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**Reconstruction of gezira.
Tel El Farcha archaeological site. Nile Delta.**

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Introduction

Archaeological sites located at the Nile Delta are highly important for reconstructing the evolution of Egypt and its development. For better understanding of occupational phases as well as environmental, changes of the Delta are intensively studied.

Tel el Farcha archaeological site is located near the central Nile Delta (Photo 1), where the Nile sediments are very thick (up to 80 m).



Photo 1 Location of Tel el Farcha archaeological site
at Nile Delta. Space photo.

Geological investigations conducted at the site (Ciałowicz 200, Ciałowicz Chłodnicki 2003, Pawlikowski 2002) showed, that it is located at the top of sandy hill so called gezira. Boreholes as well as geological and archaeological trenches help to reconstruct the sequence of the phenomenon before, during and after occupation of the site.

Reconstruction of Gezira

The oldest environment possible to reconstruct (Fig. 1, 1), is the phase, when the last glaciation was in its final maximum and the level of Mediterranean Sea was very low. At the time, the Nile delta in its present form did not exist. The difference between elevation near the end of the Nile Valley in the vicinity of the present Cairo City and the sea was 50 maybe 60 m. Because of the fact, pre-Nile flew fast, and therefore such conditions were not proper for sedimentation, while erosion developed substantially. During the melting of glaciers, the level of seas and oceans fluctuated. The down-grade of the Nile between Cairo and shore of the Mediterranean Sea was slowly reduced and therefore, river flew slower and slower. Due to the reduction of the flow speed, Delta started to deposit and the level of sediments there continuously went up and up (Fig. 1, 2). The top of gezira was, at this time, covered with grass, where mollusks lived (up to now, skeletons are present at top sands of gezira). It is possible, that then, due to the formation of delta, branches of Nile developed. One of them was located at the base of gezira (Fig. 1, 3). Constant elevation of the sea led to continuous deposition and growing of the Delta.

Gezira surrounded by the Nile silts was, at this time, a hill surrounded by Nile silts, while when the Nile level was high (floods), geziras in delta were islands safe for human occupation. Due to the fact, they were occupied, while flat areas were free uninhabited. Occupation on geziras was located next to the water i.e. near the local streams and rivers (Fig. 1, 4).

Our oldest anthropogenic layers at Tel el Farcha present this moment, but it is possible, that deeper, near the base of gezira, even older human layers occur. They can be investigated by exploration only with the use of pump, because now, they appear below the horizon of underground waters, similarly, as it is at the Butto archaeological site dug by German mission.

Mentioned location of the site and occupation of gezira near its base is highly useful for observation of changes of the Nile level and those of human activity. When the Nile was high, silts of the river were deposited on sands of the gezira. When the Nile was low, anthropogenic sediments, i.e. products of human activity, were deposited on surface of the Nile sediments (Fig. 1, 5).

It is a perfect situation, because at flat areas of the Delta, one can observe continuous, monotonous deposition of silts difficult for investigation, which constitute material difficult to reconstruction of the past.

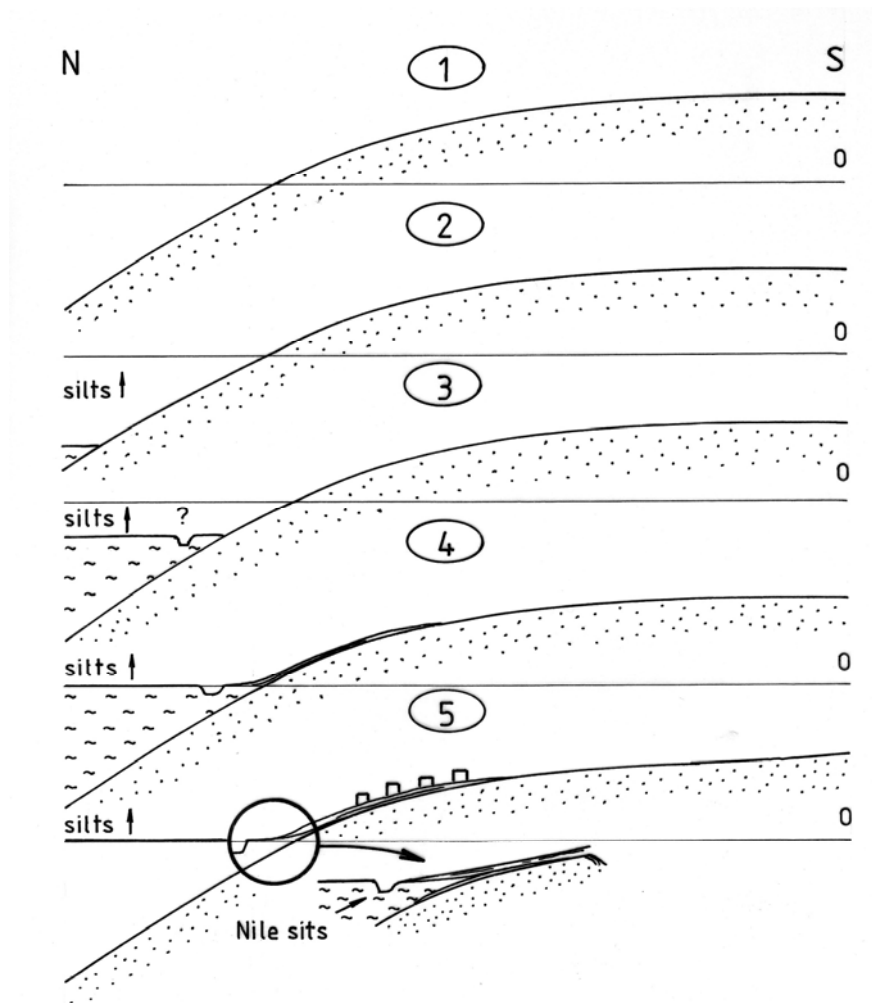


Fig. 1 Tel el Farcha archaeological site.
Reconstruction of geza - phases (1-5). 0 – present sea level

Next occupational phases and elevation of the Nile represent much shorter time (Fig. 2, 5a – 8), namely period between Nagad Ia and Nagada III i.e. about 3900 and 2686 B.C (Ciałowicz 2001), when the site was occupied, damaged and not occupied, flooded by Nile etc.

Due to performed investigation, one can select following phases of geza development (Fig. 1)

- 1 - top of geza at maximum of glaciation (level of Mediterranean Sea about 80 m below present level)
- 2 - phase after the maximum of glaciation, during which the level of the Mediterranean Sea elevated. Deposition of oldest silts.
- 3 - early stage of delta formation. Formation of oldest Nile branches.

4 - continuous elevation of the delta. Processes of gezira erosion and deposition of gezira sands on silts of Delta

5 – first phase of gezira occupation (c.a. 3900- 3.400 B.C. –Całowicz 2001

Next phases of gezira occupation and erosion were as following (Fig. 2)

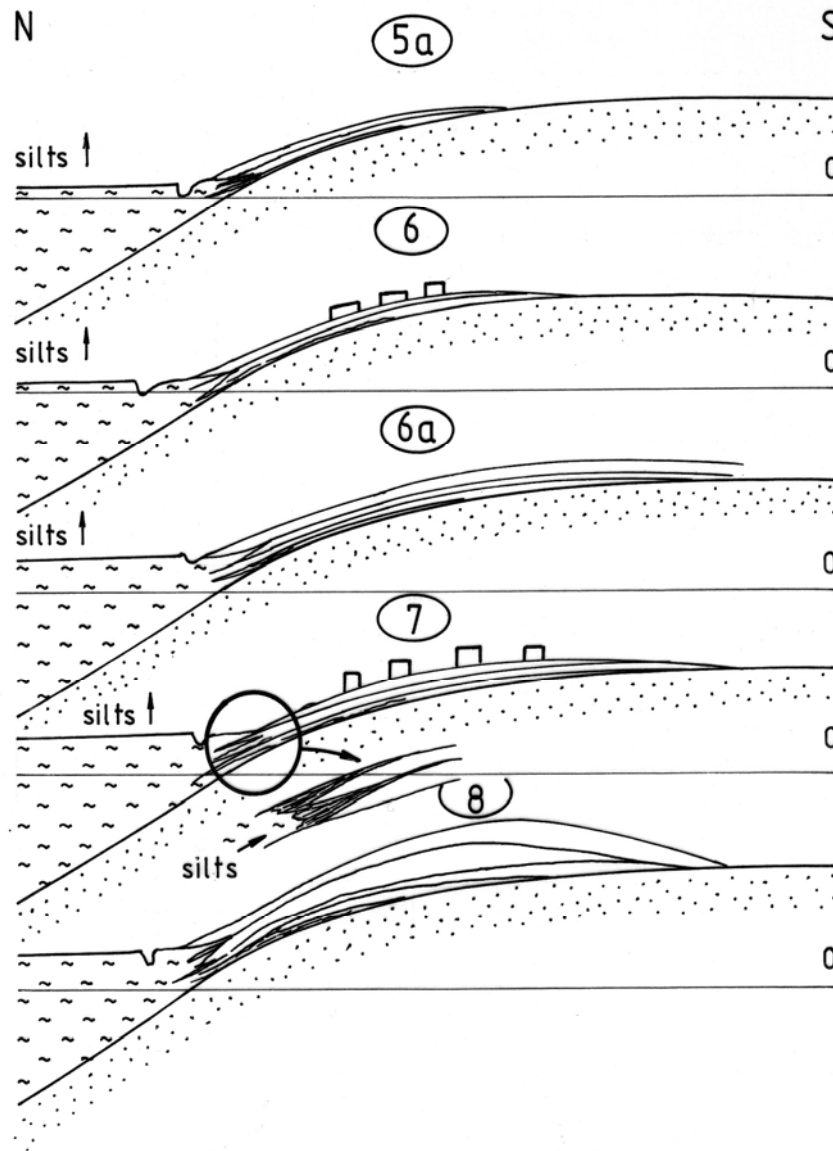


Fig. 2 Tel el Farcha archaeological site.

Next phases of gezira reconstruction (5a-8). 0 – present sea level

5a – phase of erosion after first occupation

6 – next phase of occupation

6a – erosion and destruction of objects constructed at phase 6

7 - phase of intensive occupation various at various places of gezira

8 – phase of destruction and erosion of after phase, when the great part of objects was damaged, the last phase of occupation appeared (Fig. 3)

8a – last phase of gezira occupation (c.a. 2890- 2686 B.C – Ciałowicz 2001)
9 - phases of destruction of site (after abandonment of last habitants untill now)

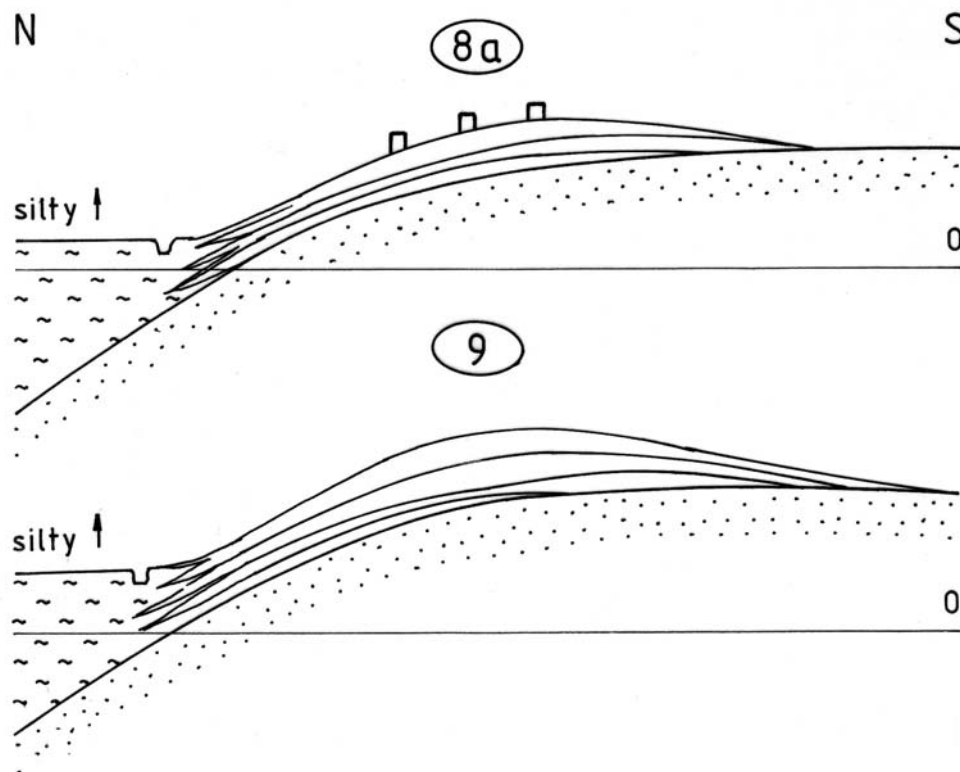


Fig. 2 Tel el Farcha archaeological site.
Next phases of gezira reconstruction (8a-9). 0 – present sea level

Proposed graphic visualization of Tel el Farcha gezira is performed as first, preliminary phase of reconstruction. Continuation of excavations at the site will help to introduce more details and maybe correct, preliminary hypothesis.

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