

ABORIGINAL FLAKES AND TOOLS

of

NEWCASTLE N.S.W. and DISTRICT.

2nd PAPER

by D. Fred. Cooksey,  
Newcastle.

*In the 2nd paper,  
All drawings to be inserted at the end  
of the Proceedings & of full  
size as drawn.*

Abstract of 2<sup>nd</sup> paper on  
 Aboriginal Flakes & Tools of  
Newcastle N.S.W & District:

Miniature Flakes & Tools Classes V. & VV

1. Interesting features of these classes
2. Places where similar tools have been found abroad.
3. Period when these tools were used in Europe
4. Material of which these aboriginal small tools were made
5. Descriptions in detail of the 93 tools illustrated
6. A few other relics described
7. Conclusion.

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ABORIGINAL FLAKES AND TOOLS OF  
NEWCASTLE N. S. W. and DISTRICT.

2nd Paper.

(Daniel)

By D. Fred Cooksey,  
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In a former paper the first four divisions were  
disposed of, leaving Classes V & VI (Miniature flakes & tools)  
to be studied in this paper.

These are the most interesting of the <sup>stone</sup> tools ~~under~~  
~~consideration~~ for the following reasons:-

1. They exhibit great skill and care in their manufacture.
2. The patterns are often repeats of those of far distant places and other times.
3. The fine material of which many are made.
4. The questions they raise as to the uses to which they were applied in Australia and in the Old World.
5. Their presence in such exceedingly large numbers on comparatively small areas.

It is interesting to note how widely such small tools have been in use. The following is probably a very incomplete list of the finds already made as given in the B.M.C. 1912, Osborne's M. of the O.S.A. and others.

EUROPE:

England :

Surrey  
Somerset, Avelines Hole, Mendip Hills  
Cornwall, Lands End  
Wiltshire, Savernake  
Sussex, Seaford and Hastings.  
Lancashire, The Hills of E. Lancashire  
Oxfordshire, Eastone.  
Lincolnshire, Scunthorpe.  
Kent, Sevenoaks, Lower Halstow  
Suffolk  
Norfolk  
Yorkshire, Marsden, N. Cleveland Moors, Shipsea  
Northumberland, Budle Bay.

Wales

Scotland. —

France. —

Germany.

Belgium

Switzerland, Lake Bienna.

Russia.

Portugal

Spain

Greece, Crete

Denmark

AFRICA:

Egypt. Helwan, Fayum

Tunis. Tabelbala, Tozeur.

Soudan. Napata

Kenya. Nyoro

AMERICA:

U.S.A. Santa Rosa & St. Nicholas Islands.

California, Los Angeles.

ASIA: India. Vindhya Hills, Nala Mala Hills, Dhone, Timmapuram, Panem

Mesopotamia. Ur, Samarra.

Ceylon.

Insert

X Microliths have been found in England in a Bronze Age barrow but they may have been made at a very much earlier date.

The period when they were in use in the Old World is generally very uncertain. Osborne in M. of the O.S.A. says that in Europe they occur through the whole of the deposits of the upper Palaeolithic period: that is to say through the Aurignacian, Solutrean & Magdalenian culminating in the Azilian-Tardenoisian period. This, according to his scheme of dates, lies approximately between 40,000 B.C. and 12,000 B.C. X So far as Australia is concerned, it would seem that here only the custom of making knives, say of the Chatelperron type, had been transmitted from the Middle Aurignacian times to the day when the white man landed on these shores. It is still doubtful whether the factory sites such as Tirrikiba, Merewether South, and Redhead 5. were still in use then, as they are all on or above the 30 ft. contour and may have been abandoned for places nearer the sea level after the last 20 ft. uplift of the Coast.

At Tirrikiba between six and seven hundred small knives and scrapers have been found and a larger number of small flakes without secondary working. From Redhead 5. 400 finished small knives and scrapers, and a larger number of flakes have been obtained.

At other factory sites they have been found in lesser numbers such as Bar Beach, Merewether South, Arnott's Paddock, the A.A. Co's ground, Wickham Park, Glen Rock Lagoon, Swansea Head Bay, and Speers' Point. None have been found on the Stockton Sand Hills or on the Banks of the Hunter River.

Material:

Nearly all of the Tirrikiba small tools are of chert, but some are of quartzite. They are usually of a dirty grey colour. From Redhead 5. they are hard, pale blue, grey, dark brown, or finely variegated chert and the action of sand and wind have been just sufficient to give them a good polish.

Note: - Many of the small knives are here described as having "chipped backs". These are called "battered backs" in the publications of the Royal Anthropological Inst. of Great Britain & Ireland.

After consideration it has been decided to treat the two following classes in one large group, one list

- V. Miniature flakes without secondary chipping.
- VI. Miniature flakes with secondary chipping.

There are not many specimens without secondary chipping which merit especial mention and in each case the class work is shown in the drawings and described in the text. Taking the examples in order of number the first eight are of rather large size but they have a distinct bearing on those that follow.

Unusual Knife forms

M.1. A chert flake from Merewether South. This is remarkable for its spear-head like form and the pronounced shoulder on one side. It bears a close resemblance to the Solutrean implement, Fig 133, page 346, Osborne's M. of the O.S.A.

M.2. Another chert cutting tool, with a concave edge and a very distinct handle ending at a bold shoulder. From Redhead 5. It has been formed by flaking only. No other tool is known of a like form but the shoulder suggests Solutrean affinities.

M.3. A chert knife point from Merewether South. Similar in treatment to the chipped back surgical knife, M.9., and others to be described. The blade is sickle like in outline and there is a good finger and thumb grip obtained by chipping.

M.4. A chert point from Merewether South. This would seem to be a blank ready for the secondary chipping necessary to turn it into a standard chipped back surgical knife. If so it is of uncommonly large size.

M.5. From Redhead 5. A long flaked pointed knife. A fine example of many of the long flakes from this place. It has no fine chipping.

M.6. From Wickham Park. A chopper shaped concave edged chert knife, with a well formed handle for the finger and thumb. It has the strongly marked shoulder distinctive of the ancient Solutrean tools.

M.7. A heavy type of chipped back miniature knife point agreeing generally in form with many of the blades but having little secondary fine chipping. It is of chert and comes from Tirrikiba.

M.8. Another heavy form of knife point. The handle end is triangular in section and ends in a shoulder. The secondary chipping is rough. It comes from Redhead 2, and is of chert.

#### Chipped Back Surgical Knives.

M.9. A chipped back chert knife of "Chatelperron" type, of very perfect shape. It comes from Tirrikiba. This (if we except M.4) is the largest specimen found in this District. The specimen appears to be of a higher type than the one illustrated No.6. fig. 151. Osborne's M. of the O.S.A. from Chatelperron of Middle Aurignacian times, see also fig 28 *Rev. Anthropol. Inst. of GB & I Catalogue of Exhibits of Tardeneisian & other Micro-Industries. 1926*

M.10. A rather similar chert knife. It is like many others found at Redhead 5. This has three to five sides at different sections and the grip end is undercut to give a good hold. It is like No.8. fig 311, Osborne's M. of the O.S.A. Aurignacian.

M.11. From the same place as M.10. but has only four sides from end to end. In general shape it conforms more nearly to the usual Chatelperron outline.

M.12. Is of chert and comes from Tirrikiba. It has three sides and is remarkable for the fine secondary chipping near the point on the cutting edge.

M.13. A chipped back chert knife from Redhead 5. It is triangular in section with a rather thick back and an extremely fine point. The back has some very fine secondary chipping.

M.14. From Merewether South. It is of chert and is nib like in form with four sides.

#### Other types of Surgical Knives:

M.15. A chipped back knife from Redhead 5. This has a concave edge and an irregularly formed back.

M.16. A shorter but very similar tool from Tirrikiba.

M.17. Another blade of like shape from Redhead 5.

M.18. A chert knife scraper from Redhead 5. with well chipped back and sharp cutting edge.

M.19. Beaked knife of chert from Tirrikiba with convex cutting edge and finely chipped back.

M.20. A boat shaped knife with convex cutting end. Of chert from Tirrikiba.

M.21. Small chipped back chert knife with a concave cutting edge ending in a point. From Redhead 5.

Small Knives with Coarsely Chipped Backs.

M.22. A curved knife point rather like M.3 but with the back coarsely flaked probably the first stage preparatory to the final fine chipping. From Redhead 5. of chert.

M.23. Heavy blunt-ended ~~type~~ of chert knife, from Tirrikiba, with regular but coarse flaking on the back.

M.24. A fine pointed chert knife from Tirrikiba with regular but coarse flaking on the back.

M.25. Small chert knife from Redhead-5. with coarsely chipped back.

M.26. Coarse form of knife point with roughly chipped back from Tirrikiba. of chert.

M.27. A very rough knife of triangular section. It has carefully made grip for finger and thumb and has some fine chipping on the back near the point.

M.28. A chipped back chert knife point of Chatelperron outline, but of coarse finish. From Tirrikiba.

M.29. A similar knife from Tirrikiba, of rather better finish.

Other Surgical Knife Forms.

M.30. Beaked chert point of boat like form, from Tirrikiba.

M.31. A chert knife of boat like form from Tirrikiba. The only secondary chipping being along one side.

M.32. Boat shaped knife with a convex edge from Tirrikiba. Sharpened by fine chipping on the cutting edge. Of chert.

Special Knife Types.

M.33. A long parallel sided knife point of chert from Merewether South. It is triangular in elevation and has a finely chipped back. Like No.1. fig 251, page 473, Osborne's M. of t O.S.A. A finely flaked point from ~~Osborne's~~

M.34. A chert knife point, from Tirrikiba. It has parallel sides and its general shape is that of the blade of a modern pocket knife. It has a finely chipped back and is well shaped for finger and thumb grip.

M.35. This is a form of tool which is not unusual among these finds, but it is difficult to imagine an use.

The back is broad and very finely chipped and the slightly curved edge, shown dotted in the plan view, has an angle of about 93°. Among the more ordinary forms of small surgical knives, a very obtuse angled blade is also occasionally found. Possibly it was used as a probe in cases where a sharp edge would be disadvantageous in treating accidental injuries. The specimen is from Merewether South. Others come from Swansea Head Bay and Tirrikiba.

M.36. A chert knife point with a convex edge and a rectangular handle. There is some secondary chipping on the back at the blade end. From Tirrikiba and is made of chert.

Points

M.37. A chert three-sided blade with a turned-down point. It has some secondary chipping on the back at the working end. From Tirrikiba.

M.38. A chert three-sided stork's-bill point with fine chipping on the back. From Tirrikiba. It is similar to No. 3. fig. 115, B.M.C. 1913, A point from Vindhya Hills, India.

Probes

M.39. A long needle like point or probe, from Redhead 5 with finely chipped back and a very straight outline. It is like No. 39, fig 151. Osborne's M. of the O.S.A. page 311. of Aurignacian period, from La Gravette, and also No. 143 page 346 Osborne's M. of the O.S.A. of the Solutrean period.

M.40. An extremely elongated form of point or probe following the Chatelperron outline. It has a nicely finished back and is from Red Head 5. It is like 143, fig. 172, page 346 Osborne's M. of the O.S.A. of Solutrean period.

Points

M.41. A chert knife, triangular in section, with a long stork's-bill point. Flaked only. From Redhead 5.

M.42. A chert knife made from a rectangular flake and having a long straight edge and point. From Redhead 5.

M.43. A chert knife with a stork-like bill, a concave edge and with a coarsely flaked back. From Redhead 5.

M.44. A chert knife with sparrow-like point. From Redhead 5. The back is coarsely chipped and the edge is slightly concave.

M.45. A chert knife point of irregular form. From Tirrikiba. The back is roughly chipped.

M.46. A chert knife point. From Tirrikiba. It has a little secondary chipping on the back. Point somewhat turned downwards.

Scrapers

M.47. A chipped back knife or scraper. From Tirrikiba. Of heavy pattern and irregular outline.

Points

M.48. A rough form of pointed scraper. A good deal of the original pebble surface remains. The back has had much secondary chipping carried out in a very irregular manner. From Tirrikiba. Of dark red chert.

M.49. Another type of pointed chert scraper of spear-head outline and with some secondary flaking at the butt end. From Tirrikiba.

M.50. A rather common type of thin pointed chert flake with secondary chipping. From Redhead 5.

M.51. A high-back knife point repeating in exaggerated form the Chatelperron outline. The back is nicely chipped. From Tirrikiba, of chert.

M.52. AS smaller scraper of similar type from Redhead 5.

M/53. Small, but heavier type of chert knife, with a sparrow-bill point and nicely chipped back. From Redhead 5.

M.54. A variety of the same class, with a very high back falling to a sharp point. Of dark brown chert. From Redhead 5.

M.55. A very thin chert point without secondary chipping, and having a remarkably fine straight point. From Redhead 5.

M.56. A thin flake with a turned down point, From Redhead 5. suggesting the parrot beak of Aurignacian times. See No.6. fig. 149, page 307, Osborne's M. of the O.S.A.

M.57. A larger and heavier flake with a very perfectly formed parrot beak. Flaked only. From Redhead 5.

M.58. A similar chert point from Tirrikiba, of triangular section, with a little secondary chipping near the parrot-like beak.

M.59. A chert knife with a long triangular point, from Merewether South. It has a coarsely chipped back and a slightly concave edge.

M.60. A very short and thick scraper with a parrot-like beak. Made of chert. From Redhead 5.

M.61. A rectangular chert flake with a graver-like point. The edge is at an angle of about 80°. It is from Tirrikiba and is like fig. 5. page 126, B.M.C. 1911 from E. Lancashire, England.



M.62. A very irregular flaked tool, from Tirrikiba, with a saw-like upper surface and a sharp cutting edge.

Spoon Shaped Blades.

M.63. A spatula-like flake, From Redhead 5., without secondary chipping.

M.64. A similar chert tool from Tirrikiba, but having a chipped back.

M.65. Another of the same class from Redhead 5. but with secondary chipping at the blunt end. only.

M.66. ~~Scraper~~ <sup>Borer</sup>: A chert tool with several long cutting edged suitable for boring or rymering out holes in wood or skin. From the tramway cutting between Tighes' Hill and the B.H.P.Co's steelworks. Found by Mr. J.McCullagh.

Small S scrapers.

M.67. A rectangular scraper formed by flaking only. From Redhead 5. Of variegated chert.

M.68. A round backed scraper, with coarse flaking round the upper surface. Of chert, from Tirrikiba.

M.69. A thin scraper almost triangular in elevation, Formed by flaking only. Of chert, from Redhead 5.

M.70. A similar scraper from Tirrikiba with the back finely chipped. See No. 4, page 115, B.M.C. 1911, from Windhya Hills. India.

M.71. An extremely heavy type of small scraper with a sharp beak and radial cutting edge. Of Chert. From Tirrikiba.

M.72. A rectangular flaked scraper of red shaly chert from Tirrikiba.

M.73. A small scraper of triangular section and with square ends. Of chert. From Tirrikiba.

M.74. A similar scraper from the same place.

M.75. A bulbous, shell-like chert scraper, from Redhead 5

M.76. A triangular scraper of common occurrence. Of chert from Tirrikiba.

M. 77. A button like scraper with cutting edge all round. From Tirrikiba.

M.78. <sup>Polisher</sup> A groove polisher of chert. One of the very few tools with a ground working surface. Its probable use was to smooth and polish the grooved patterns in wooden tools. Made of chert. From Tirrikiba.

M.79. Reversible Scraper:

Interesting because the two sharpened edges are on opposite sides of the flake. Made of chert and comes from Tirrikiba

M.80. Chert Spear Head:

From Tirrikiba. At several other of the factory sites, notably at Redhead 5., similar thin pointed flakes have been found. The method of making a similar class of spear head is described in the paper of R. Etheridge, Junr. on "Stone Spear Heads p. 61. Records Geological Survey of N.S.W. Vol 11. Part 11.1890.

M.81. Chert Borer:

From the B H.P. Golf links, Mayfield. This is flaked all over and is similar in treatment, but of rougher make to M.66. Compare with double ended borer Fig 40. page 346, Osborne M. of the O.S.A" of the Solutrean period, and also with flint borer of probably Magdalinean period from Les Eyzies Fig. 40, page 44; B.M.G. 1912.

Small Flakes

M.82 & M.83 are specimens of very small flakes common on the factory sites devoted by the manufacture of small knives.

Miscellaneous Tools

M.84. A three sided point from Redhead 5. Of a very hard gritty sand stone. This has a gradual taper from the heavy handle end to a fine point and was probably used as a rymer or borer. Some attempt has been made to sharpen it by rubbing the faces with a dark brown grindstone.

M.85. A very fine thin lance like blade formed at the end of a nearly rectangular block of chert. For fine cutting work where some pressure is required there could be no better tool. Possibly the actual shape came by chance but its advantages were seen as it was found on the sand at Redhead 1., say 1 1/2 miles from the place where chert can be found as pebbles or fragments of rock.

M.86. A thin flake of chert from Merewether South. This formed an excellent knife without any secondary chipping.

M.87. A large nib shaped chert flake point. From Merewether South.

M.88. A leaf shaped knife or lance of chert. From Tirrikiba. It agrees very closely with the *Circumcision* knife, described and illustrated in Horne and Aistow's "Savage Life in Central Australia".

M.89. A knife or long scraper of chert. From Tirrikiba.

M.90. A triangular chert flake with a turned up point, similar to those described and illustrated in Horne and Aistow's "S.L. in C.A." Called by them a "boys' fighting knife". Specimen from Tirrikiba.

M.91 A combined chisel and knife of chert. From Tirrikiba

M.92. A scraper with rather more work all over the face than is usual. It is from Tirrikiba, and is of chert. It is like fig. 41, page 243, in Records of Australian Museum. Vol.VI. part where the specimen is described as a "Chisel".

M.93. A special form of chert scraper with a large number of concave edges. The ideal seems to have been a triangular pyramid having curved faces. If the flaking was very perfect this gave six working edges, all of them suitable for scraping spear shafts or other similar rods. Several of these have been found- none of them of perfect shape- but all of them having four or five good edges. Found by Mr. Adams at the Tramway Cutting between Tighe's Hill and the Steel Works.

### Other relics.

Apart from stone tools, chips & cores, little else can be seen on the factory & camp sites. Here and there are heaps of burnt stones, all that is left of rough fire places & occasionally large pieces of <sup>sand</sup> stone are met with, which appear to have acted as anvil blocks. A few highly coloured small pebbles & pieces of crystalline quartz have been collected which were probably used by the medicine men to work magic. Animal remains are represented by a few bones of birds & marsupials, the shells of many sorts of salt-water fish & one small piece of bone (found by Mr. A.M. Pratt) which once formed the gorge of a native fish hook. The only other relics worth mentioning are pieces of red & yellow oxide of iron ready for grinding into colouring matter.

## Conclusion.

Most of the small knives were no doubt used for ordinary surgical operations & for blood letting at initiation and other ceremonies. The fact that so many of them were carefully finished suggests ~~this~~ probable ceremonial use, ~~as~~ the original flakes were <sup>often</sup> quite useful cutting tools for ordinary ~~purposes~~ without any secondary chipping.

The excellent material, which the Aborigines ~~here~~ had <sup>here</sup> in abundance, allowed them to become makers of a higher grade of small implement than was common in Australia.

It seems probable that the Awabakal clan made all the small knives described. ~~It~~ cannot be due to chance that among so many finds of tools at Stockton & by the Hunter River, above Mayfield, there is not one small knife & only one chipped back scraper of the best class (hol5a1st paper). The question of the age of these tools is undetermined & it will be necessary to collect a great deal more information before anything definite can be said on this matter. It is <sup>from</sup> the Geologist & the Geographer that help should come.

The shell heaps of the Mailland district should be again examined for possible native flakes & the search should be systematically carried out over the whole of the neighbouring inland districts, not forgetting to make a careful study of the more recent river gravels. It is sincerely hoped that Newcastle will see the importance of ~~such~~ receiving & exhibiting the large number of interesting aboriginal relics which are held by private individuals in this district & are being absorbed by more enterprising cities.

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