

*Armour*
Kiribati, mid-19th century AD
Coconut fibre, human hair, coconut tree wood, palm leaves, shark teeth
203 x 68 x 35 cm
FGA-ETH-OC-0042

**Provenance**
Former collection of the Museum of the Missionaries of the Sacred Heart (Museum van de Missionarissen van het Heilig Hart), Borgerhout, Belgium, collected in the late 19th century
Then Galerie Schoffel de Fabry, Paris
Acquired at the Galerie Schoffel de Fabry, Paris, 19.02.2018

Unpublished

## The art of armour in Kiribati

This impressive armour comes from Kiribati, a Micronesian archipelago consisting of thirty-three atolls and islands, including the Gilbert Islands. After the *Sophora toromiro* wood of Easter Island, here comes a new natural treasure, coconut fibre, the main material these armours are made of. Vegetal armours? These are indeed "fighting fibres", to quote the title a recent work devoted to the subject[1]. A few years ago, one of these armours arrived in our collections.

*A knockout armour with smashing weapons*

Called *Bwai ni buoka* in Gilbertese, this beautiful armour is composed of several interlinked elements, which grant the warrior full protection (*fig. 1*). The main part consists in a coat made of a coarse tunic and trousers with braces – pretty much like modern overalls – and sometimes reinforced by a belly band, and of a long-sleeved top. On top of it is a rigid cuirass reminiscent of a life jacket (*Te Otanga*, in Gilbertese), tightly fastened around the bust by a coconut rope and topped at the back by a high plaque used as headguard. The latter is firmly held by two struts fixed to the breast plate of the cuirass. This plaited plaque protects the neck and back of the head (*fig. 2*).

This is the most ancient and frequently found type of cuirass, along with the corselet without headgear, which can sometimes be open in the front[2]. The whole thing is made of coconut fibre. The armour is sometimes completed by gauntlets edged with shark teeth. As to the helmet, absent from our exemplar, it can adopt several shapes, the most spectacular of which is made of porcupine fish skin (*Cyclichthys orbicularis*, *fig. 3* and *4*)[3].

This is a rather strong armour, although the helmet is more impressive rather than effective. The whole equipment was awesome and must have taken both players and visitors by surprise, especially when fighters would wield their weapons. These weapons were devastating – here a short sword (*fig. 5*) and a spear (*fig. 6*), edged with shark teeth – and, according to the first descriptions given by Europeans, they would leave face and limbs with dreadful scars, despite of the armour's protection. According to R.L. Stevenson, who was a guest of the high chief Tem Binoka of Abemama in 1889, "the survivors of that rough epoch were all defaced with spearmarks"[4].

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[1] ADAMS, BENCE, CLARK (dir.), *Fighting Fibres. Kiribati Armour and Museum Collections*, *Pacific Presences* 2, Sidestone Press, Leyden, 2018.

[2] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 53-57.

[3] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 62 *pass*. The two other forms are the helmet woven from coconut fibres and the hood of knotted coconut fibre.

[4] STEVENSON, *In the South Seas*, p. 365.

*Like a UFO*

This kind of armour first appeared in the Gilbert archipelago and then expanded, with minimal variants, to Naura and Tuvalu. But how did it first reach these forsaken lands in the middle of the ocean, these warm regions where one would generally fight naked? There, it seems out of place, like a UFO… all the more since it was not in use for very long, as the earliest ones date back to the early 19th century and the last exemplars do not appear after 1890. To explain their appearance, we sometimes refer to the possible influence of samurai armours, or more likely that of European armours[5].

If these spectacular fighting suits are not rare, few of them are as well preserved as the one considered here. There are a reported 189 armour elements – of which 53 cuirasses – in museums in the United Kingdom[6], not to mention those in other American[7], Oceanian[8] or European[9] museums, or the ones like ours, which were or still are sleeping deep in an attic, as a souvenir of an ancestor who travelled to Micronesia[10]. Thus, the author of *Treasure Island* had also received, as a gift from Tem Binoka, the knotted corselets of his grandfather, father and uncle, all of them out-and-out fighters[11]. But once these islands were placed under British protectorate and under the influence of Protestant and Catholic missionaries, traditional fighting stopped[12].

*Homeric heroes in the Pacific*

According to the records left by the first missionaries on duty in the Gilbert Islands – like the missionaries of the Sacred Heart, who collected our armour – these fights were very ritualized. To some respect, they are somewhat reminiscent of Homeric fights, where champions would challenge each other in a duel, in quest of glory and with a great display of skills[13]. In the Gilbert Islands, one would fight for land or for honour, usually with much publicity around the event. Great! There will be entertainment! Blood shall be spilled! One would then return to one's village to make offerings of coconuts and palm wine to the goddess of war Nei Teratabuki[14] and prepare the champions. Wearing such an armour was assuredly a privilege bestowed only on young men from landowner families.

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[5] MASSING, "In Arms and Armor", p. 46.
[6] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 53-54.
[7] Notably at the Fairbanks Museum and Planetarium, Saint Johnsbury, and at the American Museum of Natural History, New York.
[8] Notably at the Museum of New Zealand, Wellington.
[9] Notably at the Museum Fünf Kontinente, Munich and at the Musée Jacques Chirac, Paris.
[10] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 53.
[11] Mentioned in a letter to Edward Livermore Burlingame: MASSING, "In Arms and Armor", p. 48; see also the description given by chief Tem Binoka of his ancestors: STEVENSON, *In the South Seas*, p. 365-366.
[12] CLARK, *in Océanie*, p. 288, cat. 49.
[13] For Homeric single combats, see Létoublon, "Défi et combat dans l'*Iliade*", p. 42 *sq*.
[14] MASSING, "In Arms and Armor", p. 48.

On the appointed day, the processions of the two sides would meet: first, women would exchange insults, followed by clan champions in their armours, and finally by auxiliaries more lightly equipped with short and throwing weapons (*fig. 7*). Only the armoured men would fight against each other, in ritualized combats which could become hand-to-hand duels. They were also equipped with short weapons, such as daggers and knives edged with shark teeth or stingray barbs. The high headguard of the cuirass efficiently protected champions from hits from behind or stones thrown by auxiliaries.
According to missionaries, these jousts – which were not meant to kill the opponent – resulted in deep gashes and scars which were exhibited during one's lifetime as a token of bravery[15].

*Things visible and things unseen…*

And all this makes the armour efficient! As witnesses reported, the making of an armour implied two kinds of practices, one visible, the other invisible: a technical know-how which consisted in choosing and using the best materials, as well as incantatory magical practices which gave the armour supernatural powers in each step of its production. Some of these materials were themselves endowed with supernatural powers. Finally, such an armour could not be worn without some skin protection: it had to be smeared with coconut oil, then protected from the roughness of the knots by a layer of soft pandan leaves[16]. Equipped in this manner, the heroes of the Gilbert Islands were ready for the fight.

*The art of choosing the materials*

*Coconut

How was it possible to make an armour in the Pacific Ocean, without using any metal? On islands where natural resources were scarce and limited to some vegetal species and sea products, this impressive armour represented, as a whole and in every detail, a treasure of know-how and ingenuity. Coconut fibre, extracted from the outer husk of the fruit, was the main element. Reaching up to 35 cm in length, the fibre was extracted and retted for several months in seawater. After drying, it was spun by women to obtain a very strong cord called *sennit* – this was the main material of our armour. Then come the coconut shells which, placed side by side and wrapped in braided cord, strengthen the breastplate and back of the cuirass, thus protecting vital organs.
The making of one armour would necessitate more than 400 m of cord[17]; moreover, if we consider that 1000 nuts are needed to produce 10 kg of fibre[18], one can estimate that approximately 800 nuts were necessary to make a complete armour, as our exemplar weighs more than 8 kg: a significant

[15] MASSING, "In Arms and Armor", *pass.*
[16] MASSING, "In Arms and Armor", p. 45.
[17] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 100.
[18] http://www.fao.org/economic/futurefibres/fibres/coir/en/

amount of material, which had to be found and gathered little by little. In these islands where richness was

mainly related to land property, having an armour was also a way of showing that one possessed the means necessary for its fabrication[19].

*Women's hair

Another important component is human hair, which played an important role in Oceanian cultures, both decorative and magical. Women's hair, long, thick and brown, was used to embroider dark lozenge patterns on the cuirass and to magically highlight its edges. Women's hair, intertwined in the plaiting, also adorned the warriors' weapons, spears and daggers etc., underlining with their brown tones the white, sharp rows of shark teeth[20].

The cuirass and its headgear are here decorated with vertical lines of dark brown lozenges arranged in vertical lines, with short horizontal bars in-between. In the present case, some of the lozenges display a forked caudal fin, which gives them the appearance of fishes; in other cases, the lozenges rather evoke the shape of a turtle. A cuirass at the Nottingham City Museum is adorned with lines of V-shaped patterns[21]. If the meaning of these patterns is now completely lost, it is generally believed that they were related to clan affiliation[22].

*Fish skin, shark teeth and shells

Finally, there is the marine sphere and its fishes: the porcupine fish, whose inflated skin is used to make helmets, and the porcupine ray, whose dried skin (aka shagreen or galuchat), can sometimes be used to strengthen the breastplate of the cuirass, as is the case on an exceptional cuirass at the British Museum (*fig. 8*)[23]. Some cuirasses are embellished with shells, mainly of the *Ovula ovum* cowrie type which Gilbert Islanders considered as sheltering protective spirits, or with feathers. Finally, the shark, an essential animal in the Oceanian mind, plays a big part in the manufacture of weapons: feared yet fascinating, it could be considered as a mythical ancestor. As R.L. Stevenson reports, the high chief Tem Binoka was proud of his supposed origins: according to a legend, his family was the offspring of a shark and a woman[24].

The vegetal, marine and human worlds, each by its own means, would thus contribute in the protection of their hero.

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[19] CLARK, *in Océanie*, p. 288, cat. 49.
[20] LE FUR, *Cheveux chéris*, p. 200-201.
[21] Inv. NCM 1987-1490: ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 57.
[22] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 57.
[23] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 58-59.
[24] STEVENSON, *In the South Seas*, p. 364.

*The art of making knots*

For Oceanians, knots play an important part in their mind and art, whether this art is related to textile, body or sculpture. Knots are first a technique used by fishermen to produce nets and fish traps, which will help them catch their means of subsistence. It was also a ubiquitous element of decoration, which sheltered the spirits of the ancestors[25]. In several parts of Oceania, its technical mastering was an unquestionable source of prestige[26].

After it was spun by women, *sennit* was woven by knotting with a strong fishbone needle. This weaving, which required long hours of work, was done by men, who jealously kept its techniques secret, passing it from father to son. The idea was to align series of very tight knots so as to make a protective fabric. This traditional art got lost with the disappearance of ritual fights in the late 19th century, but the Gilbertese artist Kaetaeta Watson is reviving it by sharing her skills through ethnoarchaeological workshops[27].

On the back of our cuirass, at the junction of the headgear and the cuirass, a complex ensemble made of straw sprigs, a twist of *sennit* and a braid of human hair magically completes this masterpiece with a series of knots (*fig. 9*). The manufacture and repair of the armour and weapons gave sorcerers a chance to insert charms and to reinforce them with incantations[28]. Did it show weaknesses, allowing the spear's sharp teeth to penetrate the flesh of the fighter? The latter was then considered responsible, not his armour[29].

The refined plaiting work, the harmony and regularity in the drawings, as well as the regular weaving of the cuirass, make this suit a major piece among the armours recorded to this day.

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[26] KÜCHLER, "Imaging the Body Politic", p. 217.
[27] ADAMS, BENCE, CLARK, *Fighting Fibres*, p. 136-137; <https://maa.cam.ac.uk/the-island-warrior-coconut-fibre-armour-from-kiribati/>; <https://www.museums.cam.ac.uk/blog/2017/06/20/kiribati-weaving-workshop/>.
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*Fig. 2*

*Fig. 3*

*Fig. 4*

*Fig. 5*

*Fig. 6*

*Fig. 7*

*Fig. 8*

*Fig. 9*