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## Pleistocene Aboriginal occupation at Cania Gorge, Central Queensland: preliminary results of fieldwork

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Cania Gorge

### Abstract

Recent excavations at Cania Gorge in central Queensland have revealed evidence for Aboriginal occupation dating from the late Pleistocene through to the historical period. This paper briefly describes the general aims of the project as well as several of the key sites excavated, and reports initial radiocarbon determinations. These excavations were conducted as part of the Gooreng Gooreng Cultural Heritage Project, which is being undertaken in collaboration with the Gurang Land Council Aboriginal Corporation (see Clarkson *et al.* in prep.; Jolly 1994; Lilley and Ulm 1995; Lilley *et al.* 1996; Lilley *et al.* in press).

Excavations at 8 rockshelters in Cania Gorge have revealed an occupational sequence spanning from the Last Glacial Maximum until the historical period. This research marks the commencement of the inland component of archaeological investigations conducted as part of the Gooreng Gooreng Cultural Heritage Project. Preliminary results of our investigations on the Central Queensland coast have been reported elsewhere (Lilley and Ulm 1995; Lilley *et al.* 1996; Lilley *et al.* in press).

The study region lies between the Central Queensland Highlands and southeast Queensland, two of the archaeologically best-known parts of the country. The project aims to develop an archaeological sequence for both the coast and the inland areas of this east Central Queensland region and to compare critically these sequences and their explanations with those proposed for the Central Queensland Highlands (Beaton 1977; Morwood 1979; Mulvaney and Joyce 1965) and for southeast Queensland (Hall and Hiscock 1988; McNiven 1990; Morwood 1987; Walters 1992).

Cania Gorge is an extensive system of dissected sandstone escarpments covering an area of approximately 5000ha in the upper Burnett River basin, about 100km from the coast (Figure 1). Most of the Gorge lies either in Cania Station or Cania Gorge National Park, or in surrounding State Forest. Apart from the recording of two sites by the Queensland Government's Archaeology Branch in the 1970s and second-hand comments reported by Walsh (1984), prior to our studies Cania Gorge was unknown archaeologically despite its proximity to the Central Queensland Highlands and other archaeologically well-described areas.

In July 1995, an initial archaeological survey of Cania Gorge was undertaken, concentrating on the southern end of the gorge system. Surveys were mainly restricted to the base of the sandstone escarpment where weathering has led to shelter formation. No open sites were recorded during the survey. In addition to the two previously-recorded shelters, a further six shelters with potential archaeological deposits were located, several containing art (Figure 1).

In January and September–October 1996, field crews returned to Cania to pursue questions concerning the nature, extent and antiquity of subsurface cultural remains and the age of the rock art observed on the previous field trip. The main objective of this work was to assess the archaeological research potential of the Cania Gorge system through test excavations.

Eight rockshelters were test-excavated within a 15km<sup>2</sup> area at the southern end of the Gorge (Figure 1). No archaeological material was observed during excavations at three of the sites (Fern Tree Pool Shelter, Picnic Art Site or Long Gallery), and only relatively sparse material, principally flaked stone, was found in two other sites (Bushranger's Cave and Boulder 1). The three remaining sites, Roof Fall Cave, Big Foot Art Site and Road Cave 1, on the other hand, yielded abundant cultural remains to the base of excavations. At the time of writing, initial sorting and description of the excavated material from these three sites was well advanced and detailed results will be presented elsewhere. These three sites and Boulder 1 have radiocarbon determinations available and brief summaries of each of these excavations are presented below.

### Roof Fall Cave

Roof Fall Cave is a large sandstone shelter located approximately 80m south of the recorded Big Foot Art Site on Cedar Creek (Figure 1). The walls of the shelter exhibit a number of painted motifs and the floor, which covers an area of approximately 40m<sup>2</sup>, is dominated by blocks of rapidly-weathering sandstone detached from the ceiling of the shelter. A single 50cm x 50cm test pit was excavated close to the centre of the chamber to a maximum depth of about 80cm into culturally-sterile

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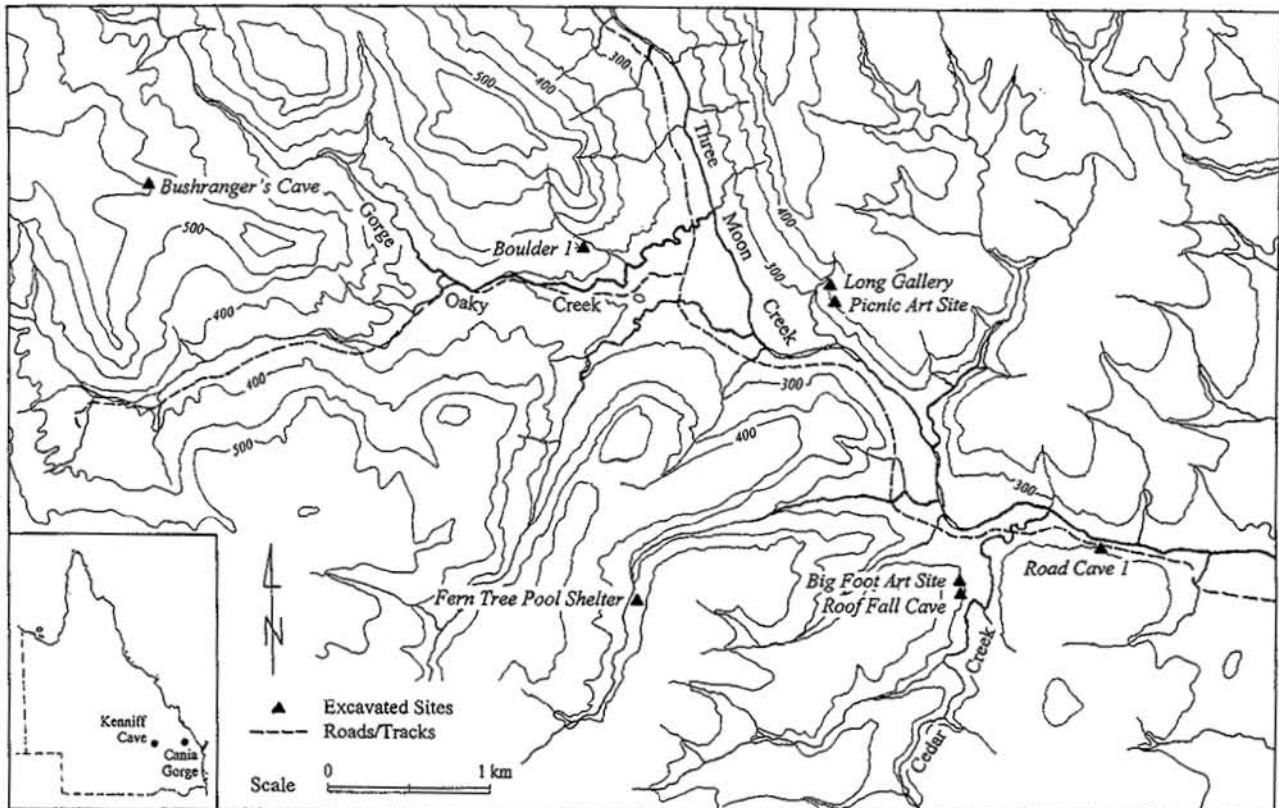


Figure 1. Cania Gorge showing excavated archaeological sites in the study area.

sediments. Large quantities of stone artefacts, animal bone and charcoal were recovered, along with some freshwater mussel shell and ochre. A basal date of 18,576 cal BP has been obtained on a sample of charcoal occurring in association with ochre from a depth of 69–74cm (Table 1). Five additional charcoal samples are currently being processed.

#### *Big Foot Art Site*

Big Foot Art Site is a recorded rock art site (Queensland Department of Environment Number JE:A07) on Cedar Creek (Figure 1). The rockshelter has formed at the base of a dissected sandstone escarpment and has a floor area of approximately 20m<sup>2</sup> within the dripline, dipping slightly towards the front of the shelter. A single 50cm x 50cm test pit was excavated in the January field season to a maximum depth of 70cm before encountering impenetrable roof fall. This small sample was augmented by a further two contiguous 50cm x 50cm test excavations (G6 and G7) dug to bedrock adjacent to the original square in the September–October field season. Excavation revealed a cultural assemblage dominated by flaked stone artefacts of diverse lithology, quantities of bone (burnt and unburnt), abundant charcoal, and small

amounts of ochre. Four radiocarbon dates are available for the first test excavation, demonstrating occupation spanning from at least 7787 cal BP (Table 1).

After observing significant numbers of stone artefacts on the surface of the talus slope immediately below the shelter entrance, a 50cm x 50cm pit was excavated towards the base of the slope to determine whether any subsurface cultural material existed in this area. The excavation yielded only very small quantities of cultural material and no dates have been obtained from this square.

#### *Road Cave 1*

Road Cave 1 is one of a series of small rockshelters located in road reserve immediately south of Cania Gorge National Park on Three Moon Creek, about 1km east of the Big Foot Art Site (Figure 1). Two 50cm x 50cm test pits designated as A and B were excavated to bedrock. The excavated assemblage includes many stone artefacts made on a range of raw materials, large quantities of bone (mainly burnt) and some freshwater mussel shell. Three dates were obtained from square B, which indicate that an earlier phase of slower deposition lies below a later phase in which deposition was more rapid.

Site	Square	XU	Depth(cm)	Lab. No.	Sample	Weight(g)	<sup>14</sup> C-Age	Calibrated Age
Roof Fall Cave	A	36	69-74	Wk-5216	charcoal	1.3	15720 ± 380	19387(18576)17814
Boulder I	B	21	29-31	Wk-4878	charcoal	9.4	3290 ± 60	3625(3465)3354
Big Foot Art Site	I5	4A	3-7	Wk-4880	charcoal	15.5	330 ± 50	474(306)0*
Big Foot Art Site	I5	6A	7-10	Wk-4881	charcoal	9.0	590 ± 50	646(542)506
Big Foot Art Site	I5	20B	34-37	Wk-4879	charcoal	11.1	4170 ± 60	4834(4802,4771,4609,4587,4574)4442
Big Foot Art Site	I5	36	65-68	Wk-4638	charcoal	13.9	7040 ± 70	7923(7787)7640
Road Cave I	A	12	28-32	Wk-4884	charcoal	4.0	1180 ± 70	1232(1057)927
Road Cave I	B	6	7-8	Wk-4883	charcoal	17.4	1040 ± 60	1052(928)771
Road Cave I	B	10	13-14	Wk-4882	charcoal	17.2	1220 ± 50	1232(1067)965
Road Cave I	B	16	27-32	Wk-4637	charcoal	15.8	2860 ± 60	3076(2925,2914,2884)2776

Table 1. Radiocarbon dates from Cania Gorge. Conventional radiocarbon ages were calibrated with the CALIB (Version 3.03c) computer program (Stuiver and Reimer 1993) using the bi-decal atmospheric calibration curve with no laboratory error multiplier. 40 years was subtracted to correct for <sup>14</sup>C variations between northern and southern hemispheres. The calibrated ages reported span the 2 sigma calibrated age range. 0\* represents a 'negative' or 'modern' age BP.

Square B yielded a basal age of 2914 cal BP (Table 1). The determination Wk-4884 is from close to the base of square A, which is downslope closer to the edge of the dripline of the shelter. It is probably indicative of nothing more than sloping stratigraphy of the deposit, which places material of quite recent age at the same depth below surface as more ancient material slightly upslope.

#### *Boulder 1*

The site designated as Boulder 1 is located just to the north on the bank of Gorge Oak Creek (Figure 1). The site consists of two massive boulders which detached from the main escarpment at an unknown time and came to rest against each other to form a sediment trap. Two 50cm x 50cm test pits designated as A and B were excavated, one on each side of the site, to maximum depths of 56cm and 34cm respectively. Excavation revealed low rates of discard of cultural material, including stone artefacts and bone, and a basal age on charcoal of 3465 cal BP (Table 1).

#### *Discussion*

The discovery of evidence of Pleistocene occupation at Cania Gorge represents an unprecedented opportunity to examine the validity of the Central Queensland Highlands and southeast Queensland sequences and influential models of cultural change which have been built on them. The range of sites investigated, with initial occupation dating from the Last Glacial Maximum, the early Holocene and the late Holocene, provides the opportunity to explore the nature of past Aboriginal use

of this region, and how this may have changed through time, thus furthering considerably the original aims of the Gooreng Gooreng Cultural Heritage Project. Ultimately, however, this new evidence allows us to relate our findings at Cania Gorge to wider questions concerning the rates, patterns and causes of change in the Australian archaeological record.

Work currently in progress is aimed at establishing a cultural chronology for the region through basic description and analysis of recovered materials, focusing on lithic assemblages in order to provide a basis for comparison with the Central Queensland Highlands sequence. Future research will augment this preliminary study through further excavation of known sites complemented by more extensive survey of the gorge system.

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## New radiocarbon determinations from the Grampians-Gariwerd region, western Victoria

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### Abstract

New radiocarbon determinations have been obtained for four rock-shelter sites in the Grampians-Gariwerd region, originally excavated in the 1970s and early 1980s by the Victoria Archaeological Survey. Basal dates of about 22,000 BP for Druak and evidence of occupation below a date of about 9000 BP for Billimina indicate that the ranges were first occupied during the Late Pleistocene. These results have considerable implications for the interpretation of the archaeological record of Western Victoria.

During the 1970s and early 1980s, the former Victoria Archaeological Survey (VAS) conducted an extensive program of excavation and survey in south-west Victoria. Some preliminary reports were produced, but much of this work remains unpublished. It is particularly unfortunate that the VAS research program was never brought to a proper conclusion as the archaeology of this region has provided the starting point for much recent debate about the nature and interpretation of cultural and technological developments over the last 4000 years in Australia (e.g. Bird and Frankel 1991a, 1991b; Lourandos 1983; Ross 1981, 1985; Williams 1988). La Trobe University and Aboriginal Affairs Victoria are presently conducting a collaborative program of research involving the reanalysis of the VAS material, in order to make more of the primary data available to both the academic and Aboriginal communities. The project focuses on temporal and spatial variability in stone artefact assemblages at a regional level. This should provide a more complete regional sequence and a firmer foundation for evaluating competing models of cultural change.

Establishing a chronological framework was considered an important prerequisite to any re-evaluation of the material collected by VAS. Consequently, identifying charcoal samples from the original excavations which might be suitable for radiocarbon dating became a priority. This paper reports twenty-nine new radiocarbon determinations

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