The Nile Basin has unique physical and anthropogenic attributes. It embraces a very wide range of climates (equatorial, monsoonal, seasonally wet tropical, semi-arid, arid, hyper-arid and Mediterranean). Roughly one third of the Nile Basin (1,070,000 square km) is at present devoid of perennial rivers and receives less than 50 mm of rainfall annually. The White Nile provides much of the low season flow to the Nile but very little sediment, while the Blue Nile and Atbara together provide most of the flood flow and much of the sediment. The Nile Basin contains a record of human activities spanning the last million years, in documenting how prehistoric human societies adapted to regional climate events and to changes in the river’s regime, from the time of hunter-gatherers to the food-producing economies that were based on plant cultivation and animal domestication. Egypt was one of the cradles of urban civilisation, totally dependent on floods from the upper Nile River. The inhabitants of the arid lands of northern Sudan and Egypt owe their very existence to that river. By the year 2020 more than 300 million people will depend on its waters for their livelihood, so that a clear understanding of present land use and the impact of climate change on Nile flooding is essential for any rational and long-term future planning in the Nile Basin.

The present volume comprises both physical and anthropogenic themes, arranged in 23 chapters. The physical issues including the introduction and evolution of the Nile Basin (chapters 1 and 2), the climate and hydrology of the Nile Basin, inclusive of historic floods and droughts (Chapter 3), its geology and soils (Chapter 4) and its vegetation and current land use (Chapter 5). The physical regions within the Nile Basin are considered in some detail in chapters 6 to 20, proceeding from the headwaters of the Blue and White Nile (chapters 6 and 7), along the White Nile (Chapter 8) and its tributaries (chapters 9 and 10) to the lower Blue Nile (Chapter 11) and the Atbara River (Chapter 12). Subsequently, it
discuss both the physical and human history along
the western borders of the Nile Basin, visiting the
Jebel Marra volcano and its environs (Chapter 13)
as well as the now defunct river systems of Wadi
Howar, Wad el Melik and Wadi Muqadam. Giv-

given their very great importance in prehistory, four
presently arid regions are reviewed in some de-
tail: Nubia, the Butana Desert and the Desert Nile
in Egypt (Chapter 14) and the Western Desert of
Egypt (chapters 15 and 16), as well as the Fayum
(Chapter 17). Equally significant in prehistory are
the Red Sea Hills (Chapter 18) and the Sinai De-
sert (Chapter 19). A recurrent theme in all of these
chapters so far is the persistent and complex set of
interactions between river and desert in prehistory.

Chapters 20 and 21 discuss the Nile Delta and the
Nile Cone, respectively. Sediment cores from both
the Delta and the submarine Nile Cone provides
a wealth of information on past changes in Nile
sediment flux, river discharge and changes in Nile
sediment sources. Chapter 22 discusses the com-
plex question of plant cultivation and animal do-
mestication in the Nile Basin and reviews some of
the models that have been proposed to account for
the origin and spread of these processes across the
Nile Basin. The final chapter (Chapter 23) concludes
with an attempt to unravel the nature and timing of
prehistoric migrations to and from the Nile Basin
and the various ‘Out of Africa’ scenarios that have
been proposed.

The present volume provides the basic infor-
mation that assures the natural unity of the River
Basin, and the civilisations that arose on its banks.
Thus, despite the “futility of the negotiations” cur-
rently taking place on the Ethiopian Renaissance
Dam between Egypt, Sudan and Ethiopia (the coun-
tries of the eastern Nile Basin), we trust in the long
history of friendly and good-neighbourly relations
that link all the peoples of the basin countries and a
common destiny give us hope for a “breakthrough”
at the edge of the abyss, and for all parties to sign
the agreement, more than 90% of which has already
been completed. This agreement will be of great
value for the beneficial sharing of public goods pro-
vided by the Nile Basin, stability and development
for all the countries of the Nile Basin. This volume
proves that the river water has not increased by a
single drop since Moses was found in the papyrus
thickets along the banks of the river. Moreover, wa-
ter quantities in the basin may decrease due to cli-
matic changes; meanwhile, the demand for water is
steadily increasing in all basin countries as a result
of overpopulation, as well as for food and other de-
velopmental needs. There is no other way for the
basin countries but co-operate and increase direct
and indirect economic returns of the presence of the
river basin in their countries, not just the water.

The present tome provides significant evidence
regarding the prosperity and collapse of great civ-
ilisations along the River Nile. Strontium isotope
analyses of delta sediments, together with archival
evidence, also indicate that the collapse of the Old
Kingdom some 4,200 years ago was associated with
several phases of intense drought in the Nile head-
waters and greatly reduced Nile floods in Egypt.
A moist episode during the early to mid-Holocene
saw the movement of Neolithic groups into the
Nile Valley, bringing their herds of domestic ani-
mals and their cereal grains from the Near East into
the Nile Basin and eventually into the Sahara and
East Africa. It also emphasises another theme that
appears significant to our world, namely environ-
mental change as a cause of demographic pressure.
When ancient human societies confronted with ex-
treme environmental catastrophes (occasionally,
but not invariably, associated with abrupt climatic
changes), they could either migrate, seek to adapt,
or become extinct. The progressive move from the
Mesolithic to the Neolithic in the Nile basin doubt-
lessly encompassed elements of all three responses.

This volume on the Nile Basin provides additional
key issues that may prove useful for our adaptation
to and resilience against current climatic changes
worldwide.

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