Quaternary International xxx (2016) 1–18

Contents lists available at ScienceDirect

Quaternary International

journal homepage: www.elsevier.com/locate/quaint

The 'cultured rainforests' of Borneo

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ARTICLE INFO

Article history:
Available online xxx

Keywords:
Biomass burning
Niah Caves
Kelabit highlands
Vegeculture rice agriculture

ABSTRACT

Borneo has a 50,000-year record of *Homo sapiens*' interactions with rainforest on the coastal lowlands assembled especially by the interdisciplinary investigation of the archaeology and palaeoecology of the Niah Caves on the coastal plain of Sarawak (Barker et al., 2007; Barker, 2013). More recent work by many of the same team in the interior of Borneo, in the Kelabit Highlands of Sarawak, has combined those approaches with ethnography and anthropology to investigate recent and present-day, as well as past, human-rainforest interactions. In combination, the two projects indicate that the present-day rainforests of Borneo are the product of a deep ecological history related to both natural factors such as climate change and cultural factors such as how different groups of people chose to extract their livelihoods from the forest, including in ways that do not have simple analogies with the subsistence activities of present-day rainforest foragers and farmers in Borneo.

1. Introduction

As late as the 1980s it was commonly held that Quaternary climates in the tropics were virtually stable and that the great tropical forests of the world had been little affected by climate change. Botanical and archaeological opinion also held that these tropical forests were effectively primeval, largely unaffected by human activity until recent times (e.g. Meggers, 1971; Balee, 1989; Gamble, 1993), even though the 1950s and 1960s excavations by Tom and Barbara Harrisson in the Niah Caves in Sarawak, Borneo (Harrisson, 1970) and the 1960s and 1970s work of Jack Golson at Kuk in the New Guinea Highlands (Golson and Hughes, 1980; Golson, 1985, 1989) had demonstrated that archaeological sites existed in the Pleistocene and Early Holocene where the available evidence suggested that there had been rainforest environments contemporary with the human activity. It was also debated amongst archaeologists and anthropologists whether past foraging (hunting and gathering) peoples would have been able to live in rainforest, because trading forest products with neighbouring agriculturalists was a critical part of the survival strategies of most present-day tropical foragers (e.g. Headland, 1987; Hutterer, 1988; Bailey et al., 1989; Townsend, 1990; Bailey and Headland, 1991; Dentan, 1991).

By the 1990s it was apparent that tropical forests had waned in area and changed markedly in composition during the Pleistocene glaciations (e.g. Dam et al., 2001a, 2001b; Flenley, 1996; van der Kaars and Dam, 1997; Morley, 2000) and in Southeast Asia and New Guinea palynologists were reporting biomass burning and forest disturbance across the region (e.g. Maloney, 1980; Maloney, 1985; Hope, 1998; Kealhofer and Piperno, 1998; Maloney, 1999; Flenley and Butler, 2001). The limited amount of multi-proxy work meant that the causes of these disturbances had not been firmly identified though the forest–clearance activities of people, especially early farmers, were suspected (e.g. Flenley, 1985, 1988; Maloney, 1985; Hope and Golson, 1995; Hope, 1998; Kealhofer, 2003). In Island Southeast Asia it was thought that agriculture was introduced to the region around 4000 years ago by Austronesian-speaking people who spread southwards from mainland China via Taiwan bringing with them Neolithic material culture (pottery, polished stone tools etc), and domestic rice and pigs, replacing or absorbing the existing populations of hunter-gatherers living in the rainforest without agricultural resources (Bellwood, 1984, 1985).

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http://dx.doi.org/10.1016/j.quaint.2016.08.018
1040-6182/

This was the background against which a new programme of investigation in the Niah Caves was proposed to the Sarawak archaeological authorities in the late 1990s (Fig. 1). The largest excavations of the Harrissons were in the West Mouth (Kuala Besar) of Niah Great Cave, their results here in particular making the Niah Caves one of the iconic archaeological sites in the world. in particular their discovery in 1958 of a skull (the "Deep Skull") and other bones of an anatomically modern human (Brothwell, 1960).

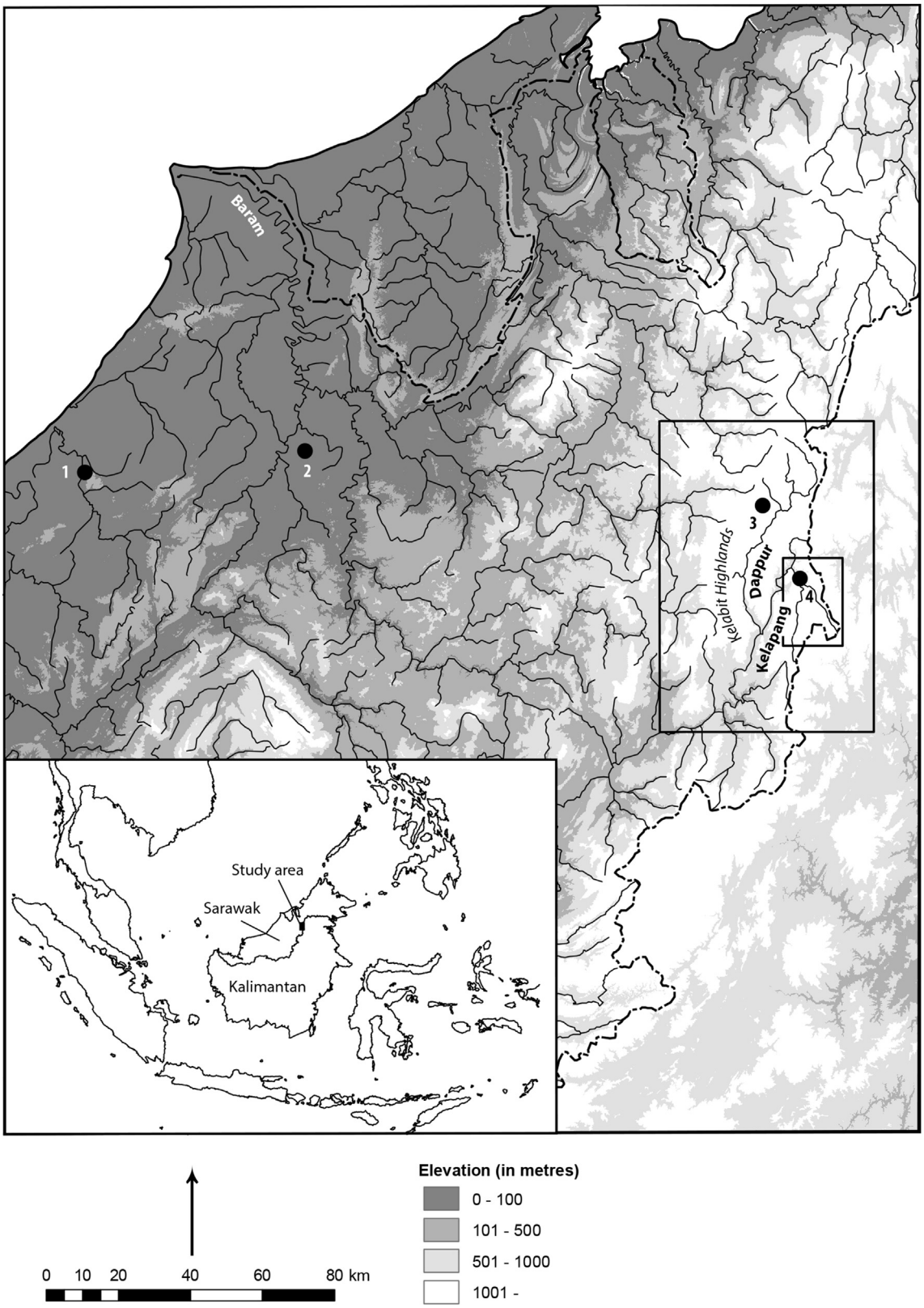

Fig. 1. Borneo, showing the locations of the Niah Caves, Loagan Bunut, and the Kelabit Highlands: 1. Niah Caves; 2. Loagan Bunut; 3. Bario, northern Kelabit Highlands; 4. Upper Kelapang Valley, southern Kelabit Highlands.

Please cite this article in press as: Barker, G., et al., The 'cultured rainforests' of Borneo, Quaternary International (2016), http://dx.doi.org/10.1016/j.quaint.2016.08.018