

FLORES OF THE LOOM

KEMBANG ALAT TENUN

Loin Looms of Flores & surrounding Islands

PREVIEW

11/2025



Flores of the Loom

The Loin Looms of Flores
& surrounding Islands

- Stakes made room -

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11/2025

Kembang A'at Tenun



1) Photo: "Weefsters te Sikka" (Weavers in Sikka). Le Roux ~1915.
digital collection: KITLV 5628 -> <http://hdl.handle.net/1887.1/item:786580>

Abstract

Our ongoing project examines ethnic loin looms on the island of Flores and the surrounding area in eastern Indonesia. In a separate paper we will first discuss the historical background of the available image material from academic collections such as the Collectie Tropenmuseum and the digital collection of Universiteit Leiden before turning to the current inventory and cross the Ikat-line¹.

The data do not result from field research, but only from given literature. Existing literature provides a wealth of, albeit incomplete, information, but a comparative over-view is currently difficult. This project aims to provide an initial remedy, focusing primarily on describing loin looms and illustrating an overview of ethnic looms on Flores with photographs and drawings.

The aim was to represent the loin looms of all six main regencies: Manggarai, Ngada, Nagekeo, Ende, Sikka, and East Flores, as well as to compare loin looms of the Lamaholot and the Bima. In addition to the loin looms, ethnic warping devices will also be included in the collection, as far as information is available.

Current overviews of Indonesian loin looms, such as "*De Weefkunst*" published by Jasper & Pirngadie in 1912, omit Flores, and thus an important type group of Indonesian loin looms - the stake loom. This blind spot also affects the perception of the more extensively documented ethnic looms.

We would be very happy to receive supporting photos and further information!

Keywords: Loin loom, Austronesia, Flores, Manggarai, Ngada, Nagekeo, Ende, Sikka, Lamaholot, Ikat-line

¹ See: Buckley 2022!

Foreword

Weavers of the Serpent Horse

Science is not an end in itself; this work should therefore return to the weaver, to support and preserve traditional weaving culture. In this case, we address ourselves primarily to the weavers of *Nusa Nipa* and *Pulau Bunga* (Flores). From them, we have received everything that has enabled us to visualize this overview of their cultural heritage; it is intended to serve them in preserving, cultivating, and even expanding their culture for the future. Since we cannot assume that all weavers on Flores speak English, the book should, above all, be visually accessible. But for other culture enthusiasts and aspiring weavers, the book may also serve as a clear, cross-border companion, shedding new *twilight* on certain facts!

After gaining an overview of the most striking loin looms of the Manggarai, we cross the Ikat-Line roughly at the border to Ngada. While in Manggarai, *flat warps* equipped with *reed combs* are found exclusively, from Ngada onwards, one is essentially confronted with only *circular warps*. From here on, *stake looms* predominate; in Manggarai, however, *station looms* predominate! This does not change in the further, from Ende, Sikka to East Flores! However, in Ngada, *diagonally aligned warps* are found, while in the adjoining areas, *horizontally running ikat warps* can be observed. From East Flores, onwards to Lembata and Alor, weaving stations (*station looms* or so-called *'part-frames'*) can be found again; mostly wild, but nailed constructions; and also equipped with circular warps.

The "Foot Loom of Larantuka" was added to the collection as a curiosity from Flores. Other examples of "External Loin Looms" from the surrounding islands, such as *Sumba*, *Timor*, *Papua*, *Borneo*, and *Sulawesi*, were also included to carefully round out the collection. Finally, a few examples of warping tools from the *Bima* and *Larantuka* are still needed to illustrate the common procedure.

Technical terms such as *foot loom*, *stake loom*, and *station loom* are clarified in the "Grouping of Loin Looms". This is followed by a index of illustrations, a reference list, and two lists of foreign terms in use and terms of weaving with brief explanations, followed by an overview of contents.

Methodology

The present data were primarily obtained by analyzing loin looms on images.

Preview 11/25

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VOCABULARY

flat warp

reed comb

circular warp

diagonally-aligned

ikat

horizontally-aligned

station loom

stake loom

part-frame

foot loom

warping

Monthly Update!

<https://www.academia.edu/143187067/>

Alat Tenun Manggarai

Looms of Manggarai

[Y-STAKE] [Y-STATION] [BIMA] [FLORES] [>>]



Looms of Manggarai

EAST | **CENTRAL** | **WEST** | **BIMA** >>MANDAR | BUGIS-MAKASSAR | COMPONENTS

Manggarai

BARAT | TENGAH | TIMUR

At the beginning of the millennium, the former Manggarai was divided into three administrative districts: West, Central, and East Manggarai. The coastal areas in the far west of West Manggarai and on the offshore Komodo Islands are predominantly home to Bima settlements, but also Bugis-Makassar settlements. Smaller Bugis-Makassar settlements are also found along the north coast of Flores, which will not be discussed further here.

At least five different types of loin looms were found throughout the entire Manggarai region. Only three of these models are highlighted here. The Bima loom is found primarily in the west, but it can also be found widely distributed throughout the Manggarai region. The other models are also often found side by side and scattered throughout the Manggarai region, regardless of the new government boundaries. For example, the stake loom, perhaps the most ancient of the Manggarai looms, was found in the capital city of Ruteng in Central Manggarai, while its station loom-variant was found in Eastern Manggarai.

All Manggarai models have in common the particularly pronounced warp board, which, unlike the rest of Flores, is equipped with a flat warp and reed comb. Ikat, as well as round or false round warps, were not found, although ikat was mentioned repeatedly! Therefore, in contrast to the rest of Flores, the Manggarai appears to have been subject to strong external influences (Sulawesi/Sumbawa). However, the looms themselves show that this influence was met with interest and not imposed from outside. The Bugis-Makassar looms on Sulawesi, and later probably the Bima, brought influence to the Manggarai loom. The strongest influence on the Manggarai loom was probably the stand loom-type of the Bima; however, the influence of the Mandar loom stands, also located on Sulawesi, is hardly overlooked. Its counterpart on Flores is not shown here! Vague characteristics of Javanese looms and those from Palembang are still questionable and are also not considered here, but may get reflected by the coming Naga-images (here: Nipa) on entire Flores later on!

Although traditional Manggarai stake looms can still be seen here, station loom-types are clearly more numerous in Manggarai than in the rest of Flores. Only in East Flores, and especially on the adjacent islands, station looms begin to appear again in larger numbers. However, station loom-types also seem becoming a trend in Ende, especially in Sikka!

Leaving the Manggarai and heading towards Ngada, one crosses the Ikat line. Following this, several characteristics of the ethnic looms change dramatically: circular warps without reeds, predominantly warp-weighted Ikat on mostly stake looms. Most of these warps are also horizontal and aligned close to the ground (ground looms).

Tribal areas: Rembong | Rajong | Bima | Bugis-Makassar | Mbui? | Linguistic cluster SE

Y - The Loom gently twigs (Stake Loom)

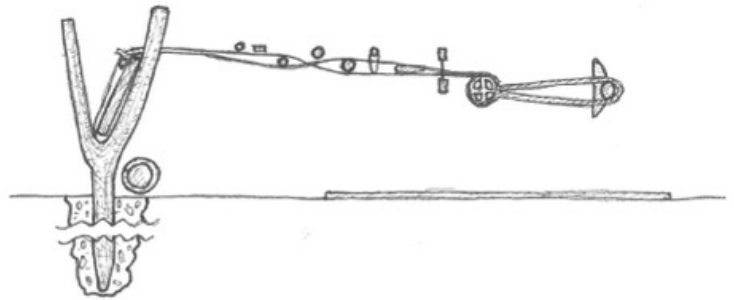
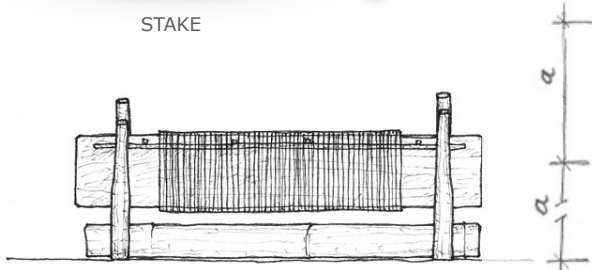
[Y] [warp board] [flat warp/up] [reed] [yoke]



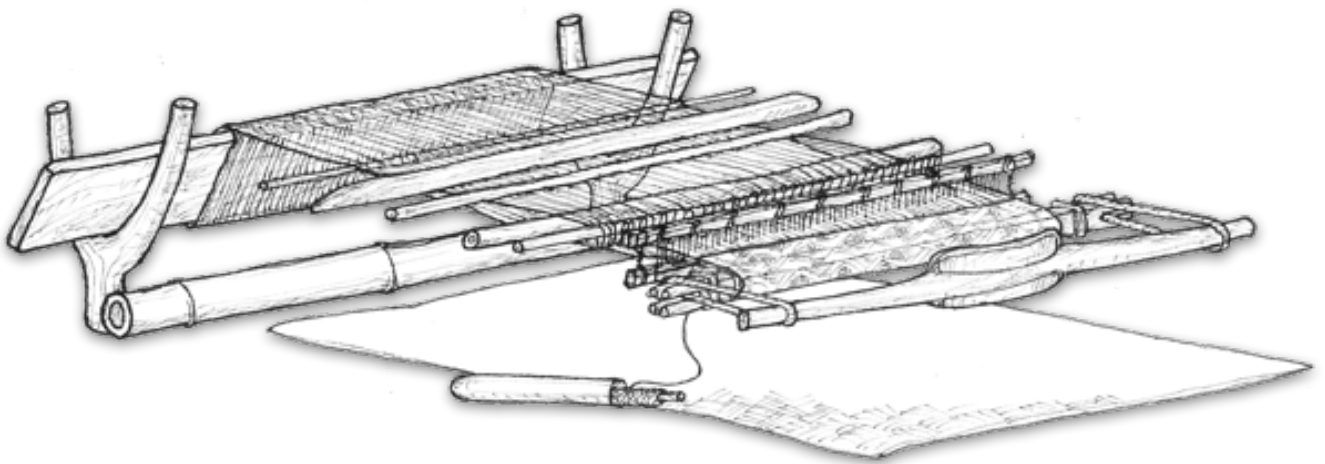
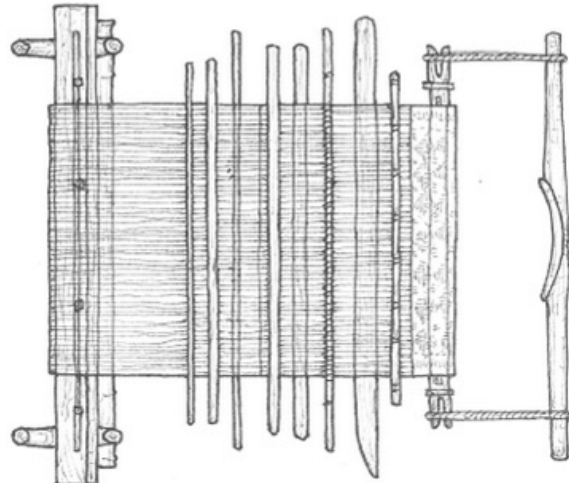
[c]



STAKE



All looms in Manggarai have a *flat warp* on this huge kind of *warp board* in common, what stands in contrast to the *circular warps* of the rest of the island. It also uses a *reed comb*. This original version from Central Manggarai is still a stake loom-type like it is found for the most of looms on Flores, but most of looms in Manggarai rest on rails (*station loom*).



2) Stake Loom in Ruteng, Manggarai Tengah with Y-shaped forks as holders for the warp board of the flat warp.

Y - The Station Loom - Fork on rails

[Y] [warp board] [flat warp/up] [reed] [yoke]



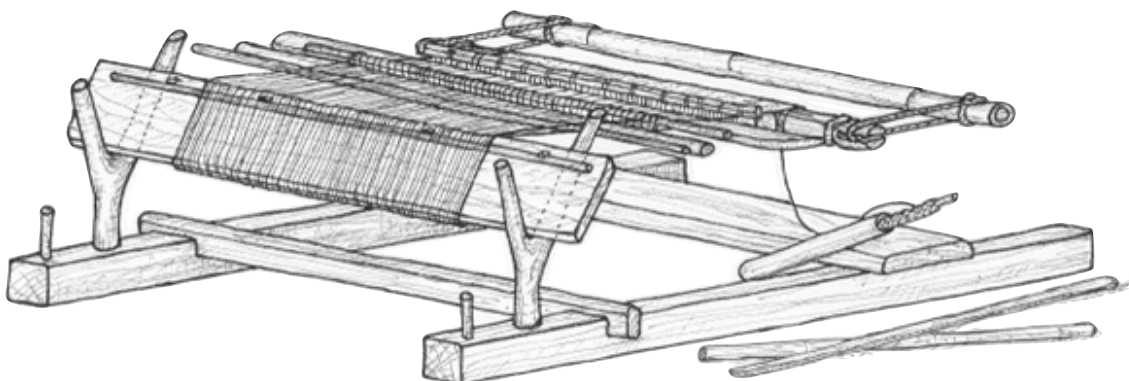
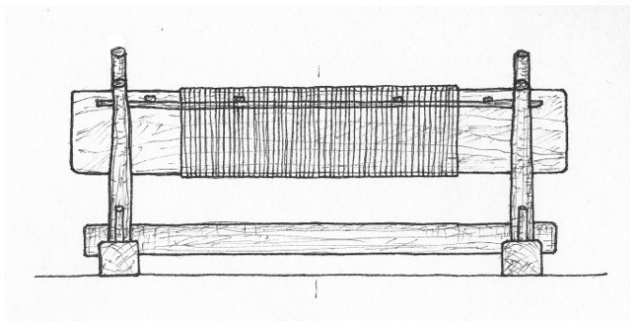
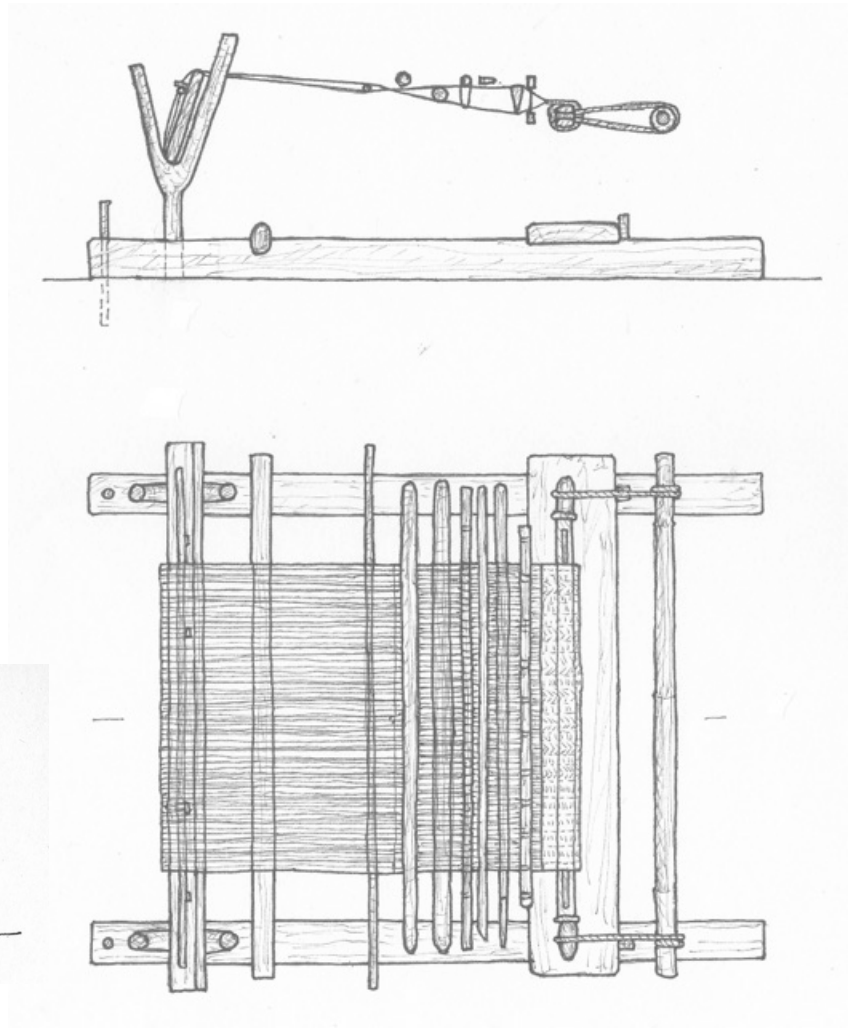
[c]



STATION

Several types of loin looms are found in Manggarai, all of them are using a flat warp with a *reed comb*. The most original ones show Y-shaped warp board holders, both, driven into ground or mounted on rails. The flat warp of these looms in Manggarai reflect the *Ikat-line*, that separates the Manggarai from the rest of Flores and its looms and Ikat-textiles.

This station loom-type with its Y-holders mounted on rails is found in East Manggarai.



The Bima weaving stand

[U] [warp board] [flat warp/up] [breast frame] [reed] [yoke]

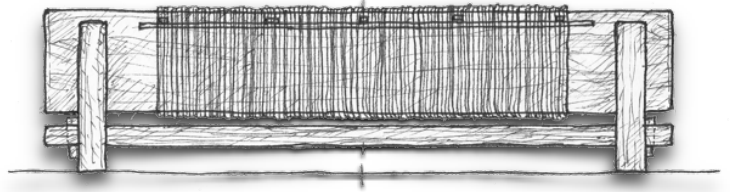


STAND

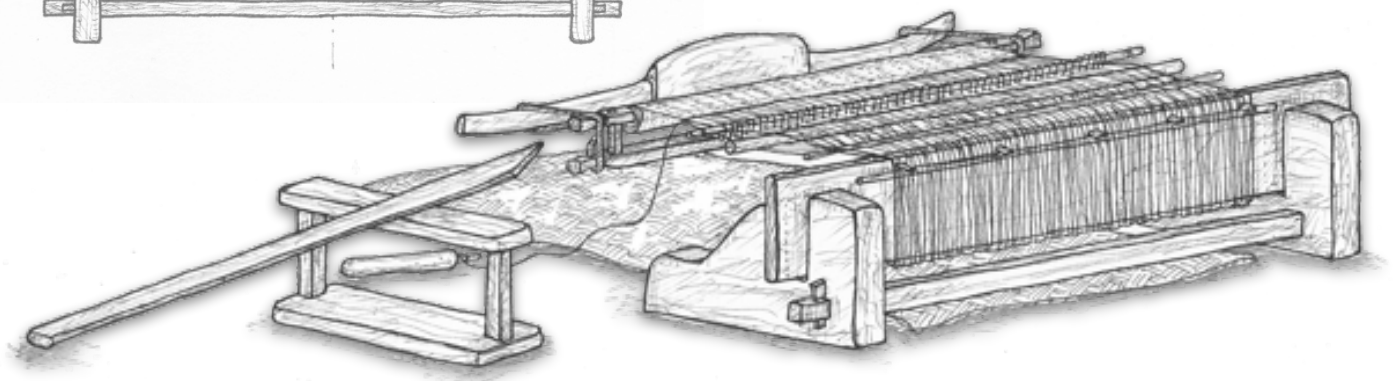
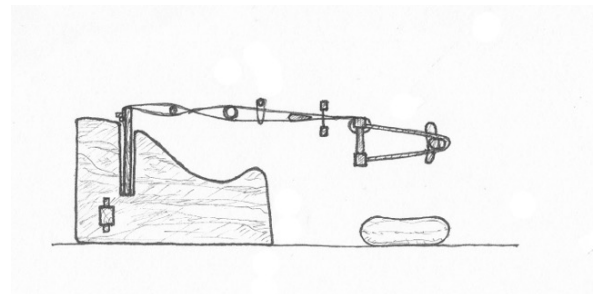
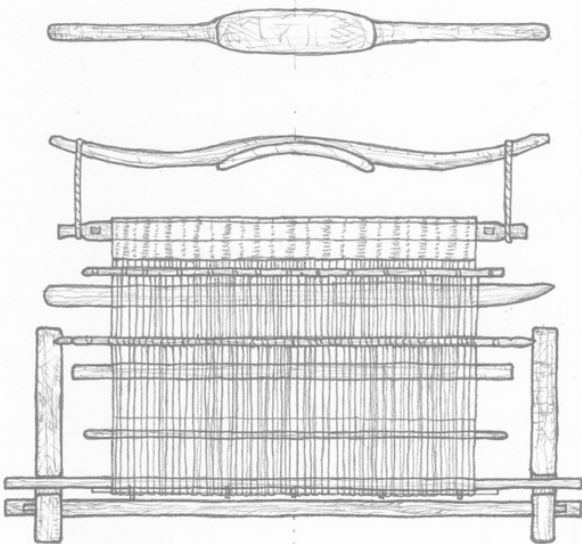
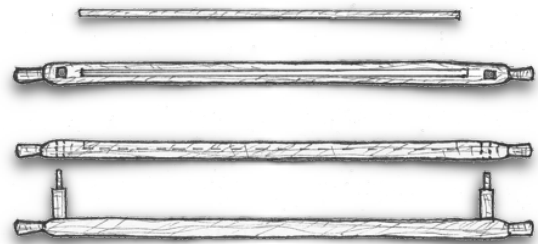


STATION

[C]



It's the question, if this loom of the Bima is still a type of weaving stand (*stand loom*), that needs bindings to a construction to work properly. According to the way of use, its size and weight some of them work as a stand-alone and independent weaving station (*station loom*). But most of them need to be fixed to the ground. As all looms in Manggarai *flat warps* are woven on huge *warp boards* and *framed breast beams*. This loom is found in Bima-villages along the coast, like in southern West Manggarai, but spread also in other areas of Manggarai. Some station looms there reflect their influence onto them.





Traditonal architecture in Manggarai and its rooftops

As his photo series at Collectie Tropenmuseum (RV-A245-1362 to [RV-A245-1371](#)) shows, the missionary Bernard A. G. Vroklage in the 1930s was already very fascinated in the roof sculptures on the five-storey residential buildings of the Manggarai. Could there be a connection between these "buffalo crosses" and the Y-sculptures that are increasingly appearing in the villages of Ngada? Here they also appear as ritual branch forks in front of shrines, as a kind of "stairway to heaven"! As it turns out, such branch forks also serve as the traditional warp beam holders of the Manggarai; we should keep an eye on them on the following journey through the world of loin looms on Flores. One cannot help but be amazed – from one branch fork to the next forking path...

----- **YOU ARE CROSSING THE IKAT-LINE!** -----

Bea nggolong

Crossing the Ikat-Line promises great experiences and deep insight, but demands reading its guidelines first to guaranty best performance. To cross this line the border of Manggarai to Ngada (Bea Nggolong) on West Flores may offer the best circumstances to realize its existence and consequences. This line seems to be largely identical to the border to Ngada, but in the northern coastal area Riung goes to the other side; here there are still only flat warps with reed combs in use.

Reading recommendation:

Buckley 2022: First migrants, first textiles.

-> <https://www.academia.edu/143267494>

By the way: nggolong is also the name of the shed roll!



7) Jongen bij een beeld in een dorp in Ngada op Midden-Flores. ~1930. Part of family album Schrieke. KITLV 86494 -> <http://hdl.handle.net/1887.1/item:770917>

Alat Tenun Ngada

Looms of Ngada

[<<] [NGADA] [BAJAWA] [MBAY] [FLORES] [>>]



Looms of Ngada

NGADA | **BAJAWA** | BAAR | RIUNG | RONGGA

Kabupaten Ngada

The former Ngada has also been divided into two areas of government since 2007: Ngada in the west and Nagekeo in the east. Ngada therefore consists of only two large ethnic groups: the Riung in the north and the Bajawa in the south. Other sources list the Rongga people as a separate language group in the south, as well as the Baar people. In this area there is currently still a blind spot in the research; not many references to the ethnic looms of this region, but also to the local groups could be found. For this reason, the area in the preview presented here has not yet been further subdivided.

Ngada

The loom of the Ngada in Likuwali (near Bajawa) deviates a little from the following looms in view of its diagonally-aligned warp, but it also proves to be a typical stake loom with an equally circular warp. However, it is not (anymore) a type of ground loom!

Bajawa

The loom attributed to the Bajawa, it is questionable to whom it is actually attributable; there are currently only contradictory data on this! It may well be a second type of Ngada loom. According to the information, the photo was taken in a Ngada village; however, one should be able to assume from its structure that this should not be an ordinary Ngada loom. Its circular warp is also inclined, but not explicitly diagonally-aligned. In addition, this seems to be a stilt loom. Its stilts stand ON the ground and are NOT embedded in the ground or "rammed" as in the case of the stake looms! In this case, the inclined stilts are held in place only by the diagonal bamboo scaffolding. Presumably, however, wedges have been driven into the ground, on which the stilts have been pulled over. This is then an unusual stake/stilt-combination, a so-called '*extended stake loom-type*', as one can find among some of the Batak looms of the Karo on northern Sumatra. In the collection of looms on Flores, it particularly stands out and does not really fit into the found scheme of stake looms, which have taken a slight tendency to station looms; one should think! But there are also other models, that show traditional stake/stilt-combinations! It is also not a typical ground loom!

Likewise, both do not correspond in any way with the typical forks that emerge in the following Flores! Both models still use a back strap instead of a loin yoke! According to research, looms with similar constructions can be found in the Ngada region, but ultimately none of the versions listed as Bajawa are similar. Let's hold on for a while, Nipa is going to show up soon, segment by segment:

In Kampung Adat Bena (Traditional Village Bena) the same intermediate beam for hanging the warp beam appears (similar the *Indian Loom*-type of Minangkabau or the loom of Champa), also showing back strap and the same warp inclination; but not those inclining stilts! The warp beam is attached here to the posts of the house; meanwhile, the weaver is sitting in the house!

COMPONENTS

Stakes
of Ngada

Bajawa
on Stilts?

Riung
Bajawa
Baar

Boawae?
Rongga

VOCABULARY

ground loom

diagonally-
aligned

stilt loom

back strap

intermediate beam

Stake Loom of Ngada

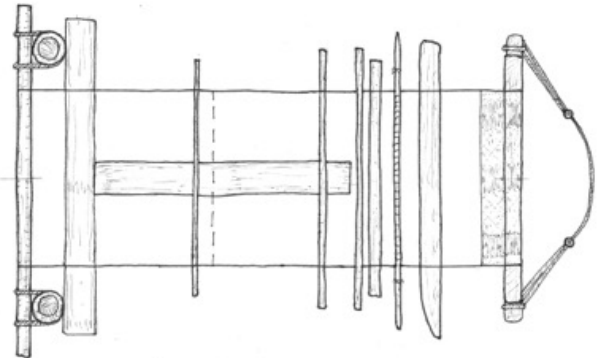
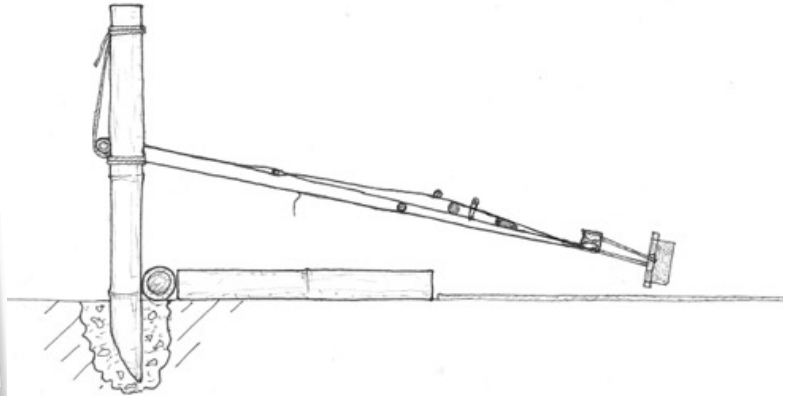
[I][warp beam] [circular warp/dia] [reedless] [strap]



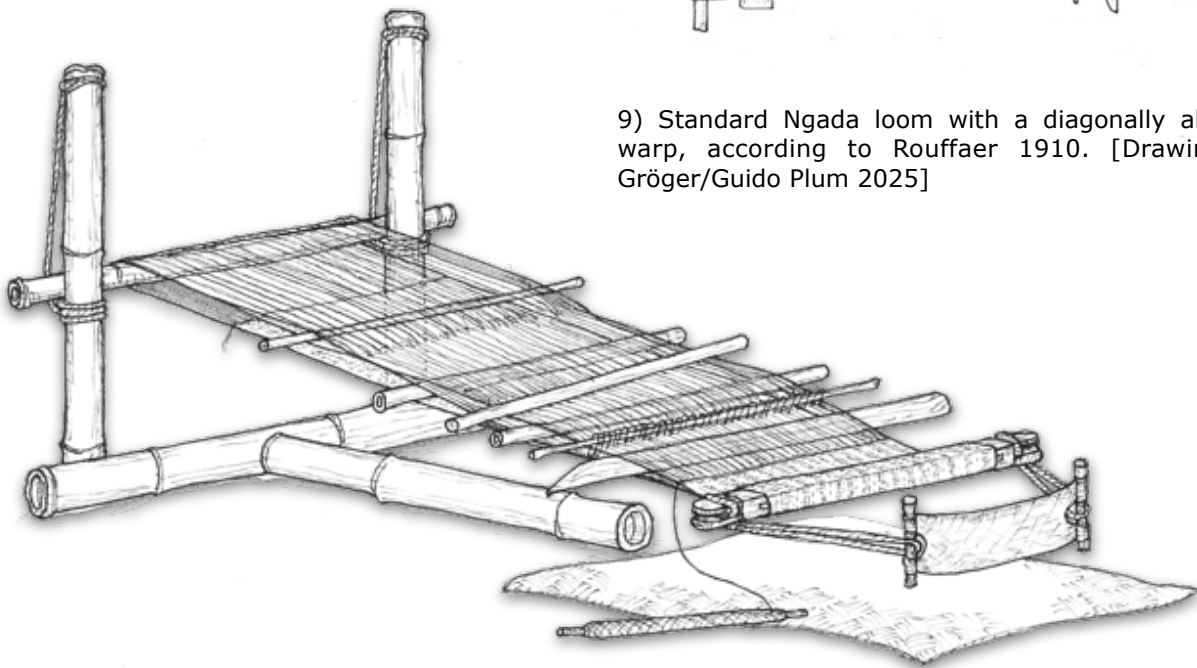
STAKE



8) Weaver in Likuwali 1910 - Universiteit Leiden: KITLV 8731 -><http://hdl.handle.net/1887.1/item:767146>

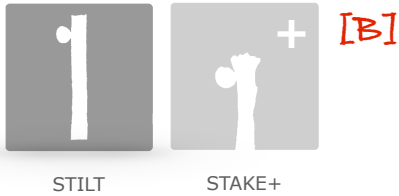


9) Standard Ngada loom with a diagonally aligned circular warp, according to Rouffaer 1910. [Drawing: Charlotte Gröger/Guido Plum 2025]



Stilt Loom of Bajawa?

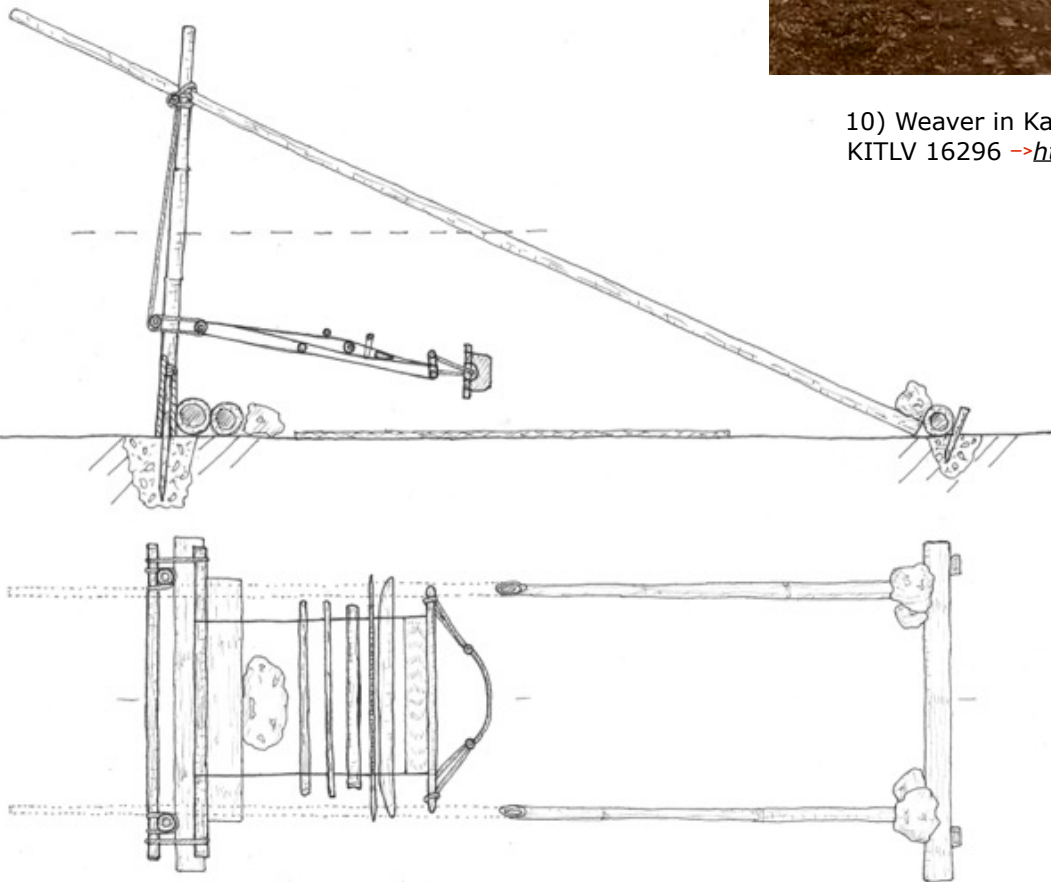
[1] [warp beam] [circular warp/dia] [reedless] [strap]



It isn't clear yet, to what extent the 1910 photo shows a loom of the *Bajawa*; however, the caption says that it was taken in a village in Ngada. At that time, Nagekeo still belonged to Ngada, but has now splitted since two decades. In contrast to the *Ngada* looms, *stilts* placed on the ground seem to hold the warp beam here; the warp, however, is almost *horizontally aligned*.



10) Weaver in Kampong Ngada 1910 - Universiteit Leiden: KITLV 16296 → <http://hdl.handle.net/1887.1/item:782097>



The question is whether the stilts are not placed on pegs in the ground that give them support. See detail in side view! Otherwise, the stilts would only be held in place by the diagonal bracket.

If no pegs are found, it is therefore a *stilt loom* - that is rare on Flores. However, if, as can be assumed, wedges are at work, it's a special variant of a stake/stilt combination, or so-called *extended stake loom*-type, that reminds solutions of some similar looms of the Batak on Sumatra!

11) Extravagant Bajawa loom-variant 1910.
[Drawing: Charlotte Gröger/Guido Plum 2025]

Looms of Nagekeo

NAGE | KEO | MBAY

Kab. Nagekeo

COMPONENTS

Mbay

Nage
Keo

VOCABULARY

Ikat-Line

framed breast
beam

In the independent administrative district of Nagekeo, which has been decoupled from Ngada since 2007, only the Nage and the Keo are still found, but the term lists at Hamilton even refer to the Mbay, which should be located in the north of the Nage region. The main town on the north coast of Nagekeo is also called Mbay!

There is currently still a big blind spot in the research in this area; not many indications of the ethnic looms of this region, but also of the local groups, could be found so far.

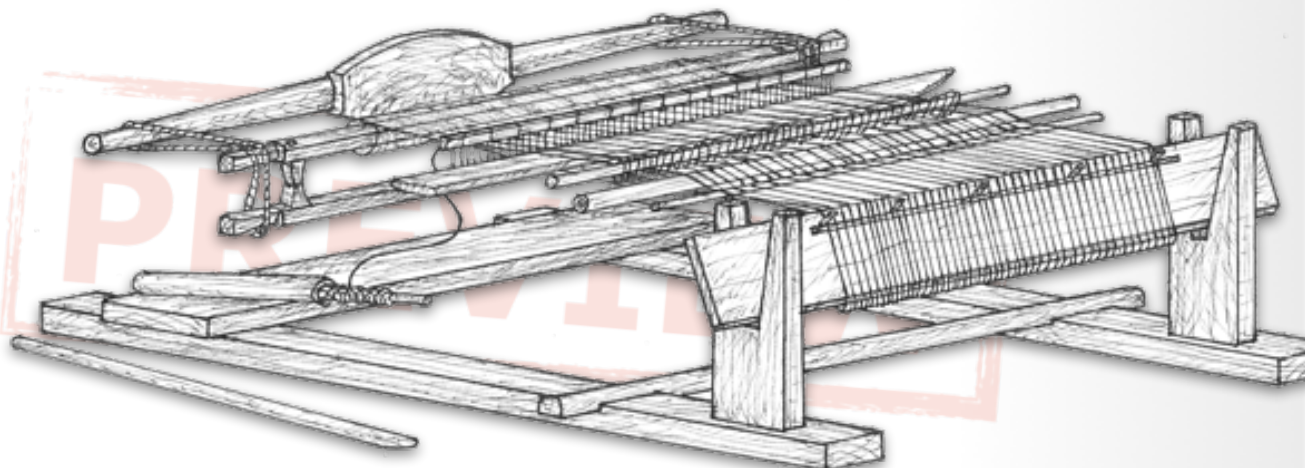
However, the first looms of the Mbay show up, which indicate that flat warps with reed comb are still in use here; even the construction of the looms, the same high warp boards and the framed breast beams of the Bima are very reminiscent of the Manggarai! At present, however, it is not yet clear whether the Ikat-line here on the north coast is pushed back so far to the east, or whether it is one of the many flat-warp enclaves along the north coast of Flores.

However, the Mbay looms equipped with flat warps should not be a proper example of a loom representing the whole of the NageKeo region!

There is currently nothing available about the looms of the mentioned Nage people. Thus, it is also not to determine on which side of the Ikat line they are to be classified! Likewise, the looms of the Keo do not show up yet!

Mbay Station Loom

[M][warp board] [flat warp/hor.] [breast frame] [reed] [yoke]



Alat Tenun Ende

Looms of Ende

[<<] [NGGELA] [NDONA] [PALU'E] [FLORES] [>>]



Looms of Ende

NGGELA | NDONA | PALU'E | LIO | ONELAKO | WOLOJITA

Kabupaten Ende

In the administrative district of Ende on Central Flores there are currently only two illustrated examples of very similar, ethnic loin looms: Nggela and Ndona. Both, located in the south of Ende-region, show a typical ground-leveled and horizontally-aligned circular warp and correspond to the type of a body-tensioned ground loom. The Lio in the larger, northern area do not seem to weave; here the weaving even seems forbidden! The Ndona, actually part of the Lio, are separated from them by a mountain range and live in the catchment area of the southern Ende-region.

A remote, third example of an ethnic stake loom-type called *,dhadha'* is found on the island of Palu'e in the north, what's actually part of Sikka regency. It also fits perfectly into the scheme of the ground looms represented primarily on Flores.

All three variants are characterized by massive bamboo canes, which serve as a holder for the warp beam. With the Ndona, however, this is tied up by two rope loops, the Nggela, on the other hand, store their warp beam like the Sikka on rocks; partly also the Palu'e do so. All three circular Ikat warps run horizontally, close to the ground. In addition to the traditionally anchored Ikat warps, there are now also striped warps, that are provided with a reed comb. Of course, these are so-called false-circular warps. In most cases, the footrest, due to the length of the warp, is kept at distance from the posts by wedges in the ground; In the example of the Palu'e, however, construction bricks serve this purpose, similar to the rocks used by the Timor-based Atoni.

On Palu'e Island you can even find simple station looms of a model widely used throughout Flores with usually a built-in footrest. Some of these also have a diagonal on the post, which partly still reflects the old fork in its function. But also corresponding forks can be found as holders on some loin looms of the Palu'e, which are not listed here. There is also a miraculous legend of the Palu'e about the origin of their Ikat loom!

The looms of the Nggela such as the Ndona have a loin yoke; the Palu'e, however, still uses the spathe of the areca palm as a backstrap.

COMPONENTS

Nggela

on the Rocks!

*Large bamboo posts
& a warp beam
resting on rocks*

Hangin' Cane of Ndona

*Tied-up warp beam
on large bamboo posts*

Palu'e

Station Loom

*A Standard spread
all over Flores?*

Palu'e

along the Bricks!

*An ancient detail
in new shape*

Palu'e Legend

Gift from Heavens

*Where the loom
comes from*

Lio

Onelako

Wolajita

VOCABULARY

false-circular warp

backstrap

footrest

dhadha

Stake Loom of Nggela

[I][warp beam] [circular warp/hor.] [reedless] [yoke]



[B]



STAKE

Similar, but differing in details: The warp beam of the Nggela rests like Sikka on stones, while the Ndona's is hold on height by "hanging ropes"! But their poles are made of bamboo canes, like Ndona. The sketch shows the loom according to a photo in Hamilton 1994, while the photo of Buckley suggests some deviations: The bamboo posts still seem to be embedded in the ground, but the weaver is sitting on her porch. The warp beam is no longer stored on stones and is suspended similar to the Ndona by ropes hanging down. While the warp beam of the Ndona is tied up by the ropes, here it is only inserted into the hanging loops!!! The suspension of the warp beam by ropes seems to be preferred in the Ende region, but also in Larantuka the same solution was already found in the 1920s. Several of looms in Ende regency prefer these significant bamboo canes as posts, but also wooden posts are found!

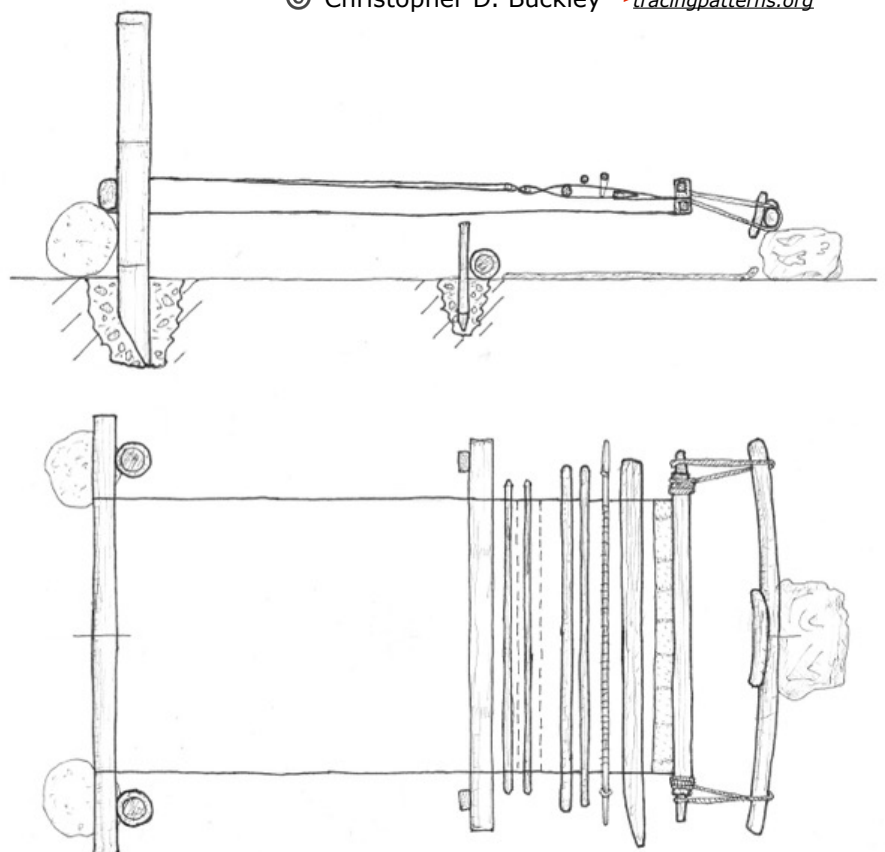
It is said, these huge poles might have had a reason as they probably once were used as vertical warping poles (before Ikat).

Traditionally looms in Ende use a circular warp without *reed*, basically *Ikat*; but some show a false circular warp with reed comb for striped textiles.



13) Nggela weaver 2010-2015.

© Christopher D. Buckley → tracingpatterns.org



Stake Loom of Ndona

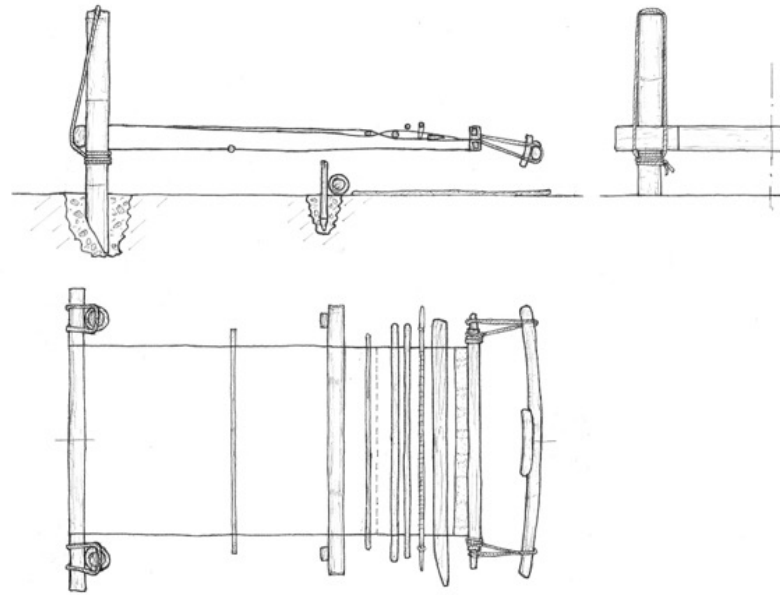
[I][warp beam] [circular warp/hor] [reedless] [yoke]



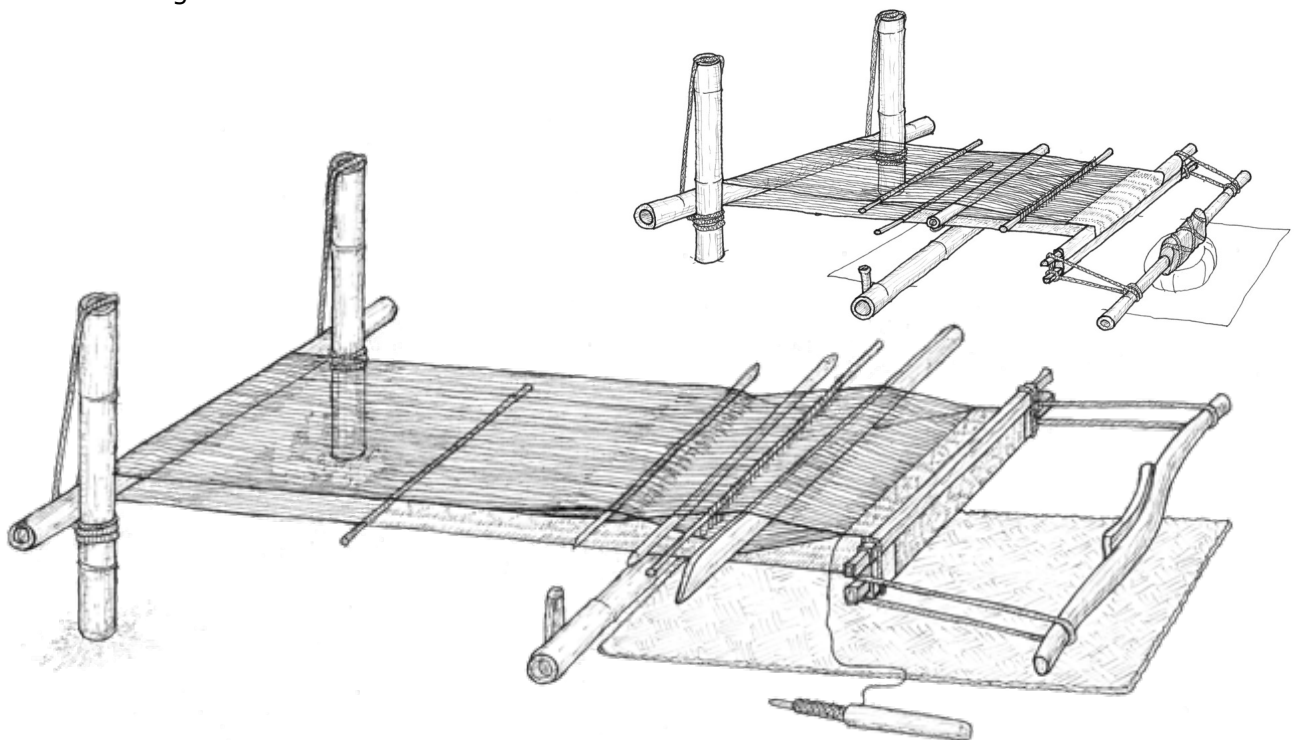
[B]

STAKE

Ground loom-like horizontal loin loom of the Ndona people on Flores using a circular warp for Ikat weaving without reed comb. Nowadays some models include such a reed comb for striped textiles in false circular warps. The warp beam is brought to height by rope loops tied-up!!! Compare difference to the method, shown in Buckley's photo of a Nggela in 21th century and a Larantuka weaver in the 1920s!



These pronounced bamboo piles raise a question that no observer has yet targeted: Are those really hammered into the ground, as some statements pretend? Insofar as this is conceivable for the short wooden piles under certain circumstances, but not recommended, such an approach is extremely questionable in view of piles of this magnitude; they should have been embedded in previously prepared soil for long-term use! A cultural detail that is well known to some ethnic groups, especially since it is the basis of their rudimentary house building, but that observers as well as weavers often escape! Some photographs suggest that not only the area around the posts but also the ground of the entire work space is plastered! In-depth observations of this detail would be useful here for the stabilization of the entire cultural heritage!



Station Loom of Palu'e

[1][warp beam] [circular warp/hor] [reedless] [strap]

Dhadha | Dhodo



[B]

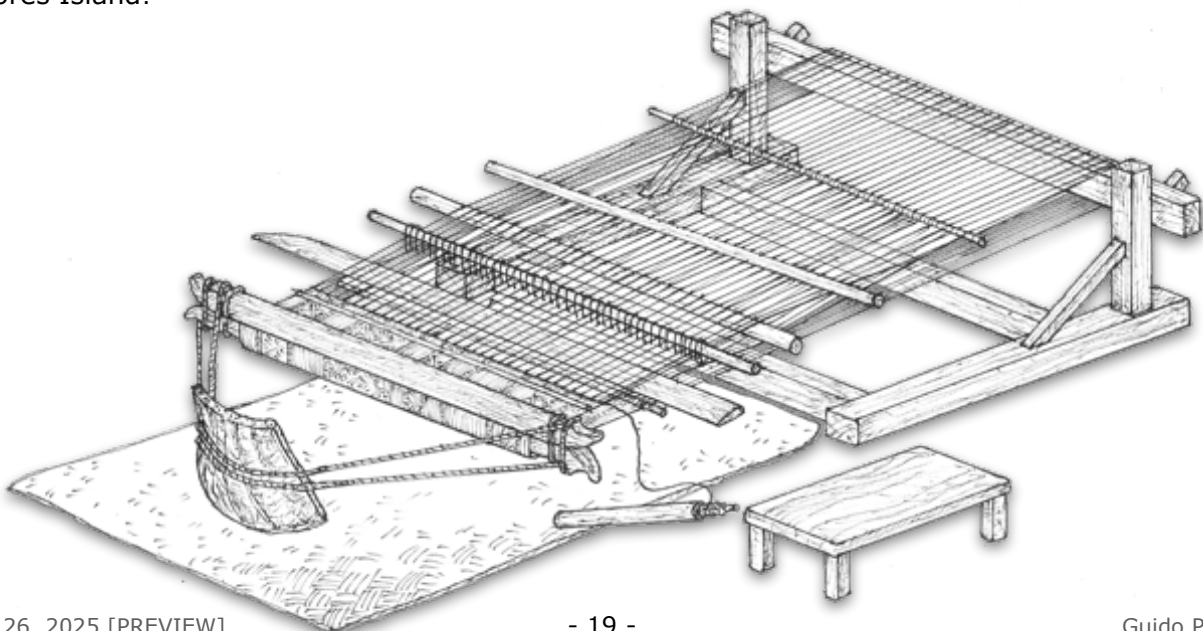


STAKE

A photo of Danerek shows two types of loom on Palu'e Island: The front one is a stake loom-type with two huge bamboo canes as warp posts stitch a horizontal-aligned circular warp. The foot brace is hold on position by two rows of big construction bricks. In terms of these bricks, it seems pretty much related to the loom of the Atoni on Timor, who use rocks instead of the bricks! The other one is a station loom-type, with a diagonal as a "fork" for the support of the warp beam. Such weaving stations are probably spread all over Flores! Most of the time the foot brace is build-in the frame! Both weavers use a spathe of the Areca-palm as backstrap. The first mentioned stake loom-type should be the ethnic loom of the Palu'e. Maybe it's telling us something about the relations of the Palu'e. Anyway, it looks, same as the Atoni loom, like a very ancient type of the stake looms found in Flores Island!



16) Two of several types of body-tensioned ground looms, in use by Palu'e weavers. Photo: Stefan Danerek/Osi Kula 2021.



Stake Loom of Palu'e (dhadha)

[I] [warp beam] [circular warp/hor.] [reedless] [strap]

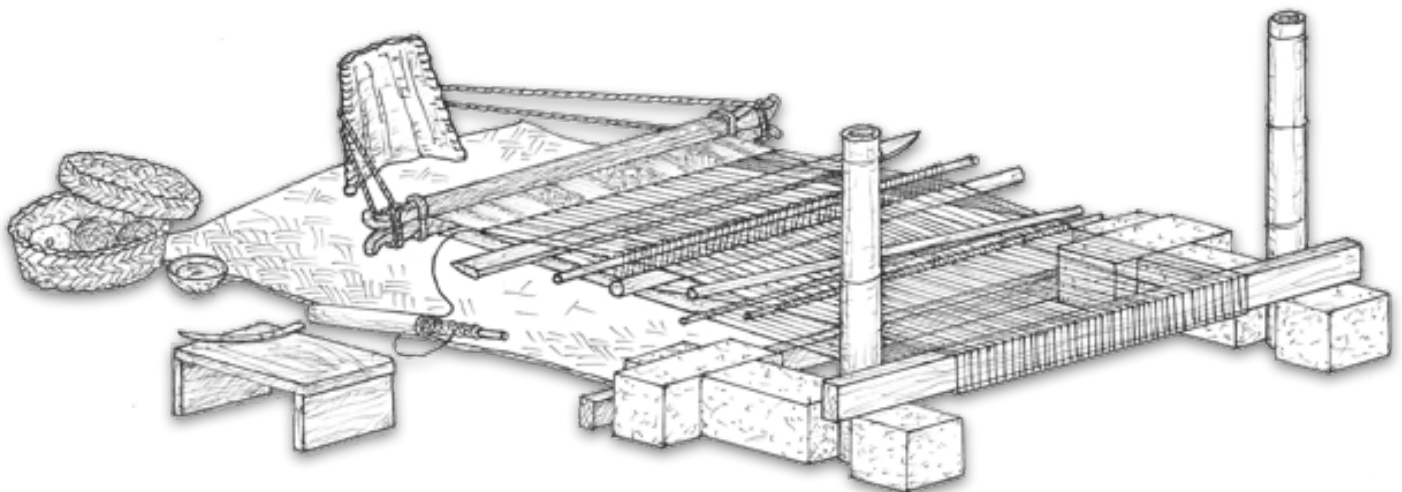
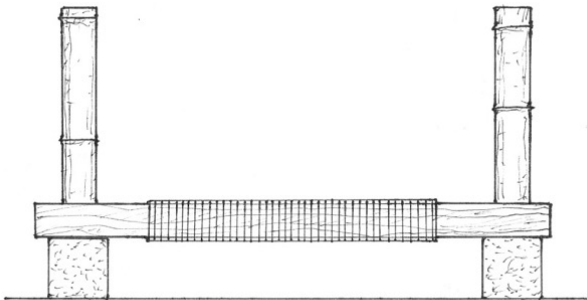
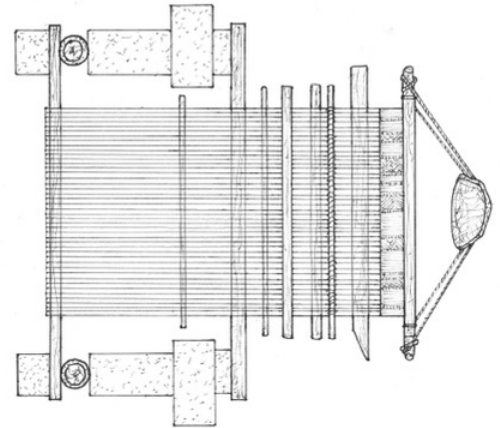
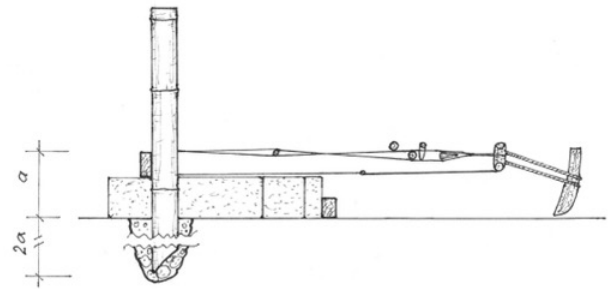
Dhadha | Dhodo

Palu'e Island belongs to the Sikka region, but in view of the chosen example of a loom from the repertoire of the Palu'e with the same high bamboo posts, which are increasingly found in Ende-region, they are more clearly compared here. Also in Sikka you can find some such bamboo posts, but they determine the picture less here! Striking are the construction bricks, used as warp beam bearings AND to extend the footrest - they, on the other hand, fit a little more to Sikka; but an amazingly similar, archaic-looking construction of the footrest can also be found on Timor Island!

[B]



STAKE



Alat Tenun Sikka

Looms of Sikka

[<<] [STONES] [PEGS] [BOARDS] [FLORES] [>>]



Looms of Sikka

STONES | PEGS | BOARDS SIKKA | KROWE | LIO | TANA'AI

Kabupaten Sikka

In the administrative district of Sikka are mainly the Sikka-Krowe. According to information, the Lio also belongs to the Sikka; but this requires further research. In the eastern mountain region of Sikka regency, however, the remote villages of the Tana-Ai are still found. None of the loom-variants found, can currently be assigned to a specific tribe or area, because as elsewhere on Flores, the variants do not seem (anymore) bound to regions or ethnic groups and are mostly widely scattered and partially found side by side! There are even versions of looms in the Sikka region, in which, as in the example of a stake loom of the Palu'e, one is inclined to stylistically attribute it to the Ende-region! These examples are omitted in the following!

There are the same body-tensioned ground looms equipped with circular Ikat warps as in the Ende-region. Here, however, bamboo canes are less or rarely used as posts, for which short piles are placed into the ground. Also, the warp beams are not hung on ropes here, but stored on rocks. There are also variants that replace or even supplement the stones with a second pair of wedges introduced diagonally into the ground. There are no limits to diversity! On old photos (Tillema 1926) also a model of a Sikka close to Maumere can be found, which also uses two conspicuously high boards: Once as a warp board; another as a breast board!

Except the looms on Palu'e Island, all variants shown in Sikka, have a loin yoke!

The variant with the diagonally inserted wedges show a reference to the otherwise found branch forks. Some of the looms in Sikka also have such branch forks, similar to Manggarai, or corresponding constructions; those variants are not listed here.

There are also conspicuously long bamboo canes as a batten rest, mounted on footrest and stone. But only rarely bell bands as a sound element, mounted on the batten rest, can be found, although they should be an important element of Sikka looms!

Also in Sikka there are occasionally station looms, but stake looms still predominate clearly!

COMPONENTS

Sikka
on the Rocks!

Pegs
of Sikka

Two Boards
make a Sikka!

Sikka
Krowe
Lio?
Tana'Ai

VOCABULARY

breast board
warp board
batten rest

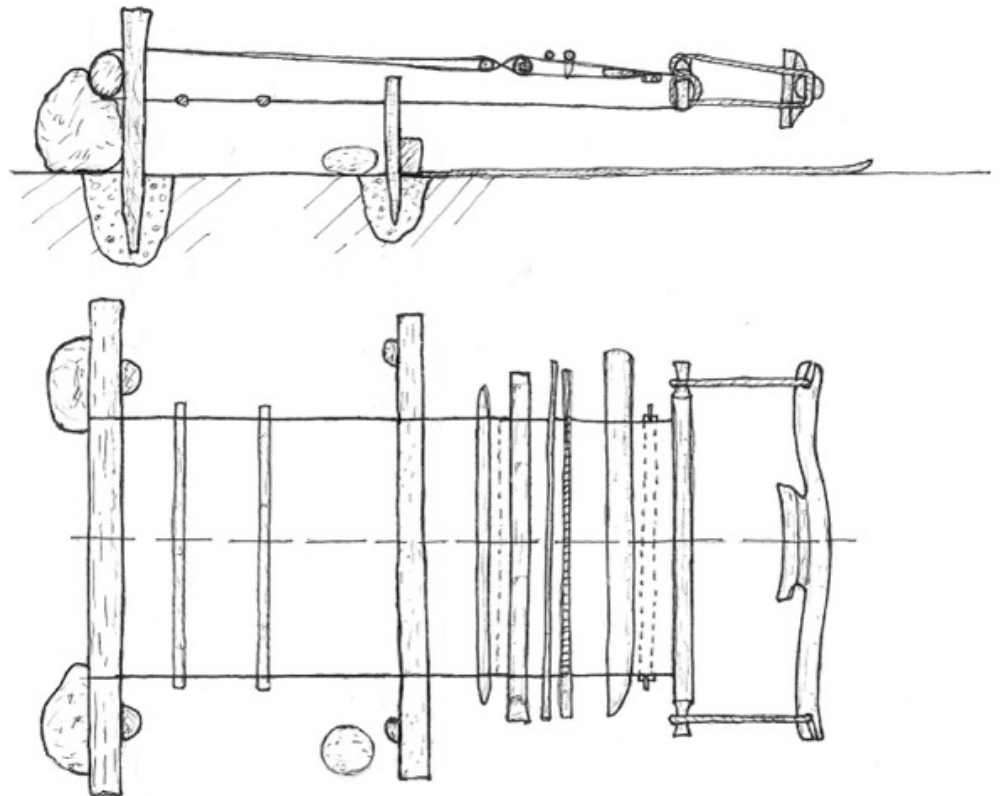
A Standard of Stake Loom on Stones

[1][warp beam] [circular warp/hor.] [reedless] [yoke]



STAKE

[B]



19) Sikka Loom, oval warp beam resting on stones. Le Roux ~1915. [Drawing: Charlotte Gröger/Guido Plum 2025]

20) Sikka Weaver 2010-2015 - © Christopher D. Buckley



Stake Loom with pegs

[V][warp beam] [circular warp/hor] [reedless] [yoke]

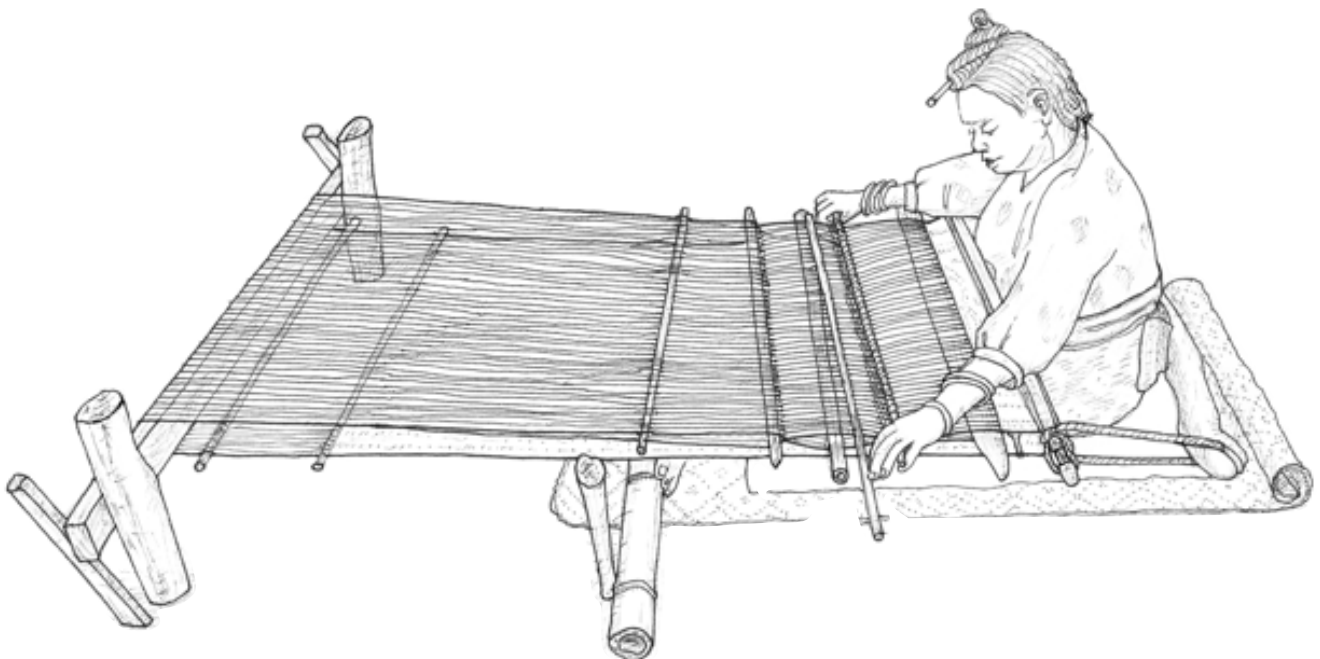
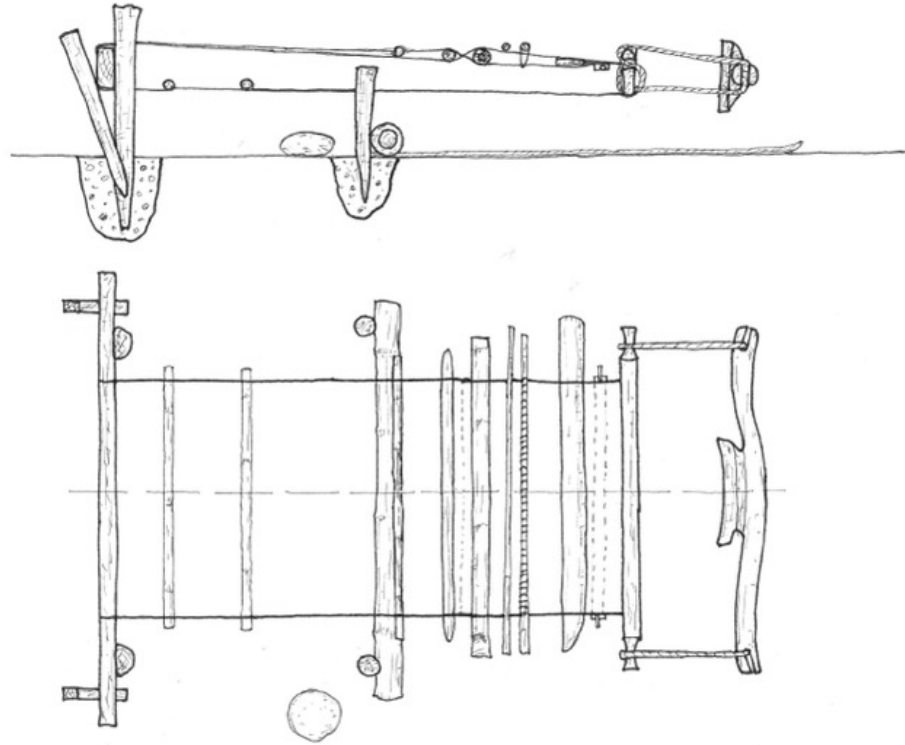


[B]



STAKE

Sikka run similar body-tensioned ground looms with horizontally-aligned warps, as close as possible to the ground, but the concept of holding the warp beam differs noticeably: Their warp beam gets lifted on height by rocks, or maybe by a second pair of diagonal pegs, or even a combination of both!



Sikka Loom with two boards

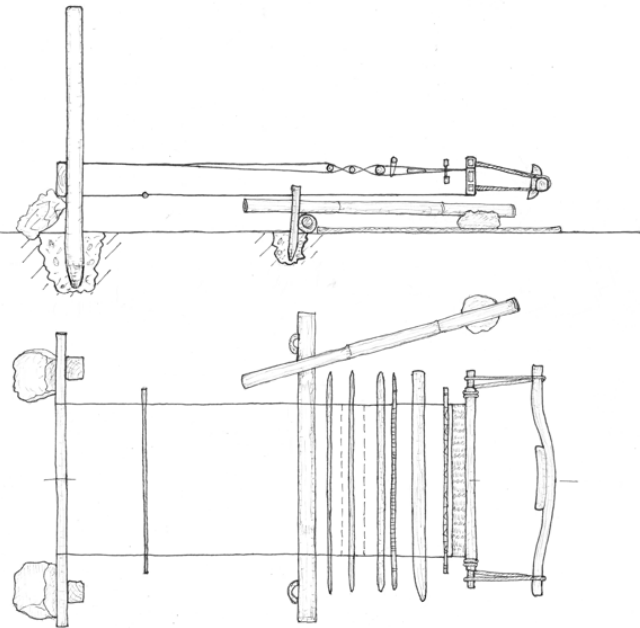
[I][warp board] [circular warp/hor] [breast board] [reedless] [yoke]



[B]

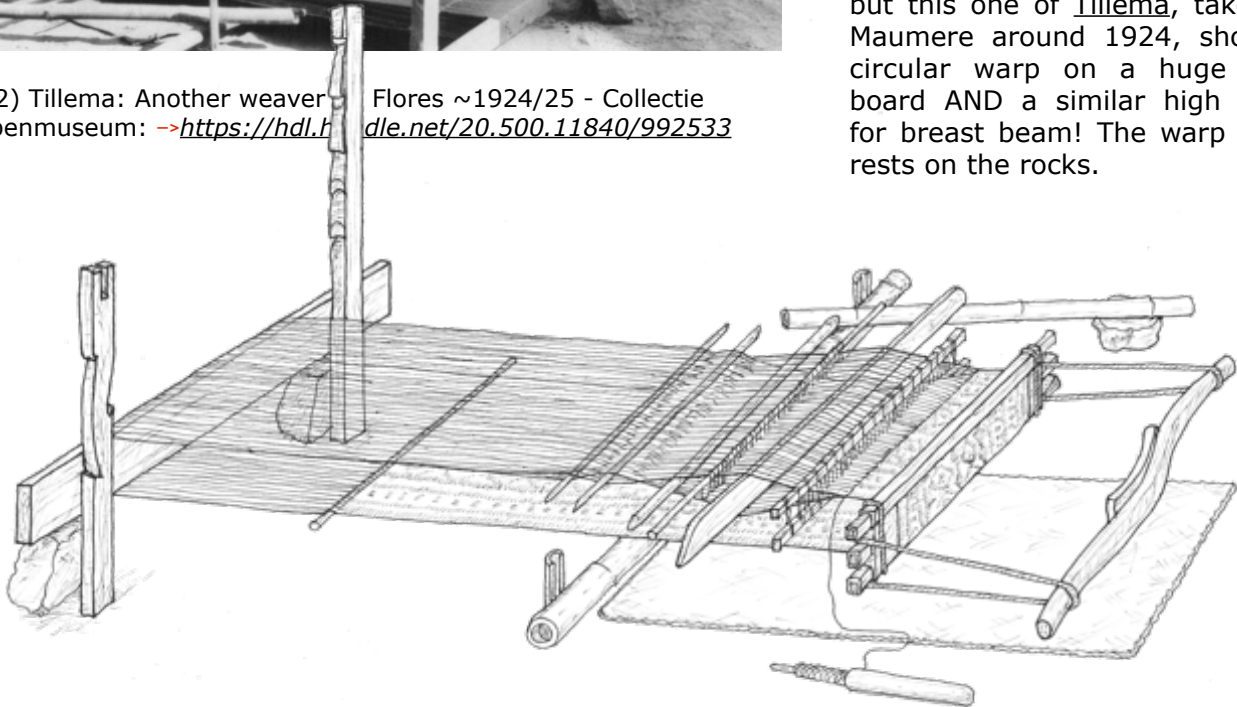


STAKE



Most photos of Sikka looms show round or rectangular warp beam, but this one of Tillema, taken im Maumere around 1924, shows a circular warp on a huge warp board AND a similar high board for breast beam! The warp board rests on the rocks.

22) Tillema: Another weaver Flores ~1924/25 - Collectie Tropenmuseum: -><https://hdl.handle.net/20.500.11840/992533>



23) According to Tillema a loom close Maumere with warp board on rocks. ~1924/25. [Drawing: Charlotte Gröger/Guido Plum 2025]

Alat Tenun Flores Timur

Looms of East Flores

[<<] [LARANTUKA] [ILI MANDIRI] [MANDIRI STATION] [ADONARA] [FLORES] [>>]



Looms of East Flores (Lamaholot)

LARANTUKA STAKE | MANDIRI STAKE | MANDIRI STATION | ADONARA

Kabupaten Timur

COMPONENTS

Stakes
of Larantuka

Mandiri
Stakes

Mandiri
on Station

Adonara
Station Looms
Stations at a glance

On East Flores and the adjacent islands, there are more and more station loom-types next to the usual stake looms. Similar to the looms in Ende-Region, the posts of the stake looms are made of bamboo canes, and the warp beam is also held by hanging rope loops; However, both examples of stake looms, as with the station looms here, a back strap is still in use. In addition, an amazing footrest on a photo from Larantuka draws attention!

The example of a timbered station loom in Belogili, on the other hand, uses a solution for supporting the warp beam, that is reminiscent of the traditional branch forks.

But also a simple type of stake loom can be found as an example in Ili Mandiri. In contrast to the widespread versions of stake looms on Flores, the footrest is still pressed against the post. A back strap is also enough for its narrow warp! In deviation from existing templates, its warp beam is also tied directly to the bamboo posts.

The tall bamboo posts and the variations of rope connections of the warp beam show certain parallels to the models in the Ende-region, which do not or rarely show up in the Sikka-region.

All examples use a back strap!

On Adonara there are four station looms at once that document very interesting interpretations of forks as warp beam-holders.

VOCABULARY

backstrap

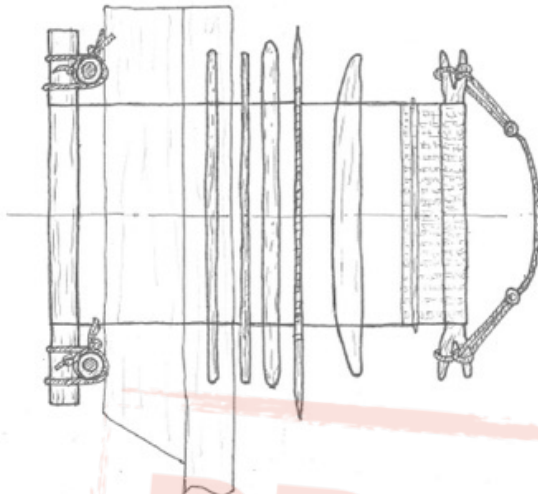
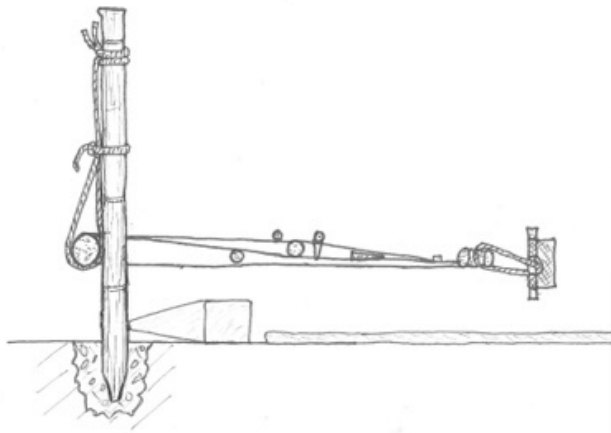
Larantuka Stake Loom (Ground Loom)

[1][warp beam] [circular warp/hor] [reedless] [strap]

[B]



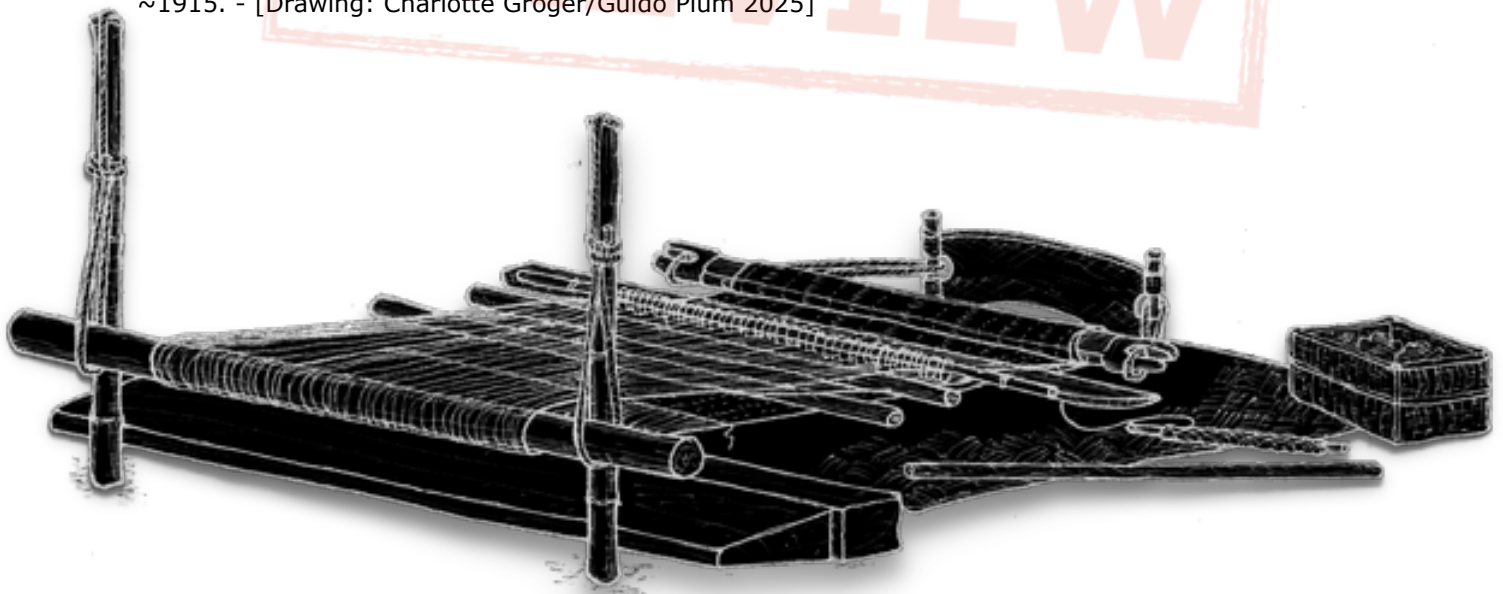
STAKE



24) Weefster te Larantoeke ~1925. Universiteit Leiden KITLV 5624

25) Larantuka Loom, hang-up, round warp beam. Le Roux ~1915. - [Drawing: Charlotte Gröger/Guido Plum 2025]

PREVIEW



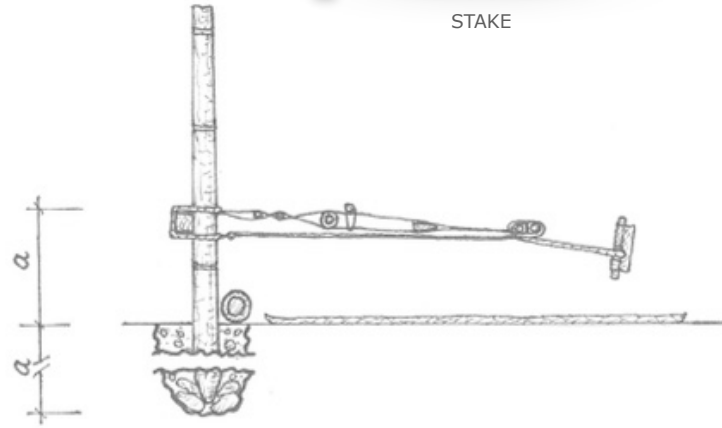
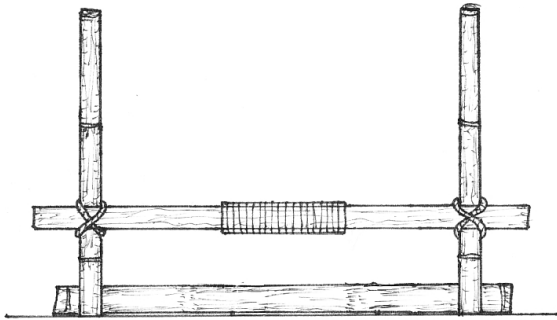
Ili Mandiri Stake Loom (Ground Loom)

[I][warp beam] [circular warp/hor] [reedless] [strap]

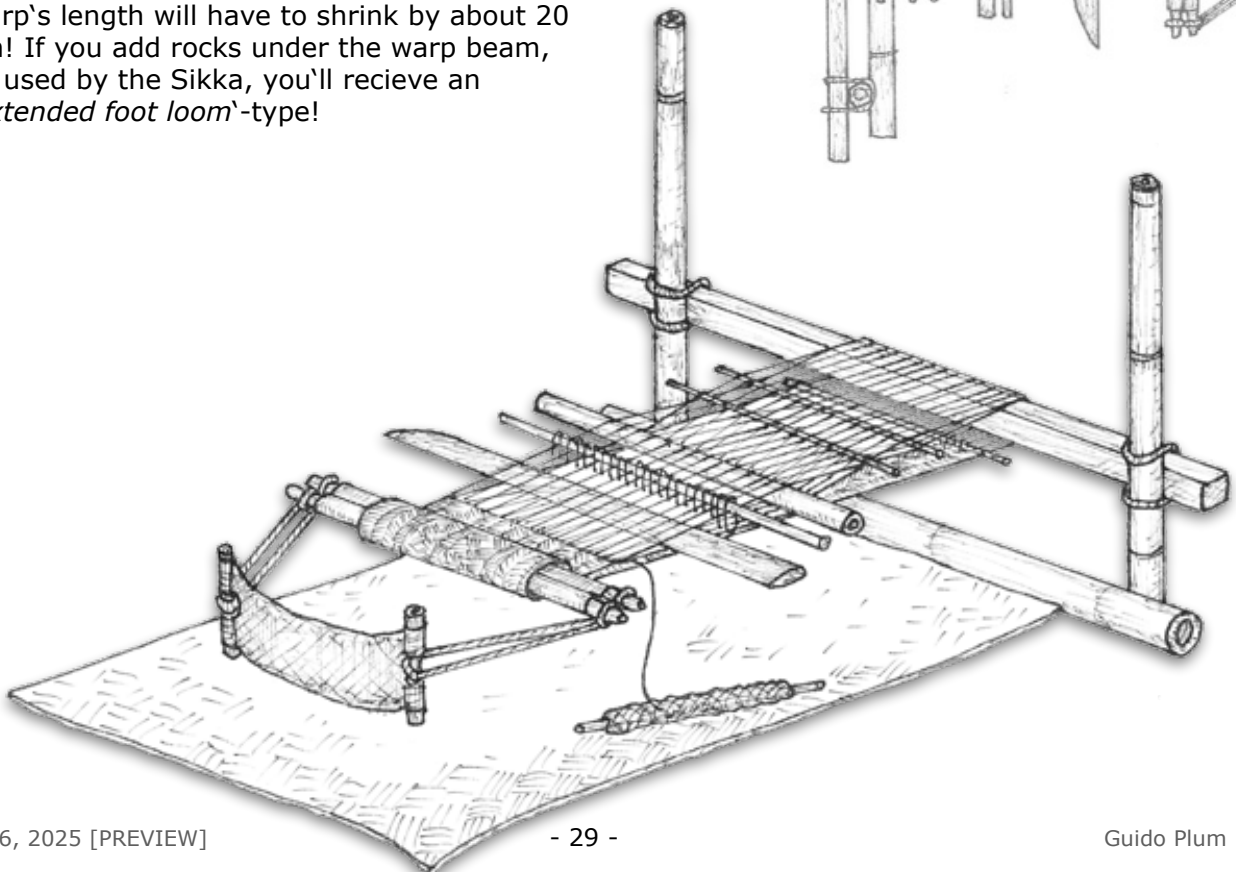
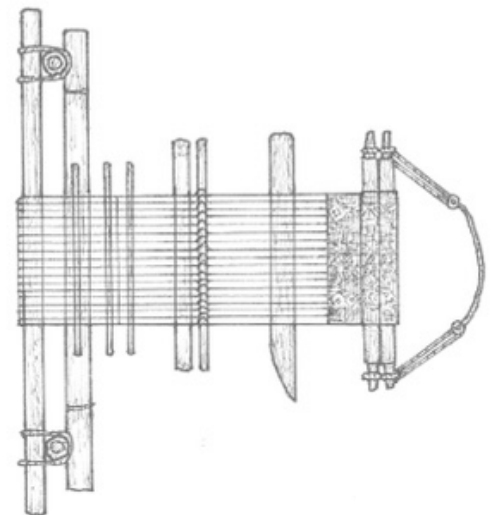
[B]



STAKE



Apart from the suspension of the warp beam, this stake loom basically resembles the loom constructions in Ende region in view of its protruding bamboo posts, but the footrest is found directly on the posts. This demonstrates an unexpected relation of these body-tensioned ground looms to the type of foot looms. A little modification of the warp's height, removal of the footrest, and the loosening of the warp beam still make the difference to the foot loom here, as proven by chance on Timor. However, the warp's length will have to shrink by about 20 cm! If you add rocks under the warp beam, as used by the Sikka, you'll receive an 'extended foot loom'-type!



Station Loom in Ili Mandiri Region

[上][warp beam] [circular warp/hor] [reedless] [strap]



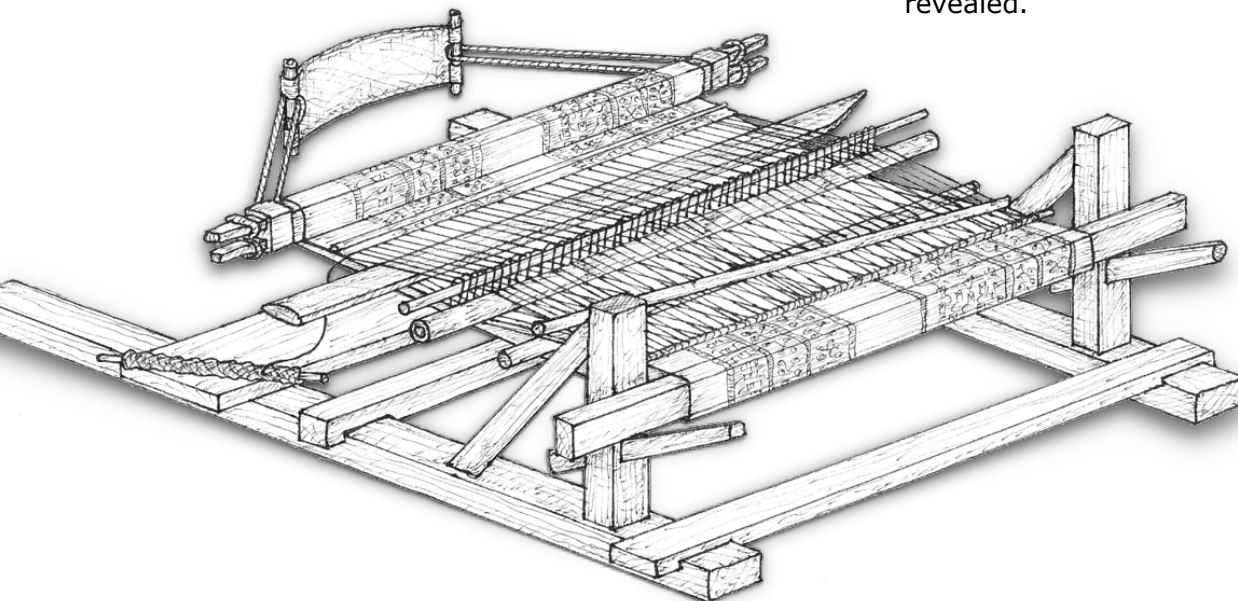
[B]

STATION



27) Back in time: Another station loom (or so-called 'part-frame') in Belogili, Ili Mandiri region of East Flores ~2010-2015. © Christopher D. Buckley

Obviously this station loom recalls the forked branches of the original stake looms. In East Flores and the following islands, a varied coexistence of station looms and the original stake looms is revealed.



Adonara - Fork Stations at a Glance

[X] [warp beam] [circular warp/hor] [reedless] [strap]

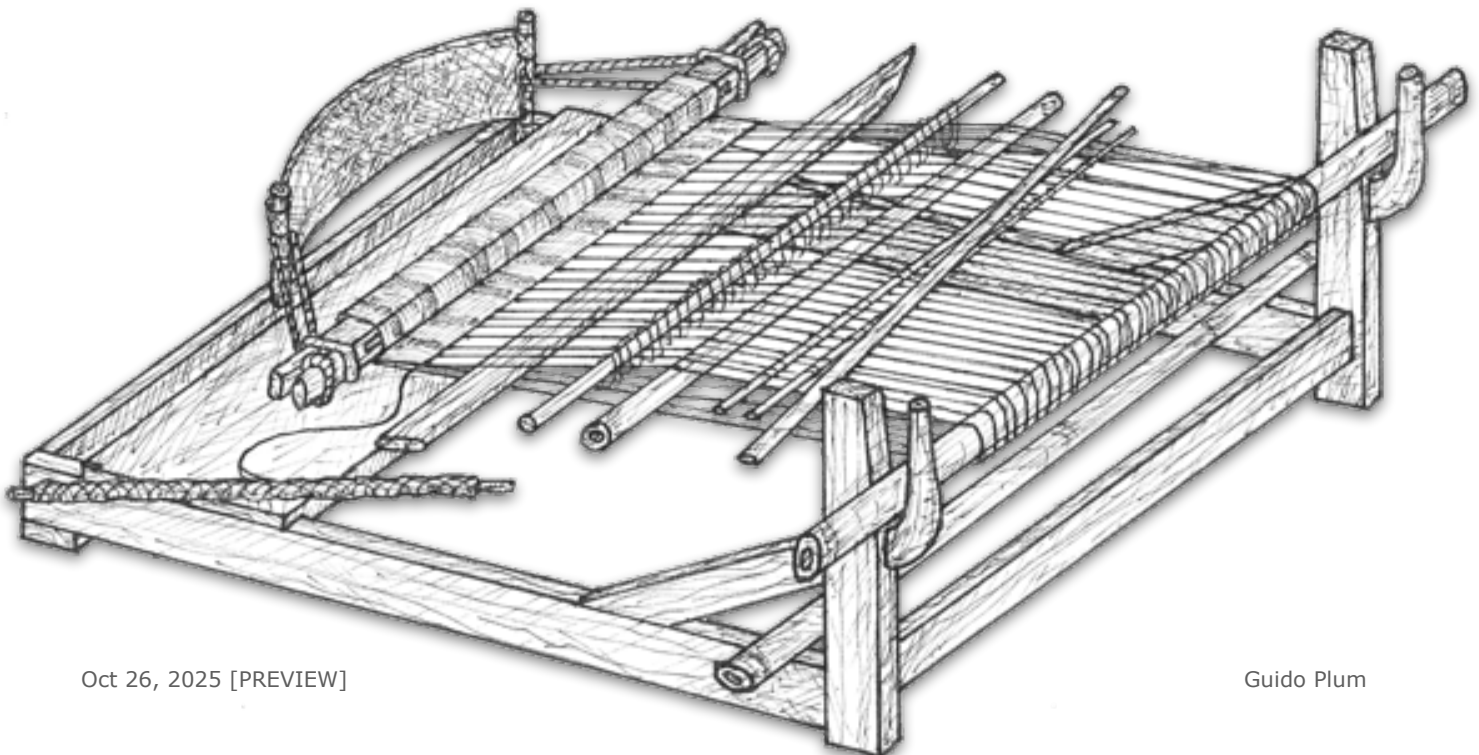
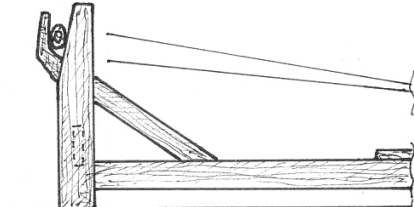
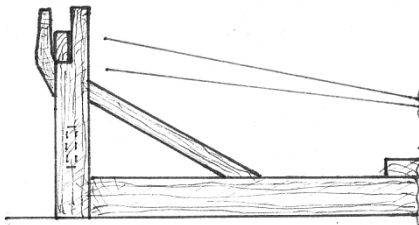
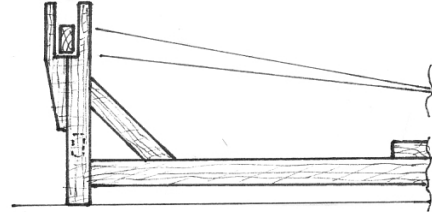
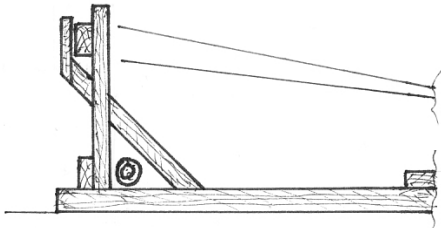
[B]



STATION



A photo from Adonara Island serves four station loom-types in one. It's not each station, but a single design detail, what's making the difference between those four. Interestingly, there are no centered incisions on the posts; they are cut into the side. A vertical strip is then attached as a holder, which locks the warp beam. An example in which the strip was modeled like a branch or even made of such a branch, illustrates the overall impression: Another station leads the diagonal through the post and thus serves as a support for the warp beam. The overhang is kept extremely short and is also closed by a vertical strip. They also act as an interpretation of the variously cited forks.



Looms of Lembata

LEMBATA FORK

Lembata Fork Loom

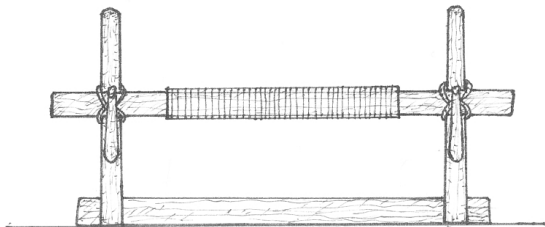
[上][warp beam] [circular warp/dia]
[reedless] [strap]



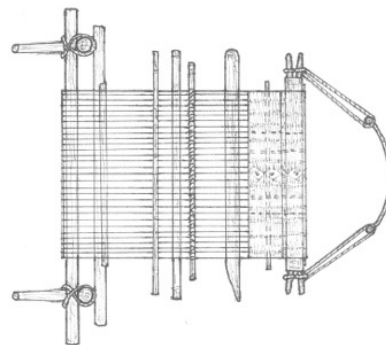
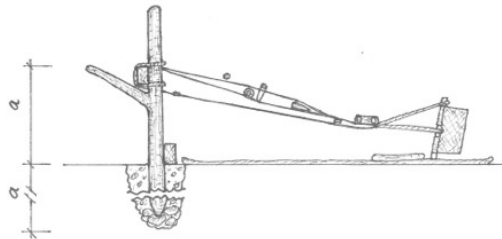
STAKE



30) Weaver in Atadei-region on Lembata; forked branches are used as warp posts. ~2010-2015. © Christopher D. Buckley



A photo of the Lembata loom can be found in Buckley 2017 (p. 298, fig. 7.17). The poles show a different type of forked branch, but somehow similar to the Y-shaped poles of the Manggarai loom; here still equipped with a backstrap on circular warp, and of course: No reed! It's hard to see, but the dark warp strips seem to include elements of Ikat! Since the weaver is rightly afraid that her warp beam, which is definitely too short, will slip out of the holder, she tied it up as a precaution!



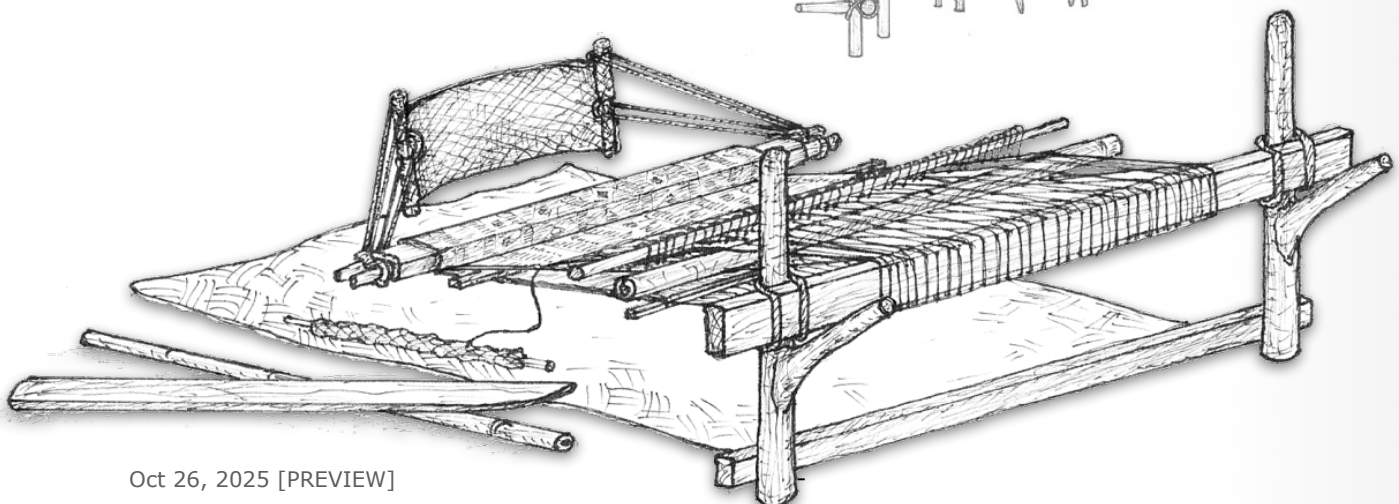
Kab. Lembata

Fork Loom

*Home is where
my forks rest*

Lembata Station

Coming soon!



Looms of Alor

TERNATE STATION | TERNATE BEACH | BOKA BESI | PANTAR

Kabupaten Alor

Currently, it seems as if the number of station looms on the islands is increasing here in the far east of Flores. However, stake looms can still be found. The stations don't necessarily exhibit a stylistic break; even if some models appear somewhat precarious and constructed based on motions, the designs reveal various references to the cultural customs we observed on Flores. All three station looms feature the typical cross fork as a warp beam holder; only the functional and simple stake loom on Pantar Island does not feature any forked branches!

Even though the station loom-type on Ternaté appears to be somewhat insecurely constructed and required various corrections, the clever use of the cross fork in double-pack resulted in a solution that is not only suitable but also of cultural significance.

A truly magnificent station loom was found on the beach in Ternate by Bandanaku. "A seaworthy loin loom", to use Chris Buckley's latest expression, and indeed, it creates far-reaching connections through its two loose, diagonal rails, which also form a cross fork as a warp beam support. Similar, but different-in-use solutions are found with the looms of Champa!

This very fork-forming diagonal rail can be found as a permanently installed support for the warp beam at a station loom in Boka Besi. As the photo shows, unlike traditional weaving stations, this station loom is at least partially screwed, perhaps even nailed, although it also incorporates such time-honored methods! Due to the circumstances, the weaver sometimes has no other choice, even though the beach loom in Ternaté fundamentally offers the ingenious solutions of the weaving craft with all its expression – simply ingenious versus complicated!

Ternate Station

Solution of the day to come!

Beach Station

A seaworthy Loom

Boka Besi

Ground Station on Cross Fork

Pantar Stake

One more stake loom!

VOCABULARY

Champa

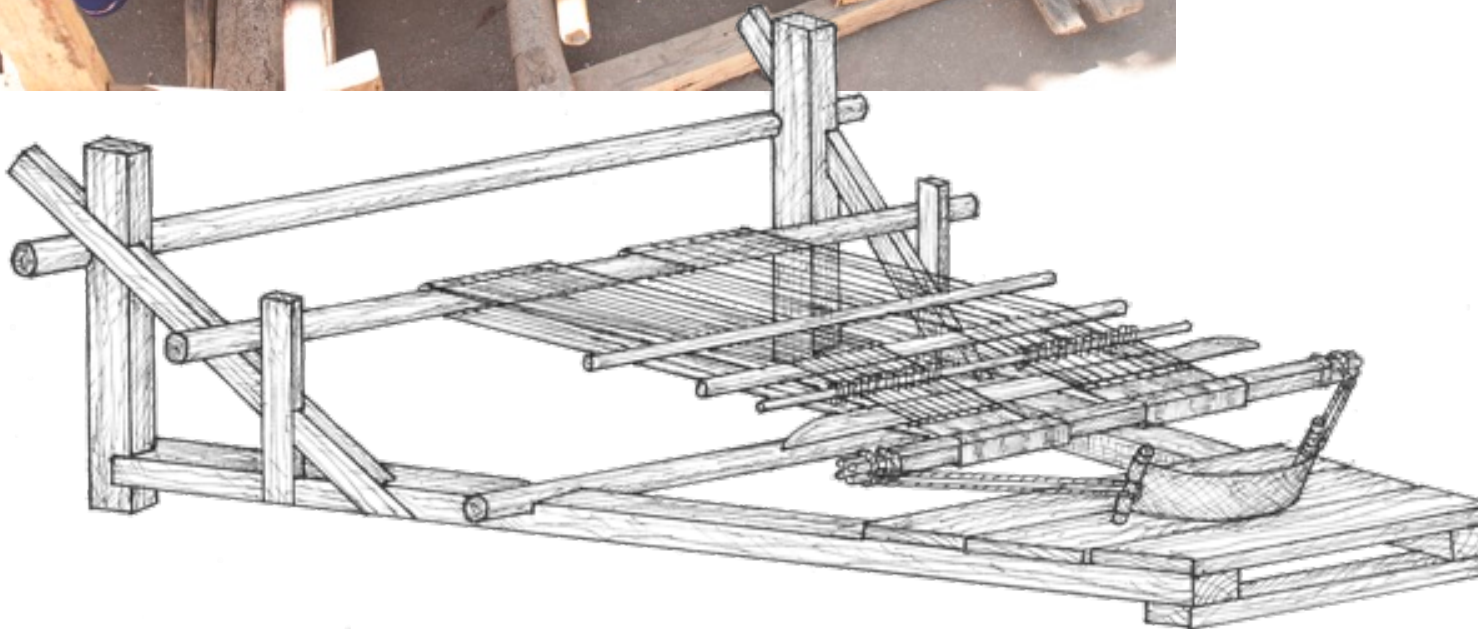
PREVIEW

Station Loom in Ternate Selatan

[X][warp beam] [circular warp/hor] [reedless] [strap]



STATION



32) A loom on Alor Island (east of Flores) shows a part-frame loom from Ternate Selatan. ~2010-2015. The drawing shows a timbered variant in contrast to the rudimentary model in the photo. Photo © Christopher D. Buckley.

Ternate Beach Station

[X][warp beam] [circular warp/dia] [reedless] [strap]

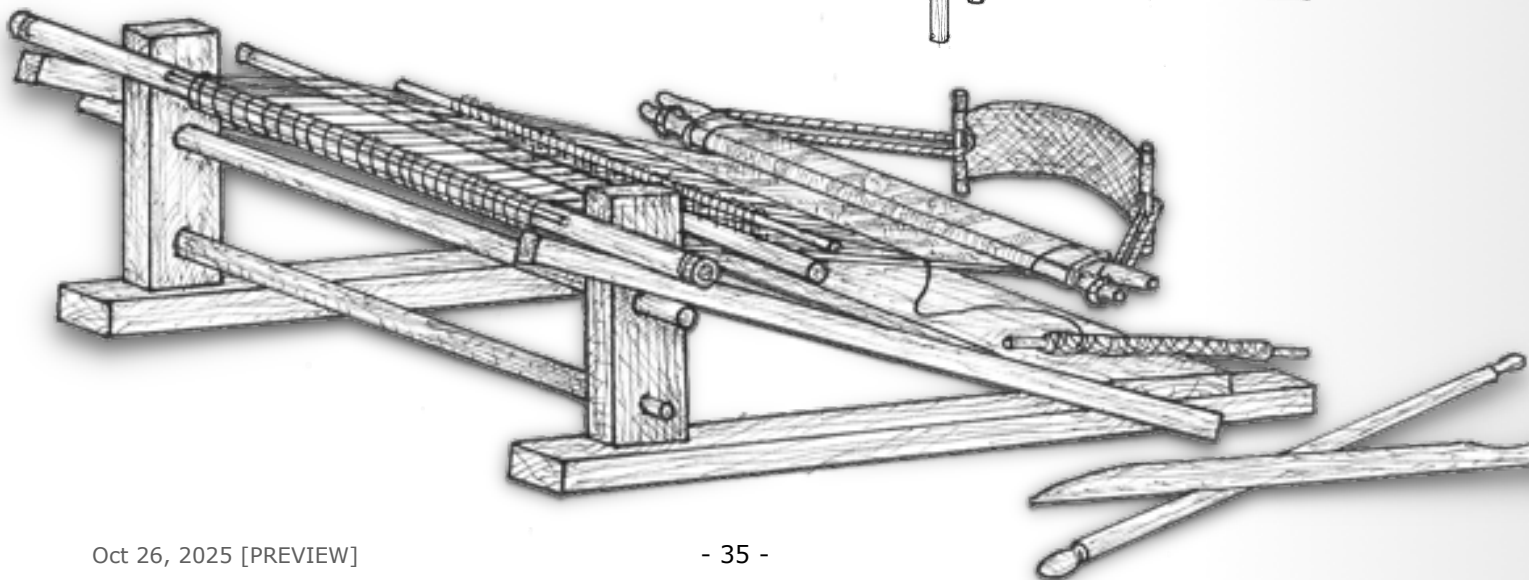
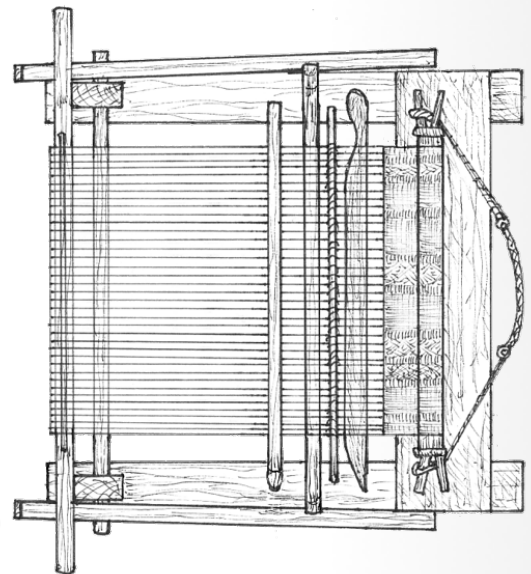


STATION



This photo shows a really great station loom on Ternate that provides a broad context for discussion. The diagonal rails serve as support for the warp beam. Similar use of such diagonal supports can only rarely be observed in eastern Indonesia; in the west they seem to have disappeared! A rare specimen of the Cham (Sundanese descent) in South Vietnam is also found, showing such rails in varied application. They expand the repertoire of fork solutions as warp beam suspension, found on Flores.

34) Cozy station loom at Maloema Beach on Ternate Island (Alor). Photo: © Perjalanan Bandanaku 2015



A Station Loom in Boka Besi

[X][warp beam] [circular warp/hor] [reedless] [strap]



[B]

STATION

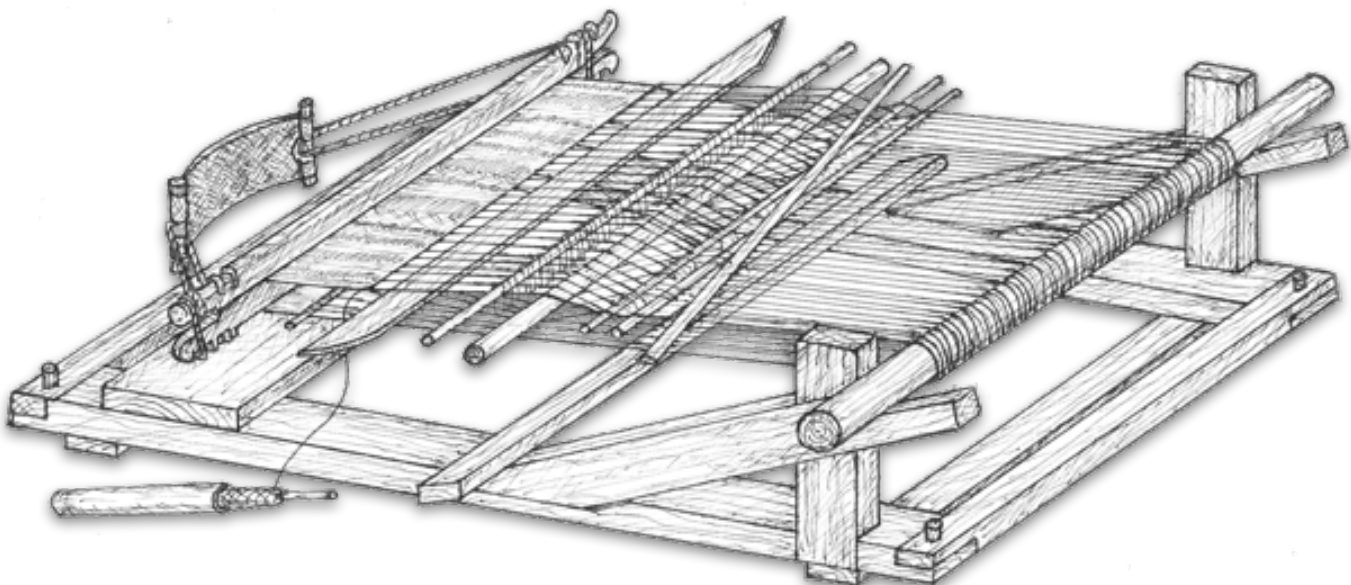


36) The photo is taken in Boka Besi. ~2010-2015.
Photo: © Christopher D. Buckley.



It seems like the loom in Boka Besi recalls the forked branch of some looms on Flores in its construction of the posts, while the loom on Ternate seems not have taken notice of or is ignoring it by turning it around! But take a closer look once again!

Like the photo shows, several of these stations show modern modifications; nails and screws are needed to realize the wooden scaffolding (part-frame)! That makes a fundamental difference of the modern creations to the geniosity of traditionally established constructions.



Stake Loom on Pantar

[I][warp beam] [circular warp/hor] [reedless] [strap]

[B]



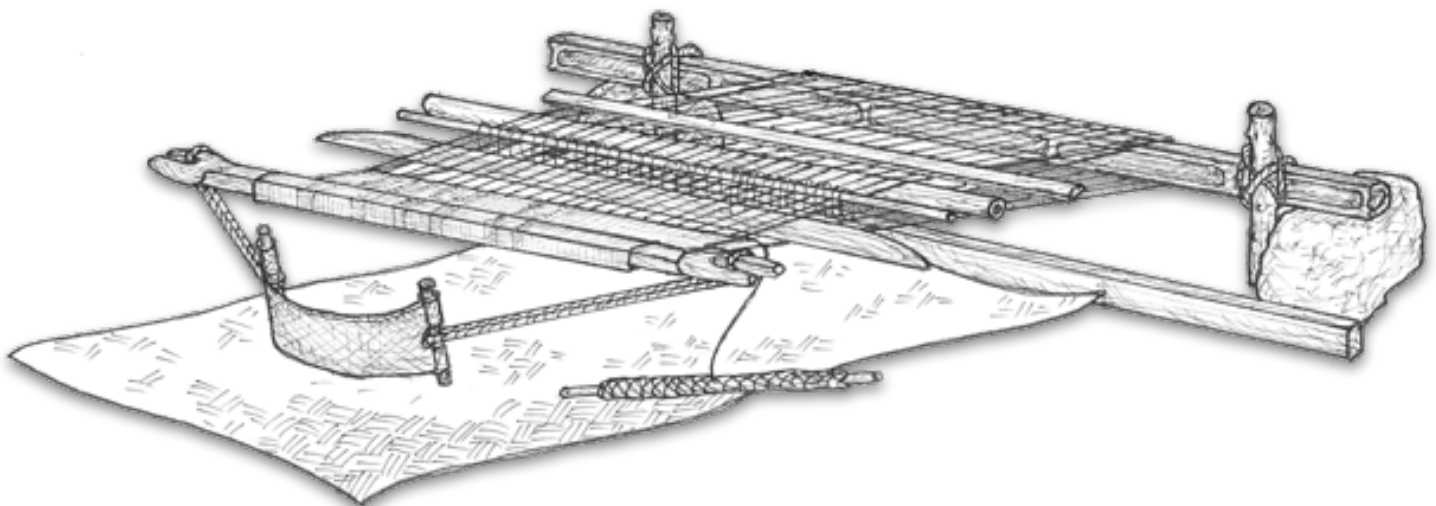
STAKE



38) A stake loom with circular warp in Baranusa on Pantar Island; east of Alor ~2010 -2015. No reed is used!
© Christopher D. Buckley

That's the big question on the biggest big tree, put in picture: Does the photo from Baranusa show the warp beam of a stake loom, merely tied up, or is it stored on rocks? The footrest, kept at a slight distance, suggests that the warp beam is resting on those rocks as drawn. The somewhat lapidary binding should therefore just secure the warp beam from falling; the rocks certainly provide its height. A half-cut bamboo cane serves as warp beam. The proximity of the footrest to the posts illustrates again, as coincidence on Timor will still show, a certain proximity to foot looms - a few tiny modifications and it results in a foot loom!

Here, too, a horizontally aligned, circular warp without reed comb is at work; a back strap still serves to connect the weaver! In addition, there is no kind of lease stick to find!





STAKE

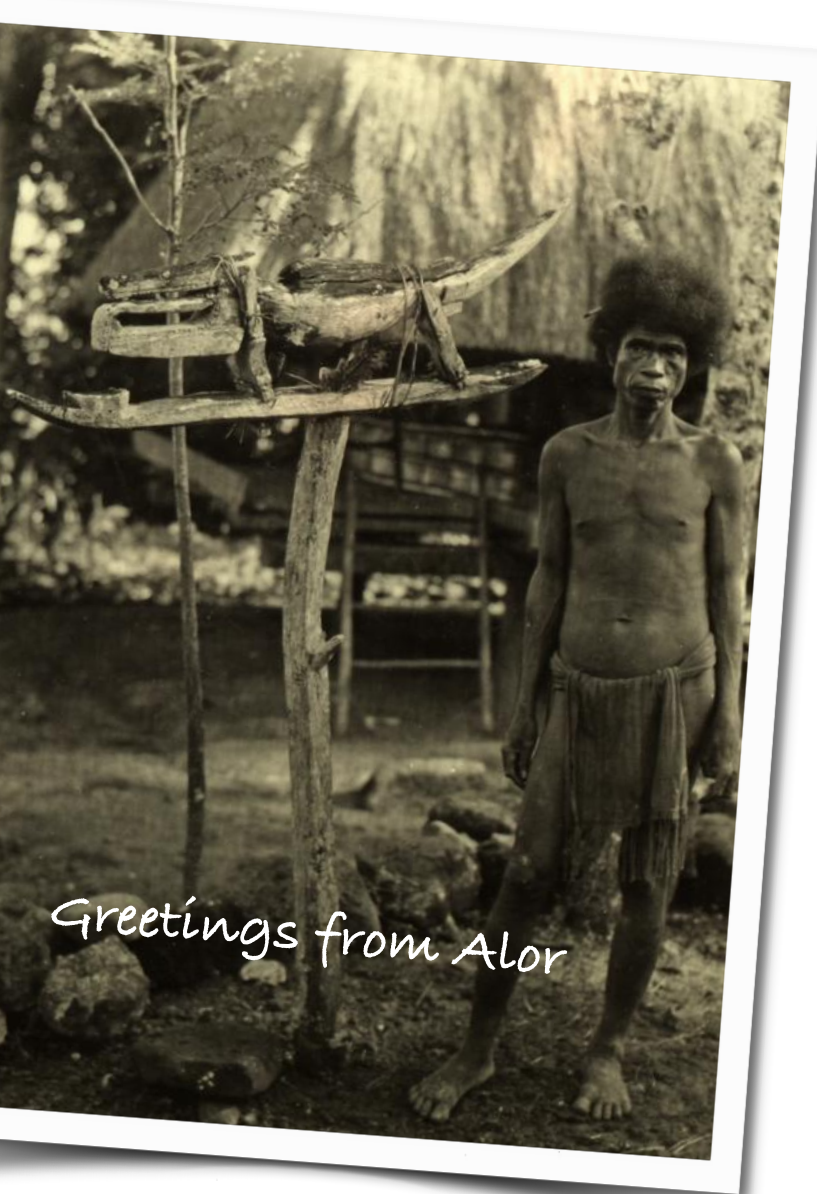


STAND



STATION

[B] [C]



Greetings from Alor

Greetings from Alor

A preview of the upcoming highlights: All over Flores there are representations and shrines of the Naga, the dragon or serpent horse, as this photo from Alor shows. Sikka call Flores Nusa Nipa, the Serpent Island. Some may still keep going on asking, what this has in common with the loom! Maybe an answer will be found if a closer look at the following pictures is taken!

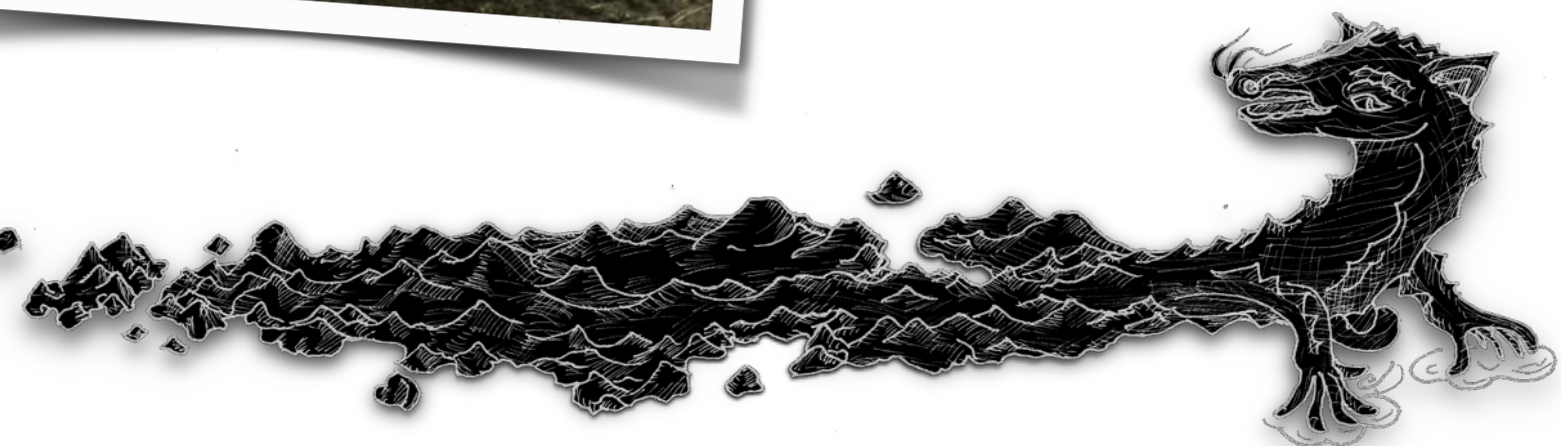
39) E.E. & H. Vatter 1928/29:

"*Man naast een naga-figuur (draak-slang) te Toetbang bij Maibang op Poelau Alor*" (Man next to a naga figure (dragon snake) in Tutbang at Maibang on Pulau Alor).

Universiteit Leiden: KITLV 122386
<http://hdl.handle.net/1887.1/item:898678>

Kembali!

As it should have been shown, almost all traditional loin looms on Flores come from stake looms, probably also today's station looms! In addition, there are a few stand loom-types, similar to the Bima, but the second place is occupied by the station looms, especially in the west but also the sprawling east of the island chain, while the loom of the Bajawa could still turn out as a lonely representative of simple stilt looms on Flores.



Alat Eksternal

External Looms

[<<] [XXX] [MANDAR] [SUMBA] [TIMOR] [PAPUA] [FLORES] [>>]



Externals

MANDAR | SUMBA | TIMOR | PAPUA | COINCIDENCE | HEAVEN | HIMALAYA |
SULAWESI | RAJUA

Six examples of loins looms from the vicinity of Flores are finally added to the collection. They serve as an overview and show partially the influences from the outside. In addition to the Bima loom described above, the Mandar loom probably also had an significant influence on the Manggarai. The fusion with the original stake loom of the Manggarai probably resulted in the various models of today.

The example of a ground loom-type on Timor not only shows parallels to Flores, perhaps even reveals a retrospective on previous loom design by the extensive use of rocks. Another example from Timor, as luck would have it, shows the proximity of the ground loom to the foot loom when the footrest, which is otherwise kept at a distance, is positioned at the warp post.

A model on Sumba, however, also shows the use of untreated branches as warp beam-holders, but without the these typical forks, observed on Flores. Here, too, the warp beam, similar to the Ndona, is hung by rope loops. Rudimentary branches also serve as foot rest and batten rest here.

For comparison, the only Indonesian foot loom of the Sobei in Papua also has been added. The end of the collection is the mysterious sculpture of a weaver who, in addition to infant care, is busy with a strange foot loom. She was found by locals in a cave in East Flores, but the warp board her loom points to Taiwan!

According to Indonesian traditions, as a legend of the Palu'e tells, one finally swings onto the areca palm to enter higher realms and explain the origin of the loin loom. From above there the heavens' looms take us down to earth once again.....back to the warping devices on Flores!

Alat Eksternal

Atoni Loom:

Crocodile on the Rocks

*An ancient type
of ground loom
on Timor Island?*

Mandar Stands out!

*Another Influence
from Sulawesi*

Branch of Sumba

A neighbour's loom

Timor by Foot?

Accident happens!

*Hint by foot
leading back
in time?*

Sobei on Papua:

Selamat Malam

*Another Foot
Loom's gone!*

Take care of

COMPONENTS



Out of Taiwan?

The Foot Loom of Larantuka

*Local from a distance -
A masterpiece on its own!*

Heaven on Earth

Areca in the Sky

*Palu'e Legend
of the Loom*

Heavens' Looms

From Above

....to earth!

Next edition:

Let's go

Rajua Island

*Loin Loom goes
externally-tensioned!*

Mandar Loom (Sulawesi)

[warp board] [flat warp/hor] [breast frame] [reed] [yoke?]

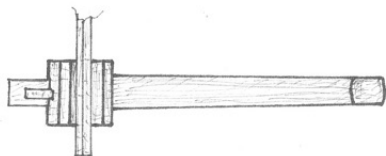
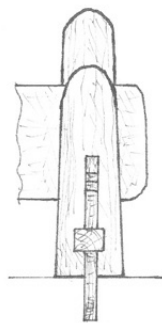
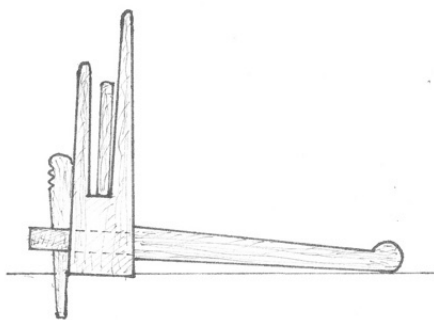
Ekxternal



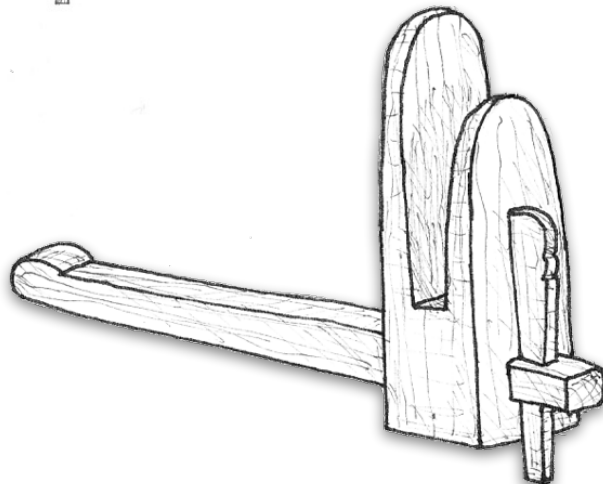
STAND



41) Mandar loom on southern West Sulawesi, 1939. Collectie Tropenmuseum:
TM-10014398 - <https://hdl.handle.net/20.500.11840/232037>



Some looms in Manggarai (not shown here) show still some relics of influence of this type of stand loom of the Mandar people on Sulawesi. Not just the huge warp board & its flat warp, what's also similar to the Bima; beside the stands have been adapted! It states, interests of the Manggarai was the engine of all these changes!



Sumba Branch Loom

[1][warp beam] [circular warp/dia?] [reedless] [yoke]

Ekxternal

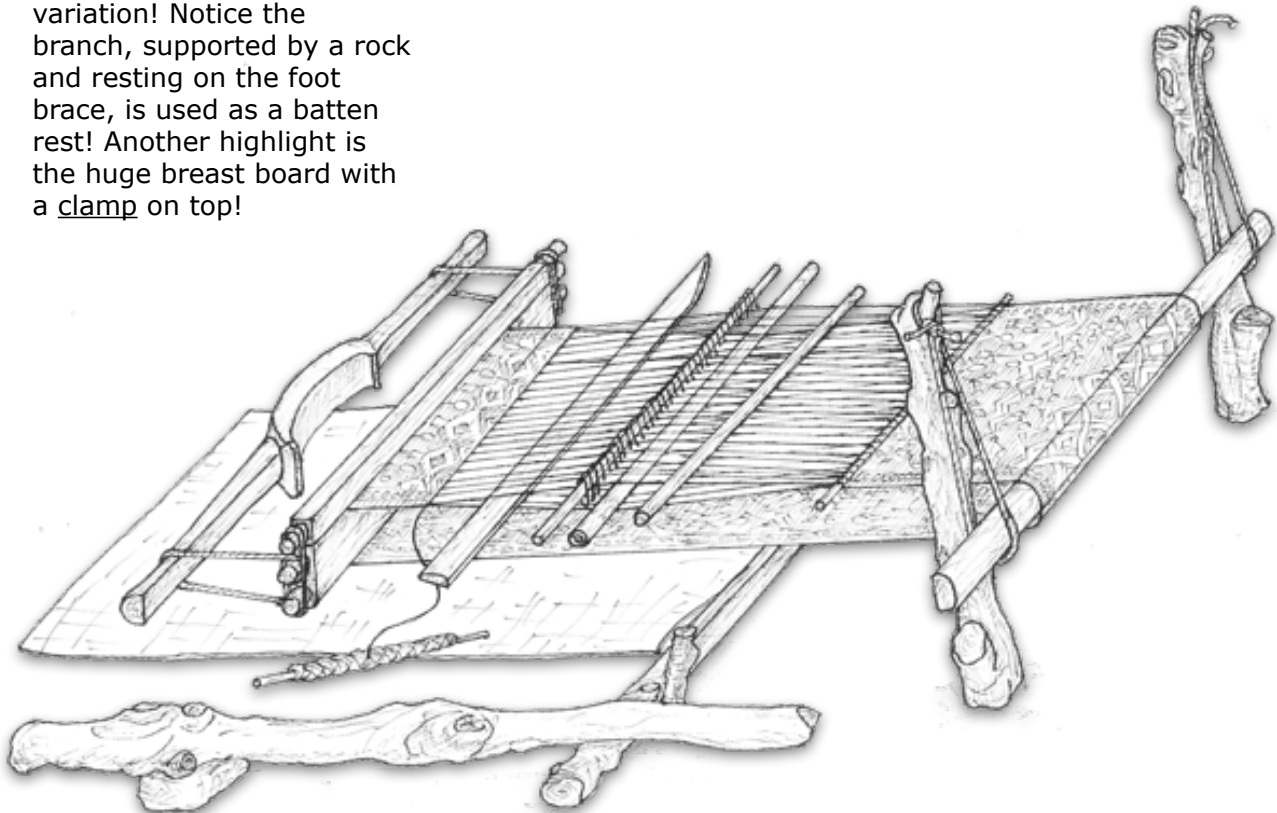


STAKE



A circular warp without a reed comb on oval warp beam, that's hold by rope loops, hanging down from two plain branches. These loops are almost Ndona-like, but in reverse variation! Notice the branch, supported by a rock and resting on the foot brace, is used as a batten rest! Another highlight is the huge breast board with a clamp on top!

43) Similar solutions can also be found on Sumba; but without the striking fork! Photo: Taillie 1949: „Een weefster achter een weeftoestel" - Collectie Tropenmuseum TM-10029656.



Ground Loom of Atoni (Timor)

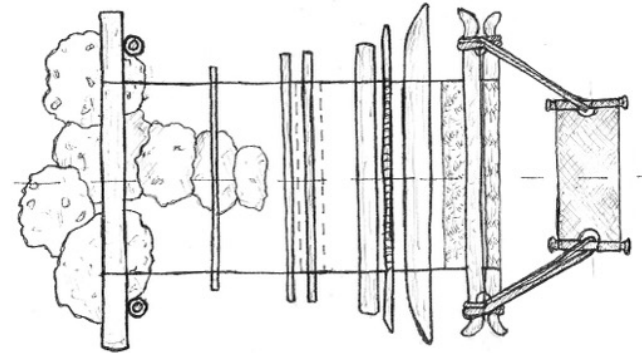
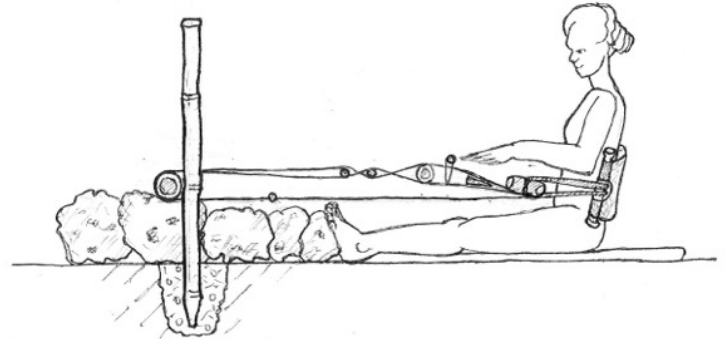
Crocodile on the rocks

[I][warp beam] [circular warp/hor] [reedless] [strap]

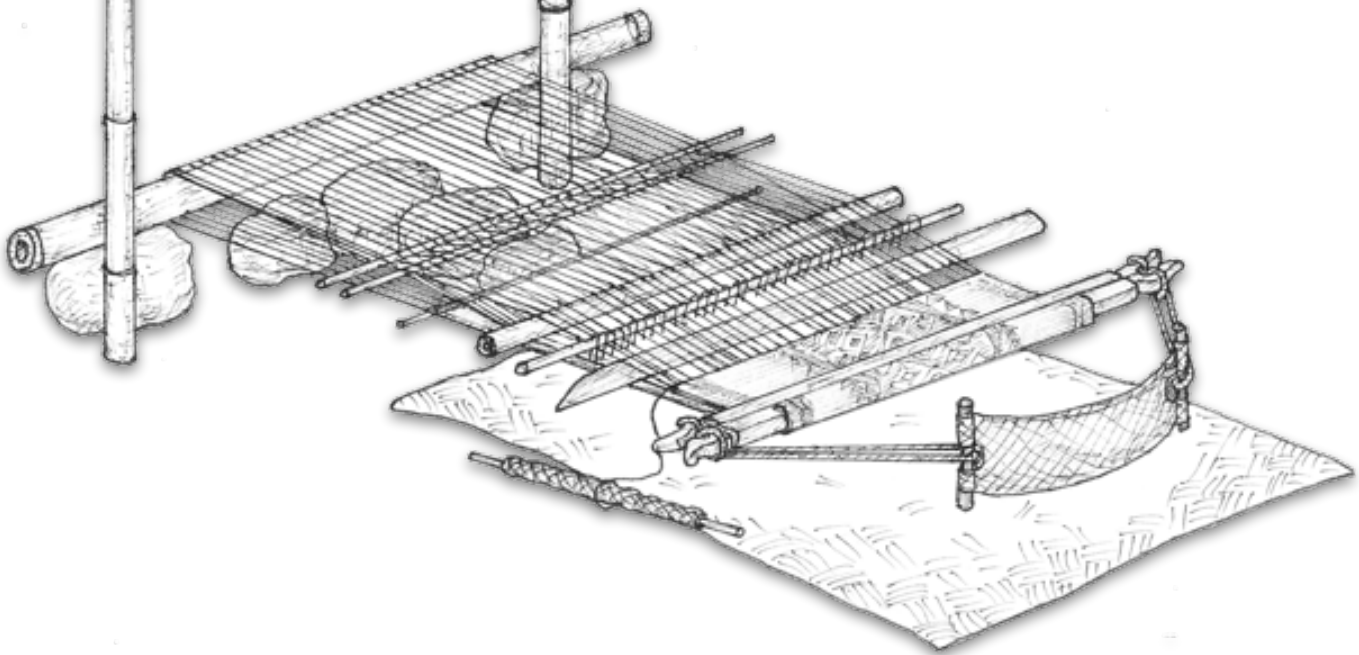
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STAKE



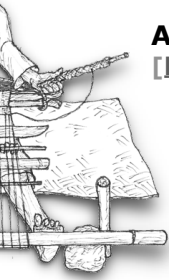
45) Atoni Loom on Timor Island, according to Yoshimoto:
round warp beam, resting on rocks. Rocks as footrest.
[Drawing: Charlotte Gröger/Guido Plum 2025]



Accidental Foot Loom (Timor)

[1][warp beam] [circular warp/hor] [reedless] [strap]

Ekxternal



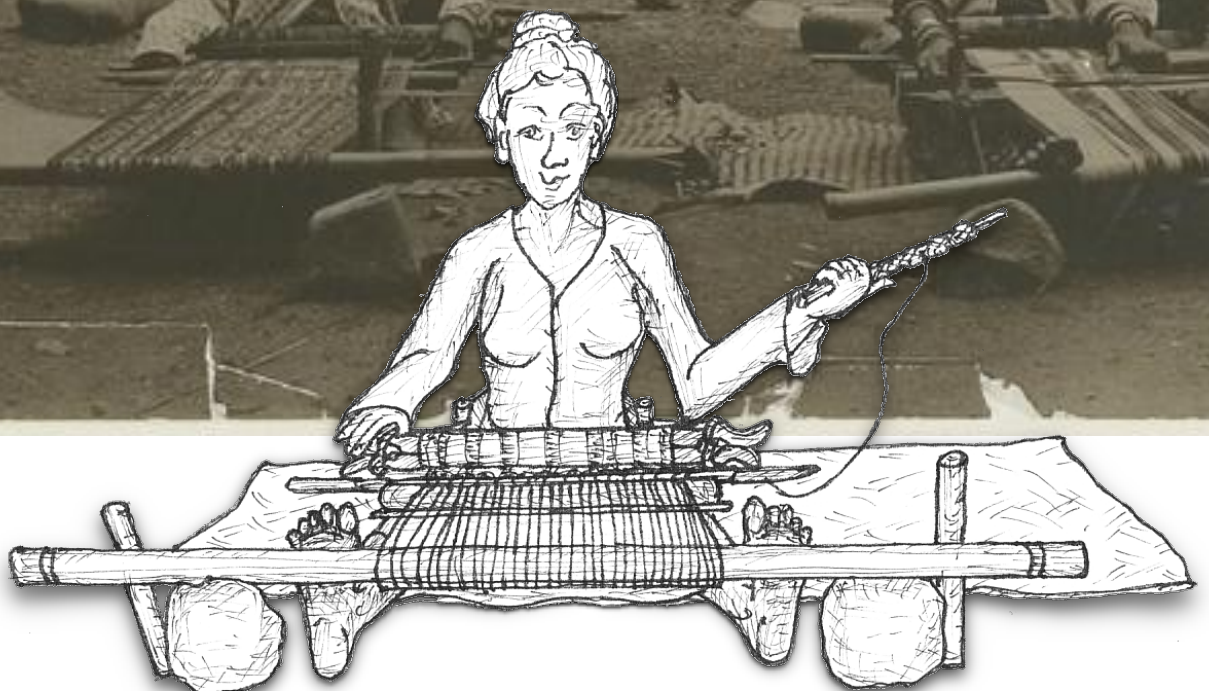
STAKE



FOOT+



47) Foot or no foot loom - That's the question on Timor around 1909? The loosened stake of the right weaver is intuitively braced by foot. Let's enter the gap in between both! - Universiteit Leiden (KITLV26824) - <http://hdl.handle.net/1887.1/item:791711>



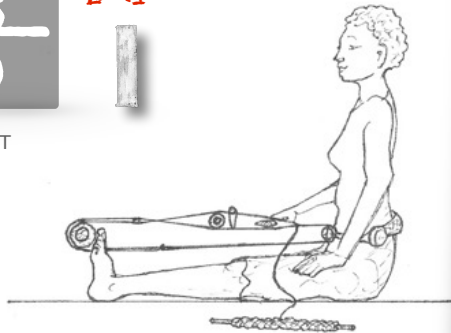
Sobei Foot Loom (Papua)

[warp beam] [circular warp/hor] [reedless]
[strap]

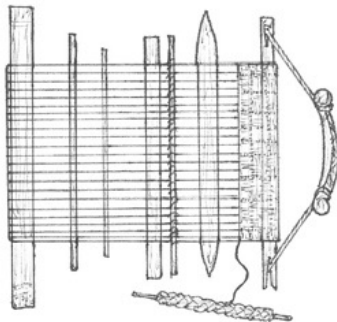


FOOT

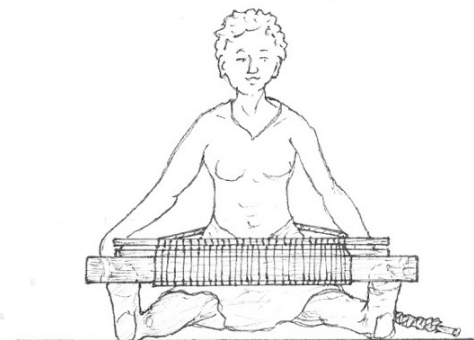
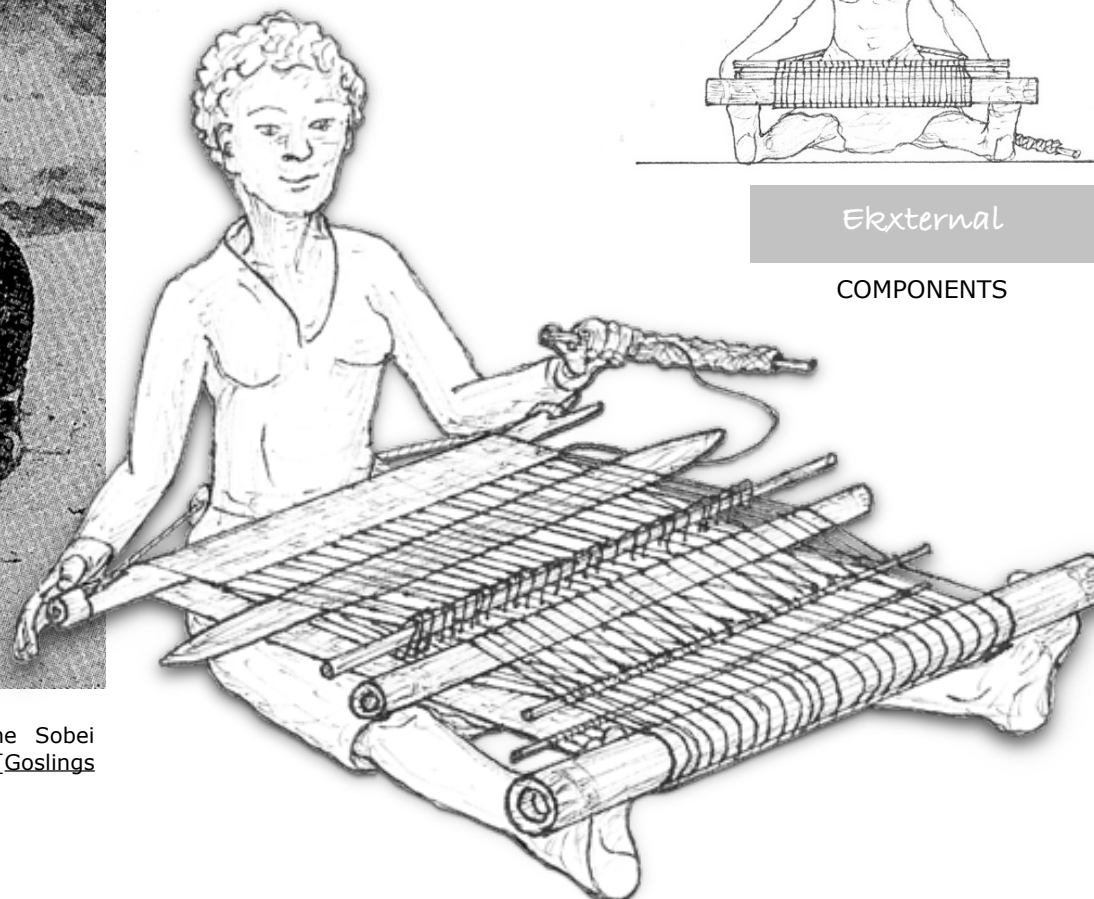
[A]



49) Javanese busy with a foot loom of Sarimi region on Papua around 1910 in Jayapura. Universiteit Leiden → <http://hdl.handle.net/1887.1/item:722348>



50) The foot loom (ifduai) of the Sobei people on Papua for terfó-weaving. [Goslings 1928/1929 - fig. 13]



Ekexternal

COMPONENTS

Mama Wulu's Foot Loom (Borneo?)

The Foot Loom of Larantuka

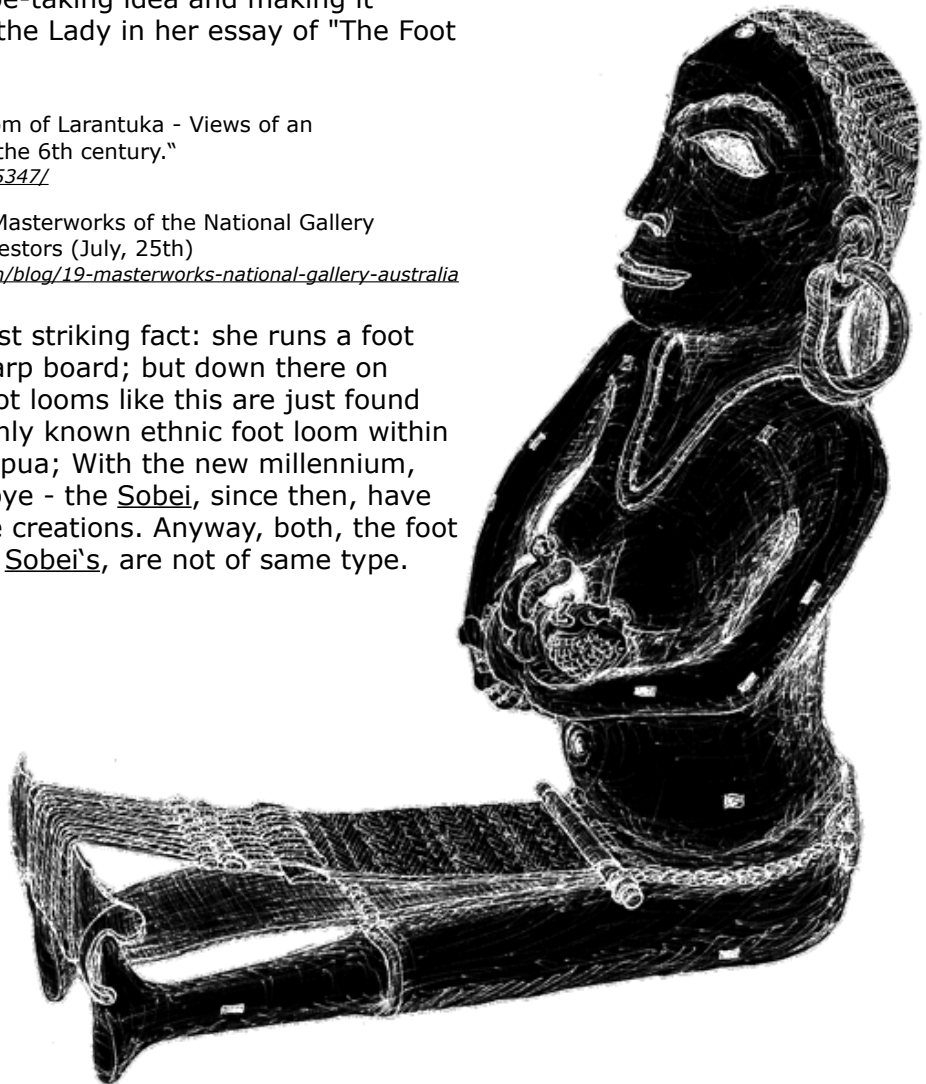
[warp board] [circular warp/hor] [reedless] [strap]

Once again, a woman from Larantuka caused a great stir in 2017! No, this time it wasn't the legendary Pippi Longstocking, but, as Steven Alpert describes, *"perhaps the most iconic piece of all in the Indonesian collection (of the National Gallery of Australia) and (is) of special historical relevance for its subject matter and age...."*! We are talking about **Mama Wulu**, the mysterious bronze figure of a woman working on a backstrap loom; with an infant consuming her bosoms at the same time! Once found in a cave on East Flores and announced to the public back in 1977 by Adams. Not a revolutionary matter, one might think, but the busy lady actually proves sensational potential for current events! With her loin loom she may not be able to lift horses like some free spirits, yet not able to move mountains, but gradually shaking our shape-taking idea and making it flexible! Read more about the Lady in her essay of "The Foot Loom of Larantuka"!

Plum, G. (2025): "The Foot Loom of Larantuka - Views of an Indonesian bronze figure from the 6th century."
<https://www.academia.edu/144025347/>

Alpert, Steven G. (2022): "19 Masterworks of the National Gallery of Australia." In: Art of the Ancestors (July, 25th)
<https://www.artoftheancestors.com/blog/19-masterworks-national-gallery-australia>

And this is actually the most striking fact: she runs a foot loom with a remarkable warp board; but down there on Larantuka!? These days foot looms like this are just found on Taiwan! However, the only known ethnic foot loom within Indonesia was found on Papua; With the new millennium, however, it was said goodbye - the Sobei, since then, have turned to other frame-type creations. Anyway, both, the foot loom of Larantuka and the Sobei's, are not of same type.



52) Foot Loom of Larantuka. A drawing of a bronze sculpture on Flores showing a woman with a foot loom (similar warp board like the Amis on Taiwan!). <https://www.artoftheancestors.com/blog/19-masterworks-national-gallery-australia>

The Loom from the Heavens (Palu'e Legend)

Wua Nangge Liru - Hadiahnya dari atas Langit

The following legend is a slightly shortened translation of a narrative of the Palu'e and comes from a research by Stefan Danerek, published on YouTube. Essentially, there are parallels to the Sundanese Nyi Pohaci legend, as Banaspati offers it in his essay, albeit in a different context. The legend Wua Nangge Liru (*The Gift from the Heavens*), told by Lengu Nandene (ca. 1916-2017), tells about the origins of ikat weaving or how weaving came to earth. According to the legend, a woman visits her parents in the sky by offerings and an areca tree.

A Gift from the Heavens

Her parents lived in the heavens. But the woman married a man from a village at the far end of the universe and settled there. There was no ikat weaving in that village. Then, one moonlit night, she talked with her husband until the sun was about to rise, and she had to take care of her child. Due to high tide, her husband went out to sea to look for shellfish. While her husband looked for shellfish, the woman chatted with her child while cooking a small pot of rice for him, as she planned to meet her parents in the heavens. Before leaving, the woman saved her child some rice and told him, "Hey, when your father comes, tell him to pick me up at Dheko pére, up in Nangge Liru!"

Then, armed with one chicken and a shell of rice, the woman went to the areca palm in her yard. She asked the areca palm, "Are you short and underground or are you tall and up to the sky?" The areca replied, "I am short and underground. I am tall and up to the sky." ...So she climbed the areca palm. She threw the rice once, the chicken crowed once, and the areca grew upwards.

Upon arriving in the sky, she invited her parents and split five areca nuts to keep. (Just nuts call it betel!) After splitting the areca nuts, she instructed her parents, "Dear parents, stay close the door! If a dog barks next to the entrance, you serve it these five nuts. If it doesn't finish chewing the nuts, it means it's someone else. But if it finishes chewing all the nuts, it means it's my husband."

Meanwhile, the woman's husband returned home. Seeing his son sitting alone, he asked him, "Are you alone at home without your parents?" Then his son explained him, "Hey, Mom said, tell your dad to pick me up at Dheko pére, above the areca palm in Nangge Liru." The husband did as his wife had instructed. Armed with a chicken and a rice shell, he approached the areca palm. He climbed the same palm his wife had climbed. Upon arriving at the door of the house in the sky, he finished the five nuts served to him without leaving a single morsel. Afterward, his mother-in-law showed him the way to his wife at the top of the eighth layer of heaven, at the very edge.

Then her husband opened the door to one room. There was a thunderclap once and a flash of light. That happens several times. Once he reached the eighth sphere, he found his wife and invited her home with him.

Before returning home, her parents gave her the items from above: kik, atip (*breast beam?*), belera (*sword*), ani, penjepig (*tongs?*), tali (*rope*), olak, sumbi (*temple*), pajal, kapas pinal (*spun cotton*), and all the weaving tools. The husband and wife loaded everything onto the top of the areca palm and descended back to earth. The daughter then used the supplies her parents had given her in the village to weave ikat. <https://www.youtube.com/watch?v=h2dJfQOFYe4>

From Above to Earth (Nagaland)

Himalayan Greetings - Far-distance connections on Discussion

[warp beam] [circular warp/dia] [reedless] [strap]



53) Konyak-Naga weaver, Nagaland/Mon-Distr., NE-India. (कोन्याक नागा | नगालैंड - मोन जिला), 1937. Photo: C. v. Fürer-Haimendorf. © 1937, The Estate of Christoph von Fürer-Haimendorf | SOAS Archive: PP MS 19/6/NAGA/2345 [078_11]. -><http://digital.soas.ac.uk/LOADI01420/00001>

The name (Naga) of the ethnic group in the Himalayas itself makes us pay attention and regardless of whether there are real, even kinship relationships between the groups, it indicates that it should be the same topic up here and there: A serpent called Naga, also named Nipa on Flores! There are also completely different parallels to the highlands in distant realms, similar to the legend of the Palu'e. And not only on Flores, but eastern Indonesia - hardly a single thing can be clearly grasped, but in view of their multitude they are convincing! Perhaps the parallels of the round buildings in the background to the architectures on West-Flores are pure coincidence, But several loin looms in the Himalayas also show amazing parallels - if not necessarily in entire, then in important details, which we could also observe in Flores; i.e. rocks as support for the warp beam and as a footrest.

They confirm the impression the Atoni loom gave, that stones once served as posts! The photo collection in the SOAS archive, taken in the Himalayan region between the 1930s and 1970s by the anthropologist Christoph v. Fürer-Haimendorf, provides a deep insight into these relations. If intended here as a conclusion, the two examples still offer enough reason to climb back onto the areca palm right away! Since then, however, the experienced weaver takes the genius of the "savage loom" as the most practical travel vehicle to far-distant worlds - as it takes patience to know!



54) A station loom in Nagaland, NE-India. Date & photographer unknown. Buckley Archive

Alat melengkung - The Warping Tools

BIMA | LARANTUKA

Alat melengkung

The research has so far only shown horizontally oriented warping devices on Flores. However, there are not too many representations of warping tools on Flores. Both of the present examples come from the first half of the 20th century. While an old warping frame is still found in Larantuka, that the weaver herself has tied together from a few bamboo canes, in the Manggarai there is already a timbered warping frame of the Bima. Although the Bima weave flat warp, they first set up a false circular warp (with reed comb!) in the photo. Only in the last step is the single starter rod replaced by two whip rods (insert sticks), what defines a flat warp!

However, the depicted weaver in Larantuka is supposed to set up an original circular warp (without reed comb) on her self-built warping frame. In principle, all warp types of Flores, regardless of ethnicity, seem to be based on the warping method of a circular warp. For the false circular warp, this only means a changed handling of the starter rod, insofar as it plays a role in the circular Ikat warps on Flores at all.² As described above, a further modification on the starter rod is needed, which makes a false circular warp a flat warp.

Other warping methods, such as vertical, are not currently shown on Flores, but they are reported, as on Palu'e Island. In one of the two Dutch collections there is another photo of an warping frame in the Manggarai, which also serves as a weaving station; but the photo is currently not to found! A similar combination of warping frame and weaving station can also be found in the Atadei region in East Flores; both, however, also horizontally! However, a simple, vertically aligned sharpening method was still found for the foot loom of the Sobei on Papua.

Counterstatement

However, a video from Kota Bima on Sumbawa³ indicates a different warping method; according to this, the warping method of Bima on Flores is fundamentally different from the method of Bima on other islands!

In "*De Weefkunst*" by Jasper & Pirngadie there is an equivalent illustration of this warping method to be found on Sumbawa.⁴ Here it is listed as "Goa warping method"!⁵

Currently there is no clear explanation for the difference, but presumably the two methods on Flores presented here are the older methods. In any case, these two warping frames can still be achieved with little craft experience and a small toolset, while the probably newer equipment on Sumbawa needs a carpenter. Nevertheless, as the sources show, they were both in the early 20th century already in use, side by side. The model on Sumbawa also corresponds to a trend towards the industrialization of weaving - it's faster, thus not essential part of hand weaving on loin looms!

² Several Ikat warps on Flores have no (continuous) starter rod at all, or only partial types!

³ VDO YouTube: Tenun Bima - Ngane merupakan proses awal menenun (muna ra medi) bagi wanita Bima (siwe suku mbojo) - visited Oct 10, 2025: <https://www.youtube.com/watch?app=desktop&v=edadBiUMjR8> & Aya Mara Qonita: Intip Proses Pembuatan Kain Tenun Khas Bima - visited Oct 10, 2025: <https://ntb.idntimes.com/travel/tips/intip-proses-pembuatan-kain-tenun-khas-bima-01-5qjc9-7b5ds8/amp>

⁴ Jasper & Pirngadie (1912:101-102). Fig 82. Goasche toestellen voor de schering - Zuid Celebes).

⁵ Goa = Gowa on Sulawesi.

Bima Warping



55) Horizontal warping device (alat melengkung) of the Bima on the west coast on Flores in Kampong Pota, 1926. - Foto: UBL digital collection (KITLV 10985)

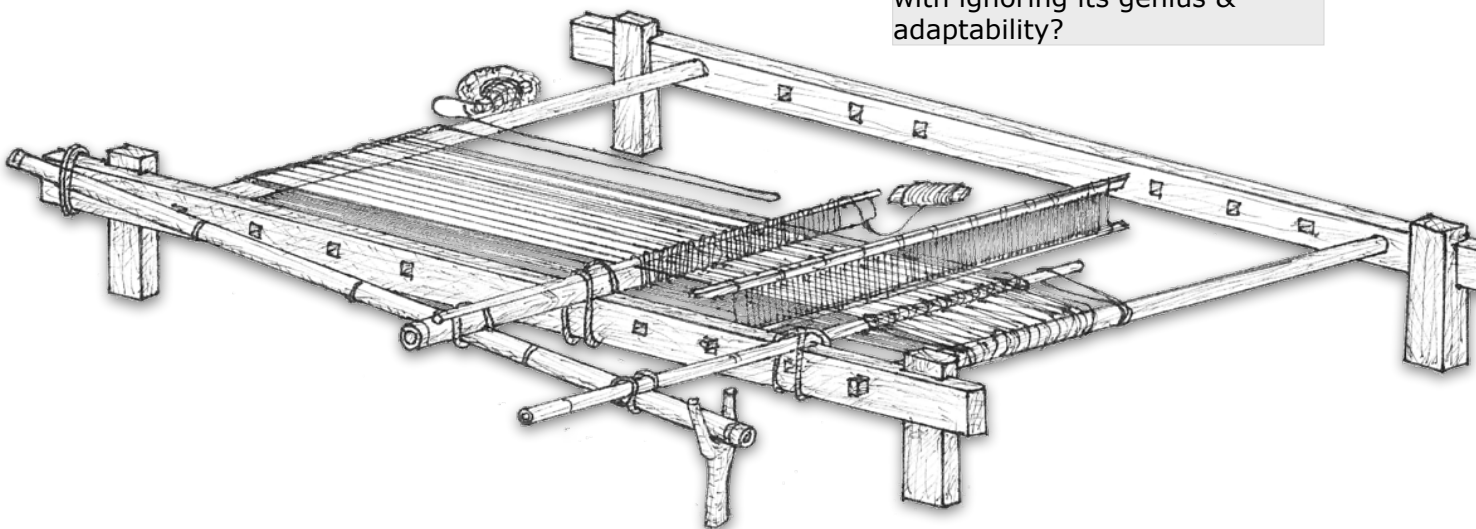
The horizontal warping frame of the Bima is made of wood, so it should no longer be made by the weavers themselves. (Compare Larantuka!) The Bima weave flat warps, but when warping it is prepared like a false circular warp. Just at the end of process the so-far single starter rod gets replaced by two whip rods and the warp, which has been (false) circular, transforms into a flat warp.

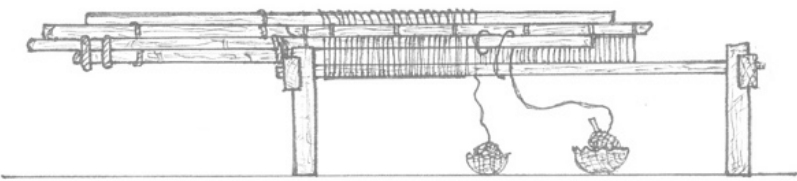
A tiny modification on the starter rod and you also get an original circular warp that way. This approach is standard for many (but not all) Southeast Asian weavers, not just for the Bima! Not only the circular warp characterizes loin looms, but also their flat warp is defined from it and differs by its understanding from the usual standard of flat warp on western looms: the warp thread (lawe) remains continuous!

Reed comb and heddles get into game while the warping!

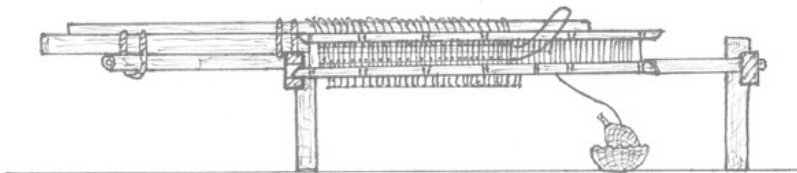
Discussion:

Do we want to continue to state this as primitive tools, there-with ignoring its genius & adaptability?

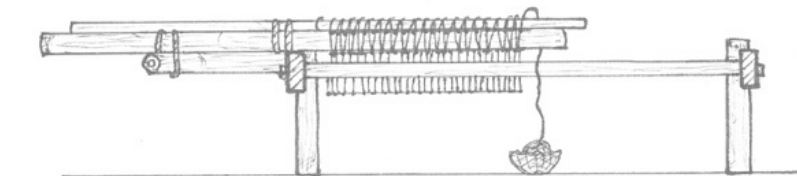




A - A

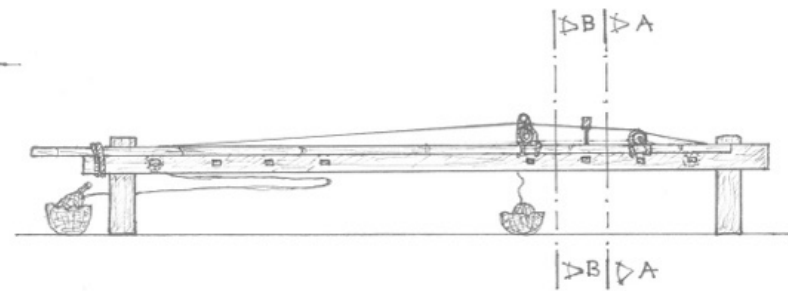


B - B

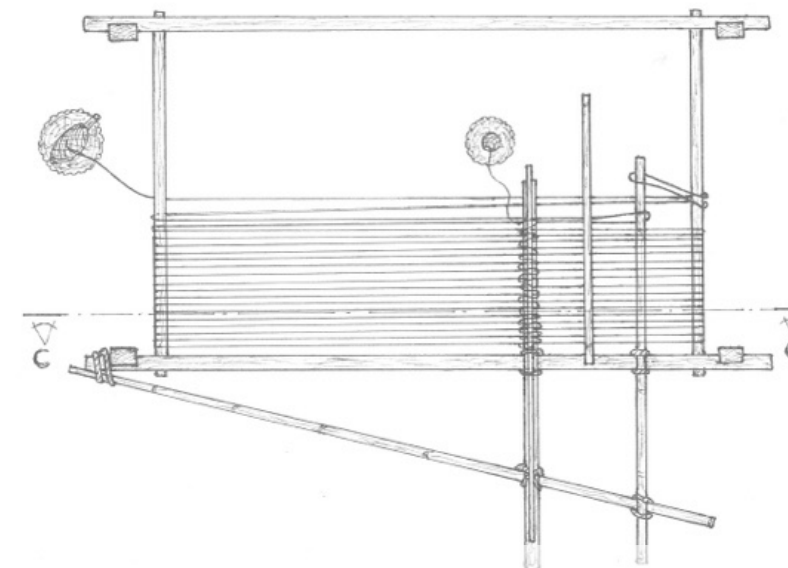


The width of the warping table indicates its favored use for wide warps. All over Flores just horizontal warping methods like this are found. Vertical warping method need just one of these horizontally aligned warping planks. Even weavers of the Chakma people in Bangladesh witness, that wide warps can definitely be managed by vertical warping methods, it doesn't fit the needs of designing ikat warps.

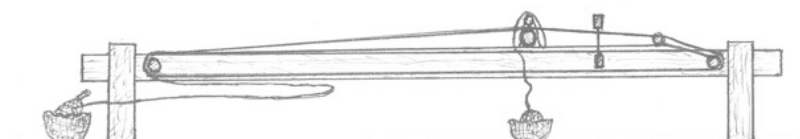
As stated by [Buckley et al. 2023](#) the [Sobei](#) people on Papua use a vertical warp method for their small warps. However, they don't use a horizontally aligned warping plank for this, but put the necessary sticks upright in the ground.



Even there is no loin loom from Flores mentioned by [Jasper & Pirngadie](#), an almost similar warping frame from Larantuka & Solor can be found in „De Weefkunst“ (p. 104, fig. 85) and a bit confused sketch of warping such a false circular warp incl. a reed. (pp. 110-111, fig. 80).



C - C

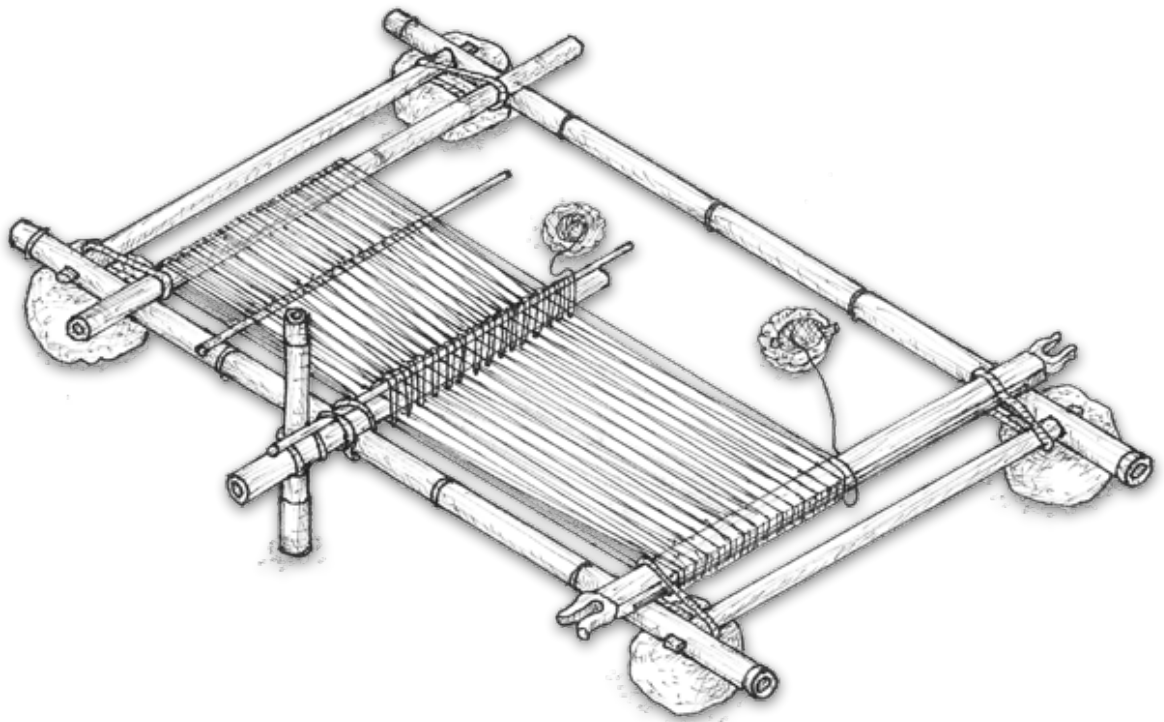


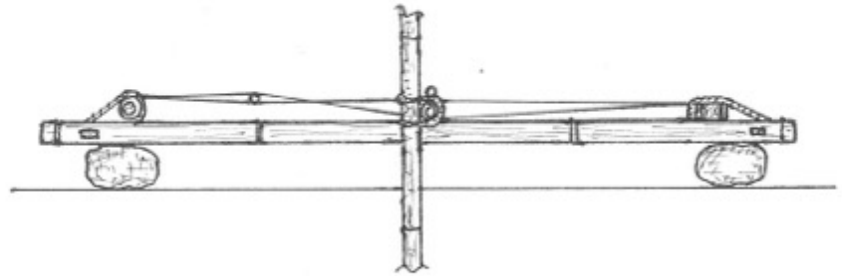
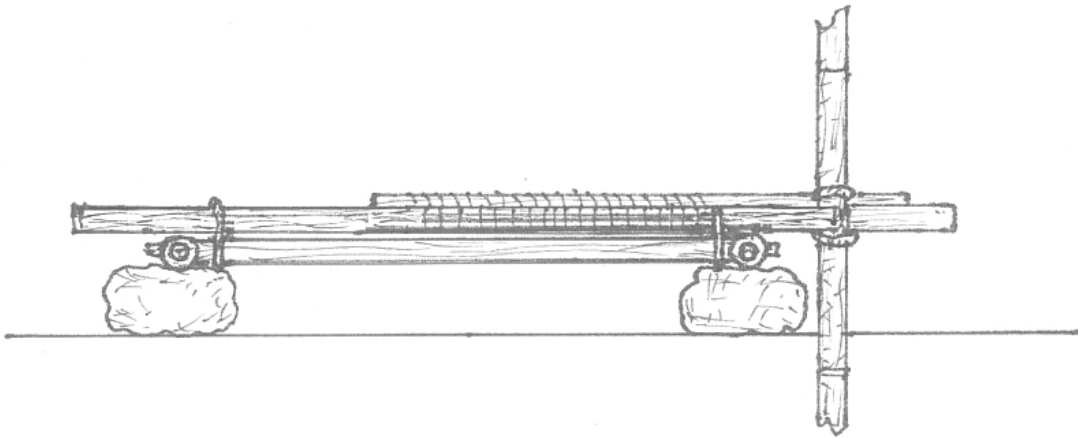
Larantuka Warping



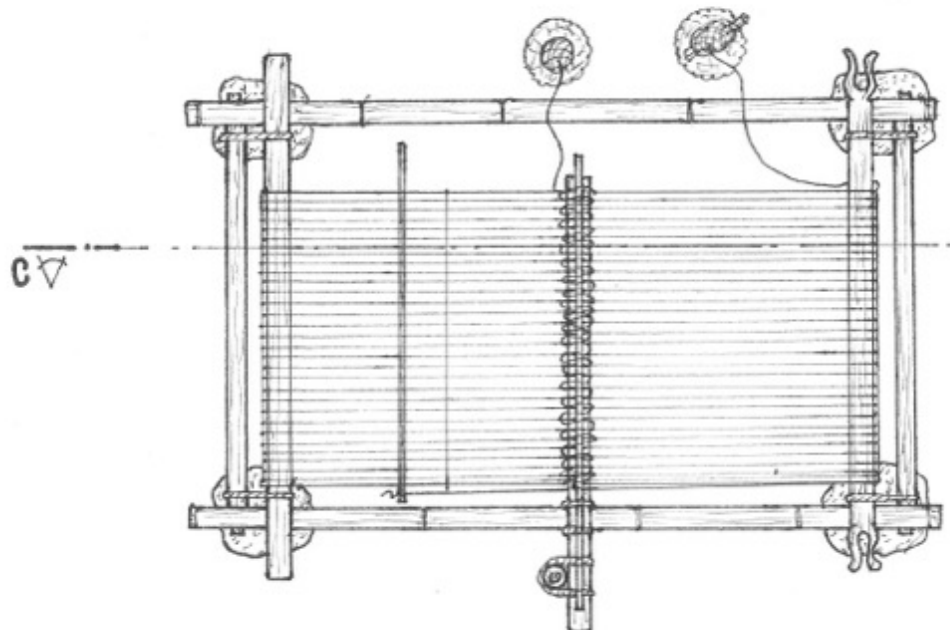
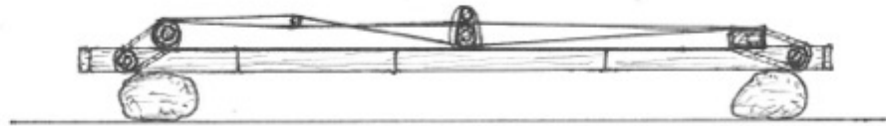
The photo of Vatter shows an original warping device constructed by the weaver from bamboo canes, close to Larantuka. It is taken at almost same time as the photo of the Bima warping! In principle identical to the horizontal warping frame of the Bima; even if a circular warp is prepared here. The bamboo scaffolding rests on stones. Notice: The breast beam is here in use as a warping rod. Heddles (& an optional starter rod) are prepared while warping. There is no reed comb in circular warp; a reed in a circular warp identifies it as false-type! The size of the bamboo canes defines the length of heddles!

57) A weaver in Leloba close to Larantuka busy with her self-constructed warping device, made from bamboo canes. Photo: E.E. & H. Vatter 1928/29 - UBL: KITLV 122286 - <http://hdl.handle.net/1887.1/item:898050>





C-C



Conclusions

Talking Looms

What does the range of looms on Flores report of?

It cannot be said clearly at the moment, but it seems as if an old model of East Indonesian looms has preserved itself with the stake looms on Flores. These ground looms were also probably not created on Flores, but perhaps on Borneo or Sulawesi. There they have become scarce through lively cultural exchange, are not so specific and diverse. But Flores seems to have been off the trade routes for various reasons; probably an important reason, why Flores was that suitable for the following freebooters. In terms of the loom, only the west of the island, the Manggarai, seems to have been subjected to greater and increased influence from the outside in terms. To judge the adoption of innovations from this external influence onto local models, the influence has not been dictated from the outside, but welcome from the inside out and, apart from the actually introduced Bima's stand loom, to have been integrated into Maggarai's own creations.

Although this study is based on historical visual material and has been extended by specialist literature, there was insufficient overview in the scientific field! Photographs by Chris Buckley gave insight into the eastern part of Sikka to Alor, but the Western looms were left out; a first blind spot appeared! In order to be able to create this far-reaching overview at all, numerous weavers assisted us with representations of their loin loom in the social medias; with this overview of your common cultural heritage, we thank you for your warm support!

It turned out that, regardless of the region, by and large, no too specific characteristics prevail in a place. On the contrary, in many villages stake loom and station loom of various types can be found next to each other. This applies to Manggarai as well as to Alor! The impression arises that the knowledge of the loin looms of the other ethnic groups is generally far-reaching. It should be noted that the distinctly high posts in Ende-region and their rope connections are also used in East Flores, but are not or hardly used in the intermediate Sikka-region. However, flat warps with reed comb can only be found in the Manggarai and in the adjacent area of the Riung; also in the enclaves of the Bugis-Makassar along the north coast. Although Ikat was partly mentioned in Manggarai, no examples were found; even circular warps were not found here! This state reverses almost abruptly into the opposite with the crossing of the Ikat-line on the border with Ngada, because from here on, except for the northern area of the Riung, only circular warps seem to be in use. Although there are occasionally striped warps equipped with reed combs (= all false circular warp!) in the remaining Flores, but flat warps are not in use over here. Exceptions to this are the northern enclaves of the Bugis-Makassar, which are found in every region, except East Flores.

Kesimpulan

Talking Looms Ancestor Report

History at a glance

The Vivid Looms of Flores

*What makes the Loom
to source of life?*

Ancient Techniques

*Primitive observations
of geniusity*

Forking Branches Beam me up!

*The Sense of
supporting warp beams*

Back Support en detail

*Sense and Benefit
of connections*

Spot on Batten Railings

*Expression &
circumstances
in proportion*

Buitenzorg On Excursion!

Eden in the East

Origin of Loom

Legends on display

Universitas Nipa

*Observation
of the Observed*

[coming soon:](#)

catwalk Flores

Flores & The Vivid Looms

What keeps the looms of Flores that authentic?

All observations indicate that here on Flores, not only a collection of traditional stake looms has been preserved in museums despite their constant conversion to station looms, but, in contrast to their counterparts on Java, they are still extremely vitally in daily use. This may also be due to the principles of ikat weaving, which is preferred here, an which requires the use of the traditional circular warp without reed combs and thus has not been able to be taken over by the flat warps, flooding in from the West. The influences evident in Manggarai have only had a limited impact on ikat production through weft ikat, but even weft ikat currently seems to have vanished into the air in Manggarai. Therefore, it is to be feared that the steadily advancing changes in living conditions will put the stake construction of the former loin looms on Flores under pressure and gradually replace them by station loom-types in urban areas. Historically, in Java, triggered by precisely such urbanization, one can observe a rapid trend from stilt looms to station looms, which was soon taken over by externally tensioned looms in order to "optimize art production". According to reports such as Jasper and Banaspati, they already had largely disappeared from Java by the beginning of the 20th century! An important concern of this work is to enable a conscious approach to these influences and not only to preserve the regional stake looms, but also to keep its knowledge base intact and active, perhaps even to transfer it to the emerging, almost unavoidable station looms to come. Later on a final suggestion will be made on this!

On Display

Talking Looms

The Vivid Looms

Ancient Texhniques

Forks & Branches

Back Support

Batten Railings

Buitenzorg Excursion

Origin of Loom

Universitas Nipa

Ancient Techniques on Display

Stick, Stone & Thread - Geniosity en detail!

On Flores, there are a striking number of traditional techniques that are not only extremely practical, but can also provide insight into their development. For example, we observe one old variant for the external attachment of the warp beam next to the other; it is difficult to determine which of these is older. Instead of the usual notches & plug-in connections in the warp posts, the warp beams here are either resting on stones, tied in a variety of ways, tied up high, or even hanging down. Further variations of warp beam holders are offered by a wide variety of branch forks. There seem to be no limits to creativity! Compared to the warp beam attachments of urban station looms in the West, these are priceless in terms of their integrated didactics and are a testament to the utmost ingenuity. In summary, it should be clear that the majority of looms do NOT use the usual plug connections (notches in the warp posts) to attach the warp beam. Such structures are found exclusively in Manggarai and are believed to have been influenced by the Bima looms from outside. These traditional fastenings demonstrate that, unlike pin-and-socket connections, these solutions can largely be accomplished by the weaver herself, but above all with the weaver's own resources (stick, stone, and thread). This also demonstrates that the weaving skills are still based on self-sufficient craft techniques and, at its core, has largely been spared from industrialization. Raising awareness of this vital core of traditional loin looms, THAT should have been the mission!

Forking Branches or the sense of supporting warp beams (Form studies)

Any kind of warp beam, no matter it's round, rectangular or even a board needs a support; even body-braced foot looms depend on such a support, in this case the feet! Externally-braced loin looms use posts for this purpose. On Flores one can realize a conscious play with the gestalt of such warp beam-holders in construction and function; here grouped by form: Y - X - r - V - I - M - U. Many of these posts are created by straight and forking branches of trees. Next to their functional purpose, they transport another semantic level. These should be ethnic signatures that present their interpretation, a solution to a topic of a "superordinate Flores-seminar" - The question arises: Where is the seminar management, checking functions? As the gestalt studies show, proven methods for fixing stakes in the ground can be replaced more easily as needed and transferred to rails, than these signatures in the warp beam-support system - According to the motto: *theory must have function; central of function(s) IS theory?!* To be or not to be is probably only the essence of the profound question of functional carriers of sense or senseful functions! Note: Except the last both, probably latest solutions, none of these are incisions!!!

FOAM FOLLOWS FUNCTION

Forks & other types of warp beam holders on Flores at a glance



Back Support en detail

Sense and benefit of connections

While in western Indonesia, loin yokes are often found on ethnic looms, on Flores, one still predominantly encounters the weaver's traditional triangular connection using a back strap. Such a back strap can reveal an important element of identity, an ethnic characteristic, as can perhaps be seen in the example of the Palu'e's distinctive back strap. Their use of the areca palm spathe—betel for some, nut for others—as a back strap is difficult to replace with a loin yoke. Even if, given the width of a warp, its parallel connection would be extremely useful here, hasty innovations in such an identification-laden "tool" probably have disastrous consequences.

No such evidence has yet been found in Manggarai; among the large number of examples studied, no back strap has been found; all ethnic loom models here use such a loin yoke! But from Ngada onward, the first back straps are increasingly being used. Even on a few flat-warp looms, such as those found in Manggarai, back straps are suddenly found, albeit rarely! In Ende and Sikka, this impression is somewhat lost; loin yokes are mostly used here; the exceptions found actually confirm that rule! In contrast, in East Flores and the adjacent islands, not a single yoke is found, only straps!

Finally, it should be noted that the existing loin yokes are also evidently the result of external influences that flowed to Flores from the west (via Sulawesi). Presumably, the entire Indonesian ensemble of specialized components and features, such as batten rests and loin yokes, is related to the requirements of flat, yet above all wide, warps.

As demonstrated by the Ndona and Sikka, the parallel connection of a warp by using a loin yoke is also a great advantage for circular ikat warps, especially with wide and long warps; as

long as they go along with the circumstances. However, these are indeed not part of the traditional standard repertoire of ikat weaving. While a loin yoke greatly facilitates the handling of wide warps, it is not a prerequisite for those, as stated by the looms of East Flores!

Spot on those Batten Railings!

Expression & circumstances in proportion

In Manggarai we come across various examples of elongated batten rests; they are usually attached to the post at warp height. They reflect the adaptation to the requirements of the flat warp. While with circular warps the weaver always remains positioned in the same place, with the flat warp she constantly changes from back to the front, forth and back again. This explains the long appearance of these batten railings, if any form of batten rest was still in use in Manggarai! This change of position is triggered solely by the flat warp; but increased many times over by the unequal ratio of the very pronounced warp board to the diameter of a standard breast beam (probably 1:4). Here it can be assumed that the high warp boards should once have been used in combination with equally high breast boards, which have naturally reached their limit in height. They can hardly be larger than 15 cm (max. 20) in height. (See Bima!)

Even if one should not be able to identify the warp type on representations, such an elongated batten railing suggests the assumption that one should be dealing with a flat warp. At least such a batten railing should suggest that one once came from the tradition of flat warp.

But as the example of a loom from Sumba shows, such solutions can also appear with circular warps, as well as numerous examples of such elongated batten railings also come along with circular warps in Sikka. Often, as both ethnic examples show, depending on the height of the warp, they rest on the footrest, while the other end is stored on a rock.

On the other hand, one can question whether these long batten railings were not a widespread feature of stake looms on Flores even before the introduction of the flat warp! But, as already mentioned above, any kind of batten rests, such as loin yokes, reeds and flat warps, should not belong to the traditional repertoire of circular Ikat warps! Thus, the observed elongated batten rests among the Sikka should probably come from cultural adoption - what their necessary meaning there, was reformulated here to design its own form of expression!

Buitenzorg on Excursion

Ein Ausflug mit Hendrik & Theodora

Hendrik-Pieter van Motman - Banaspati may bless him - already hinted at some references on the origin of Sundanese weaving art to East Indonesia in his essay in 1906. It seems to have been an important concern to him & his wife Theodora-Elisabeth, his spiritually dearest child; underpinned by oriental language studies! But as far known, they never visited this region of Indonesia! Even their loom from Palembang with its two Nagas on top, which they mainly used for presentation at exhibitions, refers to this preference. Banaspati, his pen name as well as the central metaphor for so much unspeakable, which he thus nevertheless transported, should have turned out in the present study as the Sundanese variant of the serpent horse, the Naga! His approach to distinguishing between loom types (gedogan - station loom) and cancangan (stilt loom) lacked a first extension to stake looms, which we find here on Flores in abundance. A Nipa called Flores has distinguished itself as the "Island of Stake Loom"! Danerek even provides us with a first Indonesian, albeit only local, term for this type: dhada!

In addition, through the Sobei and two contemporary historical coincidences, we also mysteriously encountered the foot loom: the alat tenun kaki. Thus, the trip to Hendrik and Theodora's *Eden of the East* was extremely fruitful to return to Buitenzorg strengthened and put the promised reconstruction of their original collection into practice. Until its implementation, the results of this excursion to the east should find their place in the backyard

of the exhibition and serve as intellectual preparation for the coming Buitenzorg collection! We also met Pohaci in a slightly changed, but clearly recognizable character: mother with child! And likewise, the legend of the Palu'e has indicated an equivalent to the Pohaci legend handed down by Hendrik in variation.

This should also provide a detailed look at the connection between loin looms and spirit animals, as discussed in the essay "Spirit Animals & their Loin Looms - Along the Spice Road." We thank Hendrik-Pieter and his wife Theodora-Elisabeth van Motman-Schiff, as well as our quick-witted mentor from the bottom of our hearts for this superb tour guide through the thicket of space and time!

Origin Myths of Loin Looms

What makes the Loom?

Currently, three origin myths of Indonesian loin looms have emerged in our studies so far. First, the Nyi Pohaci legend recounted by Banaspati, followed by the Palu'e legend of the areca palm mentioned above, and finally, the Seus of the Sobei in Papua mentioned by Buckley et al.; a being who dwells high in the trees! Even though they may all be fundamentally different, they all refer to highly spiritual beings who dwell on or in the tree or can be reached through it —generally speaking, we are talking about the world tree, which connects heaven and earth!

But in the thicket of myths there are also other visions of a rice goddess (Richardson 2024). It's about blood, later on even human sacrifices, to increase fertility. What, according to the myth, was once based on self-sacrifice in need, is soon subject to the arbitrariness of other powers. And of course such legends dominate the sensation and only too often determine reality - Sorcerer's apprentices in the foreign element! One should perhaps distinguish very precisely here in his perception: The Loom, or just a broom?

The legend of the Nggela tells of a girl (*Ine Mbu*) who injured herself on a thorn bush, and her blood turned into rice plants during the famine. *"...Her heart became rice, her bones became cassava, and her eyes became maize..."* This led to a tradition of the annual sacrifice of young girls until missionary work put a stop to this practice. Nevertheless, a parallel to the Pohaci legend emerges here, even though to some there is no obvious reference to Vanaspati or to weaving in general! The name of the rice goddess here is Ine Pare.

Universitas Nipa

Observation of the observed

Even if assumptions already suggested it, astonishment grew throughout the entire study on the ethnic loin looms of Flores. We have approached the individual regions on the basis of formal and functional studies and thus created a not only superficial insight into the entire island. Through these form studies, an incredible unity emerged and a clear realization that we were observing a cultural circle across space and time in its very own form studies! If one usually looks at the textile end product as the creative process of weaving, the focus here was on the weaving harness. Each individual component is simply ingeniously designed according to function and matched to each other, more or less, like a clockwork; gestalt determined by them - but also each with further designation. In the end, if not just in ONE art seminar, you find yourself on a comprehensive campus! This is not just a weaving seminar, nor just complementary studies in the field of fashion design and textile design - it's UNIVERSE on thread! As the textile represents the fashion design department, the loom itself, not just design and construction at all, turns out to be the true creator here!

Flores - Kembang Alat Tenun

Alat Tenun dan Melengkung di Flores

<< Menu

Proyek kami yang sedang berlangsung mengkaji alat tenun etnik di Pulau Flores dan sekitarnya di Indonesia bagian timur. Pertama-tama, kami akan membahas fondasi historis dari materi gambar yang tersedia dari koleksi akademis seperti Koleksi Tropenmuseum dan koleksi digital Universitas Leiden, sebelum beralih ke koleksi terkini dan **melintasi batas Ikat**.

Data ini tidak berasal dari penelitian lapangan, melainkan semata-mata dari literatur yang ada. Meskipun informasi yang beragam, meskipun tidak komprehensif, tersedia, tinjauan komparatif saat ini sulit dilakukan. Proyek ini bertujuan untuk memberikan solusi awal, terutama membatasi diri pada deskripsi alat tenun (dalam bahasa Inggris) dan mengilustrasikan tinjauan umum alat tenun etnik di Flores dengan foto dan gambar.

Tujuannya adalah untuk menyajikan alat tenun loin dari kelima kabupaten: Manggarai, Ngada, Ende, Sikka, dan Flores Timur (dan jumlahnya terus bertambah!), serta untuk membandingkan alat tenun loin dari Lamaholot dan Bima. Selain alat tenun pinggang, **alat lungsin** (**alat melengkung**) etnik juga akan disertakan dalam koleksi ini, **sejauh** informasi tersedia.

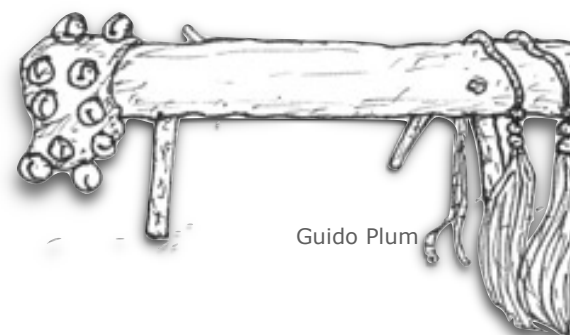
Ikhtisar terkini tentang alat tenun pinggang Indonesia, seperti "*De Weefkunst*" yang diterbitkan oleh Jasper & Pirngadie pada tahun 1912, tidak mencantumkan Flores, **yang merupakan** kelompok penting alat tenun pinggang Indonesia. Titik buta ini juga memengaruhi persepsi terhadap alat tenun etnik yang lebih terdokumentasi secara luas.

Kami akan sangat senang menerima materi foto pendukung, informasi lebih lanjut, dan saran!

Kata kunci: tenunan, Austronesia, Flores, Manggarai, Ngada, Nagekeo, Ende, Sikka, Lamaholot, Ikat-line

Discussion

Sound of the Loom - Not many photos show this loom component in detail: A batten rest of Sikka people, including some bells as sound-making element. Even they differ, sound elements like these can be observed with several Indonesian looms on both sides of the Ikat-Line! Did they come along with the Austronesian migration from the east?



Guido Plum

Kata Pengantar

Kepada Para Penenun Kuda Ular

Ilmu pengetahuan bukanlah tujuan akhir; oleh karena itu, karya ini harus kembali kepada penenun, untuk mendukung dan melestarikan budaya tenun tradisional. Dalam hal ini, kami terutama berfokus pada para penenun di *Nusa Nipa* dan *Pulau Bunga* (Flores). Dari mereka, kami telah menerima segala sesuatu yang memungkinkan kami memvisualisasikan ikhtisar warisan budaya mereka; buku ini dimaksudkan untuk membantu mereka dalam melestarikan, mengembangkan, dan bahkan memperluas budaya mereka untuk masa depan. Karena kami tidak dapat berasumsi bahwa semua penenun di Flores berbicara bahasa Inggris, buku ini terutama harus mudah diakses secara visual. Namun, bagi para pencinta budaya dan calon penenun lainnya, buku ini juga dapat berfungsi sebagai pendamping yang jelas dan lintas batas, yang memberikan pencerahan baru pada fakta-fakta tertentu!

Setelah mendapatkan gambaran umum tentang alat tenun pinggang paling mencolok dari Manggarai, kita melintasi Garis Ikat kira-kira di perbatasan ke Ngada. Sementara di Manggarai, *lungsin datar* yang dilengkapi dengan *sisir buluh* ditemukan secara eksklusif, dari Ngada dan seterusnya, orang pada dasarnya hanya dihadapkan dengan *lungsin melingkar*. Dari sini, *alat tenun pancang* mendominasi; di Manggarai, bagaimanapun, *alat tenun stasiun* mendominasi! Ini tidak berubah lebih jauh, dari Ende, Sikka ke Flores Timur! Namun, di Ngada, lungsin yang sejajar secara *diagonal* ditemukan, sementara di daerah yang berdekatan, lungsin ikat yang berjalan *horizontal* dapat diamati. Dari Flores Timur, seterusnya ke Lembata dan Alor, alat stasiun tenun (atau yang disebut 'rangka bagian') dapat ditemukan lagi; sebagian besar konstruksi liar, tetapi dipaku; dan juga dilengkapi dengan lungsin melingkar.

"*Alat Tenun Kaki Larantuka*" ditambahkan ke dalam koleksi sebagai barang antik dari Flores. Contoh-contoh lain "*Alat Tenun Pinggang Luar*" dari pulau-pulau sekitarnya, seperti *Sumba*, *Timor*, *Papua*, *Kalimantan*, dan *Sulawesi*, juga disertakan untuk melengkapi koleksi dengan cermat. Terakhir, beberapa contoh alat lungsin (alat melengkung) dari *Bima* dan *Larantuka* masih diperlukan untuk menggambarkan prosedur umum.

Istilah-istilah teknis seperti *alat tenun kaki*, *alat tenun pancang*, dan *alat tenun stasiun* dijelaskan lebih lanjut dalam "*Pengelompokan Alat Tenun*". Buku ini dilengkapi dengan indeks ilustrasi, daftar referensi, dan daftar istilah yang digunakan beserta penjelasan singkatnya, diikuti dengan daftar isi.

Metodologi

Data saat ini terutama diperoleh dengan menganalisis alat tenun pinggang pada gambar.

Pratinjau 11/25

Abstrak

Manggarai | Ngada
Nagekeo | Ende | Sikka
Timur | Lembata | Alor

Alat Eksternal

Alat Melengkung

Kesimpulan

Kelompok Alat Tenun

Kategori

Gambar-gambar

Referensi

Istilah

Peta Flores

Daftar isi

hiLites

Y - Alat tenun

Garis Ikat

Alat tenun Kaki

Mama Wulu

Taka Tuka

Ingggris

Jerman

lungsin datar
flat warp

lungsin melingkar
circular warp

sisir buluh
reed comb

lungsin secara diagonal
diagonally aligned warp

lungsin berjalan horizontal
horizontal warp

ikat

alat tenun kaki
foot loom

alat tenun pancang
stake loom

alat tenun panggung (cancangan)
stilt loom

alat tenun stasiun (gedogan)
station loom

Flores vom Webstuhl - Lendenwebstühle & Schärgeräte

Unser laufendes Projekt beleuchtet die ethnischen Lendenwebstühle auf der Insel Flores und Umgebung im östlichen Teil Indonesiens. Im Vorfeld werden wir die historischen Grundlagen des zur Verfügung stehenden Bildmaterials aus wissenschaftlichen Sammlungen wie der Collectie Tropenmuseum & der digital collection der Universiteit Leiden erörtern, bevor wir uns gegenwärtigem Bestand zuwenden und die Ikat-Linie überschreiten.

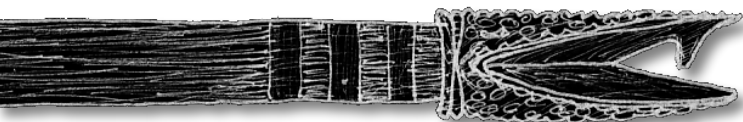
Die Daten ergeben sich nicht aus Feldforschung, sondern allein aus gegebener Literatur. Dabei finden sich diverse, wenn auch nicht lückenlose Informationen, doch fällt eine vergleichende Übersicht derzeit noch schwer. Das Projekt will hier eine erste Abhilfe schaffen, sich vornehmlich auf die Beschreibung der Lendenwebstühle (in englischer Sprache) beschränken und mit Fotos wie Zeichnungen einen Überblick ethnischer Webstühle auf Flores illustrieren.

So sollten sich die Lendenwebstühle aller 6 Regentschaften, Manggarai, Ngada, Nagekeo, Ende, Sikka und Ost-Flores (und es werden immer mehr!) darstellen und auch Lendenwebstühle der Lamaholot, aber auch der Bima in Vergleich stellen. Neben den Lendenwebstühlen werden, soweit sich Informationen finden, ebenso ethnische Schärgeräte in die Sammlung aufgenommen.

Derzeitig bestehende Übersichten zu Indonesischen Lendenwebstühlen, wie etwa die von Jasper & Pirngadie 1912 veröffentlichte „*De Weefkunst*“, sparen Flores aus, und damit eine wichtige Typengruppe Indonesischer Lendenwebstühle - die Pfahlwebstühle. Dieser blinde Fleck hat auch Auswirkung auf die Wahrnehmung der ausführlicher dokumentierten, ethnischen Webstühle.

Über unterstützendes Fotomaterial, weitere Informationen & Anregungen freuen wir uns sehr!

Schlagworte: Lendenwebstuhl, Austronesia, Flores, Manggarai, Ngada, Nagekeo, Ende, Sikka, Lamaholot, Ikat-line



60) Handcarved endings of crocodile-shaped breast beam of Sobei people on Papua. One side is closed.



Vorwort

Weber des Schlangenpferds mit Blumenwiese

Wissenschaft besteht nicht im Selbstzweck; das vorliegende Werk sollte sich demnach zurück an den Weber wenden, zur Unterstützung und Erhaltung der traditionellen Webkultur. In diesem Fall wenden wir uns vornehmlich an die Weber von *Nusa Nipa* und *Pulau Bunga* (Flores). Von ihnen haben wir alles erhalten, was uns ermöglichte, diese Übersicht ihres Kulturguts zu visualisieren; ihnen soll sie denn auch dienen, ihre Kultur zu erhalten, zu pflegen und gar für Kommendes auszubauen. Da wir nicht davon ausgehen können, daß alle Weber auf Flores Englisch sprechen, sollte das Buch vor allen Dingen visuell zugänglich sein. Aber auch anderen Kulturinteressierten und angehenden Webern mag das Buch grenzenüberschreitend ein übersichtlicher Wegbegleiter sein und manche Gegebenheiten in ein neues Zwiellicht rücken!

Nachdem wir uns einen Überblick zu den auffälligsten Lendenwebstühlen der Manggarai verschaffen haben, überschreiten wir die Ikat-Linie in etwa mit der Grenze nach Ngada. Finden sich in Manggarai ausschließlich mit *Rietkämmen* bestückte *Flachketten*, sieht man sich ab Ngada eigentlich nur noch mit *rundlaufenden Ketten* konfrontiert. Ab hier sind *Pfahlwebstühle* in der Überzahl vorhanden; in Manggarai überwiegen dagegen *Webstationen*! Das ändert sich auch im anschließenden Ende, Sikka bis nach Ost-Flores erst einmal nicht! Doch in Ngada findet sich eine *diagonale Kettführung* vor, in den anschließenden Gebieten beobachtet man dagegen *horizontal verlaufende Ikat-Ketten*. Ab Ost-Flores, Lembata und Alor finden sich denn auch wieder *Webstationen*; meist wild, doch genagelt, aber ebenso mit rundlaufenden Ketten ausgestattet.

Als ein Kuriosum auf Flores wurde der Fußwebstuhl von Larantuka in die Sammlung aufgenommen. Auch andere Beispiele von externen Lendenwebstühlen von den umliegenden Inseln wie *Sumba*, *Timor*, *Papua*, *Borneo* & *Sulawesi* wurden aufgenommen, um die Sammlung umsichtig abzurunden. Schließlich bedarf es noch einiger weniger Beispiele von Schärgeräten der *Bima* und aus *Larantuka*, um die allen gemeine Vorgehensweise zu verdeutlichen.

Verwendete Fachbegriffe wie *Fußwebstuhl*, *Pfahlwebstuhl* & *Webstation* klären sich in der Gruppierung von Lendenwebstühlen. Im Anschluß findet sich ein Abbildungsverzeichnis, eine Referenzliste und eine Begriffsliste mit Erklärungen der Fremdwörter & Fachbegriffen, gefolgt von einer Inhaltsübersicht.

Methodik

Die vorliegenden Daten wurden bevorzugt durch Analyse der Webgeräte auf Abbildungen gewonnen.

Vorschau 11/25

Abstrakt
Externe
Gangelt
Conclusum
Gruppierung
Kategorien
Abbildungen
Referenzen
Begriffe
Karte von Flores
Inhalt

Höhepunkte
Y - Der Webstuhl
Ikat-Linie
Fußwebstuhl
Mama Wulu
Taka Tuka

Indonesisch
English

VOKABELN

Flachkette
flat warp

Rietkamm
reed comb

rundlaufende Kette
circular warp

diagonally-aligned

ikat

horizontally-aligned

webstation
station loom

Pfahlwebstuhl
stake loom

Teilrahmen
part-frame

Fußwebstuhl
foot loom

Schären
warping

Grouping Loin Looms

A brief overview of the 4 most important groups of loin looms (body-tensioned handlooms):

Primary Groups:

Pengelompokan



Foot Loom - *alat tenun kaki*

The warp beam is held by foot; the loom thus extremely mobile and unbound, but somehow limited in size. Outdoor & indoor use! [[Borneo?](#) - [Sobei](#) - [Timor](#)]



Stake Loom - *alat tenun pancang („dhadha“)*

The warp beam rests on stakes anchored in the ground. The soil usually needs prior preparation! Only outdoor use! Looms that are attached to trees, house posts or verandas also belong to this group! [[Manggarai](#) - [Ngada](#) - [Nggela](#) - [Ndona](#) - [Palu'e](#) - [Sikka](#) - [Larantuka](#) - [Ili Mandiri](#) - [Lembata](#) - [Pantar](#) | [Atoni](#) - [Sumba](#) - [Timor](#)]



Stilt Loom - *alat tenun panggung (cancangan)*

The warp beam is supported by two stilts standing on the ground. The top of the stilts are attached to posts, wall or tree, and thus tied to place. Indoor & outdoor, close to a building. [[Nage-Keo?](#)]



Station Loom - *alat tenun stasiun (gedogan)*

The warp beam is supported by two posts in rails that lie on the ground. The station requires no connection and is therefore independent of location. Some include a seat or platform. [[Manggarai](#) - [Mbay](#) - [Palu'e](#) - [Mandiri](#) - [Adonara](#) - [Ternate](#) - [Boka Besi](#)]

The boundaries between the groups are fluid, resulting in mixed types or subgroups. One loom can meet the characteristics of several groups and be assigned to them.

Secondary Groups:



Extended Foot Loom - *alat tenun kaki yang didukung*

The warp beam is already supported by small stilts, but still held by foot. Others add another beam to release footwork! [no example, but accidentally [Timor](#) loom]



Stake & Stilt Combination (Extended Stake Loom) - *alat tenun pancang yang diperpanjang*

Loin looms that combine stakes and stilts to suspend the warp beam. [no example, but probably [Bajawa](#)]



Extended Stilt Loom (Stand Loom/Gamelan) - *alat tenun "gamelan"*

A very large subset of extended stilt looms. The stilts are connected to each other, often by means of a transverse binder, which serves as a stand. Thus, they can stand independently, but still have to be connected for operation. Some do not have a crossbar, but they can stand independently; others, on the other hand, prove to be conditionally independent weaving stations (*station loom*). This subgroup illustrates the gradual development of weaving stations, but nevertheless refers to its relations to the foot loom. One may think that this subgroup recreates the central transition from initial foot looms to externally supported loin looms of any of these later-on developments.

[[Bima](#) | [Mandar](#)]

Looms in Categories

Historical looms sorted in categories; according to Yoshimoto 1990

Yoshimoto differs 4 categories of looms (in general) A, B, C and D, resulting from 4 features:

bracing system | tension system | hand loom | warp system

- [A] body-braced & body-tensioned hand loom with circular warp
- [B] externally-braced & body-tensioned hand loom with circular warp
- [C] externally-braced & body-tensioned hand loom with flat warp
- [D] externally-braced & externally-tensioned hand loom with flat warp

All well-known foot looms therefore belong to category **A**; all ethnic models of foot looms use exclusively a circular warp.

The externally supported, circular Ikat warps, which are predominant on Flores and the following islands, from Ngada to the east, are to be assigned to category **B**. The versions with false-circular warps, which nowadays can be partly found in these regions, also belong to this, while the flat warps that mainly appear in Manggarai are all to be attributed to category **C**. Features such as stake loom, stilt loom or station loom are irrelevant for the categorization of the looms, according to Yoshimoto.

Just 4 of the presented ethnic looms on Flores are assigned to category C; all others belong to category B!

Category **D** only includes externally-tensioned variants of ground looms and, for example, frame looms, which are not found here on Flores! Although there is a potential candidate for category D on Rajua Island south of Flores, his external tension seems to be used exclusively when setting up the warp. But even if the external tension is used during weaving, what is technically feasible, it has a circular warp, what doesn't fit the category.

As it turns out, some real possible loom constructions cannot be captured by this system; foot looms can also use flat warps, but are not compliant with Yoshimoto's categories. His system only takes into account the historically recorded models, but does not provide space for changes to come! In addition, there is not much benefit for active loom design; nor for type analysis. This is where the grouping of the loin looms should help!

Kategori

[A]
body-braced
circular warp

Sobei
'Larantuka'

[B]
body-tensioned
circular warp

Ngada
Bajawa
Ende
Sikka
Timur
Lembata
Alor
Sumba

[C]
body-tensioned
flat warp

Manggarai
Mbay
Bima
Mandar

[D]
externally-tensioned
flat warp

Rajua

Appendix

REFERENCES | TERMS: GENERAL | WEAVING | COMPONENTS

Gambar-Gambar

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- (54) [@] Naga Station Loom, Nagaland. Date unknown. Nagaland 1 - Buckley Archive. → tracingpatterns.org
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Image sources

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01) Stake Loom in Ruteng

Manggarai Tengah with Y-shaped forks | Indah Nuria Savitri (2015): "Tenun Ruteng"
<https://www.indahnuria.com/2015/03/ww-tenun-ruteng.html?m=1>

02) Station Loom in Manggarai

with Y-shaped forks as holders for the warp board | Karloman Mahardika (2023): "Kain Songke dan Motifnya"
https://elibrary.unikom.ac.id/eprint/8817/8/UNIKOM_Karloman%20Mahardika_BAB%20II.pdf

03) Bima Stand Loom in Manggarai

with flat warp on warp board. | Alan Malingi (2011): "Mengenal Alat Tenun Tradisional Bima-Dompu"
<https://alanmalingi.wordpress.com/2011/04/27/mengenal-alat-tenun-tradisional-bima-dompu/>

12) Mbay Station Loom

with flat warp. | Aloysius Gonsaga 2024: "Haruskah Tradisi Menenun dan Menganyam Tenggelam di Dasar Waduk Mbay Lambo?" In: *kompas*. - <https://regional.kompas.com/read/2024/09/06/084144578/haruskah-tradisi-menenun-dan-menganyam-tenggelam-di-dasar-waduk-mbay-lambo?page=2>

15) Ndonga Stake Loom in Ende

Athanua Media (2018): "Perempuan-Perempuan Tangguh; Sang Perwaris Tenun"
<http://athanuamedia.blogspot.com/2018/11/perempuan-perempuan-tangguh-sang.html>

19) Sikka Stake Loom on stones

Source: unknown!

21) Sikka Stake Loom with pegs

Bali authentique (Travel operator). Visited in July 2025. <https://baliauthentique.com/activite/ikats-fabrication-ancestrale/>

29) Adonara Fork Station Looms

Adonara Island, East Flores | Maharani, Shinta (2024): "Menyusuri Legenda dan Tenun Adonara"
<https://www.tempo.co/hiburan/menyusuri-legenda-dan-tenun-adonara-408439>

59) Batten rest of Sikka

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62) The Serpent Horse of Nage (Naga Nua)

Yale University Art Gallery: "Ritual Horse-Serpent with Male and Female Riders (Ja Heda)" 19th century. Photo by Johan Vipper. 1971. ILE2012.30.129 - <https://artgallery.yale.edu/collections/objects/159941>

References

In chronological order:

Banaspati 1906

Banaspati (1906): "Buitenzorgsch Weefwerk" In: Het Daghet - Een blad voor kunst en leven, Ie jaargang, No. 12. Buitenzorg. pp. 409-423 & supplement. - Engl. translation: <https://www.academia.edu/127905686/>

Jasper/Pirngadie 1912

Jasper, Johan E. & Pirngadie, Mas (1912): "De inlandsche kunstnijverheid in Nederlandsch Indië. II. De weefkunst." -> <http://hdl.handle.net/1887.1/item:1105747>

Tillema 1926

Tillema, H. F. (1926): "Zonder Tropen - geen Europa!" Bloemendaal. -> <https://resolver.kb.nl/resolve?urn=MMKB21:047340000>

Goslings 1928/1929

Goslings (1928-1929): "Het Primitiefste der Primitieve Indonesische Weefgetouwen." In: Nederlandsch-Indië 13 (85-96, 112-125). Fig. 13.

Vatter 1932

Vatter, Ernst (1932): "Ata Kiwan : unbekannte Bergvölker im tropischen Holland : ein Reisebericht von Ernst Vatter."

Rouffaer 1932

Rouffaer, G. P. (1937): "Ethnographie van de Kleine Soenda Eilanden in Beeld."

Orinbao 1969

Orinbao, P. Sareng (1969): "Nusa nipa : nama pribumi nusa Flores (warisan purba)." Ende (Flores): Nusa Indah.

Adams 1977

Adams, Marie Jeanne (1977): "A 'Forgotten' Bronze Ship and a Recently Discovered Bronze Weaver from Eastern Indonesia." In: Asian Perspectives 22: 87-109. - <http://hdl.handle.net/10125/19191>

Yoshimoto 1987

Yoshimoto, Shinobu 吉本 忍 (1987): "Principles for a Basic Classification of Handlooms." 手織機の構造・機能論的分析と分類 - <http://doi.org/10.15021/0000434> - https://minpaku.repo.nii.ac.jp/record/4355/files/KH_012_2_002.pdf

Yoshimoto 1990

Yoshimoto, Shinobu 吉本 忍 (1990): Typological Studies of Indonesian Handlooms. インドネシアにおける手織機の類型論的研究 : (1) 型式と分布 - <https://doi.org/10.15021/00004287> - https://minpaku.repo.nii.ac.jp/record/4295/files/KH_015_1_001.pdf

Hamilton 1994

Hamilton, Roy (1994): "Gift of the Cotton Maiden - Textiles of Flores and the Solor Islands."

Forth 2009

Forth, G. (2009): "Tree Totems and the Tamarind People: Implications of Clan Plant Taboos in Central Flores." Oceania. Wiley-Blackwell. doi: 10.1002/J.1834-4461.2009.TB00064.X. - <https://www.academia.edu/54351207/>

Bandanaku 2015

Bandanaku, P. (2015): "Tenun Menenun di Alor." - <https://bandanaku.wordpress.com/2015/08/27/tenun-menenun-di-alor/>

Buckley 2017

Buckley, Christopher D. (2017): "Looms, Weaving and the Austronesian Expansion." In: Spirits and Ships: Cultural Transfers in Early Monsoon Asia, pp. 273-324. -> <https://www.academia.edu/9974664>

Danerek 2021

Danerek, S. (2021): "Roja Hama-Hama? A Linguistic Review of the Ende and Palu'e Weaving Traditions." Jurnal Lingko, 3(1), p. 104-. doi: 10.26499/JL.V3I1.82.

Alpert 2022

Alpert, Steven G. (2022): "19 Masterworks of the National Gallery of Australia." In: Art of the Ancestors (July, 25th). -> <https://www.artoftheancestors.com/blog/19-masterworks-national-gallery-australia>

Buckley 2022

Buckley, Christopher D. (2022): "First migrants, first textiles." In: Textiles of Indonesia - the Thomas Murray collection. (p. 23-27) -> <https://www.academia.edu/143267494/>

Buckley et al. 2023

Buckley, Christopher, Enrico Y. Kondoligit, Yudha N. Yapsenang and Sandra Sardjono (2023): "The fiber making and terfo weaving tradition of the Sobei people of Papua. In: Fiber, Loom and Technique 2023, 1: 1-16. - <https://www.academia.edu/103406277/>

Fricke 2019

Fricke, H.L.A. (2019): "Traces of language contact: The Flores-Lembata languages in eastern Indonesia." LOT, Amsterdam. Retrieved from <https://hdl.handle.net/1887/80399> [PDF]: <https://scholarlypublications.universiteitleiden.nl/access/item:2913056/view>

Plum 2023

Plum, G. (2023): "Spirit Animals & their Loin Looms - Along the Spice Road." - <https://www.academia.edu/125080740/>

Richardson 2024

Richardson, Sue & David (2024): "Lawo with a Complete Covering of Motifs." In: Nggela Textiles -4. - <http://asiantextilestudies.com/nggt-04.html#a>

Buckley 2025

Buckley, Christopher D. (2025): "A Seaworthy Loom: The Backstrap Loom and Its Travels around the World." IASSRT9 Conference 2025, Berkeley/California.

Plum 2025-1

Plum, G. (2025): "The Foot Loom of the Sobei (Papua)." In: Indonesian Loin Loom & their Components - The Loom Collection of Jasper & Pirngadie 1912. pp. 137-141. - <https://www.academia.edu/144185796/>

Plum 2025-2

Plum, G. (2025): "The Foot Loom of Larantuka - Views of an Indonesian bronze figure from the 6th century." [Alat Tenun Kaki Larantuka] - <https://www.academia.edu/144025347/>

Plum/Gröger 2025

Plum, G. and Groeger, C. (2025): "The Buitenzorg Collection - Loin Looms of Motman-Schiff." - <https://www.academia.edu/143284993/>

Terms in use

Brief explanations of cultural and general specific terms used here. Technical terms of weaving can be found in the [following list](#)!

Istilah

BUDAYA | TENUN

Adonara

(Adenara, Dnara, Lamala, Crama, Sebrão) - 1) island (pulau Adonara); part of >>Solor Archipelago; part of >>East Flores regency. 2) Ethnic group & 3) Language. Malayo-Polynesian branch of Austronesian languages, spoken on Adonara and Solor Island.

Alor

1) Main island (pulau Alor) of Alor islands group located in the east of Flores. 2) Regency (kabupaten). 18 districts. Main islands Alor & >>Pantar. Main town is Kupang(?). Languages: Papuan & Alorese. 3) Language Alorese (Malayo-Polynesian).

Amis (阿美族)

Austronesian ethnic group on Taiwan, using a similar warp board as the one shown on bronze sculpture of Mama Wulu, found on East Flores.

Atadei

District (*kecamatan*) of >>Lembata Island; and ethnic language. Kalikasa is its capital.⁶

Atoni

Australo-Melanesian ethnic group in the highlands on West-Timor. In general called „Atoin Meto, Atoin Pah Meto“, or discriminating „Dawan“. Language: Uab Meto.

Baar

Minor ethnic group located in >>Ngada.

Bajawa

1) An ethnic group of >>Ngada. 2) Capital of Ngada regency. See [Map of Flores](#)!

Banaspati

1) Name of an entity, dwelling in the tree in former Hindu-regions on Java and Bali. Indonesian pronunciation of the Indian Sanskrit term >>'Vanaspati'. 2) Pen-name of author, who wrote the 'Buitenzorgsch Weefwerk' in 1906. according to this author, since >>Nyi Pohaci sacrificed her body as a loin loom for mankind, she appears to man in gestalt of Banaspati, Mother Nature. Compare >>Seus!

Baranusa

Main village on western >>Pantar Island, Alor Islands group.

Batak

Belogili

A hamlet north of the volcano >>Ili Mandiri and >>Larantuka on >>East Flores.

Bima

(Bimanese; in general: Mbojo) - 1) Ethnic group (orang Bima), spread along the western and northern coast of >>Flores. 2) Coastal city, largest on East >>Sumbawa. 3) Language (Nggahi Mbojo or Bahasa Bima). Belongs to

Malayalam-Polynesian branch of Austronesian languages.

Boawae

According to [Hamilton 1994](#) another ethnic group with its own language (and loom?) in >>Ngada regency.

Boka Besi

An hamlet on >>Alor Island.

Borneo

Huge main island, north-west of Flores.

Bugis-Makassar

There are enclaves consisting of the ethnic groups of Bugis and Makassar along the north coast of >>Flores. They come from the south of >>Sulawesi. See [Map of Flores](#)!

Champa

Former kingdom of Cham people in Southern Vietnam.

Ende

1) regency (*kabupaten*) on Central Flores. 21. districts. Bordered by >>Nagekeo (west) and >>Sikka in the east. See [Map of Flores](#)! Ethnic groups: Ende, >>Lio, >>Ndona, >>Nggela. 2) Name of capital on south coast; biggest town on >>Flores. 3) Name of close-by island on south coast.

East Flores

Regency (*kabupaten*) in the east of >>Flores, including the islands >>Adonara and >>Solor in the east; bordered by >>Sikka in the west. 19. districts. Capital is >>Larantuka. See [Map of Flores](#)!

Flores

island in East Indonesia; part of Lesser Sunda Islands. Name derives from Portugese „flowers“. Main towns are >>Mauwere, >>Ende, >>Ruteng, >>Larantuka & >>Bajawa. Once divided in three, later on into the 5 regencies >>Manggarai, >>Ngada, Ende, >>Sikka & >>East Flores. Actually >>Nagekeo has separated from Ngada, and the Manggarai has got sectioned into West, Central & East. The island groups of >>Solor and >>Alor are included. By the locals Flores is also called >>Nusa Nipa (Dragon/ Snake Island) or Tanjung Bunga/Pulau Bunga (Flower Island). Flores is located between the Flores Sea in the north and the Savu Sea in the south. See [Map of Flores](#)!

Ibu Wulu

(Mama Wulu). Name of the rain goddess on >>Borneo. Island.

Ikat-line

cuts western part (Manggarai) off the rest of >>Flores. Western area mainly supplementary pattern-weaving,

⁶ See: [Fricke 2019](#)!

striped textiles and some weft-ikat, East of line warp-ikat.⁷

Ili Mandiri

Volcano on Mainland of >>East Flores, close to >>Larantuka. The surrounding area is called Ili Mandiri region.

Ine Pare

Name of the rice goddess of the Nggela. The legend "Lawo Gamba Ine Mbu Ine Pare" can be found at Richardson 2024.

Jayapura

capital of >>Papua on the north coast.

Kampong Pota

coast village in northern >>Manggarai.

Kampung Bena

"Kampung Adat Bena" (Traditional Village Bena). A traditional-style village in >>Ngada regency.

Karo

Keo

ethnic group in >>Nage-Keo regency, Western Flores. Keo, also called Ambulombo is name of the local volcano! See Map of Flores!

Krowe

Subgroup of >>Sikka people.

Lamaholot

(Solor, Solorese) - 1) Ethnic group and 2) language; Malayao-Polynesian cluster, mainly found on >>Solor, >>Lembata & >>Pantar.

Lamalera

village on >>Lembata Island.

Larantuka

Port and district (kecamatan) on mainland >>East Flores, south of the volcano >>Ili Mandiri. See Map of Flores!

Leloba

A hamlet close to >>Larantuka, East Flores.

Lembata

(also: Lomblen or Kawela) - 1) largest island of the >>Solor Archipelago east of >>Flores. 2) regency (kabupaten), incl. some islands of Solor Archipelago; since 1999 splitted off >>East Flores. Main town is Lewoleba. 9 districts. Located between East Flores in the West.

Lewoleba

Main town of >>Lembata Island.

Likuwali

village in >>Ngada regency. Mentioned by Rouffaer. Should be close to >>Bajawa, capital of >>Ngada regency.

Lio

1) Ethnic group in >>Ende regency, but also mentioned as part of >>Sikka people! See Map of Flores! 2) Austronesian language in Central Flores. As far it seems, most Lio people (in Ende regency) don't weave.

Mandar

(Mandarese)- 1) An ethnic group (*suku/orang Mandar*) in West >>Sulawesi. 2) Language. The Malayao-Polynesian based Bahasa Mandar, close to Toraja-Sa'dan, is a branch of Austronesian languages.

Manggarai

1) Regency (*kabupaten*) on West Flores. Once one regency, now separated into three regencies: West, Central, East. Main town is >>Ruteng in Central Manggarai. See Map of Flores! 2) Ethnic group (Ata Manggarai - *Manggarai people*). 3) Language (tombo Manggarai). Neighbor regency to the east is >>Ngada.

Maumere

Port and capital of >>Sikka regency, located on the north coast of eastern Flores. Second biggest town on Flores. See Map of Flores!

Mbaru niang

traditional 5-stores houses in >>Manggarai, like in >>Wae Rebo. See: wikipedia > Waerebo - <https://en.wikipedia.org/wiki/Waerebo>

Mbay

1) Main town on the north coast of Nagekeo regency. 2) Ethnic group located along the northern coast of Flores in >>Manggarai (Mbui) and >>Nagekeo. See Map of Flores!

Naga

The serpent horse or dragon horse, "God of the Waters" (Compare Galudra = "Wind").

Nage

Ethnic group in >>Nage-Keo regency. The name means tamarind, what's their totem tree! See: Forth 2009 & Map of Flores!

Nage-Keo

Regency (*kabupaten*) on western Flores; once part of >>Ngada regency; 2007 this western part of Ngada splitted off. >>Nage people (*suku Nage*) in the north, >>Keo (*suku Keo*) in the south. Main town is >>Mbay. Bordered by Ngada (west) and >>Ende regency in the east. 7 districts. See Map of Flores!

Ndonga

part of the >>Lio people in >>Ende regency, but separated from Lio by mountains. While other Lio in Ende regency don't weave, Ndonga are skilled weavers.

Ngada

1) Regency (*kabupaten*) on western Flores. Once Ngada one regency, 2007 >>Nagekeo in the west of Ngada has got separated. Ethnic groups (*suku*): >>Riung (north) and >>Bajawa (south). Main town is Bajawa. Actually 12 districts (kecamatan). See Map of Flores! 2) Language (bahasa Ngada).

Nggela

Ethnic group in >>Ende regency.

Nusa Nipa

Once created by >>Sikka, now overall Flores accepted name for the island Flores by locals. In Sikkanese it means dragon/snake island.

⁷ See: Buckley 2022!

Nyi Pohaci

According to a Sundanese legend, name of the rice goddess. See [Banaspati 1906!](#)

Onelako

According to [Hamilton 1994](#) another ethnic group or region in [>>Ende](#) regency!?

Palu'e

1) Palu'e Island (Pulau Palu'e), located north of Flores; part of Sikka regency. 2) Ethnic group on Palu'e Island. See [Map of Flores!](#)

Pantar

Pantar Island, close to [>>Alor](#) Island; part of Alor Islands. Main village is [>>Baranusa](#) on Western Pantar.

Papua

Papua is the Indonesian part on the north coast of Western New Guinea. Capital is [>>Jayapura](#). The [>>Sarmi](#) region on Papua is inhabited by some few Austronesian groups.

Pulau Bunga

(Tanjung Bunga) - Alternative name of Flores by locals, meaning „Flower Island“.

Rajua

An island between [>>Sumba](#) and [>>Timor](#); south of [>>Flores](#).

Riung

1) Language and 2) ethnic group in northern [>>Ngada](#) regency; related to [>>Manggarai](#) people. See [Map of Flores!](#)

Rongga

Ethnic group in southern [>>Ngada](#) regency. See [Map of Flores!](#)

Ruteng

capital of [>>Manggarai](#) in the highlands. See [Map of Flores!](#)

Sarmi

Name of region on [>>Papua](#), given by the names of the five Austronesian groups there: [>>Sobei](#), Armati, Rumbuai, Manirem, and Isirawa. See: [Buckley et al. 2023!](#)

Seus

According to the myth of [>>Sobei](#) on [>>Papua](#) a natural entity, dwelling in the top of trees. It's told, the prototype of the Sobei's [>>foot loom](#) was inspired by a piece of woven tissue, Seus had once lost at the bottom of its tree! See [Buckley et al. 2023!](#)

Sikka

(Sikkanese, Sika) - 1) regency (*kabupaten*) on eastern Flores. Bordered by [>>Ende](#) (west) and [>>East Flores](#) (east). Capital is [>>Maumere](#). 21 districts. See [Map of Flores!](#) 2) Ethnic group. (suku Sikka). Subgroups: [>>Krowe](#), [>>Tana'Ai](#), ([>>Lio?](#)). Sikka call the island Flores Nusa Nipa (Dragon or Snake Island)⁸, but also Tujang or Pulau Bunga (Flower Island). 3) Language. Malaya-Polynesian branch of Austronesian languages.

Sobei

Austronesian ethnic group on [>>Papua](#), once with a simple [>>foot loom](#) in their cultural program. See: [Buckley et al. 2023!](#)

Solor

(pulau Solor) - An island group of [>>East Flores](#); east of Flores. Languages [>>Adonara](#) and [>>Lamaholot](#). 3 districts; part of [>>East Flores](#) regency.

Sulawesi

An influencing island north of [>>Flores](#).

Sumba

an island close to Flores' south coast.

Sumbawa

An island west of [>>Flores](#); main spot of [>>Bima](#) people (mbojo). Kota Bima = city on Sumbawa.

Tana'Ai

Subgroup of [>>Sikka](#) in the east of Sikka regency. See [Map of Flores!](#)

Ternate

(Pulau Ternate) - small island of Alor Islands group; in the west of [>>Alor](#) Island.

Timor

An neighboring Indonesian island south-east of Flores. The creation myth "Lafaek Diak" of Timor tells, the island is made by a crocodile, what's a holy animal on Timor! See wikipedia >Timor. - https://en.wikipedia.org/wiki/Lafaek_Diak

Vanaspati - वनस्पति

Indian Sanskrit term, 1) used by Charaka and Sushutra, naming a group of plants, bearing fruits without (visible) flowering; i.e.: fig trees. 2) now describing the entire plant kingdom. 3) mentioned in Rigveda 9/5.10: the 'Lord of the Forest' is an "ever-green, golden-hued, refulgent deity with a thousand boughs". See also: [>>Banaspati!](#)

Wae Rebo

reconstructed, traditional village in the highlands of Central Manggarai.

Wolajita

According to [Hamilton 1994](#) another ethnic group or region in [>>Ende](#) regency!?

Wua Nangge Liru

(ID: Hadihnya dari atas Langit) - According to [Danerek 2021](#) title of a Palu'e legend: The gift from the heavens. A wife and the following husband get the loom from the eighth heaven by climbing an areca palm. See: [>>The Loom from the Heavens!](#)

[...to be continued!]

⁸ See: [Orinbao 1969!](#)

Terms of Weaving on Loin Looms

A brief explanation of the most important technical terms of loin loom weaving used here. Some of the terms are identical to general expressions of weaving; others are only used for loin looms or even differ in application! Cultural & general terms can be found in the [previous list](#)!

alat melengkung^{ID}

Indonesian term for a >>warping device.

alat tenun^{ID}

Indonesian term for a loom or more precise: weaving tools.

alat tenun kaki^{ID}

Indonesian term for a >>foot loom.

alat tenun pancang*

Indonesian term for a >>stake loom.

alat tenun panggung*

Indonesian term for a >>stilt loom. See >>cancangan!

alat tenun pinggung^{ID}

Indonesian term for a >>loin loom (waist loom).

alat tenun stasiun*

Indonesian term for a >>station loom. See >>gedogan!

backstrap

A strap, placed at the back of the weaver, that gets attached by ropes to the >>breast beam - triangular connection. It enables the weaver to control the tension of the >>warp on a >>loin loom.

batten rest

Same as >>reed comb, >>yoke and >>flat warp, the batten rest is a typical Indonesian item of >>loin looms, you won't find that much in use outside of Indonesia. It supports the making of wide >>warps and eases the insertion of the >>batten sword into the >>shed.

batten sword

The reed comb of a frame loom sits in a massive, heavy swivel arm, with which the weft is beaten into the warp. The reed of a loin loom, on the other hand, is very light and can't be used to strike the weft thread; for this purpose, a heavy, sword-shaped hardwood is used to beat-in.

body-tensioned

>>Loin looms, or so-called backstrap looms are body-tensioned. While externally-tensioned looms, like frame looms, keep the >>warp on continuous tension, loin looms change between tensioning and relaxing the warp, for the purpose to easen the opening of the >>counter-shed.

breast beam

The breast beam of a >>loin loom is used to roll-up the ready woven textile, but just for >>flat warps. In this case it is a >>cloth beam! But >>circular warps just turn around the breast beam and are not rolled-up! The breast beam gets attached to the weaver by tie-up to a >>yoke or a >>backstrap at weaver's back. For the sake

of simplicity, this script usually does NOT distinguish between breast beam and cloth beam! There are several standards of breast beams to differ, i.e. one-piece, two-piece and >>framed breast beams. Breast beams can be round, rectangular, and even >>breast boards are found!

breast board

A breast board is a at least 10-15 cm high wooden board, that is used as >>breast beam. Comparing to standard breast beams they have a certain leverage on the >>warp. Due the height of the board, a longer piece must be woven before the ready-woven textile can be rolled in. Some breast boards reach an height of about 20 cm!

cancangan^{ID}

(cancangan) An Indonesian term for loin looms, that use stilts to support the warp beam; i.e. *Kanekes* (Baduy) on West-Java. See >>stilt loom!

circular warp

A circular warp is a warp made from a continuous thread. By turning around >>warp beam and >>breast beam it builds two levels. Final product of a circular warp is a tubular textile, used to create original sarongs or tube skirts.

clamp

A separate stick, optionally used to clamp the >>warp at the >>breast beam. It can also be found as a component of a two-piece breast beam; in this case, equipped with tongue and groove.

cloth beam

The actually ready-woven part of a >>flat warp gets rolled-up onto the cloth beam. This beam is located on the side of the weaver and is attached to her loin by means of a >>back strap or >>yoke so that she can regulate the tension of the warp by bending and leaning back. With >>circular warps, the finished-woven part is not rolled up on the cloth beam; it only drives around it. In this case it is a steering beam, resp. >>breast beam. (With frame looms in general there is a >>warp beam, two steering beams, one of which is the breast beam, and a cloth beam.) For standardization, we usually don't distinguish between breast beam and cloth beam, so as not to confuse laymen too much, we speak uniformly of a breast beam. (Some authors prefer the term cloth beam for both versions.)

counter shed

The >>warp is divided into upper and lower warp by inserting the >>shed roll and by connecting a part of the warp threads to a >>heddle bar. The so-called >>shed is formed between these two layers; the shed roll forms the >>natural shed. By lifting the heddle bar, the lower warp is pulled upwards and forms the counter shed. Due

to the alternately formed sheds, the >>weft thread is also inserted and folded alternately from the right and left, which connects the >>warp threads to a woven textile.

dhada

Local term of the >>Palu'e people for a >>stake loom. See also >>alat tenun pancang!

diagonally-aligned warp

false lease stick?

In general Ikat warps don't show any use of standard >>lease sticks, but therefore some show the use of a single stick in each level, upper and lower, that may appear like a lease stick. We are missing a fitting term for those, but due to this appearance we name it a false lease stick! Traditionally there were no those sticks in Ikat-weaving, so some still don't contain any of these. Similar the manner of standard lease sticks these false are used to align AND differ the single parts of the warp by guiding one below, the following over the stick, what raises the stability of the entire warp on top. Each level, upper and lower contains such a false lease sticks.

flat warp

A flat warp starts with the >>warp beam and ends on the >>breast beam, each end attached by a whip stick (insert stick). Final product of a flat warp is a flat textile! While on frame looms single threads form the final flat warp on the loom, most of ethnic flat warps on >>loin looms are made a continuous thread; a package of two pass the reed opening!

foot loom

A foot loom is an body-braced type of >>loin loom; ethnic models of foot looms are just used in combination with >>circular warps. Most of ethnic foot looms are found on Taiwan, Laos and Vietnam, but according to the Out of Taiwan-theory they should have come up in Southern China! See >>Grouping Loin Looms!

foot rest

A foot rest is used, not to rest the feet as the name implies, but to serve the weaver a support to build-up the needed tension of the warp, while weaving with a >>loin loom.

framed breast beam*

(breast frame) - A framed breast beam is a beam, that has got connected to another beam, building an about 15 cm high frame, that rests on the lap of the weaver. Comparing to standard >>breast beams they have a certain leverage on the warp.

gedogan^{ID}

An Indonesian term for loin looms in general (alat tenun tradisional), but especially for types of >>station looms!

ground loom

Ground looms run their horizontally aligned >>warp close to the ground. There are externally-tensioned and body-tensioned versions of ground looms. While externally-tensioned types keep their warp almost on ground, body-tensioned versions lifted the height of warp on about 25-30 cm above ground level!

heddle

The heddle of >>loin looms is a continuous thread, that is used to form the >>counter-shed by grabbing each second thread. The heddle turns around a single warp thread, is directed back to the >>heddle bar, gets fixed there and turns back to the next (second) thread to grab, etc.

heddle bar

The loops of the >>heddle thread get lined-up on a simple stick, what is called the heddle bar. Each loop grabs each every second warp thread. Lifting the heddle bar results in opening the >>counter-shed.

horizontally-aligned warp

Ikat

Ikat is a textile technique in which patterns are introduced by tying the yet unwoven threads before dyeing. A distinction is made between warp ikat, weft ikat and double ikat. Warp ikat, in general >>warp-weighted, is just made by >>circular warps, that don't include a >>reed! On top >>lease sticks and >>starter rod are either not part of the game. Therefore one finds plenty of >>ikat-markers and sometimes a couple of >>>false lease sticks in use. Weft Ikat, in common >>weft-weighted, may be woven with a reed comb on >>flat warps.

Ikat-Line

The Ikat-line runs from north to south and roughly separates Vietnam and eastern parts of Cambodia from the rest of SEA-mainland. To the right of the line we observe warp ikat and accordingly >>circular warps without >>reed comb, while to the left of the line in the best case there is still weft ikat left. Similarly, the weaving devices here tend to use >>flat warps, equipped with a >>reed comb. Exceptions can be found, such as on Bali (double ikat!) or the Batak on North Sumatra. After the line leaves the mainland and Borneo is largely taken over by the right wing, it runs east and separates southern areas of Borneo and South Sulawesi, before it turns south again and separates the Manggarai from the rest of Flores. The following Sumba Island has joined the Ikat side!

Ikat marker

Next to the fact, that >>warp ikats don't use any >>reed, but need a >>circular warp (of course, just on loin looms!), in general there is either no such thing like >>lease sticks nor >>starter rod to find! Most warp ikats are prepared by partial warps, what doesn't go along with the idea of a single starter rod. Therefore partial markers are used; for each part its own! These markers are arranged in two alternating groups offset in order to ease handling them!

intermediate beam

(connector, connection beam) - rarely used between suspension and warp beam as connection. Sometimes including an sound element And/or serves as weight!

kembang^{ID}

Indonesian term for textile (weaving) patterns, pronouncing it as a flower.

lease stick

loin loom

A loin loom, or so-called backstrap loom is an externally-tensioned hand loom. Due to traditions, >>flat warps, >>circular warps or false circular warps are used by ethnic groups on loin looms; >>foot looms, a body-braced version of loin loom, are just used with circular warps (even it is actually possible to run a flat warps on foot looms).

natural shed**part-frame**

A widespread name for >>loin looms, which have a self-standing scaffolding frame to which the >>warp beam is attached. In addition, there is often a seat or pedestal for the weaver. This type is assigned to the >>station loom.

reed comb

The reed comb keeps the >>warp threads in order and on certain distance. There is no reed to find in a >>circular warp, but in false circular and >>flat warp-types. Reeds on loin looms are pretty light in weight; thus it can't be used to beat-in the weft thread on its own weight! Therefore the >>batten sword is used! Beside reeds don't fit in a circular warp, warp ikat is >>warp-weighted textile, that doesn't go along with the concept of reed!

shed

Each loom needs two sheds; differed in the >>natural shed and the >>counter shed! A simple standard of looms runs on plain weave; for this, two shafts are necessary on frame looms. However, most >>loin looms use the >>shed roll to determine the natural shed, and instead of a shaft, a >>heddle bar is attached, which catches every second thread of the >>warp. The warp is thus divided into upper and lower warp; while one group is directed above the shed role, the other is led under. By lifting the heddle bar, the threads of the lower warp are lifted over the upper warp and thus open the laterally appearing counter shed! The >>weft thread is inserted alternately through the appearing sheds, which leads to interweaving of the warp threads to a final textile.

shed roll

(roller)

stake

A pair of stakes, poles, posts, or even pegs & wedges, vertically driven into the soil, are used as suspension to hold the >>warp beam of the loom.

stake loom*

A stake loom is a externally-braced, but >>body-tensioned hand loom; its >>warp beam hold by two >>stakes, resting IN the ground! See >>Grouping Loin Looms!

stand loom*

A stand loom is a special (extended) variety of >>stilt loom. Its stilts have got connected by a binder, in many cases a stand below. Its stilts stand by itself, but demands still connection to a wall or poles by rope. See >>Grouping Loin Looms!

starter rod

Most of >>circular warps include a starter rod. Here the warp threads starts and finally ends. It's also marking

the beginning and the end of weaving. False circular warps slightly modify the use of this starter rod, use it to turn the warping threads forth and back. In case of >>flat warps two whip sticks (insert sticks) instead of the starter rod are used. Ikat warps (running circular!) traditionally didn't use this kind of a single starter rod, but instead they work with partial >>ikat markers and sometimes some of them somehow differently use a kind of >>>false lease stick in upper and lower level of the circular warp. The most Ikat warps are prepared partially, what doesn't cope with the starter rod.

station loom*

A type of >>loin loom, that includes a furniture stand to hold the >>warp beam. This furniture (station) needs no attachment at all; it functions as a stand-alone. Can be used in- and outdoor, and is somehow (locally) mobile. See >>Grouping Loin Looms!

stilt loom*

The >>warp beam is hold by two stilts, resting ON the ground; these need to be attached to the wall/pole by ropes. Can be used in- and outdoor, and is pretty mobile, but demands certain circumstances. See >>Grouping Loin Looms!

thread crossing?**warp**

The warp is formed from vertically lined threads. In general this warp is prepared with a warping device before weaving. When >>warping, >>loin loom weavers usually set up the >>heddle rod and probably the >>reed in addition to marking the >>thread's crossing. After the warp is set up, it is brought to the loom. Here, the individual warp threads are woven into a textile by means of horizontal weft threads according to a binding method specified by the heddle bar-binding (usually plain weave)!

warp alignment**warp beam**

Warp beams are standard to roll-up >>warps for the weaving process of >>flat warps. >>Circular warps are not rolled-up on such beams, but pass and turn around them to change direction. The warp beam is hold by foot or gets fixed to an external suspension.

warp beam-support

Any kind of >>warp beam, no matter it's round, rectangular or even a >>board needs a support; even body-braced >>foot looms depend on such a support, in this case the feet! Externally-braced loin looms use >>posts for this purpose. On Flores one can realize a conscious play with the gestalt of such warp beam-holders in construction and function; here grouped by form: Y - X - r - I - V - M - U. Many of these posts are created by straight and forking branches of trees. See also section Forking Branches!

warp board*

A board of about 8 to 20 cm in width, used to roll-up the >>warp for the weaving process. (>>flat warps) >>Circular warps are not rolled-up on boards; they just pass and turn around them to change direction! Warp boards are big-size >>warp beams.

warp post

Two vertical posts hold the warp beam of externally-braced >>loin looms.

warping

Warping is the preparation of a warp of the vertically aligned threads for the following process of weaving; what actually is connecting the vertical threads by horizontal weft threads.

warping frame

Any kind of frame, vertical or horizontal, that is used to prepare the >>warp for the following weaving process.

warp thread**warp-weighted****weft****weft thread****weft-weighted****whip stick**

(insert stick). A whip stick is found at both ends of a >>flat warp. The individual threads (frame loom) are tied to it. The 'whips' are attached each on >>warp and >>breast beam (resp. cloth beam). However, a large part of Indonesian >>flat warps is produced by a continuous

thread according to the principle of a false-circular warp. In the case of frame looms, the initially continuous warping thread is cut into individual threads when set on loom (to pass the eyes of the heddle. With traditional >>loin looms, it usually remains continuous and is thus threaded in pairs into the >>reed. With these types of flat warp, the thread just surrounds the whips.

yoke

A wooden stick, horizontally placed at the back of the weaver, that gets attached by ropes to the >>breast beam - parallel connection. It enables the weaver to control the tension of the warp on a >>loin loom in a more accurate manner. In general useful to create wide >>warps.

[...to be continued!]



Components of the Loom

There are various word lists with local terms for the components of the ethnic looms of some regions to find in several works. The main part of the terms can be found at [Hamilton](#); these have been extended by terms found at [Buckley et al.](#) and [Danerek](#). The validity of these terms has to be taken with caution, so they currently serve only as an approximation; anyway they are hardly complete! For example, almost all of these collections lack the terms for the Ikat markers to be observed and the stick designated by us as a false lease stick. Also foot rests and batten rests are not mentioned at all!

Manggarai Regency

Cibal - [Hamilton 1994](#)

Components of the loin looms in Cibal, Central Manggarai, according to [Hamilton 1994](#).

parkinsu - yoke (back support)
wasek tentang - tie rope (for back support)
pesa - cloth beam
pa tekol - insert stick (whip; to attach warp to breast beam)
 ??? - temple
keropong - shuttle (tube shuttle)
mongko kosor - bobbin (? = weft spool?)
zangka - reed (comb)
bampa - beater (sword)
akot - heddle (string heddle)
mongko akot - heddle rod
belang - shed roll
mongko rempé - shed stick (warp depression rod?)
mongko akot(!) - supplementary heddles
pasikok - lease sticks
pémaluk - warp beam (plank-type)
ghazu panka - plank supports

Ngada Regency

Bajawa Loom Components

Components of the ethnic loin loom of Bajawa people in Ngada regency, according to [Hamilton 1994](#).

tapi - backstrap (back support)
azé tapi - tie rope (for back support)
wega - cloth beam
 ??? - insert stick (whip; to attach warp to breast beam)
(witu) - temple
ghoa - stick shuttle
 NO reed!
bhira - beater (sword)
ghuna - string heddle
kuku - heddle rod
longa - shed roll
witu - shed stick (warp depression rod?)
 NO lease sticks!
bhota - warp beam
redha - posts

Riung Loom Components

Components of the ethnic loin loom of Riung people in Ngada regency, according to [Hamilton 1994](#).

lihur - yoke (back support)
wasé lihur - tie rope (for back support)
pesa - cloth beam
peteko - insert stick (whip; to attach warp to breast beam)
(tuké) - temple
keropong - shuttle (tube shuttle)
kelirik - bobbin (weft spool?)
jangka - reed (comb)
bampang - beater (sword)
hum - string heddle (heddle rod?)
helung - shed roll
bila - shed stick (warp depression rod?)
hum - supplementary heddles
leka - lease sticks
tampang - warp beam (plank-type)
pasé - plank support

Nagekeo Regency

Mbay Loom Components

Components of the ethnic loin loom of Mbay people in Ngada regency, according to [Hamilton 1994](#).

para kincu - yoke (back support)
wasék tentang - tie rope (for back support)
pesa - cloth beam
(tubho) - temple
keropong - shuttle (tube shuttle)
mungku kéler. - bobbin (weft spool?)
jangka - reed (comb)
lampeng - beater (sword)
gugu - string heddle (heddle rod?)
mongko gugu - heddle rod
bhelang - shed roll
mungku lemper - shed stick (warp depression rod?)
gugu dhowik - supplementary heddles
leka - lease sticks
bhaluk - warp beam (plank-type)
ghaju panga - plank support

Ende Regency

Ende Loom Components

Components of the ethnic loin loom of Ende people in Ende regency; Danerek 2021 (according to Hamilton 1994).

ozo - loom
fi'a - batten sword
zuzo, ozo woe - spindle
konggo - breast beam
keke - reed
kabhe - back support (yoke)
ozosi - warp beam
(tubho) - temple (optional)
bhoku - tube shuttle
niku - weft spool
guru - heddle string
kuku guru - heddle bar
mbeza - shed roll
kuku reté - shed stick
kuku guru - 2nd bar for supplementary heddles
sipe - lease sticks
ura peru - warp
poke - weft

Ndona Loom Components

Components of the ethnic loin loom of Ndona people in Ende regency.

kobhe (kabe) - yoke (tali kohbe = rope for yoke)
kogo (konggo) - breast beam
tibo - temple?
fio
kuku rete (kuku?) - batten sword
NO reed!
kuku guru - heddle bar/pattern sticks? (& heddle thread?)
leki guru - *shed-roll? heddle!?*
bela
sipe - *lease stick?*
sou upu
a/ali (orari, olali) - warp beam
setu hoi
ele sedo
goku
niku - weft spool
bhoku (boku) - spool case
bhoku oe?
keke noo - *reed comb?*
(rero/reru/lelu) - thread
??? - stakes (two huge bamboo canes)
??? - foot rest (similar solution like Sikka!)
(senda) - weaving

Sikka Regency

Sikka Loom Components on the guess

Components of the Sikka Loom on Flores, but names are on guess. Some named components don't fit!

tuntunger - foot rest (wooden block or urbanized: bamboo cane & 2 pegs; Atoni: rocks)
??? - stakes (two of them & holders; sometimes rocks!)
ekur - "partial lease stick"? (a stick, in manner like lease stick, to mark the parts of warp)

??? - shed roll

boleng (bolen) - heddle bar (& heddle)

patih (pati) - batten sword

NO reed! - warp ikat can't use a reed!

ai tuan - breast beam? (maybe for both; warp- & breast beam?) rectangular

pini (pine) - yoke (wooden!)

??? - weft spool (& spool case)

??? - batten rest (with bells!)

Palu'e Loom Components

Components of the ethnic loin loom of Palu'e people in Sikka regency (Palu'e Isl.), according to Danerek 2021.

dhadha - loom (bamboo stake loom)

Shoshone wa'i no'o pabha - foot rest and plank (station loom?)

luja - batten sword

bhudhe/ bhudhe kabha - spindle

hati - breast beam

kedhu/ pa'o - back strap (Areca spathe)

pabha („plank“) - warp beam

dubho - temple (optional)

dhibo/béko - tube shuttle

kaju pola kabhane/ niku - weft spool

kugu - heddle string

kaju hana - heddle bar

halo - shed roll

kaju hana? - shed stick

kaju hana - 2nd bar for supplementary heddles

kaju sipene/pa'a - lease sticks

romo - warp

haka - weft

East Flores

Lamaholot?

Lembata - Lamalera

Alor

Externals

Sobei Loom Components

Components of the ifduai - Sobei Loom on Papua, and their names, according to Buckley et al. 2023:

idoday - "cloth" beam, breast beam

senggoni - shuttle

esdi - batten sword

péija - heddle

bo'oro - shed roll

??? - lease stick. (one single stick; reduced system)

bedmafo - warp beam (one or two beams)

ifduai - foot loom

Indonesian Terms of the Loom Components

Istilah Indonesia dari Komponen Loom

Komponen

REGIONAL | BAHASA

Suggested expressions in Bahasa Indonesia

Bahasa Indonesia			
1	cacak; tiang tenunan	perpendicular; O.B.I. tiang tenunan = weaving pillar	poles („station“)
2	dumpal		? rails (of station)
3	balok lungsin; papan lungsin	warp beam warp board	# warp beam
4	kayu bulat panjang(?)	Small round stick with size smaller? than gondhong	# whip at warp beam
5	?		lease stick(s)
6	kayu bulat panjang	Round stick bigger than gligen (whip)	# shed roll
7	gun		O.B.I. heddle
8	?		heddle bar
9	balero		O.B.I. batten sword
10	suri/sisir		O.B.I. reed comb
11	sumbi		O.B.I. temple
12	gulungan benang pakan	<i>spool-thread-weft</i>	# weft spool
13	teropong		O.B.I. spool case
14	apit; balok dada	tool for clamping..... breast beam	# O.B.I. breast beam
15	?		whip@breast.beam
16	palang pinggang	<i>crossbar-waist</i>	# yoke
17	sandaran balero	<i>support-sword</i>	# batten rest
	pakan		O.B.I. weft
	lungsin		O.B.I. warp

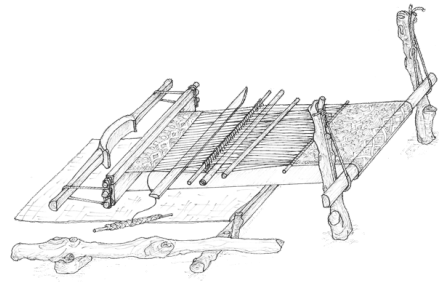
Table: Components of loin looms, and their names in official Indonesian language.
(O.B.I. = Official Bahasa Indonesia | # = Suggested description form)

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Externals

- Mandar Loom (Sulawesi)
- Sumba Branch Loom
- Ground Loom of Atoni (Timor)
- Accidental Foot Loom (Timor)
- Sobei Foot Loom (Papua)
- Mama Wulu's Foot Loom (Borneo?)
- The Loom from the Heavens (Palu'e Legend)
- From Above to Earth (Nagaland)



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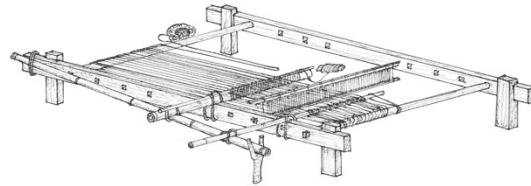
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Alat melengkung - The Warping Tools

- Bima Warping
- Larantuka Warping



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Conclusions

- Talking Looms
- Flores & The Vivid Looms
- Ancient Techniques on Display
- Forking Branches or the sense of supporting warp beams (Form studies)
- Back Support en detail
- Spot on those Batten Railings!
- Buitenzorg on Excursion
- Origin Myths of Loin Looms
- Universitas Nipa
- Flores - Kembang Alat Tenun
- Flores vom Webstuhl - Lendenwebstühle & Schärgeräte

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Appendix

- Terms in use
- Terms of Weaving on Loin Looms
- Components of the Loom
- Indonesian Terms of the Loom Components

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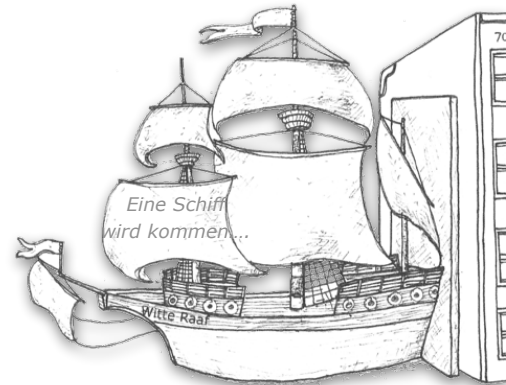
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Weave on to Bogor!



Nusa Nipa - The Lindworm of Flores - A ride along the rainbow within 8 regencies



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LOIN LOOMS OF MOTMAN-SCHIFF

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