Ninth United Nations Conference on the Standardization of Geographical Names
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Item 12 (d) of the provisional agenda*
Toponymic data files: Automated data-processing systems

A Tunisian Toponymic database as a subset of the topographic database

Submitted by Tunisia **

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A Tunisian Toponymic database as a subset of the topographic database
Governmental agencies and private study bureaus working in the field of geomatics,

Geographical names and the map

History (dateline)

Current situation

Proposed solution
In Tunisia the main institutions in the field of geomatic are:

- The Cartographic and Topographic Office (OTC),
- The National Remote Sensing Center (CNT),
- The Hydrographic and Oceanographic Services of the Army,
- Study bureaus.

**OFFICE OF TOPOGRAPHY AND CARTOGRAPHY (OTC)**

- 15th July 1886: creation of the topographic office.
- 1st January 1968: creation of the topographic Division.
- 5th January 1970: creation of the topographic Directorate.
- 25th December 1970: creation of the Topographic and Cartographic Office (OTC).

**Main OTC activities:**

- Cadastre
- Infrastructure works
- Cartography
- Geodesy
- Printing
REMOTE SENSING CENTER (CNT)

- 1979: creation of the Military Directorate of Geographic and Hydrographic services (DSGHA),
- 11th July 1988: creation of the CNT,
- January 2004: merger of CNT and DSGHA
- Legal status: The CNT is a public institution under the oversight of the Ministry of Defense,
- Links: The DG of CNT chairs the boards of directors of the Regional remote sensing center of north African countries (CRTEAN) and the African Organization of Cartography and Remote Sensing (OACT).

Main CNT activities

- Providing spatial geographic information for defence operations and national customers
- Participating to national policy related to remote sensing
- Acquiring; distributing and processing data related to remote sensing;
- Organizing training in geomatic field
- Offering services
- Contributing to national research projects and ensuring expertises

HYDROGRAPHIC AND OCEANOGRAPHIC SERVICE OF THE ARMY

In cooperation with the OTC and CNT, it is responsible of the production of navy charts.
The geographical name is collected either during the field map validation or by consulting existing maps and documents. Both ways may lead to errors when dealing with toponymy either in spelling or in writing.
The official toponymy depends on the Home Office; it concerns only administrative centers; The base is the decree of 21\textsuperscript{st} June 1956 related to republic administrative organization: The majority of the names of geographic entities: rivers, mountains, localities escape to this system; It is via the official cartography cadastre, topographic map that those toponyms are recorded and officialized;

*Since there, was a need for normalization in the field of toponymy, and a public body was created to this effect.*

- The transcription from Arabic to Latin was first seriously considered during the French protectorate in Tunisia when produced maps were mainly ordnance survey maps.
- Many decisions in this field were made on behalf of the Tunisian authorities and the other north African countries by the French military and civilian authorities such as the Military geographic service (SGA) and the National Geographic Institute (IGN) and the Saharian Research Institute (IRS),
- Many transcription systems either similar or complementary were adopted by different organizations,
- As a consequence, there was no common system of transcription
- In 1983 the OTC decided to update its maps using the latin transcription system,
- In January 1983 a Geographical Names Commission was created within OTC
- Many meetings and workshops were then held between OTC and the concerned organizations like the DSGHA and the Center of Economic and social studies and researches (CERES). In order to set up a common cartographic transcription system in compliance with international standards.
The adopted transcription system:

The Commission decided that the Beyrut system as amended 1972 by the United Nations be adopted taking into consideration the Tunisian dialect:

Standards of transcription:

General rules:

Because each change of transcription requires a minimal period of time to get familiar with, it was agreed that French transcription had to be maintained between brackets mainly for exonyms where difference in writing and pronunciation was evident:

Examples of exonyms: Binzart (Bizerte), Halq Al Wad (La Goulette), Hammam linf (Hammam Lif)...
For the toponyms in neighbouring countries, the adopted UN transcription system for those countries is adopted. Ex Constantine..

Because of the lack of normalized documentation, names of sites of proven non Arab origin, mainly the Berber ones such as Sidwikich, Tamaghza are written in Arabic characters.

Some exceptions:

- For a given toponym the local dialect has to be considered as the right source of pronunciation even when there is another pronunciation used elsewhere.
  
  Ex: Bni Kalthoum and not Bin Kalthoum,

- Local pronunciation has to be adopted in case there are foreign names (Western origin): Hinshir Rikou instead of Hinshir Ricco,

- In case there are two pronunciations for the same name and it is difficult to decide which one to adopt, the pronunciation nearest to literary Arabic is retained: Qasr hlal instead of Qsar Hlal,

- Historical names, namely those referring to ruins like Bulla Regia, Utique, Carthage have to be written the way they used to be,

- Foreign names resulting from the colonization period are changed after checking documentation or cadastre: Al Fahs instead of Potinville; Al Omran instead of Franceville…

- Because of the lack of normalized documentation, names of sites of proven non Arab origin, mainly the Berber ones such as Sidwikich, Tamaghza are written in Arabic characters.

- For the toponyms in neighbouring countries, the adopted UN transcription system for those countries is adopted. Ex Constantine..
Different maps with different transcription systems

Example: Korbous

- Korbous 1/25.000
- Korbous 1/200.000

Old and analog maps

Analog toponymic database derived from the 1:250,000 map scale in two transcription systems (French, old version Beyrut system)
PROPOSED SOLUTION

- Setting up a topographic database using high resolution satellite images,
- Setting up a digital toponymic database using the existing one, existing maps and field check

**Purpose:**
- Have current geospatial information that answer all needs
- Deriving ordnance survey maps which are the 1:50000 scale for Tunisia,
- Deriving bigger scale maps for specific applications
- Setting up a unique transcription system toponymic database.

**TASKS**
- ✓ Data conceptual Model
- ✓ Toponyms Capture from different sources (in progress)
- ✓ Generic toponyms dictionary (in progress)
- ✓ Toponymy database overview
- ✓ Automatic translation between transcription systems (in project)
- ✓ Web Mapping Application (in progress)
Korbous 1/25,000
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PPL populated place
A city, town, village, or other agglomeration of buildings where people live and work.

WLLS wells
Cylindrical holes, pits, or tunnels drilled or dug down to depth from which water, oil, gas can be pumped or brought to the surface.

FRM farm
A tract of land with associated buildings devoted to agriculture..

DUNE dune (s)
A wave form, ridge or star shape feature composed of sand
(sand dune, sand drift, barchan, hairpin, transverse, seif, star, sand ridge, sand hill, etc.)

SBKH sabkha (s)
A salt flat or salt encrusted plain subject to periodic inundation from flooding or high tides.

TMB tomb (s)
A structure for interring bodies.

TRB tribal area
A tract of land used by nomadic or other tribes.

SPNG spring
A place where ground water flows naturally out of the ground.