

A small window into aboriginal stone tools used around Batemans Bay

This web site gives only a brief summary of aboriginal life around the Batemans Bay region with a focus on places where stone tools have been recovered by archaeologists.

Yuin is the general or generic name for all aboriginal groups from Merimbula on the NSW South Coast to Port Jackson near Sydney. The population pre-1788 was estimated at about 11 000 between Cape Howe and Batemans Bay. Influenza, smallpox epidemics in 1789 and 1830, and tribal battles are believed to have reduced the population by 95 percent, i.e. to about 600, since European settlement.

Around Batemans Bay, and west to the top of the Great Dividing Range, the main indigenous group is the Walbanja people of the Dhurga language group. Radiocarbon dating of fireplaces indicates they have been in the region for at least 12,000 years.



South of Pretty Beach near Kioloa, the sandy dunes sheltered local aborigines and the tidal rock shelf sustained them.

Photo - Gabrielle Chan for the Guardian newspaper.

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The Old Courthouse Museum
Batemans Bay NSW

Silcrete is important material for making stone tools. Silcrete quarries and knapping (tool making) sites are known along the Batemans Bay coast from Bannister Head and Bendalong, near Ulladulla, to the Murramarang headland, and to Congo near Moruya.

Chert is also an important material for tool making. Because it can be broken into small pieces with sharp edges for scraping tools and spear points, it was also regarded as a precious commodity by aboriginal communities around Australia.



Southern NSW silcrete spear points.

The beaches and cliffs around the Batemans Bay region have many outcrops of chert associated with the Narooma – Batemans Bay Accretionary Complex, a Cambrian – Ordovician rock unit that has, in the past, provided channels for hot groundwater flow and chert formation.

Silica

Silica, silicon dioxide (SiO_2), is one of the most common compounds in the Earth's crust (about 25% by weight). It is the dominant constituent in sand and the building block of the mineral quartz and many other minerals like amethyst, jasper and opal.

Silcrete

Silcrete is a heated and compressed soil duricrust formed when very fine, near-surface sand and gravel are cemented by the capillary action of water-borne silica (SiO_2) over a long period of time in an arid climate. It is a hard and resistant material. Silcrete was widely used by aboriginal people for stone tool manufacture, and as such, it was a tradeable commodity.

Southern NSW silcrete .

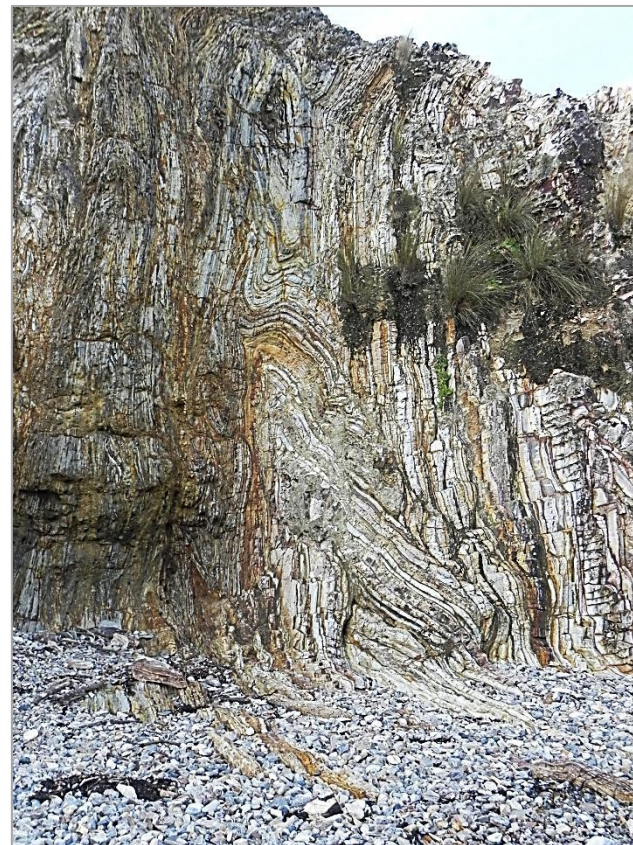


*Silcrete from near Congo village.
Photo – Doug Finlayson*

Chert

Chert is a very fine-grained, microcrystalline sedimentary rock material composed of silicon dioxide (SiO_2), silica. It occurs as nodules and lumps and as layered deposits. Chert breaks with a fracture that produces a very sharp edge. Early peoples all over the world took advantage of how chert breaks and used it to fashion cutting tools and weapons. The name “flint” is also used for this material. It produces a spark when hit with an iron tool, e.g. in early flintlock rifles.

Chert can form when microcrystals of silicon dioxide grow within soft sediments that will eventually become limestone or chalk. These microcrystals grow into irregularly-shaped nodules or lumps as dissolved silica is transported by circulating hot groundwater. The nodules can merge to form a nearly continuous layer of chert. In a marine environment chert can be formed from the glassy silica skeletons of tiny marine organisms. When these organisms die, the silica can dissolve and become part of a chert nodule or chert layer on the ocean floor.



***Highly deformed Ordovician rocks of the
Narooma Chert, Melville Point and
Barlings Beach, near Tomakin.***

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Seed grinding stone, NSW.
National Museum of Australia

Rock types used for tools that did not require a sharp edge could be sourced in many locations, e.g. creek beds, rock outcrops, beaches, etc. Hard rocks for such tools could include silcretes, granites, basalt igneous intrusive rocks, etc.



Axe head stone tools from around southeast Australia.
Photo – Australian Museum, Sydney.

Congo (near Moruya)

The 7.5 km Congo-Bingi Bingi coastal walk follows part of the Dreaming Track utilised by Brinja-Yuin people prior to European development. The word Bingi means stomach in Dhurga - the Aboriginal language spoken south of Nowra to Narooma - and when repeated as in Bingi Bingi Point indicates abundance.

The Bingi Dreaming track brings you close to shell middens, stone quarries, knapping sites, aboriginal camp sites and fresh water sources. There are also beacon sites for sending smoke signals and lookouts traditionally used them to spot schools of fish.

At the back of the cliffs south of the Congo village the basalt bedrock is covered with younger quartz-rich sandstone and gravels, some of which has been cemented to form silcrete. Most of the Aboriginal stone artefacts on the South Coast were made from silcrete and the Congo area was a major source of this stone.

(Information provided by Patricia Ellis, Cobowra Local Aboriginal Land Council.)



***Congo coastline looking southward towards Bingi Bingi Point.
Photo – Peter Bellingham***

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Congo (continued)



Silcrete can be found south of the Congo village area.
Photo – Doug Finlayson



Middle Oligocene Coila Basalt (29 Ma) underlies much of the Congo area.
Photo – Doug Finlayson

Pretty Beach near Kioloa

(Adapted from a 2014 article by Gabrielle Chan for the Guardian newspaper.)

The aboriginal midden at Murramarang Point near Bawley Point dates back to the Pleistocene period (about 10,000 years ago). We can speculate about what life was like for the local aborigines before the arrival of Europeans. Archaeologists have been studying the area for years. Unfortunately much of the local knowledge has been lost as indigenous families dispersed over the years.

At Pretty Beach on the coast aboriginal families at the foot of Durras Mountain had good shelter, fresh drinking water and rich pickings of protein in the form of shellfish and land animals such as kangaroos, wallabies and possums. Archaeologists have excavated thousands of quality artefacts along the beachfront. There are axe grinding grooves on a flat rock leading down to the beach.

At Pretty Beach plenty of silcrete flakes have been found, the by-product of axe making, yet the closest deposits were at Bannister's Point, some 25 km to the north. An experienced aboriginal "knapper" could see how a piece of silcrete would flake before he hit it to produce the sharpest edge.

Most of the artefacts in the dune area probably date from after the Pleistocene period because 10,000 years ago, the sea level was lower and the coastline was much further out, estimated at the present-day 120 m sea depth line.



Axe grinding grooves in a rock at Pretty Beach.
Photo - Gabrielle Chan for the Guardian newspaper.

North Durras

(Extracts from “A History of North Durras and Nearby Areas” by Graham Yule.)

From carbon dating of fires it has been established that aborigines were present on the south coast of NSW during the Pleistocene period, 20,000 years ago. Families would have had a lifestyle that was totally sustainable over a long period of time. Aborigines occupying the coastal strip east of the dividing range between the Shoalhaven River mouth to the north and Eden and Twofold Bay to the south are referred to as the Yuin tribal group. The Yuin tribe are also known as Yuwin, Jeringin or Juin, and there were numerous tribal subdivisions – clans and peoples.

Along the coast, caves or “rock shelters” were occupied where available. Seafood was a vital part of the diet. Fishing was by both line and spear. Many species of shellfish were eaten including oysters and pippies, which would become an important ingredient of middens. Whales were consumed heartily when beached, as were sea birds, especially mutton-birds. All marsupials including kangaroos, possums, bandicoots and gliders were hunted and many other bush foods consumed.



***Point Upright, North Durras, sea cliffs
of the Sydney Basin sedimentary sequences.
Photo – Doug Finlayson***

North Durras (continued)



In the North Durras region a large number of aboriginal artefacts have been found by archaeologists during scientific excavations, analyses and the carbon dating of middens. The Durras site is in the cave (rock shelter) on Durras North beach nearest Point Upright. One description indicates there were few stone tools but there were numerous fish-hooks and bone points. Middens were full of bird bones, particularly of the mutton bird. Because of their size and durability, shells are the best known component of middens. However, stone artefacts were also identified.



Plenty of sea food resources



Murramarang Point

Extracts from NSW Parks and Wildlife Service management plan for the area.

Murramarang Point is situated near the boundary of the Wandandian and Walbanga aboriginal tribes of the Dhurga language group. The area is located 30 kilometres north of Batemans Bay near Bawley Point. The aboriginal heritage area comprises the headland of Murramarang Point, sand dunes along Murramarang Beach to the north and part of a small lagoon. Cultural deposits occur in sediments that have been dated to about 12,000 years ago, making it one of only three archaeological sites of Pleistocene age (more than 10,000 years old) on the south coast. The midden covers several hectares and contains millions of stone artefacts as well as dense deposits of shell, mammal, fish and bird bone. Middens are also present on nearby Brush Island.



Murramarang Aboriginal Area.

Photo – Doug Finlayson

Marramarang Point (continued)

Extracts from NSW Parks and Wildlife Service management plan for the area.

The underlying basement rock is composed of deeply weathered Termeil (Bawley Point) Essexite, a basic igneous intrusive rock characterised by the presence of a small amount of free quartz grains. The essexite dips steeply towards the sea where it is buried beneath recent sand deposits, but is exposed in gullies. Overlying the essexite is sandrock or coffeerock, a hard reddish sand layer formed by cementation of sand at water table level by iron and humus leached from overlying sand. This layer was formed during a previous higher sea level.

This sand layer is overlain by a chemically leached sand deposited as a response to the last rise in sea level. Overlying this layer is the midden to depths of a metre and more. This indicates a great increase in the intensity of Aboriginal occupation as sea level rose and reached its present level about 6,000 to 5,000 years ago. Overlying much of the present surface is a layer of reddish-brown sand varying from a few centimetres depth to tens of metres. Most of the remnants of in-situ midden are buried beneath this sand.



The basement rock at Bawley Point and Murramarang Point is Termeil (Bawley Point) Essexite seen in outcrop at the foreshore.

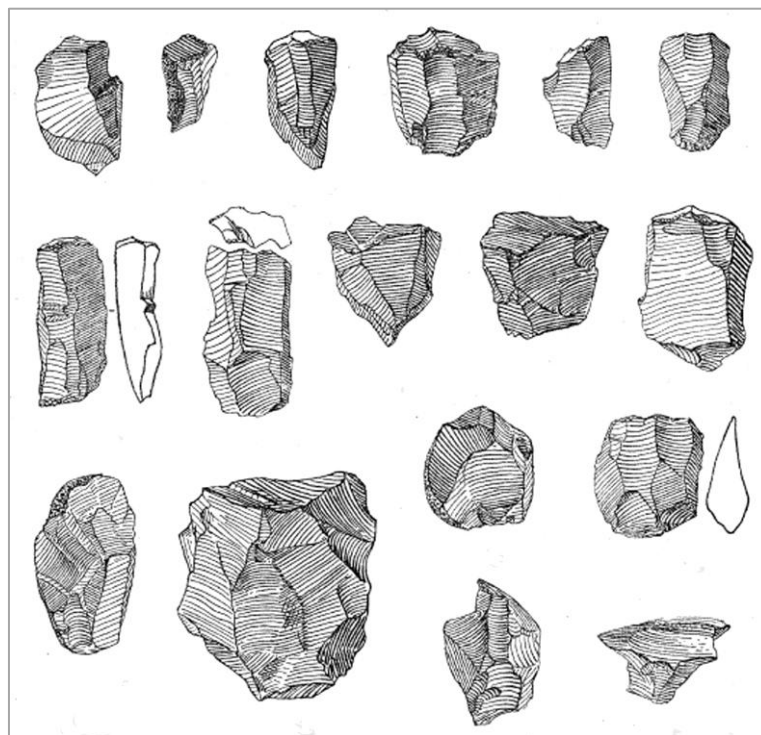
Photo – Doug Finlayson

Marramarang Point (continued)

***Extracts from NSW Parks and Wildlife
Service management plan for the
Murramarang Aboriginal Heritage Area.***

Aboriginal stone tool makers in southern NSW had a hierarchy of methods for making sharp tools. The early Capertian period before 5,000 years before the present day (BP) was characterised by heavy tools. This period was succeeded by the early, middle and late Bondaian period with a progressive refinement in sharp tool making using chert and silcrete.

Many of the tools at Murramarang Point were fashioned from silcrete obtained from Bannisters Point north of Ulladulla. Stone tools found at the site include eloueras, fabricators, scrapers, geometric microliths, backed blades, hammerstones, grindstones, flaked pebble implements, edgeground axes, lumps of unmodified stone, waste flakes, cores and unworked pebbles. Large numbers of 'Bondaian' type tools include bondi points, other backed blades and thumbnail scrapers. These were most commonly used in south-eastern Australia approximately 4,000 to 10,000 years ago.



***Examples of Bondaian stone tools from around
southeast Australia.***

Photo – Australian Museum, Sydney.