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THE CULTURAL GEOGRAPHER'S INTEREST IN REGIONS

ROBERT H. STODDARD

Introduction

Regions are important to cultural geographers. This is because regions help in understanding the spatial distributions of social phenomena. Like any classification scheme, a set of regions provides organisation to a large body of data. Although occasionally phenomena being studied may already be grouped into regions, this is not usually the case. Consequently, cultural geographers, whether engaged in research or teaching are frequently faced with the task of defining and delineating a set of meaningful regions. The purpose of this paper, therefore, is to discuss some of the methodological issues that confront geographers when they organize their data into regions.

The Task of Creating Regions

The fundamental objective in regionalisation is to match the patterns displayed by a map of regions with the actual areal variations as they occur in the real world. To accomplish this objective, the geographer must select meaningful criteria, operationalise them, collect the appropriate data, display the data spatially, and convert the mapped patterns into regions.

The initial task — the selection of meaningful criteria — is highly dependent on the topic being studied, that is, it is primarily just a matter of definitions. It only requires the geographer to select features, population characteristics, or other criteria that truly represent the phenomenon being regionalized.

The next step, however, is critical because it directly affects the validity of the work. Validity is achieved only to the degree that the conceptual definitions of the regionalising criteria coincide their operationalization. For example, a scholar who wishes to regionalise dwelling types must commence with an operational definition of a dwelling. Even though the concept of 'dwelling' is well understood, the operational task of distinguishing between what are truly

dwelling from those structures that are not to be regarded as dwellings is difficult to accomplish objectively.

Despite the fact that the next tasks, that of collecting data and mapping it for each phenomenon, are basic parts of most geographic endeavours, they are not always achieved easily, especially when working with cultural topics. Attitudes, belief systems, behavioural patterns, and the many other attributes that constitute culture are not measured nor observed without considerable difficulty. Nevertheless, these steps are not discussed further here because the focus of this paper is on the last task: the conversion of mapped data into meaningful regions.

What are the major issues facing a cultural geographer who attempts to convert areal data into meaningful regions? The issues discussed here concern scale, precision and contiguity.

The issue of scale, of course, is a component of all geographic work because distributions and spatial relationships are heavily influenced by the size of the minimum areal unit and the size of the study area. Whether the minimum areal unit for the collection of data is a hectare, a city block, a district, or a state, influences the degree to which phenomena are identified with a particular location. Furthermore, the size of the minimum areal unit in comparison to the size of the total study area partially affects the complexity of the distributional patterns.

The issue of precision affects the formation of regions in the same way it affects other classification systems. In general, the greater the number of classes, the more precise is the differentiation of the elements being categorized and the higher the level of homogeneity among the elements in each class. For example, an area divided into seven regions will reflect the spatial variations more precisely than if the area were partitioned into only two regions.

Another aspect of precision, that of areal generalisation, arises when regionalising phenomena, but is not a problem in classification. This is because the characteristics of a small area may be dissimilar from the surrounding area, but the size of the dissimilar place is too tiny to delineate as a separate region. For instance, a scholar regionalizing a country into land use regions may decide to classify a fairly large area as 'an agricultural region', even though it is known that a town exists within the boundaries of this delineated region.

The issue of contiguity plagues all who attempt to classify two-dimensional data. To group linear data only requires finding meaningful breaks along a continuum of values, which means the classification of non-spatial data is much easier than regionalising an area. In contrast, the task of grouping areal data (*i.e.*, the task of regionalising) involves finding meaningful breaks in two dimensions and then reconciling the results with the goals of areal generalisation. The reconciliation, of course, depends on the purpose for the regionalization. If

the goal is to emphasize the spatial variations of phenomena irrespective of how they are arranged, then the need for contiguity is diminished. For example, when regionalising climatic differences in the world, the wide separation of the regions with Mediterranean type climate presents no problem in interpretation or in utilisation. However, to form a state with non-contiguous parts would be regarded as a severe handicap to the viability of that political unit. Therefore, delineating the boundaries of this kind of region almost requires that all parts of the state (region) are connected.

An Illustration in Sri Lanka

The way these issues confront the cultural geographer can be illustrated by examining a current political controversy in Sri Lanka. That is, what is sometimes called 'the ethnic conflict' can serve as a suitable example for the kind of academic problems that continually face cultural geographers as they attempt to regionalise other phenomena in other settings.

The conflict in Sri Lanka results from two opposing objectives. One objective, held by the Tamils who identify themselves as culturally distinct, is to gain greater political control over 'their' territory. The second objective, the position held by the government, is to oppose any challenge to the integrity of the state. In spatial terms, the controversy concerns whether or not Tamils should achieve greater autonomy (even political independence) over a specified administrative area. The aspect of the controversy that is examined here, however, concerns only the delineation of territory that might form a more autonomous region. Therefore, the background for the conflict, the justification for the different positions, the sequence of developing events, and many other aspects of the controversy are omitted here. Furthermore, it must be made clear to the reader that the discussion about potential regional divisions should not be interpreted as either for or against such a division of land. Instead, the focus is on the kind of real-world decisions confronting a geographer who attempts to create meaningful regions. The Sri Lankan setting is merely used to demonstrate the spatial components of those decisions.

The first three tasks outlined above, the selection of meaningful criteria, their operationalisation, and the collection of appropriate data, are accomplished here by using government statistics. The collection of census data is by ethnic population for various levels of administrative sub-divisions. According to the 1981 census, the population of Sri Lanka consisted of the following ethnic groups: Sinhalese (74.0%), Sri Lankan Tamil (12.6%), Indian Tamil (5.6%), Moor (7.1%), and Others (0.7%).¹ With these data, then, the task is to explore issues associated with regionalising the distribution of the Tamil population in Sri Lanka.

Even though census definitions are accepted here, the task of selecting meaningful criteria is complicated slightly by the fact that the 'Tamil population' might be regarded as either just the Sri Lankan Tamils or both the Sri Lankan Tamils and Indian Tamils. Most scholars familiar with the controversy would probably regard just the Sri Lankan Tamils as the appropriate population. This is partly because the Indian Tamils have been less politically active, their citizenship status is problematic, and caste differences have tended to separate the two Tamil groups. Therefore, for most of the following discussion, the population that forms the basis of regionalisation attempts consists of only the Sri Lankan Tamils. However, for illustrative purposes, the Indian Tamils will sometimes be combined to see the effects of a different operational definition.

The definition and operationalization of the criteria being used for regionalization in this political example is also a function of what constitutes 'Tamil territory'. In a political system that recognises the wishes of the populace, is the pertinent level of support the majority or only the plurality? In most administrative sub-divisions of Sri Lanka, one ethnic group has a large majority, so this potential controversy occurs only infrequently. Nevertheless, in the very areas where regionalisation is the most difficult to solve, a majority does not always exist. The political answer to this question remains so complex that it is avoided here and both the patterns of majority and plurality population are examined.

The issues of one, the size of the areal units used for identifying and regionalising the population, and two, the persistent geographic problem of contiguity are evidenced by various scales. Both issues, along with the different definitions of the Tamil population and two levels of ethnic dominance (*i.e.*, the majority and plurality levels), are demonstrated by the maps that follow.

The first attempt to explore whether the spatial distribution of the Tamil population is arranged so that it can be meaningfully regionalised is at the scale of provinces. As can be seen by the table of listing the percentage of ethnic populations in each province (Table 1.1), seven of the nine provinces have a Sinhalese majority, one has a Tamil majority, and one, the Eastern Province, has no ethnic majority. In terms of a plurality measure, the Eastern Province is characterised by 40 per cent being Sri Lankan Tamils.

Locationally these two non-Sinhalese provinces are contiguous (Fig.1.1). Therefore, if a Tamil region were to be defined by only a plurality and if areal units were grouped at this scale, the Northern and Eastern Provinces do, indeed, form a contiguous Tamil region. However, if regions were to be defined by requiring an over-fifty-percent majority, then the Tamil region would be restricted to just the Northern Province. Incidentally, even if both Tamil populations (*i.e.*, those defined by the census as Sri Lankan Tamils and those as

Table 1.1 : Ethnic Groups by Provinces, 1981

(Data in Percentages)

Province	Sinhalese	Sri Lankan Tamil	Indian Tamil	Moor
Western	84.9**	5.6	1.6	6.2
Central	65.7**	7.3	18.7	7.6
Southern	95.1**	0.6	1.3	2.5
Northern	3.0	86.4**	5.7	4.7
Eastern	25.7	40.3*	1.2	32.2
North Western	90.0**	2.7	0.6	6.4
North Central	91.7**	1.4	0.1	6.5
Uva	75.9**	4.5	15.7	3.5
Sabaragamuva	85.4**	2.2	8.9	3.3

Note : Percentages for 'Others' are not included here.

* Plurality.

** Majority.

Indian Tamils) were to be combined into one definitional category for the purpose of regionalisation, there would be no change in the resulting regions.

The segregation of ethnic groups is also evident at the district level (Fig. 1.2). For example, in over half of the 24 districts, the percentage of the majority group exceeds 80, (Table 1.2), and in only three districts does the percentage drop below 50. Furthermore, the spatial distribution of districts having a majority of a particular ethnic group is such that the cores of regions are easily spotted, with a Tamil region in the north and a Sinhalese region over most of the rest of the country.

However, the arrangement of the districts having a majority ethnic population does not produce entirely contiguous regions. The four districts comprising the Northern Province do form the core of a Tamil region, but the other district with a Tamil majority (Batticaloa) is not contiguous with this core. In fact, the intervening district (Trincomalee) does not even have a plurality of Tamils, but instead, has a plurality of Sinhalese, which makes it impossible to form a single, contiguous Tamil region according to the criteria being discussed here.

The two remaining districts do not have majority populations and their pluralities are not Sinhalese. One of these is the Amparai District (which, in addition to Trincomalee and Batticaloa, forms the Eastern Province) where the Moor population constitutes the plurality. The other exception is Nuwara Eliya District, which has a plurality of Indian Tamils. If, when forming regions based on the criterion of plurality, the Indian Tamil population is regarded as distinct from the Sri Lankan Tamil ethnic group, then four regions result: the Sinhalese region consisting of 17 contiguous districts, the Moor region of the Amparai District, the Indian Tamil region of Nuwara Eliya District, and the Sri Lankan Tamil region, which includes the four districts of the north and the Batticaloa exclave.

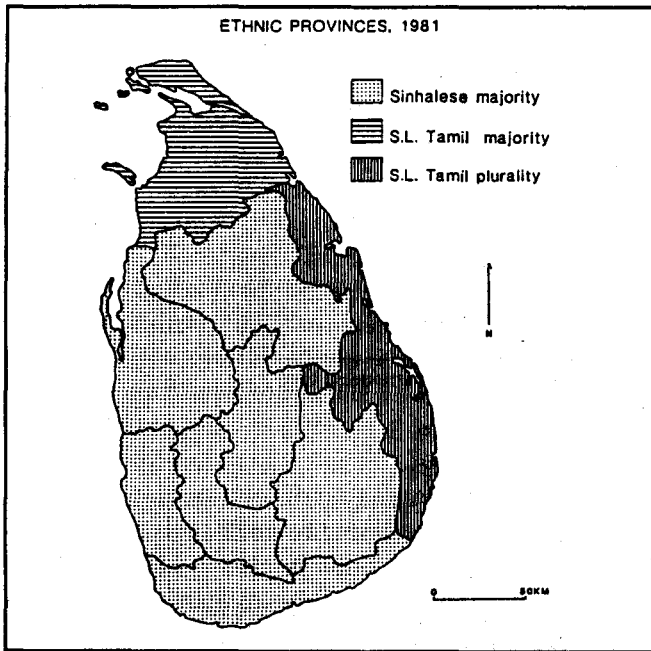


Fig. 1.1 : Provinces of Sri Lanka : According to Majority or Plurality Ethnic Population, 1981

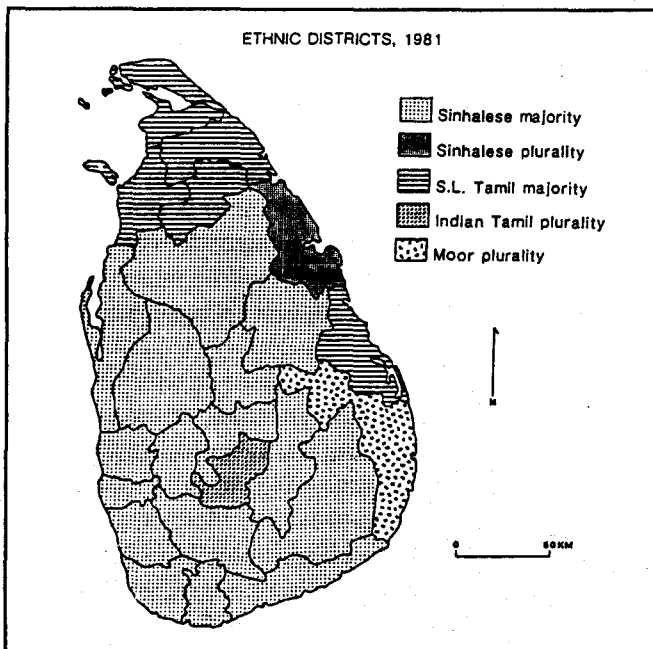


Fig. 1.2 : Districts of Sri Lanka : According to Majority or Plurality Ethnic Population, 1981

Table 1.2 : Ethnic Groups by Districts, 1981

(Data in Percentages)

Province	Sinhalese	Sri Lankan Tamil	Indian Tamil	Moor
Colombo	77.9**	9.8	1.3	8.3
Gampaha	92.2**	3.3	0.4	2.8
Kalutara	87.3**	1.0	4.1	7.5
Kandy	74.3**	4.9	9.3	10.7
Matale	79.9*	5.9	6.7	7.2
Nuwara Eliya	42.2	12.5	42.4*	2.5
Galle	94.4**	0.7	1.4	3.2
Matara	94.6**	0.6	2.2	2.4
Hambantota	97.4**	0.4	0.1	1.1
Jaffna	0.6	95.3**	2.4	1.7
Mannar	8.1	50.6**	13.2	26.6
Vavuniya	16.7	56.9**	19.4	6.9
Mullaitivu	5.1	76.0**	13.9	4.9
Batticaloa	3.2	70.8**	1.2	24.0
Amparai	37.6	20.1	0.4	41.5*
Trincomalee	35.8*	32.0	2.5	28.8
Kurunegala	93.1**	1.1	0.5	5.1
Puttalam	82.6**	6.7	0.6	5.1
Anuradhapura	92.1**	1.0	0.1	6.5
Polonnaruwa	90.9**	2.2	0.1	6.5
Badulla	68.5**	5.7	21.1	4.2
Moneragala	92.9**	1.8	3.3	1.9
Ratnapura	84.7**	2.3	11.1	1.7
Kegalle	86.3**	2.1	6.4	5.1

Note : Percentages for Others are not included here.

* Plurality

** Majority

If the relevant population to be grouped into a 'Tamil' region were to be defined as including both the Sri Lankan Tamils and the Indian Tamils, then the results would become even more spatially fragmented. This is because, when the two groups are combined, the total percentage in the Nuwara Eliya District exceeds 50 but the totals do not alter the tripartite composition of the Eastern Province. Thus, an all-Tamil region would consist of three widely separated, non-contiguous areas: the four-district area of the north, the east coast district of Batticaloa, and the central district of Nuwara Eliya.

The next smaller areal unit is what is commonly called an AGA in Sri Lanka. Although the AGA is too small a unit for high level government, this does not mean that district or provincial boundaries could not be redrawn to coincide with ethnic patterns produced at this areal scale. Therefore, it is informative to examine the arrangement of ethnic concentrations generated at this scale. As revealed by Fig. 1.3, the spatial fragmentation of the Tamils persists at this degree of detail. Not only are the Sri Lankan Tamils not dominant

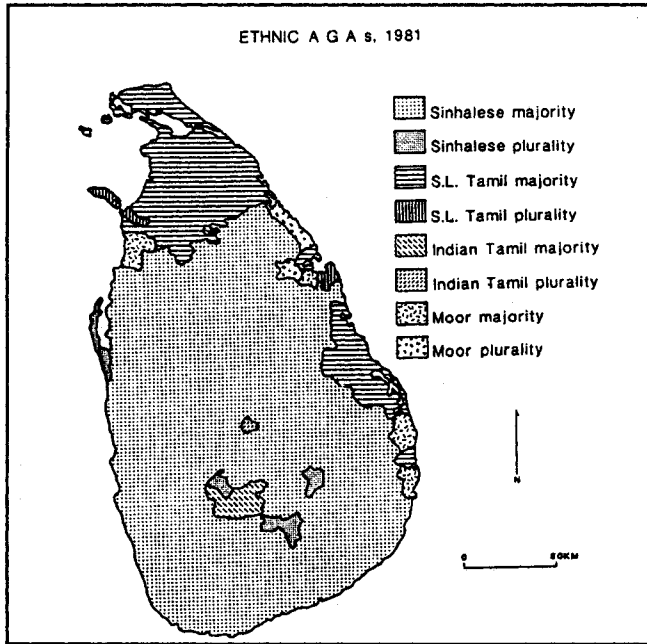


Fig. 1.3 : AGAs of Sri Lanka : According to Majority or Plurality Ethnic Population, 1981

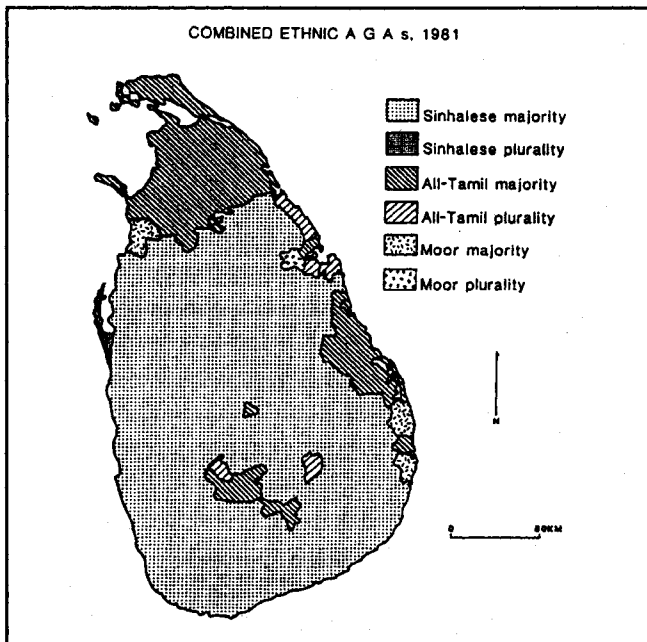


Fig. 1.4 : AGAs of Sri Lanka : According to Majority or Plurality Ethnic Population, with the Sri Lankan Tamils and Indian Tamils Combined, 1981

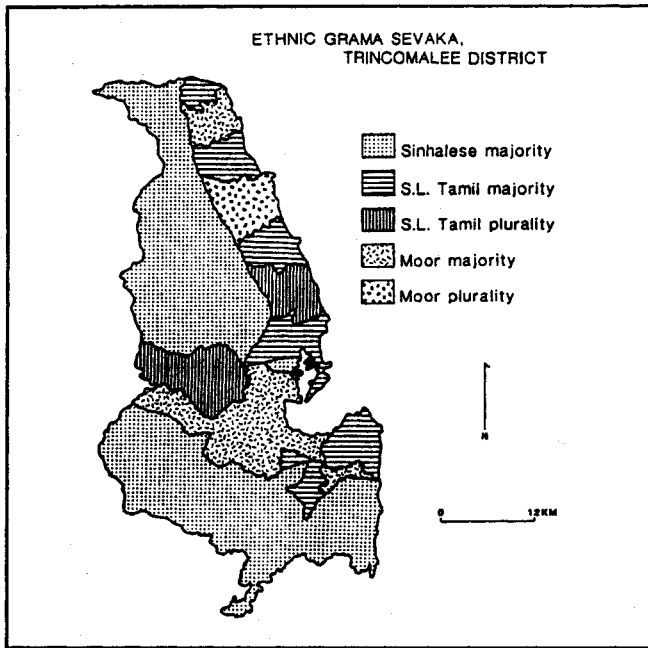


Fig. 1.5 : Grama Sevakas of Trincomalee District, Sri Lanka : According to Majority or Plurality Ethnic Population, 1981

in the Trincomalee District (as already noted), but within this district they form the majority in only one AGA, as well as a plurality in another. Both are isolated from Sri Lankan Tamil regions and from each other. Likewise, the Sri Lankan Tamils in the Amparai District are concentrated in one AGA, which is also separated from other Tamil areas.

At the geographic scale of the AGA, the Indian Tamils form a majority in a region consisting of two AGAs, and they constitute the plurality in another. If, for definitional purposes, the two Tamil groups were combined (Fig. 1.4), the task of forming a contiguous Tamil region remains impossible, even when only a plurality criterion is used. Under these conditions, the AGAs in the Trincomalee District are actually connected and, furthermore, they are linked with the northern core region. But, the Tamils in the Batticaloa District, in the isolated AGA in the Amparai District, and in the central portion of the country are all separated from each other and from the Tamil core in the north.

It is informative to examine the ethnic distributions in even greater detail because they continue to expose the complex mosaic of settlement patterns in the Eastern Province, especially in the northern district where the lack of contiguity presents a major regionalization barrier. Unfortunately, the data used here are from the 1971 census and the map (from a secondary source) may

contain some errors.² Irrespective of these data limitations, the discontinuity of Tamil concentrations is revealed by mapping ethnic percentages in the critical district of Trincomalee (Fig. 1.5). The distribution of the Sri Lankan Tamil population at this areal scale (*i.e.*, using Grama Sevaka) vividly demonstrates the non-contiguity of ethnic groups along the coast and the impossibility of delimiting a contiguous Tamil region.

Conclusion

This examination of the distribution of populations at various scales reveals that, over much of Sri Lanka, one ethnic community tends to dominate in each administrative unit, so it is fairly easy to associate a particular population group with a particular territory or administrative unit. Furthermore, the areal units dominated by the main ethnic groups are generally clustered together, thus forming *de facto* ethnic regions.

However, in the Eastern Province, especially in the Trincomalee District, the population is arranged in a manner that does not permit the formation of contiguous regions based on an ethnic majority at any scale. In other words, it is impossible to create a Tamil region under the constraints of both contiguity and the higher degree of homogeneity associated with a majority.

One possible modification to the requirements of regionalization would be to relax the requirement that all parts of the Tamil region must be connected. As mentioned above, this might be a satisfactory solution when the goal of regionalisation is to show the distribution of climatic types, or even to display the patterns of ethnic groups for merely informational purposes. However, this relaxation of the contiguity constraint does not seem to be a viable solution when the objective is to form political entities that must interact with the population within a specified territory. Exclaves have always created severe problems for governments, and the difficulties in governing political outliers are especially great when the exclaves are surrounded by the territory of a hostile country.

Another alternative is to maintain the contiguity requirement but to group the areal units by using the criterion of only a plurality. This would produce a single region by joining the existing Northern and Eastern Provinces. Although such a Tamil region would achieve the contiguity desired, it would reduce the homogeneity of the resulting region, particularly in its peninsular extension along the east coast. Concurrently, such would diminish the level of areal precision because, as has been shown above, several small areal units within the Eastern Province contain non-Tamil majorities. In other words, at the provincial scale of measurement, the Eastern Province may be defined as 'Tamil' in terms of a plurality ethnic population; but this level of precision obscures the

fact that non-Tamil majorities reside within several smaller areas within this region.

The discussion here is concerned with the issues facing cultural geographers as they attempt to delineate meaningful regions, so the various outcomes have been stated in terms of increasing the level of heterogeneity. In the case of Sri Lankan politics, however, the issue concerns the extent to which minority populations would be created by the drawing of various political boundaries. And, in turn, the effects of being a minority population depends largely on the political system and the ways the rights of all citizens, including those of a minority group, are protected. The feasibility of this regionalisation solution, therefore, is beyond the scope of this study.

In a political sense, a third option for creating regions that are contiguous and highly homogeneous might be to engage in what is known as 'ethnic cleansing', which is the forceful expulsion of people of a particular ethnic group from certain areas. By altering the composition of the resident population, new percentages of ethnic groups are produced, which are then used to justify new territorial control. Besides, the fact that this solution involves inhumane tactics that most people do not approve of, this 'option' is not seriously examined here because the cultural geographer normally does not possess the power to shift people around. Even though moving cultural groups and features around would create a less complex set of regions, the geographer does not have this option.

In fact, because many cultural phenomena are not neatly clustered into obvious areal groupings, it becomes especially important that geographers undertake the task of organizing areal data into meaningful regions. The regionalization task, however, is not easy, especially because of the changing effects of scale and the difficulties of achieving contiguity. It is certainly appropriate to recognize the contribution of those cultural geographers who have wrestled with these problems and have produced meaningful results.

References and Notes

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2. Hennayake, S.K. (1985). *Geographical Perspective on Ethnicity in Sri Lanka*, Unpublished M.A. thesis, Department of Geography, University of Peradeniya, Sri Lanka.