# THE COROID AND KNAPPED STONE IMPLEMENTS OF THE BATHURST DISTRICT.

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## (Figures 1–48.)

In 1941 the late Mr. A. E. Ivatt presented to the Australian Museum a collection of one thousand eight hundred stone implements from New South Wales sites, including a splendid series that he had gathered in the Bathurst district during a long occupation of Glanmire Station, which is about five miles from the town. In this paper, the fourth of a series analysing New South Wales industries, the trimmed uniface pebble, coroid, and knapped implements are described.

Bathurst is situated on the southern tableland, an area of undulating pastoral and farming country. The implements were collected on the grassed and ploughed fields, and beside the numerous creeks that flow through Glanmire and neighbouring properties. They are from a large numer of localities, too numerous to mention here, scattered throughout the district.

#### Materials.

The predominant materials are a quartzose rock, fine to coarse grained, and chert, both varying in colour from light to dark grey. Occasional pieces of flint and other materials have also been found.

### Technique.

The plain and faceted butt techniques of knapping are both represented, and the latter appears to have been employed mainly for the production of blades. On the cores the striking-platforms were prepared by the usual methods, comprising the knapping of one or more flakes, the use of a natural crust surface, or a cleavage face on a block; sometimes flake-scars served as additional platforms. The knapping face is at an angle varying from 70° to 90°, is sometimes as low as  $65^{\circ}$ , and commonly in the vicinity of  $80^{\circ}$  to the stiking-platform. Prismatic cores displaying convergent flaking predominate, and a minority of cores bear irregular parallel knapping.

During an examination of the cores, Mr. H. V. V. Noone selected a number of specimens upon which he has supplied the following note: "Among pieces of nuclear form from the Bathurst district are fifteen blocks and flakes which are worthy of special attention as they may have served for the production of small blades, in fact, as a kind of secondary nuclei. On these pieces (Fig. 3) is found a striking-platform (some specimens show one at each end) by means of which small blades have been detached from one or both margins. Most of these blades would be of triangular section, similar to primary burin spalls, so that in their production it is possible that advantage was taken of the more or less long straight edges of the side margins of the blocks or flakes, and they were utilized as fracture guides. Such a method would obviate the preparing of a suitable knapping face on an ordinary nucleus, or the formation thereon by trimming of a guiding ridge such as was sometimes employed in producing the *bondi* point, and would therefore be an ingenious labour-saving device in the obtaining of the required narrow bladelet. Something of this kind has been noticed in the Bandarawelian culture of Ceylon, whilst flakes and blocks have been found in the Woakwine industry of South Australia which likewise appear to have been used for the production of small blades. Some of these particular pieces resemble the *nucleiform* (prismatic or polyhedric) form of burinate tool, whilst others like the *double-scaled* burinate could be used as a kind of groover."

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