

Analytical Study of Archaeological Bricks from Coptic Period, Dayr AL-Naqlun (The Monastery of the Angel Ghubriyal), Fayoum, Egypt.

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Abstract: The present paper describes the analytical study performed on three different sets of mud bricks from Dayr Al- Naqlun (The Monastery Of The Angel Ghubriyal) (Fayoum, Egypt) which dates back to the third century AD. The Bricks were made up according to a distinguished local school of Brick making which is known in Egypt from pre dynastic period. The materials used for the manufacture of the Bricks were revealed using Xray diffraction (XRD) and scanning electron microscopy–energy dispersive X-ray spectroscopy. The research had been studying two types of bricks, the first is Mud brick, which is characterized by the presence of some plant residues and many of compounds that are similar to the basic clay while the second type of baked brick, which is known (agar), (SEM-EDS) was revealed that the Bricks were made of ferruginous, highly calcareous clay in an oxidizing atmosphere. Mineral phases such as; Quartz, Hematite, Lime and feldspars have been identified which depended on the way of drying and firing degrees. Also a group of metallic materials such as quartz and impurities such as sulphate and carbonate.