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**MADAGASCAR
– AN ISLAND OR A CONTINENT?
ON THE NOTIONS OF ‘ISLAND’ AND ‘INSULARITY’**

Abstract: The impreciseness and conjectural character of the notions of *island* and *continent* have been the subject of many debates. Most researchers agree that unique features of an island include isolation and significant linkages between the economy and life of the inhabitants with the sea. Some characteristic features are related to spatial development and a concentration of towns and the transport network near the sea. However, Madagascar, which is regarded as an island in all kinds of classifications, fulfils only some of the above criteria. As far as the natural life is concerned, some consequences of spatial isolation can be observed, particularly the predominance of endemic and relict species in the fauna and flora, whereas in the economic and social sphere, Madagascar reveals features which are characteristic of continents. Is therefore Madagascar rightly considered an island?

Key words: Madagascar, island, continent, insularity, isolation

INTRODUCTION

The aim of the paper is to demonstrate that the notions of ‘island’ and ‘continent’ are fallacious and based on criteria which are not grounded in reality. We will use the example of Madagascar, which is commonly regarded as an island despite many doubts concerning its insular character. Using this example, some additional (other than nature-related) criteria of insularity are proposed.

AN ISLAND OR A CONTINENT?

The issue of what makes an *island* has been discussed on many occasions. The simplest dictionary definitions characterise an island as a piece of land surrounded by water, which – from the logical point of view – makes all continents islands. Complementing the definitions with boundaries which are conjectural in character (such as regarding Greenland the largest island and Australia – the smallest continent) is purely formal in character.

Scientifically speaking, the notion of “continent” is as ambiguous. The word is frequently derived from the Latin *continans*, suggesting continuity. As a proof by contradiction – islands should be characterised by discontinuity, that is discontinuity of space. The territory of an island is limited, as compared to an ‘unlimited’ vista of a continent. Limited, and therefore isolated – this is probably the reason why in so many islands the word ‘island’ has associations with ‘isolation’ – e.g. *isola*, *island*, *Insel*, *île*, *isla*, *insula*.

We can say therefore that an isolated island stands in opposition to a continent, which is continuous in character. Isolation requires a barrier, which should be a natural barrier in case of objects formed by nature – a natural barrier. In case of islands, water performs the role of such a barrier; and in very many cases it means vast stretches of the ocean! But deserts and mountain ranges can also function as such natural barriers. As early as 1910 Bruhnes wrote that in addition to sea islands, also oases (i.e. islands in a stone or sand desert), remote areas lying deep in boreal or rainforest areas and high mountain valleys are small geographical universes, in the mode of islands or islets. Also P. Vidal de la Blache (1922), and M. Jeđrusik in Poland (2000, 2001) studied the similarities between continental areas and islands. Jeđrusik, using the example of several dozen territories, demonstrated the similarities of communities inhabiting islands and inner-mountain valleys.

However, due to the fact that apart from traditionally (conjecturally) adopted boundaries differentiating islands from continents it is not possible to formally distinguish between the types of these geographic entities, doubts arise as to whether the adopted definitions are sufficient. An argument in favour for making the island/continent boundary between Greenland and Australia is the significant, exponential difference in the size between these two objects and lack of any land with a surface area between 2.2 – 7.7 million km². Australia is nearly

three and a half times as large as Greenland, and Greenland is almost three times bigger than New Guinea, which is next in the hierarchy!

Renaud Paulian observed that with the exception of the Malaya Archipelago, “whose continental character is basically well known”, nearly all tropical islands (save for a dozen or so) have areas under 3,000 km², and many islands are smaller than several dozen square kilometres (Paulian 1984, p. 70). Such a conclusion can easily be extrapolated to the entire globe. Of several dozen thousand of the world’s islands, only 18 have an area larger than 100,000 km². We can therefore ask whether the traditional boundary making an island an island was correctly placed?

Not all researchers accept the existing division. For instance François Doumenge (1983) adopted an intuitive opinion that real islands should be smaller than 10,000 km², and objects with areas in excess of 50,000 km² are “island continents”. He also proposed (Doumenge 1987) to consider the ratio of the area of the economic zone to the area of the island lying above the surface as a measure of insularity. The higher the quotient the higher the isolation and consequently – ‘insularity’.

ACTIVITY OF ISLANDERS AS A CRITERION OF INSULARITY

Contemporarily, many new ‘islands’ are created by man. Hotel enclaves in popular tourist resorts, particularly those where tourist customs are a far cry from the local tradition and religion (e.g. Egypt, Tunisia, Turkish Riviera, the Maldives) are such islands, more or less isolated from the external world. Huge shopping malls are also examples of human creations due to their being distinctly isolated from the outside world and their well-defined commercial and entertainment function.

It should be pointed out that in both these cases there is a visible dominant function (tourism, trade) which differentiates them from the external world. Perhaps such a function or feature could be distinguished in the case of natural islands, provided they are inhabited? Such a feature could become a characteristic feature of islands. M. Jędrusik (2005) was one of the authors to observe that the economic history of tropical islands indicates that in addition to the exploitation of the island interior (agriculture, mining in some cases, forest exploitation) these were all occupations related either to **water**, such as fishery,

trade between islands, contemporarily 3 x 'S' tourism, sale of fishing licences, use of exclusive economic zones or to isolation (profits from the existence of a micro-state, tax havens, etc.). A real island should therefore be characterised by such features as: vicinity of water or isolation itself.

IS MADAGASCAR AN ISLAND?

Where should we place Madagascar in this context? Commonly regarded as an island, and one of the hugest islands in the world, it occupies an area of nearly 600,000 km². The surrounding the waters of the Mozambique Channel in the west and the Indian Ocean in the east create a natural barrier isolating Madagascar from other continents. Therefore, geographically, it is a highly isolated object, which in consequence has produced a large number of relict and endemic species in the local plant and particularly animal life. Over 4,000 endemic tree species grow there (96% of about 4,220 growing in Madagascar), along with nearly 50 lemur species indigenous to the island, and over 100 of endemic bird species (Pitcher, Wright 2004, pp. 43–44). In terms of nature, it can be assumed that Madagascar fulfils the criteria associated with islands.

SETTLEMENT AND POPULATION DISTRIBUTION IN MADAGASCAR

The situation of the settlement system, economy and transport network is different. The majority of over 17 million inhabitants (2005) live far from the sea coast. This means that the main life interests of over a half of Madagascar's residents are connected with the mainland, and not the ocean. In particular, this applies to the Merina – the largest (24% population) ethnic group which has dominated the modern history of Madagascar and which inhabits the northern part of the Central Highlands.

In the western coast, the population density only in some locations exceeds 10 persons per square kilometre (the exceptions include a small part of the country in the north, between Nosy Be and the town of Antsiranana – up to 20 persons per km² and the surroundings of Toliara in the south – up to 40 persons per km²). In the eastern

coast, these values only in some areas (the environs of Farafangana, Manakara, Mahanoro and Toamasina) reach 60 persons per km². By comparison, in the heart of the Central Highlands, between Antananarivo and Fianarantsoa, the population density exceeds 80 and even 100 persons per km² (*Madagasikara...* 2006, p. 4).

CHARACTERISTICS OF MADAGASCAR'S ECONOMY

The structure of employment and production testify to the dominance of the island's elevated interior over the coastal zone. Nearly 80% of the economically active population are employed in farming. Rice fields can be seen everywhere in the densely populated Central Highlands area. Along the main road, running longitudinally, zebu herds are driven; their stock is in excess of 10 million. Commodity plants such as coffee, vanilla, spices, aromatic plants are cultivated mainly on the lower situated slopes near the eastern and north-western coast (Mananjary, Manakara, Sambava), which is an additional deterrent of the indigenous population from their trying to explore the sea resources. The existence of plantations in this area is not directly connected with their coastal location.

Mining, particularly of precious and semi-precious stones (over 72 and 8.5 tons in 2004, respectively), has a much more important function than agriculture. In the recent years, Madagascar has become a major world producer of sapphires, with the largest deposits found near the town of Ilalaka, on the southern tip of the Central Highlands.

Fishery – the only significant sea-related activity – plays only a minor part. The catches in 2005 only slightly exceeded 150 thousand tons. The fish is mainly exported, largely owing to the technologically advanced deep freeze facilities in Antsiranana, a city in the north of the island. The local market is dominated by agricultural, and not fishing products. In areas which are densely populated, it is easier to buy freshwater fish and molluscs than seafood, which is available in large quantities only in the vicinity of the coast, which is a typical features of continental coasts, too.

“Continentalism” can also be observed in the culinary traditions of Madagascar. Staple foods in the Highlands included kebab and other treats from zebu meat, served with rice, while seafood are served in abundance only in the coastal towns and villages.

THE TRANSPORT NETWORK IN MADAGASCAR

The third feature that differentiates Madagascar from “classical” islands is the layout of its transport network. As a rule, the major transport route is a road circling the coast, which in some cases bypasses areas which are most difficult to access. If it is economically and technically feasible, roads are built in a way which minimises travelling times between the extreme points. Such a pattern can be found in the majority of the islands.

It has to be borne in mind that the system of major roads in Madagascar is utterly different. The main road (RN 7) runs longitudinally across the Central Highlands from Antananarivo to Fianarantsoa, and further south-west to Toliara. RN7 Road is further extended from the capital northwards by RN4 road, leading through the mountainous interior to the port of Mahajanga. This is the only transport axis in Madagascar. It goes near the sea in two locations only: in the harbours of Toliara and Mahajanga. Roads parallel to the coast practically do not exist. Nearly the entire western coast remains inaccessible via a good quality road. There is only a small, 200-kilometre section of a road partly covered with tarmac, connecting Antsiranana with Ambanja in the northernmost areas of Madagascar.

On the eastern coast, there are several sections of tarmac roads with a total length of 400 km (near Toamasina, Mananjary, Manakara and Sambava). These are separated by road sections with poor quality surface or even devoid of any connections by land. Interestingly, the island’s interior is connected with the eastern coast only in two ways: by the road from Antananarivo to Ampitabe, leading further to Toamasina and the road from Fianarantsoa to Mananjary, of a much more inferior quality. This means that the eastern coast is practically cut off from the interior of the island, which is an area of economic and demographic prosperity.

Altogether, the length of coastal roads is approximately 600 km, which is very little when compared with the nearly 5,000 km length of the coastline.

CONCLUSIONS

In light of the above considerations, Madagascar should not be regarded as an island even though it fulfils the conditions associated with the dictionary definitions of the term. With good reason to do so, we could ask what differs the life and everyday activity of a Merina Malgasy living in the Central Highlands from the life of someone who lives, say, in the Ethiopian Highlands? Such Malgasy, who do not know the sea, make up the majority of the country's population. Likewise, how do we draw the line between the life of an Antakarana Malgasy living on the coast from that of an inhabitant of coastal Tanzania? Their linkages with the sea are similar. This means that a similar diversity of features relating to life and economic activity can be observed in Madagascar as in many areas situated on the continent. It is difficult to notice characteristics which would substantiate the view that in this regard Madagascar resembles an island.

We could expect that similar phenomena can be observed in other areas considered as large islands, for example New Guinea, where there are many tribes which have had no connections with the sea. Can they be called islanders?

This, in turn, invites the conclusion that an artificial boundary distinguishing islands from continents has been inaccurately drawn.

If, however, Madagascar and similar geographical entities are not islands, what are they? They can hardly be regarded as continents, also because of their 'incontinuity' due to the relative proximity of the natural barrier, that is, the sea (in case of Madagascar, the distance from the central parts of the island to the coast is about 200 km as the crow flies) and to a significant difference in size as compared with the commonly recognised continents (Australia is about a dozen times bigger than Madagascar). Considering this, perhaps we should invent a new category of geographical entities – a transient category between islands and continents – that is, something that F. Doumenge refers to as island continents?

We should also bring to light the different natural and social characteristics of such island continents. While in terms of the natural life the *insularity* of Madagascar (and very possibly of other islands such as New Guinea, Borneo, etc.), in terms of the social and economic life it is *continental*. Having this in mind, perhaps the definition of the *island* should take this diversity into account, while until now the

bulk of the existing definitions has focused mainly on the natural features. This would make it much easier to accept the *insularity* of isolated areas on continents, and, presumably, the *continentalism* of large 'islands'.

The additional criteria of insularity proposed above – the dominance of relationships between the economy, human settlement and also probably culture, with the sea, could serve as such a complement, the only reservation being that such a definition should apply to the *insularity* of communities inhabiting *islands*.

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