

Table of Contents

From the Organizers and Editors	9
List of Participants in the Symposium	10

I. North African littoral and the Sahara

GRAEME BARKER	
The UNESCO Libyan Valleys Survey: environmental change and human settlement in Tripolitania	15
KRYSZYNA WASYLIKOWA	
Plant macrofossils from the archaeological sites of Uan Muhuggiag and Ti-n-Torha, Southwestern Libya	25
MIECZYSLAW F. PAZDUR	
Evaluation of radiocarbon dates of organic samples from Uan Muhuggiag and Ti-n-Torha, Southwestern Libya	43
J. DESMOND CLARK	
The Aterian of the Central Sahara	49
ANDREW B. SMITH	
Terminal Palaeolithic industries of Sahara: a discussion of new data	69
ANDREW B. SMITH	
New approaches to Saharan rock art of the Bovidian Period	77
ROBERT VERNET	
Le Néolithique récent dans le sud-ouest du Sahara	91

II. Eastern Sahara

FRED WENDORF, ROMUALD SCHILD AND ANGELA E. CLOSE	
Middle Palaeolithic occupations at Bir Tarfawi and Bir Sahara East, Western Desert of Egypt	103
ANGELA E. CLOSE	
BT-14, a stratified Middle Palaeolithic site at Bir Tarfawi, Western Desert of Egypt	113
ACHILLES GAUTIER	
The faunal spectrum of the Middle Palaeolithic in Bir Tarfawi, Western Desert of Egypt	123
PHILIP VAN PEER	
Levallois variability and the Middle Palaeolithic of the Lower Nile Valley and the Eastern Sahara	129

ANDREAS DITTMANN	
Environmental and climatic change in the northern part of the Eastern Desert during Middle Palaeolithic and Neolithic times	145
KATHARINA NEUMANN	
Holocene vegetation of the Eastern Sahara: charcoal from prehistoric sites	153
BARBARA E. BARICH	
Culture and environment between the Sahara and the Nile in the Early and Mid-Holocene	171
ERWIN CZIESLA	
Investigations into the archaeology of the Sitra-Hatiet, Northwestern Egypt	185
MARY M.A. McDONALD	
Cultural adaptations in Dakhleh Oasis, Egypt, in the Early to Mid-Holocene	199
IAN A. BROOKES	
Early Holocene basinal sediments of the Dakhleh Oasis region, Egypt (theses)	211
RUDOLPH KUPER	
Sahel in Egypt: environmental change and cultural development in the Abu Ballas area, Libyan Desert	213
JOACHIM HAHN	
Neolithic settlement patterns in the Gebel Kamil area, Southwestern Egypt	225
WERNER SCHUCK	
An archaeological survey of the Selima Sandsheet, Sudan	237
STEFAN KRÖPELIN	
The Gilf Kebir and Lower Wadi Howar: contrasting Early and Mid-Holocene environments in the Eastern Sahara	249

III. The Nile Delta, the Fayum and the Egyptian Nile Valley

JÜRGEN WUNDERLICH	
The natural conditions for Pre- and Early Dynastic settlement in the Western Nile Delta around Tell el-Fara'in, Buto	259
KLAUS SCHMIDT	
Comments to the lithic industry of the Buto-Maadi culture in Lower Egypt	267
EDWIN C.M. VAN DEN BRINK	
Settlement patterns in the Northeastern Nile Delta during the fourth-second millennia B.C.	279
HUIB E. DE WIT	
The evolution of the Eastern Nile Delta as a factor in the development of human culture	305
LECH KRZYŻANIAK	
New data on the late prehistoric settlement at Minshat Abu Omar, Eastern Nile Delta	321
JANUSZ K. KOZŁOWSKI AND BOLESŁAW GINTER	
Holocene changes in the Fayum: Lake Moeris and the evolution of climate in Northeastern Africa	327
PIERRE M. VERMEERSCH AND ETIENNE PAULISSEN	
Palaeolithic chert quarrying and mining in Egypt	337
MARIA LITYŃSKA	
Plant remains from the Neolithic site at Armant: preliminary report	351
MACIEJ PAWLIKOWSKI	
Mineralogy of the Nile Valley sediments as an indicator of changes of climate: the Armant-Luxor area, Upper Egypt	355
MICHAEL A. HOFFMAN AND JAMES O. MILLS	
Problems of assessing environmental impact on the Predynastic settlements of Hierakonpolis	359

IV. The Sudan

BIRGIT KEDING	
Leiterband sites in the Wadi Howar, North Sudan	371
HENRI J. DUMONT AND ASIM I. EL MOGHRABY	
Holocene evolution of climate and environment, and stone "city" ruins in Northern Darfur, Sudan: is there a relationship?	381
LOUIS CHAIX AND ANNIE GRANT	
Palaeoenvironment and economy at Kerma, Northern Sudan, during the third millennium B.C.: archaeozoological and botanical evidence	399
ISABELLA CANEVA	
Pre-pastoral Middle Nile: local developments and Saharan contacts	405
JORIS PETERS	
Animal exploitation between the fifth and the sixth Cataract <i>ca.</i> 8,500–7,000 B.P.: a preliminary report on the faunas from El Damer, Abu Darbein and Aneibis	413
KARIM SADR	
Environmental change and the development of nomadism in the East-Central Sudan	421
ANTHONY E. MARKS	
Climatic and cultural changes in the Southern Atbai, Sudan, from the fifth through the third millennium B.C.	431
RODOLFO FATTOVICH	
The Gash Group of the Eastern Sudan: an outline	439

V. The Horn of Africa

BALDUR GABRIEL, BERND VOIGT AND MUMIN MOHAMUD GHOD	
Quaternary ecology in Northern Somalia: a preliminary field report	449
MAURO COLTORTI AND MARGHERITA MUSSI	
Hunter-gatherers of the Middle Juba Valley, Southern Somalia, during the Early Holocene	459

VI. Varia

MIECZYSLAW F. PAZDUR AND DANUTA J. MICHCZYŃSKA	
Probabilistic calibration of radiocarbon dates with specific examples from Northeastern Africa	473
TSUYOSHI FUJIMOTO	
Studies of wear on grinding stones	485
MARIA CASINI	
Craft production in Lower Egypt during Late Predynastic times with special reference to Ma'adi	491