

FIG Working Week
 – Bridging the Gap Between Cultures
 Marrakech, Morocco
 May 18-22 2011

**HISTORY, CARTOGRAPHY AND SCIENCE:
 THE PRESENT DAY IMPORTANCE OF THE MAPPING OF
 MOZAMBIQUE IN THE 19th CENTURY**

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The image shows a historical map of Mozambique with various geographical features and place names. Overlaid on the map is the title of the presentation, the authors' names, and the affiliation with the Tropical Research Institute (ICT) in Lisbon, Portugal. The top of the slide features the logo for FIG Working Week 2011 in Marrakech, Morocco.

MAPA DE MOÇAMBIQUE

MOZAMBIQUE 16th - 19th centuries

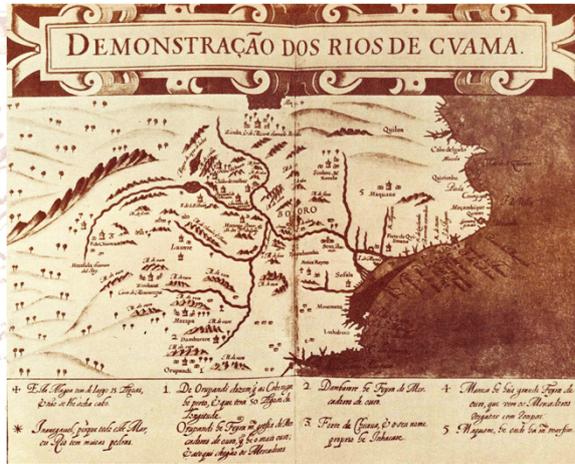
LATE 19TH CENTURY
 Systematic surveys in order to map the coastal situation and all the territory proclaimed under Portuguese sovereignty.

16TH - 19TH CENTURIES
 Punctual surveys to respond to the Portuguese need to back-up the "Carreira da Índia" and to the pretension of a better overview on some areas considered of prior importance

This slide features a historical map of Mozambique titled 'MAPA DE MOÇAMBIQUE'. The map shows the coastline and various inland locations. Overlaid text provides context for the mapping efforts in the 16th and 19th centuries. The slide also includes a vertical logo on the left side and a footer with the acronym FCT and the year 2009.

MOZAMBIQUE 16th - 18th centuries

DEMONSTRAÇÃO DOS RIOS DE CVAMA.



Although carefully reproducing the areas under surveillance, maps were lack of accuracy and hardly ever showed either a correct representation of the regions considered or the existent areas under Portuguese political control

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MOZAMBIQUE 18th - 19th centuries

PORTUGUESE TRAVELS IN THE HINTERLAND:

- 1798 - Lacerda e Almeida
- 1802/11 - J.P. Baptista and Amaro José

ATTEMPTS TO CROSS THE COUNTRY COAST TO COAST:

- 1877 - Serpa Pinto
- 1877 and 1884/85 Hermenegildo Capelo and Roberto Ivens

PORTUGUESE REMAINED ON THE COASTAL SETTLEMENTS and though their commercial influence extended to the back country, no one could say that they really knew and dominated the hinterland before the early 20th century.



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MOZAMBIQUE - PORTUGUESE COMMISSION OF CARTOGRAPHY (1883-1936)

THE PORTUGUESE COMMISSION OF CARTOGRAPHY WAS CREATED IN 1883 IN ORDER TO ELABORATE AND PUBLISHED A COLLECTION OF MAPS OF ALL THE PORTUGUESE AFRICAN TERRITORIES AS WELL AS TO DEVELOP THE NECESSARY GEOGRAPHIC STUDIES TO SUPPORT THEM. IT WORKED FOR MORE THAN 50 YEARS AND ITS PRODUCTION STILL THE BASIS FOR ALL THE CARTOGRAPHIC WORKS DONE IN RECENT YEARS

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MOZAMBIQUE - PORTUGUESE COMMISSION OF CARTOGRAPHY (1883-1936)

COOPERATION WITH THE NAVY AND THE ARMY

COLLABORATION WITH EXPERTS IN GEOGRAPHY AND GEODESY

PARTICIPATION IN THE COMMISSIONS FOR THE DEMITATION AND DEMARCATION OF THE MOZAMBIQUE BOUNDARIES

SHARING OF KNOWLEDGE, INFORMATION, EXPERIENCE AND EQUIPMENT

COOPERATION WORK

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MOZAMBIQUE - PORTUGUESE COMMISSION OF CARTOGRAPHY (1883-1936)

Pinheiro Chagas Expedition (1884-86)
1st Scientific expedition of the Portuguese Commission of Cartography

Recognition of the territories of Northern Mozambique between the Quirimbas Islands and the Nyassa Lake

Led by
Serpa Pinto and Augusto Cardoso



THIS EXPEDITION REALIZED THE NEED FOR THE SYSTEMATIC EXPLOITATION OF PRECISE GEOGRAPHIC SPACES AND ADVOCATES ITS OCCUPATION BASED ON AN EFFECTIVE PRESENCE AND KNOWLEDGE OF THOSE TERRITORIES

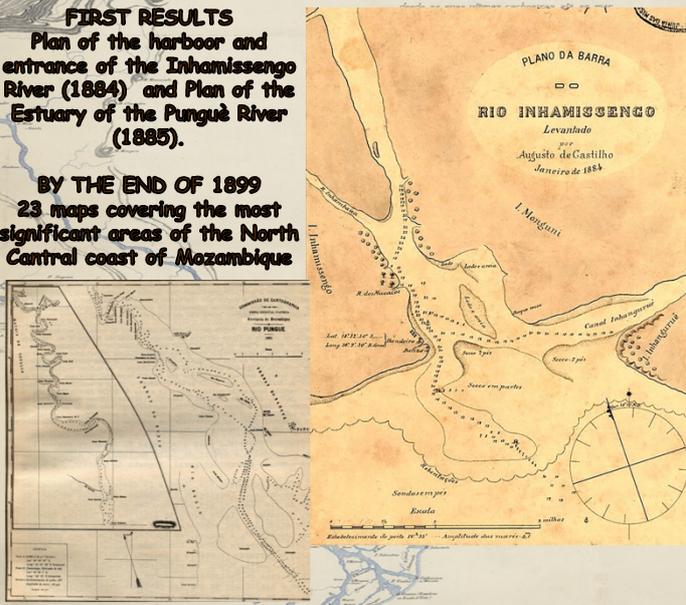
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MOZAMBIQUE - PORTUGUESE COMMISSION OF CARTOGRAPHY (1883-1936)

FIRST RESULTS
Plan of the harbor and entrance of the Inhamitanga River (1884) and Plan of the Estuary of the Pungue River (1885).

BY THE END OF 1899
23 maps covering the most significant areas of the North Central coast of Mozambique



The outcome of these works provided the effects of the use of new scientific methods and more appropriated technology and equipment and showed the close cooperation between the PCC and the Navy as well as the knowledge of the territory

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MOZAMBIQUE - PORTUGUESE COMMISSION OF CARTOGRAPHY (1883-1936)



Knowledge of the territory was a condition and a result of the Commission work on the Commissions for the delimitation and demarcation of the borders of Lourenço Marques District with the Transvaal, the Swaziland and the Maputaland, as well as of the borders areas of Manica, Barue, Nyassa, Chire and Rovuma.

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MOZAMBIQUE - PORTUGUESE COMMISSION OF CARTOGRAPHY (1883-1936)



The work in the Borders Commissions did not imply the abandonment of the cartographic surveys but only forced a slight deviation from the coast to the inland areas given rise, for example, in the late 19th century, to the recognition of the main river basins of Southern Mozambique

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PROBLEMS AFFECTING MOZAMBIQUE COAST:

- SEASHORE UNDER CONTINUOUS CHANGE
- SPECIFICITY OF THE MONSOON SYSTEM
- COMBINATION OF MARINE EROSION AND SILTING UP OF THE COAST
- ALTERNATION OF DROUGHTS AND FLOODS AFFECTING THE ENTIRE AREA

**Forced the Navy to permanent surveys
These surveys were of great help for the work of
the Portuguese Commission of Cartography**

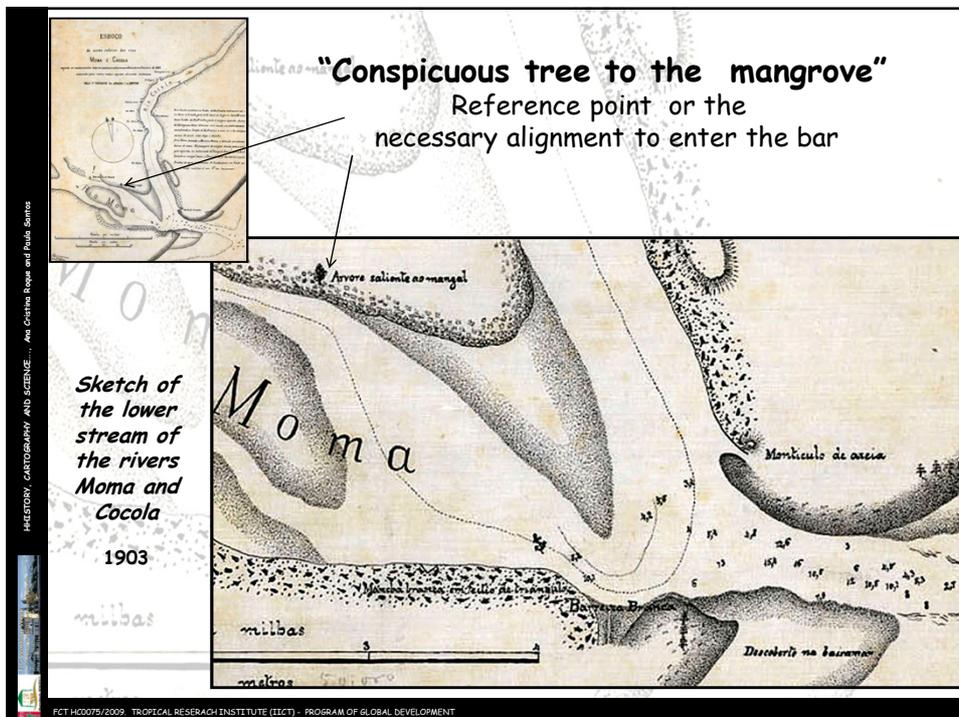
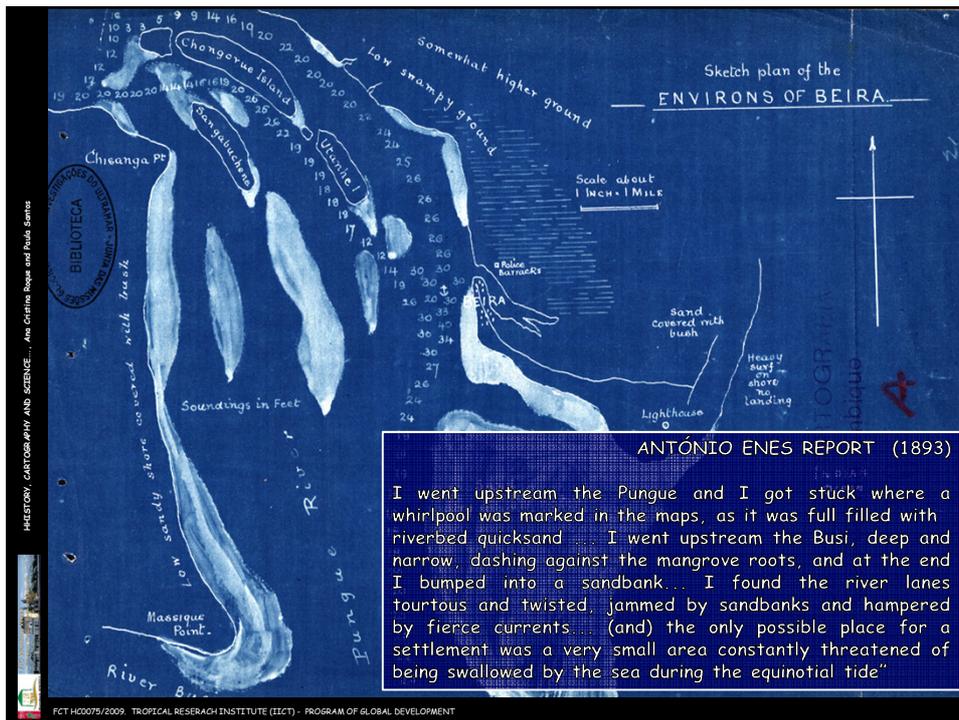
Historical map: OCEANO ORIENTAL PARALLELA, PROVINCIA DE MOZAMBIQUE, Rio CHINDE, 1870. COMISSAO DE CARTOGRAFIA, Quilimane. Photos: Archives, Archives and Geographic Mission of Mozambique IICT. FCT HC0075/2009. TROPICAL RESEARCH INSTITUTE (IICT) - PROGRAM OF GLOBAL DEVELOPMENT.

CHANGES HAPPENED SO FAST IN THE ZAMBEZI RIVER DELTA THAT TWO YEARS WERE MORE THAN ENOUGH TO MAKE ISLANDS AND RIVER STREAMS DISAPPEAR, TO SHOW UP NEW SANDBANKS AND TO CHANGE DRASTICALLY THE STRUCTURE OF THE ENTIRE DELTA

THE BRITISH MAPS OF 1858 AND THE PORTUGUESE ONES OF 1861 WERE COMPLETELY INACCURATE AS THE ONES HE WAS MAKING WOULD BE IN A COUPLE OF YEARS

Augusto Castilho's conclusion on the Zambezi River Delta in 1869

Historical map: Zambezi River Delta. FCT HC0075/2009. TROPICAL RESEARCH INSTITUTE (IICT) - PROGRAM OF GLOBAL DEVELOPMENT.



Bar and Port of Angoche, 1886-87

Instructions:
It is important to preserve the marks near the breaking of the waves, and to follow the second alignment (tree near the military compound...) as the **Notable tree of the island of Janga has disappeared** and to the Eastern part, the vegetation starts to show up...

"Notable tree"

Angoche - Bar and Channels: Changes to the Map of 1897

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DIFFERENT TREE CROWN SHAPES

Casuarina rostrata

19

18

17

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

Unisco

Jambulun

Debanintun

Illice ang...
Illice ang...
Illice ang...

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Present day importance of the PCC legacy

MAPS INFORM ON:

- Geographical, hydrographical and physical characteristics of the coast
- Specific marks and standard signs for the recognition of the different areas
- Natural obstacles to the navigation and the precise conditions to sail safe
- Coastal areas affected by marine erosion and /or the silting up processes or the vegetation and coastal ecosystems and of the inland areas.
- landscape, fauna and flora
- itineraries of the military expeditions
- recognition of the territory
- the border lines and on all the different stages of the border definition process of demarcation and delimitation
- on roads and railroad railways and how they progressively extend in the country
- the population and the identification of the local ethnic political units,
- the division of property
- the regional distribution of the cultivated areas with the specific indication of what was produced
- the forest products and other natural resources.

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PLANO HYDROGRAPHICO
DA BARRA E PORTO DA GERA
DE F. DE S. JOSE DE NOVO

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MOZAMBIQUE COAST IS A GOOD EXAMPLE OF THE SCIENTIFIC EXPEDITIONS AND WORKS TESTIFYING THE USE OF MODERN TECHNOLOGIES AND INSTRUMENTS TO PRODUCE A SCIENTIFIC CARTOGRAPHY OF THE TERRITORY THAT, IN MOST CASES, HAVE SUPPORTED THE PRODUCTION OF THE MORE RECENT CARTOGRAPHIC WORKS

THESE MAPS CAN BE ANALYZED AS HISTORICAL WRITTEN DOCUMENTS AND, CONSEQUENTLY, THE ANSWERS WE EXPECT TO FIND THERE DEPEND ULTIMATELY ON THE WAY WE READ THEM AND ON OUR PURPOSES ACCORDING TO THE PRESENT DAY PROBLEMS WE WANT TO UNDERSTAND IN A HISTORICAL PERSPECTIVE

every map of this collection is a small but important piece of the History of Mozambique and of the South East African Coast

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