

Report

Pilot Project

Atlas of Dutch Brazil

Part 2



'O Forte', Baía da Traição, Paraíba, Brazil, 2007

Mutual Heritage Project
run jointly by Brazil, The Netherlands and Spain

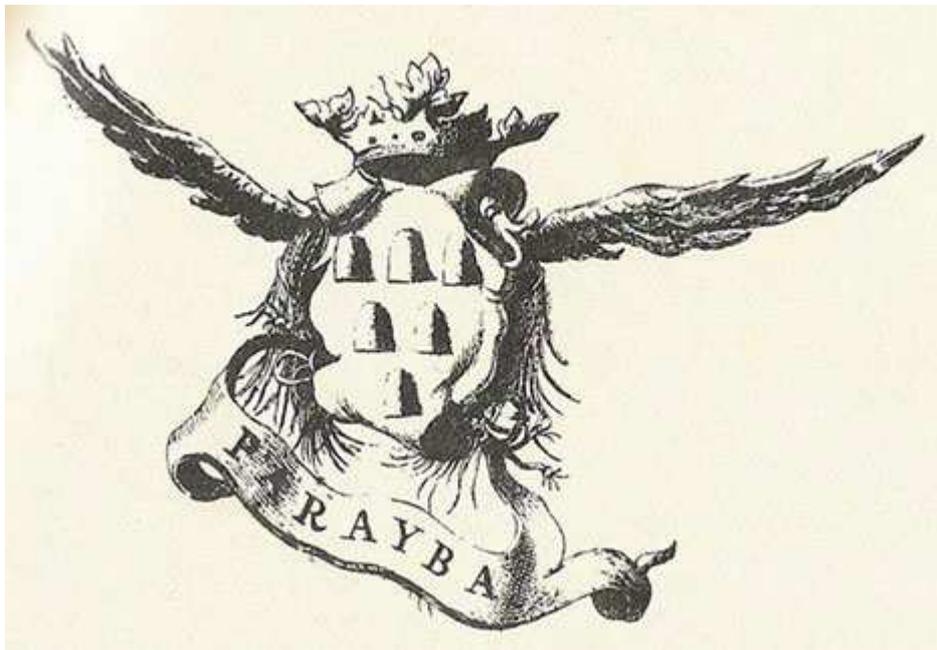
Report

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Atlas of Dutch Brazil

Part 2

According to final report model Netherlands Culture Fund (HGIS-C)



Parayba. In: C. Barlaeus, Rerum per octennium in Brasilia etc., Amsterdam 1647

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Translations
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CONTENTS

1.	CONTEXT AT THE BEGINNING OF ACTIVITIES/PROGRAM	p. 4
2.	OBJECTIVES PILOT PROJECT, PART 2	p. 5
2a.	General objectives, target group	p. 5
2a.1.	Organizational structure	p. 5
2a.2.	Financiers	p. 6
2a.3.	Partners	p. 6
2a.4.	Authorities who have been consulted	p. 6
2b.	Additional objectives and final goals	p. 7
2c.	Objectives modified during the course of the activities	p. 8
3.	PLANNING PILOT PROJECT, PART 2	p. 8
3a.	Planned activities	p. 8
3b.	Possible changes	p. 8
3c.	Planned period of execution	p. 8
4.	REALIZATION	p. 9
4a.	Activities realized	p. 9
4b.	Reasons for modification following difficulties/planning	p. 9
4c.	Actual period of execution	p. 9
4d.	Explanation for deviations to the planning	p. 9
5.	EVALUATION	p. 10
5a.	Appraisal of the activities/programs	p. 10
5b.	Interim and final targets achieved	p. 10
5c.	Explanation in case of deviations following difficulties/planning	p. 13
6.	CONCLUSIONS AND PERSPECTIVES	p. 14
6a.	Conclusion on reaching general objectives	p. 14
6b.	Conclusion on reaching target group	p. 14
6c.	Conclusion on quality of executing authorities	p. 15
6d.	Possible explanation on above-mentioned conclusions	p. 15
6e.	Suggestions for the future/'lessons learned'	p. 15
	FIGURES	p. 16

1. CONTEXT AT THE BEGINNING OF ACTIVITIES/PROGRAM

Relations between Brazil and The Netherlands have lasted for more than 400 years. As early as the end of the 16th century the Dutch were actively looking for trading possibilities along the coast of Brazil, and to this end they established a colony between 1630 and 1654 in the northeast of the country called New Holland. Even today the then Governor Johan Maurits van Nassau Siegen is still renowned for his modern and prosperous way of ruling the colony (1637-1644). A fascinating glimpse into the world of this Dutch period is portrayed by writers such as Caspar Barlaeus and Johan Nieuhof and painters such as Frans Post and Albert Eckhout. In archives and libraries in Brazil, Holland, Portugal and Spain much more information lays waiting to be discovered and little is known about the built cultural heritage from this period.

Historical and archaeological research in 2002/2003 at Fort Orange on the island of Itamaracá in Pernambuco gave new insights into the building methods used for constructing Dutch forts in Brazil. Underneath the present fort, which is built of limestone blocks, another, earlier fort was uncovered where the ramparts were constructed of sand, clay and wood. This fort stems from the Dutch period and was, for the greater part, built according to the old-Netherlands system of fortification. Bricks were used for the construction of the gate, the floors of the soldiers' barracks in the terreplein and, particularly for the gunpowder house. Locally quarried natural stone blocks were used as foundations for the barracks.

The Dutch built at least 48 similar forts or fortifications on strategic points along the northeast coast of Brazil. Remains are expected in eleven Brazilian coastal states, namely Rio de Janeiro, Bahia, Sergipe, Alagoas, Pernambuco, Paraíba, Rio Grande do Norte, Ceará, Maranhão, Pará and Amapá. Through Brazilian-Dutch-Spanish cooperation a project called 'Atlas of Dutch Brazil' has been set up with the objective of making an inventory of these sites.

The goal of the Atlas of Dutch Brazil is to map all military defence works related to the Dutch presence in Brazil. These were essential constructions for the establishment and existence of the colony. In the future the 'Atlas' will be extended to include commercial and civil objects, as well as shipwrecks. For the military phase, some three years' work in historical and archaeological research is necessary for the acquisition of information concerning the defence works and verification of these in the field. All sites will be pinpointed with Global Positioning System (GPS). No excavations will take place during this stage. Small commemorative panels will be erected at each of the sites which will describe their historical importance. A mobile laboratory and information centre will collect and process all data, which will then be collated and transposed onto an interactive website. In order to guarantee continuity all material and information resulting from this project will be assembled in a permanent museum. A mutual heritage centre will also be established to stimulate response and initiative and promotion of other projects in this area. Training of work force and guides will be supported and ultimately the project will advise monument- and other institutions about possibilities for further archaeological research and conservation when required.

A short-term pilot project was set up to test the methodology (see Report Pilot Project Atlas of Dutch Brazil 2007 (Part 1)). Upon completion of the pilot it was obvious that extra research should be carried out in Paraíba and that the website must be finished. A follow-up to the pilot was essential, viz. Part 2. This would entail one month of historical research in The Netherlands, one month of field-survey on site and one month of elaboration of the results and updating of the website.

2. OBJECTIVES PILOT PROJECT, PART 2

2a. General objectives, target group

The primary objective of the Pilot Project (parts 1 and 2) of the Atlas of Dutch Brazil remains the mapping of all military defence works related to the Dutch presence in the State of Paraíba, Brazil (picture 2). For practical purposes this state was chosen because the area of interest is small and compact.

The objectives of the Pilot Project Part 2 are two-fold:

- firstly completion of the work on the three forts Santa Catarina, Restinga and Santo Antônio which the survey team was unable to finish during Pilot Project Part 1 because of time constraints, and
- secondly, investigation of new sites which have come to light as a result of further historical research:
 - Dutch batteries erected during two campaigns (1631 and 1634) to capture the Portuguese fort at Cabedelo ,
 - the Arraial and/or Engenho (sugar mill) Santo André,
 - Engenho Gargaú,
 - Baía da Traição and
 - a system of Portuguese batteries around Filipéia/Frederickstad (João Pessoa).

The most important target groups for the Pilot Project (parts 1 and 2) are the relevant institutions and the people of the State of Paraíba. Their awareness is essential for the preservation and conservation of the built heritage in this State. Information on both parts of the Pilot Project will become universally available through the medium of the website.

2a.1. Organizational structure

The New Holland Foundation, established in The Netherlands, was founded to promote research into and preservation of the Mutual Cultural Heritage between Brazil and The Netherlands. Researchers have already participated in several projects and built up extensive expertise. Working relationships of many years' standing exist between institutions in The Netherlands, Brazil, Portugal and Spain. The project Atlas of Dutch Brazil is the result of combined effort to create a base for scientific research and preservation by making an inventory of this heritage. The New Holland Foundation therefore initiated a joint project with researchers of the Universidade Federal de Pernambuco (UFPE), the Universidad de Salamanca (USAL) and the Universiteit van Amsterdam (UvA), together with other institutions with vested interest. For the Pilot Project, Part 2 the following organizational structure was developed, indicating some small changes when compared with Part 1:

General coordinator

-Oscar Frederik Hefting, MA, New Holland Foundation

Staff

-Prof. Marcos Albuquerque, Ph.D., Laboratório de Arqueologia (LA), UFPE

-Oscar Frederik Hefting, MA, New Holland Foundation

-Prof. Velda Lucena, Ph.D., Laboratório de Arqueologia, UFPE

-Hans van Westing, New Holland Foundation

Coordinator archaeological research

-Prof. Marcos Albuquerque, Ph.D., Laboratório de Arqueologia, UFPE

Archaeological survey team

-Prof. Marcos Albuquerque, Ph.D., Laboratório de Arqueologia, UFPE

-Peter Frikken, specialist field-survey, Stichting Archeologie en Monument, The Netherlands

-Oscar Frederik Hefting, MA, New Holland Foundation

- Prof. Veleda Lucena, Ph.D., Laboratório de Arqueologia, UFPE
- Darlene Maciel de Souza, MA, Laboratório de Arqueologia, UFPE
- Marcelo Milanez, logistics, Laboratório de Arqueologia, UFPE
- Doris Walmsley, photographer, Laboratório de Arqueologia, UFPE
- Hans van Westing, New Holland Foundation
- Coordinator historical research and website
- Barbara Consolini, MA, Amsterdam
- Subcoordinator historical research in Brazil
- George Félix Cabral de Souza, Ph.D., Departamento de História, Universidade de Pernambuco
- Subcoordinator historical research in The Netherlands
- Lodewijk Hulsman, MA, UvA
- Subcoordinator historical research in Portugal and Spain
- Prof. José Manuel Santos, Ph.D., Departamento de Historia, USAL
- Subcoordinators' website
- Design:
- Jeroen Joosse, Creative Industries, Amsterdam
- Technology:
- Karel Braskamp, Seq-Media, Amsterdam
- Editor's website
- Prof. Marcos Albuquerque, Ph.D., Laboratório de Arqueologia, UFPE
- Oscar Frederik Hefting, MA, New Holland Foundation (general editor)
- Prof. José Manuel Santos, Ph.D., Departamento de Historia, USAL

2a.2. Financiers

The Pilot Project was financed by the following institutions:

- Embassy of the Kingdom of The Netherlands, Brazil, www.embaixada-holanda.org.br
- Fundación Cultural Hispano-Brasileña, Spain, www.fundacionhispanobrasilena.es
- Ministry of Education, Culture and Science, The Netherlands, www.minocw.nl
- Mondriaan Foundation, The Netherlands, www.mondriaanfoundation.nl

Finances for the Pilot Project, Part 2 came from the Mondriaan Foundation and private financiers.

2a.3. Partners

- Atlas of Mutual Heritage, The Netherlands, www.atlasofmutualheritage.nl
- Departamento de Historia, USAL, Spain, www.usal.es
- Laboratório de Arqueologia, UFPE, Brazil, www.magmarqueologia.pro.br
- New Holland Foundation, The Netherlands, www.newhollandfoundation.nl
- Stichting Archeologie en Monument, The Netherlands, www.archeologie-monument.nl

2a.4. Authorities who have been consulted

- Brazilian Embassy, The Netherlands, www.brazilianembassy.nl
- Centrum Internationale Erfgoedactiviteiten, The Netherlands, www.heritage-activities.nl
- Dutch Ministry of Foreign Affairs, The Netherlands, www.minbuza.nl
- Fundação Fortaleza de Santa Catarina, Cabedelo, Brazil
- Fundación Carlos de Amberes, Spain, www.fcamberes.org
- Instituto do Patrimônio Histórico e Artístico do Estado da Paraíba, Brazil, www.sec.pb.gov.br/iphaep
- Instituto do Patrimônio Histórico e Artístico Nacional, Brazil, www.iphan.gov.br

- Instituto Histórico e Geográfico Paraibano, Brazil, <http://ihgpb.vilabol.uol.com.br/historiadaparaiba.htm>
- International Council on Monuments and Sites, The Netherlands, www.icomos.nl
- Koninklijke Bibliotheek, The Netherlands, www.kb.nl
- Nationaal Archief, The Netherlands, www.nationaalarchief.nl
- Nederlands Vestingmuseum, Naarden, The Netherlands, www.vestingmuseum.nl
- Rijksdienst voor Archeologie, Cultuurlandschap en Monumenten (RACM), The Netherlands, www.racm.nl
- Stichting Internationale Culturele Activiteiten, The Netherlands, www.sica.nl
- Stichting Menno van Coehoorn, The Netherlands, www.coehoorn.nl
- The Atlantic World and the Dutch (AWAD), The Netherlands, <http://awad.kitlv.nl>
- The Netherlands Fortress Museum, The Netherlands, www.vestingmuseum.nl
- Universidade Federal da Paraíba, Brazil, www.ufpb.br
- Universiteit van Amsterdam, The Netherlands, www.uva.nl

2b. Additional objectives and final goals

Following advice from the Dutch Ministry of Foreign Affairs, with reference to the criteria of The Netherlands Culture Fund (HGIS-C), the Pilot Project, Part 2 was to examine possibilities for the project on the following points:

1. the extent of knowledge transfer on technical and policy issues (e.g. training courses exchanges, seminars, workshops)
2. their impact on a range of policy sectors (e.g. other cultural disciplines, employment, tourism, education)
3. political commitment in the partner country at local and national level, as evidenced in its financial and operational participation
4. reinforcement of the cultural identity of the partner country
5. strengthening of local interest in and awareness of the mutual/common cultural heritage
6. increase in local knowledge of the mutual/common cultural heritage
7. symbolic impact and spin-off

The ultimate goal of the Pilot Project, Parts 1 and 2, is the preservation and the promotion of better understanding of the Mutual Cultural Heritage in Paraíba.

2c. Objectives modified during the course of activities

On 8th November 2007 Mrs. Marielle van Miltenburg, First Secretary of the Embassy of the Kingdom of The Netherlands in Brasilia, visited the Fort Orange (PE) (picture 3). Members of the Staff of the Atlas Project provided a guided tour. The Embassy is enthusiastic about the project and offers all support.

In general interest in the project has grown, as evidenced by the increase in exhibition possibilities. Contact was made with Elzário Pereira Júnior, 'Secretário Executivo de Turismo' of the 'Prefeitura Municipal de João Pessoa'. On his initiative a Cultural Centre has now been set up in the Convento São Francisco in the centre of the city. Focus on the Dutch Period in the Region will form a main theme and a presentation of the results of the Atlas Project is planned for a future exhibition.

Relations have been maintained with Brazilian artist and scientist Prof.Dr. Nivalson Miranda, a local specialist in the Dutch presence in Brazil. He participated with leather-panels, depicting monuments from the Dutch period, in the exhibition of Dutch forts in Brazil. This exhibition was held from 5th September - 12th November 2007 in the Netherlands Fortress Museum in Naarden. The Brazilian Ambassador to The Netherlands at the time, Mr.

Gilberto Vergne Saboia, opened the exhibition by firing a canon (see 2b. sub 7: 'spin-off') (picture 4).

Restoration and revitalization of Fort Orange in Pernambuco is still one of the objectives of the Atlas Project. Members of Staff visited a presentation by IPAD on 9th November 2007 in Recife (PE) over progress of the Project (picture 5). Results have been posted on the website www.euapoiooforteorange.com.br

3. PLANNING PILOT PROJECT, PART 2

3a. Planned activities

Three months were defined necessary for researching the defence works related to the Dutch Period (1634-1654) in the State of Paraíba. The program was divided into three stages.

1. One month of historical research in The Netherlands

As well as studying literature and aerial views such as Google Earth, the scope of the research was extended to include manuscripts, printed materials, iconography and old maps in the following archives and libraries:

- Koninklijk Huis Archief.
- Nationaal Archief
- Universiteits Bibliotheek Leiden

Sources were checked for:

1. Geographical Information (where, when, etc.)
2. Information about construction (building-materials, methods of construction, etc.)
3. Information about people involved (architects, visitors, military activities, etc.)

2. One month of on-site field-survey in the State of Paraíba

Following consultations with Laboratório de Arqueologia, UFPE and the New Holland Foundation, execution of the field-survey would take place during November 2007. The first week was to be used to study assembled material at the UFPE in Recife and make plans for the field-survey. Upon arrival in Paraíba during the second week, contact would be made with local institutions and researchers. The definite scheme could then be drawn up for visiting the potential locations of defence works in the following weeks. The last days would be used to elaborate the preliminary results and report back to the coordinator of the website.

3. One month of elaboration and preparation of the (demo-) website

During the last month results would be finalized and published on the website.

3b. Possible changes

Not applicable.

3c. Planned period of execution

The Pilot Project, Part 2 was planned to take place in the second half of 2007 plus 2008, dependant upon the availability of the institutions and researchers.

4. REALIZATION

4a. Activities realized

The historical research resulted in the report:

Hulsman, L., 2006: *Atlas of Dutch Brazil. Pilot Project Paraíba. Report of the historical research in The Netherlands, Phase 2*, Amsterdam.

This report was handed to the field-survey team on time. Some sites of defence works were visited in-situ. Results were handed to the website coordinator which culminated in the launch of the Atlas of Dutch Brazil website in October 2008.

4b. Reasons for modification following difficulties/planning

As in the Part 1 of the Pilot Project Atlas of Dutch Brazil, the results were better than expected. The historical research identified more defence works than was previously anticipated. The flexible time-schedule allowed the field-survey team to visit more locations than originally planned. The launching of the website was postponed because verification of information and the organization of permissions notwithstanding the web-layout took more time than expected.

4c. Actual period of execution

All work for the Pilot Project, Part 2 was executed during the second half of 2007 and of 2008.

-The historical research was completed in November 2007 before embarking on the field-survey.

-The field-survey in Brazil commenced on 5th November 2007, and was completed on 4th December 2007. The itinerary was as follows:

6th November – 12th November

-preparations in Recife

12th November -28th November

-field-survey in Paraíba

29th November – 3rd December

-orientation in State of Maranhão

-In October 2008 results were finalized and the website was launched on Internet.

4d. Explanation for deviations from the planning

Having completed most of the field-survey work in Paraíba without any problems and being so close by, it was decided to make an informal visit to the State of Maranhão for the purposes of introduction and orientation in preparation for the next project. This State forms part of the Amazon area in the Atlas of Dutch Brazil and a field-survey was planned for spring 2009.

The visit proved well worthwhile. The General Coordinator and Hans van Westing were able to meet people from relevant national and regional institutions including IPHAN, Universidade Federal de Maranhão, Instituto Histórico e Geográfico do Maranhão, Arquivo Público do Estado do Maranhão, Museu Palácio dos Leões and the Centro de Pesquisa de História Natural e Arqueologia do Maranhão. During the four days' visit some of the locations related to the Dutch period in Maranhão (1641-1643) were also visited.

5. EVALUATION

5a. Appraisal of the activities/programs

Historical research in The Netherlands worked well. Potential locations of defence works were visited during the field-survey in Paraíba. Subsequently the elaborated results were posted on the website of the Atlas of Dutch Brazil which was launched in October 2008 (see 2b, sub 1: 'knowledge transfer').

5b. Interim and final targets achieved¹

The results of the Pilot Project, Part 2, were better than expected. In the first place historical research carried out in The Netherlands had produced substantial new and additional information about the Dutch presence in Paraíba (1634-1654). In the archives of the ever helpful 'Instituto Histórico e Geográfico Paraibano' (picture 6) interesting black and white photographs of 'Fortaleza de Santa Catarina', dating from the first half of the 20th century, came to light (picture 7). In the subsequent field-survey all sites were visited, although it did not always prove possible to locate the 17th century earthworks. The preliminary results were presented to a local audience on 23rd November 2007 in Fortaleza de Santa Catarina in Cabedelo, Paraíba.

1. Dutch system of batteries around Cabedelo from 1631

In 1631 the Dutch constructed considerable military earthworks during their first attack on the Portuguese-held Forte Santa Catarina do Cabedelo. Drewisch's map (picture 8) shows a redoubt, batteries, guardhouses ('corps de garde') and quarters, inter-connected by trenches, on the east side of the fort. Despite the use of contemporary military technology, the Dutch failed to conquer the fort.

During the field-survey the probable location of the military quarters of 1631 was traced by making an accurate comparison of the 17th century maps and the actual situation on the ground (picture 9). Furthermore two lead bullets and a Dutch copper coin ('duit') from the province of Zeeland (1602-1626) were found (determination Peter Frikken, Stichting Archeologie en Monument, 2007). Even though determination and dating of the lead bullets is impossible (lead bullets were universal and used over a considerable period of time) it is a sign of a skirmish. On the other hand the coin points to a possible Dutch presence, or at least, contact with the Dutch. Since the area is still partly undisturbed there are possibilities for future archaeological research such as geophysics and excavation of a trial trench.

2. Dutch system of batteries around Cabedelo from 1634

The Dutch campaign of 1634 was, however, successful. The troops disembarked from the fleet, which was anchored off the southern point of Cabedelo, and approached the fort, step by step, using small, temporary fortifications. On Visscher's map, dated 1634, various batteries, redoubts and quarters are depicted together with lines of retrenchments (picture 10). The same picture is represented on an anonymous Spanish map (picture 19).

Although on the map of Visscher detailed information of the military constructions is shown, it was difficult to trace any remains in situ. In the 17th century it was the custom to level forts, trenches, earthworks etc. on captured terrain in order to prevent their future use against the assailer. Therefore it is very well possible that the buildings/earthworks etc. disappeared already in the 17th century. Though a lot of the area is developed there may be possibilities for archaeological research in the future. Should artefacts/features relating to

¹ Text partly comes from www.atlasofdutchbrazil.org

these military constructions materialize in the future then geophysics and/or a trial trench could be useful.

3. Arraial and/or Engenho Santo André (engenho = sugar mill)

Arraial and/or the Engenho Santo André must have been located not far from the Engenho Tibiri, which was situated on the river of the same name. Around 1587, under the leadership of Martim Leitão, the Portuguese built a fort on the Rio Tibiri known as São Sebastião. This fort was constructed of 'taipa' and protected the then recently erected sugar mill Engenho del Rei (named after the king) and an Indian village (aldeia tabajara do Assento do Pássaro). The Engenho later became known as Engenho Tibiri (or Tiberi). In 1591 the Portuguese erected a small fort, called Arraial, to protect anchorage by Inhobim (or Inhobij, Inhobo) on a site close by the Engenho Santo Tibiri. However the fort fell into disuse after being attacked and partly destroyed by Indians and was abandoned around 1605. Later an engenho was built on this site by colonists. According to historical documents, in 1639 the Engenho Tibiri was the property of Jorge Homem Pinto, who also owned Engenho Santo André.

Many engenhos had a military as well as an economic function. Many were converted into strongholds which either the Portuguese or the Dutch used as bases during skirmishes. In 1645 Engenho Santo André, owned by Valadares Antonio, became the military base of the Portuguese rebels and was considered an important site during the struggle between the Dutch and the Portuguese for the domination of Paraíba (1636 - 1647) (picture 11). The Portuguese fort, Arraial, is said to have been located a stone's throw below the Engenho Santo André so that the whole site may be seen as a military complex consisting of a fort with a fortified engenho close by. In 1646 the engenho Santo André, also known as Arraial, fell into Dutch hands but was abandoned in 1647.

Oral information concerning the actual location of Arraial and/or Engenho Santo André came from local experts Prof. Dr. Guilherme Gomes da Silveira d'Avila Lins (specialist forts in Paraíba) and Dr. Adouto Ramos (specialist 'engenhos' in Paraíba). Both are members of the Instituto Histórico e Geográfico da Paraíba (IHGP). By making a comparison of 17th century maps and the actual situation in the field it appears that Engenho Santo André is located in the present-day community of Santa Rita, some 40 km inland from João Pessoa. The engenho exists no more. The site is now a slaughterhouse (picture 12) where large stones have been incorporated in the buildings and which are probably from the earlier building. According to Dr. Adouto Ramos some stones came from the Arraial (picture 13) and others from the chapel by the engenho.

The area is very disturbed, so there is little chance of finding any remains of the sugar mill or Arraial. Because the survey team was here for only one day a more intensive field-survey might yield more information.

4. Engenho Cargaú

Only a few references to the site Gargaú were found in primary sources. Initially there is mention of an engenho (sugar mill), owned by Jorge Lopes Brandão, and an Indian village (aldeia) with the same name. After the Dutch conquest of the region, Jorge Lopes Brandão fled leaving the engenho unattended. It was then confiscated and Isaac de la Rasière became the new owner. During the war between the Dutch and Portuguese the engenho was fortified, providing shelter for soldiers and the local population.

On 22nd November 2007, the survey-team travelled to the area of Gargaú together with Dr. Adouto Ramos (specialist engenhos in Paraíba), Dr. Osvaldo da Costa Carvalho, Director of the Fundação Fortaleza de Santa Catarina and Mrs. Mayalla Souza de Medeiros, coordinator Museum Fortaleza de Santa Catarina (picture 14). The region had been first visited in 2006 by car. This time it was decided to travel by boat in order to study the location

from a different perspective. A small 18th century church, the Chapel of Santana, now stands on the actual site of Gargaú (picture 15). Dr. Adouto Ramos, who is also researching this site, reported that information from the local population confirmed that there was once an engenho here during the 17th century. This was most likely the Engenho Cargaú, the chapel being either added to or succeeding later. Neither the engenho, nor a stronghold, nor a fort was located at Gargaú during the field survey because the prospective area is widespread and barely accessible. A much better equipped and more intensive survey might be more successful. However more research and preparation is required before embarking on another site-survey.

5. Entrincheiramento da Baía da Traição

On 20th June 1625 Admiral Hendrickzs sailed with his fleet into the Baía of Traição in order to recuperate after being defeated at Salvador da Bahia by the Portuguese. The anchorage of the fleet is marked with an anchor on the map of De Laet (picture 16). It took the Dutch two days to erect a retrenchment before they could disembark the sick and wounded. According to the report of De Laet, 700 men were finally buried on the beach. The site was abandoned a month later on 5th August 1625 when the fleet sailed away. It was the first military construction built by the Dutch in Paraíba. De Laet does not mention where the retrenchment was located, but he suggests it was near the beach probably on the southern side of the bay.

The survey team concluded the retrenchment was located on the southern side of the bay by comparing the 17th century maps and the remarks of De Laet with the present-day situation. Remains of a French/Portuguese fort complete with several canons and situated high on a promontory located in the middle of the bay (picture 1), are not in line with typical sea-level located defence works of the Dutch.

De Laet describes inland water lying between the higher hinterland and the beach. Behind this water he mentions an Indian village and a church. The village, Aldeia São Miguel, still exists while the 'Ruínas da Igreja São Miguel' can be identified with the aforementioned church (picture 18).

The bay is still used by local fishing-boats, the reef affording protection against waves and the prevailing southerly trade winds. The bay would also have been a logical mooring place for the Dutch fleet. Close to the present-day landing place, is the 'Ponto das Trincheiras' (Point of the trenches). On this point, surprisingly, a trench is visible which runs in line with the coast (picture 17). The local population do not have a suitable explanation for this. On this highest dune, close to the sea, it is possible to view the whole bay where the Dutch fleet would be laid as well as the neighbouring bay to the south. Coincidentally the latter beach is still called Praia das Trincheiras (Beach of the trenches). This name may refer to a trench dug by the Dutch to prevent the enemy from landing on this beach. No remains are visible. No traces of the graveyard were found in the neighbourhood of the bay. This is not surprising since most of the site is now occupied by houses of the modern village. Another possibility is that the Portuguese destroyed the Dutch graveyard, or burial place, when the Dutch left.

There are possibilities for archaeological research to locate the possible Dutch retrenchment on the 'Ponto das Trincheiras'. The greater part of the area is still undisturbed but growing tourism in the region can easily change this, in which case a possible point of mutual cultural heritage would be lost forever. Research in the form of geophysics and possibly a trial trench is strongly advised in the short term while there still is a chance to save the location.

6. Portuguese system of batteries around Filipéia/Frederickstad, 1631-1634

A Spanish map depicts the Dutch attack on Paraíba in 1634 (picture 19). This map also shows smaller Portuguese defences east and west of the then town of Filipéia. Two batteries of two bronze pieces were located on both sides of the bay of Varadouro in order to defend the city. A third battery was situated further north before the other two. According to De Laet (1631) the city was not fortified but defended by three batteries: the middle battery was armed with nine pieces, the others with six and four.

Neither historical research nor oral sources have yielded any relevant information which would guarantee success with a field survey. Because of the inaccessibility of the terrain it was decided to postpone the field survey until more details have been gathered.

Detailed information about all locations is shown on the website on www.atlasofdutchbrazil.org

5c. Explanation in case of deviations following difficulties/planning

Improvisation still played an important role because the Pilot Project, **Part 2** was not fully funded. Thus less people were contracted and economy was practised on expenses for travel and accommodation. A flexible time-schedule made it possible to visit most sites, enabling an assessment of the area.

With a view to the continuation of the Atlas-project, it was decided to make an orientation visit to the neighbouring State of Maranhão in order to facilitate the next campaign, planned for spring 2009. Valuable contacts were made and plans for cooperation prepared.

6. CONCLUSIONS AND PERSPECTIVES

6a. Conclusion on reaching general objectives

The historical research carried out in The Netherlands as part of Pilot Project part 1 produced much additional information about the Dutch presence in Paraíba (1634-1654) resulting in the field survey Pilot Project, Part 2.

Thanks to the results of the historical research, local experts and the experience of the survey team it was possible to trace the probable location of the military fortifications at Arraial and/or the Engenho Santo André and the Entrincheiramento da Baía da Traição. A Dutch copper coin, dated 1602-1626 and found in Cabedelo at the probable location of the Dutch camp of the unsuccessful invasion of 1631, is an indication for contact. The lead bullets also found close by point only towards a skirmish which could have taken place in other periods. An 18th century chapel is the only remains at the location Engenho Cargaú. The exact pin-pointing of the site/remains of an engenho, stronghold or fort will require more time. Difficulty of the terrain was a major barrier to carrying out any survey work on the Dutch batteries around Cabedelo and the Portuguese batteries around Filipéia.

The methodology of the project is considered successful. The additional historical research was complementary to the information from Pilot Project Part 1 and produced essential information for this survey. Local expertise provided valuable additional information. The results of the research and survey were added to the website of the Atlas of Dutch Brazil when it was launched in October 2008. This information is available in four languages, English, Portuguese, Dutch and Spanish.

In the light of the progress on this project it was chosen to make an orientation visit to the next region to research, the State of Maranhão. During the trip, which lasted four days, several sites with known Dutch history were visited and contacts were made with local institutions and experts. The expedition to Maranhão is planned for spring 2009.

6b. Conclusion on reaching target group

As we experienced in the Pilot Project, Part 1, it was heart-warming to encounter the enthusiasm for the project Atlas of Dutch Brazil in Brazil. From the Brazilian Embassy in The Hague and the Dutch Embassy in Brasilia down to the local people in Paraíba, everybody helped to make the Pilot Project, Part 2, a success (see 2b, sub 3: ‘political commitment’). This enthusiasm resulted in a positive attitude towards cooperation with tracing the remains of the mutual cultural heritage. Relevant Brazilian institutions were approached, and expressed interest and support. The presentation of the results of the second campaign on 26th of November 2007 in Fortaleza de Santa Catarina in Cabedelo was visited by more than 20 representatives of institutions and local people. This underlines their interest in the subject (see 2b, sub 5: ‘strengthening local interest’ and 2b, sub 6: ‘increase of local knowledge’).

An exhibition, called “Sweet & Salty”, on the results of the Pilot Atlas of Dutch Brazil was held at the Netherlands Fortress Museum in Naarden from 5th September 2007 until 12th November 2007. The presence of a large audience during the opening illustrates that the subject is ‘hot’ in The Netherlands as well. The first reactions on the website have been very positive and promising for the future. It is expected to attract even more people to the subject.

6c. Conclusion on quality of executing authorities

The quality of the executing authorities, institutions and researchers is high which is proven by the excellent and ground-breaking results. The historical research was finished in time and the survey team, consisting of experienced researchers, was successful in the field survey. The presentation of the website demonstrates the good qualities of the people involved. They have all agreed to continue in the follow-up of the project.

Contact with local experts has proved to be of great importance. Thanks to these contacts new locations have been added to the list for future research.

6d. Possible explanation on above-mentioned conclusions

In great contrast to many other countries with a colonial past, the Brazilians regard the Dutch period as an enrichment of their culture. The advent of artists, scientists and the promotion of democratic principles brought to the country, mainly during the period of Johan Maurits van Nassau Siegen (1637-1644) are still regarded as positive. As result of this the cooperation with the Brazilian institutions and people is very fruitful (see 2b, sub 4: 'reinforcement cultural identity').

6e. Suggestions for the future/'lessons learned'

Tourism in Paraíba is growing fast. Discussions over the development of an international airport are on-going in the State whilst the doubling of the National Coastal Road (BR 101), bypassing João Pessoa, will be completed in 2009. Attention to cultural heritage is actual and timely. In 2010 an exhibition on the results of the Atlas Project will be held in the Cultural Centre in the Convento São Francisco in João Pessoa. Plans are in hand for setting up a well-equipped museum and mutual heritage centre in Fortaleza de Santa Catarina (see 2b, sub 5: 'strengthening of local interest' and 2b, sub 6: 'increase of local knowledge'). Thereafter training of the work force and tourist guides in the region will commence (see 2b, sub 7: 'spin-off'). This would be a further stimulus for the economy, tourism and the conservation of mutual cultural heritage in Paraíba (see 2b, sub 2: 'impact on policy sectors'). As the project continues the coordinator will visit Paraíba to keep track of the follow-up work in this state.

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Further information

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Picture 2. 'Frederyce Stadt', Johannes Vingboons ca. 1640 (1660), In: Reis, N.G., 2002: *Imagens de Vilas e Cidades do Brasil Colonial*. São Paulo. CD-ROM.



Picture 3. Visit of First Secretary of the Embassy of the Kingdom of The Netherlands, Mrs. Marielle van Miltenburg at Fort Orange (PE) in 2007. From left to right: Henrique Pinto (Projeto Forte Orange), Hans van Westing (New Holland Foundation), Oscar Hefting (New Holland Foundation), Marielle van Miltenburg (Embassy) and Prof.Dr. Marcos Albuquerque (LA-UFPE).



Picture 4. The Brazilian Ambassador Gilberto Vergne Saboia firing a canon on the occasion of the opening of the exhibition 'Sweet & Salty' in the Netherlands Vestingmuseum in Naarden on 4th September 2007.



Picture 5. Presentation by Prof.Dr. Paulo Coutinho over the protective works against the sea at Fort Orange (PE) for the 'Projeto Forte Orange' in 2007.



Picture 6. The 'Instituto Histórico e Geográfico da Paraíba' (IHGP) in João Pessoa (PB), Brazil.



Picture 7. Guided tour at Fortaleza de Santa Catarina, Cabedelo (PB) for members of the VII National Congress for Geography on 18th May 1922, Photo: IHGP



Picture 8. Map of Dutch military constructions used in the attack on Forte Santa Catarina (PB) in 1631. Andreas Drewich, 1631, Nationaal Archief, The Hague, 4 VEL 2157.



Picture 9. Probable location Dutch quarters from 1631, Cabedelo (PB), Brazil.



Picture 10. Map of the mouth of the Rio Paraíba showing Dutch attack on Forte Santa Catarina (PB) in 1634, 'Afbeelding der stadt en fortressen van Parayba', Claes Jansz Visscher, ca. 1634, Universiteits Bibliotheek Leiden.



Picture 11. Location Engenho Santo André in Paraíba (PB). Map by George Marcgraf, c. 1640, detail, in: *Atlas Maior*, Joan Blaeu, Amsterdam, 1665.



Picture 12. Rear of slaughterhouse built on the probable location of Engenho Santo André, Municipality of Santa Rita (PB), Brazil.



Picture 13. Dr. Adouto Ramos and Prof.Dr. Guilherme d'Avila Lins at the probable location of Arraial Santo André, Municipality of Santa Rita (PB), Brazil.



Picture 14. The field-survey team in search of the waterway to Engenho Cargaú, Municipality Santa Rita (PB), Brazil.



Picture 15. 'Capela Santana', dating from the 18th Century, on the location of Engenho Cargaú, Municipality Santa Rita (PB), Brazil.



Picture 16. Baía da Traição or 'Baya de treyçaõ', with marked anchorage, Map by George Marcgraf, c. 1640, detail, in: *Atlas Maior*, Joan Blaeu, Amsterdam, 1665.



Picture 17. 'Ruínas da Igreja São Miguel' in the hinterland of Baía da Traição. De Laet mentions this church in his 'Iaerlyck Verhael', situated next to an Indian village, the actual Aldeia São Miguel, Baía da Traição (PB), Brazil.



Picture 18. The logical location of the Dutch retrenchment, dated 1625, on 'Ponto das Trincheiras'. The trench is visible between the top of the dune and the beach, Baía da Traição (PB), Brazil.



Picture 19. Portuguese system of batteries around Filipéia/Frederickstad, marked as 'A', 'B' and 'C'. Spanish map of the Rio Paraíba, anonymous, 17th century, Biblioteca Nacional de España, Madrid, MSS.7121, 'Atlas de posesiones portuguesas'.