

Exhibition "Petit Journal"



MUSÉE DE PRÉHISTOIRE
D'ÎLE-DE-FRANCE
RETOUR SUR 600 000 ANS D'HISTOIRE

THE SPEARTHROWER,

FROM REINDEER TO KANGAROOS HUNTERS



EXHIBITION

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TABLE OF CONTENTS

The spearthrower	5
The spearthrower: where and when?	6
The spearthrower: why?	7
How to hold a spearthrower?	8
South American spearthrowers	9
Atlatls, spearthrower from Central America	10
Spearthrowers in the United States	11
Spearthrowers from the Artic world	12
The Australian spearthrower.....	14
The « Swiss army knife » of the Aborigine	15
Spearthrowers in the Australian rock art.....	16
The Melanesian spearthrower	17
European palaeolithic spearthrowers	18
Reindeer hunters with spearthrowers at Pincevent?	19
Leonardo da Vinci's spearthrowers.....	20

Fig. 1: Pitjantjara hunter, Central Desert, Australia © J. & B. Villeminot



THE SPEARTHROWER



The spearthrower is a weapon that is almost forgotten, except for the archaeologists and the re-enactment amateurs... It was however used on several continents for thousands of years for hunting, fishing and war.

This weapon is made of a shaft or a little plank of various shapes combined with a device to maintain the projectile (hook, spur, gutter...). Depending on its use, the spearthrower can be associated with a spear, a harpoon or a multi-pronged spear.

Fig. 2: Contemporary shooting practice with a spearthrower during a championship © Pascal Chauvaux



THE SPEARTHROWER: WHERE AND WHEN?

The older specimens date back to Prehistoric times. In Europe, they were used between 22,000 and 12,000 B.C., essentially in the south-west of France but also in Germany, Spain and Switzerland.

In America, the spearthrower is known through the Andean rock art dating to 9,000 B.C. In Australia, the spearthrower is attested for at least 10,000 years, owing to the dating of Arnhem Land rock art.

Finally, ethnographic researches attest to the use of the spearthrower in various parts of the world between the 19th and the 20th century. The continuous use of this weapon from prehistory to the present is still questioned.

These researches do not answer all the questions relative to spearthrowers. They nevertheless allow us to better understand the morphology and the use of the prehistoric spearthrowers that are always fragmented. They also provide insight into the symbolic and social signification of this weapon.



Fig. 3: Spearthrower's distribution at worldwide scale © Musée du Malgré-Tout, Pierre Cattelain

THE SPEARTHROWER: WHY?

Compared to a hand-thrown spear, the spearthrower enhances the speed of the projectile and thus its efficiency.

It either aims at a powerful and precise shot at short or middle range (for hunting and fishing) or at long distance shot (for fighting) that is often less precise.

The spearthrower uses the lever arm principle that pushes the projectile for a longer distance, enhancing its speed and its impact strength.

Fig. 4: Photographic analysis of the steps involved in throwing a spear using a spearthrower © CEDARC

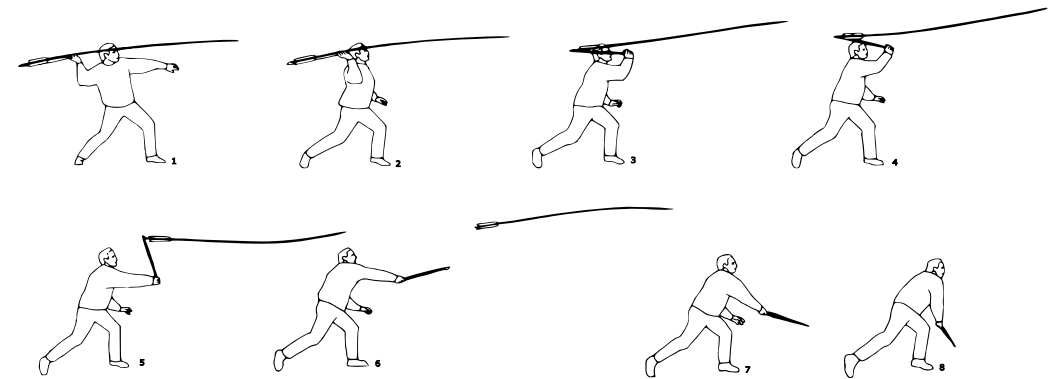
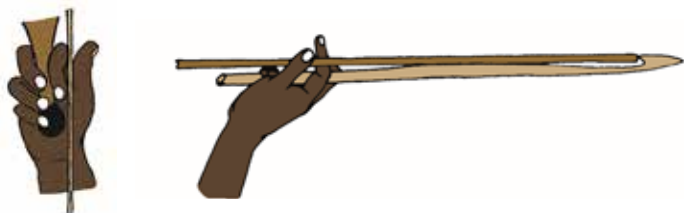


Fig. 5: Contemporary spearthrower shooter with a flying spear ©Pascal Chauvaux



HOW TO HOLD A SPEARTHROWER?



In Australia and Amazonia, the speartrower is mostly held between the index and the middle fingers, while the projectile is either held between the thumb and the index finger or simply rests on the hand.



In New Guinea, the spear is pressed with the thumb against a sculpted wooden support.

In Greenland and sometimes in New Guinea, the speartrower is usually held between the thumb and the middle finger with the index finger inserted in a cavity hollowed out in the back of the handle.



The Greenland's Inuits hold the speartrower between the thumb and the rest of the hand. This method reduces the range of rotation but allows one to wear mittens and shoot from a kayak.

SOUTH AMERICAN SPEARTHROWERS

The oldest speartrowers' remains in South America are bone hooks from Patagonia that could date back to the 9th millennium B.C.

In Peru, the use of the speartrower is also old. The male or mixed-types speartrowers were found in Chinchorro culture's tombs (6,000 to 1,500 B.C.). Their use persisted in later cultures such as the Nasca (200 to 800 A.D.) and the Moches (100-700 A.D.).

Speartrowers can be found, for example, on warrior figurines or vases picturing deer hunting scenes. Some specimens were even deposited in tombs. The speartrower was more rarely used by the Chimus and the Chancays, and by the Incas at the time of Pizarro's conquest, between 1532 and 1544.

In the Amazon basin, speartrowers were used until the middle of the 20th century, but their use is restricted to ceremonies or sports.



Fig. 6: Moche warrior figurine holding a speartrower, Loma Negra culture (Moche) 390/450 A.D. © Metropolitan Museum of Art



Fig. 7: Nazca vase figuring a character holding a speartrower and spears 100 B.C. – 600 A.D. © Rijksmuseum voor Volkenkunde, Leiden

ATLATLS, SPEARTHROWER FROM CENTRAL AMERICA

The spearthrowers known in this part of the world come mostly from Mexico where they have been attested since the 4th millennium B.C. (Coxcatlan phase) and were still used after the Spanish conquest.

Recent spearthrowers are well known due to the decorated specimens gifted to the conquistador Hernan Cortés by the Aztec king Montezuma II, and owing to the numerous representations in the codices (painted books), such as the Zouche-Nuttall codex. According to the Spanish texts, a few spearthrowers with rings for the index and middle fingers were fearsome weapons able to pierce through armour.

They were not only used as war weapons. The wooden spearthrower of mixed-type with perforation for the index and middle fingers is still used for bird hunting on the Pátzcuaro Lake during the All Saints' Day gatherings.



Fig. 8: Close-up from the Zouche-Nuttall codex. It recounts the life of the monarch "Height deer, jaguar claw" that reigned in the XIth century. He is pictured in the centre with warriors armed with spearthrowers and bows in each of his hands. © Musée du Malgré-Tout, Pierre Cattelain



Fig. 9: Spearthrower fishing on the Pátzcuaro Lake (Mexico) © Musée du Malgré-Tout, Pierre Cattelain

SPEARTHROWERS IN THE UNITED STATES

Spearthrowers' hooks made of bone, shell and stone, often dating back from the 10th millennia B.C., were discovered in various regions of the United States. Some of these spearthrowers were even complete, and some rare projectiles were also miraculously preserved.

The use of the spearthrower seemed to cease not long after the Spanish conquest in the XVIth century. In the second half of the 20th century, it reappears in amateur competition and is even used for hunting in some states.



Fig. 10: Rock Art from the Valley of Fire, Nevada National Park, United States © Pascal Chauvaux



Fig. 11: Spearthrower reconstitution with a stone weight, Basket Maker, between 1,500 B.C. and 750 A.D. © Musée du Malgré-Tout, Pierre Cattelain

SPEARTHROWERS FROM THE ARTIC WORLD

The spearthrower is found on a territory spreading from the Amur River in eastern Siberia to the eastern coast of Greenland.

It is made of a more or less narrow driftwood board and is essentially associated with a harpoon to hunt sea mammals and aquatic birds, almost exclusively from kayaks.

Boating does not allow the use of the bow, a weapon all Inuits know but only use for hunting on land.

Arctic spearthrowers are divided into two groups:

1. Female spearthrowers with an eyelet at each end where two small spurs fitted onto the projectile's shaft are placed. Depressions for finger placement are carved on both sides of the handle.
2. Mixed spearthrowers, with ivory, bone or wooden spur.

Whatever the type of spearthrower, the handle includes fittings (depressions, perforations, etc.) for a better grip that is necessary with mittens that are useful in such a cold climate.



Fig. 12: Seal hunt, Inuits, North-western Greenland, end of the XXth century © Fred Bruemmer



Fig. 13: Female spearthrower with an ergonomic handle, Ummannaq, West Greenland toward 1950 © Musée du Malgré-Tout, Pierre Cattelain



THE AUSTRALIAN SPEARTHROWER

Australian spearthrowers are used for warfare, duelling, legal proceedings, hunting big and small games (kangaroos, emus, ducks...) and fishing. They are usually made from several materials with a hook made of wood, bone, shell or tooth, fixed to the wooden shaft by a resin-covered ligature made of sinew. The associated projectiles have varying weights and points.

Australia has numerous types of spearthrowers, especially in the North. Some specific spearthrower forms are linked to particular functions. Some specimens from the Northern Territory, for example, are used exclusively with short and light spears in duels. The light boomerang-shaped spearthrower from Queensland is used for short-range fishing and bird hunting.



Fig. 14: «Hunting the Kangaroo», watercolour by Edward Orme, New South Wales, Australia, 1814 © Field sports of the native inhabitants of New South Wales

THE « SWISS ARMY KNIFE » OF THE ABORIGINE

Aborigines from Central and Western Australia's deserts must be mobile as the food supplies are limited. This has influenced their equipment, particularly the spearthrower that forms the nomad hunter's pack, along with spears, an axe, a knife and a boomerang.

Adapted to this specific needs the spearthrower from this area is fairly large and concave and is a genuine Swiss army knife:

- The end of the handle is covered with a resin ball in which a stone scraper is fitted to smooth spears;
- The lateral margins serve as a fire saw (active part of a lighter), rubbed against another wooden element;
- The concave part serves as a container for transporting water, mixing food, and pigments and transporting objects while travelling ;
- Its broad and flat shape allows its use as a shovel;
- It is also a percussion instrument for rhythmic accompaniment of songs and dances.



Fig. 15: « Swiss army knife » spearthrower, Western Australia, XXth century © Musée du Malgré-Tout, Pierre Cattelain

SPEARTHROWERS IN THE AUSTRALIAN ROCK ART

The most interesting source on the spearthrower antiquity is found in Australian Rock Art of which the Arnhem Land's paintings are the most impressive.

The earliest spearthrower representations seem to belong to the "Northern running figures", a painting style spanning between 10,000 and 6,000 B.C. According to the Aborigines, these paintings were made by the «Mimis», spirits living in the rocky plateaux. These spirits are described as very thin with elongated bodies, so thin that they can slip within rock crevices. The paintings depict spirits intervening in creation myths and in various ceremonies.



Fig. 16: Hunter throwing a spear to a great kangaroo, Anbangbang Rock Shelter, Kakadu National Park, Australia © Thomas Schoch

Fig. 17: Mimi Spirit carrying spears and a spearthrower. A bag is suspended around his neck and he holds a fan made of goose wing. Obiri, Arnhem Land - Iain Dainty, Australia © Alamy Stock Photo



THE MELANESIAN SPEARTHROWER

In Melanesia, spearthrowers are found mainly in northeastern New Guinea, more rarely on the southwest coast. Spearthrowers are not restricted to hunting and the Papous, as well as other cultures, use this weapon for war and for head-hunting, an activity that links ritual, religious or political practices. Spearthrowers are also used by women for fishing in rivers and lakes.

In the Sepik region, they are exclusively female and the shape of the sculpted support helps to identify the spearthrower use. The spearthrower for war and hunting from pirogues presents a sculpted support that is generally in the shape of an animal, often a mythical one. The specimens for the boys' initiation, present a large triangular protuberance carved out of the mass, often engraved and painted. Both extremities are carefully sculpted.



Fig. 18: War spearthrower made of bamboo, middle Sepik valley, New Guinea, end of the XIXth century © Musée du Malgré-Tout, Pierre Cattelain



Fig. 19: Wooden ceremonial spearthrower for initiation, middle Sepik Valley, New Guinea, End for the XIXth and start of XXth century © Musée du Malgré-Tout, Pierre Cattelain

EUROPEAN PALAEOOLITHIC SPEARTHROWERS

Prehistoric speargrowers are made of two parts: a wooden handle that systematically disappeared and a part in reindeer antler, more rarely in bone or ivory. The preserved fragments that we know today are, in fact, the distal part of this weapon.

The features (simple or double bevel, perforation...) observed on the elements preserved indicate that the Palaeolithic speargrowers were hafted in different ways.

The 140 specimens of speargrower hooks discovered date back from the upper Palaeolithic, between 22,000 and 12,000 B.C.



Fig. 20: Speargrower hook made of reindeer antler, Le Roc-de-Marcamps, Gironde © Musée du Malgré-Tout, Pierre Cattelain



Fig. 21: Reindeer speargrower, called the fawn with bird, Mas d'Azil, Ariège © Musée du Malgré-Tout, Pierre Cattelain



Fig. 22: Speargrower hook made of reindeer antler, decorated with a horse head, Isturitz, Pyrénées-Atlantiques © Musée du Malgré-Tout, Pierre Cattelain



Fig. 23: Speargrower hook made of Mammoth ivory, young bison, La Madeleine, Dordogne © Musée du Malgré-Tout, Pierre Cattelain

REINDEER HUNTERS WITH SPEARTHROWERS AT PRESENT?

Pincevent's archaeological site (La Grande-Paroisse, Seine-et-Marne) is a reindeer hunters' campsite on the Seine's bank that has been excavated for 60 years. The Magdalenians' behaviour who camped at Pincevent 14,000 years ago, is well known. They hunted reindeer mainly during their autumnal migrations. Their hunting techniques are, however, still poorly known. They presumably hunted with spear-throwers but no specimen or fragments were yet found.

The speargrower was likely an important object of the hunter's toolkit and wasn't discarded at the campground unless broken. May these speargrowers have been completely made of wood (hook included) like most of the ethnographic speargrowers?

Parts of spear points were nevertheless found, such as a spear point fragment made of reindeer antlers with inserted flint bladelets.



Fig. 24 : Spear's point fragment © Centre archéologique de Pincevent

LEONARDO DA VINCI'S SPEARTHROWERS

The Codex Atlanticus kept at the Biblioteca Ambrosiana in Milan, contains scientific and technical drawings made by Leonardo da Vinci between 1478 and 1518.

The sheet 144, precisely dated to 1485, shows spearthrowers indicating they were still used in Italy during the 15th century.

The dart was generally held by hand and thrown like a javelin. Sometimes a strap tied to the middle of the shaft allowed the shooter to insert the index and middle fingers into the loops, to ensure a better throw.

Leonardo da Vinci wrote the word *dardo* (in mirror writing) above the drawing of this device. In the strap's loops, the launcher sometimes placed the hook of a rod instead of his fingers; the device thus served as a spearthrower.

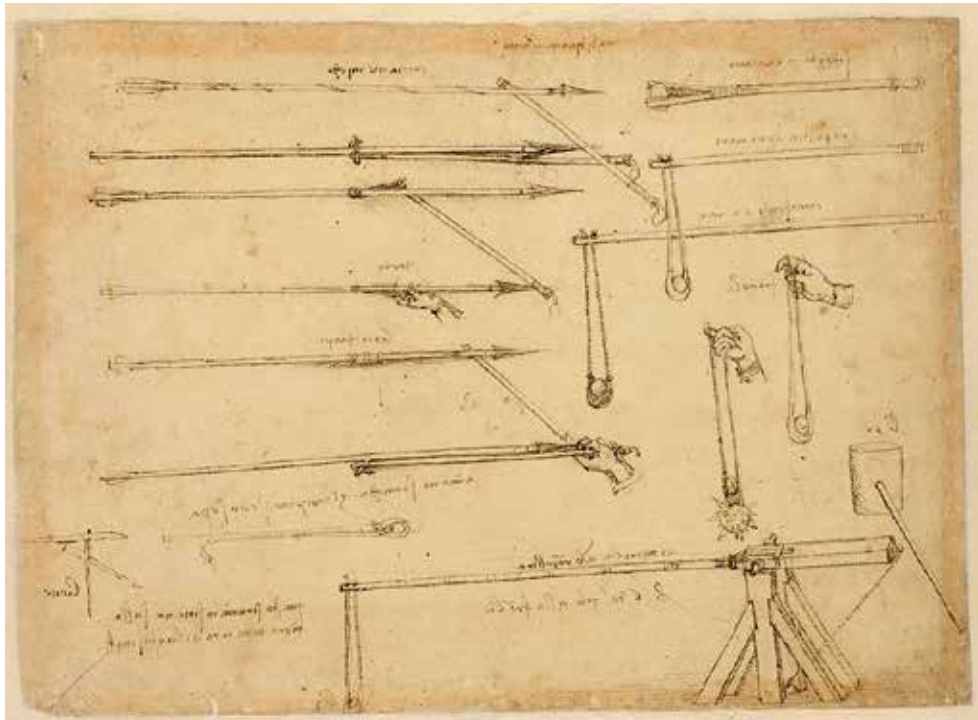


Fig. 25: Leonardo Da Vinci's spearthrowers on the sheet 144 © Domaine public

This exhibition was designed by the Malgré-Tout Museum of Treignes (Belgium) and adapted by the Ile de France's Prehistory Museum of Nemours (Seine-et-Marne department)

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