

Information and resources for 3 Japanese handicrafts

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Origami - paperfolding

Some background:

折紙

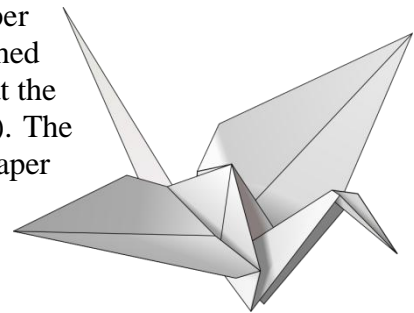
ori = paper, *kami* = folding

When? It's hard to tell when origami was first introduced. Guesses vary between years 800 and 1700. A more organized interest in origami rose first in the 20th century, and origami has developed significantly in the past 100 years.

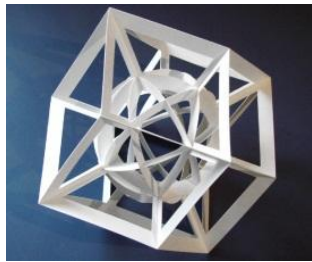
What? The art of paper folding, making various figures of paper. There is only a small number of basic folds but they can be combined to very complicated designs. Usually the folding begins with a plain, square piece of paper. In Japanese origami some cutting and gluing is quite common.



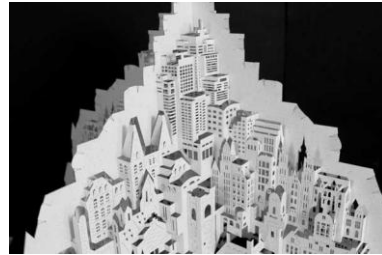
Thousand origami cranes?!? A group of one thousand origami paper cranes held together by strings. An ancient Japanese legend promises that anyone who folds a thousand origami cranes will be granted a wish by a crane, such as long life or recovery from illness or injury. This makes them popular gifts for special friends and family. The crane in Japan is one of the mystical or holy creatures (others include the dragon and the tortoise), and is said to live for a thousand years. The term *renzuru* refers to an origami technique whereby one folds multiple cranes from a single sheet of paper (usually square), employing a number of strategic cuts to form a mosaic of semi-detached smaller squares from the original large square paper. (Unlike Western origami purists, traditional Japanese origami often uses paper cuts to add detail such as ears.) The resulting cranes are attached to one another (e.g., at the tips of the beaks, wings, or tails) or at the tip of the body (e.g., a baby crane sitting on its mother's back). The trick is to fold all the cranes without breaking the small paper bridges that attach them to one another or, in some cases, to effectively conceal extra paper.



Variations and related arts (not all Japanese):



Kirigami (paper cutting and gluing), can also be used for complicated *paper cutting architecture*



modular origami sometimes called *Tangrami* (many small folded pieces are joined for a larger construction. There are several different kinds and levels of modular origami, for example *golden venture folding* (the swan to the left))



Moneygami or *Orikane* (folding currency notes instead of just any paper)

Pureland Origami (origami with strict rules and limited allowed folds) (butterfly right)



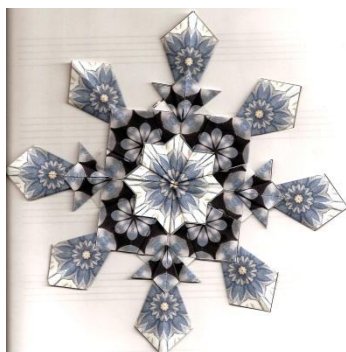
wetfolding (using paper that includes glue that dissolves in water to create models with soft curves and bends).

iris folding (folding strips of papers closer and closer towards a centre-point – like the iris of an eye, see flower to the right)



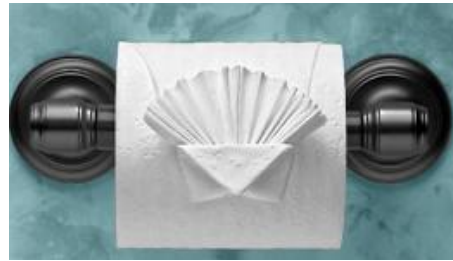
towel origami (folding (hotel) towels in different figures).

Napkin folding (paper or fabric napkins)



tea bag folding (folding small patterned papers in kaleidoscopic figures, see the snowflake to the left)

toilet paper folding (especially seen in fancy hotels)



quilling (making pictures of thin, rolled paper strips)

Online resources:

<http://www.en.origami-club.com/index.html>

- brilliant and clear page for basic origami and basic modular origami.
- some wonderful english ;)
- check out the mobile version: en.origami-mobile.com

<http://www.ultimateorigami.net/origami-diagrams>

- a large collection of diagrams and crease-patterns from numerous other pages
- many non-functioning links

<http://www.origami.org/index.html>

- the previous page also has many links here, but often they don't work
- many and varying pdf-models in alphabetical order (with search function)

<http://www.papierfalten.de/>

- These models are mostly also presented on ultimateorigami.net
- Many models in German
- Interesting foldable calendars
- Some interesting looking folding games

<http://www.origamimauro.it/index.asp?modelli=1>

- Good page with both traditional and new models, from easy to very complex

<http://www.origami-make.com/index.php>

- Lots of (traditional-ish) patterns

<http://www.oriland.com/index.asp>

- a sugar-sweet pastel coloured page with some instructions and pretty pics

<http://www.origami-diagram.com/>

- good page with many clear models

<http://www.origami-fun.com/index.html>

<http://www.origami-instructions.com/index.html>

- 2 pages with many good basic patterns with photo instructions

<http://www.origami-resource-center.com/>

- lots of (links to) various models
- plenty of Star Wars origami
- also many related arts presented:
 - kirigami
 - iris folding
 - tea bag folding
 - golden venture
 - dollar bill origami
 - toilet paper origami
 - fabric folding (napkins)
 - paper cutting architecture
 - quilling

<http://www.paperkawaii.com/category/categories/origami/modular-origami/>

- seems a bit messy, but I guess there is plenty of models
- many modular models

<http://gurmeet.net/origami/>

- Very good library of modular origami
- Photos of ready pieces on this page, instructions linked from other sources

<http://www.origamee.net/index.html>

- Plenty of modular origami
- Some good single-sheet models too
- A bit messy to orienteer at least at first

Kumihimo – braiding

Background information

What? Japanese braiding, often combined with beads to make beautiful jewelry. The term Kumihimo in the Japanese language means the gathering of threads and is the general name for a variety of Japanese band braiding/weaving techniques. This technique involves using several highly developed looms for specific types of braids.



Various simple braids



beaded kumihimo



complex kumihimo art

When? Kumihimo date from around 550 AD.

Why? The braids created by Japanese craftsmen served both ornamental and essential purposes, providing a means to fasten and decorate clothing; wrap knives & swords; hang banners, mirrors, and musical instruments; bundle carrying and storage wrappings and more.

Kumihimo and samurai? Kumihimo ribbons were also an integral part of the unique Samurai armor, which was constructed of numerous laquered plates laced together with braids to form a protective covering. For one armour up to 300 meters of kumihimo braid could be needed! Construction methods were closely guarded secrets, passed from master to apprentice through the ages. Later kumihimo was also used for women's kimonos and other clothing, and the patterns grew more intricate and decorative.



Traditionally the different colours of kumihimo-ribbons (as in other handicrafts and art) had different meanings:



- White* - *The sun*
- Light yellow* - *the moon*
- Orange* - *fire*
- Dark blue* - *water*
- Light green* - *Trees*
- Golden brown* - *Earth*
- Dark purple* - *Nobility (commoners were not allowed to wear purple)*

The different patterns had also different meanings, and some of them as well were especially reserved for the noble classes.



A tsukamaki-handle of a katana



A sageo-band for fastening the katana on a belt



A sageo with “kikko” pattern. The pattern looks like the shell of a turtle, and is supposed to grant the wearer a life as long as that of a turtle



Braids were often used to stabilize intricate hairdo and instead of buttons for holding clothing in place

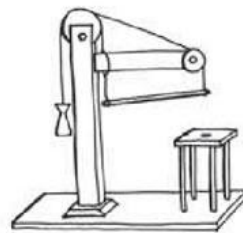
Equipment?

There are five basic kumihimo braiding stands:



Marudai, a standing frame for making round kumihimo bands. The small hanging spools are called Tama.

Kakudai, a more complex stand



Karakumidai



*Takadai
or kōdai*



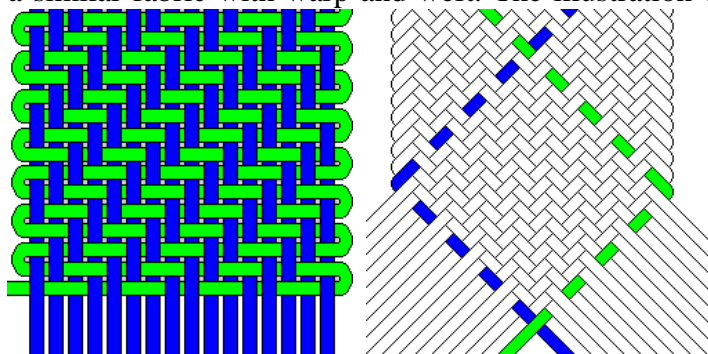
Aya take dai



One *modern* tool that is very widely used for basic kumihimo (because it's cheap, easy to use, small and portable) is a round disk made of cardboard, foam, plastic, hard leather or any similar material. This disk is variously called for example "kumihimo disk", "hanamaka" or "kongoh gumi" - in Germany these are often called and sold as mobidai[®].

How is the braid formed? The maru dai (as well as the kumihimo disk) can be used to create braids that are round, square, rectangular, hollow, spiral, flat, triangular and even pentagonal and half-round in cross section. Threads are held taut between weighted *tama* which hang from the outer edge of the *kagami* (mirror), and the counterweight underneath. The braid grows downward through the sloped hole in the center. In contrast, the braid grows upward on the kaku dai, where the completed portion of the braid is suspended above the *tama*, which are rotated to maintain the twist in the elements themselves. The karakumidai braid is strictly a twined structure, and great skill and patience is required to achieve the correct tension throughout the braid. The aya take dai is the only one of the stands to use a true weft, which is passed through sheds created by moving the *tama* from notch to notch on the wooden "feathers" at the front of the stand.

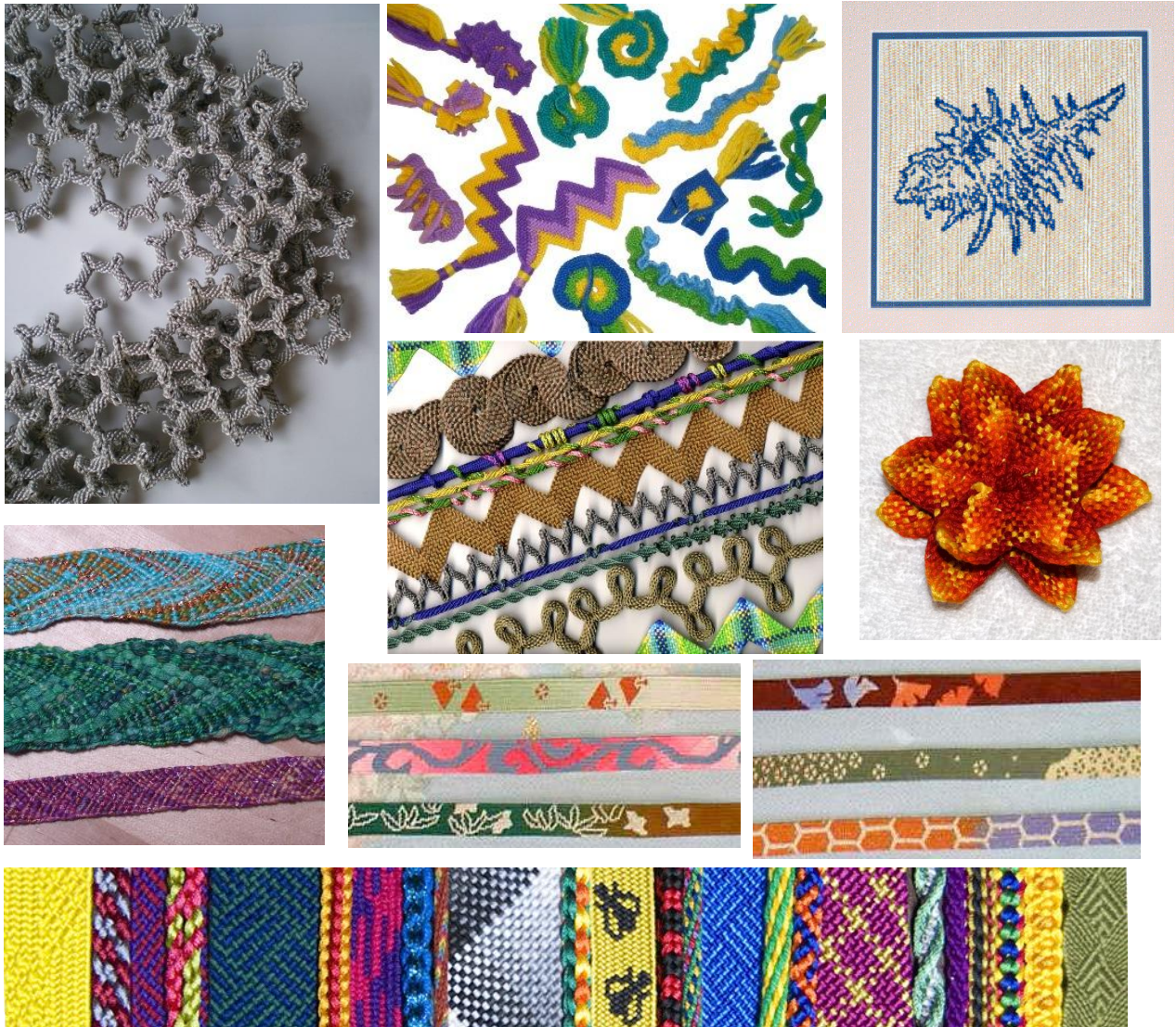
Taka dai braiding process is very *similar to weaving*, with one key difference: each element in the braid acts as both warp and weft in turn. Because the stress on the completed braid is borne by every element within the structure, it can be far stronger than a similar fabric with warp and weft. The illustration on the left below shows the path of the weft (green thread) through the warp (blue threads) in a traditional under two, over two twill fabric. Once the weft reaches the opposite edge of the warp, it returns with the same sequence, offset by one thread to create the weave. The same under two, over two sequence is used on the taka dai, but the braid is



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worked from the outer edge to the center. Once the thread has completed its turn as "weft", it takes its place at the end of the row on the opposite side of the taka dai to resume the role of a warp element, as seen in the illustration on the right.

So, how pretty and complex can a few braids really get?



P.S. Owing to its 3D and mechanically optimized structure, Kumihimo has recently attracted automobile and aerospace engineers seeking its lightweight, high-strength and energy-absorbing materials.

Some ideas for materials



*traditional: single silk threads
alcantara*



satin bands



leather-like



wool yarn



pipe cleaners



wire



various effect yarns



bead thread



embroidery floss



Plastic "scoubeezz" or "scoubidou"



cotton yarn



bast

Resources

There is a German kumihimo-booklet series from “Topp” by Miriam and Roswitha Schwarz that has also been translated to a number of other languages. The patterns are meant for using with the Mobidai ® kumihimo-disk from the same company, but they work just as well with self-made disks of sturdy cardboard or similar materials. “Topp” also sells kumihimo starter-kits with a mobidai ® disk, some instructions and a few skeins of satin cord suitable for braiding.

Das Grosse Kumihimo-Buch: Japanische Flechtkunst
Perlen flechten in Kumihimotechnik
Kumihimo – Modische Accessoires
Kumihimo – Schmuck & Accessoires
Kumihimo – Flechtbits für Kids
Kumihimo – Schmuckstücke
Kumihimo – Fashion-Bänder
Kumihimo – Breite Bänder
Kumihimo – Dekorative Flechtbänder

<http://friendship-bracelets.net/kumihimos.php>

- big library of kumihimo patterns. Probably all round, kongoh-style

Online-pattern generators:

- Here you can easily plan your own patterns!

http://craftdesignonline.com/marudai/?a=js_kongohgumi2

- for generating "kongoh gumi" patterns. 8-32 cords (multiples of 4) in groups of 2, results in a round braid.
- braiding moves are the same as for "yatsu kongo" or "kongo 16" (cords in pairs and opposite each other)

http://craftdesignonline.com/marudai/?a=js_kongoh-gumi

- for generating "kongoh gumi" patterns as above, but here you can also change the number of cords in a group.
- patterns with maximum 64 cords
- To make your braid, set up the threads as shown. Regardless of the number of threads in each group, you always move the right-hand thread from the top to the right side of the bottom group and the left-hand thread from the bottom to the left side of the top group. Turn the disk anti-clockwise so the next group is at the top and repeat until your braid is finished.

http://craftdesignonline.com/marudai/?a=mp_maru_yotsu

- for planning a basic, 4-cord, round maru yotsu -pattern

http://craftdesignonline.com/marudai/?a=mp_flat10_1

- for planning 10-cord flat patterns

http://craftdesignonline.com/marudai/?a=js_twill

- for planning hollow twill patterns 8-32 cords (multiples of 4)
- Take the 2nd thread in the top group, and move it to the left side of the next group (going clockwise). Take the middle thread from this group, and move it clockwise to the start of the next group. Carry on taking the middle thread to the next group until all the groups have 4 threads again. Starting at the top again, take the 3rd thread and move it anti-clockwise to the right of next group. Take the middle thread of this group anti-clockwise to the right of the next group and carry on doing this until all the groups have 4 threads again. With an even number of groups, you can move one thread with one hand while taking the equivalent thread in the opposite group with the other hand.

http://craftdesignonline.com/marudai/?a=mp_sr12.2x3

- for planning a 12-cord round band ("soft 12")
- think in multiples of 3 instead of multiples of 4!
- supposedly a tricky and unforgiving pattern

http://craftdesignonline.com/marudai/?a=mp_kg2222233333

- for planning a 25-cord round band (2x5 + 3x5 Kongoh Gumi)
- new thinking!

http://craftdesignonline.com/marudai/?a=mp_octo16_1

- for planning a 16-cord octagonal pattern

http://craftdesignonline.com/marudai/?a=mp_kg1234

- for planning a mixed "1 2 3 4 kongoh"

http://craftdesignonline.com/marudai/?a=mp_shippou

- for planning a 8-strand shippou-pattern

http://craftdesignonline.com/marudai/?a=mp_warp87

- öh...different.

http://craftdesignonline.com/marudai/?a=mp_flat8_1

- for planning an 8-cord flat chevron pattern (Hira yatsu)

http://craftdesignonline.com/marudai/?a=js_hollow

http://craftdesignonline.com/marudai/?a=mp_hollow16

- for planning 6-32 cord hollow braids

<http://friendship-bracelets.net/kumihimogen.php>

- I'm not smart enough to make this one work. Prolly just basic kongoh-patterns

<http://www.lythastudios.com/123bead/kumiplanner.html>

- pretty designer for basic 8-cord kongoh-patterns

Temari – stitched balls

Background information:

History: Temari balls (also known as gotenmari balls) are an folk art form that originated in China and were introduced to Japan five or six hundred years ago. The balls were originally made by mothers and grandmothers for the children to play with (they were used in kickball and handball games similar to the hackesack games played around the world today. Balls for these kemari-games (ke means kicking) were originally made from deer hide). There are some records that these games were also played by noblemen of the Imperial Court, and they eventually became a part of popular culture. In the 14th to 16th century street performers were known to use these balls for juggling. Later embroidered temari were popular as girls' toys. They were used in mari games (mari tsuki) and the children sang songs, matching the

movements of the balls to the music. In southern parts of Japan, temari were used also as charms, and some of their designs were symbolic.

Historically they were constructed from the remnants of old kimonos. Pieces of silk fabric would be wadded up to form a ball, then the wad wrapped with strips of fabric. The silk threads would have been removed and saved and, used to first wind around the ball, then to stitch the ball firmly together (it is said that the balls were wrapped and stitched so tightly that they actually did bounce). As time moved on traditional Temari balls became an art, with the functional stitching more and more decorative and detailed, until the balls displayed very intricate embroidery. Silk threads were not available for the lower classes, so they used short lengths of yarn tied together to make long lengths. These could not be stitched, so the wrapping method was used to create the design. When affordable cotton threads became readily available in modern times the art spread widely from nobility to commoners.

The balls transcended from play toys into art objects (although loving moms will still make them for their children) with the introduction of rubber to Japan. Temari balls became an art and craft of the Japanese upper class and aristocracy and noble women competed in kagari (stitching) with kakagari (silk thread) creating more and more beautiful and intricate objects.

Today temari balls represent a highly valued and cherished gift symbolizing deep friendship and loyalty. It is traditional for a mother to make a ball for her daughter as a New Year's gift. They are also defined as Hime-temari (silk balls or princess balls), made to bring good fortune to the person who keeps them, and are made by hand wrapping silk threads of different colors. When the daughter of the Lord of the clan was married, the journey to her new home was often long and tedious. To while away the time she took her temari (gotenmari = castle balls) with her on the journey. These amused her and gave her comfort as she moved away from her family. These crafts, filled with both the craftsman's gentle spirit and techniques, are believed to bestow happiness. The brilliant color and threads used also are symbolic of wishing the recipient a brilliant (happy) life.

Traditionally becoming a craftsman in Japan was a tedious process. To become a Temari artist in Japan today requires specific training and one must be tested on one's skills and technique before being acknowledged as a crafter of Temari (in the Japan Temari Association aka Nihon Temari no Kai).

Construction: The patterns are geometric and usually symmetrical, with many of the design elements being based upon nature. In appearance, most are very reminiscent of a kaleidoscope's patterns.

Modern day creations may use a preformed ball base (the "mari" or "dodai-mari") - generally a styrofoam ball or large wooden bead - which is then wrapped with a layer of yarn and then a layer of regular weight sewing thread (it requires at least three hundred yards for a three inch ball) - both of which must be placed smoothly to insure roundness of the ball. Strict traditional Temari artists will still create their own mari base from discarded fabric or other materials that can be wadded into the shape of a sphere. Sometimes a layer of batting is applied prior to the yarn wrap in order to smooth and round the ball form.

The ball is then divided with relational geometry using a thin paper strip - no defined measuring is generally used. The divisions are indicated with pins and then marking threads are placed. If the marking threads are incorporated into the design they will often be done in gold or silver - other designs require the marking threads to be the same color as the base thread wrap so as to blend into the background.

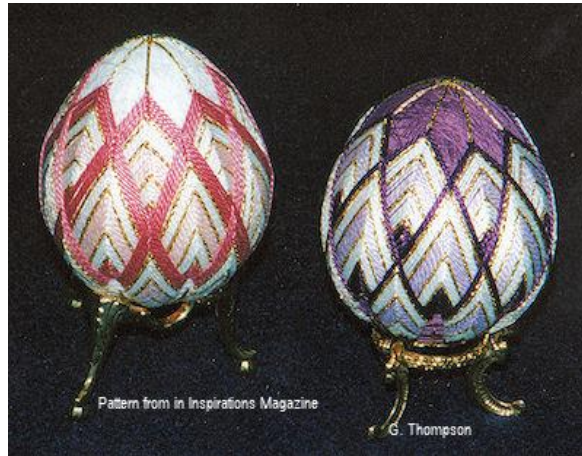
After the ball is prepared and marked the designs are embroidered with a variety of threads. The most common type used today is pearl cotton, although finer and specialty silk, metallic and rayon embroidery threads or embroidery ribbons assist in producing even more beautiful outcomes. The designs are accomplished by either stitching the patterns (there are very few basic, simple stitches) or by designated wrapping. A combination of the two may also be used. There are no defined outcomes - Temaris are limited only by the imagination of the crafter.

It was traditional for the balls made for children as toys to have some rice in their center so as to have them rattle. Modern balls may have a jingle bell or rattle in their centers for good luck. Some balls, after they had been taken in as art, were further decorated with elaborate tassels made by intricate methods of braiding and knotting.

What to do with temari? Most Temari balls average three to five inches in diameter, although any size is possible and larger ones are popular in Japan, where collections of all sizes and styles are treasured. Smaller ones may be made for Christmas tree ornaments, and other home and personal accessories including jewelry. They may be displayed singly or collected and arranged in groups. When shown singly they may be hung in windows or from ceilings or doorjambs. They may be mounted from crossbars as a mobile. Single balls may be hung on tabletop display stands. Alternately they may be grouped in a bowl or basket, or shown individually on a ring base or "egg" stand. Temari balls make exquisite Christmas ornaments. They make wonderful, unique gifts and treasured as wedding and anniversary gifts, and as mementos of friendship and special occasions

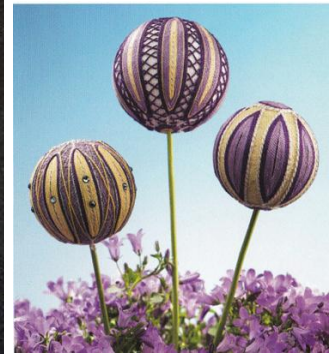


From TemariNY 2004



Pattern from In Inspirations Magazine

G. Thompson



Resources:

Internet:

<http://www.temarikai.com/>

- A Very informative page about temari, with lots of detailed instructions, patterns and other resources about temari, but also a little of other Japanese handicrafts and Japan in general. My primary source for the workshop.

<http://www.japanesetemari.com/>

- Another nice page, a bit more commercial, but also with some free instructions and patterns

<http://www.temari.com/>

- Simple, basic instruction sheet and commercial patterns/books/videos

Books:

There are many temari books, of which I know nothing except for what has been said in Internet reviews ;) Some of the most frequent recommendations are:

Craft of Temari by Mary Wood (ooh, this one I know by now. It's nice!)

Temari – How to make Japanese Thread Balls by Diana Vandervoort

Temari Traditions by Diana Vandervoort

Temari Gifts by Diana Vandervoort

Temari by Margaret Ludlov (also for absolute beginners, they say...)

Phyllis Mauer of Ethnic Fiber Art has written several booklets that introduce Temari with one or two projects.

<http://www.temarikai.com/temaribibliographybygladwig.html>

- a list of temari-literature in English and Japanese

Galleries & pictures:

<http://www.tentemari.com/stitchforjapan.html>

<http://suzuran4141.pose.jp/temari/temari.html>

<http://npcdesign.com/temari12.html>

<http://tanabecity.com/updata/temari/gallery/gallery2.php?page=0>

<http://www.temarichallengegallery.org/slideshow/Gallerysimple/index.html>

<http://www.runswithscissors.com/temari.htm>

<http://www6.wind.ne.jp/kami/handmade/mari01.html>

<http://www.temarikai.com/firsttemaris.html>

<http://www.temarikai.com/albumpages/albumclaytonsilk.html>

<http://www.temarikai.com/albumpages/albumsarahsbookresults.html>

<http://www.temarikai.com/albumpages/albumolympusthreads.html>

http://www.temarikai.com/OnLineAlbum/TemariGinnyT1998_99/index.htm

<http://www.temarikai.com/OnLineAlbum/TemariGT2001/index.htm>

<http://www.temarikai.com/OnLineAlbum/TemariGT2002/index.htm>

http://www.temarikai.com/OnLineAlbum/Temari_GinnyThompson_2003/index.htm

http://www.temarikai.com/OnLineAlbum/Temari_Ginny_Thompson_2004/index.htm

http://www.temarikai.com/OnLineAlbum/Temari_Ginny_Thompson_2005/index.htm
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http://www.temarikai.com/OnLineAlbum/Temari_GinnyThompson_2008/index.htm
http://www.temarikai.com/OnLineAlbum/Temari_GinnyThompson_OrigCompTemari/index.htm
<http://www.temarikai.com/albumbunka.html>
<http://www.temari.com/temariballs.htm>

<http://www.temarikai.com/bintemariwimmer.html>
- Bin-temari

<http://cranberry.velvet.jp/yubinuki/yubinuki-top.htm>
- Thimble rings!

<http://www.temarikai.com/teeneiswappics.html>
<http://www.temarikai.com/albumteenies.htm>
- Tiny temari

<http://www.temarikai.com/albumeggs.htm>
- Egg temari