



dolmades (stuffed vine leaves)

- 35-40 large vine leaves
- 600-650g minced pork
- ½ glass rice
- 3-4 tablespoons olive oil
- ground cinnamon, pepper
- dried mint
- parsley, finely chopped
- 1 teaspoon onion, coarsely grated
- 1-2 tablespoons lemon juice
- 1½ chicken stock cubes, dissolved in ½ glass boiling water
- 1½ tablespoons tomato puree
- 1 glass ripe tomatoes, grated
- 2 ripe tomatoes, sliced
- 4-5 tablespoons olive oil for cooking
- ½ glass water

1. If the vine leaves are fresh, put them in boiling water for a few seconds and drain. If they are packaged and pre-cooked, follow the instructions on the package.
2. To make the stuffing, combine the pork, rice, olive oil, onion, lemon juice, chicken stock, tomato puree, grated tomatoes and spices in a large bowl.
3. Lay a leaf with the vein side up on a plate. Shape the stuffing into small cylinders and place one at the bottom of the leaf. Fold the stem and sides of the leaf over the stuffing, squeezing lightly to keep it in. Keep rolling until the whole of the leaf is wrapped around the stuffing.
4. Lay the sliced tomatoes at the bottom of the saucepan. Arrange the stuffed vine leaves in rows on top.
5. When all the vine leaves are stuffed, pour the olive oil and water over them. Place a plate on top to press them down. Cover and simmer for about 40 minutes.
6. Serve warm with tzatziki.



history of the dish

Dolma is a family of stuffed vegetable dishes, originating in the former Ottoman Empire and the surrounding regions (Turkey, Greece, Cyprus, the Balkans, the Middle East and some Asian countries). The most-well known type is stuffed vine leaves, but other vegetables such as zucchinis and aubergines can be stuffed. They can be made either with meat or without. Meat dolma is usually served warm, while meatless ones are usually served cold. Both are usually served with yoghurt (tzatziki in Greece and Cyprus).

The name comes from the Turkish verb *dolmak*, which means to be stuffed. Meatless dolma is usually called 'yalanci', which means 'fake' in Turkish. In Cyprus, stuffed vine leaves are called 'koupepia', while stuffed vegetables are called 'gemista'.

In **Azerbaijan**, small portions of minced meat are mixed with leek and rice. They may be wrapped into grape or cabbage leaves. The *lavangi dolmasi* is made using sour plum paste, ground nuts and onion, while in the *shirin dolma* the meat is mixed with chestnuts, plums and concentrated grape juice. Sour clotted milk is used as a sauce.

In **Albania**, minced meat (usually beef), rice and sliced potatoes are cooked in spices (salt, pepper, vegeta, paprika), folded into large leaves of steamed or boiled collard greens, then baked.

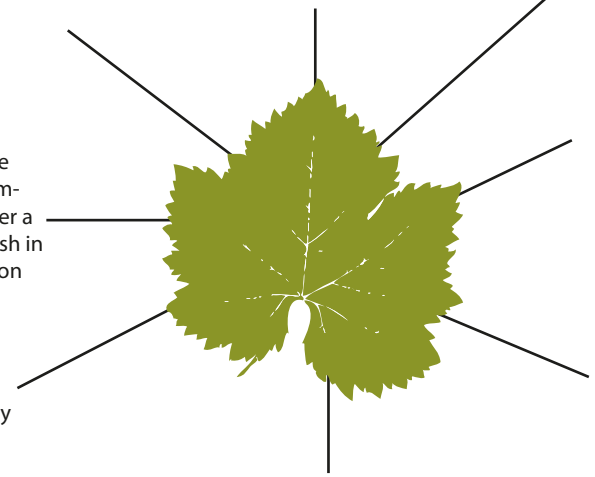
In **Iran**, a mixture of ground lamb or beef, rice, split yellow peas, and savoury herbs is used as the filling, wrapped either in grape vine leaves or cabbage leaves.

In the **Armenian cuisine**, minced lamb or beef is mixed with rice and wrapped in vine leaves or occasionally in cabbage leaves. This dish is spiced with coriander, dill, mint, pepper, cinnamon and melted butter. Sometimes chestnuts and peas are part of the mix. Yoghurt with garlic is often used as a sauce. Eggplants, potatoes, tomatoes, peppers, onions, quince and apples are also stuffed with lamb or beef and also called dolma.

In **Greece** there are many different variations of this dish, depending on the region. Some prepare it with an *avgolemono* (egg and lemon) sauce, others prefer a tomato sauce. Some Greeks cook the dish in the oven, while others prefer to cook it on the stove.

In **Iraq**, the mixture of ground lamb or beef with rice is usually made with many different fillings in the same preparing pot, as well as pomegranate juice, prominently used by the Arabs to give it a unique taste. Often chicken or beef ribs are added to the cooking pot, and sometimes served with the dolma instead of *masta* or *khalwah*. Iraqi dolma is usually always cooked and served in a tomato-based sauce.

In **Israel**, vine leaves are commonly stuffed with a combination of meat and rice, although other fillings, such as lentils, have evolved among the various Jewish, Arab and Armenian communities from the time the Ottoman Turks introduced this dish to the area in the sixteenth century.



the ingredients

Pork is the meat from the domestic pig (*sus domesticus*). The pig is one of the oldest forms of livestock, having been domesticated as early as 5000 BC in China from the wild boar. Pigs were mostly used for food, but people also used their hide for shields and shoes, their bones for tools and weapons, and their bristles for brushes. Pigs have other roles within the human economy: their feeding behaviour in searching for roots churns up the ground and makes it easier to plough; their sensitive noses lead them to truffles, an underground fungus highly valued by humans; and their omnivorous nature enables them to eat human rubbish, keeping settlements cleaner. Before the mass-production and re-engineering of pork in the 20th century, pork in Europe and North America was traditionally an autumn dish. Pigs were slaughtered in the autumn after growing in the spring and fattening during the summer. Nowadays, the global demand for pork continues to rise. Rising incomes, particularly in China, are fuelling the growing world demand for pork, regardless of price increases. Other trends driving demand include product branding; products that address specific nutrition, organic or food safety concerns; the growing 'quick meal' market; and the popularity of pre-packaged marinated and high-flavour pork products. Pork production is working to keep pace with this increasing demand.

Cinnamon is a small evergreen tree belonging to the family Lauraceae, native to Sri Lanka. The spice is obtained from the tree's bark. It has been known since ancient times – the Old Testament often mentions it. Arab traders brought the spice via overland trade routes to Alexandria in Egypt, where it was bought by Venetian traders from Italy who held a monopoly on the spice trade in Europe. The disruption of this trade by the rise of the Ottoman Empire was one of many factors that led Europeans to search for other routes to Asia. Portuguese traders finally landed in Ceylon (Sri Lanka) at the beginning of the 16th century and established a fort on the island in 1518 to protect their own monopoly. Dutch traders dislodged the Portuguese and established a trading post in 1638. The Dutch East India Company eventually began to cultivate its own trees. The British took control of the island from the Dutch in 1796. However, the importance of the monopoly of Ceylon was already declining, as cultivation of the cinnamon tree spread to other areas and the more common cassia bark became acceptable to consumers. Cinnamon is harvested by growing the tree for two years and then cutting it down. The next year, about a dozen shoots will form from the roots. The branches harvested are processed by scraping off the outer bark, then beating the branch evenly with a hammer to loosen the inner bark. The inner bark is then forced out in long rolls. Only the thin (0.5mm) inner bark is used; the outer, woody portion is discarded, leaving metre-long cinnamon strips that curl into rolls (quills) on drying. Once dry, the bark is cut into 5–10cm lengths for sale. The bark must be processed immediately after harvesting, while still wet. Once processed, the bark will dry completely in four to six hours, provided that it is in a well-ventilated and relatively warm environment. A less than ideal drying environment encourages the growth of pests in the bark, which may then require treatment by fumigation. Bark treated this way is not considered to be of the same premium quality as untreated bark.

Rice is the seed of the plant *oryza sativa*. As a cereal grain, it is the most important staple food for a large part of the world's human population. It is the grain with the second highest worldwide production, after corn. Rice is first mentioned in Hindu scriptures around 1500 - 1800 BC. Today, Asia produces 92% of the world's rice. Rice cultivation is best suited to countries and regions with low labour costs and high rainfall, as it is labour-intensive to cultivate and requires plenty of water. To prepare rice for commercial use, the seeds of the plant are first milled using a rice huller to remove the chaff (the outer husks of the grain). At this point in the process, the product is called brown rice. The milling may be continued, removing the bran (the rest of the husk and the germ), thereby creating white rice. White rice, which keeps longer, lacks some important nutrients; in a limited diet that does not supplement the rice, brown rice helps to prevent the disease beriberi. White rice may be buffed with glucose or talc powder (often called *polished rice*), parboiled or processed into flour. It may also be enriched by adding nutrients, especially those lost during the milling process. While the cheapest method of enriching involves adding a powdered blend of nutrients that will easily wash off (in the United States, rice which has been so treated requires a label warning against rinsing), more sophisticated methods apply nutrients directly to the grain, coating the grain with a water insoluble substance which is resistant to washing. Despite the hypothetical health risks of talc (such as stomach cancer), talc-coated rice remains the norm in some countries due to its attractive shiny appearance, but it has been banned in some, and is no longer widely used in others (such as the United States). Even where talc is not used, glucose, starch or other coatings may be used to improve the appearance of the grains.

The **tomato** (*solanum lycopersicum*) is a herbaceous plant cultivated for its edible fruit. Home-grown tomatoes are usually bred for flavour, while commercial tomatoes are bred for factors such as consistent size and shape, disease and pest resistance, and suitability for mechanized picking and shipping, as well as their ability to be picked before fully ripening. The tomato is native to South America. Aztecs used the fruit in their cooking; it was being cultivated in southern Mexico and probably other areas by 500 BC. Historians believe that the Spanish explorer Cortez was the first to transfer the small yellow tomato to Europe in 1521. Tomatoes were not grown in England until the 1590s. In Victorian times, cultivation reached an industrial scale in glasshouses. Over the past 15 years, the British tomato industry has declined as more competitive imports from Spain and the Netherlands have reached the supermarkets. Tomatoes are often picked unripe and ripened in storage with ethylene. A machine-harvestable variety of tomato (the "square tomato") was developed in the 1950s by the University of California, which in combination with the development of a suitable harvester revolutionised the tomato-growing industry. In 1994 Calgene introduced a genetically modified tomato called the 'FlavrSavr', which could be vine-ripened without compromising shelf life. However, the product was not commercially successful and was only sold until 1997. Recently, shops have begun selling "tomatoes on the vine", which are determinate varieties that are ripened or harvested with the fruits still connected to a piece of vine. These tend to have more flavour than artificially ripened tomatoes (at a price premium), but are still not be the equal of local garden produce.

the architecture of the dolma

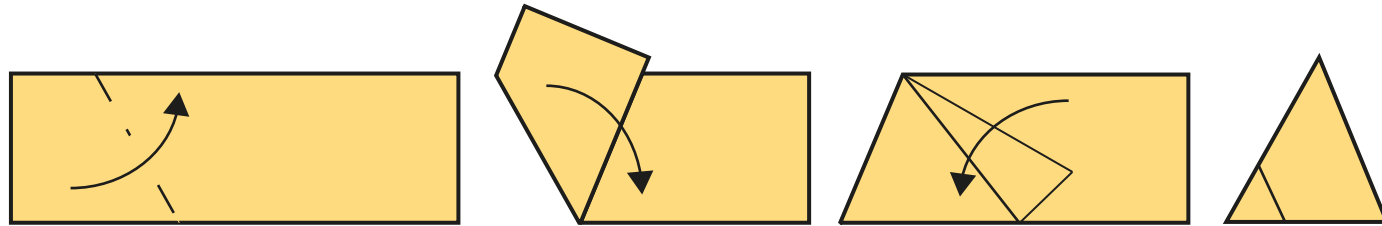


In all the variations of the recipe from all of the countries, there is only one constant; the vine leaf that holds the various stuffings. It acts as a vessel, wrapping around what is inside it to hold it together. By folding and rolling it in a specific way, it forms a protective skin that wraps around its contents.

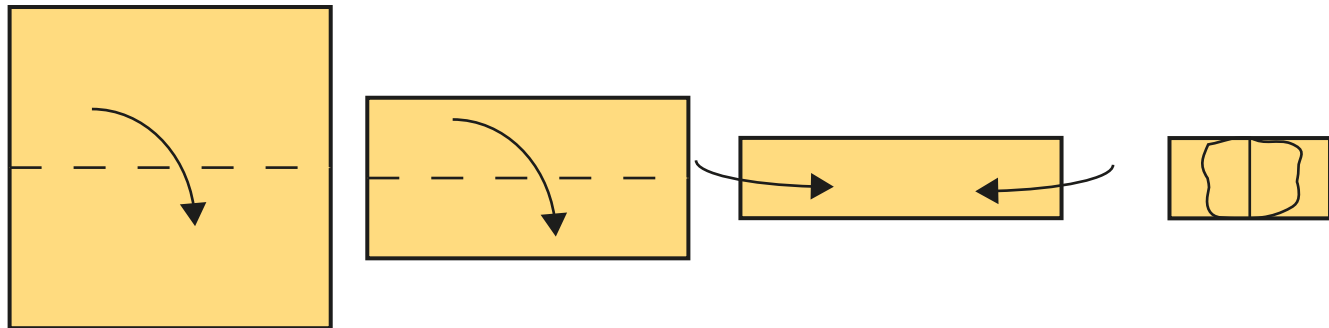
folding food



Samosa



Samosa

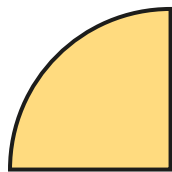


Wonton

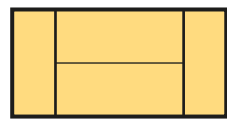
Crepe Folds



Fold-over
Place the crepe with the best side down. Put the filling in a line down the centre of the crepe. Fold the right side just past the middle and then do the same with the left. This method shows the filling at the ends.



Crepe Suzette fold
Place the crepe best side down. Spoon filling into the centre of the crepe. Fold in half. Fold in half again forming triangle four layers thick.



Pocket fold
Place the crepe best side down. Spoon filling in centre of crepe. Fold both sides over filling, then fold bottom and top.



Roll
Spread filling over worse side of crepe leaving a slight edge. Roll-up crepe. Depending on filling, serve sliced.

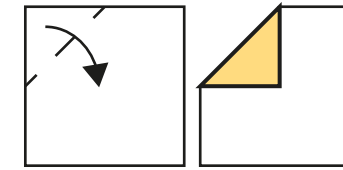
origami

Origami is the Japanese art of folding paper, which started in the 17th century and became popular worldwide in the mid-1900s. The word itself comes from *ori* which means *folding* and *kami* which means *paper*.

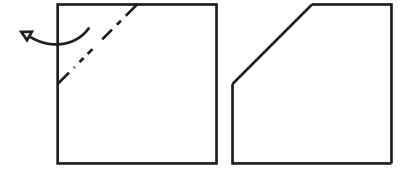
To fold an origami shape, you usually start with a square piece of paper. Then, using a few basic types of folds (some of them shown on the right), very complex shapes can be made.

After folding some origami shapes, I made some observations. Firstly, in origami, the skin is structural. Folding the paper makes it strong enough to stand on its own, without any extra support. In yurts and tipis there is always a structure on which the skin is wrapped.

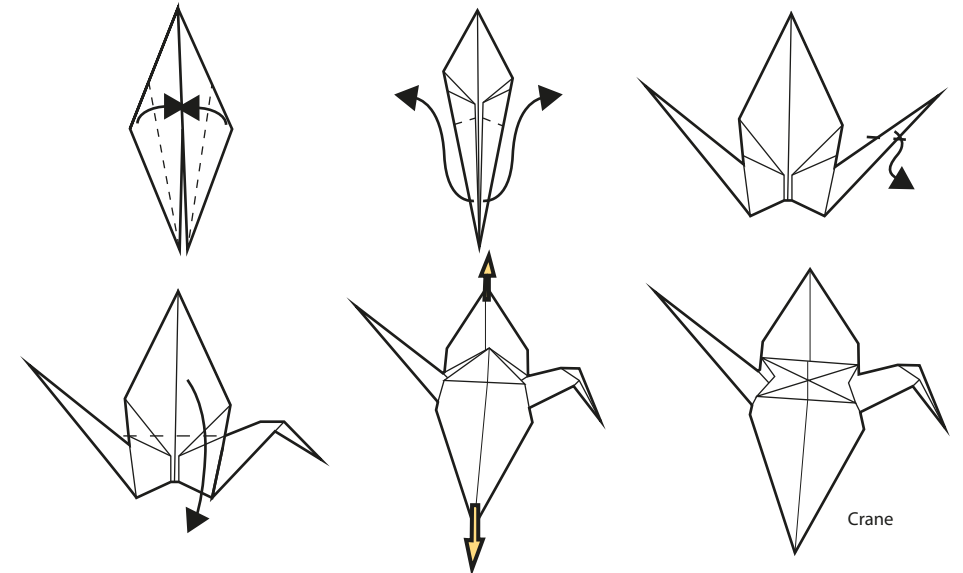
Also, once an origami shape is folded it is permanent; it cannot be manipulated further or altered. As I want the kitchen to be adjustable to the various seasons, I decided to look at packaging nets for inspiration.



Valley fold



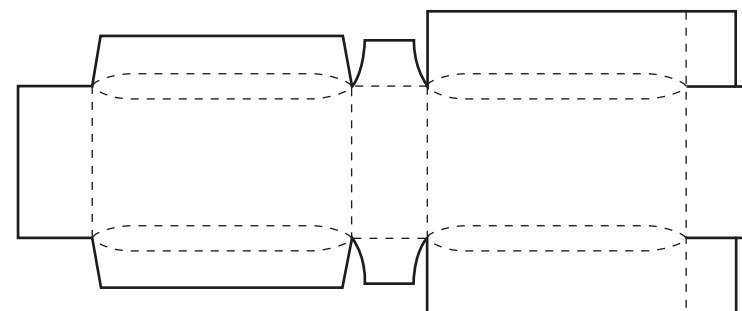
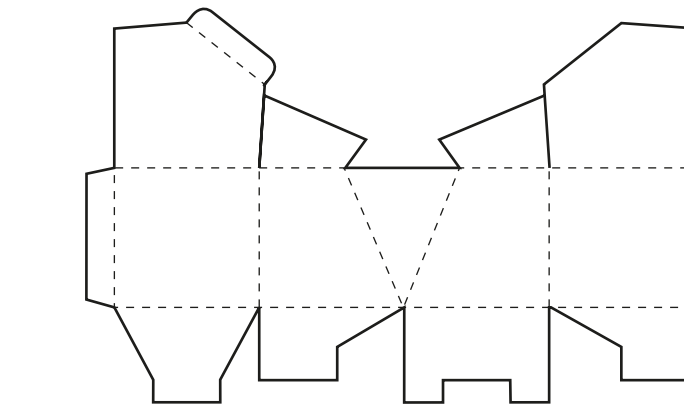
Mountain fold



Crane

packaging nets

Like origami, packaging is usually made by folding a single piece of card. The end product is again structural; it does not require anything to hold it up. However, the original card is not square; it can have a multitude of shapes depending on the shape of the folded package. In addition, the folded objects are more flexible and can be manipulated in various ways. Flaps can be folded out, they can open and close, sometimes objects lock together. The possibilities are endless.

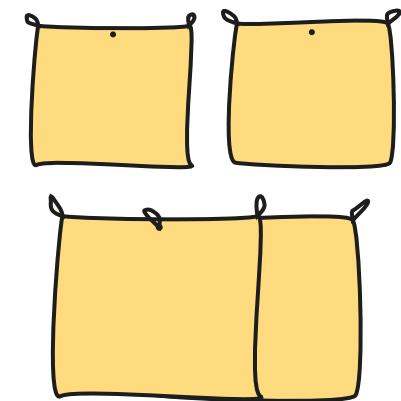
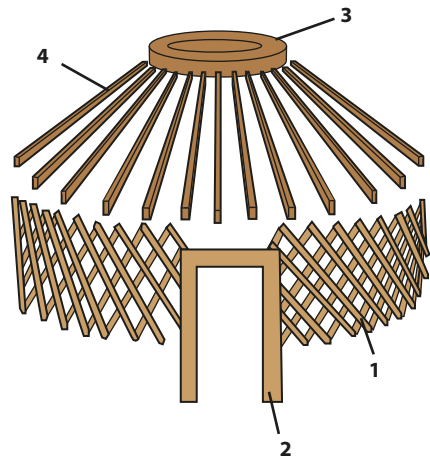


conclusion

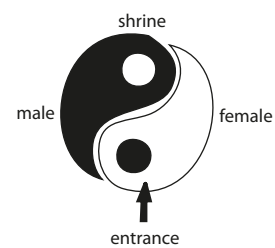
I am interested in the idea of the building being folded out from a single net, and I would like to explore it further. It does not only save materials and therefore costs, but also makes construction simpler and faster.

I also like the aesthetic of the origami models and would like to capture it in my design.

the yurt



To attach the *tuurga*, the rope on the edge of a sheet of felt was passed through the hole of the adjacent piece, pulled and tied.



Little is known as to where the yurt originated. The Buryat Mongols of Siberia claim their land as the birthplace of the Mongol tribes and also of the yurt. Wherever it began, use of the yurt spread with the conquests and empire of Genghis Khan in the 13th and 14th centuries. The oldest complete yurt yet discovered was found in a 13th century grave in the Khentei Mountains.

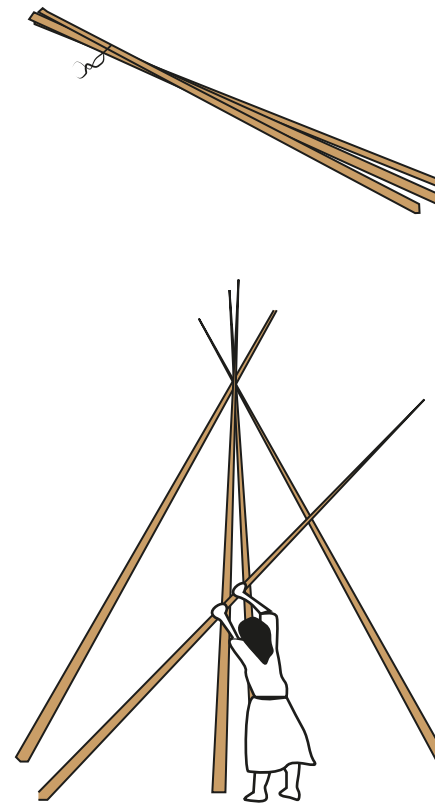
The main structural parts of the yurt are:

- 1. Walls (Khana).** The walls are made with thin strips of wood arranged in a lattice formation. This allows them to be strong, flexible and easily collapsed for quick disassembly. The walls are bound to each other by ropes made of cattle hide.
- 2. Door (Khaalga).** Originally people used felt shutters, lifting them up to open or close. Modern nomads are using wooden doors. Most doors are short and the occupants or guests must bend over to enter or leave the yurt. The door is usually a solid timber panel, as it needs to be strong enough to carry loads from the roof. It is usually decorated with Mongolian patterns either by painting or engraving.
- 3. Roof Ring (Toono).** The toono is the top roof ring of the yurt and is surrounded and supported by the pillars and yurt poles. It is glazed in order to provide shelter during cold seasons, but still let light in. It is usually left open in warm seasons for ventilation. There is also space for a stovepipe to come out the top of the yurt. It is common to see a toono decorated with Mongolian national patterns. The size of a toono is strictly defined – the diameter of a toono is four times less than that of the yurt.
- 4. Roof Poles (Uni).** The uni are the wooden sticks that join the toono with the walls. The poles are inserted into holes in the toono. The bottom tip of the uni joins the top of the wall with a loop called *sagaldarga* (tension ring). The poles need to be strong enough to support loads such as snow and people getting on the roof for maintenance.

The skin of the yurt consists of the following parts:

- 1. Internal Cover (Tsavag).** This was made using felt (woven by women from sheep's wool) and was usually white to lighten the interior of the yurt. Later on, an inner white cover called *tsavag* replaced the felt.
- 2. Roof (Deever).** Mongolians have covered their yurts with wool, skin and hair of livestock since ancient times. Gradually, refined methods of producing wool developed, which led to the discovery of a method to produce hand-made felt with sheep wool. This became the most common form of roof covering.
- 3. Wall Cover (Tuurga).** The walls of a yurt were wrapped around with pieces of felt, the *tuurga*. While wrapping, a small part of the top piece of felt was fixed compressing the bottom of the uni. Seams appeared here, and were cut and the two sides sewn together. The *tuurga* was 30cm taller than the walls. At least three pieces of felt were usually needed to cover the walls of a yurt. There were ropes at the two corners of each piece of felt, as well as a hole or loop in the upper middle part. The rope was inserted into the loop of the adjacent piece of felt, pulled and tied to form an enclosure (see diagrams on the right).
- 4. Outer Cover of Yurt.** The white outer cover of a yurt descended from the earlier stages of social development. It was usually one piece of white fabric laid over the various pieces forming the roof and wall enclosure, and was used to protect the layers underneath and to improve the yurt's image.

the tipi

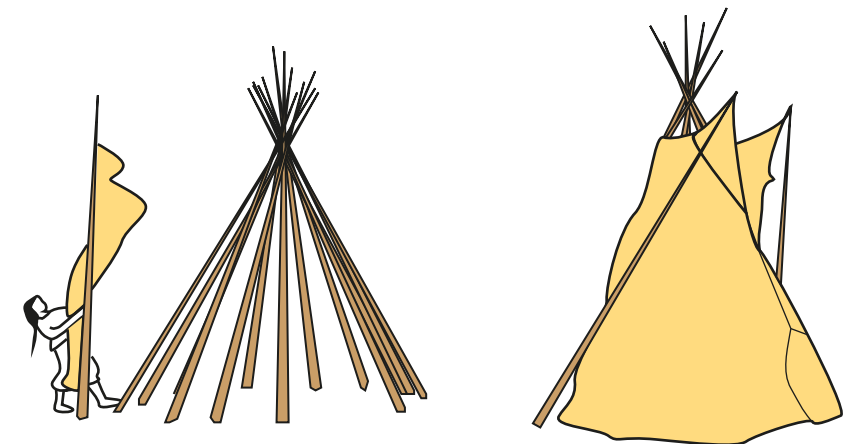
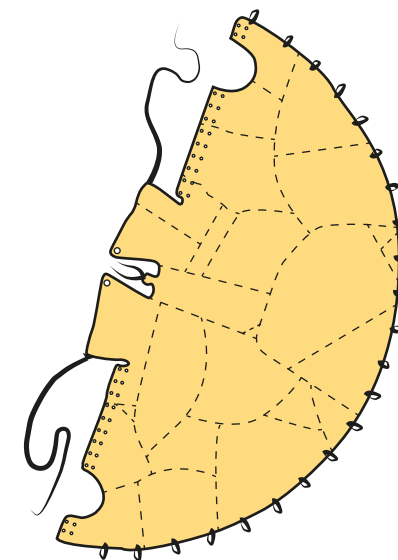


The tipi is a portable structure constructed from a frame of wooden poles arranged in a cone shape and enclosed by a cover. It was originally used by the Native Americans of the Great Plains.

Tipis are a marvel of engineering simplicity. In about an hour, two people can easily erect a 16-foot-diameter tipi with 22-foot-long poles. The placing of the tipi poles began with a tripod as the foundation. The remainder of the frame poles were then arranged between these foundational poles in a specific pattern. Next the rope securing the tripod is wound around the intersection of all the poles. No ladder is needed. One person walks three or four times around the outside of the poles, with rope in hand, occasionally snapping the rope to keep it high up at the intersection. The rope is then brought to the inside of the tipi circle and yanked firmly to lock it between two of the tightly bound poles.

A conical shape can withstand very high winds and is very sturdy. The conical shape of the tipi ensured dryness because there were no dips or folds in which moisture could collect. Although not precisely cone shaped, the Tipi had the same strength as a cone. If it were a perfect cone shape, the opening at the top would have to be very large to allow of the meeting of the structural poles and to allow a vent for campfire smoke. Architectural ingenuity was used to solve this problem by tilting the cone. The smoke vent was placed at the front of the tipi along the longer, sloping side. The poles crossed at the top of the smoke hole instead of the middle. The venting hole did not need to be very big and this also made the back side of the tipi shorter and steeper. The door of the Tipi usually faced east. The short, steep west side of the Tipi served as a strong base against prevailing westerly winds.

The Tipi was covered with well-made buffalo hides sewn together with sinew. By the late 1800s, after the near extermination of the buffalo herds, tipi covers made from bolts of canvas provided by the U.S. government replaced the 10 to 14 buffalo skins needed for the earlier style. To put the canvas on the tipi poles, the cover is laid out on the ground, the lifting pole is laid over the cover's middle and the cover is tied to the pole. After rolling each side of the canvas toward the lifting pole, the pole's end is set in place among the others. If two people are erecting the structure, each takes a side of the tipi cover and pulls it around the poles until the sides meet in the middle on the far side. Dowels are used to "button" the two sides together. Last, two slightly smaller poles are inserted into the smoke-hole flaps on the top front of the cover. These poles allow the smoke flaps to be opened, closed and positioned for better smoke draft.



symbolism



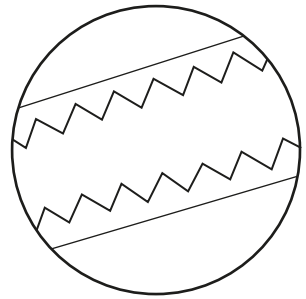
For Mongolians, the yurt was more than their travelling shelter in the Asian steppes; it was their centre point in a moving universe. The internal floor plan of the yurt is based on the four cardinal directions. The door always opens to the south. Opposite the door, the sacred space is to the north. It is also the place of the seat of honour for guests. Yin and yang, the ancient symbols for feminine and masculine and the balance of life hold space to the east and west. The western half of the yurt is the male area and the eastern half, the female domain. Men's possessions are hung on the western wall sections, and male guests usually sit on this side. Women's tools, such as pots, pans, looms and felting equipment, are stored on the east side of the yurt, where women, children and female guests usually sit. One proceeds around the yurt in a clockwise or "sunwise" direction.

symbolism

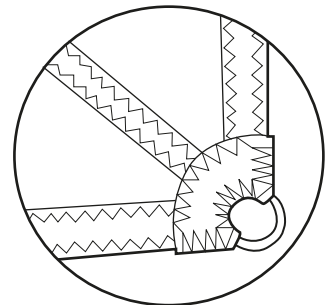


Each structural pole of the tipi symbolised a different moral. These were: Obedience, Respect, Humility, Happiness, Love, Faith, Kinship, Cleanliness, Thankfulness, Strength, Good Child Rearing, Hope, Ultimate Protection.

the materials



D1: Simple stitching



D2: Reinforced corner stitching

Searching for materials, I decided to look at ship sails. The fabric used for them needs to be strong to withstand wind, moisture, sun and salt from the sea.

Originally, sails were made of hemp or cotton. Nowadays, these materials have been replaced by plastics, in particular polyester reinforced with carbon fibres such as Kevlar and Spectra. The most common types of polyester used are Dacron and Mylar, because of their ability to withstand rain and wind, and do not flake in the sun. Sometimes, large sails which need to be more lightweight are made of nylon. The material I have chosen for the kitchen is Dacron, which comes in a range of colours to create various effects.

The stitching of the material is very important, as it gives the sail its strength. Some stitching details are shown on the right. The same stiches can be used when building the kitchen.



Dacron sails



Multi-coloured Dacron

elisa strozyk

The German textile designer Elisa Strozyk has been working on a project called 'Wooden Textiles' for the last two years, where she combines wood and fabrics to design a textile with a variety of applications (some examples of her work are shown on the right).

As she says: "The world around us is becoming increasingly immaterial. We are now used to write emails instead of letters, to pay online, to download music and touch virtual buttons on touch screens... There is not much left to feel. Giving importance to surfaces that are desirable to touch can reconnect us with the material world and enhance the emotional value of an object. "Wooden Textiles" convey a new tactile experience... [It] is an approach to responsible thinking concerning lifecycles of products... The potential of the carpet is its flexibility.... It can be rolled up and transported easily".



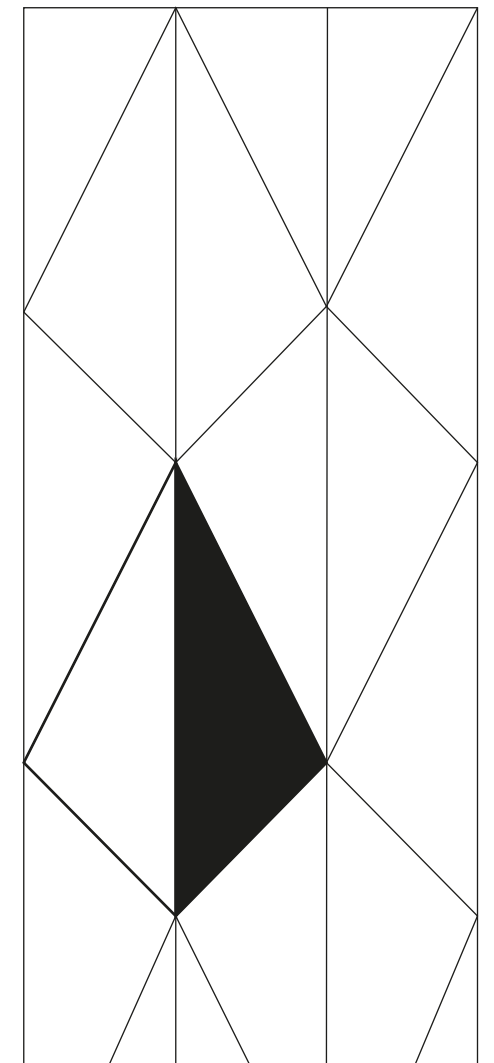
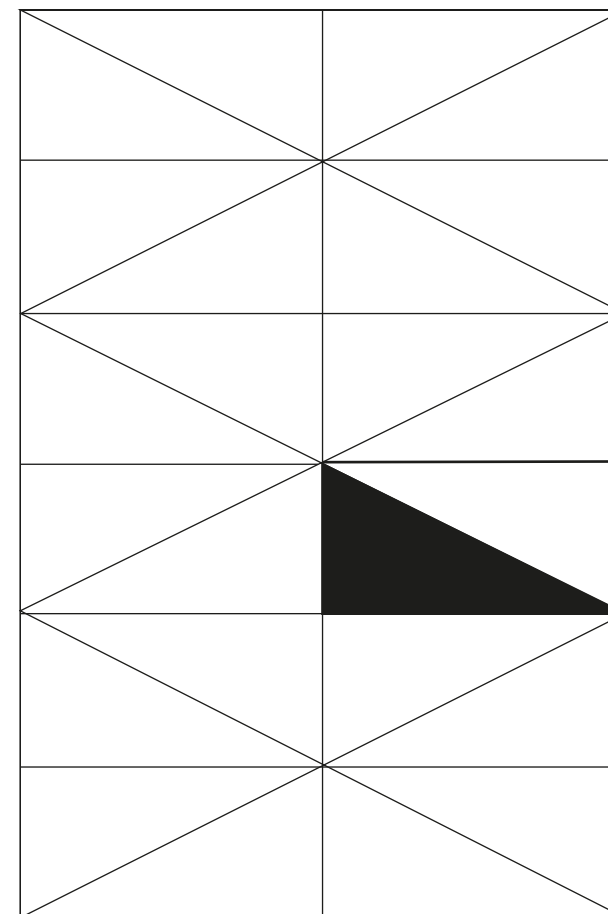
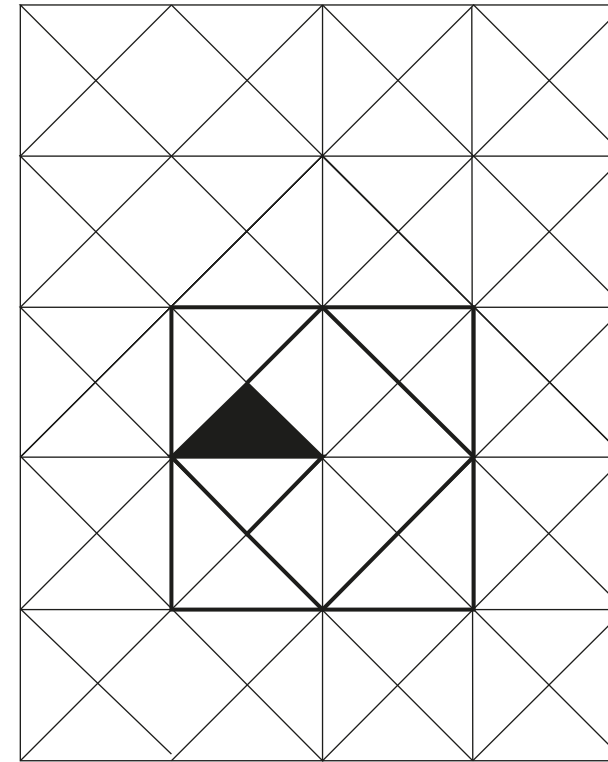
www.elisastrozyk.de

the symbolism

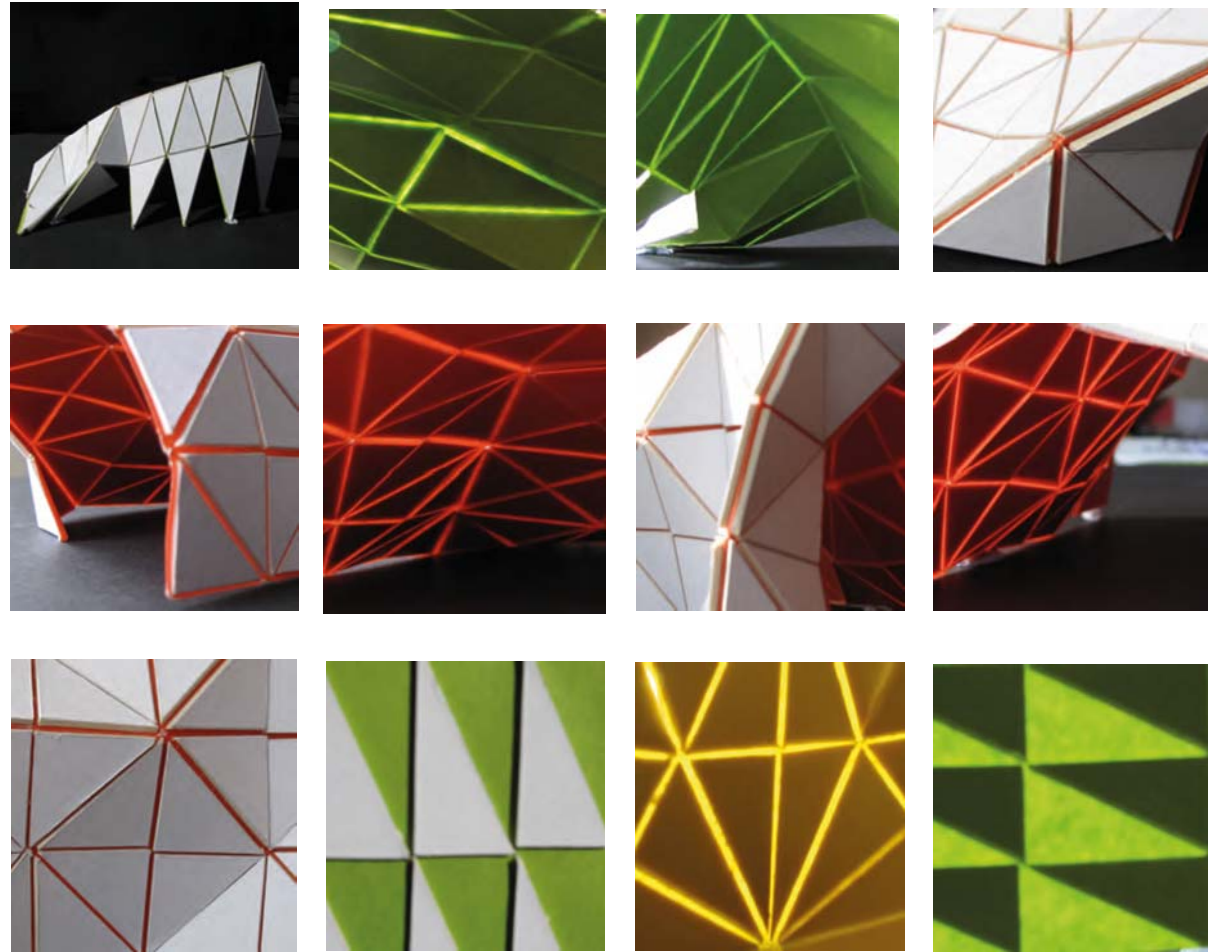
The triangle is associated with the number 3. 3 in turn represents the union of the numbers before it, 2 and 1. Numerologically speaking, if 1 represents force, and 2 represents an opening, then 3 is the birth of true wisdom. 3 is also a significant number in many religions and sects, such as Christianity (father, son, holy ghost) and Kabbalah.

Pointing upwards, the triangle symbolises fire and male power. Pointing down, it symbolizes water, female sexuality and goddess religions.

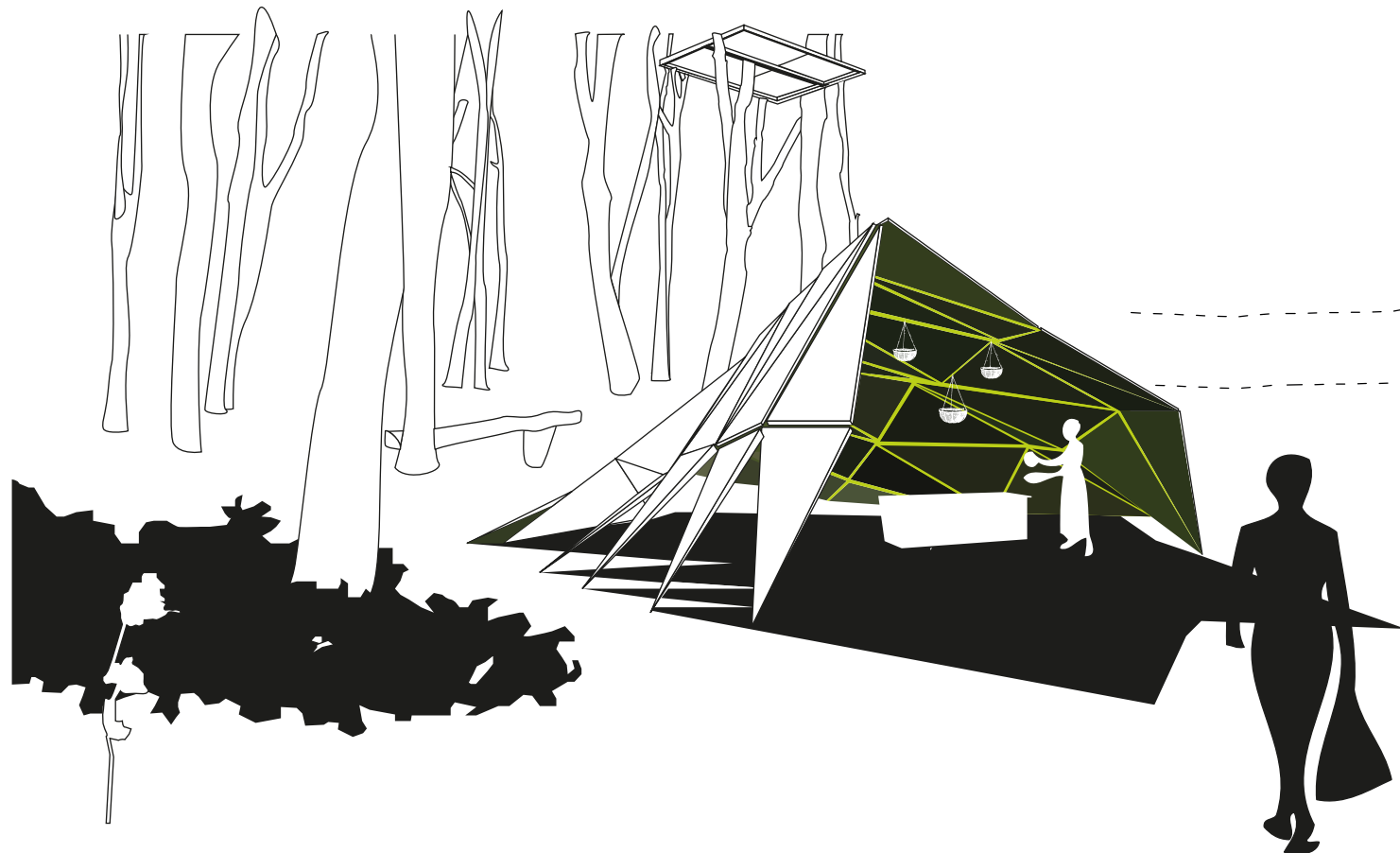
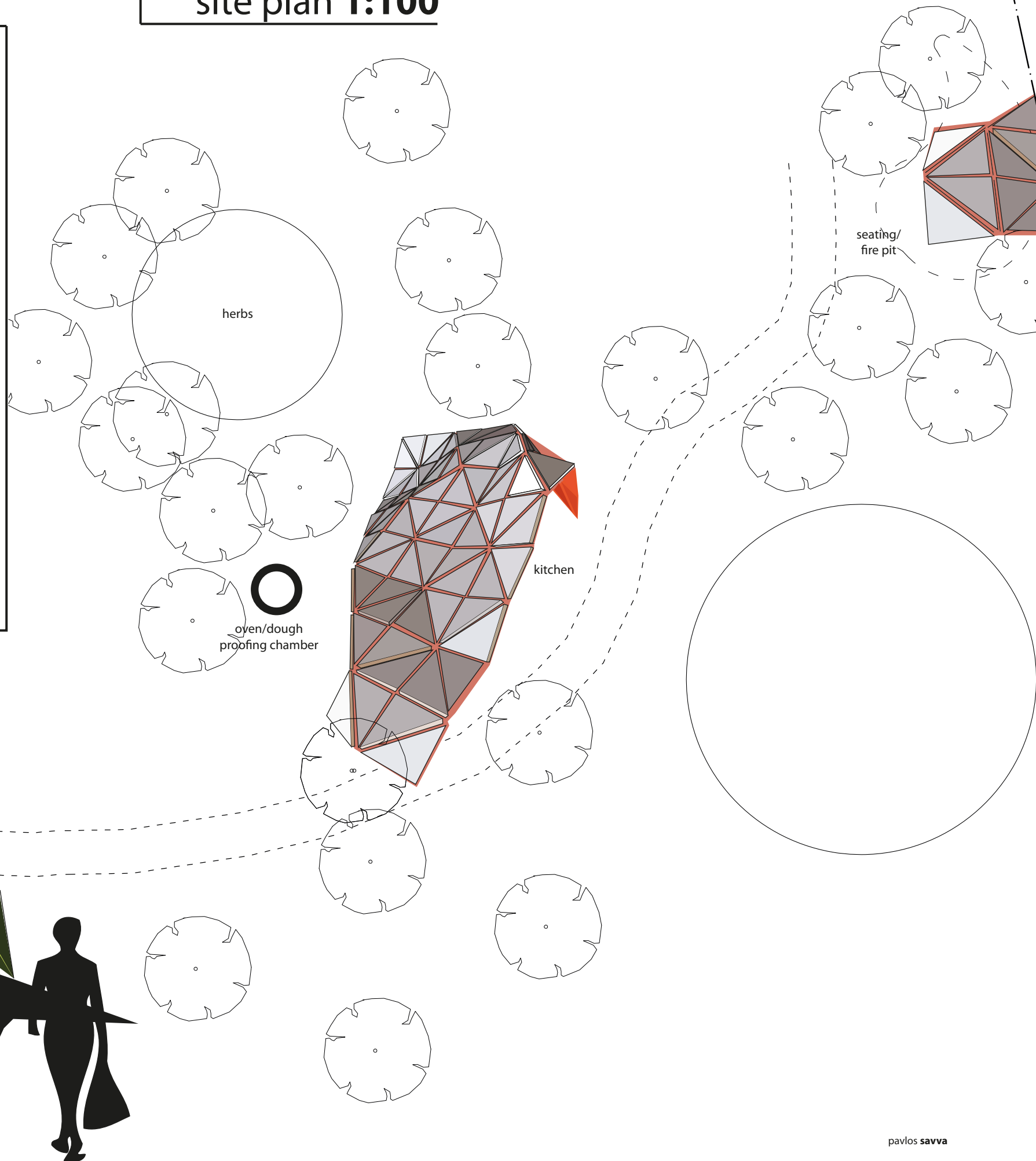
The pattern I chose to use on the fabric consists of two triangles, pointing in different directions joined together to form a complete shape. This is to symbolise balance, the union of male and female. In addition, the triangles grouped together form an even larger shape, symbolising community.



the skin



site plan 1:100



the proposal

The skin can be used in a number of ways to form an enclosure, to wrap around the contents. It can have a timber structure to hold it up, or it can be hung from the surrounding trees. It is designed to be an art piece in the forest, like the other sculptures at Coed.

