

Second Report from the project “Material Culture and Change in the Lower Amazon”

Archaeology in the Santarém Region, Brazil

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Abstract

This is the second report from the project Material Culture and Change in the Lower Amazon. This report describes the outcome of fieldwork carried out during August 2010. The fieldwork was a continuation of the surveying initiated in 2008 and covered sites in Santarém-Tapajós areas, including the Belterra Plateau. The field crew included archaeologists from University of Gothenburg, Sweden and the University of Pará, Brazil, as well from.

Laboratório de Arqueologia Curt Nimuendajú, UFOPA-Santarém, Brazil.

Important focus has been anthrosols (Terra Pretas or Amazonian Dark Earths) and identification of landscape modifications in association with various archaeological (settlement systems and) sites.

A significant result of the 2010 fieldwork was the identification of a recurrent pattern of association between large inland sites and particular landscape features; most importantly round and oval depressions (cf. Stenborg och Melin 2010).

Acknowledgements

We are extremely grateful for all help and support that we have received from our Brazilian counterparts Denise Pahl Schaan at the University of Pará and Anderson Márcio Amaral Lima at Laboratório de Arqueologia Curt Nimuendajú, UFOPA-Santarém. We are very grateful for the help from students and staff during the fieldwork, including Antonia Damasceno Barbosa, Joanna Troufflard, Flora Braga, Francieli Sarturi. Our fieldwork would not have been possible without the generous support and hospitality given also by local inhabitants and landowners, such as Manuel Feliciano da Costa in Genipapo/Bom Futuro.

The field crew of 2010 consisted of:

Anderson Márcio Amaral Lima
Denise Pahl Schaan
Per Stenborg
Imelda Bakunic
Antonia Damasceno Barbosa
Joanna Troufflard
Flora Braga
Francieli Sarturi

Introduction

The Santarém region covers a large area of various archaeological sites and varied archaeological record. Sites surveyed in 2010, in the Santarém region, extend south of the Amazon River (the Santarém area) and east of the Tapajos River (the Belterra plateau) (see Figure 1).

One of the objectives of the project is focused on studies of resource use and settlement systems in the region of Santarém, from its later prehistory to the initial period of European contact (approximately 500BC – 1700AD).

This work also deals with the special anthropogenic soils called Terra Preta do Indio or Amazonian Dark Earths (ADE). Today's scientists agree that the Amazonian Dark Earths (ADE) are formed as a result of prehistoric human activity, i.e. that they are anthrosols. However, it remains unknown whether they were produced by conscious strategies for soil improvement - or if they were an unintentional spin-off of long-time human impact (Schaan et al. 2008).

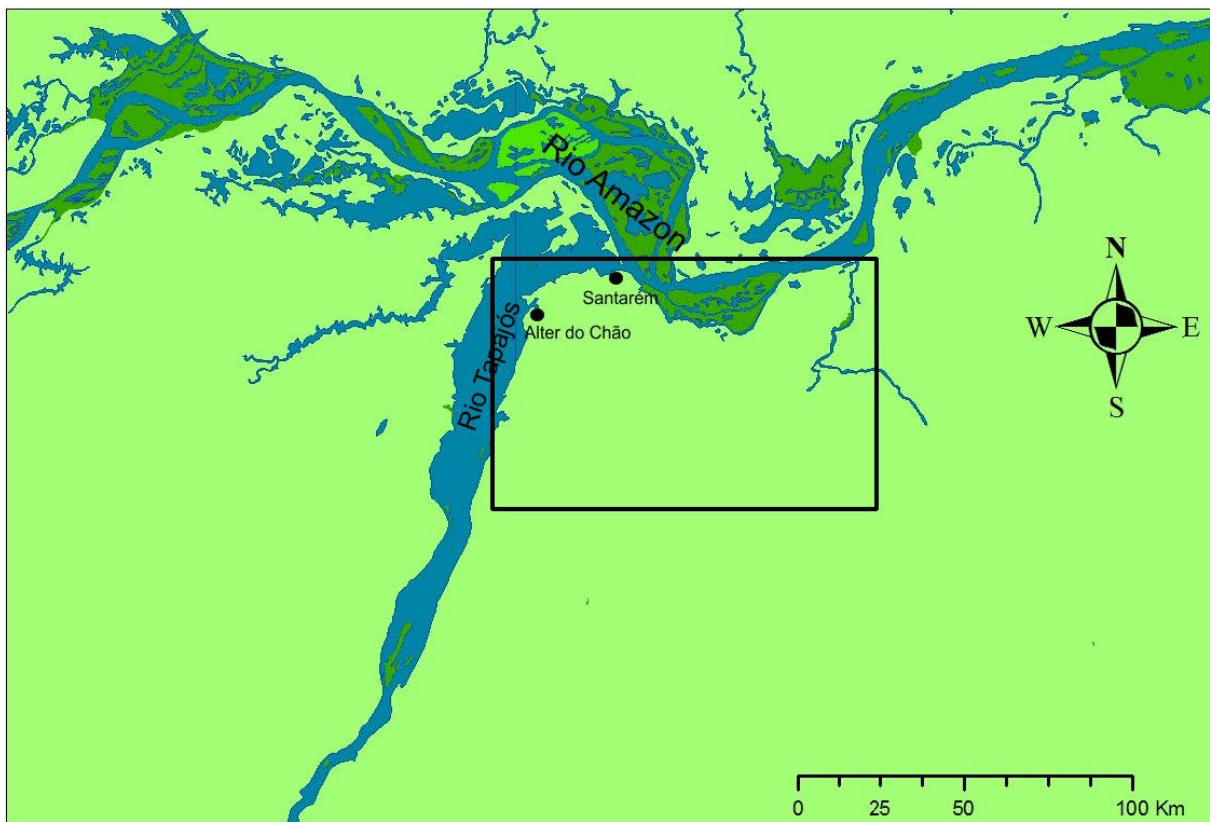


Figure 1. Map showing the area of surveying 2008-2010. By Per Stenborg

Background

It is fair to consider the work by Curt Unkel Nimuendajú in the 1920's as of fundamental importance for the coming into being of the investigations described in this report.

During the first half of the 20th century, researcher and ethnographer Curt Unkel Nimendajú was a towering figure of Brazilian fieldwork and later also of Brazilian archeology. Most of his archaeological investigations formed a part of his collaboration with the Gothenburg Museum in Sweden. The Gothenburg Museum was at the time establishing itself as one of the leading centers of Amerindian studies, under the guidance of its director Erland Nordeskiöld.

The principal area of investigation concerning Nimuendajú's archaeological fieldwork was the Santarém region. This is how one of the most significant, albeit understudied, archaeological collections from Amazonia became part of the holdings of the Gothenburg Museum's Ethnographical section, nowadays the Museum of World Culture in Gothenburg. A large number of the sites initially investigated by Nimuendajú in the 1920's have since been destroyed or severely damaged, particularly as a result of the recent expansion of mechanized agriculture in the area. Others, however, remain essentially unaffected by modern exploitation. Hence, recent fieldwork (2006-2010) has included surveys and inquires of the state of preservation of the areas archaeological record (Schaan 2006; Stenborg 2009). During this fieldwork we have been able to located, and in most cases also map, more than 100 archaeological sites. In many cases we have been able to identify the places for Nimuendajú's original investigations in the 1920's. As mentioned above, a number of these sites have, partially or entirely, disappeared since 1920's. This circumstance renders the Gothenburg collections even more unique and scientifically significant. Analysis of this material has been initiated and will involve participation by Brazilian archaeologists Denise Pahl Schaan and Márcio Amaral Lima. Selected objects will gradually be made accessible as online 3D-models (some initial examples may be found here: http://www.cultivated-wilderness.org/3D%20modeller/VKM26_26_88.htm; http://www.cultivated-wilderness.org/3D%20modeller/VKM23_16_280.htm)

Survey and mapping carried out at various sites in 2010

The fieldwork consisted primarily of inventory and mapping of locations in the region south of Santarém and at the right bank of the Tapajo river. This fieldwork was facilitated by grants from Humanistiska Fonden, Rådman och Fru Ernst Collianders Stiftelse och Vitterhetssamhället I Göteborg

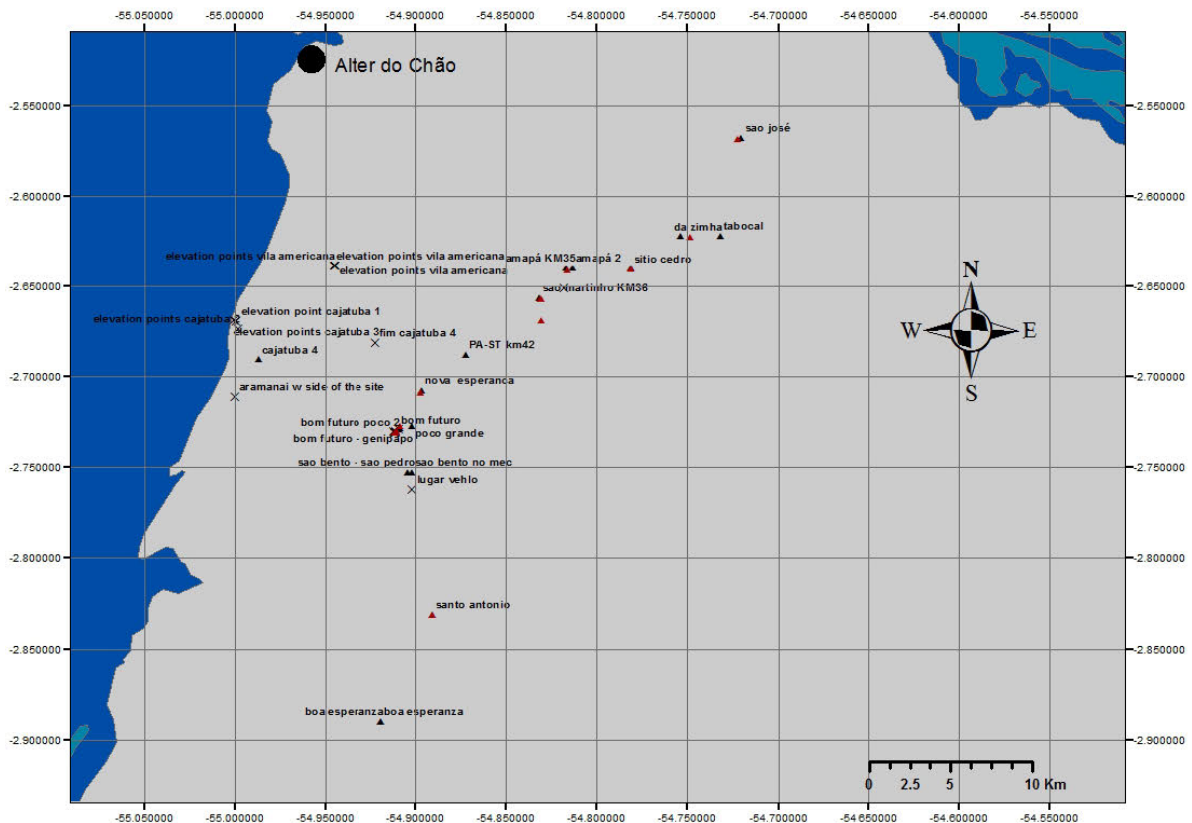


Figure 2. Sites covered by the 2010 survey. By Per Stenborg 2011.

The surveying and extensive GPS-mapping of archaeological sites in 2010 may be summarized as follows (cf. Figure 2 and Appendix):

2010-08-10

1. AO5

This site is to an extent disturbed by agricultural activities, but the cultural material (e.g. ceramics and shells) is visible on the surface of the cultivated area.

2. Bo Esperanza

The site includes an open field with crops that interferes with the archaeological site. The high grass and the crops are somewhat overgrown, but we were able to see and find some ceramic artifacts on the ground.

3. São Bento – São Pedro

This area consists both of a cultivated field and the backyard of modern house. The growing cornfield has damaged the archaeological record quite strongly, however, there was plenty of archaeological material/ remains (mainly ceramics) in the backyard of the house area.

4. São Sebastião

Old water reserve. The perimeter of this feature was mapped with GPS.

2010-08-11

5. Bandera Branca

Vegetated and cultivated area (including fruit trees), the site is also near the main highway and has also modern houses constructed on the site area.

6. São José

There is a housebuilding and a garden at the archaeological site, as well as cultivated land and fields surrounding the house area. The ceramic artifacts are visible on the surface and are typically Santarém ceramics.

7. Tabocal

The site is incredibly cultivated with for example flower-, herb- and vegetable gardens. Typical Santarém ceramics have been preserved by the owner and other Santarém ceramics were found on the surface throughout the site (even in the gardens).

2010-08-12

8. Bom Futuro – Genipapo

This site consists of overgrown forest, artificial water sources and cultivated land. The artifacts (consisting of mainly ceramics) could be found at the surface of all of these site areas.

9. Nova Esperença

The site extended from areas that were occupied by houses and small farming – to the forest areas with artificial water sinks, where there still is available water in the forest.

10. PA-ST Km 42

The archaeological site is somewhat stirred by the plantations around the house area, as well as on the crops field. However, there is still forest around the cultivated areas. There were a lot of ceramic fragments on the surface that were collected in as samples.

11. Santo Antonio

The site was located inside the forest. In the forest we found modern cultivation of plants, a lot of old pottery fragments and also an old water lowering/ cut? that was empty of water.

2010-08-13

12. Cedro

Part of the site was inhabited by modern houses, and in the sparse forest we found artifacts (ceramics) on the surface. A dry waterhole was mapped. A soil sample was also taken to see if the cultural layers could be delimited in the stratigraphy.

13. Da Zimha

Large site – associated with a very large (diameter >100m) dry depression. Only some sectors of the site have been mapped. This site was also mapped in 2006.

14. Ramal do Funil (km 23)

One large depression situated in a modern agricultural field was mapped.

15. Ramal do Limão

Very large site including various depressions. A large depression was mapped. Surface material included several fragments hoes and a complete axe (or hoe). The site appears to have been strongly associated with agriculture.

16. Vila Americana

This large site was previously mapped in 2008. This time our work consisted of surface collection and height measurement. Situated on the Belterra plateau the Tapajós is visible from this area (although about 6 km away). Access to fresh water is comparably good.

2010-08-14

17. Amapá Km 35

Lots of pottery is found on the surface (mostly belonging to the Santarém ceramic complex). The material also included lithics (a complete hoe/axe).

18. São Martinho Km36

A large Terre Preta & Terra Mulata area with potter including Santarém and Globular types. The limits of the Terra Preta and water reserve (water hole) were mapped as well as a small section of a canal associated with the water reserve. The ground surrounding the water hole is

considerably higher than that of the surroundings. It appears possible that water have been led to (or from) the hole through the canal.

2010-08-17

19. Cajatuba 1

Measured in 2008. This site is situated by the Tapajós. Only small quantities of pottery is visible on the surface, although the Terra Preta layer is evident in the stratigraphy. The surface collection consisted of coarse undecorated pottery. In 2008 a fragment of a hoe or axe was found. One hypothesis is that the area has been used as settlement at an early moment in time, and later reused for agricultural production (possibly flood-recession agriculture).

20. Cajatuba 2

Situated close to Cajatuba 1 and essentially showing the same characteristics as the previous site.

21. Cajatuba 3

Small but distinctive Terra Preta site. Small quantities of material. However, the material found is similar to that at Cajatuba 1 appears to come from large, thick vessels with, possibly container.

22. Aramanai

Close to Cajatuba 3. There is evidence of Terra Preta soil, but no archaeological material was found. The landowner have, nevertheless found archaeological material in the area.

24. Dalpai

Large quantities of Santarém pottery was found here. The material covers the whole range of Santarém ceramics – including polychrome decoration, incised decoration of various types and zoo- and anthropomorphic figures and applications. East of the Terra Preta there is a large depression which, according to local inhabitants, formerly contained water.

25. Amapá 2

No notes

26. Berreto

A lot of pottery was acquired from local inhabitants and a point was measured next to the road. In all probability the Terra Preta area has been divided into two parts by the road construction.

A total of 26 archaeological sites were surveyed and mapped during the fieldwork in August of 2010.

Fieldwork – excavation at the site Bom Futuro, Genipapo

Fieldwork in 2010 also included excavation of a test pit (1x1m) and at the site *Bom Futuro* (Ramal do Genipapo) between August 18 and 21. The site was located inside the Amazon forest and the area was very overgrown, but still passable. At the site (around the test pit) there were also pottery fragments on the surface, where some of the fragments were collected and registered.

The test pit was measured (1x1m) and hand-dug. The square was dug in layers (per 10cm) and using single context when cultural soil/layers could be distinguished. The soil was also sifted on the side of the test pit, and through this method we were able to find more artifacts.

There was also a darker stain in the soil, which contained a concentration of pottery sherds. The first interpretation of the darker stain in the soil is that it seems likely to be a pole hole.



We reached about 40-50cm down when we found the sterile soil. This was almost the same throughout the test pit, with one exception, the dark staining that was found kept continuing to a depth of 60cm before the sterile soil came.

Documentation of the square was made through digital photography & surface- and profile drawings. Overall the artifacts consisted mainly of ceramics which are typical *Santarém ceramics*.

Conclusions

The archaeological record and sites are being destroyed at an alarming rate and for number of reasons: such as mining activities, road and pipe-line construction and in particular for agricultural purposes (Stenborg, 2009).

Through our fieldwork we have been able to locate about 110 archaeological sites in the investigation area. Our present data suggest that pre-Columbian human occupation in the Santarém region was not limited to the várzea or even river bluff areas. In addition there seems to exist an association between Terra Preta sites in the inland and presence of particular landscape features such as depressions.

These preliminary results challenge established views and models concerning pre-Columbian settlement patterns and location (see, for instance Denevan 1996; Lathrap 1970; Meggers 1992; Roosevelt 1994). Simultaneously, however, these new dates substantiates early historical information (particularly Carvajal 1942 [1549]) about inland and upland settlements and presence of infrastructural elements such as road systems interconnecting networks of settlements.

Reflections and future research

Santarém area is (as mentioned above) currently exposed to excessive exploitation, which means that the regions archaeological sites and artifacts are being destroyed at a rapid rate. Therefore, the archaeological field efforts are extremely important. In our work we have combined new field efforts with studies of Santarém material held by the Museum of World Culture in Gothenburg. In many cases we have been able to revisit the sites that were investigated by Curt Nimuendajú in the 1920's, when he collected material for the museum in Gothenburg. This fruitful approach have resulted in a full scale research project: *Cultivated Wilderness: Socio-economic development and environmental change in pre-Columbian Amazonia* (P10-0323:1), financed by The Bank of Sweden Tercentenary Foundation (2011-2013). It has also helped to enhance the status of Santarém archaeology, something which was also manifested through the creation of the "Archaeological Laboratory Curt Nimuendajú", named after Curt Nimuendajú the originator of the Santarém collections in Gothenburg, which was inaugurated in Santarém in August 2010. The importance of our recent discoveries, in particular evidences of what appears to be examples of pre-Columbian landscape modifications, is yet difficult to evaluate, but is likely to have a significant impact upon future research.

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Appendix

Site Pictures - sites surveyed 2010

A05



Bo Esperanza



Photos: Imelda Bakunic

São Bento – São Pedro



Photo: Flora Braga

São Sebastião



Photo: Imelda Bakunic

Bandera Branca



Photo: Imelda Bakunic

São José



Photo: Flora Braga

Tabocal



Bom Futuro – Genipapo



Photos: Imelda Bakunic

Nova Esperenca



Photo: Imelda Bakunic

PA-ST Km 42



Photo: Flora Braga

Santo Antonio



Photo: Imelda Bakunic

Cedro



Photo: Imelda Bakunic

Da Zimha



Photo: Flora Braga

Ramal do Funil



Photo: Imelda Bakunic

Ramal do Limão



Vila Americana



Photos: Flora Braga

Amapá Km 35



São Martinho Km 36



Photos: Imelda Bakunic

Cajatuba 1



Photo: Imelda Bakunic

Cajatuba 2

Cajatuba 3



Photo: Imelda Bakunic