

## **The Arawakan expansion in Pre-Columbian Amazonia: Rethinking "migration" in terms of ethnogenesis**

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*\*Please note that seven photos are added at the end of the text.\**

Attempts to explain the distribution of indigenous languages in Amazonia since the time of European contact, whether by linguists or archaeologists, have generally been founded on an essentialist conception of ethno-linguistic groups as more or less bounded, genetically distinct populations that have reached their recent territories through migration. This perception of ethno-linguistic diversity is a phenomenon that itself deserves explanation, as it appears to draw on a Eurocentric experience of nation-building that historically has struggled to integrate territory, language, identity, and biology (cf. Jones 1997). On closer examination, however, the evidence in Amazonia suggests a much more fluid relation between geography, language use, ethnicity, and genetics (Hornborg 2005). Correlations of data on the physical geography, linguistics, archaeology, and ethnohistory of Amazonia indicate that ethno-linguistic identities and boundaries have been continuously generated and transformed by shifting conditions such as economic specialization, trade routes, warfare, political alliances, and demography. In order to understand the emergence, expansion, and decline of cultural identities over the centuries, we thus need to consider the roles of diverse conditioning factors such as ecological diversity, migration, trade, epidemics, conquest, language shifts, marriage patterns, and cultural creativity. If ethnicity is understood as a means of communicating distinctness, we need to explore criteria for recognizing expressions of identity in the use of language, material culture, and other ethnic markers, acknowledging also that such use may be context-specific, and to trace the specific ways in which Amazonian experiences of distinctness and difference have been shaped by spatially distributed circumstances largely defined by the macro-scale logic of economic and political structures. The main objective of the present project is to build a G.I.S. database for correlating geography, linguistics, material culture (e.g., ceramic styles, rock art styles, horticultural systems, etc.), trade routes, and political projects over time. Correlations thus established can then be used to test or at least illuminate various hypotheses on the emergence and history of specific ethno-linguistic groups. One such hypothesis, offered here as an example, is that the wide distribution of Arawakan languages in greater

Amazonia is the imprint not so much of ancient migrations as of a network of trade routes spanning much of the continent several centuries before European contact. A corollary hypothesis is that the demarcation and diversification of several other linguistic divisions, such as the separation of Tupí, Carib, and Gê, may have been brought about by wedges of Arawak-speakers along major rivers. Rather than treat human history in the area as explicable in terms of biogeography, such approaches to the linguistics of ancient Amazonia seek explanations in social and cultural processes.

The Arawakan languages of South America at the time of Columbus represented the most widely dispersed linguistic family on the continent, ranging from Cuba to Paraguay. The expansion of Arawakan languages has generally been attributed to riverine migrations of prehistoric populations through Amazonia, and was explained by the archaeologist Donald Lathrap (1970) as a consequence of these populations' adoption of manioc horticulture, which would have provided a demographic advantage in territorial competition with non-horticulturalists. However, this basically biogeographical model of the Arawak expansion in terms of simple demographic displacement does not consider what social and cultural theory might have to suggest on the matter. An anthropologically informed account would need to consider socio-cultural factors such as language shifts, multilingualism, intermarriage, politics, prestige, and the strategic construction of cultural identity (ethnogenesis), particularly along the major rivers that have been posited as corridors of migration, but that were more obviously trade routes conspicuously often dominated by Arawak-speaking traders. The Arawakan "migrations" definitely involved some movement of people, but probably in a smaller scale and different way than previously postulated. Several kinds of theoretical and empirical arguments converge in suggesting that the widely dispersed Arawakan dialects encountered by Europeans may be testimony not so much to prehistoric population movements as to the integration of a regional trade network spanning most of the Amazon Basin and linking it to the Andes and to the Caribbean.

In order to reconceptualize the culture history of Amazonia along these lines, there are at least two pervasive biases to overcome. One has already been mentioned, i.e. the inclination to think of "peoples" as coherent, bounded populations with a common language, culture, and identity. Another and equally crippling bias is the assumption that the indigenous societies of Amazonia have always been few, small, and simple. Both these biases are products of world history: the first a reflection of European experiences of nationalism, the second of the state of Amazonian societies when studied by Europeans since the 17<sup>th</sup> century. Although the very earliest reports of European explorers of Amazonia (e.g., Carvajal 1934

[1542]) describe dense and extensive indigenous settlements along the riverbanks, the first undisputedly reliable accounts date from a period preceded by more than a century of devastating epidemics and slave-raiding, when the aboriginal population had been reduced to a small fraction (less than 10%) of its former size and its social organization disintegrated into isolated villages of refugees pushed into marginal habitats. These circumstances, although a result of the historical encounter with Europeans, were interpreted by Europeans as determined by the oppressive climate and poor soils of the tropical rainforest.

Both these biases (cultural essentialism and environmental determinism) are very obvious in the influential *Handbook of South American Indians* compiled by the anthropologist Julian H. Steward (1950) in the mid-20<sup>th</sup> century (Steward & Faron 1959). Not only do Steward's maps suggest more or less neatly bounded ethno-linguistic categories plotted onto geographical space, but his categories of "culture types" in Amazonia are explicitly defined as simple, fragmented, and irremediably constrained by the tropical rainforest environment. This interpretation of the native cultures of Amazonia has been particularly entrenched through the publications of archaeologist Betty J. Meggers (e.g., 1971). The mainstream assumption that climate and ecology represented an absolute limitation on aboriginal cultural development in Amazonia has been challenged by both anthropologists (cf. Carneiro 1995) and archaeologists (e.g., Roosevelt 1994; Heckenberger, Petersen & Neves 1999), but continues to retard reconceptualizations of prehistoric social processes in the area that posit large sedentary settlements, hierarchical political structures, long-distance trade, and intensive cultivation.

Although the second of the above-mentioned biases now appears to be increasingly transcended by archaeological discoveries, notably of extensive and deep deposits of dark, anthropogenic soils (Lehmann *et al.* 2003; Glaser & Woods 2004), the first continues to pose a formidable obstacle. Thus, even researchers determined to rewrite the culture history of Amazonia in terms of hierarchical polities and regional interaction tend to treat ethno-linguistic categories such as "Arawak" as denoting a genealogically definable "people" whose ancient movements over the continent can be traced by arrows on maps (Heckenberger 2002). While such cartographic exercises are no doubt valid for the dispersal of languages, it is important to distinguish between linguistic diffusion and demic migration. If the homeland of proto-Arawakan can be identified as the northwest Amazon, as historical linguistics suggest, the subsequent dispersal of Arawakan dialects to the Caribbean, the mouth of the Amazon, the Andes, and the llanos of Bolivia requires a more sophisticated explanation than the notion that Arawak-speaking peoples simply moved across the landscape.

There are several reasons to question such a simple notion of migration. The Arawak-speakers were not expanding into empty space, like their Palaeo-Indian ancestors moving into the New World from Siberia, or the first hominids leaving Africa. They were surrounded on all sides by other ethno-linguistic groups, some of whom had been living in Amazonia for thousands of years. Rather than assuming that these neighbors were displaced or annihilated by the Arawak expansion, we should consider it more likely that they were largely assimilated. Multilingualism and language shifts have been extensively documented over much of Amazonia in recent centuries (cf. Schmidt 1917:19-21; Campbell 1997:23; Aikhenvald 1999, 2002), and we have no reason to think that they were not equally common in Pre-Columbian times. Arawak-speaking groups studied by ethnographers show a conspicuous interest in forging marital and other alliances with neighboring groups along the rivers (cf. Gow 1991; Hill 1993, 1996), generating far-flung networks of amicably interconnected communities united by kinship, trade, and an elaborate ceremonial life. This inclination toward regional integration was the pivotal innovation of proto-Arawakan traders, which set in motion a contagious process of communication and unification echoing similar processes that on other continents have been called “the Neolithic Revolution.” Here as elsewhere, regional integration and trade stimulated local stratification, settlement growth, intensified production, and ethnicity, but the most obvious medium of integration is rarely recognized as such: a common, prestigious language serving as a mark of identity. By the end of the first millennium AD, dialects of Arawak were spoken along most of the major rivers from the mouth of the Orinoco to the upper Purús. This distribution pattern suggests not so much that Arawakan “peoples” were able to displace all other groups along these ancient communication routes, as conventional migration theory would have it, but that a proto-Arawakan language once served as a *lingua franca* from the Caribbean to Bolivia. To date, there has been no genetic research suggesting that Arawak-speakers in Colombia are closer related to Arawak-speakers in Bolivia than to their non-Arawak (e.g., Tukano-speaking) neighbors (cf. Cavalli-Sforza, Menozzi & Piazza 1994:341). Considering the preference for linguistic exogamy in the northwest Amazon (Sorensen 1974 [1967]; Jackson 1983), the very idea seems highly unlikely. On the other hand, there has been linguistic research showing that Arawakan languages often show greater structural similarities to their non-Arawak neighbors (e.g., Tukano, Pano) than to each other (Aikhenvald & Dixon 1998). All this adds up to something quite different than “migration” in any conventional sense.

Intriguingly, the German anthropologist Max Schmidt (1917) already in the early 20<sup>th</sup> century seems to have understood that the Arawakan expansion was not so much a

matter of demic migration as a process of ethnic identity construction that did not generally rely on the wholesale movements of populations. He made several observations on indigenous language shifts (e.g., among the Kaua and Chané) and explicitly noted that Arawak served as a trade language in the northwest Amazon. Schmidt emphasized the role of elite gift exchange and male exogamy, suggesting that the outward movement of small groups of prestigious, Arawak-speaking men would have sufficed to account for the diffusion of an Arawakan identity (*ibid.*, 36-61). This early, non-essentialist understanding of linguistic dispersal in Amazonia, however, was soon to be eclipsed by the blunter analytical tools of Julian Steward's cultural ecology.

The reconceptualization of Arawakan "migrations" that I have sketched here has emerged not only from a reconsideration of the various kinds of data mentioned above, but more fundamentally from modern anthropological theory on the kinds of social processes underlying the construction and maintenance of ethnic boundaries. The point of departure for such theory is usually the seminal contribution of the Norwegian anthropologist Fredrik Barth (1969). Archaeologists and historical linguists would have much to gain, in their attempts to account for past processes of ethno-linguistic diversification, from acquainting themselves with Barth's framework. Following Barth, the general understanding of ethnicity now prevalent in anthropology is that a population's experience of cultural distinctness is generated by its position within a larger field of interacting socio-ecological niches. Specialized production of certain kinds of foodstuffs, utensils, or other trade goods, often congruent with a particular ecological habitat, thus contribute to the demarcation of a specific ethnic identity. This identity does not exist on its own, but always in relation to those of other ethno-linguistic groups with which it remains in continuous interaction. Ethnic identity is thus simultaneously externally attributed, internally experienced, and above all *communicated*. The boundaries between ethnic groups generally have little to do with genes and biology, as is obvious from the widespread occurrence of intermarriage and even exogamy. There is thus a constant flow of persons and genes across ethnic boundaries, and the cultural distinctions are reproduced by social mechanisms quite separate from biological reproduction. These social mechanisms nevertheless leave tangible traces in the distribution of material culture and languages, both of which are used as markers of ethnic identity, and in environmental changes related to the specialized economic activities of particular groups (Hornborg 2005:593, Fig. 1). Within this theoretical framework it is thus possible to account for very disparate phenomena such as the distribution of pottery styles, historical linguistics, and environmental archaeology. It is in this context, rather than essentialist accounts of migration, that it is

interesting to trace correlations between, for instance, Barrancoid ceramics, Arawakan languages, and agricultural systems such as the raised fields (*camellones*) discovered in wetland areas from the Caribbean to Bolivia.

The challenge for a more nuanced understanding of migration, that takes account of relevant social and cultural theory, is to acknowledge the indeterminate relations between genes, languages, and material culture in human history and prehistory. Ever since the human species colonized the furthest reaches of the major continents more than 10,000 years ago, the movements of human populations have been determined by the complex contours of a *social* landscape shaped by ethnic boundaries, competition, warfare, and trade. We must thus acknowledge two quite different varieties of human migration: first, the kind of demic dispersal into unoccupied territories that can be studied with basically the same models that are used to understand the dispersal of other species (but with the important addendum that even these landscapes were perceived through cultural lenses, for instance with regard to food preferences, sacred places, or even aesthetics), and second, a form of expansion patterned as much by social manoeuvring as by geographical. To be sure, human movements in the landscape have always been distinct from those of other animals, simply because human landscapes have always had a symbolic dimension, but to navigate in already inhabited landscapes adds yet another level of complexity to the cultural processes at work.

In offering a reconceptualization of the Arawakan “migrations” in Amazonian prehistory, I have been challenged to provide additional examples of similar processes on other continents, so as to augment its credibility (Heckenberger 2005). It has thus been very gratifying for me to discover significant parallels in the expansion of Arabic through North Africa, which similarly appears to have involved the dispersal of limited numbers of men rather than wholesale population movements (Kouloughli 2007). According to Kouloughli, in most areas former Berber-speaking groups shifted to Arabic, while in some isolated areas the Berber language survived. The surviving pockets of Berber-speakers subsequently appear to have developed their own linguistic specificity, diverging from each other over time. This is exactly the kind of process that I suggest may have caused the diversification of Tupí, Carib, and Gê linguistic families in Amazonia. These families, which originally occupied territories in south-central Brazil, the Guyana uplands, and the east-central Brazilian uplands, respectively, appear to have been circumscribed by riverine Arawak-speakers on all sides: along the Orinoco, Negro, and Purús Rivers in the west, the main Amazon (separating Caribs in the north from Tupí in the south), and the Xingú (separating Tupí in the west from Gê in the east). Linguists have suggested that these three linguistic families have a common

genealogy (the so-called Tu-Ca-Gê hypothesis). It thus seems quite reasonable to suggest that the establishment of powerful Arawak-speaking settlements along the floodplains of major rivers contributed to the ethno-linguistic fragmentation of what was once a more homogeneous population speaking proto-Tu-Ca-Gê, much as the establishment of Arabic-speaking communities in North Africa led to the fragmentation of Berber groups. A regional *lingua franca* such as Arawak or Arabic may thus simultaneously serve as a medium of integration and as a source of ethno-linguistic differentiation.

### References

- AIKHENVALD, ALEXANDRA Y. 1999. "Areal diffusion and language contact in the Icana-Vaupés basin, north-west Amazonia," in *The Amazonian languages*. Edited by R.M.W. Dixon & A.Y. Aikhenvald, pp.385-416. Cambridge: Cambridge University Press.
- AIKHENVALD, ALEXANDRA Y. 2002. *Language contact in Amazonia*. Oxford: Oxford University Press.
- AIKHENVALD, ALEXANDRA Y., AND R.M.W. DIXON. 1998. Evidentials and areal typology: A case study from Amazonia. *Language Sciences* 20(3):241-257.
- BARTH, FREDRIK. 1969. *Ethnic groups and boundaries: The social organization of cultural difference*. Boston: Little, Brown.
- CAMPBELL, LYLE. 1997. *American Indian languages: The historical linguistics of native America*. Oxford: Oxford University Press.
- CARNEIRO, ROBERT L. 1995. "The history of ecological interpretations of Amazonia: Does Roosevelt have it right?," in *Indigenous peoples and the future of Amazonia: An ecological anthropology of an endangered world*. Edited by L.E. Sponsel, pp.45-70. Tucson: University of Arizona Press.
- CARVAJAL, GASPAR DE. 1934. "Discovery of the Orellana River," in *The discovery of the Amazon according to the accounts of friar Gaspar de Carvajal and other documents*. Edited by H.C. Heaton, pp.167-235. New York: American Geographical Society. [Orig. written 1542]
- CAVALLI-SFORZA, L. LUCA, PAOLO MENOZZI, AND ALBERTO PIAZZA. 1994. *The history and geography of human genes*. Princeton: Princeton University Press.
- GLASER, BRUNO, AND WILLIAM I. WOODS, eds. 2004. *Amazonian Dark Earths: Explorations in space and time*. Berlin: Springer.
- GOW, PETER. 1991. *Of mixed blood: Kinship and history in Peruvian Amazonia*. Oxford: Clarendon Press.
- HECKENBERGER, MICHAEL. 2002. "Rethinking the Arawakan diaspora: Hierarchy, regionality, and the Amazonian formative," in *Comparative Arawakan histories: Rethinking*

*language family and culture area in Amazonia*. Edited by J.D. Hill & F. Santos-Granero, pp.99-122. Urbana: University of Illinois Press.

HECKENBERGER, MICHAEL. 2005. Comment on Alf Hornborg, "Ethnogenesis, regional integration, and ecology in prehistoric Amazonia: Toward a system perspective." *Current Anthropology* 46:4:608-609.

HECKENBERGER, MICHAEL, JAMES B. PETERSEN, AND EDUARDO G. NEVES. 1999. Village permanence in Amazonia: Two archaeological examples from Brazil. *Latin American Antiquity* 10(4):353-376.

HILL, JONATHAN D. 1993. *Keepers of the sacred chants: The poetics of ritual power in an Amazonian society*. Tucson: University of Arizona Press.

HILL, JONATHAN D. 1996. "Ethnogenesis in the northwest Amazon: An emerging regional picture," in *History, power, and identity: Ethnogenesis in the Americas, 1492-1992*. Edited by J.D. Hill, pp.142-160. Iowa City: University of Iowa Press.

HORNBORG, ALF. 2005. "Ethnogenesis, regional integration, and ecology in prehistoric Amazonia: Toward a system perspective." *Current Anthropology* 46:4:589-620.

JACKSON, JEAN E. 1983. *The fish people: Linguistic exogamy and Tukanoan identity in northwest Amazonia*. Cambridge: Cambridge University Press.

JONES, SIÂN. 1997. *The archaeology of ethnicity: Constructing identities in the past and present*. London: Routledge.

KOULOUGHLI, DJAMEL E. 2007. "L'expansion de l'arabe hors d'Arabie." Paper presented at the OMLL workshop on Migrations, Porquerolles, September 5-7, 2007.

LATHRAP, DONALD W. 1970. *The Upper Amazon*. London: Thames and Hudson.

LEHMANN, JOHANNES, DIRSE C. KERN, BRUNO GLASER & WILLIAM I. WOODS, eds. 2003. *Amazonian Dark Earths: Origin, properties, management*. Kluwer.

MEGGERS, BETTY. 1971. *Amazonia: Man and culture in a counterfeit paradise*. Chicago: Aldine.

ROOSEVELT, ANNA C. 1994. "Amazonian anthropology: Strategy for a new synthesis," in *Amazonian Indians from prehistory to the present: Anthropological perspectives*. Edited by A.C. Roosevelt, pp.1-29. Tucson: University of Arizona Press.

SCHMIDT, MAX. 1917. *Die Aruaken: Ein Beitrag zum Problem der Kulturverbreitung*. PhD thesis. Universität Leipzig.

SORENSEN, ARTHUR P., JR. 1974. "Multilingualism in the northwest Amazon," in *Native South Americans: Ethnology of the least known continent*. Edited by P.J. Lyon, pp.138-158. Boston: Little, Brown and Company. [Orig. publ. 1967]



STEWART, JULIAN H., ed. 1950. *Handbook of South American Indians*, vol. 6: *Physical anthropology, linguistics, and cultural geography of South American Indians*. Washington: Smithsonian Institution.

STEWART, JULIAN H., AND LOUIS C. FARON. 1959. *Native peoples of South America*. New York: McGraw-Hill.

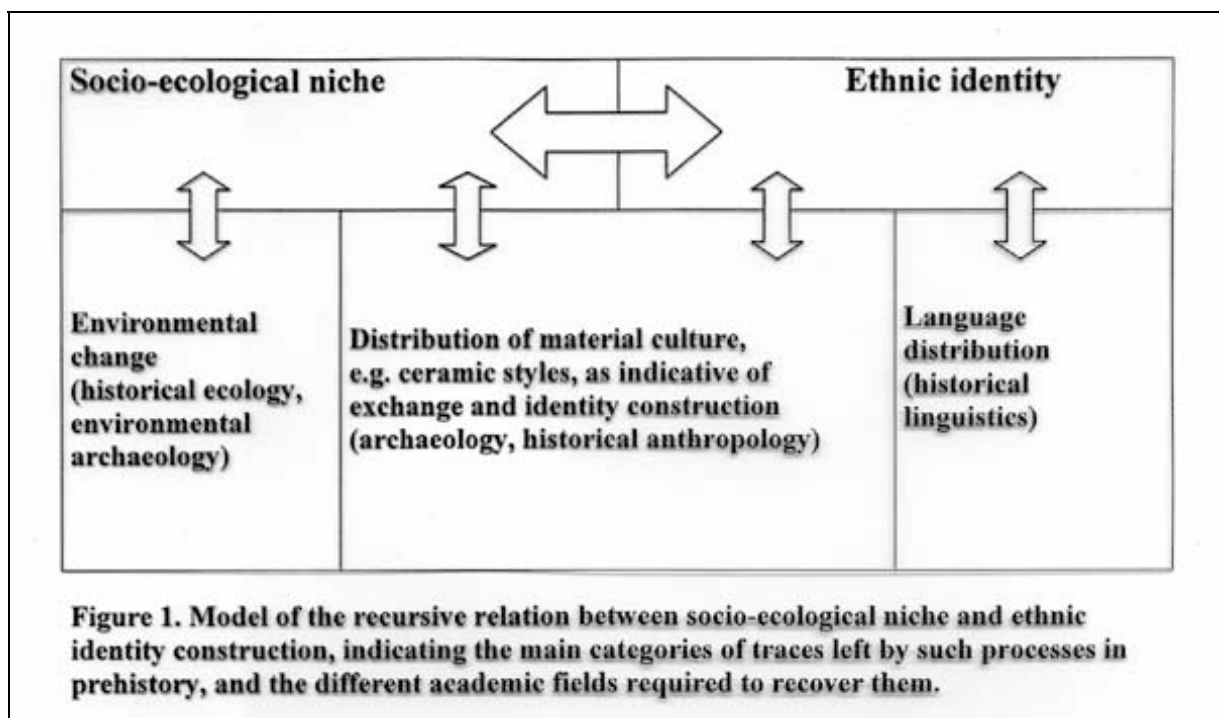
### *Illustrations*



1. Transect of a burial urn at a road cut through the large site of Acutuba on the lower Rio Negro, historically populated by Arawak-speakers. Ceramics are one of the few types of archaeological remains that can be retrieved from sites in Amazonia. Burial urns indicate an interest in kinship and genealogy. Photo: Alf Hornborg.

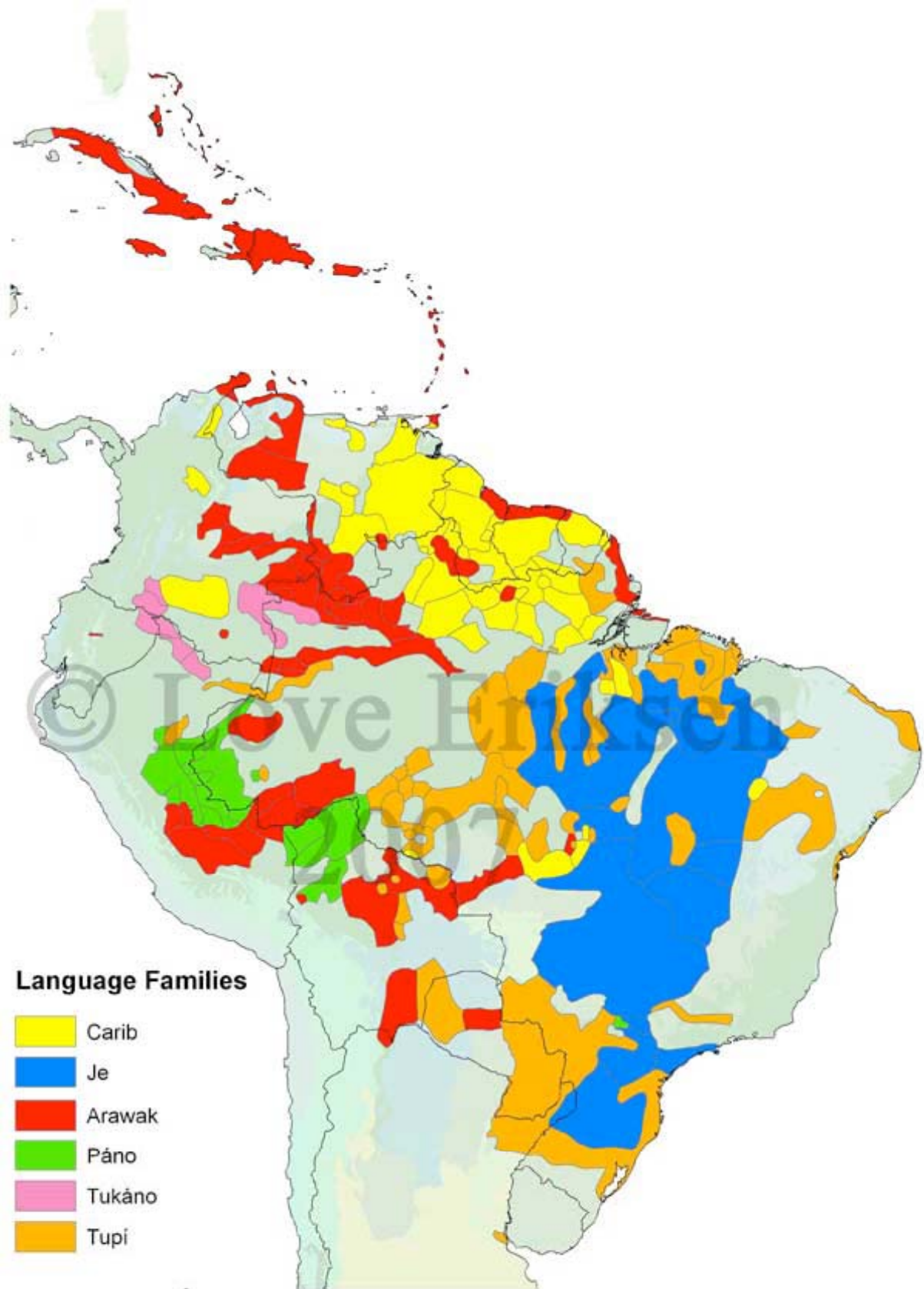


2. Dark anthropogenic soil (terra preta do índio) at the site of Hatahara on the lower Amazon, now used for plantation agriculture. Photo: Alf Hornborg.

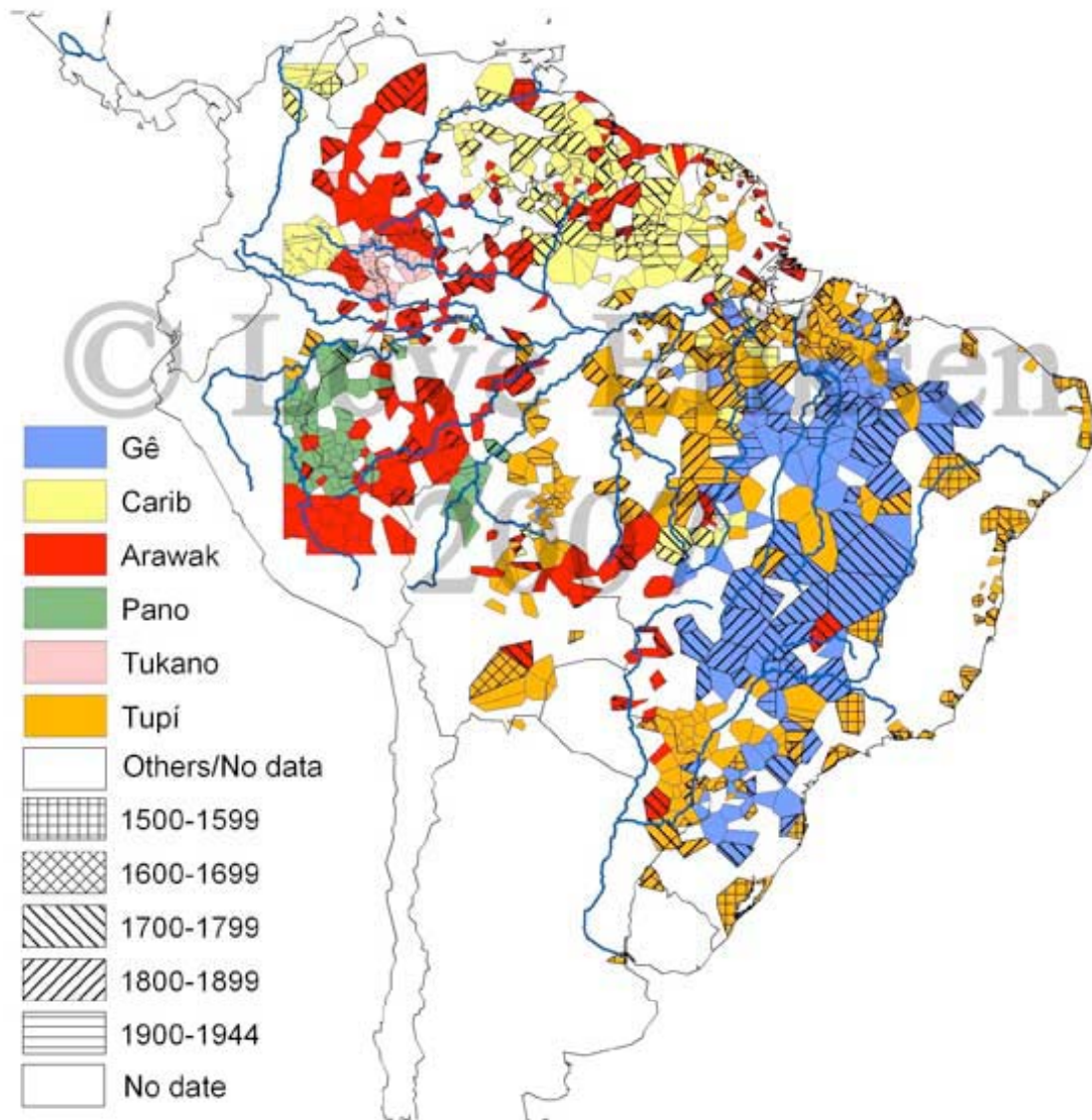


3. The recursive relation between socio-ecological niche and ethnic identity construction, indicating the main categories of traces left by such processes in prehistory and the different academic fields required to recover them.





4. Approximate distribution of major linguistic families of Amazonia at the time of European contact. Copyright: Love Eriksen.



5. Thiessen polygon conversion of Nimuendajú's historical data on points of European encounters with different ethno-linguistic groups in different centuries. Copyright: Love Eriksen.





6. Overview of Love Eriksen's database on archaeological sites and historical encounters with indigenous groups of Amazonia. Copyright: Love Eriksen.



7. Major indigenous trade routes of northern and western Amazonia in different centuries. Copyright: Love Eriksen.