the English. Yule and Burnell derive the name from the Hindustani *Madrasa*, a college, and think that there might have been an old Mahammadan college. Other derivations are from *Mandaraiya* (the abode of the benighted) and from *Madre de Deus* (the founding of a Church of St. Mary) at Madras prior to 1640 by the Portuguese of San Thome. Mr. Love conjectures that Mada Razu or Raju may have been some local ruler of the district in the past, as *The Madras Manual of Administration* suggests. There is a curious

resemblance between the names Madraspatam, Sadraspatam and Durgarazpatam (Armagaon). See also the note of Mgr. Texeira in *The Hindu* of 23—7—1927, suggesting that the name might be after the Portuguese owner of a castle at the site.

(6)

W. Foster.—*The founding of Fort St. George, Madras* (1902) p. 32 note The new name of Sri Rangarayapatam was intended in the *cowle* to apply, like Chennapatam, only to the English settlement; as the village of Madraspatam is separately mentioned in the grant itself.

Soon the exact locations of Chennapatam and Madraspatam seem to have become confused, as a Maratha *Ms.* translated by C. V. Boriah in 1802 at the request of Colonel Colin Mackenzie (now among Mackenzie Manuscripts at the India Office), says that the fort was built on the land of Madras coopum, and Chennai Kuppam embraced the land to the north, afterwards occupied by Muthialpetta and Pagdalpetta (Coral Town). This dislocation of the of the original sites is at variance with the terms of the *cowle* of Sri Rangaraya and of Neknam Khan's confirmation of 1672. The paper quoted above enumerates 4 villages, Madras-Coopum, Chenaik-coopum, Ar coopum (possibly the site south of the Fort near the mouth of the river) and Maleput (west town) where salt was collected and possibly identifiable with a position on the west bank of the Elambore River—corresponding with the present Salt Cottours.—In 1802 Chennapatam did include Muthialpetta and Boria may have assumed that it had always been so (Love—*Vestiges*, Vol. I, P. 91.)

The original Fort was only a fortified enclosure begun by Day and continued by Cogan. It measured 100 yards by 80 yards and was roughly co-terminous with the Fort square of a later period. In 1644 the sum expended on the Fort till then amounted to £2,300; and it was computed that an additional expenditure of £2,000 and a small garrison would make the place impregnable (Wheeler—*Handbook to the Madras Records—1907—p. V*). Buildings and streets rose up round it and constituted the White (or Christian) town. The northern and southern sides of this town came to be protected by walls with bastions at either end; a third wall of weak section, was constructed along the sea-face; while on the western or river-side there was "no wall but what the inhabitants built for their houses and gardens. The White Town was enclosed thus within an Outer Fort." This town is described in his

New Account of East India and Persia by Fryer who visited Madras in 1673 during the Governorship of Sir William Langhorne. There was the Governor's house in the middle; it was "a citadel within an inner retrenchment." The Elambore river in those days made a wider sweep towards the Fort. In the time of Governor Yale (1687-92) the Fort House was re-built and the inner citadel itself was re-constructed early in the 18th century as the Fort Square. This was lined by buildings and had two narrow gate-ways, east and west. It existed until 1825 when it was pulled down; and wings were then added to the Fort House. The Fort in the early part of the 18th century was oblong in shape, somewhat broader in the north than in the south end—with a bastion at each corner and curtains between, only a few feet in thickness. There was a dry ditch or trench before the sea-wall and the houses of Black Town reached to the very gates on the northern side (Mrs. F. Penny—*Fort St. George*—(1900) p. 152). In 1743 two engineers made plans for the enlargement of the Fort on the west side, where a ditch was dug out faced with bricks.

After the French occupation had ended, a well-thought-out scheme of strengthening the Fort was planned by the distinguished Engineer Robins and carried out by his successors Brohier and Call. The North River flowing on the west and south was diverted to its present course; three new western bastions with connecting curtains were built on the west on what had been the Island; and the north wall also strengthened. Outside there was a wet ditch, a glacis and covered way. In 1771 revised plans were put up for the finishing of Fort St. George and by 1787 through the skill of Colonel Ross who was the Chief Engineer of the Company the modern fortress was finally completed. The Fort became a half-octagon in shape; strong ravelins were built before the curtains; "a wet ditch was provided round the enceinte (except on the south face where the excavation was dry), and also round the ravelins and their lunettes; the sea-face was re-built with indentations to afford a flanking fire.....The main work was casemated throughout; and cisterns were built under the sea-face to hold a water-supply for 6000 men for four months. For this conduits were constructed for conveying water from the Seven Wells in the north of Peddunaikanpetta to the Fort and stored in cisterns. The total area covered by the fortress to the foot of the glacis was 102 acres." (Love—*Descriptive list of pictures* pp. 30—31.)

It was during the thirty years beginning with 1770 that building and restoration went on briskly in the Fort. "During those thirty

years the present Secretariat (without the wings), the Banqueting Hall with its pillars from Pondicherry, the King's Barracks, the steeple of St. Mary's Church and nearly the whole of the northern portion of the Fort was built. The Exchange, The Mainguard block and the houses near the Exchange were restored. Government House on the Coom as it now is was also re-built at this period; the new Banqueting Hall commemorates the fall of Seringapatam in 1799." (Note on p. 154 in Mrs. Penny's *Fort St. George*).

(7)

There were also other noteworthy pagodas. The Ekambaraswaran Temple in Washing Street (the present Mint Street) known as Allingall Pagoda was built by Alingada Pillai who became chief merchant in 1680. The Kalyana Varadarajaswami Temple which was built in Collett's Pettah was entrusted to Viraraghava, Brahmin, who was allowed a small duty on Madras exports and imports to maintain the temple. The Katchaleswar Temple was built about 1725 in a garden in Muthialpet formerly belonging to Colloway Chetty by the Left Hand Castes. The Kalahastieswaran Pagoda was a very old one. The Mallikeswaran (or Mallikarjunar) Pagoda at the northern end of Muthialpet has no connection with the Chennai Mallikeswaran Shrine in Peddunaikanpet and is said to be an old foundation.

(8)

Bundla Ramaswami Naidu's *Memoir of the Revenue System of Madras* (1820). The account is not considered to be very authentic.

(9)

Governor Yale had mud walls erected to the north and west of this Town; and about 1700 when the town was threatened by Daud Khan, these mud walls were re-placed by a brick rampart "as substantial as that of the white Town," viz., 18 feet high and 6 feet thick,"—the cost of which was met by the assessment of the population. The north wall of the Town terminated at the sea-side near the present Parry's corner where it was protected by a blockhouse on the shore. There were two gates on the north side, the Muthialpet Gate opposite to the present Thambu Chetty Street, and Tom Clarke's Gate near the north-west angle. The west side had a central bastion to the south of which there was the Armenian Gate from which a bridge across the Broadway drainage channel led on to Peddunaikanpetta and to the garden house situated in the southern part of it. The Town contained 8 streets.

running north to south and a square in the middle besides the Perumal Pagoda. This Town was demolished during the French occupation of Madras; and no trace of it now remains. Its fortifications were razed to the ground; and the debris provided the construction of a glacis on the north and south faces of the White Town (Fort) as well as covered way along its north front.

A curious book of dialogues originally written in Telugu between 1740 and 1745 in connection with the Danish Mission of Schultze and Falericius and translated into German and English gives us the information that in Black Town there were also a fairly large number of schools for the population (see Love—Vol. II—pp. 329—335).

(10)

There were 4 batteries on the north and one on the west face—these were connected by a bound hedge of bamboo, prickly pear &c., (name still preserved in the Bound (Hedge Boundage) lane near Clive's Battery). Orme says that in 1758 at the time of Lally's siege, part of the ancient bound hedge and the ruins of the guard-houses still remained along the north and west sides.

(11)

Dupleix, soon after the French occupation of the place, vigorously set to work to transplant the wealthy merchants of the place to Pondicherry. "He spared no promises or threats. The Black Town was pillaged. Half of it was pulled down. The merchants were ordered to deposit their goods in the Fort and assemble on a certain day to be carried to the French Settlement. But all was in vain.....The Chettys and Vaisyas and weavers obstinately remained in the country and redeemed what property they still had in Madras by bribing the Frenchmen in authority." (*Calendar of Madras Despatches 1744—55* by H. Dodwell (1920)—p. XII—Introduction). In August 1749 the English regained possession of the place, but until 1752 it remained a subordinate factory.

(12)

The middle gate and the choultry gate in the north curtain of the Outer Fort which gave access to Middle Street and choultry street the two principal north and south thoroughfares of the native town—(Love-I. p. 207)—see previous note.

(13)

The ditch on the north side occupied the present China Bazaar Street; and a drainage channel which passed down the present

Popham's Broadway to the Esplanade River formed the ditch on the western side.

(14)

Love—Vestiges—III.....218.

(15)

Mr. Call's proposal to Government, approved by the Board of Works.

(16)

On the outside of the rampart on the north and west, the ground was cleared for a width of 600 yards to afford a field for fire. These spare spaces were known as esplanades. Part of the western esplanade was converted into the People's Park, later on.

(17)

Glyn Barlow:—*The Story of Madras*—pp. 31—34.

(18)

Love—*Vestiges*—II—pp. 604—8. The principal gates in the rampart were the Pully Gate at the end of Thambu Chetty Street; the Thiruvathiyur gate near the Monegar Choultry; the Ennore Gate near the end of the present Mint Street; the Elephant Gate; Chuckler's Gate at the exit of Rasappa Chetty Street; and the Hospital Gate at the s. w. corner.

(19)

The Committee of Public Works suggested in January, 1770 that it would be necessary to have free and easy communication there all round within the ramparts and that there should be a clear space of at least 50 feet all round. They also added that a good road might be made and kept in repair by any person who would do it and have as a reward for it a grant of the ground "for 20 feet broad out of the 50 furthest from the Ramparts with liberty to cultivate or plant a double row of cocoanut or other fruit trees on each side of the said space of 20 feet and to enjoy the produce thereof for ever." (P. C. Vol. VIII—18th January, 1770). Government intended to have the road made, by means of a tax, which, however, was never collected as legal opinion received from Bengal had declared expressly that the Company had no power of taxing the inhabitants. But they decided however that immemorial practice would justify them in claiming Quit Rent and Scavenger's Duty. Arches formed in the western rampart were occupied by natives who paid rent or tax; hence

arose the name (see Madras Manual of Administration Vol. III, P. 450). The road running from the Elephant Garden west through Peddunaickanpetta was called Elephant street; and its name is still preserved in its western end as the Elephant Gate Street; and the Elephant Gate of the city west wall takes its name also from it.

(20)

Sunkah Rama or Sunku Rama was one of the leaders of the right hand castes and rose to be the Company's Chief Merchant along with Tomby Chetty (1724). He was granted admission into the White Town and allowed to purchase a godown house there. He was dismissed from his office in 1731 and died in 1736. His garden which became the suburb of Chintadripetta measured 840 yards by 500 yards and was full of shade-trees; and his title to it was declared by Government to be definite.

(21)

Love-Vestiges—Vol. II—p. 259. Governor Joseph Collett encouraged the immigration of weavers and the painters to Thiruvottiur and settled them in a new village on its south side which was named Collettpeta (now corrupted into Kulatipett or Kalidepatta). He also conferred on the settlers sundry minor privileges by means of a *cowle*. (P. C. dated 28th December, 1719) vide Wheeler—*Madras in the Olden Time* (1882) p. 390.

Similarly the name Washerman's Town was applied to the locality where the Company's cotton cloth was bleached before (prior) to export—Washerman was a man who bleached the new-made cloth and not a dhobi. The bleaching process required large spaces. It was at first situated west of Old Black Town; later shifted to the north-west angles of Peddunaickanpetta; and later on removed to its present site. Its topes and gardens coming close to the city wall were considered dangerous to the safety of the city. It is depicted in a map of 1798 as lying to the north of Black Town. In 1707 the calico washers living in the present Mint Street which was known as Washing Street, petitioned to be given certain concessions. Then the present Nainiappa Naickan Street was known as the Weavers Street.

(22)

O. C. No. 2441, 2nd December, 1641, quoted in Love—Vol. I—p. 349.

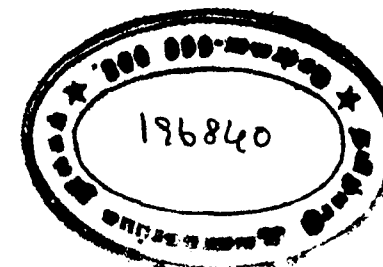
(23)

Farman dated 23rd February, 16—75/76 which confirmed Neknam Khan's *cowle* and particularly included Triplicane in the British grant.

(24)

The office of the Company's Chief Merchant was as old as the settlement. It was held among others by Beri Timmanna and his brothers, China Venkatadri and Pedda Venkatadri and by the famous Case Verona (da. 1650) (Kasi Viranna) who wielded extensive powers and was so catholic in his outlook as to build a mosque in old Black Town and another in Muthialpet. One Chief Merchant Allingal (Alangada) Pillai erected the Ekambareswarar Pagoda in Mint Street and died in 1695. Sunkurama, leader of the Right Hand Castes, became the Chief Merchant in 1711 after Serappa's disgrace; his garden formed the nucleus of the suburb of Chintadripeta. He died in 1736. There was also a junior Sunkurama who was dubash to Orme and with whom the historian kept up a correspondence from England. Besides the Chief Merchant and the Chief Teliar or Peddanaigue there was also the Town conicopoly who was accountant at the Choultry and whose office ran hereditary in one or two families, (e.g., the family of Raghava Battan who was the first Town conicopoly of Madras. The Peddanaigue (Peddunaick) had to maintain a fixed number of peons to keep order in the Black Town and in the adjoining Pettas. He could arrest offenders and bring them before the Choultry Court. His Office was hereditary; he held land and remuneration in the village known after him; and his duties were defined in successive *cowles* given him by Governors like Chambers, Langhorne and Thomas Pitt. He was also known as the Poligar of Madras. The Office was hereditary for long in the family of Kodungeer Pedda Naik. The Linguist or Interpreter was another noteworthy functionary. Two important holders of this office were Paupa Braminy (Papaiya Brahman) who assumed office about 1699 and soon rose to be the Chief Dubash and his son Vyasam Papaiya who was translator in the years 1734—46. Avadanam Papaiya Dubash to John Holland, lived in later times. He had great influence with Government and was supposed to be all powerful where natives were concerned and was the only dubash permitted to be present at the meetings of the Governor's Council; "and not even the Rajah of Tanjore could refuse his bidding." His name lives in a street; and he is one of the characters in Scott's Novel, "The Surgeon's Daughter." (Vide *Journal of Indian History*—Vol.

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V—part II—pp. 189—97), The two Hollands of Madras and their Dubash.

(25)

Love:—Vol. II—p. 614. After Lally's siege of Madras, its popularity rose still more. Even prior to the capture of Madras by La Bourdonnais, "a group of country mansions had arisen on the south side of Triplicane Bridge and when the Company purchased one of them for the use of the Governor, the area traversed by the Mount Road was marked as the building ground for the future." When applications for sites for country houses increased, Government thought they should not be encouraging extravagance and treated the applicants to a homily and specially warned junior servants against this danger.

(26)

The Company's Garden, to which the factors resorted in the evening and which was first built outside the walls of the White Town (about the present Law College grounds), came in course of time to be enclosed in the wall round the old Black Town, being situated in its N. W. corner. A new garden house in which entertainments and receptions could be held was built in the time of Governor Thomas Pitt (1698) in the grounds on the northern bank of the Elambur River, now occupied by the General Hospital and the Medical College. (The Island ground was originally even as it is now the tract of land lying between the Elambore and the Triplicane Rivers, the connecting neck of land, between the eastern bend of the Elambore River (Cooum) near Chintadripet only about 300 yards in length having been cut by a canal at some unknown period before the end of the 17th century. The land was known as early as 1643 as the Island. In course of time the swamps were filled in and a hedge was built round it; and bridges were erected connecting it with Egmore on the west, Peddunaickanpetta on the north and the Fort on the east. A powder house and magazine were constructed; and the course of the north river (Elambore) on the west of the Fort was diverted so as to run closer to the west front of the Fort about 1755.) A fine avenue of trees providing a good view from the Company's garden-house, was laid out in the Island; and a bridge later on connected the two, known as the garden-house bridge. This garden house was pulled down by the French during their occupation of Madras. The nucleus of the present Government house was the property of Lewis Madera (Maderia or Maderior who was a substantial free merchant of Madras in the early part of the 18th

century). It was acquired by the Company from his widow in 1753 for about 3,500 pagodas (Cons. 28th August and 1st October, 1753). According to maps of 1759 the house had a frontage of about 130 feet in a rectangular compound. Originally there was no park; and the present Triplicane High road ran then from the present police station in Wallajah Road right through the compound of the Government main House to the bridge. This road was the main thoroughfare to San Thome. Later this portion of the Triplicane High road was eliminated and the angle of land between this and the present Mount Road was added to the park. Even as late as 1822 there was no Beach Road; while in the sea front of the Fort itself there was no road till 1846. In 1821 Government house in the Fort was fully taken up by the Secretariat offices; and this garden house became the Town House of the Governor. About that time Guindy Lodge was acquired as a country residence from the Bank of Madras. During the Governorship of Sir Charles Trevelyan, the Government house at Triplicane was enlarged and strengthened; and its park was extended on the east by the inclusion of a part of Nawab's Chepauk Gardens. The Banqueting Hall was built adjacent to Government House on the model of the Parthenon in 1801-02 as the Governor Lord Clive found the Admiralty House in the Fort inconvenient for entertainments; and his own Garden House compared unfavourably with the magnificent Chepauk Palace, of the Nawab.

(27)

The Nawab Muhammad Ali appears to have lived at Chepauk from 1767. After the final failure of the French he contemplated residing in the Fort itself; and he wrote in 1765 that the Fort was a secure place of residence for him besides which "in such times I know no place of security." The Palace is supposed to have been built by a British architect and its walled compound extended from the river on the north to Pycroft's Road on the south and westward to Bell's Road. The main entrance was a triple-arched gateway at the end of the present Walajah Road. The Palace consisted of the Kalsa Mahal which is now part of the P. W. D. Secretariat offices, the Humayun Mahal and the Dewan Khana which from portions of the present office of the Board of Revenue and contained the Durbar Hall. The residence of the Principal of the Presidency College was the Mahakama (the Court of Justice); and the saluting battery was near the site of the present Senate House. Outside the eastern wall of the compound,

space near the school, and a funnel inserted into the neck of the bottle, and a reading is taken every time there has been rain during the previous twenty-four hours, a fairly accurate record can be secured. This record should be maintained on a chart over a period of a year and weekly and monthly totals can be abstracted from time to time. If these are shown graphically as columns side by side the class will then see the relation existing between rainfall and certain seasons of the year. This will be particularly so in relation to the monsoon periods when the columns will be very high in contrast with the dry periods when practically no rain at all will be indicated.

Barometer readings should be taken at a definite fixed time each day and a chart kept on which the readings are plotted in the form of a graph. A simple mercury column barometer will suffice for the purpose; but if this is too costly, a bottle of water inverted in a glass jar neck downwards and the jar filled with water will give rough readings sufficient for practical purposes. One boy actually inverted a medicine bottle in this way in a jar of water and used the marks of the spoonfuls on the side of the bottle as an index. A will generally find a way, and the scientific benefit was almost the same for him as for boys more fortunately situated in apparatus.

A wind-rose ought certainly to be built up during this year of work in order to show which are the prevailing winds for each month of the year. Monthly wind-roses should be constructed at first and then from these quarterly wind-roses can be proceeded with finally giving place towards the end of the year to an annual wind-rose. A wind-rose, it may be explained for the benefit of those who do not know the term, is a diagram formed by adding squares to a central core, one square each day on which a wind from a certain direction blows. Thus there will be generally eight directions marked on the diagram N, E, S and W, and NE, NW, SE and SW, and squares are added to each direction as the wind blows from that direction on certain days.

As regards temperature, this must be taken at a given hour in the day each day. It is preferable to do this at the beginning of the day's work, and at the same time as the actual temperature is taken, the observations of minimum and maximum temperatures for the

last twenty-four hours may be taken. All these temperatures will be recorded on graphs and monthly averages taken on a separate graph in each case. Finally a seasonal average may be taken though this is not so valuable as perhaps the monthly average may be. This is very important as often one hears of an average annual temperature being quoted as proof of something or other, whereas it proves little, if anything at all.

It is doubtful whether a really clear idea of the meaning of humidity can be gained by a Third Form boy, but a good teacher may be able to explain why the readings of the wet and dry bulbs of a wet and dry bulb thermometer differ in readings and from that lead the class to understand the meaning of a 'dry' day or of 'moist' day. In any case the attempt is often worth while if only a little idea can be given of the relationship existing between rainfall and relative humidity.

A very useful practice in this Form is the keeping of a class diary in which events of an outstanding character in connection with the climate of the district are noted for future reference. Heavy winds, thunderstorms and excessive rainfall are items, which will find their places in such a diary and will form a very valuable source of reference in later years. The boys ought to be encouraged also to subscribe for the purchase of weather-maps from Simla day by day and for such periodicals as the "Meteorological Observer." The subscription to the former is only Rs. 3 per mensem, and during the months of monsoon the study of these maps is a very interesting addition to the Geography lesson.

If however no instruments are available, much good work can still be done in the keeping of weather charts. On these, daily facts are recorded with regard to hours of sunshine, direction of wind, rainfall for the day (that is whether rain fell lightly, heavily or not at all). Boys should be encouraged to adopt some such method of recording wind velocity as the Beaufort scale. A wind-rose can still be used here, and in fact most of the work requiring instruments for exact results can be done in a rougher manner without them. The essential thing is that the boys are encouraged to make an in-

origins of the Malayalam language yet lack an authoritative historian, and in the field of literature further examples of Sanskrit drama may reward the patient labours of another Ganapathi Sastri. What has become of the Silver Plate Treaty carried off by the Pretender in 1811 and if not in the Tare de Tambo at Lisbon where are the Copper plates pledged with the Viceroy of Goa? Is there anything in the tradition that there was a principality under a Christian ruler whether Priest or King or ever the galleons of Portugal dropped anchor in the roadstead of Cochin? Are there any authentic remains of Buddhism still surviving? What is the connection, if any, ethnologically between the inhabitants of Kerala and of Ceylon? What is the provenance of Travancorean temple and domestic architecture, which bears so many points of resemblance with that of Nepal? Is the gable-ended roof a legacy of the Chinese? And is the affinity of the design of the *Nala kettu* to the Roman house only accidental?

Whence is derived the nomenclature of the Syrian Christians, some of whose names, I believe, are even now a puzzle to the philologists, and from what model was evolved the distinctive dress of their women-folk so different from that of the Hindus by whom they were surrounded?

I have touched but a fringe of the subjects with which a Society, such as it is now proposed to form, may appropriately deal. Others that suggest themselves are the national festivals of Kerala, Vishu and Onam and Tiruvathira, the Kalari or Gymnasium, that form of drama known as Kathakalli, and the family chronicles known as Granthavaris.

There are other rich ores of inquiry to be proved, and the material for many interesting papers to be read, and, I hope, hereafter to be published. Gentlemen, shall we put our hand to the wheel?

C. W. E. COTTON, I. C. S.

Geography in Andhra University.

The Andhra University has included Geography among the options that may be taken at the Intermediate Examination. We give below extracts from the Regulations which define the place of Geography in the scheme and prescribe the Syllabus.

* * * *

(To come into force as from the examinations held in 1930)

1. Matriculates proceeding to a University course of study shall for two years each consisting of three terms ordinarily consecutive undergo in an affiliated college courses of study in the following three parts:—

Part I—English.

Part II—Second language.

One of the following languages at the option of the candidate—

- (a) Classical—Sanskrit, Arabic, Persian, Pali.
- (b) Modern European—French, German.
- (c) Modern Indian—Telugu, Kannada, Tamil, Oriya, Hindi, Urdu.

Part III—Three subjects out of the following groups A, B and C at the option of the candidate.

- | A | C |
|--|----------------------------|
| (1) Mathematics | (1) Commercial Geography |
| (2) Physics | (2) Banking |
| (3) Chemistry | (3) Accountancy |
| (4) Botany | (4) Agriculture |
| (5) Zoology including
Human Physiology | (5) Electrical Engineering |
| (6) Geography | (6) Mechanical Engineering |
| B | (7) Surveying |
| (1) Logic | (8) Drawing |
| (2) Indian History | (9) Music |
| (3) Ancient History | |
| (4) Modern History | |
| (5) A third language—an advanced course if the language taken be one taken under | |

Part I or Part II, or a less advanced course in a really third language provided that a student selecting any History subject under Group B shall select Indian History.

SYLLABUS FOR—A (6) GEOGRAPHY.

First Year Course.

I. The Physical Basis of Geography :

(a) *The earth as a planet :* Its shape, size, and motions ; the inter-relations of the sun, the earth and the moon, causing day and night, and seasons ; the phases of the moon and eclipses ; location on the globe—latitude and longitude—and measurement of time ; terrestrial magnetism ; the general structure of the earth.

(b) *The Atmosphere :* Its composition ; the local and world distribution of pressure, temperature, and humidity (including precipitation) ; the circulation of the atmosphere—permanent winds, seasonal winds and local winds. The collection of meteorological data, and the preparation of weather charts and climate maps. Types of climate.

(c) *The Hydrosphere :* The form, extent, and distribution of the oceans, depth, configuration and composition of the ocean floors ; continental shelf ; composition of sea-water ; distribution of salinity and temperature ; movement of sea-water—waves, tides, currents ; coral reefs and islands.

(d) *The Lithosphere :* Land-forms ; material of the earth's crust and the forces that shape it ; soils ; changes in the earth's crust ; elevation and subsidence ; the agencies and processes of denudation ; rivers and the development of river-systems ; under-ground water ; snow and ice ; lakes. Wind as an agent of transport and deposition. Volcanoes and earthquakes ; shore-lines rising and sinking coasts ; deltas and estuaries.

II. Cartography :

(a) *Elements of mapreading :* Map-setting ; conventional signs and symbols ; representation of relief ; visualisation in three dimensions ; interpretation of contoured maps ; representing different topographical features ; planimetry.

(b) *Simple map construction :* Making of sketch maps in the field using prismatic compass, clinometer, aneroid barometer and plane-table ; contouring.

(c) *Elements of map-projection :* Properties and uses of the chief types of map-projection in common use, *e. g.*, orthographic, stereographic, globular, conical, cylindrical (including Mercator's), equivalent (Mollweide's).

(d) *Practical work : Field work :* enlargement and reduction of maps, construction of scales and sections.

III. Bio-geography :

(a) *Geography of vegetation :* Factors controlling plant-life ; vegetation regions of the world—woodlands, grasslands and deserts ; mountain vegetation.

(b) *Geography of animal life :* Distribution of animal life ; habitat and oecology of typical animals ; natural barriers against dispersal. Marine animals. Man's influence in the present-day distribution of animals.

(c) *Anthropo-geography :* A general account of the distribution of the chief races of mankind. Racial characteristics. Influence of geographical environment on the life, occupations, arts, social organisation and migration of primitive peoples.

Second Year Course.

IV. General Regional Geography on a World Basis :

(a) *Physical side :* Coastal outline, relief, river systems, climate, vegetation. Division of the world into *Major Natural Regions*.

(b) *Human side :* (i) *Economic :* Geographical conditions affecting the production of important commodities, such as rice, wheat, cotton, wool, coal, oil, iron, tea, coffee, tobacco, rubber. Growth of industries ; trade centres, and trade-routes ; distribution of population ; development of new regions and sources of trade.

(ii) *Political :* Political partition of the world. Comparison of the political units with the major natural regions of the world. Political sub-divisions for administrative purposes ; capitals.

V. Detailed study of Eurasia, India and the Home Region :

(a) *Eurasia :* Coast-line, relief, climate, vegetation, population and communications of Eurasia as a whole.

Major natural regions : Tundra forest-lands, and steppe-lands of Eurasia ; the British Isles ; the Central Plains of Europe ; the Central Highlands of Europe ; the Mediterranean Region ; the South-western Highlands of Asia ; Mid-Asian Deserts ; the Monsoon Regions,

(b) *Regional Geography of India, Burma and Ceylon.*

(c) *Intense study of the Home Region*: such as the Northern Circars, the northern part of the Carnatic Plain, or, the Ceded Districts.

VI. History of Geographical Discovery and Exploration:

Geographical knowledge among ancient peoples; mediaeval geography; age of discoveries; colonial expansion; progress in discovery and exploration of America, Australia, Africa, and the Polar Regions. Evolution of Geographical conceptions.

Books recommended for study:

General and Regional Geography	Unstead and Taylor (Phillip)
The World—Book IV	L. Brooks (Lond. Univ. Press)
Our World: A Human Geography	C. Morrison (Macmillan)
A Text-book of Geography	G. C. Fry (Uni. Tut. Press)
Physical Geography	Lake (Cambridge)
Maps and Survey	Hinks (Cambridge)
Map Projection	Garnett (Phillip)
Practical Geography	Simmons and Richardson (Macmillan)
Manual of Map-reading and Field sketching	(H. M. Stationery Office)
Man and his Work	Herbertson (Black)
Man and his Conquest of Nature	Newbigin (Black)
Geography and World-power	Fairgrieve (Lond. Univ. Press)
The Indian Empire	Dudley Stamp (Longmans)
The Story of Geographical Discovery	Jacobs (Newnes)
Advanced Atlas of Physical and Political Geography	Bartholomew (Oxford)

Books recommended for reference:

Scientific Study of Scenery	Marr (Methuen)
Meteorology	Lempfert (Bell)
Climate	Ward (Macmillan)
Oceanography	Jenkins (Constable)
Plant Geography	Hardy (Clarendon)
Animal Geography	Newbigin (Oxford)
Man, Past and Present	Keane (Cambridge)

Principles of Human Geography	Vidal de la Blache (Constable)
Industrial and Commercial Geography	Russel Smith (Do.)
Commercial Geography	Howarth (Oxford)
Principles of Economic Geography	Rudmose Brown (Pitman)
The New World	Bowman (Harrap)
Continent of Europe	Lyde (Macmillan)
A Geography of Europe	T. A. Smith (Macmillan)
A Geography of Asia	Martin (Macmillan)
Asia	Stanford's Compendium of Geography and Travel
India	Sir Thomas Holdich
India	Oxford Survey of the British Empire

Imperial Gazetteer of India Vol. I

Geographical

The Dawn of Modern Geography Beazley (Cambridge)

The syllabus is framed to suit a two years' course with four hours a week, of which two consecutive periods may be set apart for *Practical Work*. These periods for practical work may preferably be fixed in the afternoon, so that they can conveniently be utilised for occasional excursions, which should be looked upon as an essential part of the course.

There shall be two papers for the final examination, the first on the portion done in the first year (*i.e.*, on Sections I, II and III) and the second on the portion done in the second year (*i.e.* on Sections IV, V and VI).

SYLLABUS FOR—C (1) COMMERCIAL GEOGRAPHY.

PART I.

1. Detailed study of the Physical Characteristics of India. Relief, mountains and rivers; climate, temperature, monsoon and rainfall: natural regions—the Himalayas, N. W. land, Indus plain, Gangetic Plain, the Thar Desert, Black Soil, Coastal Plain, etc. Vegetation and minerals: peoples, occupations, trade, exports and imports: Communications, Railways, Harbours and Canals: the chief Provinces and Native States: how far the Geography of India has influenced its history.

2. Physical Geography, as a basis of the various types of civilization and a determining factor of national and economic development, Configuration of the great land masses and ocean.

3. Climate and its fundamentals. Altitude and relief of the world: the mountain systems: temperature and its determining factors: maximum, minimum and average mean temperature: temperature maps of the world: pressure of air: pressure and altitude: pressure of latitude and temperature: distribution of pressure: the wind system: windless belts: cyclones: moistures: causes of rainfall: rainfall belts and their distribution (in the Northern and Southern Hemispheres: ocean and ocean-currents: their effects: weather reports. Main features of other continents, commodities. Man the producer and the trader.

4. Economic and Commercial Geography with special reference to India. Chief needs of man—drink, clothing and shelter: exchange of.

(2) Products and the determining factors—climate, soil and physical features.

(3) Vegetable products: (a) Food and food materials, *e. g.* wheat, rice, barley, rye, maize, oats, millet, sugar; fruits, and their preservation. (b) Beverages and drinks *e. g.* tea, coffee and spirits. (c) Oils and oil seeds and spices. (d) Drugs, *e. g.*, Opium, tobacco and cinchona. (e) Clothing and textile materials *e. g.* cotton, jute, hemp, flax. (f) Shelter materials, *e. g.*, Timber.

(4) Animal products. Food materials *e. g.*, meat from cattle, sheep, birds and fish: Dairy produce: Clothing materials, wool, fur, silk, leather, feathers: Other Products *e. g.*, Pearl and coral, sponge, honey.

(5) Mineral products, Metals and their ores such as Iron, copper, lead, tin, zinc, silver and gold: Mineral fuel and Mineral oil.

(6) Indigo and other dye stuffs. Tanning barks and Tapioca.

(7) Forest Products.

(8) Transport and Communications. Land transport, water transport. Natural conditions affecting Commerce—Climate, winds, and currents, town sites, harbours, ocean trade routes and mercantile marine; steam power and electricity, petrol.

(9) Empire communications—bases and coaling stations.

News and Notes.

The Madras University has at last responded to the insistent call of the reformers and has constituted a Board of Studies for Geography by itself, separate from other subjects. It is seven years since Dr. Slater set the ballrolling—Slater who brought to bear, on all subjects he took up, freshness of outlook and energy of thought and action. His proposals for the teaching of Geography met with the goodwill of the experts of the University and the Director of Public Instruction (then, as now, Mr. Grieve). They fell through, however, on financial considerations. Later on, Dr. Cousins took it up with the Academic Council which threw it out with ridicule. But a Britisher never knows when he is beaten, and Dr. Cousins was at it again and again; and after him, there was Mr. Green to keep it up. Meanwhile, the Madras Geographical Association came to life and the reforms now coming are a triumph for it, because, to it, is due the better atmosphere and the healthy change in public opinion that has made possible the coming of reforms. The reforms effected are also a feather in the cap of Mr. Grieve who collaborated with Dr. Slater in the beginning and has been ever since taking a keen interest in matters geographical.

It is a matter for gratification to note that of the twelve that make the Board of Studies in geography that has now been constituted, as many as eight have been members of the Madras Geographical Association, associated with it in its founding and its activities.

* * * * *

Geography has been recognised as an option at the Madras Intermediate Examination. Mr. Watkins is resolved not to let it be a paper option only. At the Madras Christian College, he has so well arranged for it, that this option is made not only a real option but also an everybody's option at that. His enthusiasm has attracted as many as eighteen students and they will force the University to make Geography a degree course. Other Colleges especially Missionary, have been making provision for it, and from the next academical year, there will be quite a number of Colleges teaching Geography.

All this is for the good. But what reason may there be for the lethargy that is brooding over the High School Courses? These courses, it may be remembered, were intended by those who sponsored the Secondary School Leaving Certificate Courses, to provide for

elasticity, for initiative, and for freshness. Nobody at this time of day denies Geography its great value in Education. Nor is there anybody among the powers that control S. S. L. C. studies that is averse to it. And yet, the long-needed reform has been hanging fire. College work in Geography as in other subjects will have to rest on the firm foundations of kindred work in the High School. Reform there cannot be delayed any further.

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The address of Mr. C. W. E. Cotton at the Kerala Society is a brilliant panorama of Kerala (Malabar) as she has appeared in song and story through the ages. We thank him for his permission to reprint it here, which, we trust, will be read with delight.

M. SUBRAMANIAM, B.A., B.L.,
Editor.

Books and Journals Received.

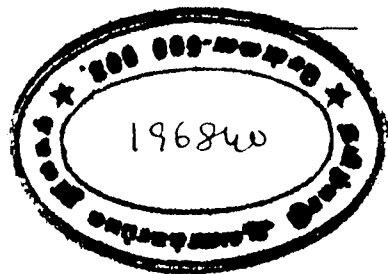
Mitteilungen der Geographischen Gesellschaft in Hamburg Vol. XXXV (1923), Vol. XXXVI (1924), Vol. XXXVII (1926), and Vol. XXXVIII (1927).

Rural India, Vol. II, No. 2 (August 1927) and No. 3 (September 1927).

The Student Vol. I, No. 2 (October 1927).

The Educational Review Vol. XXXIII, No. 9 (September 1927).

The Journal of the Travancore Teachers' Association, Vol. VI, No. 3 (September 1927).



7. A person shall become an ordinary member upon the proposal by a member, the seconding by another member and approval by the council by the majority thereof present at its meeting. He shall pay an annual subscription of rupees ~~two~~ payable in one instalment or in two equal half-yearly instalments at his option.

8. Those who pay an amount of hundred rupees in two years become LIFE MEMBERS, and they shall be exempt from payment of any further subscriptions.

Officers.

9. There shall be the following officers for the Association :—
Patrons, Vice-Patrons, President, one or more Vice-Presidents, Secretary and Treasurer.

Management.

10. The management of the Association shall vest in a Working Council, which shall consist of the president, the vice-presidents, the secretary and the treasurer as ex-officio members, and four others elected by the general body, one at least of whom shall be from amongst the mofussil members.

11. The *Quorum* for a meeting of the Working Council shall be three.

The Powers and Duties of the Working Council.

12. The duties of the Working Council shall be :—

- (A) To receive and approve all applications for membership ;
- (B) To arrange for the annual and other meetings of the Association ;
- (C) To provide for the custody and utilisation of the funds and other property of the Association ;
- (D) To appoint committees and assign duties to them ;
- (E) To act in all respects on behalf of and with the powers of the general body, except when it is actually sitting.

13. The Working Council shall have the powers, subject to the veto of the general body, to issue, modify or rescind bye-laws, for the regulation of the work and activities of the Association.

Miscellaneous.

14. The official year of the Association shall be from 1st January to 31st December, and shall be divided into two sessions.

15. The Annual Meeting of the Association shall be held in December, when the officers for the coming year shall be elected.

16. All life membership subscriptions, all unspecified donations and one-third of all ordinary subscriptions shall be carried to the capital fund of the Association.

THE MADRAS GEOGRAPHICAL ASSOCIATION, MADRAS.

THE WORKING COUNCIL.

EX-OFFICIO MEMBERS.

President.

Rao Bahadur M. R. Ry. H. Narayana Rao, Avergal,
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Vice-Presidents.

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Dip. in Geography (London), Lecturer in Geography,
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2. Mr. S. Lakshmana Iyer, B.A., L.T., M.E.S., (*Retired*)
Ex-Lecturer in Geography, Teachers' College, Saidapet.

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Mr. N. Subrahmanyam, M.A., L.T.,
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Treasurer.

Mr. D. W. Wolfenden, B.A., L.T.,
Ag. Headmaster, Bishop Corrie's High School, Madras.

OTHER MEMBERS.

1. Mr. G. Davies-Watkins, B.Sc., F.R.G.S., F.R. ECON. S.,
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2. Mr. M. Subramaniam, B.A., B.L.,
High Court Vakil, Madras (Editor of the Journal).
3. Mr. M. S. Sabhesan, M.A.,
Lecturer in Botany, The Christian College, Madras.
4. Mr. S. Rajaratnam, B.A., L.T.,
Teacher, London Mission High School, Coimbatore
(Mofussil Member.)

All communications and remittances should be addressed to—

The Secretary,
The Madras Geographical Association,
Gopalapuram, Cathedral Post, Madras.