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# Fishing shrimp in the Wadden Sea: the extinction of a traditional practice in the Frisian area of Bremerhaven (Weser mouth)

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## Abstract

For millennia, coastal societies in the Wadden Sea have practiced environmental food uses along the coasts of this semi-enclosed sea. The regional Germanic peoples (Frisians, Lower Germans, Dutch, Danish Jutlanders, etc.) have established important hunting, fishing, agricultural and forestry techniques in these territories (Danto, 2017). Some species, emblematic of the European fishing bestiary, are particularly sought after, such as the North Sea shrimp (*Crangon crangon*). Various predation techniques have been put in place to capture it. While some are widely practiced (such as beam trawling), others are more or less threatened due to a lack of sufficient practice, with loss of local knowledges (Ingold, 2012). Shrimp fishing on horseback, particularly in Belgium, has been classified as a UNESCO World Heritage, giving it heritage visibility. In contrast, sled fishing has only two or three peoples, concentrated in Germany, who are the last to perpetuate a centuries-old tradition of responsible and sustainable fishing for the Wadden Sea.

## Key words

Eco-anthropology, Ethnoichthyology, Fisheries, Coastal communities, LTK, Nature/Culture, Shrimp *Crangon crangon*, Weser mouth, Wremen, Wadden Sea, North Sea, Heritage.



Crangon crangon in Wremen, after fishing, © Anatole Danto, 2017

## The shrimp

Shrimp fishing in the North Sea is particularly targeted at the grey shrimp, *Crangon crangon*. The population of grey shrimp in the North Sea is very large, thanks to a particular ecosystem, that of the great mudflat of the North Sea. It is one of the largest in the world, fed by many continental rivers (Rhine, Elbe, Scheldt, Meuse, ...), and has a particular tidal regime on the tide area (*Watt*).

## The shrimp fishing

In the Wadden Sea, different fishing and hunting techniques have been in place for many years, targeting fish, shellfish, crustaceans, marine mammals or seabird (Meier, 2003). Shrimp were initially caught using fishing gear such as traps (*Reuse*) or small nets in the riparian fishery.

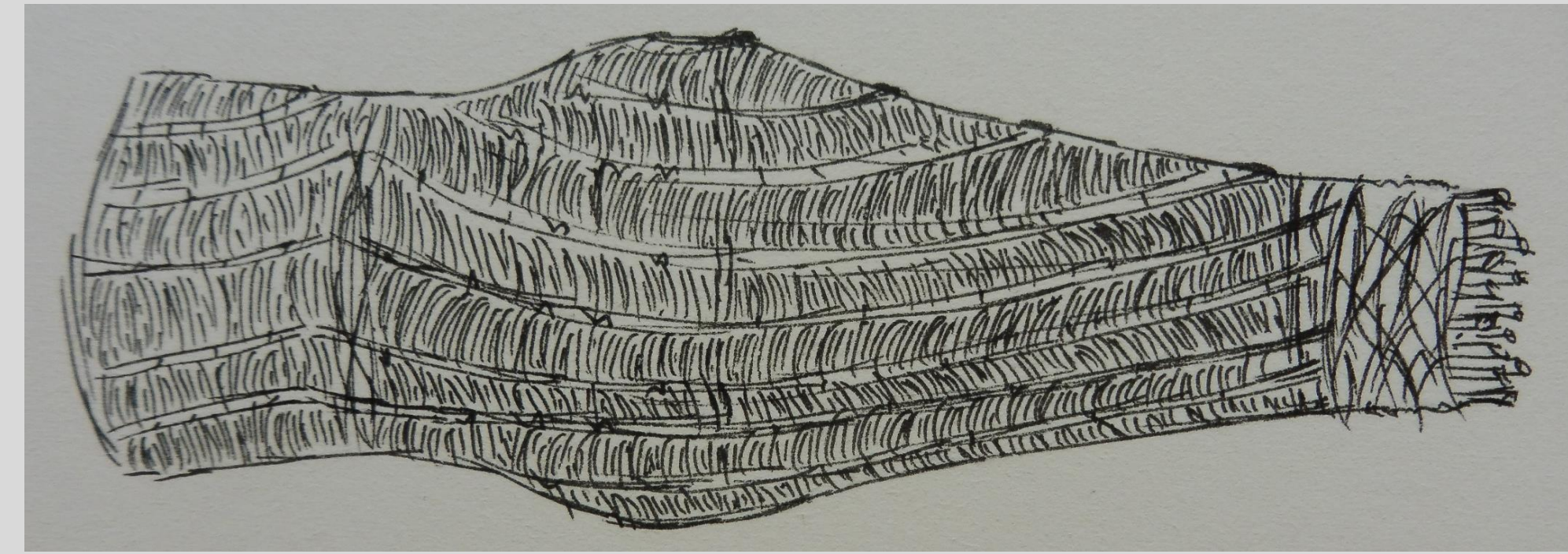
Over time, there has been a specialization of gear in shrimp predation (adaptation of meshes, positioning of gear), followed by major technological developments, making it possible to fish shrimp in much greater quantities, first by moving further forward on the foreshore during the low seas (this will be the invention of the sled on the *Watt*), then thanks to naval advances (first offshore vessels, discovery of the trawl, then the beam trawl, motorization of vessels).

Some of these advances are based on empirical analysis of fishermen or fish merchants, others are based on scientific research. Sometimes they seek to go beyond an overly rigid regulatory framework (Bavinck & Hoefnagel, 2005).

## Shrimp sled and trap fishing

### Traps as fundamental technology

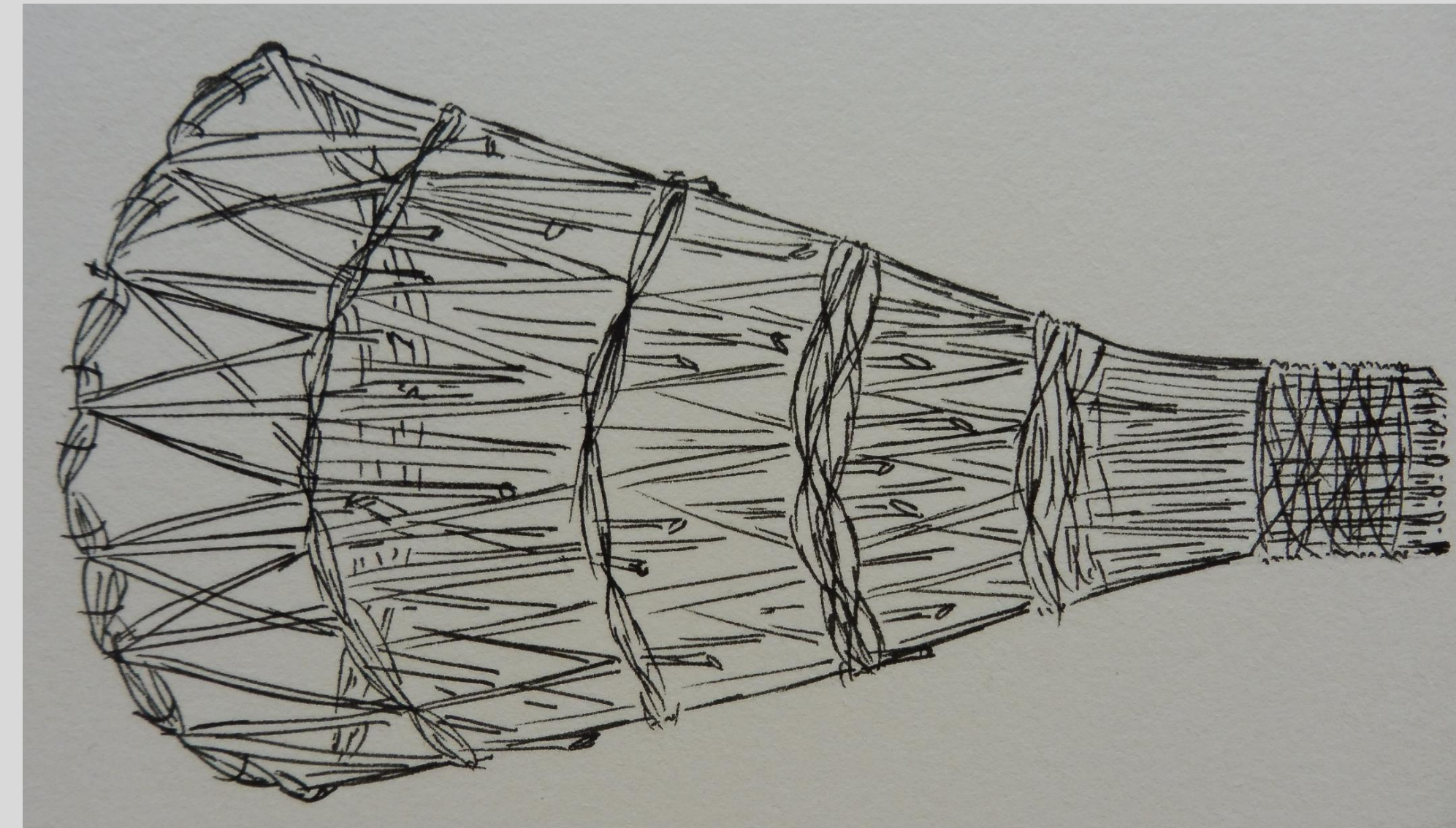
- Traps are among the oldest known fishing gears. They are found in many archaeological excavations all over the world. Initially, they were built entirely of vegetable materials. In the Wadden Sea, the traditional trap is made of wicker, with fishermen owning their own willow orchard near their farm.



Traditionnal trap of Wremen village © Anatole Danto, 2017.

### The « funnel », added value in Watt

- The shrimp traps in the Wadden Sea are inserted into large wicker funnels, forming the fishing gear (*Spann*). The two assembled elements are placed horizontally on the muddy foreshore, using chestnut stakes.



Traditionnal Reuse of Wremen area © Anatole Danto, 2017.

### The sled

- The sled provides access to the fishing areas where the gear is placed. They are generally built for the year, in oak, directly by the fisherman. They are pulled by dogs, with slightly webbed legs (Labrador for example), rather crossed ("bastards", more adapted to the *Watt*). Sleds allow fishermen to travel several kilometers at each tide to reach their fishing territory, which consists of a tidal channel, in the heart of the mudflat.



The sled of Erhard Djuren, in Wremen © Anatole Danto, 2015.



Fishing trip in Wremen coast © Anatole Danto, 2017.

## Threatening social and environmental changes

### Social changes:

- For several years, the inhabitants of the Weser estuary have gradually abandoned the primary sector in favour of work in the port of Bremerhaven.
- The fishing sector has experienced a significant decline. Sledding, which is physically exhausting, was one of the first to almost disappear. The rotation of traps twice a day (at each tide) is indeed a strong constraint. Shrimp shelling in Germany has also become too expensive in terms of labour. Only two fishermen still practice this fishing technique on a daily basis, in Wremen and in the Ems estuary.

### Environmental changes:

- At the same time, the coastal environment of the Wadden is constantly changing, and is facing both the increase in the surface of the port area, to the detriment of the mudflat, and the emergence of new uses at sea (RME, drilling, etc.). These changes affect both the shrimp population and fishing areas, which sometimes become impassable.



Erhard Djuren during fishing in Wremen coast © Anatole Danto, 2017.

## The « museum setting »

### Birth and objectives of the Wremen's Museum für Wattenfischerei:

- The museum was established in Wremen in 1991 ; The Wremer Heimatkreis had set itself the goal of establishing and operating a museum in which the Wadden Sea fishery in its different species and methods and the living conditions of the fishermen and their families in the centuries are to be documented.
- The museum still works today with the fishermen of Wremen, both by boat and sled, and contributes to the conservation of the particular fishing technique once practised in Wremen.
- The museum has important ethnographic, iconographic and filmographic collections, highlighted within a museum space, and inventoried.
- The museum also helps researchers in their scientific work, in particular in its archives, or during field surveys.

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