An Ethnographic Analysis of a Kiribati Shark-Toothed Sword
Object within the Ethnographic Collection at UCL: Three-pronged sword made from Coconut Wood, with sharks teeth attached evenly around the shaft. The three parts are tied together above the base of the ‘blade’ with woven twine. Originally from Kiribati (Gilbert Islands) in Micronesia, the object can be approximated to be over 100 years old from shark tooth and species dating.

Materials used in the traditional manufacture: Coconut wood, fibre and spathe, human hair and sharks teeth.

Construction:

The sword is held together, along with the sharks teeth, by a type of twine known as Te Koro, made from Coconut fibre. The wood appears to have been sanded down and whittled into shape, perhaps with sharp stone knives, as can be seen in close-up photos above. In particular the base of the sword has been shaped to fit the attachment of the hilt-like structure, and the handle has been smoothed down, probably both throughout manufacture and following repeated usage.

Sharks tooth as a material is very strong and resistant to wear, so it is intriguing as to how each tooth has been drilled into with exactly the same shape and sized holes, through which the twine has been threaded.

Materiality & Form:

There is some "fractal" repetition in form, from the total form of the object, through its components, to within its components. In its totality, the sword is 3 pronged and triangular (when the tips of the prongs are imagined joined across the shaft). Its components, the subsidiary prongs joined at the base of the shaft, are overlaid and attached at a triangular angle. Along the main shaft and the 2 side prongs, the triangular sharks teeth are attached, which when examined under a magnifying glass are revealed as 'triangularly' serrated (see sharks tooth image below). It is possible to extrapolate that this apparent predominance of triangular form may also be reflective of the single most revered triangle within the community - the canoe sail (see image attached), which at its full extent also resembles the shark tooth shape on the sword (note that there would have been a choice of shark species for harvesting teeth).

The mast and, until more recent times, the hull of the canoe are also constructed using coconut wood (as the sword), described as 'stronger than steel' (see Canoes in the Gilbert Islands Arthur Grimble The Journal of the Royal Anthropological Institute of Great Britain and Ireland Vol. 54, (Jan. - Jun., 1924), pp. 101-13) and tied together in a similar method. That the sword utilises the efficacy of sharks teeth is a further link with the sea and the vessels which allow movement across, through and within it. It may also be worthy of note here that 'stick charts' (used as aide memoires for ensuing group journeys across the sea) display a similar 'cross hatched' background to foregrounded markers, tied together, obliquely; less of a grid and more of a triangulation, or at least having the effect of producing triangles and parallelograms withing the 'empty"
spaces (see image below). When the construction of canoes is viewed this patterned terrain appears again (see http://www.janeresture.com/kiribati_canoe/history.htm, for diagrams at various stages of Kiribati canoe construction and from which the image below of outrigger construction originates.)

Variety:

The specific shape and configuration of this particular sword can be seen in this image of traditional weaponry from the Gilbert Islands (below), along with many other weapons comprising the use of sharks teeth:

1. TEUNUN (shark’s tooth spear), from 12 to 18 feet long. Used in tribal warfare and in family and other feuds resulting in fighting. As a rule in tribal war the spearman was attended by a henchman armed with a Taumana or Teie, Nos. 5 and 6. The henchman generally preceded the spearman, engaging the henchman of the opponent spearman, the spearsmen then became engaged fighting side by side with their attendants, who assisted them by catching or fending off the spears by their weapons. The vulnerable parts of the body exposed were the arms, legs, armpits, between the legs, the face and throat. The names of weapons and manner of use varied considerably in the three districts of the Gilbert Islands---North, Central and South. Those given here are from the Central Gilberts. On breaking or discarding the spears, the spearsmen and their attendants used their Tembo (sword club) or Toañea (shark’s tooth sword club), Nos. 3 and 4, to finish the encounter which usually ended fatally.

2. TEMARAN AND TABOUA (long, smooth spears), from 12 to 18 feet long, made of coconut wood, 1¼ to 1½ in diameter in the centre and tapering to a fine sharp point at each end, which was used in the same manner as the shark’s tooth spear, but which could be used both in front and rear.

3. TEMBO OR BATIRAKU (sword club, either round or with four sharp edges), 2 feet 6 inches to 3 feet long. Used in infighting and hand to hand encounters.

4. TETOANE OR TEWINNAREI (shark’s tooth sword club), 2 feet 6 inches to 3 feet long. Used in infighting and hand to hand combat.

5. TETAUMANARIA (branched spear), 14 to 18 feet long. Used by the attendants of spearsmen who engaged one another, and also assisted the spearsmen by catching or fending off the spears with the branches.

6. TEIE (branched spear), 12 to 14 feet long. Made of the same woods and used in like manner as the Taumanaria.

7. TEKOROMATAN (throwing stick), 3 feet to 3 feet 6 inches long. Made of coconut wood or mangrove, and pointed sharp at each end. Used for throwing.

8. TEBAKABOTA (sting-ray spear), 4 to 5 feet long. Made of coconut or mangrove wood, with the serrated bones of the weapon of the sting-ray
tied in a cluster on the end and used as a spear. The bones were also burnt, on occasion, to make them brittle and break in the flesh.

9. TETARA (barbed spear), 7 to 9 feet long. Made of coconut wood, with the barbs cut out of the wood, sometimes made of mangrove. Used as a throwing spear, also in hand to hand encounters.

10. TEAUABUBUTI (double-ended spear), up to 14 feet long. Made of hardwood, coconut or mangrove, with a sinnet line from end to end near the point, and travelling loosely in a loop of sinnet held in the left hand. It can be used both in front and rear.

11. TERONIKIRI (lasso rope and stick), 2 feet long. Made of hardwood, with a strong coir sinnet line fastened to the centre. Used to lasso the arms or legs. A turn of the line is taken round the arms or legs to the wood which is then twisted as in a “Spanish windlass,” rendering the victim helpless.

12. TEBUTU (cutting or scratching weapon), from 4 to 6 inches long, with from one to four shark’s teeth fastened to it, and string of coir sinnet arranged as a loop to put one or more fingers through. Used by the women to cut and disfigure each other when quarrelling from jealousy or other causes.

13. TEBANA (boxing gloves) made of coir twine or sinnet, woven or plaited hard, especially on the knuckles, resembling a “knuckle duster.”

Figure 5, the Tetaumanaria (branched spear), seems to represent the closest method of construction with the obvious use of three pieces of wood strung together. These ones specifically are traditionally 14 to 18 feet long and were used by the attendants of spearmen.

The wooden sword strung with shark teeth appears to be an extremely common and traditional object throughout Kiribati, and since the swords stopped being used in a functional context after the arrival of British Colonialists, model swords are still made as a ‘traditional skill’ for the consumption of tourists. Through contextual investigation in various museum online collections and archives, there appear to be two different models of this sword:

a) the three pointed trident form with one long straight central piece of wood, and two smaller ones above the handle created into what looks like a hilt.

b) a generally smaller version, seemingly more dagger-like in form, made from one single wider piece of wood, sometimes curved, and a handle at the base.

Usage & Context:

These swords were also used as part of ‘ceremonial warfare’ performances, the maintenance of honour and the settling of disputes in ritual duelling. It wasn’t just the sword that was used in these contexts however, as they only formed a small part of a warrior’s combat ensemble. Along with a sword and/or dagger, a warrior wore a complete set of armour, made from thickly woven coconut fibre and a belt of stingray skin, or TEKATIBANA, and a helmet created from a hollowed out and dried puffer fish, known as TEBARANTAUTI. These helmets were created by an individual hunting a puffer fish while it was fully inflated, and then burying it in the sand until it was completely dried out. Helmets would then be reinforced with coconut wood and lined with plaited pandanus strips around the edges. Evidence also shows that each individual helmet was made to fit, with sections cut and overlapped together. There is no evidence that warriors used shields, clearly entrusting the toughness of their armour to protect them from the lethal weapons. Further ferocity in these warrior suits comes from yet another use of sharks teeth, this time sewn into woven husk and palm leaf hand covers, sometimes with human hair, and clearly used as knuckle dusters to anyone who got past the swords.
This common and traditional use of the skin and teeth of sea creatures, in particular such dangerous ones, clearly implies both the importance and significance of the sea to the people of Kiribati, as well as the transformative power that these creatures give to the weapons. The use of sharks teeth clearly both appear ferocious and terrifying in their association with the viciousness of the animal, while also physically being able to inflict horrific injuries. The use of a puffer fish in the helmet, while also appearing physically sharp and dangerous, draws on the notion that a puffer fish contains poisonous toxins that are 1000 times more deadly than cyanide. Similar concepts could be said about the use of stingray skin.

Some elements of Kiribati traditional dress also contain motifs that are not dissimilar to the shape of sharks teeth, set in the neck collars of certain clothing. Jewellery from the wider region has also been found to contain the teeth of sharks and porpoises, as well as fish bones.

Cosmology:

With regards to the importance of the sea and it's abundance of life from a cosmological perspective, Christianity was introduced to Micronesia when Missionization began in the mid 1800s. Prior to Christianity religious beliefs centred around ancestral souls, a pantheon of deities and
numerous spirits both pure and malevolent. While over half of Micronesians are now Catholic, many pre-Christian elements have been interwoven with ecclesiastical practice and many Micronesians are still firm believers in animism; believing in the existence of spirits, spirit possession and their ability to control or have power over the living. Supernatural specialists are believed to have power over divination, healing, navigation, weather control, and bringing about propitious events such as victory in battle and abundant harvests. A great number of spirits are believed to live in the open ocean but come ashore to sleep at night; others reside in the reefs and shallows.

Micronesian people in general have a close affinity to the sea. Traditionally, it was the duty of the family to go to sea to harvest fish and battle against enemy villages. As the sea was the source of their livelihood, men developed a close relationship with the waters of Palau, becoming versant in the currents and the phases of the moon and the behavior of the fish they sought to put on the table. An early group of Carolinian castaways reported that Yapese worshipped the crocodile and Pohnpeians the shark. While Taboos of a religious or semi-religious nature were universal throughout Micronesia. The most well known were those connected with the clan totems, normally a species of animate objects that was identified with the clan's origins and which all members were expected to respect. The totems in Pohnpei, for instance, included turtle, shark, eel, different kinds of fish, the owl, a species of banana and one type of yam Clan members were forbidden to eat the plant or animal associated with their totem, although they were allowed to kill these objects. Totems were generally fish, animals, birds and sometimes plants, but in the Marshalls totems could also be inanimate objects like stones). Totems existed in every part of Micronesia, as far as we know. The shark’s sacred position in Micronesian historical religion could explain its use in this sword, and could suggest a ceremonial purpose as opposed to practical battle use.

Ecologically, the Gilbert Islands themselves are a chain of sixteen atolls and islands located in the Pacific Ocean. They form the main part of the Republic of Kiribati. Most of the land on these islands is less than two metres above sea level, and is surrounded by extensive reefs. These reefs are home to many marine species such as green turtles, many fish species such as the puffer fish, and both Whale and Mako sharks.

Historically, coconut palms and taro root were cultivated before the islands were taken as a British colony. Most islands and atolls feature lush vegetation, heavy rainfall, lagoons, and endemic wildlife.

In relation to the shark tooth sword, biologists at Columbia University have been able to ascertain the age of similar weapons by identifying the species of shark that the teeth belong to. Many of the shark species identified in the construction of weaponry are no longer found near the Gilbert Islands, and can be dated back to a century ago. All of these weapons are constructed in a similar manner: the islanders drill hole in the teeth and lash them to buttresses of wood with cords made from coconut leaves. All the teeth in one weapon usually come from one species.