

Development of Abomey, capital of the former West African kingdom of Dahomey: Using GIS to identify spatial-temporal patterns

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Abomey: capital of the Kingdom of Dahomey

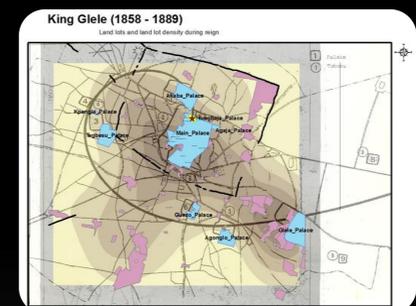
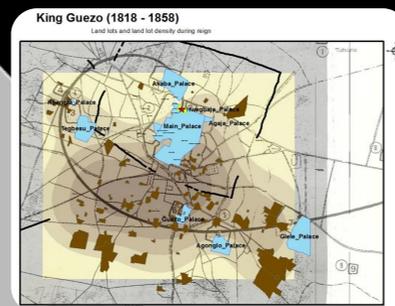
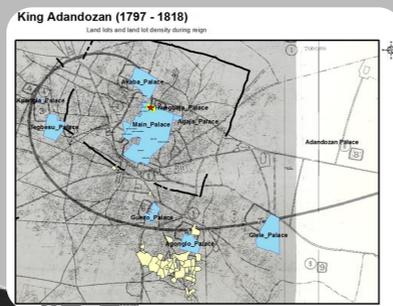
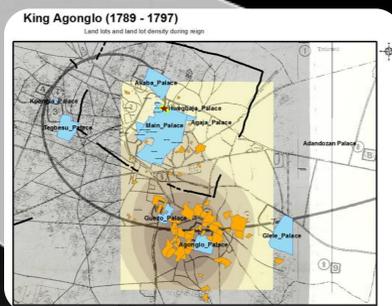
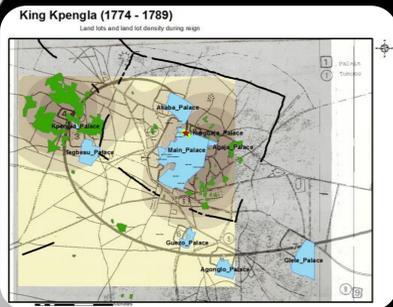
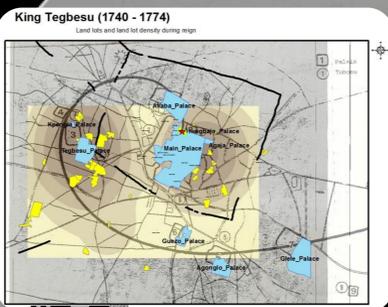
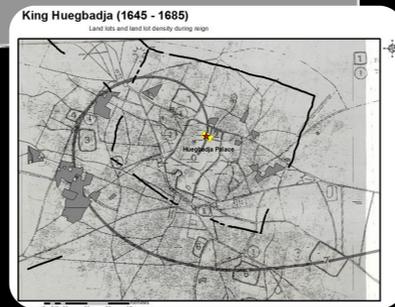
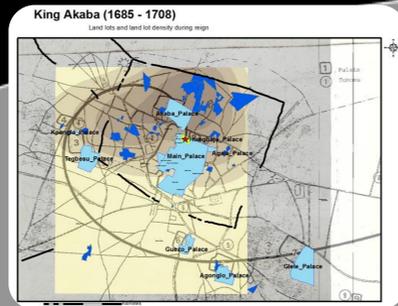
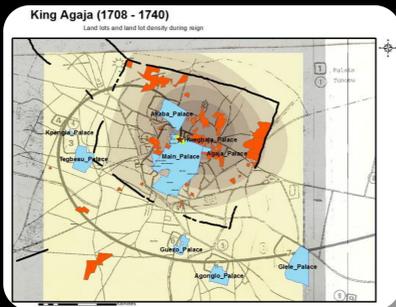
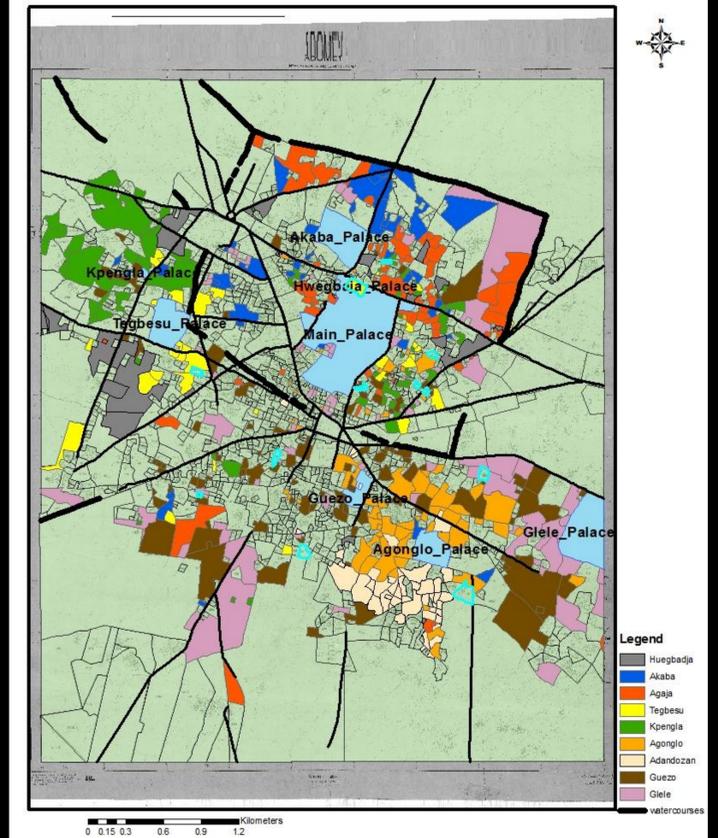


Image of a bas-relief of Dangbe provided by <http://www.ecn.wfu.edu/~cottrell/benin/dia-ry.html>

Discussion

• In the Danhomé language, Dan (Dangbe) is the word for the powerful local python god.
 • Danhomé means "in the stomach of Dan", stating that Danhomé inhabitants reside in the middle (within the encircling circle) of the powerful python god, Dan/Dangbe.
 • The appropriation of land in a counter-clockwise spiral pattern and the spiral form tail-consuming python god Dan appear to be evidently related.

• Another representation of Dangbe in the design of the city is the dry moat around the center of the city (represented by the dark black square on the maps).
 • This represents the encircling python god with the inhabitants in the center.

• As the city grew, space was appropriated from indigenous inhabitants forcing local residents away from the palace.

Background

• Abomey was the royal capital of the kingdom of Dahomey (Danhomé) located in what is now the country of Benin in West Africa.
 • The kingdom was conquered by several kings including Huegbadja (1645-1685), Akaba (1685-1708), Agaja (1708-1740), Tegbesu (1740-1774), Kpengla (1774-1789), Agonglo (1789-1797), Adandozan (1797-1818), Guezo (1818-1858), and Glele (1858-1889).

Objective

• Analyze the urban development of Abomey for spatial-temporal pattern:
 How did the city develop over time from one king's reign to the next?
 • Determine how culture played a part in the city's development:
 What role did cultural beliefs play in the design of the city?
 • Examine how development practices changed over time:
 Was there any changes in where development was concentrated over time?

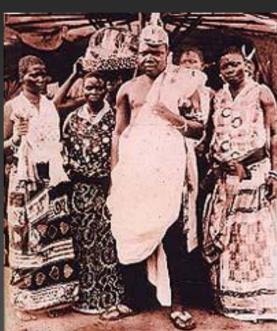


Image of King Agoli Agbo c. 1894 provided by <http://www.arikah.net/encyclopedia/Benin>

Data

• Data sources include paper maps and images of Abomey which were then digitized to raster images and georeferenced.
 • Vector data including points, lines, and polygons were drawn from the raster image of the city.
 • An attribute table was created for each polygon representing a land lot which included the name of the land-owner, their occupation, which king was reigning when the land was acquired, and the dates of the king's reign.

Data

• For analysis of how land lots were incorporated into the city from one reign to another, land lots were selected by their reigning king and shapefiles of those land lots selected were created.
 • Land lots that represented palaces were also selected by attribute and made into their own shapefile.
 • Finally, a raster image depicting the spiral development of the city was georeferenced to the data layer.

Analysis

• By distinguishing land lots by the reign in which they were incorporated into the city, I was able to show a pattern of how the city developed from reign to reign.
 • As land lots are incorporated during each consecutive reign, they appear to follow the spiral development pattern recognized by researchers Houseman and Blier.
 • The majority of land lots, during the early reigns of King Akaba and Agaja, appear to be concentrated around the newly constructed princely palace.
 • Towards the end of the kingdom, land lots appear to be located further away from the palace with which they are associated.

