

## Nilgiri Dolmens (South India)\*

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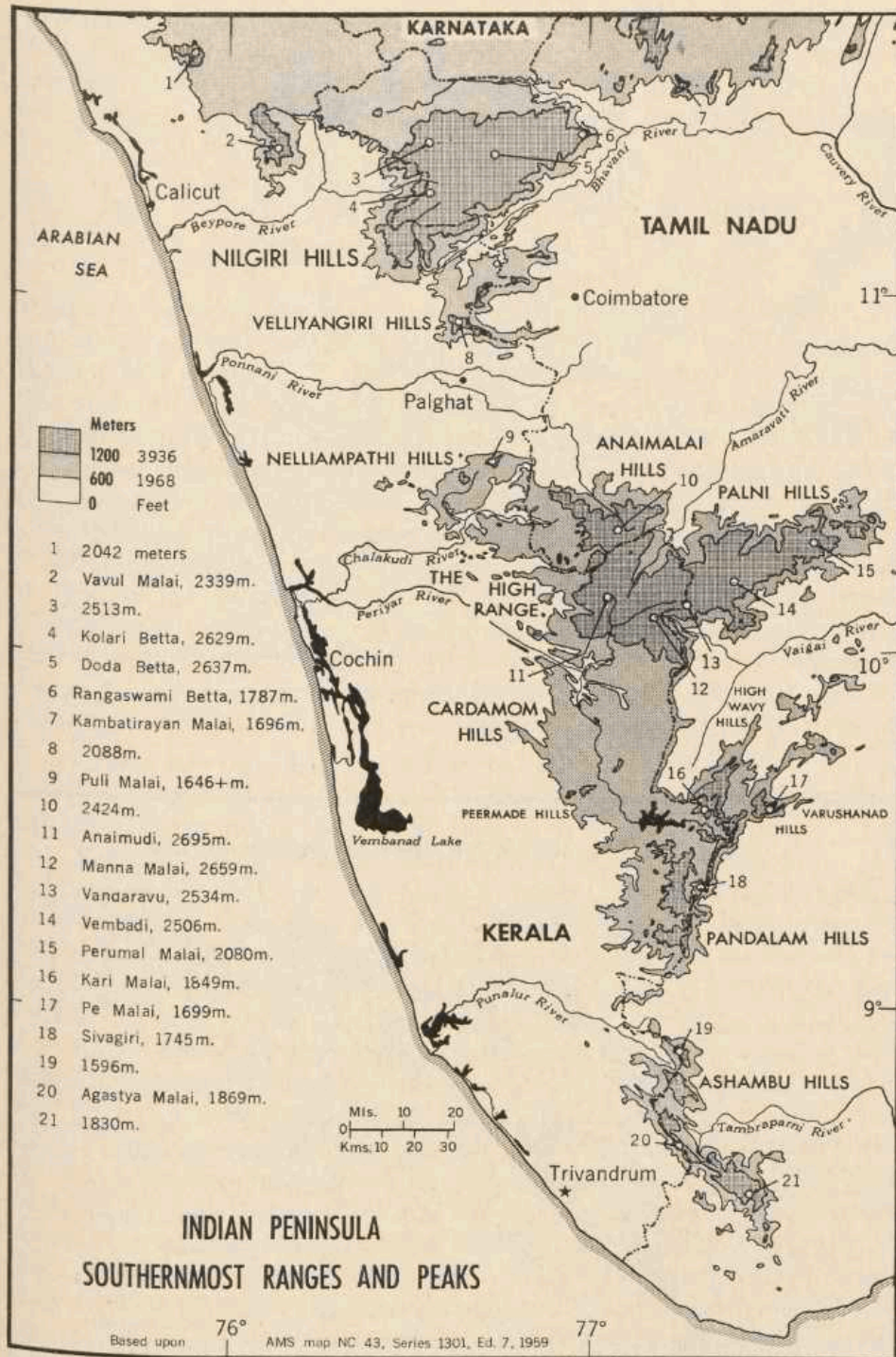
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### Introduction

This study, which primarily deals with Nilgiri dolmens, is intended to compliment VICTOR ROSNER's "Dolmens in the Anamalai Hills, South India" (*Anthropos* 54.1959: 169-182). While the Anamalai Hills are to the south of the Palghat Gap, the Nilgiri Hills form a massif to the north and where the Eastern and Western Ghats meet (Map 1). In contrast to the Anamalai dolmens, the Nilgiri dolmens are generally smaller, are not combined into such complex variations, and are not surrounded by walls. Because many of the Nilgiri dolmens are sculptured, they form another distinctive group in South India. In considering Nilgiri dolmens it becomes necessary to devote some attention to the five traditional groups in the region: the Badagas, Irulas,

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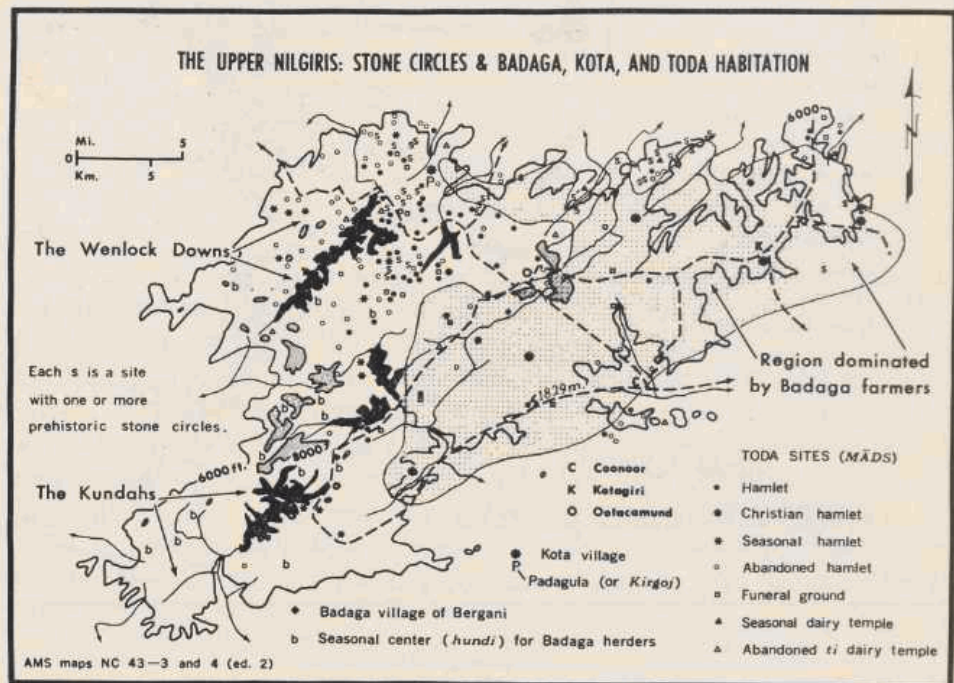


Map 1

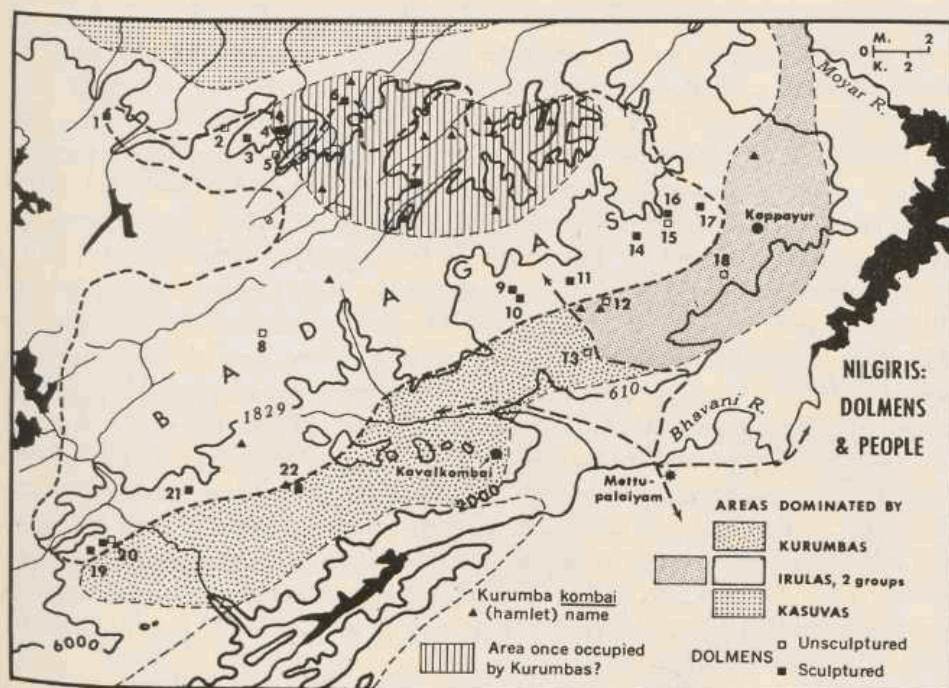
Kotas, Kurumbas, and Todas. Also entering the picture are two unique series of stone circles. Specifically, these are the questions raised: Did those who constructed the Nilgiri stone circles also erect dolmens? Who erected most dolmens? Who played roles in their sculpturing? Has the megalithic cult ended in the Nilgiris?

### I. The Five Traditional Groups

The Badagas have been the most aggressive and progressive group on the Nilgiris. Between 1871 and 1961 their population increased more than fourfold, from 19,476 to 84,823 (GRIGG *et al.* 1880: 30; NAMBIAR *et al.* 1965: 8). They dominate in those easterly portions of the massif which are above 1829 meters (Map 2). When the English started to settle in the Nilgiris during the 1820s, the Badagas were cultivating barley, wheat, and finger, Italian, and Panic millets (HARKNESS 1832: 136-138; KEYS 1812: LI). They also grew fenugreek, garlic, mustard, and poppies for produce easily sold on nearby plains. "English vegetables" introduced by the English (BAIKIE 1834: 35-36; JERVIS 1834: 46; MIGNON 1834: 83) were slowly adopted, and within this century the Badagas became commercial farmers highly dependent upon these plants - and especially potatoes (GRIGG *et al.* 1880: XII; BENSON 1895: 432-433; RAO and AZARIAH 1953: 69). However, except for outlawed poppies, the prior cereals and commercial plants are still grown. Of late the Badagas



Map 2



Map 3

have increasingly turned to tea production. Historically it must be realized that the Badagas (Northerners), who migrated from Karnataka, have been major displacers of other people from their lands.

Mainly in the higher northeast and in the highest areas next to the northern rim of the massif, there are grasslands inhabited by Toda buffalo herders. Their population has tended to remain stable and has only varied from 693 to 706 in the ninety years (GRIGG *et al.* 1880: 30; NAMBIAR *et al.* 1965: 8). The Todas and some Badaga pastoralists have also seasonally utilized the high southwestern grasslands to a lesser degree.

Kota farmers, occupying six hamlets at higher elevation and a lower hamlet in the western Nilgiri Wynaad, have actually faced a population decline from 1,112 to 832 (GRIGG *et al.* 1880: 30; NAMBIAR *et al.* 1965: 8). This is partially attributable to a smallpox epidemic. The westernmost Kotas grow rice in wet fields below their hamlet, but among the other Kotas in the upper Nilgiris there have been agricultural developments paralleling those among the neighboring Badagas (HARKNESS 1832: 30, 81; OUCHTERLONY 1848: 58; KING 1870-71: 20-21; BREEKS 1873: 42, pl. LXXVII; THURSTON 1909, 4: 8-9; MANDELBAUM 1941: 23). Developments not mentioned thus far are the complete abandonment of shifting agriculture forced by the 1881-84 Final Land Settlement and plow abandonment resulting from a major shift to the hand cultivation of potatoes. Kota artisans traditionally make baskets, iron implements, and pots for their economic partners among the other groups, or serve as carpenters and musicians. Now these activities are declining because the

Kotas, who are fighting for equality and more prestige, have become increasingly reluctant to play subservient roles. And they may also take advantage of non-traditional cash flow markets.

Although some Irula lowlanders raise wet rice, both the Irulas and Kurumbas occupying the outer Nilgiri slopes remain subsistence millet farmers (Map 3). They were once shifting cultivators, but the 1881-84 Final Land Settlement has greatly restricted that practice. Over fifty plant species, growing together, were observed by the writer in Irula gardens. These are typically located near dwellings. Kurumba gardens are similarly located, but are generally not so well developed. Plants now common in gardens are the banana, chili, coffee, edible canna, jack, mango, papaya, sweet potato, tapioca, taro, and yam. Many of the Irulas and Kurumbas are presently employed as laborers on neighboring commercial plantations. In addition, the Kurumbas use bamboo and rattan to make baskets for other Nilgiri people, and serve as musicians. They are the healers and magicians. Their practitioners, for example, perform ritual before Badagas sow and harvest their grains. When ill, some Badagas will still turn to Kurumba medicine men for aid. The Irula population has grown from 1,470 to 4,502, and in the same ninety years the number of Kurumbas has increased from 613 to 1,174 (GRIGG *et al.* 1880: 30; NAMBIAR *et al.* 1965: 254).

## II. Stone Circles

During a 1962-63 survey, stone circles were found mainly above or close to 1829 meters (6000 feet) and in the northwestern Nilgiris or close to the northern rim (Map 2). However, some stone circles are or were sprinkled over the region to the south and east. Literary references to stone circles, and particularly the 1873 publication by JAMES W. BREEKS, substantiate both their observed concentration and wider distribution elsewhere. A correlation exists between stone circle distribution and the presence of grasslands and past or present pastoral centers. The Toda heartland is in the northwestern Nilgiris and there are or were other Toda hamlets close to the northern rim. At the Badaga hamlet of Bergani, close to the northern rim, a herd of sacred buffaloes is maintained. On summits near Bergani there are stone circles (FRANCIS 1908: 317). BREEKS (1873: 82-83, 85, 86-87, 95) excavated stone circles located near Bergani and the northeastern Toda hamlets within the Kodanad area. But also notice the past or present existence of Todas in the area encompassing Coonoor and stretching to the south and west. Stone circles in this area were excavated, and artifacts from at least one circle are in the British Museum, London (CONGREVE 1847: 95, 111, 145; WALHOUSE 1873: 276-277 and a plate).

Most stone circles stand on or close to the summits of the highest peaks, but there are also exceptional ones in adjacent lowlying areas. There are sites with a single circle, but others have several. Their builders sometimes strung circles over the most conspicuous summits (Pl. 1 *a*). An ideal example of this is on Seven Fort Hill, close to the easternmost Kota village. Here there are seven piled stone circles in a distance of 112 meters (368 feet). These have vertical

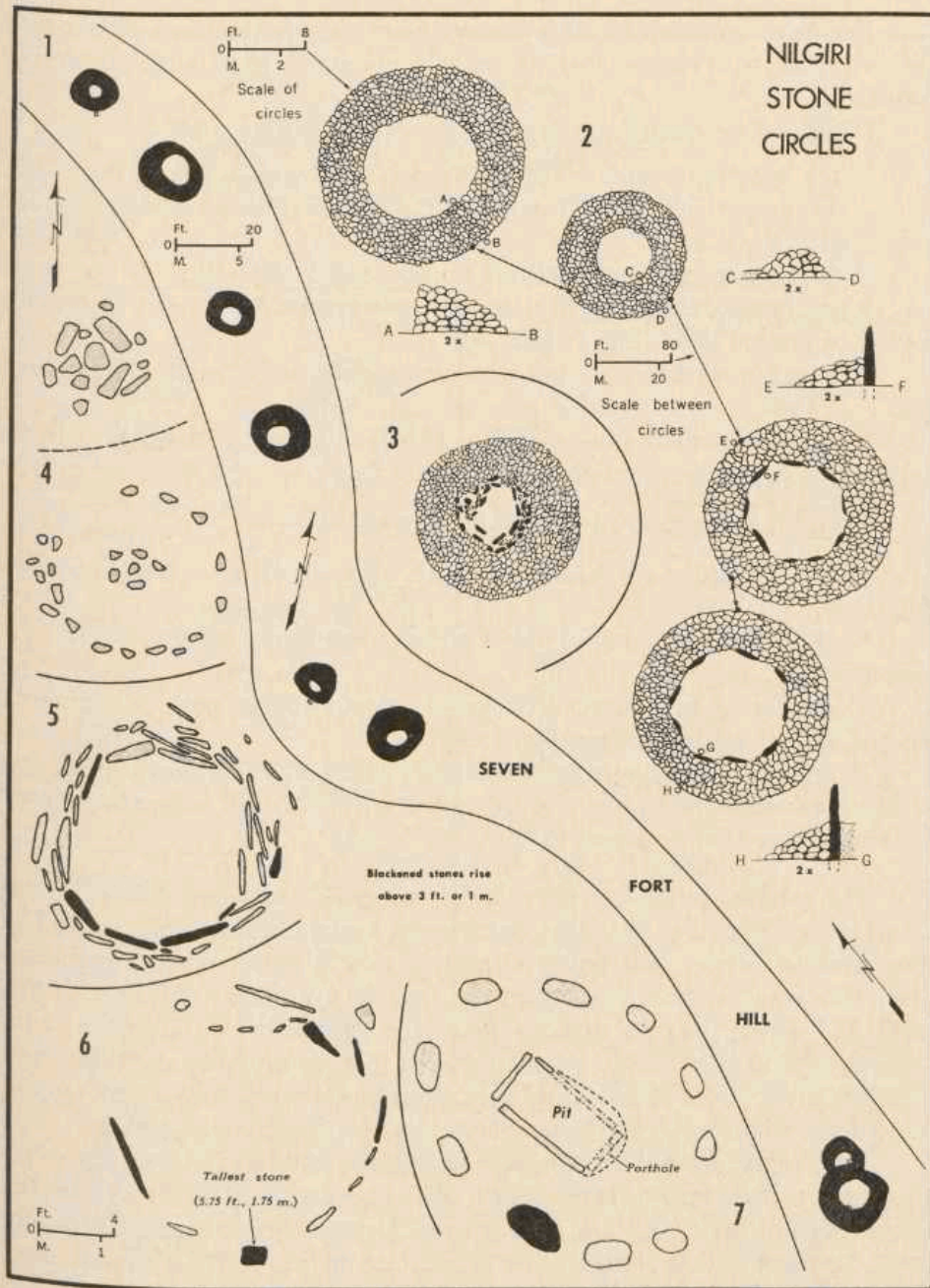


Figure 1

sides, and one circle has a semi-circle of similarly piled stones attached to it (Fig. 1: 1). Although some Nilgiri stone circles are similar to others in South India, the Seven Fort Hill type with vertical inner and outer sides is distinctive (Pl. 1 b).

For more positive identification we may arrange the stone circles into two series: one with stones piled into walls, and another with individual stones forming circles.

In Series One there are stone circles in which

1. the outer and inner walls are perpendicular, as at Seven Fort Hill,
2. the inner wall is perpendicular and the outer wall slopes down to ground level (Fig. 1: 2, A-B),
3. both inner and outer walls are sloping (Fig. 1: 2, C-D),
4. an inner circle of upright stones is surrounded by a piled stone wall sloping to ground level (Fig. 1: 2, E-F),
5. there is a similar circle, but with an accumulation of earth in the center (Fig. 1: 2, G-H),
6. there are similar stone circles as the two just mentioned, but with at least two inner circles of upright stones (Fig. 1: 3).

Stone circles in Series Two were formed by

- A) simply laying stones close to each other to form a circular outline (Fig. 1: 4),
- B) doing likewise and adding a surrounding circle of stones (Fig. 1: 4 - same site),
- C) emplacing two or more circles of upright stones, with the uprights tending to parallel each other (Fig. 1: 5),
- D) emplacing only a single stone circle, which may be composed of comparatively small stones only slightly embedded or of well embedded stones reaching higher (Fig. 1: 6 and Pl. 1 c).

The southeasternmost stone circles in Series Two were different from others in the Nilgiris in that they surrounded burial cists with portholes. The poor condition of the best preserved cist (Fig. 1: 7) indicates the destruction which has resulted from haphazard diggings for over 125 years. CONGREVE (1847: 123) found the cists within a forest and excavated one. Each was once covered by a capstone close to ground level, but these have long since been removed. Stones from the cists and their surrounding stone circles were used to construct retaining walls in the tea plantation now spread over the area.

For generalizations covering the subsurface contents in stone circles we may turn to CONGREVE (1847: 88-89, 101) and BREEKS (1873: 93). In the centers of most Series One and Two sites with stone circles there are typically one to four large stone slabs laid on the surface or below. These usually have a north/south or northeasterly/southwesterly orientation. At some sites lesser slabs were laid near the large ones. Close to the surface, within circles and away from the stone slabs when they are present, were randomly deposited a few to many pottery figurines of people, animals, and birds, or pots having animal, bird, and human effigy lids. Cinerary urns were buried farther down, from about 30 to 150 centimeters (one to five feet) and most frequently beneath stone slabs when they are present. Grave goods made of bronze, iron, gold, or semi-precious stones were usually left in or close to the urns.

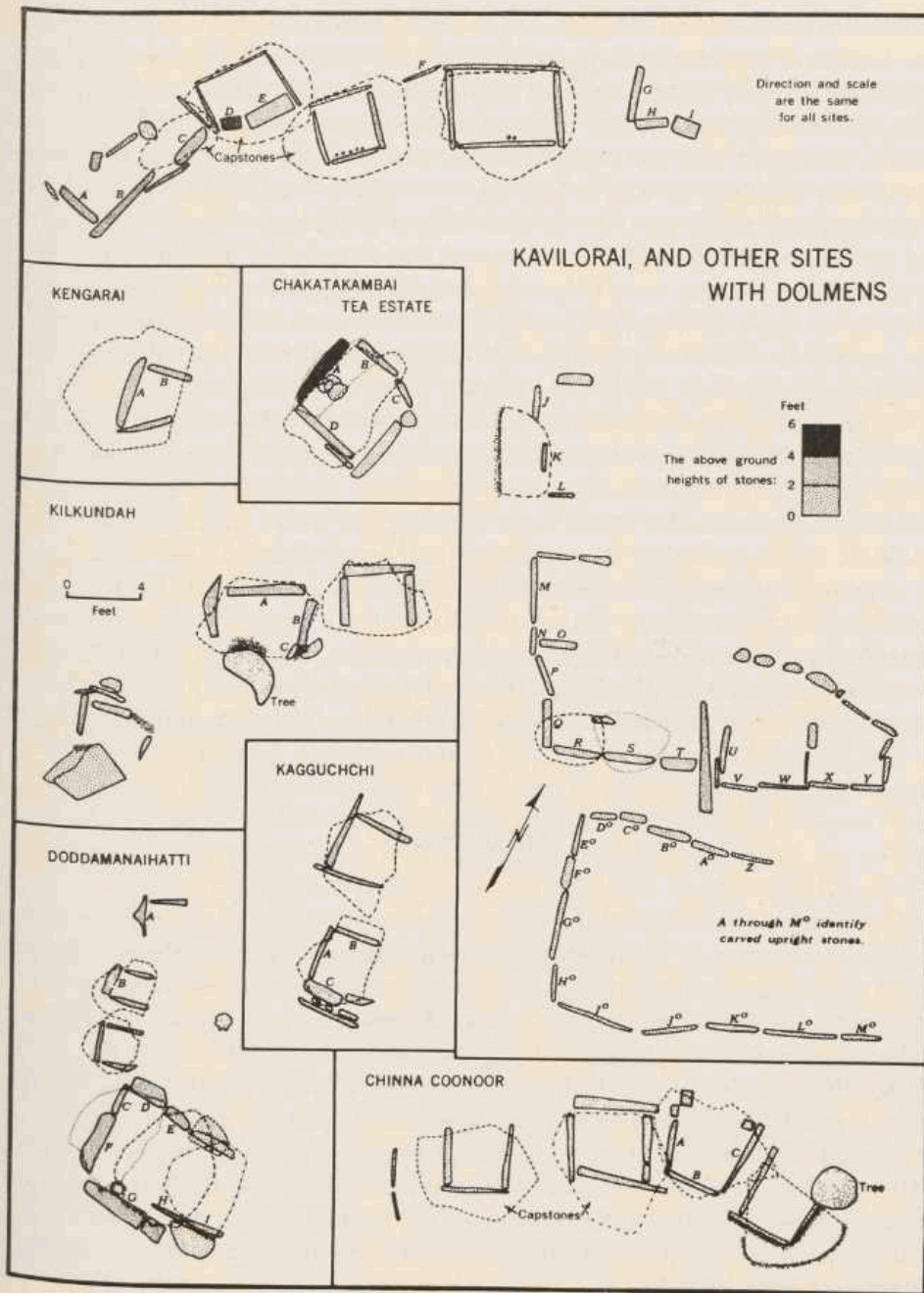


Figure 2

Apart from the burial cists mentioned already, which contained a different type of pottery (BREEKS 1873: 106), the stone circles have yielded light red to buff pottery with wheel-turned pots. This varies from the black and red ware so widely associated with South Indian megalithic sites. People

on horseback, buffaloes, humped and non-humped cattle, and sheep are among the creatures commonly depicted in the lids and figurines (BREEKS 1873: Appendix C, Descriptive Catalogue of Objects, 126-137; CONGREVE 1847: 108). The graves have also yielded a wide variety of earthen pots and iron spear points, javelin or arrow points, razors, sickles, and knives. Among the knives are swords and daggers, and even a short sword like that used by Romans and a distinctive double-edged, broad-bladed, double-guarded dagger (well illustrated in WALHOUSE 1873: 277 and a plate). Then there is a wide assortment of bronze vessels ranging from saucer to vase and ovoid to round in shape. Some of these are finely decorated. That the interments were sometimes accompanied by jewelry is evidenced through the excavation of bronze rings, gold ear, finger, and nose rings, and beads of agate, carnelian, and glass.

There have been two recent attempts to date the stone circle sites. LESHNIK (1970: 87-99) compares Nilgiri artifacts with those found elsewhere. He depends upon BREEKS, other literary sources, and artifacts now housed at the British Museum, the Tamil Nadu Museum in Madras, and the Museum für Indische Kunst in Berlin. He concludes that pastoralists interred the artifacts in a period running from the third into the fifth centuries A. D. HOCKINGS (1972: letter) excavated a site near Paikara in the northwestern Nilgiris and obtained a single C-14 date which approximates 1040 A. D. The findings, therefore, suggest that the Nilgiri stone circles date to A. D. times only and were mainly built in a period somewhere between the 200s and 1000s A. D.

### III. Dolmens

Nilgiri dolmens are variants from a basic form which ideally has three vertical orthostats at ninety degrees to each other and an overlying capstone (Pl. 1 *d*). The upper and outer surfaces of most capstones lie between sixty and 120 centimeters (two and four feet) above the ground. An orthostat rising above 120 cm. (four ft.) will occasionally cause at least part of a capstone to lie higher (Fig. 2). There may be only one dolmen at a site (Chakatakambai Tea Estate and Kengarai in Fig. 2), but there was a tendency to group and align dolmens (Pl. 1 *e* and *f*). At Kagguchchi, for example, there are two dolmens, at Kilkundah there are three, and at Chinna Coonoor there are four. A complicated dolmen is the one at Doddamanaihatti. It has ten major orthostats and three capstones. Kavilovai is an example of a complex site. There are three intact and large dolmens there, but farther south three series of aligned orthostats exhibit a constructional move away from capstone use. Only some Nilgiri dolmens have sculptured orthostats and at some sites, Chinna Coonoor for example, there may be one or more unsculptured dolmens next to a sculptured one. At Kavilorai there is the largest number of sculptured orthostats.

The sculpturing on most dolmens was done by aligning figures in horizontal levels, with a tendency to start near the inside tops of orthostatic stones and work downward upon one level after another. Some levels are divided into

compartments. The number of levels on a stone ranges from one to five. But there are also dolmens in which the surfaces of orthostats have animal and human figures which were willfully spread to develop themes (Pl. 1 *g*). Above the top horizontal level or near the top of a composite panel there may be sculptured a sun and a moon. Above some uppermost levels there is either a single sculptured bull or a bull accompanied by people in acts of worship and, perhaps, a deity's image (Pl. 1 *h*). Most sculptured figures are crude and it is noteworthy that human female and male figures are shown in close association (Pl. 2 *a, b, c, and d*). Most depicted males bear weapons and are either in body contact with or are closely accompanied by women. Some depicted females were probably the remembered surviving relatives of dead male heroes, but frequent suttee symbolization indicates that many female figures honor those who committed suttee or sacrificial suicide after their husbands died. The many human figures sculptured in the dolmens suggest a practice which continued for several hundred years.

### 1. General Analysis of Sculptured Figures

From an analysis of 223 figures sculptured in dolmens at Sholur (Map 3, Site 1), Chinna Coonor (Site 4), Kagguchchee (Site 7), Banagudi Shola (Site 9 and Pl. 1 *h*), Chakatakambai (Site 10), Doddamanaihatti (Site 16), Sholurmattam (Site 17), and Tudurmattam (Site 22), these generalizations can be made: Female figures are abundant enough to make the total for male figures only 55 per cent of all figures. Males bearing arms constitute 79 per cent of all male figures, and of these 58 per cent carry spears. Among the rest, the sword, dagger, and boomerang were the first, second, and third most frequently depicted weapons. In the commonest pose a spear is held in the right hand and the left hand is placed on the waist. It is probable that men who died natural deaths were, according to medieval concepts of chivalry, memorialized in stone as warriors bearing arms. But men who had actually died in combat were more likely to be so honored. As five figures are of men with spears thrust into animals – two tigers, two pigs, and a bear – we may infer that men who died while hunting were also remembered through sculpturing in stone.

Figures in close contact form 52 per cent of the whole, and 42 per cent alone are female / male couples. There are also two female / female couples, four triples with male in the center and female to each side, one triple with two females and then a male, and a single quadruple with a man / woman – woman / man.

Over one-third of female figures do not hold objects, and the spear is most often shown among the ten per cent with weapons. One woman holds a sword, another a dagger, and a third a boomerang. Most frequent among the likely suttee symbols is the one, found in 41 per cent of the female figures, in which the female bears a bulbous object. The right hand with this object and the left hand on waist pose is the commonest and parallels the art procedure frequently occurring among male figures with spears. Because positive deter-

mination is impossible, it is estimated that at least 27 per cent of the female figures have uplifted arms which may be suttee-wise significant. Limes in palms facing outward occur among seventeen per cent of the figures, and one figure appears to have limes in both palms. Another figure has a bulbous object in the right hand and a lime in the left hand.

Two female figures at Sholur bear fire in their right hands. The female / female / male triple is particularly of interest in that a female has a lime in her right upraised arm and holds the wrist of the next female with her left hand. The second female holds fire in her right upraised hand and then holds a man's wrist with her left hand. The male holds a spear in his right hand and his left hand is upraised and close to a woman's hand. In the other example a man holds a spear in his right hand and his left upraised hand is held by a woman. Her right hand is up and with fire and her left hand is also upraised. The writer suggests that the first example commemorates two women or satis who climbed on their husband's funeral pyre, and that in the second example one sati is honored.

We may be certain that some sculpturing in stone was related to Saivite Hindus. Above level one at Chinna Coonor there is a kneeling humped bull or *nanthi*, Lord Shiva's vehicle. At Sholur a *nanthi* in similar position is accompanied by a woman in prayer and a man with Shiva trident. A *nanthi* on another stone there is with an armless image (depiction of Shiva?) and a man holding a lamp and bulbous object. At Banagudi Shola a *nanthi* is with a very small sitting man and another man holding an incense burner and a lamp (Pl. 1 h).

## 2. Example Line Drawings

A few line drawings will help the reader to better understand the nature of sculpturing on Nilgiri dolmens. Three figures from two levels at Sholur are typically crude (Fig. 3). The male with spear in right hand and left hand on waist represents the common pose. The knife at his left waist is another feature often included in similar sculptures. He is accompanied by a female who, as in many female figures, has a bun to one side of her head. The common practice of using two circles for breasts easily differentiates this and other female figures from the male ones. The bow and arrows borne by the male in the level below are of interest in that most of the Nilgiris were not associated with bow and arrow users when the English first came. It is not until we reach the western portions of the Nilgiri District, at lower elevations in the Wynaad, that we find bows and arrows in frequent use – among the Mullu Kurumbas. Familiarity with bows and arrows may thus in the past have been gained through contacts with militant bowmen stationed in the Nilgiris. Spears and nets or net fragments in Nilgiri homes or temples and an earlier record by Englishmen (BREEKS 1873: pl. XXIII and LXXVIII; FRANCIS 1908: 339) provide evidence for once widespread spear and net hunting.

The two figures at Melkundah (Map 3, Site 19) are very crude. Again there is a male with a bow and arrows. His headgear is different from that of

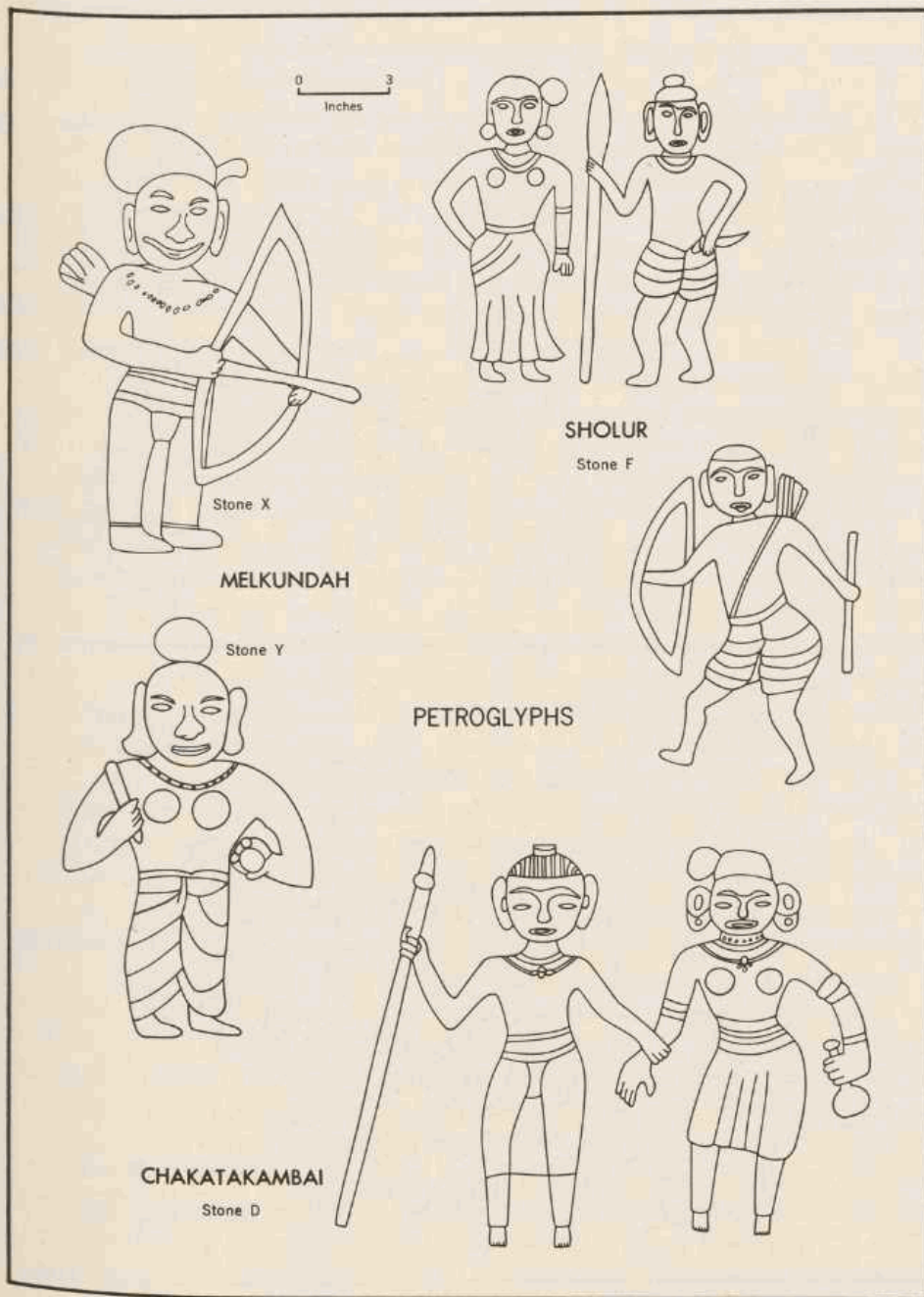


Figure 3

the male at Sholur. Surely rampant imagination was in part responsible for the diversity of headgear and hair preparation exhibited in Nilgiri sculpturing. Yet it is probable that this diversity does to a degree reflect the importance attached to headgear and hair fashioning as aids to caste ranking and prestige

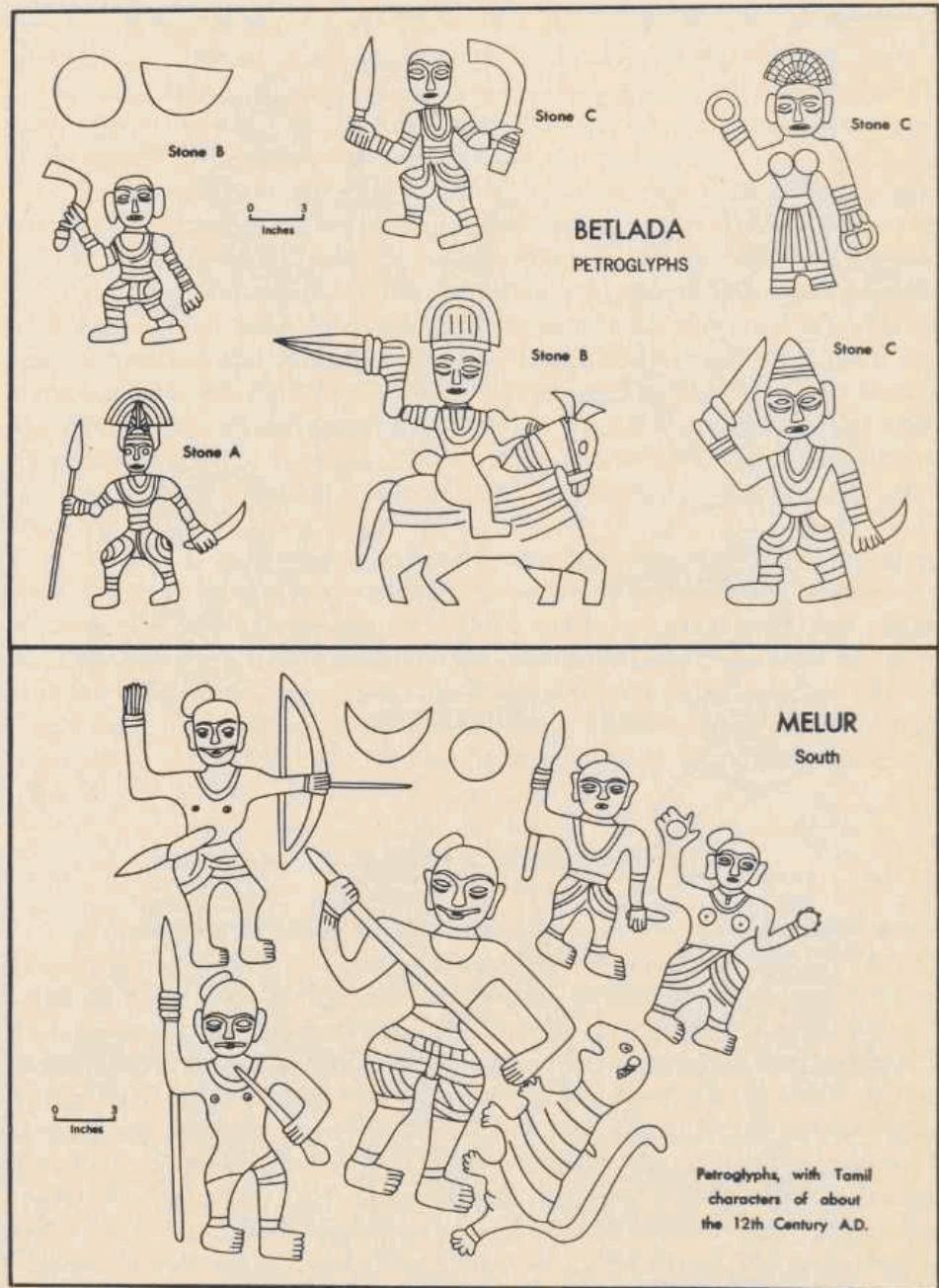


Figure 4

during medieval times. The female in the lower level bears in her left hand a circular object which is interpreted to be a lime, a suttee-related symbol. Is the lady's upper body exposed to the elements? If so, it does seem unusual that many other figures in stone appear to be similarly unclad. Seasonally

chilling conditions exist in areas where the dolmens are and, therefore, I suggest that artistic procedures used in the dolmens were motivated by prior conceptualizations gained in lower regions.

The Chakatakambai figures illustrate female / male body contact. If a male figure with spear in right hand does not have his left hand on his waist, the hand may well be grasping any part of a female's arm – or, *vice versa*, a female may be grasping any part of the man's left arm. The female figure bears a fine example of the bulbous object interpreted to be a suttee-related symbol. More will later be said about this object, but here it suffices for me to suggest that it represents a vessel with oil which a female poured over herself just before perishing in flames.

At Betlada (Map 3, Site 11) there is an outstanding assemblage of male figures bearing arms (Fig. 4). Events related to armed garrisons in a nearby fort, now in advanced deterioration, may have provided memorable episodes to be commemorated in stone. A man holding a boomerang in his right hand has a sun and moon above him. These symbolize the hope that an event so honored in stone will be on record for a long time, as time related to the sun and moon continuing to rise and set. Another male holds a sword and boomerang. Was there an attempt to show this and other figures with warm clothes, or even cotton-quilted armor? The female figure appears to be a highly stylized one, with lime upheld in the right hand and the left hand holding a pot. And is it too unreasonable to think that the sculptor may have intended to show radiant flames over the lady's head? A male figure with spear and dagger and another male figure with upraised sword and dagger illustrate bearers of arms in both hands, and are shown with most unusual headgear. There is also a warrior on horseback, with sword in upraised right arm. The horse appears to be covered with trappings – cloths for a triumphal parade?

At Melur, South (Map 3, Site 21) there are outstanding examples of composite panels. One is on the back orthostat in one of three aligned dolmens (Pl. 1 e, left-most dolmen with sculptured side orthostat). In conformance to what has already been noted, the animal and human figures in the panel are willfully spread to develop a theme (Pl. 1 g and Fig. 4). The broad outline of the events leading to the sculpturing in stone is liable to be agreed upon by many and is in this way interpreted: At least three men were involved in an encounter with a tiger. Spear, club, and bow with arrows were the types of weapons used. A brave man in the group thrust his spear into the tiger, but unfortunately was killed by his adversary in the *mêlée* which followed. The victim's wife became a *sati* and so accompanied her husband in death. The symbolic sun and moon add their stamp to the hope that the traumatic events, and especially the wife's great devotion, will not go completely unrecognized by future generations.

The height of artistry among the sculptured Nilgiri dolmens was achieved in another thematic panel at Melur, South (Fig. 5). The hero is the largest and central figure. From the pipal leaf emblem to his right, his headgear, his belt with dagger, and both the human and animal figures accompanying him, it is conjectured that the hero was a respected man with power or even a member

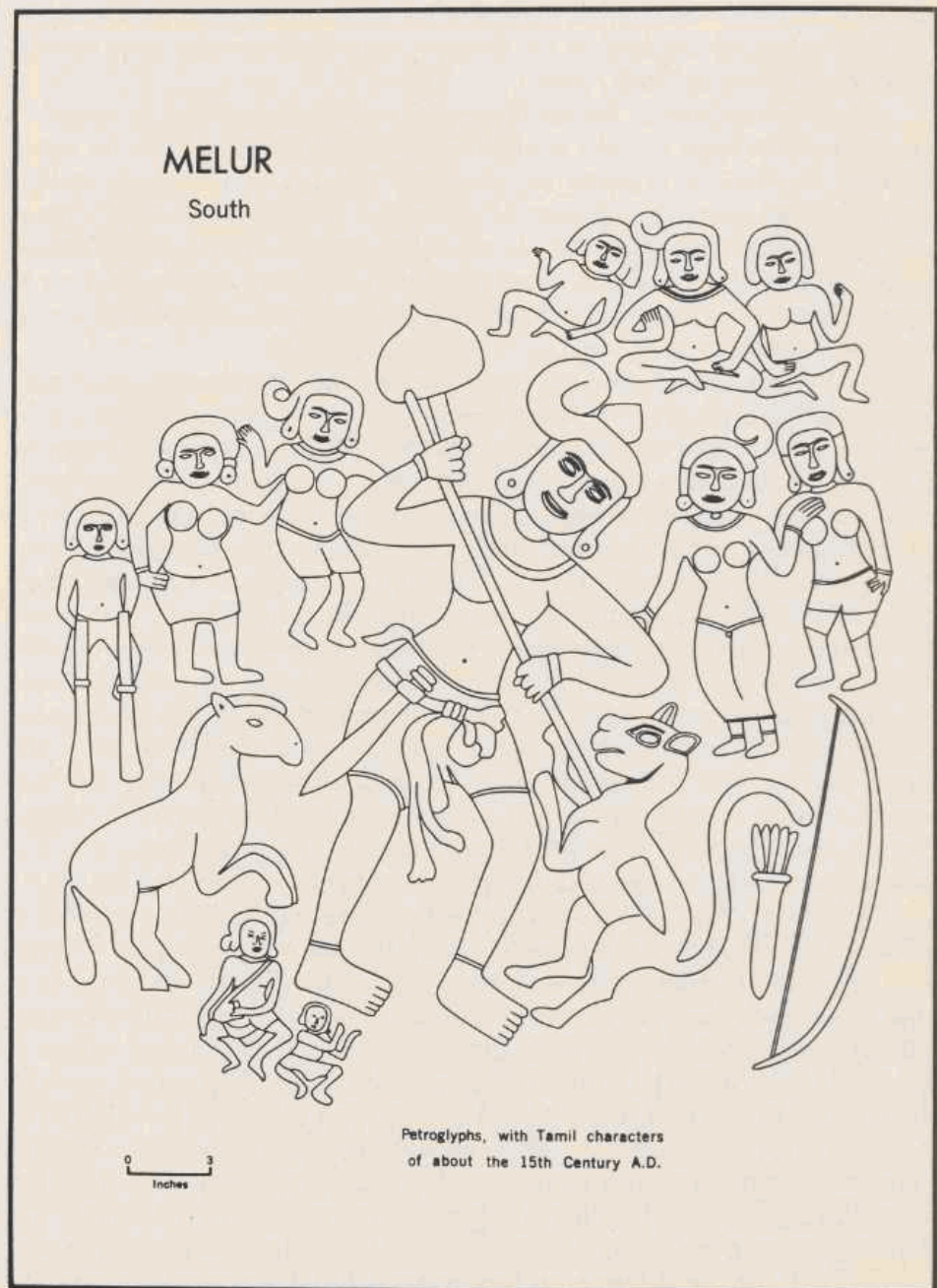


Figure 5

of royalty. Perhaps he was an army commander who was killed by a panther which was speared when it attacked. The bow with arrows and a horse may have been intended as symbols related to the hero's authority. It is also a fact that some women about to burn on funeral pyres rode to the cremation ground on

elephants or horses, so the horse here may be symbolically related to suttee. A female figure to the hero's left, holding a lime in her right hand, probably honors a sati. And the adjacent female figure may honor a second sati. Further interpretation is most difficult. Do the three figures to the hero's right represent three children of his? Do the two figures below represent the youngest two? Do the three above represent the spirit selves of his three children who died young?

There is some crude Tamil lettering on the two panels just discussed. A complete or even partially clear message cannot be deciphered, but workers at the Government of India Epigraphy Department (then centered at Ootacamund) dated the characters to about the 12th and 15th centuries A. D. However, the same lettering had previously been dated to the 13th and 17th or 18th centuries A. D. (CHAKRAVARTI 1935-36: 97). Despite discrepancies, the lettering indicates that dolmen building and sculpturing continued for centuries. The lettering could have been related to the Badagu (Old Kannada) speaking Badagas, for illiterate Badagas employed those versed in Tamil to write for them.

### 3. Comparisons

To further understand the sculpturing in Nilgiri dolmens, a brief comparison with sculpturing and past events elsewhere in India are in order. Memorializing through sculpturing in levels was done as far away as the Himalayas. In the small state of Mandi, presently a part of Himachal Pradesh, upright stone slabs to over two meters (seven feet) in height have rows of figures on them (CUNNINGHAM 1882: 123 and pl. XXIX). On the fully developed stones, seated rajas are represented in the upper rows, seated ranis are below, and then rows of figures representing concubine and slave girl satis fill the lower levels. On the pillars dedicated to ten departed rajas, for example, 252 satis are honored. It was also a practice there to sculpture the images of elephants and horses on the pillars. Closer to the Nilgiris, and especially in Karnataka, there are many formalized stone memorials with levels. In the front porch of the manager's bungalow at Pambara Estate, in the Malabar Wynaad, is preserved a typical Karnataka type memorial stone with levels. The bottom panel shows the hero meeting his death while he and another warrior fought with knives. The hero is escorted to heaven by two celestial females in the middle panel. The top panel shows the hero in the other world and worshipping a Shiva-linga with *yoni*. Also present is a *nanthi* and man holding an incense burner. The sun and moon symbols are above. Although this thematic type of memorial stone is not found in the upper Nilgiris (there are some in the Mysore Ditch), similarity exists there in the use of Saivite symbolization and the sun and moon emblems. In comparison with Mandi and Karnataka, some combined Nilgiri sculptured levels appear to be loosely thematic and so may honor single events. But the orthostats in other Nilgiri dolmens served for long-term memorialization – with one event being honored in one level, and a later event being honored in the same level or in the one below.

Simple memorial stones occur in many parts of India. In Kathiawar a dead hero was honored with a stone showing a man carrying a weapon. This figure is either standing or riding on a camel or horse (HORNELL 1942: 295–296, 299, pl. III and IV; WORKMAN and BULLOCK 1904: 353–355). A sati was honored with a stone which had an upraised arm severed at the shoulder. When four women committed suttee upon one occasion, four upraised arms were sculptured on the stone. Sometimes a hero panel was combined with a sati panel. The sun and moon emblems usually top each stone. In the ruins of Vijayanagar (City of Victory), Karnataka, memorial stones have male and female couples, or a male with female to each side, or a male flanked by more than two women (LONGHURST 1933: 35–38). Most female figures have their right arm up, with open hand facing front, and the left hand down at the side. Some female figures appear to clasp pots in their left hands. An elephant or horse might also be included. Saivite symbolization, with or without human figures, and/or the sun and moon emblems were commonly sculptured above. Elsewhere in Karnataka, at Chickmagalur, there is a more recent memorial stone with central larger male figure, a wife holding a baby to his left, and a son holding a gun to his right (Anonymous 1967–68: photo. opp. 145). At Havinahadgalli a female with side bun holds a lime and a male next to her bears an ax in the right hand and a bow in the other (REA 1896: pl. LXXX). We may also additionally note that a tendency to combine suttee-related figures was so strong that at Ghazipur, near Varanasi, figures representing a husband and his wife sati – sitting side by side – were fashioned on pottery (PARLBY 1850, 2: 421 and illustr. opp. 421).

To summarize, so strong are the artistic and symbolic parallels between the Nilgiris and other parts of India, that it becomes imperative for us to link Nilgiri sculpturing to conceptualizations elsewhere. In the Nilgiris some miniaturization assured a longer period over which orthostats in dolmens could be used. Figures honoring one event are accompanied by those honoring others. Because comparative data is lacking, the status of the composite panels on the Nilgiris is only partially known. There is the likelihood that they were conceived of locally and developed at Melur, South.

In turning to suttee symbolization, some proofs from Vijayanagar are first considered. What happened there and in other parts of the Empire probably had a marked effect upon artistic conceptualizations and procedures in the Nilgiris. We have two similar accounts of suttee practices from CAESAR FREDERICK (1563–81: 95–96) and FERNÃO NUNIZ (1535–37: 372–373). In the first account of 1567 A. D. the sati on the way to the cremation ground “carrieth in her left hand a looking-glass, and in her right hand an arrow, ...” On reaching the cremation ground “there is another woman that taketh a pot with oyle, and sprinkleth it over her [the sati’s] head, and with the same she annointeth all her [the sati’s] body, and afterwards throweth the pot into the furnace, and both the woman [the sati] and the pot goe together into the fire, ...” In NUNIZ’s account of about 1535 A. D. the sati on the way to the cremation ground “carries a mirror in her hand ...” And “finally she takes leave of all, and puts a pot of oil on her head, and castes herself into the fire...” From these

two accounts by Westerners who visited Vijayanagar we are confronted with the possibilities that the bulbous objects shown in the hands of Nilgiri female figures are either symbolic mirrors or oil pots. Because of the way they are depicted, it is highly unlikely that they represent mirrors. And what more telling symbol could a sculptor use than a representation of an oil pot which accompanied a sati into the flames and which contained oil to facilitate the sati's cremation?

LONGHURST (1933: 35), in his monograph concerning the ruins of Vijayanagar, states that suttee "seems to have been more actively revived in the fourteenth century under the Vijayanagar kings than in any other period." He documents a memorial specifically honoring those who committed suttee. It is called a *mastikal*, short for *maha-sati-kal* or great sati stone. Such a memorial was "sculptured with a pointed pillar or post, from which projects a woman's right arm, bent upward at the elbow. The hand is raised, with fingers erect, and a lime-fruit is usually shown placed between the thumb and forefinger". *Mastikal* symbolization was obviously utilized by Nilgiri sculptors. The significance of the lime is easily tied to the continuing practice in South India of guest showing respect and good will toward host by giving a lime. The lime symbol in suttee signified the wife's respect for the departed husband and her heartfelt desire to join him.

We can appreciate the significance of the upraised arm with open hand facing out if we remember a former practice in Rajasthan. Using the Elephant Gate at Bikaner as our example, HERVEY (1892/1: 155, 218) noted that each sati who went through "was required, ..., to place the palm of her hand upon some yellow daub presented to her on a platter ..., and to press it against the wall of the gateway, the hand-mark thus left being subsequently cut out in the wall, or, ..., a hand was fashioned in marble from the model afforded by the impression, and fixed upon it". HERVEY saw 37 distinct hand-marks on the Elephant Gate. In Rajasthan and in Kathiawar it became sufficient to honor a sati by sculpturing only an upraised arm with open hand facing out. In extreme South India the upraised arm was generally not separated from the body.

#### IV. The Five Groups and the Megalithic Cult

In this section an attempt will be made to answer the questions raised in the introductory section. The past or present relationships of each traditional Nilgiri group with a megalithic cult will in turn be questioned.

##### 1. The Todas

From the distributional correlation between Toda sites and stone circles (Fig. 2) we obtain the impression that stone-circle builders lived in areas occupied by Todas, but were the stone circle builders ancestral to the Todas? The writer cannot presently accept the notion that they, *per se*, were. A few argu-

ments against such a possibility are offered. The terra cotta animal and bird representations from the stone circles indicate a pastoral people economically dependent upon varied livestock. The Todas herd only buffaloes. Iron projectile points and combative swords or daggers from the stone circles provide evidence for a people who bore arms. On terra cotta mounts there are not only male warriors, but female ones as well (CONGREVE 1847: 89, 94). When the English first came, the Todas had no martial spirit and were not equipped for combat.

In comparison with stone circles most often located on or near summits and holding a wide spectrum of grave goods, these are the lower-lying Toda funeral features (for example, singularly present at the male funeral ground of Pñitz) which will most clearly become archeological remains:

a) large pens with massive walls, perhaps used to temporarily pen sacrificial buffaloes, and related to the final throwing of earth over corpses placed before their entrances,

b) stone walls and earthen embankments, which may be stone-lined, demarcating spaces wherein there are now funeral huts,

c) massive stones or piled stones outlining in circular or rectangular patterns the separate cremation sites wherein corpses are first burned or bone fragments are burned in second funerals (now rare).

Pottery remains at a Toda funeral ground are scarce. They mainly consist of scattered sherds from the black pots which are smashed before mourners bow to a stone and depart without looking back. In the early 1800s the Todas were dependent upon plain utilitarian wheel-turned pots made by Kotas and vessels skillfully constructed from bamboos and rattan. Bamboo-rattan containers easily perish. Sherds from the pots left a dull assemblage which contrasts sharply with the great variation in pots and terra cotta figurines from the stone circles. Artifacts made from aluminium (including copies of bamboo vessels), brass, and iron are now plentiful in Toda dwellings, but many are boringly plain when compared with the diverse and sometimes beautiful bronze vessels and iron implements from the stone circles.

The Todas, lastly, exhibit an economic-religious uniqueness by keeping secular and sacred buffaloes and processing ordinary milk in dwellings and sacred milk in dairy-temples. They have further maintained sacred grades of buffaloes, each attended by corresponding priests and each related to corresponding dairy-temples. That such a group could be directly descended from stone circle builders who had a broader artifactual and economic base thus become an even more remote possibility.

Three other speculations are raised:

1. Could the Todas have dwelt in the Nilgiris before the stone circle builders came, and could they have preserved their cultural identity while the stone circle builders were neighbors? The Todas have recently kept their cultural identity to a high degree, but some drastic changes have occurred. For example, the sacredmost *ti* herds and related dairy-temples are no longer maintained. Todas generally take advantage of the cash flow economy. Buffalo milk is regularly supplied to coffee or tea shops and cooperatives; Ootacamund is

the main center for clarified butter sales. If we admit to slower cultural changes in the past, there still seems little likelihood of the Todas having preserved a unique cultural identity for centuries while stone circle builders lived so close by. If stone circle builders once were aggressive fighters, Toda neighbors would probably have been exterminated or driven away.

2. It is more likely that the Todas filled an environmental niche in which a cultural void existed. Aided by fire, the stone circle builders doubtlessly cleared forests and created grasslands. It is reasonable to assume that stone circles were not located on summits until crowning forests were removed. Withdrawal long after a successful colonization or drastic population decline through epidemics may have ended a cultural milieu dominated by stone circle builders. Toda buffalo herders could then have freely migrated into areas with promisingly beautiful pastoral landscapes.

3. Perhaps, as RIVERS (1906: 686-691) indicated in two maps and with other convincing proofs, the two Toda moieties may have originated with two different groups migrating to the Nilgiris in different periods. Applying his thinking, but in reverse, is it possible that Todas with clan structure and intricate symbiotic relationships with buffaloes encountered culturally degenerate descendents of stone circle builders when they moved to the Nilgiri pastoral uplands? Could the Todas have converted these people into servants who would herd their sacred buffaloes and serve in their dairy-temples? And later, could the relationships so established have been formally codified by the servant group becoming a Toda moiety and forever a part of Toda society? By or in the period over which these possible changes took place, we may conjecture that the practice of constructing stone circles was ended. As the centuries passed in the high Nilgiri grasslands, stone circle builders would probably have discovered that buffaloes were best adapted to survival there. That a drift toward buffalo herding may have occurred is indicated by the abundance of terra cotta buffaloes in some stone circles. If such were the case, incoming Todas would have encountered an economically more compatible group with beneficial pointers to survival.

## 2. The Kotas

A few features now relate the Kotas to a megalithic cult. In Kota villages there are megaliths at sites where men gather to chat, relax, or settle vital issues (Pl. 2 *e*). The largest one, at Kirgoj or Padagula (the Tamil name), is close to two dolmens on platforms (Pl. 2 *f* and Fig. 6). One dolmen dedicated to the Father God (*Aynor*) and the other dedicated to the Mother God (*Amnor*) are used when temples are in disrepair or being reconstructed. Near Kirgoj there is a dolmen complex (Fig. 6) used for worship by Kotas and Badagas. In a stone reliquary at Kolmel (Fig. 6) are placed the wrapped bone fragments for the second funeral held once a year. In historic times only six Kota villages endured on the upper Nilgiris (Map 2); in the past, therefore, there were probably fewer villages. Because of no close distributional correlation between the six

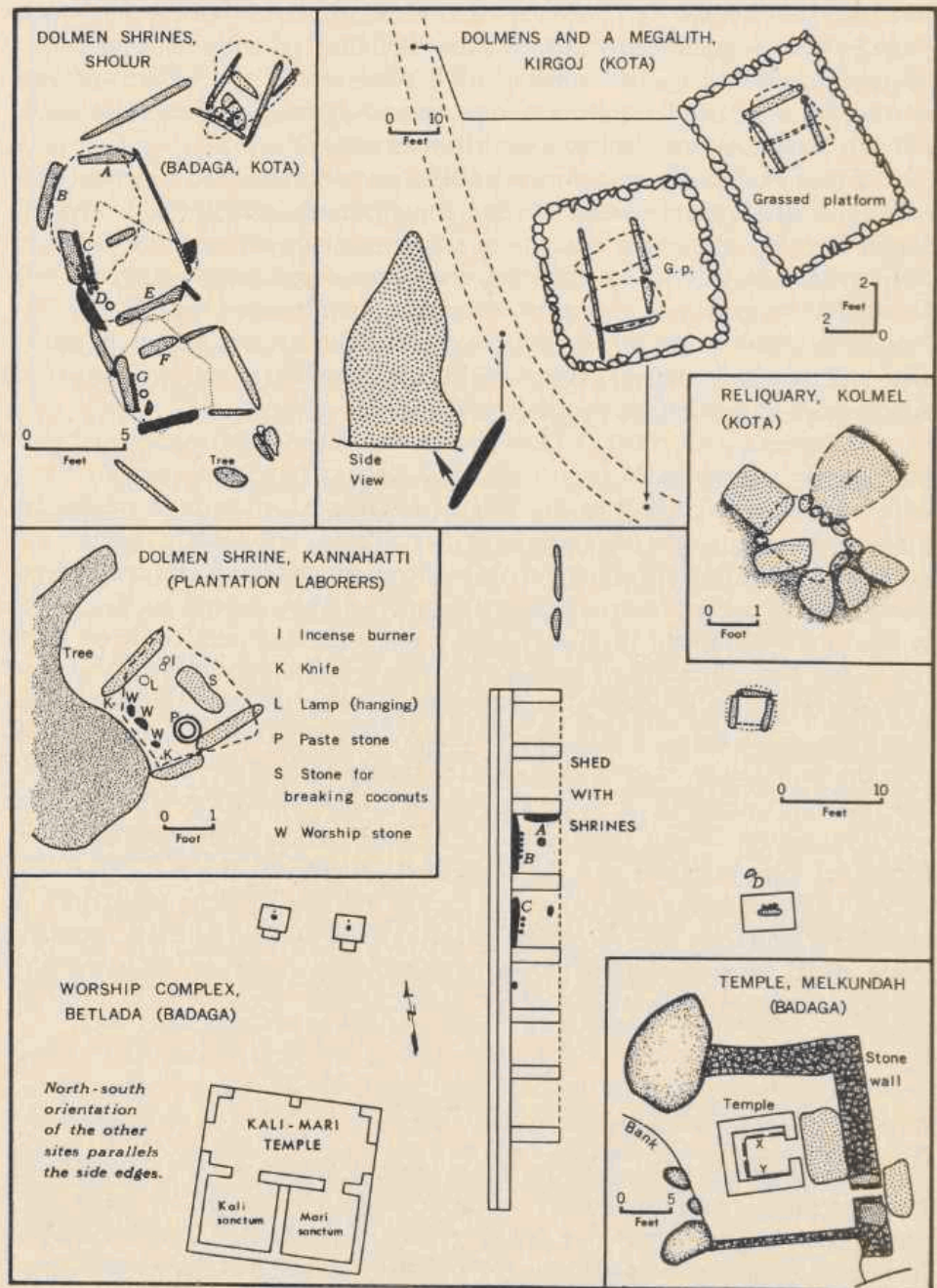


Figure 6

villages and stone circles, it is unlikely that ancestral Kotas generally constructed the circles. The two Kirgoj dolmens are quite distinct from the others.

The possibility of the Kotas being indirectly related to the stone circles becomes very real when we consider past potential interrelationships between

the Kotas and others. In their traditional economy the Todas depended upon grain supplied by Badaga and Kota farmers. They used pots and iron implements made by Kotas, and at Toda funerals the Kotas served as musicians. In exchange the Todas gave some buffaloes, milk products and especially clarified butter, and to the Kotas sacrificed buffalo corpses. As there is a widespread belief that the Kotas and Todas helped the Badagas to settle in the Nilgiris (for a Kota version see EMENEAU 1946/2: 255-260), a herder/farmer-artisan symbiotic relationship probably existed long before the Badagas came. Was there a similar relationship between Kotas and pastoral stone circle builders? Did Kota ancestors fashion the wide variety of pots and animal or bird effigies buried within stone circles? Did they provide utilitarian iron implements? The three northern Kota villages are functionally well located for farming and serving the needs of nearby upland herders. Of the three, Kirgoj may have been the first to be settled. Were the remaining three more southerly villages established to serve the needs of later Badaga colonizers?

### 3. The Badagas

Dolmens are at lower elevations and in valleys where farming dominates, so there is distributional support for the idea that stone circles are related to herders and that dolmens should be linked to possible gatherers-hunters and later farmers. Thus, the Badagas, Irulas, and Kurumbas appear to bear no relationships to the stone circles. The Badagas do not directly claim the dolmens as being erected and sculptured by their ancestors. In that they exhibit emotional attachments to the sculptured dolmens, generations of illiterate peasants possibly continued an increasingly vague link with sculpturing which honored activities by ancestors. In this section the Badaga relationships with sculptured dolmens are dealt with. In the next section evidence is offered for the Kurumbas having erected most dolmens.

Seven of the fourteen sites with sculptured dolmens are on the outskirts or within hamlets or villages where Badagas reside. Two sites will interest those who study the development of religious centers in India. CONGREVE (1847: 118, 120) fortunately visited Betlada (or Achenny or BREEKS' Achenna) while dolmens still stood and left us this description:

At the extremity of a field beyond the village and overlooking a ravine, rises an artificial terrace twenty-one paces in length by ten in breadth, supported by slabs and masses of stone. Along the western side of this platform I found a row of... [dolmens]. There are twelve still standing, ten on the side of the terrace and two in the centre of it. The ruins of several others are apparent. Most of the entire ones consist of three upright slabs planted firmly in the earth and supporting a fourth, which is poised horizontally on the tops of them. Four of the... [dolmens] are larger than the rest, being about five feet [c. 1.52 m] square, and five [1.52 m] high, the length of the upper slab measuring seven feet [2.14 m]. ..., I was told with much gravity that they had been constructed by a race of beings not a foot high, who existed before mankind and were destroyed at a flood which overwhelmed the earth...

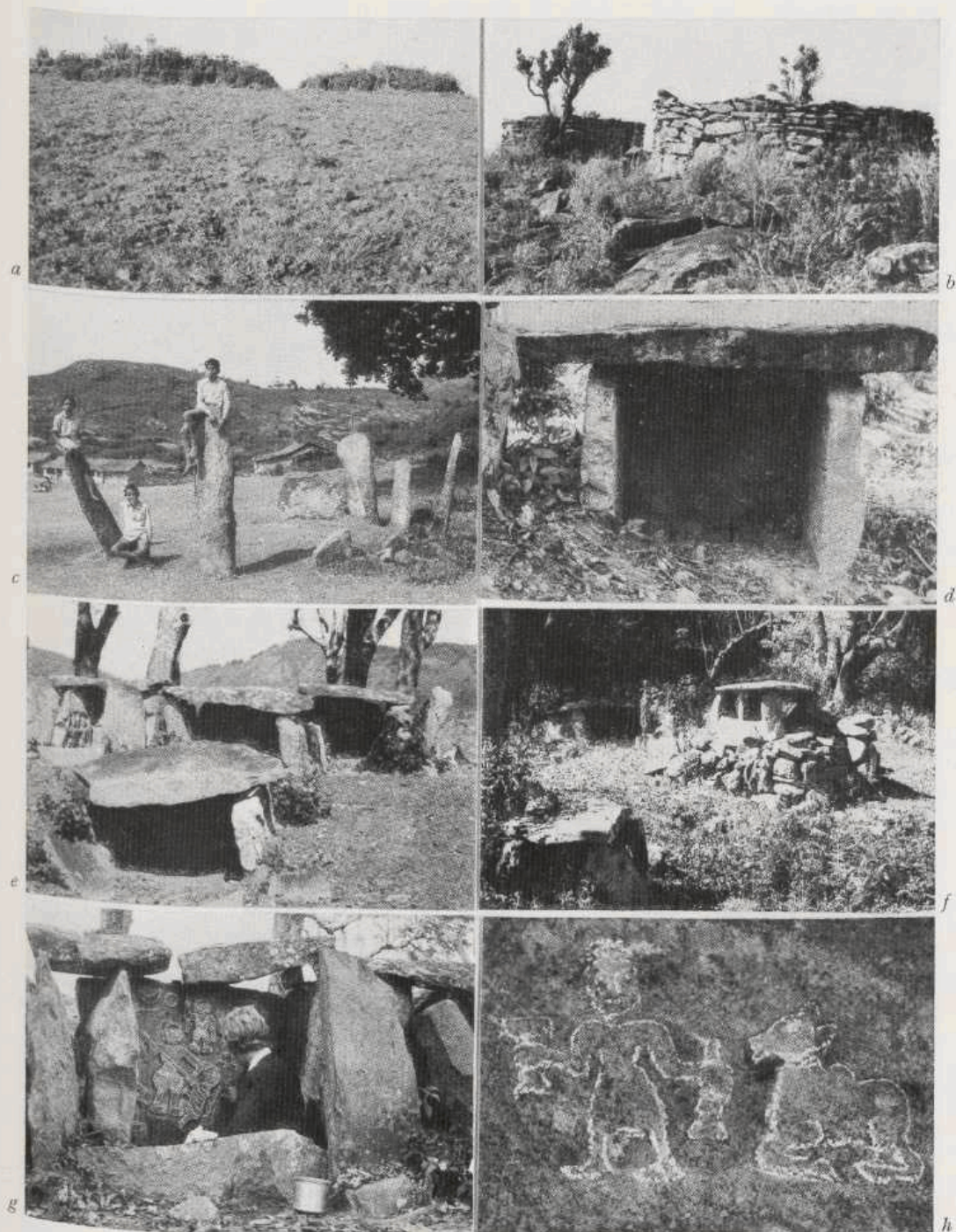
Four upright stones of three... [dolmens] have been converted into monuments... and are covered with sculptures...

Most dolmens were demolished by the time BREEKS (1873: 104, pl. XLIV A and LXVI) visited the site some 25 years later. The four remaining aligned dolmens were "built into the wall of the village *kraal* [cattle enclosure] and used as calf pens". Three sculptured orthostats in two dolmens were left; a fourth orthostat, with one row of figures, in a third dolmen had been destroyed or removed. In 1963 the writer was told that the cattle enclosure no longer exists and could not find the remains of one. The Badagas have built a shed with seven shrines, and in two shrines there are the three sculptured orthostats recorded by BREEKS (Fig. 6). Orthostats are scattered nearby, and one is incorporated into a shrine with base. Aligned worship stones are in both shrines with orthostats. These and the orthostats are smeared with oil, and vermilion is frequently put on the worship stones and on the bottom row of figures in each orthostat. A lamp is lit at night in the central shrine, and a priest leads worship at the shrines on a weekly basis. Not far from the shrines is a Kali and Mari temple.

At Melkudah the dolmens mentioned by BREEKS (1873: 105) were not visible. Inquiries as to where they were led only to the pointing out of a small temple which is square-based, surmounted by a dome, and white-washed. Finally, after removing shoes and being permitted to enter, it was discovered that sculptured orthostats from the largest dolmen had been emplaced within the temple (Fig. 6). A major portion of the capstone fronts the wall entrance and a fragment broken off is on the stone wall. Images and paraphernalia for worship are on a shelf above the orthostats. There is a framed picture of a seated *Krishna*, the deity most honored. That he was chosen is not surprising, for here and elsewhere the Badagas relate the sculptured dolmens to the five *Pandavas* and other characters in the *Mahabharata*.

Of the other five sites, the Chinna Coonoor dolmens stand in a grove which is close to a house. The dolmens at Doddamanaihatti are downslope from and behind a house next to the road. They are close to scattered orange trees and in 1963 served as storage bases for firewood. The Kagguchchi dolmens are in the open and close to a ceremonial arch on the edge of this honey-producing village with Kagguchchi caste Badagas. At Sholurmattam the dolmen is incorporated into a schoolground wall and is near the main thoroughfare. By placing a stone slab in the back and another stone in the middle, this dolmen was converted into a wayside shrine still in use.

Thoraiyas, members of another Badaga caste, live in a hamlet next to the parklike grazing grounds where the Melur, South dolmens are; the main village is farther to the north. The combined features and continued sacred associations here indicate the early and long use of this site as a cult center. In a northerly to southerly direction, there is first a Mahalinga temple surrounded by combined earth embankments and brick or piled stone walls. Near the temple constructed in 1949 is a small dolmen erected by Badagas, a *nanthi*, and a depression identifying the annual firewalking site. Secondly comes a series of shallow mounds roughly outlining a circular enclosure. The only round Badaga temple which was documented (BREEKS 1873: pl. LXXV) may have been centered in the enclosed space. Next, a large circle barrow has a small



a) Stone circles in the Wenlock Downs  
c) Stone circle at Ebanad  
e) The main group of dolmens at Melur  
g) Far left dolmen in above group, Melur

b) Stone circles on Seven Fort Hill  
d) An ideal dolmen at Kilkundah  
f) Dolmens in Banagudi Shola  
h) Sculpturing in the above right dolmen,  
Banagudi Shola

1870

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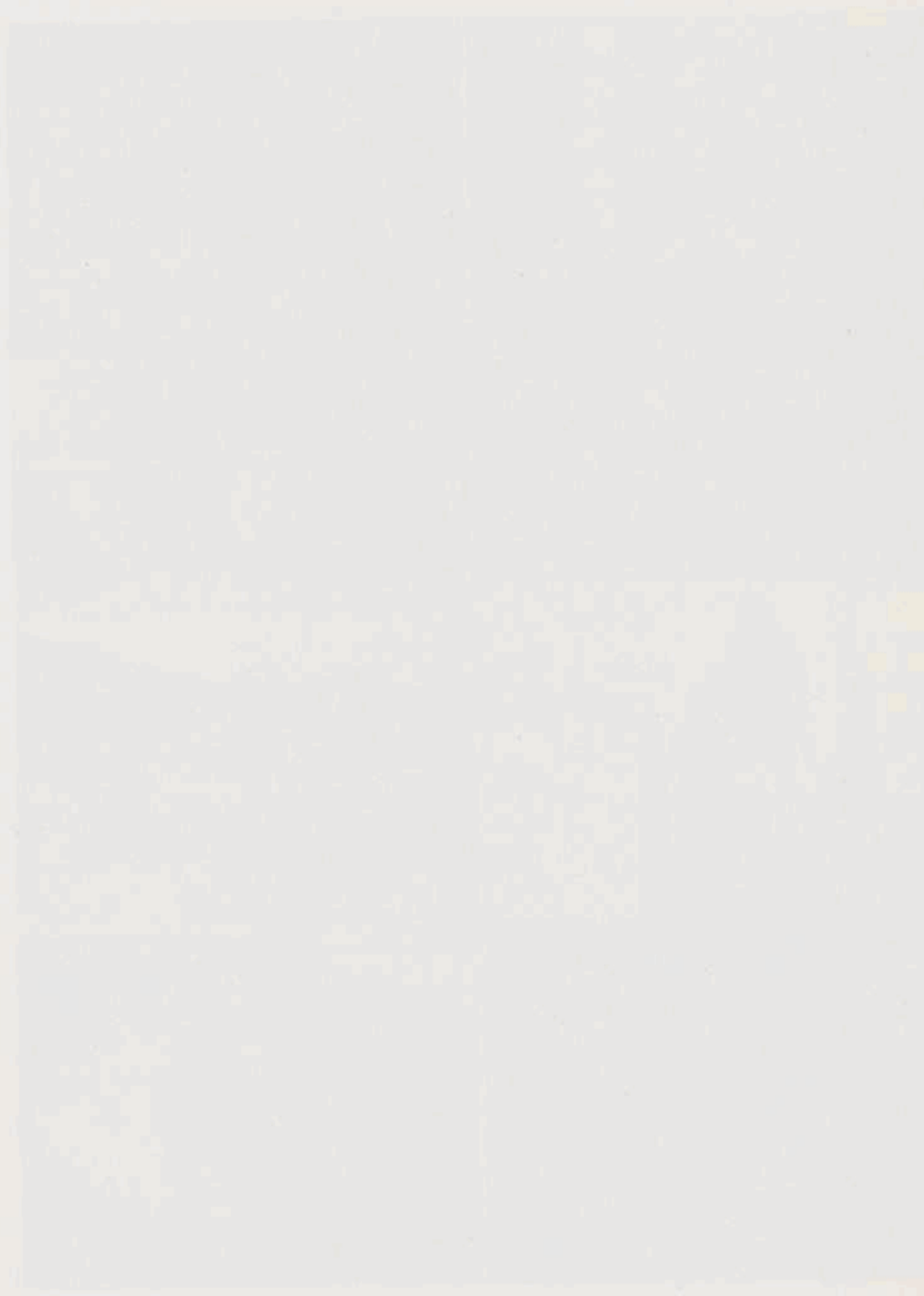
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a) Male and female figures, Banagudi Shola  
c) Orthostats (T, V, W, X) at Kavilorai  
e) Kotas and megaliths in Kolmel (Kolamalai)  
g) Ceremonial dolmen and arch at Ketti

b) Crude figures in the Melkudah temple  
d) Orthostats (O through T), Kavilorai  
f) Two dolmens and a megalith in Kirgoj  
h) Modernized dolmen with worship stones

1891



...



a) A dolmen and Kurumba boys  
 c) Figures from this eastern slope dolmen  
 e) Piled stone platforms at Kavalkombai  
 g) Small dolmen for offerings, Kavalkombai

b) Piled memorial stones inside the dolmen  
 d) In the same dolmen are two other figures  
 f) Sample memorial stones on a platform  
 h) Stones in the Irula temple at Koppayur



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circle barrow beside it. On the smaller one are two aligned dolmens, and in one of these is the finest sculptured thematic panel (Fig. 5). Outside the large circle barrow, and in triangular positioning when related to the two aligned dolmens, are a single dolmen with sculptured back orthostat and a group of four intact dolmens (Pl. 1 *e*). Forthly, there is a large sacred tree (*Ficus* sp.) beneath which are two sacred arches on a stone platform. And lastly comes a Thoraiya Saivite temple. It has a *linga* and *nanthi* in front and is surrounded by combined earth embankment and piled stone walls. Annual firewalking at the Mahalinga temple, reported by FRANCIS (1908: 339), is still conducted and forms a vital part of a major Badaga festival. The festival initiates, for the main agricultural season (*karbokam*), the sowing and planting time which extends from March into April.

The remaining seven sites have varying degrees of past or present relationships with Badagas. To reach Bana [secluded] gudi [temple] Shola [temperate forest remnant] one walks through the Banagudi Shola Tea Estate and to a forest which is close to swampy grassland. The site is not far from the Badaga hamlet of Kasalhada. Trees surround the dolmens (Pl. 1 *f*). There is sculpturing in only the largest dolmen among at least eight. Sacred ash on the foreheads of each sculptured figure on the two back orthostats in this dolmen and seven worship stones within testify to continued worship at the site by Badagas and others. A large *linga* is propped on its side in a second dolmen, and a *linga* is held upright by stones at another dolmen's ruin. BREEKS (1873: 103) stated that the dolmens here were "close to the remains of a large village, which is overgrown with jungle, and only traceable by lines and heaps of rough stones." He called the village Dodduru, and local Badaga belief still relates ancestors to the site. FRANCIS (1908: 338) documented another tie between the Badagas and the Shola. According to him, in the midst of the Shola there was a shrine honoring a Badaga who was slain while fighting a tiger. A wall surrounded a stone hut in ruins. Within the ruins were a small dolmen, some worship stones, and terra-cotta effigies of dogs, a tiger, and a mounted man. During annual ritual the effigies were replaced.

There were large forest trees standing near the Chakatakambai dolmen when it was seen by BREEKS (1873: pl. LXIII). Tea in the Chakatakambai Tea Estate now surrounds the dolmen. The place name indicates the past presence of a Kurumba hamlet. As local Badagas believed a village existed here (FRANCIS 1908: 338), it is probable that settling Badagas forced the Kurumbas away. Kurumbas came annually to the dolmen and performed sacrifices for Badagas (BREEKS 1873: 103).

The Kengarai dolmen (Map 3, Site 14), which has an unusually large capstone (Fig. 2), is located near the road and about two kilometers (one mile) north from present Kengarai. FRANCIS (1908: 331) noted that the dolmen stands where old Kengarai once was.

A tradition still current claims that Kurumbas, by their magic and sorcery which killed persons, forced members of the Adiakari caste of Badagas to leave Tudurmattam and establish the present Adiakarhatti village (FRANCIS 1908: 316). Badagas now identify the abandoned site by a so-called round

temple – seven sculptured orthostats aligned in a roughly circular fashion. Two capstones cover portions of the enclosure. Other orthostats, including two which are sculptured, stand close by. Tea in Woodland Tea and Coffee Estate now surrounds the site. A sculptured man holding an umbrella over a horseback rider identifies this site as the one BREEKS (1873: 104–105) saw on Major Sweet's plantation. The dolmens which then stood are said to have contained iron and bronze armlets, rings, and sickles, two small iron hatchet heads, and a utilitarian pot – but no bones or charcoal. If BREEKS' widow did not confuse this site with an excavated one (SAXTON 1870: 52–54; WALHOUSE 1873: 276–277), the collection of artifacts was the largest recorded for any site with dolmens. There are generally no artifacts in dolmens.

Eastward from the Tudurmattam site, and southward from the high remnant range across the valley from Coonoor, a site was visited in 1849 by WALHOUSE (1873: 275–276 and a plate). Here were aligned three large dolmens and a smaller dolmen at each end. There was sculpturing on the orthostats. By 1856 the dolmens had been demolished, and WALHOUSE saw scattered stones. I could not find the site.

The Sholur dolmens (Fig. 6) are less than one kilometer (one half mile) from the Badaga village. Close on the other side is the Kota village of Kirgoj. As elsewhere, the dolmens are referred to as homes of the five *Pandavas*. One compartment in the largest dolmen honors *Arjuna*, and *Bhima* is honored in the other; the large single dolmen is dedicated to *Dharma*. The third, separate smaller dolmen is dedicated to *Kali*. In each there are worship stones and lamps stand in the two main dolmens. Sculptured figures and worship stones are smeared with sacred ash and vermillion. Badagas who showed me the dolmens removed their turbans, knelt, and prayed (hands on dolmen rims, and then bowing heads to the hands).

In Kilkundah (Map 3, Site 20) and next to the road is an unsculptured dolmen. A sculptured dolmen and two unsculptured dolmens (Fig. 2 and Pl. 1*d*) stand beneath a tree and in the midst of tea at less than one kilometer (one half mile) from the Badaga village.

At a greater distance from Kavilorai village, and down the valley, a grove of wild trees stands amid Badaga fields. Dolmens and upright stones (Site 3) stand in the grove. The aligned dolmens face onto a field. Two have worship stones, and Badagas occasionally worship here. Lantana growing thickly had to be hacked away from the aligned stones southward from the dolmens. There is no easy explanation for these rows of upright sculptured stones which on the upper Nilgiris stand only at this site. I suggest the dolmens erected by former Kurumba inhabitants in the area were first utilized. Because it was more difficult to execute and to see the interior sculptures, Badagas could have decided to emplace upright stones and sculpture them. If this be so, the southernmost group may be the youngest. The two dolmens used for worship and with no sculptured orthostats might have been erected later, and possibly by Badagas.

Apart from the Badaga-dolmen associations covered thus far, their practice of suttee was a custom which:

1. set the Saivite Badagas apart from the other four groups and
2. made their ancestors the most likely candidates to be related with sculptured dolmens.

Englishmen settling on the Nilgiris in the early 1800s did not record any instances of suttee, so we must assume that the practice had ended by then. That it endured for long is indicated in this statement by KING (1870-71: 20-21):

I found in a solitary part of the hills near Hoolical [also near WALHOUSE's demolished dolmens?], half-hidden in lemon-grass nearly its own height, a temple..., dedicated to Hetti [*Hethai*]. It consisted of two parts, the temple itself being a small thatched clay case like a large beehive, standing on a platform raised five or six feet from the ground. This contained, as I was told, portions of the clothing of a deceased Vadava [Badaga] of wealth and of his widow, who had undergone the suttee with the corpse. ... Opposite to, and a few paces from, this small memorial temple stood half-a-dozen spear-headed stakes [Saivite emblems] placed in two rows, and connected by an ornamental transverse bar, having a seventh point, and hung with grass cords. ... These simple erections, from their perishable nature, and from the custom which they commemorate, having become obsolete, are now rarely met with on the hills.

Among the Badagas we find the results of a deification process manifest elsewhere in India – namely, sati deification. Deified female ancestors called *Hethais* are the Badagas' own, most popular goddesses. At Bergani the Masti or Great Sati *Hethai* has a dairy-temple and a sacred buffalo herd dedicated to her. To attend the annual festival honoring this beloved goddess, many Badagas flock to Bergani. Local *Hethais* who committed suttee are worshiped on a lesser and more local scale. The Ketti Valley one has temples dedicated to her and is particularly honored in each annual festival. Some elements in the Ketti festival clearly illustrate the desire to bind a social subsystem to the major Bergani system involving Badagas all over the Nilgiris. By extension, one obtains the impression that at Bergani and Ketti all Badaga satis are in a sense being honored.

Events related to both *Hethais* are sung of or narrated in folk tales. In the Masti *Hethai* folk tale, a boy from Bergani went to Nundala so he could herd buffaloes belonging to his uncle. For this service the uncle was to give in marriage his first daughter, when she became of age. Instead, the daughter married another. To keep the youth working as herder, the second daughter promised that she would marry him upon maturity. The youth died prematurely, and the young girl started to tend the buffaloes on the morning for his cremation. She crossed the cremation ground, and came to a stream where she aimlessly stirred the water with her shepherd stick. When her fiance's image appeared in the water, the girl decided to commit suttee. She climbed on the by then burning funeral pyre and was consumed in the flames. The girl's departed spirit temporarily possessed a Dimbhatti man. He came to a place called Huleur and predicted that a lying buffalo which had calved eighteen days previously would stand again. After the buffalo miraculously stood on the next day, its calf given as an offering formed the initial nucleus of the sacred buffalo herd at Bergani. The Ketti Valley events relate to an ancestral Badaga and his wife. The husband fell in love with a Chetti woman who lived

nearby. His wife learned of the affair, but remained devoted to the husband. One day the house caught fire while the husband was with his lover. Devoted wife ran to the house and found most of it burned when she arrived. It was too late to save the husband, so the wife leaped into the flames. She was cremated, but the border of her garment remained unburned. Those examining the site afterwards thought this to be a miracle, so they decided to honor and worship this sati.

What deified *satis* mean to the Badagas will be better realized after brief coverage of the events which attend the festivals honoring the Bergani and Ketti *Hethais*. These are completed before the January–February harvest which ends the lesser agricultural season (*kadaibokam*). Let us start with Bergani. People desiring favors from the Masti *Hethai* donate buffaloes to the sacred herd during the week which precedes the main Monday festival. A time comes when the buffaloes are garlanded and presented one by one to the young celibate priest. On Sunday the image of Masti *Hethai* is carried from the dairy-temple to a grassy flat. Male elders in new or freshly laundered white clothing and with carved sticks – reminders of the young girl's shepherd stick – seat themselves on the ground near the image. Men arriving at Bergani come one after another to give a 25 pice (equal to four old annas) coin offering, which is then washed and placed on a white cloth spread before the image. As new arrivals bow to the ground, they are blessed by the elders, and the elders petition Masti *Hethai* on their behalf. If an entranced individual possessed temporarily by the Goddess is present, he may convey her reply to a new arrival. As renowned singers are also present, there is singing of traditional accounts or improvised new narrations. Some of the latter are designed to put visitors at ease and in a mood to enjoy the worship of Masti *Hethai*. At nightfall the elders take the image back to the dairy-temple. Far into the night there is socializing; the long story of Masti *Hethai* is sung to the accompaniment of bamboo base flutes and men clapping hands. On the next day, always a Monday, the image is again taken from the dairy-temple. Two priests, shaded by umbrellas, carry the image and ritual paraphernalia. Many accompanying men clad in spotless white and with their Masti *Hethai* sticks make the procession a long one. The image is taken to a flat between a stream and a steep grassy slope. Men remove their turbans and sit on the slope. A few Toda representatives sit with the assembled Badagas, for each year the Todas give at least one buffalo to the sacred herd. The Masti *Hethai* image is washed in the stream and dressed in a freshly-woven cloth. Two priests, one of them pigtailed, go into a trance and are believed to be possessed by Masti *Hethai*. Men in the assembled crowd clap their hands and sing; through responsive dialogue they stimulate the priests. One priest predicts the upcoming harvest yield. The other pigtailed priest calls, one at a time, males who have sought special favors from the Goddess. Each summoned man walks onto the grassy flat, bows to the earth, receives a blessing from those assembled, and is told Masti *Hethai*'s response. Many responses contain assurances that wives will soon bear sons. The proceedings end with a priest telling assembled women – bowed down to the earth, away from men, and on the other side of the stream – what to do if they desire to

bear male infants. Then the priests come out of the trance state, and the males conduct the image back to the dairy-temple.

The Ketti festival is celebrated one or two weeks later. In preparation for it the houses are whitewashed and cleaned. On Friday a special food is prepared from broken *samai* (*Panicum miliare*). On Saturday morning the houses are decorated with marigolds and mango leaves. Children, mostly older girls, use pestles and ash or powdered lime to decorate the flat work areas fronting the dwellings. Griddle cakes made with wheat are first fed to garlanded cows and calves led around the village. And then family members partake. On Sunday a red umbrella is carried in procession from Dimbhatti to Hulada, one of the Ketti hamlets. There is drum beating, chanting, singing, and dancing in the procession which arrives in the evening. A joyous crowd welcomes those who have walked about fifteen miles, and a priest at Hulada makes the usual ritual offering. This and the next main day are a period when relatives meet again, and there is much feasting. On Monday *Hethai's* image is removed from the temple, placed on a litter, and carried by men to a stream. There the cloth to wrap the image in is washed, and the litter is decorated with garlands, leaves, and umbrellas. Women desiring favors come to the image and offer silver or gold miniature umbrellas. There is also responsive chanting by priests and elders. The procession which forms to take the *Hethai* image through the streets and back to the temple has this composition:

1. a priest in front,
2. men carrying *Hethai* sticks,
3. lamp bearers,
4. the decorated litter with *Hethai's* image, carried by twelve or more men,
5. a priest and men from Dimbhatti,
6. a crowd of singing male dancers,
7. young boys clapping and at the rear.

Women on the way pour turmeric water on the feet of either priest. Once the procession reaches the *Hethai* temple the image is returned, and the decorations on the litter are dismantled. The customary offerings are made within the temple, and some go on to make offerings in the *Hirodayya* (deified First Ancestor) temple as well. Dancing in the courtyard next to the *Hethai* temple and feasting on rice and curry end the festival.

In resume, all the examined sculptured dolmens bear direct or indirect relationships to Badagas. Because of the sati and Saivite symbolization frequently depicted, the Badagas are the most likely traditional group with ancestors involved in sculpturing. Apart from locational and ritual closeness between the Badagas and dolmens, these Saivites honor and have strongly integrated deified satis into their religious system. Some Badaga ancestors probably came to the Nilgiris while suttee flourished in the Vijayanagan Empire. That Badagas practised suttee long after is certain. Kurumbas are a shy and retiring people who retreated when pressures from outsiders became too intense or when landscapes became too tamed. Settling Badagas and, particularly, the pronounced population increase among Badagas – with accom-

panying landscape changes – drove Kurumbas away. I propose that Kurumba dolmens close to Badaga settlements were appropriated for the sculpturing honoring heroes and satis. If Badagas had erected dolmens for this purpose, why are there no sculptured dolmens at Bergani and Ketti? There would also be many more of them but, to the contrary, the large majority of Badaga hamlets and villages do not have dolmens nearby. Lastly, it would be misleading to ascribe all sculpturing in dolmens to the Badagas; this primitive art must also reflect some activities by others who visited the Nilgiris or inhabited them for some time.

#### 4. The Kurumbas

As Kurumba relations with some unsculptured dolmens are clear, these dolmens will be discussed. But first I shall cover three features with a questionable status. The feature on Bilikal Betta (Map 3, Site 2) once had more than ten orthostats forming walls of a rectangle approximately 1.25 meters (four feet) by 2.5 meters (eight feet). There is now no proof that this feature was covered with capstones. If it had been, a dolmen classification would hold. Because of its location high on a slope and in close proximity to a stone circle, the feature is in any case distinct from the dolmens discussed thus far. On the slope of the mountain above Chinna Coonoor (Site 5) there is a capstone leaning on a large rock and held up to a height of close to twenty centimeters (nearly eight inches) by two rounded boulders. Shepherd boys in play may recently have created this feature which varies considerably from typical Nilgiri dolmens. At Ebanad (Site 6), at some distance from the stone circle on the village green next to the school (Fig. 1, 6 and Pl. 1 c), there is a feature resembling the one on Bilikal Betta. As there are two large flat stones tilted on their sides within, it is possible that several such stones once served as covering capstones. If that was so, I would classify the feature as a dolmen type different from the dolmens with sculpturing.

In the case of Ketti dolmens (Site 8) we are back to the familiar type. Close to a typical ceremonial arch (Pl. 2 g) there is an intact dolmen and an adjacent dolmen with one tilted orthostat (Fig. 7). This site in the Badaga heartland has interesting ties to Kurumbas; it is used on only one day in each year. During the *Hirodayya* Festival, which takes place before the July-August main crop (*karbokam*) harvest, a Kurumba on Saturday sits in the intact dolmen and weaves a garland of wheat stalks. The Kurumba bears the garland on his head to a place where the *Hirodayya* priest prays. Then the garland is tied onto the ceremonial arch. The Kurumba afterwards places his hands behind his head and loudly yells "*Dey, Dey*" nine times. Thus he, the magician, lets the people know that a vital segment in pre-harvest rituals has been completed. The same Kurumba participates in other segments of the *Hirodayya* Festival. On the prior Tuesday in the same week the Kurumba and priests from the Ketti Badaga *Hethai*, *Hirodayya*, and the Ketti Thoraiya *Hethai* temples meet in a field near a stone, mortar, and whitewashed shrine (Pl. 2 h and Fig. 7). I classify this feature as a modernized dolmen. The shrine sits on a small tree-

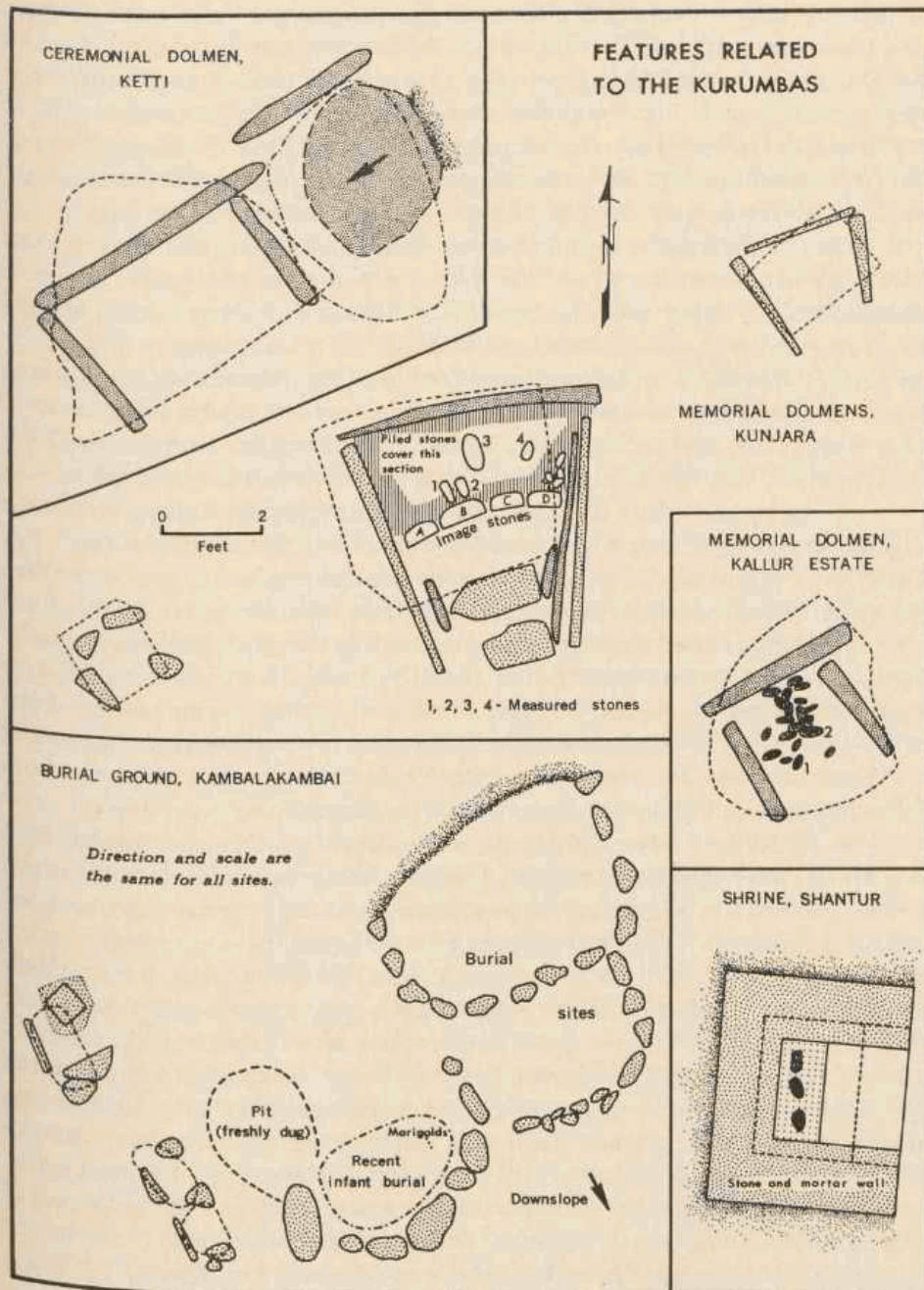


Figure 7

shaded higher plot amid fields at the bottom of the Ketti Valley and near Shantur, a hamlet in the greater Ketti village. The priests bless the Kurumba, who prays and makes the customary offering of banana, coconut, and incense before poleaxing a buffalo calf with the back of an ordinary ax. A small spear

brought by him is used by the Kurumba to draw some blood from the calf. This blood is smeared on the Kurumba's forehead. In closing and before dawn the Kurumba shouts "*Dey, Dey*" nine times. On Thursday the Kurumba is present while temple doors are opened at Shantur. That night the Kurumba is in attendance during ritual offering and singing at the Ketti *Hirodayya* Temple. On Saturday, the second of two days in which ritual is performed at the Shantur Saivite and *Hirodayya* Temple, there is another pre-dawn sacrifice by the Kurumba – this time, of a goat, before the modernized dolmen. The same three priests are in attendance. After their blessing, the Kurumba prays. He pours turmeric-yellow water over the goat. When the goat shivers, the Kurumba severs its head with a large sacrificial knife. The goat remains are dragged by the Kurumba to another place set apart for him. Here, where the priests cannot hear, sacred sayings or *mantras* are chanted. The carcass is later divided. Some meat sent to the Ketti *Hirodayya* Temple is cooked into food for the First Ancestor God, and this is later given to the priests and other worshipers.

At Kannahatti (Site 21) there is a dolmen (Fig. 6) which serves as a wayside shrine for Badagas and plantation laborers. The trunk of a large tree (*Ficus* sp.) replaces a back orthostat and the small size indicates recent erection. The ritual paraphernalia left within the dolmen are informative to those not versed in Hindu ritual. Farther away and next to the road, before an upright stone, there are twenty-eight Shiva tridents. Irulas live in the eastern belt where the dolmen is located, but it is worth noting that Kurumbas also dwell there – and in close proximity to Irulas at some places. Because the sites of two Kurumba hamlets are close to the Kannahatti dolmen, here may be a Kurumba dolmen which was appropriated for Hindu Saivite worship.

In the Kallur Coffee Estate, above the Mettupalaiyam to Kotagiri ghat road and a coffee stand, and next to a forest, there is a dolmen (Site 13) which serves as a type site and reveals to us the reason why Kurumbas have been the leading dolmen erectors in the Nilgiris. Inside the dolmen are rounded water-worn stones (Fig. 7), each one revering a deceased Kurumba. After a Kurumba's death and cremation or burial, the remaining family members will raise money for a feast. Later, ideally on the funeral anniversary one year after, the feast is held for relatives and other Kurumbas. A new stone is then put in the dolmen. If a family is tardy or simply cannot raise enough money for the feast, a long time may pass before a stone is left – or a stone may never be deposited. Although there seems to be no positive identity of stone with departed spirit, there is an obvious parallel between the Kurumba practice and the storing of *tchuringas* by Australian aborigines. A Kurumba hamlet, not far from the dolmen, is on the other side of the ridge and down a steep slope.

At Tuneri (Site 15), close to Doddamanaihatti, there are two dolmens on the edge of an embankment. They are close to a school and a Mahalinga temple. Eupatorium now grows densely at the site, but local inhabitants claim that the dolmens were used for worship before the temple was constructed. In that the dolmens are on the small side and were, perhaps, erected later than most, could Wodiari caste Badagas have erected them expressly for worship? Or were they erected as an alternate by frustrated Kurumbas who faced increasing

trouble while depositing water-worn stones at Doddamanaihatti, a site with dolmens periodically sculptured through Badaga initiative?

The Kurumba dolmens (Site 18) in a forest on the eastern slope (Pl. 3 *a*) are the most revealing, and form the second type site. They indicate, first, that Kurumbas erected dolmens within forests. A tendency to align dolmens (Fig. 7) is evident. Because two dolmens are so small and the largest one has comparatively thin stone slabs, they may have been erected within the past 150 years. In this period the Kurumbas were forced out and downslope by an increased number of Badagas and dramatic landscape changes, including those resulting from introduced plantation agriculture. The large number of water-worn stones placed in only the largest dolmen (Pl. 3 *b*) may in part have been brought from an abandoned dolmen at higher elevation. The two lesser dolmens are available for food and drink offerings. No dolmen is sculptured, but there are figures carved on four stones standing in front of the piled water-worn stones (Fig. 7; Pl. 3 *c* and *d*). "Good Kurumba" is inscribed in recent Tamil characters on the stone with a praying figure.

Before considering the Kurumbas and sculptured dolmens, I think it pertinent to cover other aspects of continuing stone use at two Kurumba hamlets. Kurumbas recently settled in a new hamlet called Kambalakombai; it is located below Coonoor and next to the ghat road. In the forest above the road is a Kurumba burial ground (Fig. 7). Arcs of stones set in the ground mark the locations where adults were buried. A recent infant burial is in earth previously used for an adult interment. Nearby are aligned three small dolmens in which gift offerings are left. One, in 1963, contained cashew nuts, jack fruit, boiled rice, puffed rice, and *dhal* placed on a banana leaf. In another small dolmen were two empty aluminum cups, but they must once have contained liquid for a departed spirit. To reach the old hamlet of Kavalkombai (Map 3) one must walk miles and across a ridge. In a banana garden on its outskirts are a cremation ground, burials, and stone platforms (Pl. 3 *e*) upon which are placed water-worn memorial stones (Pl. 3 *f*). On one side each of two joined platforms is dedicated to an ancestor brother and his descendents; a separate platform on the same side is dedicated to women who came from the outside and married Kavalkombai men. On the opposite side the same arrangement is repeated. In 1963 there were ninety water-worn stones on the six platform tops. A small dolmen for offerings (Pl. 3 *g*) is located between the platforms and the cremation ground. From this evidence it is clear that Kurumbas use small dolmens for offerings and that there is now an alternative to the storage of water-worn memorial stones in dolmens. The Kavalkombai platforms and small dolmen are indicative of the functional needs for several dolmens at some sites.

Kurumba relations to the sculptured dolmens will now be examined. Water-worn stones at sites with sculptured dolmens would prove Kurumba connections. The only water-worn stones I found within sculptured dolmens were those used for worship. However, during his survey, BREEKS (1873: 101, 103-105) found them at most sites. Named sites with stones were Banagudi Shola, Melkundah, Melur, Tudurmattam, and Sholur. Kagguchchi was a site

specifically mentioned as being without these stones. Some water-worn stones at Melur show in plate LIV of BREEKS' monograph. For Melkundah it is noted that a "sculptured... [dolmen was] surrounded, as usual, by smaller ones unsculptured. The sculptures were of the usual type, but the large... [dolmen] was full of hundreds of *Deva-kotta-kallu* [God-given stones], reaching from two feet underground to the covering slab" (BREEKS 1873: 105). From this quote I conclude that the large sculptured dolmen contained the water-worn stones. The orthostats from this dolmen must be those which form the interior sides of the present temple. Did the Kurumbas take the water-worn stones to a newly erected dolmen at lower elevation, or did the Badagas simply throw them away? Some Kurumbas may still be able to provide the answer.

That Badagas have ritually related Kurumbas to dolmens seems certainly to result from a continuing positive correlation rather than mere coincidence. Best documented by myself are the Ketti dolmens and related Kurumba rituals. Some similar relations probably attended the already mentioned annual sacrifice which Kurumbas performed for Badagas at Chakatakambai. At the Banagudi Shola shrine to the Badaga slain by a tiger, it was a Kurumba who annually performed the ritual in the early 1900s. He started the fire with a fire drill, burned incense, and threw sanctified water over each goat to be sacrificed (FRANCIS 1908: 338). Numerous shivering goats were slain one after another. FRANCIS also recorded (339) that on a Monday in March and as a preliminary to cultivation, Badaga priests and a Kurumba lighted the fire in the firewalking pit near the Mahalinga Temple at Melur. On the next day the Kurumba did the first plowing.

Map 3 showing the distributions of Kurumbas and dolmens – sculptured or unsculptured – is one of our most informative keys. If we assume that Kurumbas erected dolmens with the intent of using them to store and protect memorial stones, the total number of known sites with dolmens is quite realistic. The dolmens are concentrated in valleys and on slopes rimming the more easterly portions of the Nilgiris, and only the Kagguchchee, Sholur, and Ketti dolmens are above 1829 meters (6000 feet). All sites are above 610 meters (2000 feet). This distribution conforms with the optimum environmental niches which a shy gathering and hunting people may have exploited. In these niches members would often be

1. in forests away from plainsmen and highlanders,
2. above some malarious areas and lowland tracts where elephants and gaurs are particularly troublesome to man, and
3. below the uppermost and less productive temperate shola forests.

By the time the English came the Kurumbas at times depended upon gathering and hunting, but were also shifting cultivators (WARD 1821: LXXVI; HARKNESS 1832: 128-130; BIRCH 1838: 107; CLEGHORN 1861: 140; SHORTT 1868: 49, 51; BREEKS 1873: 50, 53; MORGAN 1876: 99-100). They harvested finger, Italian, and Panic millets annually and grew garden plants such as the banana, mango, and jack. The slopes where they lived were thus suited to a combination of tropical perennials and hardy cereals which can survive well

on steeper and relatively rocky slopes at times subject to either heavy rains or drought.

But what of the northern or higher areas where Kurumbas do not live now? On the *Survey of India*, one inch, fifth edition maps 58 A/11 (1957) and 58 A/15 (1956) there are these ten Kurumba hamlet names in or close to the northern valleys: from west to east, Mottakambe, Aiyurkombai, Chidikombai Betta, Tunerikombai Estate, Billikombai, Nerikombai, Attikombai Estate, Arekombai, Jakkakombai, and Kerkombai. The area with the names (Map 3) must once have been inhabited by Kurumbas. In direct distances, Mottakambe is about 1.1 kilometers (0.7 miles) from Chinna Coonoor and ca. 2.7 km (1.4 miles) from the Kavilorai dolmens; Kagguchchee, between two places, is ca. 1.9 km (1.1 miles) northward from Billikombai and ca. 2.9 km (1.8 miles) southward from Tunerikombai Estate. These distance relationships fit the concept of the Chinna Coonoor, Kavilorai, and Kagguchchee dolmens once being used for storing memorial stones. The Kagguchchee site, one of three above 1829 meters (6000 feet), is on a spur between two valleys and was, thus, ideally situated to serve Kurumbas in both valleys.

As the Billikombe, Arekombai, and Kerkombai sites are also above 1829 m, it is likely that optimum conditions for Kurumbas in this area extended somewhat higher. In the Kavilorai area there remains a strong tradition of a past Kurumba presence. The sculptured dolmens at Sholur, farthest west and above 1829 m, have their most likely Kurumba relationship in the water-worn stones which BREEKS found in them. Kurumbas could easily have settled westward and spread to the area via valleys. The site is only ca. 6.8 km (4.2 miles) from the Kavilorai dolmens and ca. 8 km (5 miles) from Mottakambe. The third site with dolmens above 1829 m is Ketti. For the site to have served as a depository for water-worn stones means that Kurumbas would have settled through penetration up the valleys from the south, and it is not inconceivable that they did. It is also possible that Badagas instructed Kurumbas serving them at that time to erect the dolmens for ritual purposes. If Badagas, in either case, set aside the dolmens for worship and Kurumba-related ritual only, we have a plausible explanation as to why these dolmens were not sculptured. The concept of Kurumbas moving far up valleys leading from the south and settling near higher tributary streams is substantiated by the location of Kolakkombai in Map 58 A/15. This place (see Map 3) is far up the valley stretching from Coonoor and is close to a tributary stream of the river flowing past Coonoor. Kurumbas continue to inhabit the Coonoor River valley below Coonoor.

Before ending this section, a vital question is raised: If Badagas and others were responsible for the sculpturing in dolmens, what circumstances led to the sculpturing? First, we must think in terms of a time span extending over centuries. In this period the human population in the Nilgiris fluctuated according to the vicissitudes of fortune. During the Vijayanagan Empire, which was established by 1350 A. D., it is likely that soldiers were stationed in the Nilgiris and that Badaga farmers came to settle. If the soldiers were from the north, they in the broad sense of the term would also have been Badagas.

Colonization waves would have, in different areas and to various degrees, led to withdrawal of Kurumbas to wilder tracts. The appropriation of Kurumba dolmens to honor heroes and satis either followed Kurumba withdrawal or was an aggravating factor leading to withdrawal. The Empire declined after 1565 A. D., when the sultans of Ahmadnagar, Bidar, Bijapur, and Golconda disasterously defeated the Hindu forces in the battle of Rakshasi - Tanagadi (SASTRI 1958: 254-255, 284-285, 294). Afterwards, there may have been a drastic population decline among Nilgiri people. As natural vegetation returned to abandoned farm lands, Kurumbas would slowly spread back into areas they had previously exploited. The dolmens, some by then sculptured, could again be used for housing water-worn memorial stones. In some instances it seems likely that Kurumbas would have tenaciously continued to use their dolmens while outsiders recurrently sculptured figures onto the orthostats. If an employed stoneworker threw out water-worn stones before starting his sculpturing, Kurumbas might later return the stones. There was also the possibility of Kurumbas continuing to use one dolmen for storage while outsiders appropriated other dolmens on the site for sculpturing. Furthermore, at a site such as Melur, the Kurumbas may have erected new dolmens after prior ones were used by outsiders for sculpturing.

Badagas believe that their ancestors came to the Nilgiris after fleeing from Islamic persecution in Karnataka, and it is probable that the periodic spread of Islam led to several colonization waves. The earliest wave may have resulted from the domination which Moslems established over the Carnatic between 1565 and 1652 A. D. The last migration was related to Hyder Ali and Tipu Sultan, father and son who ruled Mysore from 1761 to 1799, and who gained notoriety from their persecution of Christians and Hindus. The most recent expansion and colonization has resulted not from people fleeing from Karnataka but, instead, is due to new plant species, new technology introduced by the English, and the resultant population explosion through Badaga increase and the influx of Tamilians. We can conclude that BREEKS came at a time of plantation formation in and Badaga expansion into Kurumba territory. The then ongoing Kurumba retreat into wilder areas has continued. When I visited the sites with sculptured dolmens, about ninety years later, they all were within plantations or in areas dominated by Badagas.

### 5. The Irulas

The TAMILIAN Irulas who live on the eastern Nilgiri slopes and beneath Rangaswami Betta, where their priests annually serve *Ranga*, have few practices related to stones. Next to the back walls in their memorial temples, such as the one at Koppayur (Map 3), there are stone-edged earthen platforms upon which water-worn memorial stones are collected (Pl. 3 h). Some standing sculptured stones may be arranged along the front edge of each platform. A memorial temple is enclosed on three sides by brick and mortar walls and has a steeply sloped thatched roof. Irula burials in the surrounding ground are

demarcated by circular earthen mounds, the bases of which may be surrounded by small stones. Both jack and pagoda trees are planted on burial grounds, and pagoda trees ring the memorial temple at Koppayur. I found no evidence of Irulas storing stones in dolmens, or, *vice versa*, of Kurumbas storing stones in constructed temples. The Irula sculptured stone with rounded top at Koppayur is a recent creation and is similar to two sculptured stones in a Kurumba dolmen. Kurumbas told me that they had obtained these stones from Irulas, so use of the stones appears to be a recent development initiated by Irulas and adopted by Kurumbas. Irula practice attending the storing of water-worn or sculptured memorial stones parallels the Kurumba practice.

### Final Remarks

Because correlations between stone circles and dolmens are lacking, it is most logical to relate stone circles to herders and dolmens to gatherers/hunters or later farmers. It is likely that stone circle builders preceded the Todas, and descendants of stone circle builders may now form a Toda moiety. Of the four remaining traditional Nilgiri groups, the farming Kurumbas have probably erected most dolmens. As Badaga farmers are Saivites and had ancestral satis, it is reasonable to assign to their ancestors a major role in honoring heroes and satis through the sculpturing of dolmens. A megalithic cult obviously continues in the Nilgiris; under a broad interpretation, all five traditional Nilgiri groups are involved in it. The Nilgiri dolmens in their known functional spectrum show a variation which may well be broader than that found anywhere else. Smaller dolmens apparently erected more recently by Badagas, Kotas, and Kurumbas possibly indicate a decline in the cult.

Careful excavation and dating are necessary to establish the time period over which the upper Nilgiri stone circles were constructed. Will this approach also prove an economic shift tied to a suspected deterioration in culture through time? We will gain additional insights from a critical comparison of Nilgiri sculpturing on dolmens with sculpturing on hero and sati stones elsewhere in Tamil Nadu and in Karnataka. A search for other sites at which Kurumbas store their water-worn memorial stones should be conducted. Careful enquiry about place names and folk tale events related to Kurumbas will improve our understanding of the areas once occupied by Kurumbas. If promising rockshelters were excavated, the critical question as to whether or not ancestral Kurumbas were once solely supported by gathering/hunting might be resolved. Other excavations could provide insights as to how long the Kotas, Todas, and Badagas have lived on the Nilgiris.

## Bibliography

*Anonymous*

- 1967- Photograph of a Sculptured Hero Stone in the Municipal Park, Chickmagalur,  
68 Karnataka. *Mythic Society, Quarterly Journal* 58: opp. 145.

## BAIKIE, ROBERT

- 1834 Observations on the Neilgherries. Calcutta, Baptist Mission Press.

## BENSON, CHARLES

- 1895 A Statistical Atlas of the Madras Presidency. Madras, Government Press.

## BIRCH, DE BURGH

- 1838 A Topographical Report on the Neilgherries. *Madras Journal of Literature and Science* 8: 86-127.

## BREEKS, JAMES W.

- 1873 An Account of the Primitive Tribes and Monuments of the Nilgiris. London, Indian Museum.

## CHAKRAVARTI, N. P.

- 1935- Section III: Epigraphy. *Archaeological Survey of India, Annual Report*:  
36 88-116.

## CLEGHORN, HUGH

- 1861 The Forests and Gardens of South India. London, W. H. Allen & Co.

## CONGREVE, H.

- 1847 The Antiquities of the Neilgherry Hills. *Madras Journal of Literature and Science* 14: 77-146.

## CUNNINGHAM, A.

- 1882 Report of a Tour in the Punjab in 1878-79. (Archaeological Survey of India, Report [First or Cunningham Series], 14.) Calcutta, Superintendent of Government Printing.

## EMENEAU, MURRAY B.

- 1946 Kota Texts. (University of California Publications in Linguistics, 3/1 and 2.) Berkeley, University of California Press.

## FRANCIS, WALTER

- 1908 The Nilgiris. Madras, Government Press.

## FREDERICK, CAESAR

- 1563- Extracts of Master Caesar Frederike, his eightene yeeres Indian observations.  
81 In: PURCHAS 1905-07, 10: 88-143.

GRIGG, HENRY B. *et al.*

- 1880 A Manual of the Nilgiri District in the Madras Presidency. Madras, Government Press.

## HARKNESS, HENRY

- 1832 A Description of a Singular Aboriginal Race Inhabiting the Summit of the Neilgherry Hills. London, Smith Elder & Co.

## HERVEY, CHARLES

- 1892 Some Records of Crime. 2 vols. London, Sampson Low, Marston, & Co.

## HOCKINGS, PAUL

- 1972 Letter, dated October 13, with C-14 date of  $910 \pm 90$  years (GIF-2345, 1971) from Gif-sur-Yvette, France.

- HORNELL, JAMES  
1942 Hero Memorial-Stones of Kathiawar. *Antiquity* 16: 289-300 and 4 plates.
- JERVIS, H.  
1834 Narrative of a Journey to the Falls of the Cavery, with an Historical and Descriptive Account of the Neilgherry Hills. London, Smith, Elder & Co.
- KEYS, WILLIAM  
1812 A Topographical Description of the Neelaghery Mountains. From a letter by Keys, Assistant Revenue Surveyer, to W. Garrows, Collector of Coimbatore. In: GRIGG *et al.* 1880: XLVIII-LI.
- KING, WILLIAM R.  
1870- The Aboriginal Tribes of the Nilgiri Hills. *Journal of Anthropology* 1: 71 18-51.
- KRISHNAMURTHI, S. [edit.]  
1953 Horticultural and Economic Plants of the Nilgiris. Coimbatore, Co-operative Printing Works.
- LESHNIK, LAWRENCE S.  
1970 A Suggested Dating for the Antiquities of the Nilgiri Plateau, South India. *Acta Praehistorica et Archaeologica* 1: 87-99.
- LONGHURST, A. H.  
1933 Hampi Ruins, Described and Illustrated. Delhi, Manager of Publications.
- MANDELBAUM, DAVID G.  
1941 Culture Change Among the Nilgiri Tribes. *American Anthropologist* 43: 19-26.
- MIGNON, ROBERT  
1834 A Tour Through a Part of Malabar and Among the Neilgherries. Bombay, American Mission Press.
- MORGAN, RHODES  
1876 The Hill Ranges of North Coimbatore and Lambton Peak Range. In: SHORTT 1868-76/5: 95-101.
- NAMBIAR, P. K. *et al.*  
1965 District Census Handbook, Nilgiris. (Census of India, 9.) Madras, Part X-x. Madras, Huxley Press.
- NUNIZ, FERNAO  
1535-37 Chronicle of Fernao Nuniz. In: SEWELL 1970: 279-376.
- OUCHTERLONY, JOHN  
1848 A Geographical and Statistical Memoir of a Survey of the Neilgherry Mountains. In: SHORTT 1868.
- PARLBY, FANNIE (PARKS)  
1850 Wanderings of a Pilgrim. 2 vols. London, Pelham Richardson.
- PURCHAS, SAMUEL  
1905- Hakluytus posthumus or Purchas his Pilgrimes. 20 vols. (Hakluyt Society, 07 Extra Series, 14-33.) Glasgow, J. MacLehose & Sons.
- RAO, K. HANUMANTHA and M. D. AZARIAH  
1953 Potato on the Nilgiris. In: KRISHNAMURTHI 1953: 67-79.
- REA, A.  
1896 Châlukyan Architecture, Including Examples from the Ballâri District, Madras Presidency. (Archaeological Survey of India, Report [New Imperial Series], 21; Southern India, 8.) Madras, Government Press.

- RIVERS, WILLIAM H. R.  
1960 *The Todas*. London, Macmillan & Co., Ltd.
- ROSNER, VICTOR  
1959 Dolmens in the Anamalai Hills, South India. *Anthropos* 54: 169-182.
- SASTRI, K. A. NILAKANTA  
<sup>2</sup>1958 *A History of South India, from Prehistoric Times to the Fall of Vijayanagar*. Madras, Oxford University Press.
- SAXTON, GEORGE H.  
1870 A Set of Iron Implements etc. Found in a Cromlech in the Estate of Major Sweet. *Asiatic Society (Calcutta), Proceedings*: 52-54.
- SEWELL, ROBERT  
<sup>3</sup>1970 *A Forgotten Empire: Vijayanagar*. New Delhi, National Book Trust, India. Reprint, Indian ed. 2.
- SHORTT, JOHN [edit.]  
1868 *An Account of the Tribes on the Neilgherries and a Geographical and Statistical Memoir of the Neilgherry Mountains*. Madras, Higginbotham & Co.  
1868-76 *The Hill Ranges of Southern India*. 5 parts. Madras, Higginbotham & Co.
- THURSTON, EDGAR  
1909 *The Castes and Tribes of Southern India*. 7 vols. Madras, Government Press.
- WALHOUSE, M. J.  
1873 On Some Formerly Existing Antiquities on the Nilgiris. *The Indian Antiquary* 2: 275-278 and 2 plates.
- WARD, B. S.  
1821 *Geographical and Statistical Memoir of a Survey of the Neelgherry Mountains in the Province of Coimbatore, made in 1821 under the superintendence of Captain B. S. Ward, Deputy Surveyor-General*. In: GRIGG *et al.*: LX-LXXVIII.
- WORKMAN, WILLIAM HUNTER and FANNY BULLOCK  
1904 *Through Town and Jungle*. New York, Charles Scribner's Sons.
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