

2014

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Wellfelt, Emilie, "The Secrets of Alorese 'Silk' yarn: Kolon susu, triangle trade and underwater women in Eastern Indonesia¹" (2014). *Textile Society of America Symposium Proceedings*. 943.
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The Secrets of Alorese 'Silk' yarn: Kolon susu, triangle trade and underwater women in Eastern Indonesia¹

Emilie Wellfelt

Indonesian textiles have become an acknowledged field of study, especially after pioneering work by researchers such as Mattiebel Gittinger.² Today there are half a dozen of sizeable publications pertaining specifically to different textile producing islands in Eastern Indonesia alone.³ There are, however, still significant gaps in our knowledge of the region. The intention of this article is to point to the many fascinating aspects of textiles and textile production in the Alor archipelago, an island group for which there is as yet no published survey of weaving communities or their history. As Roy Hamilton points out: 'While even very small islands like Palue and Rote are well represented in Indonesian textile catalogs, the much larger island of Alor is noteworthy for its almost total absence from such catalogs.'⁴

This paper moves through different aspects of textile production in the Alor district of Eastern Indonesia, with a special focus on the Alorese-speaking community in the northwest. Our journey begins with the material, the very fibers from which yarns are spun, and moves to economy and trade involving the production of textiles, and from there on to esoteric aspects of spinning and weaving. The paper ends with its gaze directed towards the future, answering to the challenge presented in the title of TSA's 14th Symposium: *New Directions: Examining the Past, Creating the Future*.

Before embarking on this journey, the main arguments of the paper are listed, followed by a short introduction to Alor and the characteristics of textiles from Alor.

- Reports about silk textiles from Alor stem from a misunderstanding: there is a local weaving tradition where 'silk' is made from a mix of cotton and floss from seeds from a plant locally known as *kolon susu*, identified here as the milkweed *Calotropis gigantea* (family Apocynaceae).
- The use of *kolon susu* is partly explained by shortage of cotton; however, textiles made with the seed floss are locally appreciated as the yarn is strong with an attractive silky feel.
- Shortage of cotton and the specialization of weaving among women in the arid coastal areas of the Alor Bird's Head and the small islands in the Pantar strait led to a triangle trade of textiles, ceramics and cotton in the Alor-Solor area. Although machine spun

¹ I wish to thank Dr Antoinette Schapper for commenting on an earlier version of this paper, for her generous contribution to the illustrations and for a stimulating friendship. Any errors are my own.

² See Gittinger 1979; Gittinger 1989; Gittinger 1991[1979]. Robyn Maxwell 2003[1990] contributed greatly with her work *Textiles of Southeast Asia*. Another important contribution in the genre came in 2010 with *The Mary Hunt Kahlenberg Collection: Five Centuries of Indonesian Textiles*, edited by Ruth Barnes and Mary Hunt Kahlenberg.

³ This includes: Ruth Barnes who since her first book in 1989 has published a range of works focusing on weaving (and non-weaving) communities in the Solor Islands. Roy Hamilton (1994) edited *Gift of the Cotton Maiden* about textiles in the Flores and Solor islands. In 2001 Geneviève Duggan's book *Ikats from Savu* was published. Sumbanese textiles are covered in books and articles by Monnie Adams, Danielle Geirnaert, Janet Hoskins, and Jill Forshee. The latest contribution is Roy Hamilton's new book on Timor textiles (Hamilton 2014).

⁴ Hamilton 2010:304.

yarns entered the local market after WWII, the demand for cotton still does not meet the needs and a modified version of the historical triangle trade is still ongoing.

- The introduction of weaving has religious dimensions, including both local beliefs and world religion: the knowledge about spinning and coloring yarns is attributed to an ‘underwater woman’ called Eko Sari, while weaving is attributed to the historical sultanate Ternate in the reign of Sultan Babullah (1570-1583) and the introduction of Islam in Alor.
- As in many other places, textile production takes place in the woman’s world. In Alor this includes beliefs and practices pertaining to pregnancy and childbirth as well as yearly rituals with special offerings to the sea.
- While the use of *kolon susu* is declining in Alor, there is ongoing research investigating the possibilities of the textile industry using floss from *Calotropis gigantea* to substitute cotton. What is becoming history in one place has potential to become the future elsewhere.

Background: Alor and Textiles

The Alor archipelago is situated at the eastern terminus of the Minor Sundic Island Chain immediately to the east of the Solor archipelago and north of Timor Island (Figure 1). The regency (*kabupaten*) Alor encompasses 15 islands, of which 9 are inhabited. In 2010, at the time of the latest census, the population in the regency had reached 190 000.⁵

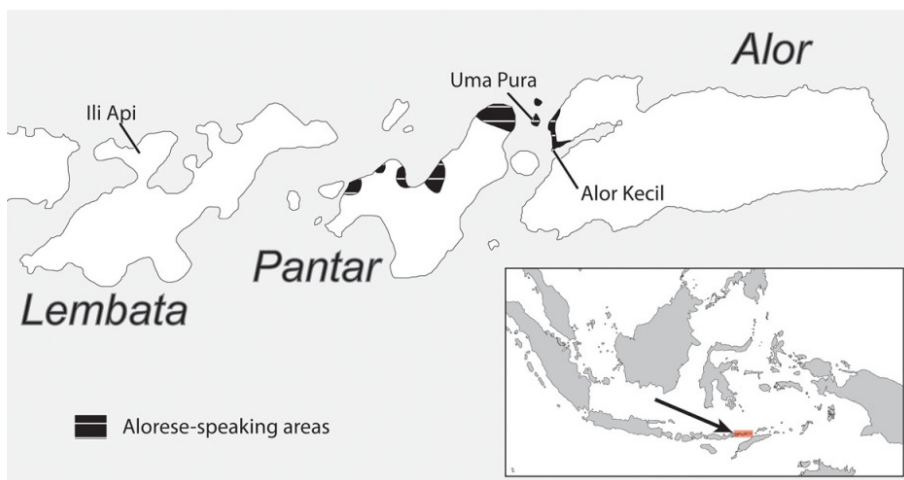


Figure 1. Map by Antoinette Schapper.



Figure 2. Ikat sarongs worn at ceremony in Alor Kecil in 2007. Image by author.

From a linguistic perspective the Alor area is interesting as it is the western-most meeting point of Austronesian and Papuan language-speaking peoples. Papuan languages belonging to the Timor-Alor-Pantar family are found interspersed amongst Austronesian languages on Timor, but dominate on Alor and Pantar. On these and the small intervening islands in the Pantar strait, Alorese (*Bahasa Alor*) is the only Austronesian language to have found a footing in some small coast areas.⁶ On Alor Island, the linguistic division is reiterated in its textiles: warp ikat is found in the Austronesian Alorese-speaking areas in the northwest (Fig. 2), while supplementary weft and other weft techniques for decoration are typical of textiles from the remaining, Papuan language speaking groups of the island.

⁵ Badan Pusat Statistik, Kabupaten Alor, 2010:6.

⁶ See Schapper and Huber 2012 for an overview of Timor-Alor-Pantar studies.

Until the mid-20th century bark-cloth was the most common textile for daily use in most of Alor.⁷ Today the production of bark-cloth has (save for very few exceptions) come to an end.⁸ Woven textiles were, and still are, produced in villages along the coasts for bartering with the inland. The specialization is upheld by a widespread taboo against weaving in the mountains.⁹ While the decorative techniques differ between the northwest and the rest, other traits unite the weaving traditions in the area: cotton is grown on a small scale for production of hand spun yarn; both drop-spindles and spinning-wheels are used parallel to each other, though weavers, especially the younger generation, have turned to machine spun yarn in cotton or synthetic qualities; weaving is done on back-tension looms with a continuous circulating warp.¹⁰

Kolon Susu: ‘Silk and Sarongs from Alor

While the textiles from several other Eastern Indonesian islands are well-documented, textiles from Alor are only mentioned parenthetically in the literature. One interesting exception is a textile published by Robyn Maxwell which bridges over to the main subject of this paper: the “silk” sarongs of Alor.

The National Gallery of Australia holds a comprehensive collection of Indonesian textiles. Two items are attributed to Alor, one is a weft decorated man’s textile from Kolana in Eastern Alor and the other is a woman’s skirt with ikat decorations produced in Ili Api, Lembata, for use by non-weaving communities in West Alor.¹¹

The catalogue information about the woman’s skirt is intriguing as it states that the sarong is made from cotton and silk, instead of cotton which is the rule in eastern Indonesia. Maxwell has included the sarong in her book *Textiles of Southeast Asia* as an example of cloths from one region being used by other groups.¹² She provides the following commentary on the textile:

Skirts similar to this example are made by Lamaholot people in the Ili Api district of northern Lembata, and traded to the non-weaving communities in the western region of the neighbouring island of Alor. Although the addition of imported silk is expensive and increases the commercial value of this textile, since the skirt is no longer made entirely of local materials it has no place in the elaborate bride-wealth exchange system of the Lamaholot people of Lembata and East Flores.¹³

⁷ Du Bois 1944.

⁸ Bark-cloth and other fibres are discussed in Maxwell 2003[1990]: 34-40. Bark-cloth is the specific subject of a volume edited by Michael C. Howard (2006).

⁹ A similar but more elaborated taboo is found in Sumba concerning the tying of warp for ikat (Geirnaert 1992:107-108).

¹⁰ Robyn Maxwell notes that the distribution of drop-spindle and spinning-wheel can seem random, though the general pattern is that the spinning-wheel is found close to well-known trade routes. The tool has its origins in India (Maxwell 2003[1990]:158).

¹¹ The item at Australian National Gallery has the catalogue id 1984:1237. It is published by Maxwell 2003[1990]:397. The Indonesian textile collection is digitalized and available from the ANG homepage, see: <http://nga.gov.au/indonesiantextiles/Code/Default.cfm>

The Museum catalogue provides local names for the textile. According to this the “west Alor” name is “*keng*” (Maxwell 2003[1990]:397). Probably the language referred to is Abui, which is spoken by a large non-weaving ethno-linguistic group in central Alor. In Abui “*keng*” means woman’s skirt, in Indonesian: *sarong* (Kratochvíl and Delpada 2008:68; Wellfelt 2008:61-62; Wellfelt 2009:198). The term “*keng*” also appears in Wersing-speaking weaving communities in East Alor (villages Kolana and Pureman). There “*keng*” appears to be a general term for ‘cloth’ used in terminology for warping and weaving.

¹² Maxwell 2003[1990]:400.

¹³ Maxwell 2003[1990]:397.

While it is possible that weavers in Ili Api use silk to make sarongs for the Alor market, there is no local production of silk. If there, as Maxwell points out, is no place for the silk-mixed sarong in traditional exchanges on Lembata, why is there a demand in Alor motivating the increased commercial value there?

Another textile might hold the answer to this question. That is a sarong of the type known to Alorese-speakers as *tenapi kolon susu* (Fig. 3). The textile is produced in the village Uma Pura for the local market in Alor.¹⁴ As with the textile from Ili Api, it is made from a mix of cotton and other fibers, but instead of silk from cocoons the ‘silk’ ingredient is the soft and shiny floss from the seeds of the milkweed *Calotropis gigantea*, locally known as *kolon susu* (Fig. 4). The mixture is appreciated for its soft and strong fibres and the floss from *kolon susu* is the secret behind “silk” sarongs from Alor.¹⁵



Figure 3. Sarong called ‘Tenapi kolon susu’.



Figure 4. Plant called ‘kolon susu’ with unripe fruits.
Images by author.

The *Tenapi kolon susu* formerly had a special use: It was worn by breastfeeding women as it was believed this would help lactation. This belief was probably based on the characteristics of the plant *kolon susu* which produces a milky sap. Today the sarong-type can be used by anyone. The local ‘silk’ is used also for other types of sarongs.

Calotropis Gigantea: a Weed with Many Uses

Kolon susu, milkweed and *Calotropis gigantea* are but a few names for the plant used to make “silk” in Alor. The perennial bush grows in waste lands in many tropical countries, mainly in Asia and Africa. In Eastern Indonesia it is a wild plant common in dry areas. Different parts of the plant; fibers from the bark, seed floss, sap and roots have many reported uses, ranging from rope to medicines. When the fruits ripen they open, exposing white, silky, filament-like hairs that are arranged around overlapping rows of seeds.

¹⁴ I have documented 15-20 different named types of sarongs, or women’s skirts, produced in the Alorese-speaking area. There are two words used for ‘sarong’ in Alorese; *kafate* and *tenapi* (or *tanapi*). Sometimes they are used singularly, sometimes they are combined. The name giving principle is to begin with *kafate* and/or *tenapi*, followed by a word or expression characterising the textile.

¹⁵ There is some indication that *kolon susu* ‘silk’ is associated with the Lembata area. At one occasion I was presented with the plant name ‘*Keroko puhung*’ as a local name for “a plant with fruits used to mix with cotton to make hand-spun yarn”. Keroko is the name of a small island off Lembata.

While it is expected that people take use of local fibres, I have not come across any specific mention of *C. gigantea* in the literature on Indonesian textiles. In the extensive work *De Nuttige Planten van Indonesië* ('Useful Plants from Indonesia') K. Heyne mentions *kolon susu* as the Timorese name for *C. gigantea*, but adds that the quality of the floss is not good as it turns dark when moist.¹⁶

A considerably more positive account of the properties of seed floss from *C. gigantea* is found in a British source from the year 1900.¹⁷ George Watt, writing about the properties of *madar*, an Indian common name for *C. gigantea*, states that the floss from the seeds is one of the "so-called vegetable silks or silk-cottons". He goes on to describe that the "...soft, very white floss, with a beautiful silky gloss, has been repeatedly spun experimentally in Europe, and the textile produced much admired."¹⁸

For a short period in the late 1900th century *madar* floss was in demand in England "for fancy textile purposes". However, the textile industry had problems handling the material as the fibres were too short and light for the existing machinery. Another issue was inconsistent quality and intermittent delivery of the raw material. With a tone of regret, Watt reports that in the year of writing there was no European demand for *C. gigantea* floss from India.¹⁹

In India, the floss was used locally for stuffing quilts, pillows and cushions and sometimes spun and made into fishing lines and nets. However, according to Watt, *madar* floss had historically had a much more protruding role, especially in Orissa: "...there would appear to be little doubt that a few centuries ago this fibre was regularly spun and woven into some of the most beautiful textiles for which India was then famed."²⁰

Watt is referring to the textiles that early European travellers classed "grass" textiles, "cloth of herbes", "herba" and the like. Later, Watt argues, these accounts were erroneously assumed to have concerned cloth made from *rhea* or *ramie* (*Boehmeria nivea*), while such textiles derived from China. Instead, Watt claims that "herba" was *C. gigantea* which grows wild in Orissa. The most precise account supporting this theory is a Ceasar Frederike (1563-7) who describes that the "cloth of herbes" was made from "a kind of silke which growth amongst the woodes without any labour of man. And when the bole thereof is grown rounde as bigge as an orange, then they take care oneley to gather them".²¹ The description fits well with *C. gigantea*, but not with *B. nivea*.

Other sources mention textiles of silk, cotton and mixed silk and cotton from Bengal and Orissa. In the context, Watt proposes the 'silk' being floss from *C. gigantea*. The latest mention of "herba" cloth dates to 1813 when "herba taffaties" is listed as piece goods from Bengal. Watt reflects that "Modern advances, coupled with the import of cheap European goods, seem to have destroyed the old industry."²²

The section about the use of *madar* floss ends: "Though it is certainly most surprising that this ancient industry in silk-cotton textiles should have died out completely, and been all but

¹⁶ Heyne 1950 (1927): 1293. My gratitude to Leontine Visser who provided this source.

¹⁷ Watt, 1900.

¹⁸ Watt 1900:10.

¹⁹ Watt 1900: 10, 11.

²⁰ Watt, 1900: 10; 11.

²¹ Watt, 1900: 11.

²² Watt, 1900: 10-11.

forgotten, it is a useful object lesson of the possibilities of the future, which manufacturers would do well to consider”.²³

Today, more than a century later, there is recent research on how to use *C. gigantea* as a natural fibre for the textile industry.²⁴ In addition, the historical use of the floss for textiles has not ceased completely. On a small scale, *C. gigantea*, or *kolon susu*, is currently used for a special kind of local silk produced in Indonesia, as documented in the Alorese-speaking village of Uma Pura.

Uma Pura: a Vibrant Weaving Centre in Alor

Uma Pura is located on the small island Ternate (Alor) in the Pantar strait.²⁵ (Fig. 1 and 5) The village is one of the main weaving centers in the Alor district.²⁶ Textiles are produced for barter and sale for local need and to a small trickle of tourists that make it to Alor. Most women in Uma Pura depend heavily on textile production for income, while many men are divers, spending long periods away searching for mother of pearl, sea cucumber and other marine products.

One reason for these specializations is the lack of farming land in Uma Pura. Ternate is little more than a mountain rising up out of the sea with little land suitable for farming. The limitations on tillable land have been exacerbated by the district authorities who have prohibited farming above the village due to the risk of landslides. As compensation, villagers from Uma Pura have been given access to farming land on mainland Alor. During the intense part of the farming year, many villagers go across to the mainland and live in farm huts while working the lands. Weaving is the daily activity of the long dry season, but the conditions on Ternate make it difficult for them to grow sufficient quantities of cotton.²⁷

Historically, a solution to this shortage was found in an inter-island trade network (Fig. 5) Using canoes, the weavers from Uma Pura would bring textiles to the village Ampera, a centre for local pottery on the Bird's Head of Alor. Textiles were bartered for cooking pots, loaded onto the canoes and taken to Ili Api on Lembata, a sizeable distance for travel in a small canoe. There the pots were bartered for raw cotton; the exchange rate for a pot was the amount of cotton that could be pressed into the vessel. Finally, with the cotton the weavers would return to Uma Pura and work until the need for cotton forced them to do the journey all over again.

In modern times machine-spun yarn entered the market and the weavers could go to Kalabahi and buy what they needed for their production. Still, men from Uma Pura sometimes take pots from Ampera in their motorboats when they go on diving trips. In Ili Api the pots are appreciated as they give a nice fragrance to boiled rice, something that an aluminum pot cannot offer. Instead of raw cotton the barter is usually for hand-spun cotton yarn though some spinning is still done in Uma Pura.²⁸

²³ Watt, 1900: 11.

²⁴ See Chen et al. 2013; Sakthivel, and Ghosh 2009; Yang et al 2012; Maity, Mohapatra, and Chatterjee 2014.

²⁵ This Ternate, in the strait between the islands Pantar and Alor, derives its name from the more famous Ternate in Maluku which historically was a powerful sultanate.

²⁶ In 2003 Uma Pura had a population of 884, reportedly the population ten years later had passed 1000 (personal communication with village secretary).

²⁷ Wellfelt 2007.

²⁸ The information about the barter pattern derives from Uma Pura. Later I have made interviews in Ampera and Ili Api which have confirmed the accounts from Uma Pura.

The shortage of raw materials is probably one reason why the women in Uma Pura have continued to use *kolon susu*, although the problems with the short and light fibres of *C. gigantea* seed floss encountered in the European textile industry in the late 19th century are shared by the Indonesian weavers.²⁹ It does not take much to make the seed floss fly off, and the short fibers are difficult to spin. To deal with these issues the floss is mixed with the longer fibers of cotton, and the preparation before spinning is done inside a cave, protected from wind.



Figure 5. Raw cotton from Ili Api, textiles from Uma Pura and pots from Ampera were barter goods in the inter-island trade network. Photographs by author, illustration by Antoinette Schapper.

Traditions about Origins of Weaving: Islam and Eko Sari

The Alorese-speaking, ikat-weaving area in Northwest Alor and adjacent areas are Muslim, while most of the Alor archipelago is Protestant. Christian conversion dates to late colonial times (20th century). Islam has a long history, possibly dating as far back as the 15th century.³⁰ In Uma Pura oral traditions, the introduction of Islam is associated with the introduction of weaving. According to these, Islam originated in the legendary kingdom Munaseli on Pantar. Following a war between the kingdoms Munaseli and Pandai, the aristocrats from Munaseli fled in different directions. Babullah went to Maluku and became Sultan there.³¹ Sakbal Duli, another high-ranking refugee from Munaseli settled in the village Alor Kecil on

²⁹ It is possible that the tradition also continues in the neighbouring small islands Buaya and Pura. The use of *Kolon susu* in textiles is well known in Alor Kecil, formerly a strong weaving centre on mainland Alor, however there the use of seed floss from *Caliotropis gigantea* has ceased.

³⁰ Gomang 1993:44ff.

³¹ Babullah was a famous Sultan from Ternate, Maluku, who fought the Portuguese and ruled 1570-1583.

mainland Alor. He brought with him a *patola*, a famous kind of double ikat textile from Gujarat, India. At the time, people in Alor Kecil wore bark cloth, but with the arrival of Sakbal Duli they learnt how to grow cotton, make yarn and weave.

Sakbal Duli married Eko Sari. She was a *hari* woman; a kind of human believed to live in villages in the underwater world. On marrying, Eko Sari settled on land with Sakbal Duli and taught the people in Alor Kecil to make patterns on textiles and to make dyes to color the yarns.

The production of ikat textiles is still associated with the sea and has religious connotations. In Uma Pura and other Muslim weaving villages a special ceremony for the women, the *Fae tuang*, is celebrated at harvest time. In the course of the year, the women gather used strings when they make ikat-patterns on their warps. At *Fae tuang* the strings are taken to the beach and offered to the sea. In a later stage of the ceremony roots and betel nut are chewed and the saliva is rubbed onto the arms and legs to prevent the weaver from getting sick or feeling pain while working the loom.

The textile production is also integrated in customs pertaining to childbirth: When a woman in the village of Uma Pura is pregnant, she will bring cotton yarn to the midwife. The midwife has an I-shaped frame which she uses to wind the yarn into a skein. The same kind of frame is used by all weavers; however this is a bigger model. The pregnant woman takes the skein back home. While giving birth the woman is squatting and holding on to the skein of cotton yarn which will be attached to the ceiling. After delivery, the midwife is given the skein of yarn, which she will use to make a sarong. It takes several pregnancies before she has enough for a sarong. The midwife decorates the yarns with warp ikat. Later, when she wears the sarong she remembers each pregnancy where the yarn was used at delivery.

Examining the Past: Creating the Future

This paper has pointed to the use of *kolon susu* (*Calotropis gigantea*) for production of local ‘silk’ in the Alor archipelago. This invention is possibly a result of shortage of raw materials; as shown here, the weavers in the islands of the Pantar strait were prepared to engage in laborious bartering expeditions to get raw materials. If the use of *kolon susu* depends on shortage of cotton, the solution to that problem then is a beautiful and soft silken textile. The use of *kolon susu* for textiles is to knowledge not reported from other places in Indonesia, still it might be a custom that can be traced to India. While the evidence is scanty, it is possible that George Watt was right when he in 1900 claimed that seed floss from *Calotropis gigantea* was used for spinning and weaving “cloth of herbes” in Orissa until the early 19th century, but that the tradition has sunk into oblivion there.

In the small islands of the Pantar strait, the use of *kolon susu* is part of a vivid textile tradition. As briefly shown in this paper, textile production plays a central role in the lives of women. In a village like Uma Pura, weaving is the main source of income. Historically, knowledge about weaving is associated with the introduction of Islam and with local beliefs in *hari*, underwater humans. The main decorative technique in Alor-speaking areas, warp ikat, stands in the center of yearly rituals exclusively conducted by women. These *Fae tuang*-ceremonies bind together textiles and farming as they are held when the first corn ripens. The circle of life is also held together by hand-spun yarn used at childbirth, and later decorated and woven into the midwife’s sarong.

Turning to the future, the use of *Calotropis gigantea* floss is slowly declining in Alor as the fibres are difficult to handle and as less hand-spun yarn is produced in the area. In a separate

development, the use of the seed floss from the plants is drawing attention from the international textile industry which, like the weavers of Uma Pura, suffers a shortage of cotton. Cotton is also energy- and water consuming while *Calotropis* grows wild in wastelands. Scientists, especially in Asia, are trying out the seed floss used for 'silk' sarongs in Alor, and they seem quite enthusiastic.³² To cite one article:

“Akund fiber [floss from *Calotropis gigantea*] is a new type of natural cellulose fiber. Because of its excellent properties, akund fiber has become one of the new ecological materials which have huge development potential.”³³

Hopefully this paper has shown some of the potential for anthropological and historical research on Alor textiles and textile traditions.

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³² Chen et al. 2013; Sakthivel, and Ghosh 2009; Yang et al 2012; Maity, Mohapatra, and Chatterjee 2014.

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