

ORIGAMI

TANTEIDAN

折紙探偵団

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"Empera" (= "Just like squid fins (empera)"): Fuse Tomoko


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About - Origami Tanteidan Digest

The objective of the Origami Tanteidan Digest is to share the articles on Origami Tanteidan magazine and provide an English summary of most (but not all) text. The numbers indicated as "Page xx" refer to the page numbers of the original articles in the magazine. While not all content is translated, it should give you an idea about what the article is about. Depending on the context, "Translator's Note" will be provided for clarity or terms that might not translate easily either because of the language or technical nature. We hope you will enjoy. Let us know if there is anything we can do to improve or any further comments. Please contact our editorial

department at: info@origamihouse.jp

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Translated by Marcio Noguchi

(Page 7) Origami and Its Neighbors
#105 – Further Self-Restraint May Give Us
Something Else
By Tomoko Fuse

During the days of self-restraint with COVID-19, what have you been doing? Well, for origami people, we can say that it is time to fold.

I wrote already several times, when I was in the second grade of elementary school, I got sick and took a break from school for about half a year. After leaving the hospital, my father bought me Akira Yoshizawa's "Origami Dokuhon", which became the introduction to the world of origami. My home medical treatment was even longer than the length of the hospital-stay. Since my house I was facing the road to school, I could hear the children's voices in the morning and evening, and it felt like a dazzling world somewhere else. Origami fever grew to full-scale during this medical treatment period. In a way the current self-restraint is similar, as you cannot go anywhere. During this lockdown and self-restraint period, there must be a lot of people all over the world who became addicted to origami. When COVID-19 numbers go down, what we have cultivated during this period should blossom into big flowers, and the world of origami will surely shine again. Origami can be done by one person, but interacting with friends brings great joy and motivation to continue origami. I'm not good at it,

but online meetings are also actively taking place all over the world. Are such new flowers already beginning to bloom?

Last fall, I had a specialist cut the Sawara cypress tree that had grown behind the house. Before I knew it, it became a big tree, and the branches were approaching the roof. I was curious about what to do because it located where large machinery for logging could not reach. But the two young contractors seemed to be rock climbers in both their clothing as well as their movement, and skillfully manipulated the rope and equipment to cut the big branches. After that, they cut it into pieces about 2 meters. Wrapped the young body in brightly colored costumes, it was a wonderful job.

The Eurasian wren, who lived in the attic in the winter, did not come, probably because we cut this tree. It tweeted every 35 seconds and so we called it "Tweet 35". It is sad that what it is not coming back. The Japanese green woodpecker "Shiozo" (named after our land registry) has been resident in the attic for many years, and it seems that it changed multiple times. But this one is actively breaking my house during the spring. I'm in trouble.

(Page 13) Close-up
Simulation of Curved Folds
by Kosuke Sasaki

Kosuke Sasaki = Enrolled in the Graduate School of Systems and Information Engineering, University of Tsukuba until March 2021. He undertook research on curved origami under Professor Jun Mitani.

Introduction

At graduate school, I am researching a simulation method for folding creases, including curved folds. I will present the results of that research in this article.

The research to be introduced was recorded at a CG-based international conference called Pacific Graphics. The project page for this research (<http://www.cgg.cs.tsukuba.ac.jp/projects/2020/RulingAwareTriangulation/>) is available on the laboratory website. We also have a video showing the simulation, so please have a look.

Objectives of the Research

Folding paper along a curve is called curved folding. Figure 1 is an example of curved folding. This folding method is sometimes used in design because it is possible to express curved surfaces and curves by folding with curved creases.

When designing using curved folds, we may use the method of repeatedly creating a crease pattern (CP), folding it, and checking the finished shape. This is because you cannot know what kind of shape you can obtain without actually folding the crease lines. However, designing in this way is time consuming and labor intensive.

Based on this background, I conducted a research to simulate the shape obtained by folding curves using a computer. However, the types of shapes that can be simulated are limited, because it requires a lot of user operations. Using these research results, it is still difficult to see the shape obtained when folding them from various developments, including curved folds.

Therefore, the objective of my research was to realize a curve folding simulation from the crease pattern (CP) with curve lines. The goal was to be able to check how the shape will look like when folded with paper, simply by drawing the CP with 2D software such as Illustrator, and using it as an input. To see the results, you can obtain the simulation results shown in Figure 1 by inputting the CP view shown in Figure 1. The simulation result is presented as a 3D model, so you can rotate or turn it over to check the shape.

The shape obtained when folding a given CP drawing is not fixed to one, but various shapes can be obtained by twisting the fold line, changing the fold angle, and gluing the paper. In this research, we will simulate the state when the paper is actually folded and placed on a flat surface without gluing or applying force.

Simulation method

The method is based on the Origami Simulator (<https://origamisimulator.org/>) developed by Ghassaei [1] et al. It is a simulator that runs on a web browser and can be used by anyone. If you enter the CP drawing data into this simulator, you can check the shape when it is folded.

This simulator has a limitation with the CP drawing to be input that can only contain straight fold lines. When a crease pattern is entered, the simulator creates a triangular mesh by dividing the area surrounded by the fold line in the crease pattern into triangles. Next, the fold simulation is performed by rotating the triangle by considering the sides of the mesh as hinges.

In Origami Simulator, it is possible to simulate curve folding by the input of a CP drawing that represents a curve based on a group of line segments. However, the mesh generated by Origami Simulator is not suitable for curve folding simulation, so the simulation result may differ from the actual shape when folded with paper.

In this research, we focus on the nature of curve folding and create a triangular mesh suitable for curve folding simulation. The curved surface obtained by folding paper is a developable surface, and the developable surface can be represented by the trajectory of a line segment called ruling. Figure 2 shows ruling in a model folded by a single curve.

The shape obtained by folding a curve is a collection of curved surfaces that can be expressed by ruling. Origami Simulator can also express a smooth developable surface if it is a triangular mesh made up of a collection of triangles that include Ruling on the sides. In Fig. 3, the upper part is a developed view and folded with paper, the middle part is a triangular mesh ignoring ruling and the simulation result, and the lower part is a triangular mesh along ruling and the simulation by it. You can see that a collection of triangles with Ruling on the sides gives a smooth curved surface that looks like it was folded with paper.

However, it is impossible to find the ruling arrangement directly from the CP drawing without knowing the shape after folding, except in certain situations. Therefore, the initial arrangement of ruling was estimated from the CP drawing using the following two empirical rules. There are two rules of thumb: (1) ruling on a smooth developable surface tends not to line up in a cone, and (2) ruling and curved fold lines tend to be orthogonal on the net. Considering these, it creates a triangular mesh suitable for simulating curve folding. The result of the triangle division in Fig. 1 was created by applying this method.

<Simulation results>

Figure 4 summarizes the results of the simulation of folding the CP view using this method. In order to analyze whether this method can be applied to various curve folding techniques, we simulated folding with the CP drawing presented by Mitani [2]. Comparing the simulation results of these CP drawings with the shape actually folded with paper, the resulted shapes are almost the same. It was found that curve folding can be simulated by using this method. As a result of the simulation, a shape close to the one actually folded one was obtained even in the CP view with many crease lines.

<As a Design Tool>

I worked on the design of curved origami using a simulator that implements this method. This is my first origami model creation. After learning some rules about the arrangement of crease lines in curved folds, I started designing. Using Illustrator, I created and edited the CP drawing, repeated checking the shape obtained after folding with the simulator, and folded it with paper after obtaining the shape I liked. Figure 5 shows the development of the model created, the simulation results, and the actual model folded with paper. As a result of the use as a design tool for curved origami, we were able to confirm the shape after folding the CP drawing in the simulation, so we were able to reduce the number of times the paper was actually folded to one. Also, by looking at the simulation results, you can check whether the fold lines in the CP drawing are arranged so that they cannot be folded, so you will not make the mistake of not being able to fold when folding with paper. Furthermore, it was possible to confirm the folding angle at

which self-intersection occurs in advance. There are still some inadequate points as a design tool. When modifying the crease pattern after seeing the simulation results, it is now necessary to move away from the simulator and modify it with graphic software, but if the changes made to the crease pattern are minor, this task is troublesome. I felt that it was necessary to add a new development function to the simulator. Also, if there is a function to specify the fold angle for each fold line in the simulator, more shapes can be simulated and the range of design can be expanded.

We would like the Simulator developed this time to be used for the creation of the model which would then be incorporated into the Origami Simulator in the near future.

<Conclusion>

We introduced a method to simulate the shape obtained when the crease pattern is folded from just the crease pattern including the curve fold. We hope that new shapes and applications will be found in the future by utilizing curve folding simulations with the presented method.

<References>

- [1] Amanda Ghassaei, Erik D. Demaine, and Neil Gershenfeld. Fast, Interactive Origami Simulation using GPU Computation. *Origami Vol. 7*, pp. 1151–1166, 2018.
- [2] Jun Mitani, *Curved Origami Design*, Nihon Hyoronsha, 2018.

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Figure 1: From the left, the crease pattern view, the actual shape of the folded model with paper, the result of triangle division, the result of the simulation.

Figure 2: Developable surface and ruling.

Figure 3: Differences with simulation results with mesh.

Figure 4: Simulation results.

Figure 5: CP view of the origami model design, simulation result, shape of the model folded with paper.

**(Page 16) From the Bookshelves of the JOAS Library
Book #77: "Modern Origami" by James Minoru. Sakoda**

Article by Eiko Matsuura

Eiko Matsuura = Born in 1972. I am still a graduate student, surrounded by young people who could be my daughter or son. I'm not good at English, but I'm reading English literature. I want to complete his dissertation this year.

This time I would like to present James Minoru Sakoda's book "Modern Origami". The first edition was published by Simon and Schuster in 1969, and the revision was published by Dover in 1997 (Fig. 1). The first edition is 208 x 281 mm, 141 pages in total, and the revised one is 210 x 266 mm, 160 pages in total, and contains about 50 models. I purchased the revised edition at a second-hand bookstore in the United States for the JOAS's collection, and the first edition was donated by the bereaved family from the collection of Koji Husimi.

Sakoda was a second-generation Japanese-American who was born in 1916 from Japanese immigrant parents, and died in 2005 at the age of 89. He was also familiar with Japanese culture because he spent six years in Japan from the age of 17. He studied art at his first university, earned a bachelor's degree in 1942, and a PhD in psychology in 1949, becoming an associate professor of psychology at the University of Connecticut in the United States. It is said that he has started with Origami from 1962, as he became a professor of sociology and anthropology at Brown University, teaching computer programming and statistics, and he recognized Origami as a fascinating art style for almost 70 years. Sakoda is also famous as the creator of early complex origami, and in 1964, Lillian Oppenheimer hosted six origami cranes at the second origami convention as part of the activities of the Origami Center of America. There is a record of him teaching insects with 6 legs. After retiring from college in 1981, he began creating origami diagrams with the Mac version of CorelDRAW and Corel Paint, and in 1992 published "Origami Flowers" (Dover) using drawing data from PC. At the "Second International Meeting on Origami in Science, Mathematics, and Education" held at Seian University of Art and Design in Otsu City, Shiga Prefecture in 1994, he presented an expression method called "light folding" that focused on the artistry of origami. In this way, Sakoda has been searching for various directions

that lead to modern origami culture throughout his life, and "Modern Origami" provides a glimpse of some of them.

The biggest feature of this book is that it is organized by origami bases classified by Sakoda, and it seems to be a specialized book of complex origami 50 years ago (Fig. 2). I wrote down the titles of each chapter in Table 1.

Table 1:

1. An introduction to Modern Origami
2. Basic Moves
3. The Bird Base
4. The Eight Point Star
5. Three-Legged Animals and the Nun
6. The T-Fold
7. Miscellaneous Eight-Point-Star Figures
8. The Owl Base
9. The Stretched Bird Base
10. The Frog Base
11. The Offset Bird Base

Chapter 1 describes modern origami. While origami was perceived to be a child's entertainment, it is often pointed out that the book is difficult to understand, but this book starts with a clear statement that it was an origami book for adults. He states that although it is a complex book, understanding the origami bases will lead to more satisfying creations.

What is interesting here is the "push" of Sakoda's foil paper. "In order to create artistic models without cuts and still make long, thin limbs, we need to shift from commercial origami to aluminum foil paper," he said. In the United States, it is often sold in rolls as a Christmas wrapping material, which was a 26-inch (66 cm) wide roll producing three pieces of 8½ inches (about 21.6 cm) square, or four pieces of 6¼ inches (about 16 cm) one. It is said that most models could be folded "except for very complicated ones such the Crab" (of course, there is no mention if it was possible to box-pleat a 26-inch sheet in a 128 x 128 grid). He explained that if you stock up during Christmas season, you could get foil paper with various patterns and colors, and if you want to fold a large object, you can get a sheet of 2 to 3 feet (about 61 cm to 91.5 cm). Chapter 2 explains how to cut out squares efficiently from this roll, and at the end of the book, it states that "foil paper is better than origami paper and is recommended for modern folders". And in fact, foil paper was

planned to be supplied in this book; however, he confessed that it would be technically difficult to attach a 6½ inch (16.5 cm) square foil paper set, so it is unclear what happened in the end.

After explaining the origami basics such as how to read symbols and figures in Chapter 2, the models are finally introduced for each base, starting from Chapter 3. Each base is not presented independently, so, five models using the bird base in Chapter 3 are introduced, and then referenced in Chapter 4, with the sunk center of the bird base for Sakoda's masterpiece "Eight Point Star". Also, it is folded further to become a Pegasus, a Seal, an Angelfish, and a Kitten. In Chapter 5, "Three-Legged Animals and the Nun," the Eight Point Star becomes a Horse, Rhino, Hippopotamus, Cow, and Nun. Chapter 6 "T-Fold" is also an uninflected form of an animal cut out from the shape of Eight Point Star, and in Chapter 7, models from Eight Point Star that did not fit into these classifications are lined up. Chapter 8 "The Owl Base" is also a development from Eight Point Star. Chapter 9 "The Stretched Bird Base" is a shape in which the wings are pulled from the bird base to both sides and the back part is extended, which finally deviates from the Eight Point Star. While he sharply points out that the Frog base in Chapter 10 is "a base for folding traditional frogs, but it is rarely used for anything else", he immediately suggests that foil paper is good for this base. Sakoda's focus is amazing.

The most technically interesting item is probably presented on Chapter 10, "The Offset Bird Base." Sakoda wrote that this method was innovative and allows more flexible creation. It allows the bird base to be created even if it is folded off-center and the flaps of different lengths can be folded. Unfortunately, I am not very familiar with the history of this subject, so I would appreciate it if anyone can comment.

As mentioned above, there are many models that make extensive use of 11.25 degrees even if it is a complex origami paper, and in short, this book is about seeking long and processable "points" (flaps) can be freely folded out from the bird base. However, from the text of the book, from the bird base, it is clear how Sakoda loves origami and how he repeatedly raised problems that are common to the present age and tried to overcome them, in order to be recognized for their artistic and educational value. It doesn't feel like it is 50 years old.

The main differences between the first and revised editions are the addition of 12 pages at the beginning entitled "Introduction to the Dover Edition" and 4 pages of airplane origami diagrams entitled "Three Additions to SST Origami Airplanes" in Chapter 11. SST is an abbreviation for "supersonic transport", which is a further improvement of the model when Sakoda participated in the international paper airplane contest in 1967 and won the origami airplane category. Sakoda states that this model is based on the one published in Kosho Uchiyama's "Origami Encyclopedia" published in 1959, but he might be referring to the 1960 "Hikari no Kuni Learning Encyclopedia 9 - Origami Encyclopedia: For Elementary School Beginners" (Hikari no Kuni, former Showa Publishing Co., Ltd.)

What is interesting for historical document researchers is the supplement at the beginning. Starting with the question of whether this book is still "modern" under the heading "Is it still significant?" What changes have been made in the origami world over the 28 years since the first edition? What Sakoda has thought and acted on? Unfortunately, we are running out of space, so I would like to explore this detail at the next opportunity.

Citations / References:

- "The Lister List" James Minoru Sakoda 1916-2005" <http://www.britishorigami.info/lister/sakoda.php> (The translation by Koshiro Hatori was published in "Origami Tanteidan Magazine" Issue 93, p. 33)
- "Profile: James M. Sakoda" TheOrigamian Vol.4 Issue 4, 1964, P. 1-2

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(Page 18) Here We Are, THE ORRRIGAMI TANTEIDAN

This section will explore a wide range of topics related to origami and introduce you to some little interesting trivia facts. We also accept questions, and additional information from readers. Please, feel free contact us via email webman@origami.

#52 - Origami Cranes on a Dining Table

By Jun Maekawa

Jun Maekawa = As it looks like "Sugomori" (staying at home) will continue, I remembered that there is a model called "Sugomori" in "Hiden Senbazuru Orikata".

Trivia 1: A typical tea bag has two "rooms".

Trivia 2: Origami crane are popular in Japanese sake labels.

◇ Tea Bag Origami and origami tea bags

Speaking of tea bags and origami, there is an origami model that is called "Tea Bag Reindeer" (figure), which is known to be one masterpiece of the author (Maekawa). "Tea bag" is not the tea bag itself, but the paper that wraps it. In 2014, a book called "Tea Bag Wrapping Paper and Fun Origami" by Tomoaki Ono and Makoto Yamaguchi was published, and Hidehisa Inayoshi and others have many masterpieces. In the world of origami, tea bag wrapping paper is one small genre called tea bag origami. It is such an origami that aims at the unexpectedness of modeling using a special shape. Such a genre became possible because general tea bags, including packaging, were almost universal. We haven't investigated why the wrapping paper is common, but the tea bag we see every day is called double chamber, invented in Europe (possibly Italy), and spread all over the world as a standard.

What is double chamber? Double is, of course, "two", and chamber means room. Is it somewhere double in the familiar tea bag? You might wonder about that, but this is easy to understand if you look at it again. There are two rooms with tea leaves. The two are not completely separated, but are folded at the bottom when they are hung with a thread. When you look at it, it looks like a kind of origami paper, and the flattened paper wrapping paper swells softly when you pour hot water. It is a well-thought-out design that was suitable for becoming a global standard.

The shape of the tea bag is not limited to the double chamber. Broadly classified, there are three types: double chamber, tetrahedron, and square, which is more common in soup stock than tea. Of these, the tetrahedron, the so-called Tetra Pak type, has become popular recently. The question

of what a flat material should have to maximize its volume was also discussed at the 29th Origami Science, Mathematics, and Educational Research Meeting last year. The tetrahedron, which is made by fastening a tubular material in two places at twisted positions, is one of the most efficient bags. And the first person to develop this tetrahedral tea bag in Japan was Toko-Cmon, a grocery manufacturing company in Shizuoka. So far, I wrote it as if I had knowledge of it, but most of the information so far is a story I heard from Toko-Cmon.

The main topic of this article is the Kawaii-pack series and Kawaii-pack3D series, which are slightly unusual tea bags developed by Toko-Cmon in recent years. Kawaii-pack is a fusion of two materials such as a star shape and a heart shape, and the 3D one has a "gusset" so that the bag can stand on its own. There is no other similar product (it seems to be an advertisement because of the cooperation of the interview, but it is a really fun product). What I paid the most attention to was the paper crane-shaped tea bag. It's like a photo. It is not a folded paper crane, a structure consisting of several parts, but which perfectly reproduces the shape of a folded paper crane. The art is detailed, such as the crease in the center of the feather, which is very three-dimensional in the series.

The first thing I wondered was that the thread was attached to the head, not in the middle of the back, because it made it easier for the tagged thread to come out when it was put in the cup. The next thing I was interested in was how it was manufactured, but I couldn't know in detail because it was a "corporate secret. Please refrain from visiting the factory." It seems that a large part is mechanized. And why did you decide to use the shape of a paper crane? This was the following story.

While making a dolphin-shaped tea bag with two sheets stuck together and then designing various shapes, I felt like I was doing origami, and I challenged making a paper crane, as a representation of origami. If you think about it, the double chamber tea bag is also origami-like. Toko-Cmon is thinking that there are other origami models that can be used, so I'm looking forward to it in the future. It is said that it has a good reputation in online shops, due to sales and recent demand for staying at home.

◇ Sake, wine, cider

In addition to black tea, there are paper crane drinks that decorate the table. A "Orizuru" (paper crane) Beverage? That being said, for example, many sake labels make use of paper cranes. The brand "Orizuru" in Okayama has become difficult to obtain due to the discontinuation of production, but there is also a brand called "Orizuru" in Niigata, "Abu no Tsuru" from Yamaguchi, "Shinkon" from Okayama, Origami cranes are used for labels in Kagoshima's shochu "Satsuma Kozuru". First, the crane is a good fortune bird, so many sakes make use the symbolism of a crane. From the end of the Tokugawa shogunate, Seigetsu Inoue, a wandering poet in the Meiji era, had the phrase "Old pine and Tomozuru, old sake and new sake." By the way, Seigetsu says that his resignation phrase is "Somewhere I hear the voice of a crane," and I understand that he heard the voice of a crane in Nagano, where he spent his last years. In Japan today, Japanese cranes (red-crowned cranes) inhabit only the Kushiro Marsh, which was rediscovered in 1924, and there are cases where white-naped cranes and hooded crane overwinter in Izumi City, Kagoshima Prefecture. However, they have become rare birds. In the past, hooded cranes, common cranes, white-naped cranes, siberian cranes, and red-crowned cranes lived around the city, including storks (mostly cranes), which were not only auspicious but also familiar birds. The reason why the masterpiece of origami became a paper crane modeled after a crane (like a bird) is probably because of its familiarity.

The story derailed a bit, but the labels for sake that were no longer in circulation or were temporary were "Shiratsuru" from Hyogo, "Takasago" from Mie, "Taisho no Tsuru" from Okayama, and "Hama no Tsuru" from Kochi. Some of the "crane" used origami cranes. Among them, "Senkin" from Tochigi was a rare one, and the crease pattern of the folded crane and the drawing of the intermediate folding steps were used in the design. I had it in mind two years ago and went to the location to buy it, but unfortunately, I was not able to get it. Also, in terms of wine, there is a series called Origami in the Château Leveche in Bordeaux, one of which is labeled with origami cranes.

There is also a manufacturer called Tsuboi Foods, a long-established store founded in 1902, whose main product is Oritsuru Cider in Yokohama. The label and cap designs are the standard for origami

crane designs, and in recent years it has a lineup of various flavors.

One is curious that neither tea bags nor cider uses Oritsuru, and not Orizuru. It may be because the voiceless sounds are more elegant and Zuru in Japanese has a connotation of "sly". If you arrange these beverages on the table and prepare the tableware with paper cranes models, the table will be the most congratulatory feeling.

(Page 36) Orisuzi ("Fold Creases") My Way of Finishing a Model By Eiichiro Mase

I do have focus on finishing and shaping in origami. Most of my creations are simple. I'm doing it with a professional consciousness that "if you have the necessary flaps in the necessary place, you can finish it anyway" ... but, in reality, it is challenging to create such detailed and complex creations.

I am very grateful to all the people concerned for giving us the opportunity to recently publish a not-so-perfect creative work in this magazine. I'm very happy that you can fold my model.

When I fold a model designed by another creator, I want to do something different from other people. It's still cute enough to make eyes with the finish, and in the worst case, I can change the proportions, and I may become self-hatred when completely ignoring the creator's original intention.

It was fun to finish in a way that no one would have done yet, and I apologize to the creators who became the prey of my devil's hand. I'm sorry to always mess up.

However, this kind of finishing technique is very appealing to overseas origami lovers who regard origami as art, and most of followers from overseas on Instagram (eikun_dayo), place importance on that. I'm often asked in English, "How did you finish it?" But I'm not good at English, so I say things I don't understand, such as "fingers move freely" or "sound from paper". I'm cheating, and I realize once again origami belongs to the world of ORIGAMI.

I think that I will continue to fold origami as a creator and as an enthusiast.

By the way, as an aside, I recently taught origami to children once a week at a nursery school. There are many books by Makoto Yamaguchi in

the library of the nursery school. Teachers and parents who do not know me are impressed when I say "The author of this book is my friend!" (Note: I use the definition of friend to a person who I have spoken with). I speak out loud to give me credibility. I would also like to apologize here. Forgive me because Mr. Yamaguchi's books have increased again due to my big mouth. (LOL)

(Page 37) Crease Pattern Challenge Flying Fish by Tomohiro Miyanaga

Created: 2019/12

Paper Size: 35×35cm

Length: 15cm

This fish glides on the surface of the sea like a glider to escape from enemies in the water, jumps up many times while hitting the long tail fin against the surface of the water, and some of them fly a distance of 400 m. I usually create wild birds, but since I was interested the appearance of flying over the sea surface, I decided to create one myself, and so as to convey the beauty of the chest and tail fins.

In the crease pattern (CP), the upper left is the back, the lower right is the belly and tail fin, and the box-pleating in the center is the chest fin. The biggest feature of flying fish is the chest fin that spreads widely, so the CP is like putting all the effort into it. In order to make it look like it is gliding, the chest fins can be pulled out horizontally from the base of the head to the sea surface. Make a fold line of the diagonal pleat divided into 8 equal parts, fold the tail fin part in advance, and then thin the body with the diagonal box-pleating line. From there, fold it further to make the box-pleating of the chest fins narrower, and then spread the box-pleating to the left and right like a fan to make a chest fin. There is a paper surface between the chest fin and the belly fin, so collect the paper and hide it. It will look good if you adjust the shape of the chest fin so that you can see the belly fin from behind the chest fin when viewed from above.

The back and head are explicit with color change in exchange for paper efficiency. Fold the paper on the back to shape it so that the colors are separated in the center of the body. If anything, the ventral side is thicker, so I think it's a good idea to give the back a rounded shape at the finishing

stage to balance the thickness of the back and abdomen. If you finish the head part as it is, it will face down, so although it is thick, please fold it in steps to turn it up. I adjust the angle of the head by incorporating half of the bird base shape into the base of the head. There is plenty of paper, so it may be a good idea to fold the gills and eyes.

Finally, the abdomen near the buttocks fin should be dented by sinking. This is also awfully thick, so apologies.



Volume 31 Supporting Member Special Handout
Kyohei Katsuta's Camel and Yoshiro Tsuruta's Owl is going to be distributed as handout material for the Volume 31 supporting members.

◆ Information on Online Meeting Passport

In fiscal 2020, we cancelled almost all of the conventional conventions and Tomo-no-Kai (Local Area Group) meetings in order to deal with the new coronavirus disease. Instead, we focused on trials of online meetings using the Zoom conference system, and with the cooperation of volunteers from various regions, we held a total of 40 online meetings, 12 times Tokyo Tomo-no-Kai during the period from April 2020 to March 2021, 11 times at Tokai Tomo-no-Kai, 9 times at the Kyushu Tomo-no-Kai, 4 times at the Kansai Tomo-no-Kai, and 4 times at the Shizuoka Tomo-no-Kai. As the uncertain situation is expected to continue until the end of the new corona infection, we will continue and enhance our online meeting activities.

For this reason, we would like to charge the online regular meeting, which was free during the trial period of 2020, as follows.

Please purchase the following Online Passport from the Japan Origami Academic Society (JOAS) website. You can apply for all Tomo-no-Kai (local area group) online meetings held during the specified period. (Only the Tokyo Tomo-no-Kai online meeting will require subscription of the Origami Tanteidan Magazine or be a supporting member of JOAS in addition to your online passport.)

1) Types of online passports

◇ Season Pass April-June, July-September, October-December, January-March (Please

purchase a new passport every quarter.)

Cost: 1,000 yen (\$ 10) each / 1 account

(Including family)

Please note that the discounted cost is part of the initial campaign pricing, so if you apply in the middle of the period, the discount will not be effective.

◇ Group pass (member of JOAS with a passport plays a central role, and about 2 to 10 people watch the online meeting with one account using a projector at home, rental conference room, etc.)

Cost: 2,000 yen (\$ 20) / time

Register the members (representatives) of JOAS with an online passport, group name, and outline of member relationship (school friends, company colleagues, etc.), and purchase a group pass each time. Please contact us individually for groups of more than 10 people.

2) Flow of participation in online meetings

① Please purchase an online passport from the dedicated page on the JOAS website.

② A password will be issued to the purchaser. Password will be required to apply for online meetings of each Tomo-no-kai. (Tokyo Tomo-no-Kai will also require the magazine subscription or membership)

③ You will be asked to enter the online meeting with the Zoom address sent by e-mail from Tomo-no-Kai.

* In fiscal 2020, 40 regular meetings were held nationwide. In principle, the regular meetings of each Tomo-no-Kai local area group will be held once a month for each association. The Tomo-no-Kai groups, which held online regular meetings in 2020, are five: Tomo-no-Kai of Tokyo, Tokai, Kyushu, Kansai, and Shizuoka. In 2021, there is a possibility that an online meeting of the Tohoku Tomo-no-Kai will be held. Generally, it is expected that about 40 online meetings will be held in a year, so please participate in your favorite online meetings held during the valid period of your passport.

* Members and magazine subscribers of the Volume 31 and 32 will be allowed to participate in the Tokyo Tomo-no-Kai online meeting in April. After May, only members and subscribers of Volume 32 will be able to participate.

3) Relationship with face-to-face meetings

In the future, we think that recruitment of face-to-face type regular meetings (with in person

participation) will gradually start under conditions of limited number of people and limited neighborhoods. Such regular meetings may be held online and in real time (hybrid regular meetings). It does not matter if you have an online passport or not for those who participate in the regular face-to-face meetings. Please follow the guidance of each Tomo-no-kai to apply for the face-to-face participation.

4) Relationship with online conventions

An online convention is being considered. To participate in the online convention, regardless of whether you have this online passport, please follow the instructions for applying for the online convention. (If you have an online passport, we are also considering a discount for participating in online conventions.)

We will continue to consider events and services other than regular meetings that can be used with priority using this passport.

◆ 10th Origami Tanteidam Kyushu Convention Plan **By Miyuki Kawamura**

The Kyushu Convention was canceled last year due to the coronavirus pandemic, but this year we are considering renewing the approach and holding it in a hybrid format of physical venue + Zoom online. Normally, the application form will be enclosed in this issue of the magazine, but the details have not been finalized at this time, so we will inform you of the tentative schedule.

This article was published in the latter half of March, and it will take more than a month until the day of the convention, so we think the situation may change during that time. This announcement is a tentative schedule of March 15th. In particular, the capacity of the physical venue is completely unknown, and depending on the situation, we may change the capacity and contents even after your application. We apologize for any inconvenience this may cause, but please be aware of any changes that may be posted for the contact emails or posted on the Kyushu Tomo-no-Kai blog.

It will be a hybrid convention that no staff has experience with. All the staff are general participants, and all of them are operated by volunteers, so there may instances when we

will be "feeling our way". It's a big change for everyone, but I hope you will be able to enjoy the two days. We look forward to your participation and support.

10th Origami Tanteidam Kyushu Convention

Date: May 15th (Sat) and 16th (Sun), 2021

Venue and capacity: (There is a possibility of change)

Zoom virtual session: about 100 to 200 people

Saga University venue: about 20 to 40 people (currently, we are only assuming Saga residents)

Invited Lecturer: Makoto Yamaguchi (Lecture by Zoom)

Participation fee: 3,000 yen (both Saga University or Zoom)

* Some discounts are under consideration for Zoom pass holders of friends' regular meetings.

Application for participation started: Scheduled for mid-April

The latest information will be posted on the Kyushu Tomo-no-Kai blog:

<http://q-syu.squares.net/blog.cgi>

Also, if you register your e-mail address with the Kyushu Tomo-no-Kai, we will send the latest information on the Kyushu Convention by e-mail. If you wish, please contact us. For other inquiries, please contact this address.

q-syu@plala.to

◆ The Fold, Origami USA online magazine **By Marcio Noguchi**

One of OrigamiUSA's missions is to share the joy of origami, with a newsletter published since 1980 and transformed into The Paper Magazine in 1995. Events, information sharing for origami lovers, origami books, creator's activities, conventions are usually presented. Of course, everyone is also looking forward to the origami diagram. In 2010, the Fold online magazine was created in parallel with the printed The Paper, planned by Jason Ku to keep up with the change of times. The Fold has continued for more than 10 years and has become a popular magazine of OrigamiUSA.

Overview of The Fold

URL of The Fold: <https://origamiusa.org/thefold/>

The Fold is published on the official website of OrigamiUSA once every two months. Currently, Jane Rosemarin is the editor-in-chief and it counts

on 10 volunteer editors. But anyone can contribute to the article by working with the editors. The idea of The Fold is that anyone can provide an article and the content are from members to members.

Contents

The Fold offers a search engine, so all articles are tagged with keywords such as biography, interviews, origami groups, history, etc. However, the most common is the origami diagram with 380 articles, which are classified as simple, intermediate, complex, and super complex. In addition, there are 50 easy-to-understand videos. Also, since the content is viewed online, you can enjoy the Internet user-experience rather than general books, so you can download content or navigate through links to other sites.

Conclusion

If the physical mailed magazine does not get delivered or it takes time due to corona pandemic, online distribution will become an efficient countermeasure. In addition, you can experience Rich Content online using not only article documents and photos, but also videos (video recordings, CG), audio (narration, music), and other links. The Fold online magazine should continue to expand.

◆ OrigamiATC Online Meeting Report By Chizuko Kochi

On Sunday, February 28th, an online meeting using Zoom was tried to present the participation cards. There were about 30 participants, and Eiko Matsuura spoke to those regulars who participated in the mail and were easy to contact, and those who were doing Origami ATC at the Kyushu Convention and Korea Convention. It was a wonderful time for origami friends from Sapporo to Okinawa, Seoul, New York, and Seattle. Makoto Yamaguchi also participated, and we heard voices such as: "It's been a long time", "How are you?" And "I want to meet you". I knew a few of the participants for a long time, and I had the chance to meet some new origami friends who I met for the first time. I was happy that it was a valuable experience.

At the meeting, I introduced the cards I created at the same time as introducing myself. Even those who were not part of the mail exchange,

did participate as they created a card that they presented in front of the camera. After all, when I hear the concept and ingenuity from the creator themselves, it leaves an impression and is very interesting. Then, we watched the other mail-participating cards. The theme for February was "Winter Fun". Each origami model, background, and composition used had their own individuality. I think there were many items related to snow.

Although there are forums to introduce exchanged cards on social media, it is difficult to convey the texture and three-dimensionality of the card with a single photo. We hope that the Origami ATC groups will continue to expand the online meetings.

(Related photos on page 25)

◆ Tomoko Fuse Exhibition Information

Nakamura Salon Artist Relay 3rd Tomoko Fuse Exhibition "Origami, Beyond"

Date: April 21st-May 23rd, 2021

Location: Shinjuku Nakamura Salon Museum of Art

By Tomoko Fuse

The 3rd Nakamura Salon Artist Relay "Origami, Beyond", which had been postponed for a year, will take place.

Because of COVID-19, it is still a difficult time all over the world to foresee the future. However, even in such a situation, I thought that if there is a ray of light, I would start to move as an artist.

Let's obediently follow the line that is being folded. What kind of shape is waiting beyond that? It is a group of models that I have been worked on with such feelings.

When you look at the models and the shadow of the folded paper, it calms you down and your nerves rest. That is the power of origami.

It's hard to say out loud: "please come." But the staff at the Nakamura Salon Museum of Art have taken sufficient measures to prevent infection. So, I would be grateful if you could come.

Editor's Notes

By Makoto Yamaguchi

■ Participation fee will be required for online meetings using Zoom. ■ I think many people will be surprised. ■ However, there is a fee for

Zoom accounts. ■ We have to pay a flat rate just to use it. ■ The payment has to be paid due to the current situation where Tomo-no-kai local area groups in each region are paying. ■ We will appreciate your understanding and please continue to enjoy the Zoom meetings. ■ Zoom will probably continue even after the corona pandemic has settled down and the face-to-face meetings resume. ■ It can be relayed to face-to-face meetings in various places and participated through Zoom. ■ I would like to see a new type of growth going forward.

◆ Tomo-no-kai Exhibition Partnership

Location: Tomo-no-kai Exhibition Partnership
 Date: 2023.03.18 (Sat) 10:00-12:00
 Address: Tomo-no-kai Exhibition Partnership

The exhibition will be held for a limited period. We will take care of the details.

As a result of the exhibition, we will be able to provide information to the public. We will take care of the details.

We will take care of the details. We will take care of the details.

By the way, we will be happy to receive your comments. We will be happy to receive your comments.

The exhibition will be held for a limited period. We will take care of the details.

◆ Exhibition

The exhibition will be held for a limited period. We will take care of the details.

◆ Exhibition

The exhibition will be held for a limited period. We will take care of the details.

We will take care of the details. We will take care of the details.

About - Origami Tanteidan Digest

The Tanteidan Digest has the objective to share the articles on Origami Tanteidan magazine and provide an English summary of most (but not all) articles. The numbers indicated as "Page xx" refer to the page numbers of the original articles in the magazine.

While not everything will be translated, we hope it will give you an idea about content of the article. Depending on the context, a "Translator's Note" will be provided for clarity or terms that might not translate easily either because of the language or technical nature.

We hope you will enjoy. Let us know if there is anything we can do to improve or any further

comments. Please contact our editorial department at: info@origamihouse.jp

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 Editor's Notes

Translated by Marcio Noguchi

(Page 7) Origami and Its Neighbors #104 – Seasonal (Avian) Events in Winter By Tomoko Fuse

In winter, birds often hit windows, confused by the amount of light or the scenery reflected in the living room window glass. Depending on the angle and speed, some birds die, while others will fly away after a moment of concussion. Such collisions hurt my heart. There is an eyeball sticker on the glass, but it has no effect. It might had been better to stick a bigger one, but the view would become obstructed. Once a copper pheasant went through the glass and got inside. A hole was created in the glass in a beautiful circular shape, and cracks around it. It seems that he hit in at a right angle. After some time, the copper pheasant recovered and jumped up the cardboard box that was protecting it and flew into the sky. Copper pheasants have hit the glass another couple of times, and one of them was fatal. The windows of the workplace, which are parallel to the living room, have a distorted view and half of them are covered with a net to avoid bird hitting the glass.

There are other winter happenings. The Bedroom window on the back of the house. Birds also hit there. Birds see their own reflection in the glass as a rival, and so they would hit hard. Red-flanked bluetail and pale thrush. As I wake up early in the morning with a rattling noise, as if the birds do not see me through the window, they attack with their beaks, legs and whole body; just with a sheet of glass in between us. Oh, I think it is winter performance. This window is now covered with a gauze on the outside to settle it down.

I heard that there is glass that has been developed to avoid collisions, but when I see the buildings with shining windowpanes in the city, I wonder if birds are okay. People also get confused and hit the glass at stations and buildings. There are many struggles to survive.

As I wrote in my previous article that I did not remember origami model of walnuts, several people immediately told me that there was one. I'm grateful for the origami friends who can share such information. It was created by Hiromi Takagi. It is a half-split fruit, and it requires some work to process the fruit inside, but its three-dimensional effect and solid sense of fulfillment are wonderful. From a simple fold, that complex shaped shell and fruit are well represented. An origami diagram is published in the monthly "Origami" No. 520 (December 2018 issue).

(Page 13) Close-up A Story behind the Origami Cup Seiji Nishikawa

Seiji Nishikawa = Born in Nara Prefecture in 1963. Board member of the Japan Origami Academic Society, recently, having only remote meetings. I am now afraid of taking crowded commuter trains.

The "Origami Cup" has been featured several times on TV Wide Show since May last year when anxiety began to spread about refraining from going out due to the corona virus (Photo 1). At first glance, it seemed to be a simple and easy paper container idea that expected

take-out demand, but it was full of project, foresight, research, development and commercialization of origami writers and paper container makers that started over 20 years ago.

<Prologue>

In August of last year, Tomoko Fuse informed us that a product called "Origami Cup" should be presented on TV. "Oh, I saw it on another show around May," I said. "I'm the creator of that patent. But there is no issue as the patent has expired," said Fuse. "Really! That old" I said.

<New lifestyle>

The worldwide spread of the new coronavirus infection (COVID-19) required changes in the lifestyles of many people. A typical action was to minimize contact between people. Origami, which was originally an indoor activity, started appearing on social media in response to the request of stay home, so that, talents, parents and children could enjoy origami. On the other hand, origami was always an excellent medium as a communication tool. The convention was hit hard, on which origami enthusiasts around the world have been looking forward to teaching origami models in person. The Japan Origami Academic Society (JOAS) was also forced to cancel all conventions scheduled last year. When the online environment is in place, origami teaching using a remote conferencing system such as Zoom has started all over the world and continues to expand. 1,000-person events such as Origami USA's Unconvention (see "Tsumamiori" in issue 183) and the Origami World Marathon by an Israeli group (see "We are Origami Detectives" in the previous issue) have already been established. It is clearly recognized that origami communication can be done online. Online workshops will be a powerful medium in origami, even in the world after the end of Corona virus.

The blow from the corona virus has shaken all industries, but the food service industry was particularly impacted seriously. The number of people gathering at restaurants and bars has decreased dramatically, which has become a major social problem. Daily meals are a necessity and cannot be supplemented like information that can be carried online. In the food service industry, the expansion of the market for food delivery and take-out is accelerating, instead of providing food such based on customer service and eating out atmosphere. Around May of last year, when I was watching news that were mostly about Corona virus, a program caught my eyes. "Origami Cup" by Shinmei Co. Ltd. (a manufacturer of cooking cases made of aluminum and silicon paper) was a product attracting attention due to the expansion of take-out demand in the food and

beverage industry, which is impacted by the corona virus. My initial impression was of annoyance by the tendency to arbitrarily use the word "origami" to seek a popularity.

An example major media featuring the "Origami Cup":
2020.5.20 TV Asahi "Super J Channel"
2020.6.9 Nihon Keizai Shimbun New lifestyle compatible product "Origami Cup"
2020.8.23 TBS "Gacchiri Monday"

<The story goes back more than 20 years>

Patents were filed in April 1999 [1] and April 2001 [2]. Kuramae Sangyo Co., Ltd., a precision processing technology development company for dies in Gunma Prefecture, has set a new technology development target for raising method of paper containers. At that time, the technology for mass-producing containers by raising paper sheets was limited to relatively shallow items such as paper plates. It is not difficult to imagine that there is a limit to raising processing with a highly rigid material such as paper. Therefore, deep items such as cups and cup ramen containers are made with the separate sides and bottom and pasted together. It was thought that if a deep container could be made from one sheet, it would have a wider range of uses. It was said that at that time, the company's president, Masaru Hashimoto, was motivated by the ongoing awareness of environmental concerns, such as whether to replace versatile plastic containers with paper materials that are highly biodegradable (decompose in nature) [3]. The company asked for hints based on origami technology and asked to talk to Fuse and Jun Maekawa, and the project started.

Fuse, who understood the purpose, after a trial and error (Photo 2) made one masterpiece for mass production technology development using molds, and Kuramae Sangyo quickly applied for a patent (registered in 2002 after). The inventor list includes the starting members of the project [1]. The cup-shape folded up with the crease pattern in Figure 1, resists by applying a uniform force from the inside in the winding direction by the spirally overlapping folds, and is stable without easily breaking apart. The image that it strongly resists a softball was impressive and featured in the above-mentioned "Gacchiri Monday". It had the structural and functional beauty required for industrial design. Geometric analysis to align the openings to a plane was done by Hiroshi Okumura (then assistant professor at Maebashi Institute of Technology). Technology development for raising method molds organized by Mr. Ohara has been completed (see patent [2] and reference [4] filed in April 2011) approximate the container to a truncated cone (Fig. 2), Polygon on the bottom, Radius when the bottom is regarded as a circle, the height of the container, the radius of the opening. Some of the

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Christmas night in
a family trip, so I
I had a good time.
I Yamaguchi when
anteidan Kyushu

results were announced at the 3rd International Congress of Origami Science, Mathematics and Education (3OSME) held in Asilomar, USA in 2001 (Photo 3) [4]. Mr. Ohara of Kuramae Sangyo told me that the performance of catch ball with this container that Fuse showed on the stage was highly acclaimed at the venue. [3] Kuramae Sangyo, which was responsible for the development of production technology, made a pilot prototype of the mold (Fig. 3), and it was time to make a decision for mass production.

<The technology sleeps and wakes up>

Mass production of new products may require new installation or modification of processing machinery. Unfortunately, the project that started in 1999 was temporarily paused because there was no recovery plan commensurate with the investment of tens of millions of yen for mass production [3]. After that, although market development was promoted using hand-folded prototype products using raising method, it did not lead to major business negotiations [3]. Since the container was made from a single-sheet molding, it can hold liquids, but Mr. Ohara laughed and told me that the originally planned cup-ramen application was not adopted because the powdered soup got into the folds and did not dissolve evenly. [3].

One turning point came around 2013. Shinmei Co., Ltd., which manufactures various cooking cases, introduced the "Origami Cup" at an exhibition, and finds a business opportunity and decides to mass-produce it. However, it didn't develop immediately at time either, so there weren't many big deals until 2019. [3] Then, we would wait for it to be introduced as a trend product with the rapid expansion of take-out demand due to Corona virus in 2020.

After the masterpiece was born in Fuse's hands, after various attempts by engineers and business people who felt the potential of this paper container, no one could imagine the moment for the final success, which was an environmental change called the corona pandemic. Unfortunately, the 20-year term patent has expired, so the inventor would not be financially rewarded. In order to be economically rewarded by the rule of patents, there is a very difficult challenge of "a sales strategy that matches the duration of the patent." Not only safety and cost, but also how to the benefits of the product that does not exist in the world will take easily 5 to 10 years, in a blink of an eye. In addition to making investment decisions that are profitable, patents also come with the ongoing cost of a maintenance pension. It's not easy to link patents to revenue. However, behind the superficial success seen in the general press lies the "relay-runners", people who created and nurtured the idea and the bad and

good luck that arose there. It is worth preserving the story.

Research and art do not know when it is going to be the blooming day. It is said that the times have caught up with advanced technology, but it is not just that it has advanced too much. It must not have been an advanced vision of the future, such as the world where transportation has developed and the world has become narrower and narrower, and suddenly it has changed to a world where it is required to avoid direct contact with people. The market for food take-out and delivery has been widespread long before the corona problem occurred, but this timing may have been influenced by the fact that paper products are being re-recognized as a problem with plastic straws just before corona. How much preparation was made at that time is important for responding to sudden changes. It seems that we are watching the evolution of living things. The gene is prepared. All you have to do is wait for the environment to choose, but that doesn't help. It's not just an idea, but you can't catch up with sudden changes in the environment unless you prepare for specific functions. As a result, the "Origami Cup", which became accessible to many people, had completed the development of the main part in the early project. Those who have benefited must not forget their respect for the people who made the origin. Otherwise, we will not be able to cultivate the motivation to thoroughly confront the challenges of the time.

<References>

[1] Patent No. 3321112 (Application April 27, 1999)
Title of invention: Paper container, Inventor: Masaru Hashimoto, Akira Nagashima, Jun Maekawa, Tomoko Fuse

[2] Patent No. 4160735 (Application April 11, 2001 (Priority date April 18, 2000)) Title of invention: Manufacturing method of paper container, Inventor: Masaru Hashimoto, Yasuhiro Ohara. There is also a patent of the above corresponding United States.

[3] In writing this article, we held a roundtable discussion via Zoom with Mr. Ohara of Kuramae Sangyo, Fuse, the patent inventor, and Maekawa, and heard the story of the beginning of development (4 October 2020).

[4] Chapter 14 Origami Container (Original / Tomoko Fuse, Yasuhiro Ohara, Akira Nagashima, Hiroshi Okumura), edited by Tom Hull and translated by Toshikazu Kawasaki, "Math and Science of Origami" (2005, Morikita Publishing Co., Ltd.). This book is a Japanese translation of the first and second parts of the collection of papers "Origami3" at the 3rd International Congress on Origami Science, Mathematics, and Education held in Asilomar, USA in 2001.

List of Figures:

Figure 1: Crease Patter of the Origami cup (From the specification of patent [1] in April 1999)

Figure 2: Three-dimensional view and side view of the target shape (from Reference [4]) Approximate finished shape of a truncated cone, and determine parameters such as depth, cup opening, and bottom polygon. See reference [4] for details. It seems that the product is often a dodecagon, but in principle, if it is a dodecagon or more, it is good to approximate to a cone and a 13-sided shape is also possible.

Figure 3: Collapse Simulation on 3D-CAD (Provided by Kuramae Sangyo Ohara)

The press with the die is embossed in the so-called half-open state. Since the opening angle affects the yield of the product, it is examined by simulation. [3].

Photo

List of Photos:

Photo 1: "Origami Cup" Shinmei Co., Ltd. flyer (provided by Mr. Ohara, Kuramae Sangyo)

Photo 2: A prototype presented by Fuse at the beginning of development (provided by Fuse). Original version in 1999.

Photo 3: 3OSME snap at Asilomar (provided by Miyuki Kawamura); Left) Exhibition of Origami Cup at the conference; Right) Two shots of Tomoko Fuse and Miyuki Kawamura

(Page 16) From the Bookshelves of the JOAS Library

Book #76: "Advanced Origami" by Michael G. LaFosse

Article by Satoshi Kamiya

Satoshi Kamiya = Born in Nagoya in 1981. I packed in the information I wanted to know in the past in "Kamiya-ryu sosaku origami ni chosen!" Challenge Kamiya style creative origami! (Published by Soshimu). But as a result, the explanation of finishing and other techniques became the same as in "Advanced Origami".

In order to finish origami as a sculptural work, it is necessary to actually fold the paper into a shape. Generally, origami books only contain how to fold, but "folding" and "finishing technique" are the two wheels that make up an origami model. There is no problem if it is a traditional model or a relatively simple one. But in recent years, complex and elaborate models and those that make use of techniques such as wet folding are on the market. It is becoming difficult to fold with origami paper. If you want to try such a model, you will be able to get a better finished work by learning what kind of paper to use and how to shape it.

"Advanced Origami", presented in this article, was published by Tuttle Publishing in 2005. In this book, there are descriptions not only how to fold the model, but also how to select the paper, the technique for finishing, and the paper making. Both the "folding method" and "finishing technique" are explained in detail. The book, Michael G. LaFosse, is known not only as an origami creator, but also for making paper for folding his models. Based on many years of professional activity and experience, this book is the culmination of Mr. LaFosse.

A characteristic in this book is the "Techniques" and "About Paper" chapters, which introduce paper and finishing techniques, and generously explain the techniques that LaFosse has cultivated. Starting with an explanation of basic symbols and techniques, you'll find everything you need to know to finish your model, including curved folds for finishing, wet-folding, paper preparation, priming, and coloring of paper. The content is very generous and there are plenty of photos, so even if you can't read the text, it will be helpful enough.

LaFosse's origami is a style that emphasizes the finish after folding out the shape. In order to finish his model beautifully, the explanation is not enough just by folding it, and it may be a complete explanation together with the explanation of the technique.

The "Project" chapter contains origami diagrams of 15 models. Although not high complex, LaFosse's masterpieces are included. In addition, each origami diagram explains the model and the appropriate size and type as a guide on how to select the paper. This is very useful information when you actually try.

Most of the models were created before the so-called [modern] origami design was known. Therefore, readers who are accustomed to the models created in recent years may feel that they are using unfamiliar angles and unusual folding methods. I hear that Mr. LaFosse was greatly influenced by the late Mr. Akira Yoshizawa, and tried folding and finishing, to understand how to express a sense of life like Yoshizawa's works. How hard was it to create the shape you envisioned in an era when there would be less information about how to create it than it is now? It is difficult for me, who grew up in an era when creative technology was developing, to know the sense of life at that time. But as far as I can interpret from the models, I can imagine it was difficult and at the same time the joy of creating a new shape. I will present some of the published models.

<Koi>

It is a unique model that is completed by pasting torn paper and drawing a pattern on a monochromatic fish that is folded from the top [view]. In general, "cutting and pasting" is not very popular with origami, but the

three-color pattern of black and white and red is an element that cannot be expressed by "uncut single-sheet folding" where only two colors can be used on the front and back. There are good [and justifiable] reasons to choose the technique of pasting in this model, and above all, the beautiful finish is overwhelmingly convincing.

<Frog>

This model is the origin of the glossy paper called "Frog Paper" made by Mr. LaFosse. It's a personal story, but I really like the modeling that uses the 45-degree angle of the hind legs of this model. The shape of the flippers of the sea turtle, which I created while staying at LaFosse's atelier "Origamido Studio", also uses 45 degrees, which is a homage to this model.

< Cattleya Orchid >

When I first saw this model, I remember being surprised at how this kind of finishing could be used for origami. The delicate curves and the control of the shape are quite important for this model.

The paper made by LaFosse is called Origamido Paper, and is highly valued by origami creators and enthusiasts as a special paper exclusive for origami use. In the chapter "Making your own origami paper", the process of making this Origamido Paper is explained in detail.

LaFosse's papermaking is based on a Western-style reservoir. I think it is difficult to actually prepare the tools to make paper, but knowing the process from the pulp to the making of paper will give you a deeper understanding of the characteristics and handling of paper. Above all, it's quite fun just to imagine the place where paper can be made while looking at the pictures.

"Paper pulp recipes" introduces the characteristics of the fibers used as raw materials and the blending ratio to obtain the paper quality that matches the work. The formulation of special paper for my models and Robert Lang is also presented, but interestingly there is a difference in the ratio. Although subjective, I felt that the formulation for Lang was on the surface of the paper, and the formulation for me was on creases. It can be said that it is a good example of adjusting the paper quality according to each style.

This book was published in 2005, but it has played a major role in raising awareness and the level of the importance of paper and finishing. Looking back, I feel that the models of foreign artists, especially young artists, has improved dramatically since the latter half of the 2000s. I think there are several factors, such as opportunities for information exchange between enthusiasts and exchanges via the Internet, but among them, the influence of this book is one of the greatest. I think that it will nurture the creators, and will continue

to be a textbook of techniques.

When folding the models listed in this book (as well as other models, of course), why not choose the paper that suits the model and try to finish it carefully as a "modeling work"? There is a hurdle that the text is in English [for non-English speakers], but you should be able to learn a lot by looking at the drawings, photographs, and translation devices if needed. Of course, it takes time and effort, but when you get the finished work, you will surely get a sense of accomplishment and attachment more than ever.

In addition, although I will omit to present the contents this time, "OrigamiArt" published in 2012 will be a sister book. This book also has a very fulfilling content, including masterpieces not included in this book "Advanced Origami", new origami diagrams, and explanations of finishing techniques. Although the basic parts of the technical explanations are duplicated, many papers and finishing techniques that may not have been included in this manual are also explained. Please have a look.

(Page 18) Here We Are, THE ORRRIGAMI TANTEIDAN

This section will explore a wide range of topics related to origami and introduce you to some little interesting trivia facts. We also accept questions, and additional information from readers. Please, feel free contact us via email webman@origami.gr.jp.

#51 - A Report of the WOD 2020 Event by OrigamiUSA By Miyuki Kawamura

Miyuki Kawamura = Origami creator. Have been attending online classes since 2020, almost every weekend. Regular meeting is being held via Zoom at Kyushu Tomo-no-Kai local area group. Please come and participate.

Trivia 1: OrigamiUSA online events are run by women.

Trivia 2: The regular origami paper of Japan is known as "Kami Paper" overseas.

After the 2020 pandemic transformation, online origami events are now taking place around the world. As a participant, I am happy to be able to participate regardless of country or region. This fall, I participated in "WOD 2020" sponsored by OrigamiUSA. (In the text below, personal names and model names are written in Japanese. Please check the color page for English notation.)

WOD (World Origami Days) is a 19 days event, from the birthday of Lillian Oppenheimer on October 24th to

"Origami Day" on November 11th. It was announced that WOD 2020 would hold a two-hour Zoom class every day during that period. I planned to participate, but "every day" and "2 hours" was going to be difficult ... so participated live for about 4 or 5 sessions and watched the remaining ones through videos that was released later. It was. The registration fee was \$ 35. Because some Japanese credit cards could not be used, I have to try about 3 types until the application was completed.

The event started at 8:00 pm on the 24th in Eastern Daylight Saving Time (United States), or 9:00 am on the 25th in Japan Standard Time. The Zoom ID was sent a day before. When entering the session, you could see the faces of the moderator and the instructor, but all the participants' videos and microphones were turned off and the number of participants were not displayed. The opening ceremony was held under the direction of OUSA Vice-Chair Patty Grodner, and it was announced that more than 600 people were signed-in on the first day. Since it was difficult for a large number of people to talk, the microphone was basically off at such large event.

As the purpose of the event was to raise funds for the PCOC convention scheduled for October 2021 in San Francisco, there was a greeting from PCOC local leader Linda Mihara and notes on participating in this event. The basic rules for participating in the online course, included: "Do not share the Zoom password with others" and "Do not publish the video / image of the class without permission", were well summarized, and the slide video was a good reference for online events. In the speech by Wendy Zeichner, president of OUSA, she presented the activities of Lillian Oppenheimer, who pioneered Origami in the United States, and the history of OUSA. Lillian, who founded the former OUSA organization in 1980, had deep exchanges with creators from around the world, including Akira Yoshizawa in Japan and Robert Harbin in the United Kingdom. The group then changed the name to OrigamiUSA and established Lillian's birthday as World Origami Day in 2005.

Next was Makoto Yamaguchi's video, but the audio did not work, so it decided to start the class first. The first model was "Cake (made by Kawaii Paper)" by Arlene Gorchov. She selected the model for Lillian's birthday. The second was "Frame (by V' Ann Cornelius)" by Deanna Kwan. It was a modular origami made with 4 rectangular sheets, and if you made it by printing out the template, you could finish it so that the WOD logo appeared on the front. Using a A4 paper resulted in a large model, so I made it again later using quarter size sheet. There was also a virtual model exhibition where various models were put in a frame and uploaded to Instagram and Facebook, and origami books were

given to those who ranked high in the popularity vote. After that, Makoto Yamaguchi's video speech was played. In Japan, November 11th has been designated as the day of origami from 1980. Yamaguchi, who was contacted by OUSA to make October 24th an Origami Day in 2005, suggested that World Origami Days should be the period between the two dates. OUSA agreed with it and the current WOD was created. At the same time, Yamaguchi made the WOD logo, and the history of the partnership between JOAS and OUSA was also delivered with English subtitles.

The day ended with a "dance party" where participants danced with the finished work. When it was first explained, I wondered what would a dance party be? But how fun it was when it started! It was the happiest moment when the colorful models and many smiles were reflected in the gallery view at the sounds of a lively background music.

Starting the next day, we proceed with one class per day. The second day was a class by Robert Lang, but I was absent since I was not available on that day. In the online events I have participated so far, the chat would be often removed from the videos, so I thought that the dance might be cut as well. So, I withdrew the idea to participate leisurely and tried to connect to as many live events as possible. When I watched the recorded videos later, as expected, there was no dance party, only for those who participated on the day were able to enjoy that precious moment.

The classes continued on the 3rd and 4th days. The required slides were played first every time, but in fact, the cute whistling music was on, and I listened to it every day, so I remembered it by heart.

The moderator of the classes was Kathleen Sheridan, sponsored by Origami Connect. Origami Connect is an online class program of OUSA, which was established a few years ago. She collected questions and requests from participants in the chat and adjusted the speed, or asked the instructor to repeat the explanation. The instructor would also share secret stories of creation and related episodes, and there were new discoveries in well-known and famous models.

Complex, modular, tessellations, wet-folding, cranes, action origami, US dollar bill folding, etc ... The class models were selected from different genres every day. It was very good that I was able to challenge evenly with all of them being responsive but moderately difficult.

The size and type of paper used in each class were announced in advance. A set containing all the necessary paper was also mail-ordered, and it seemed that it could be purchased from overseas as long as the mail arrived. Japanese names such as "Washi" and "Tant" were often used as they are, and it seems that regular 15 cm origami paper is known as "Kami". When has it been used? I started to take part in online classes

and I often heard that word.

Most of the instructors were from the United States, such as Robert Lang, Michael LaFosse, Jeremy Schaefer, and Beth Johnson. But there were also classes from Germany, France, Poland, and Brazil. Michelle Grand of France, who taught us how to fold letters with butterflies, said, "It's 4 o'clock in the morning," so I thought it was more difficult to participate from Europe than from Japan.

The classes started on time every day. However, one morning, as usual, I tried to log in to the venue shortly before 9 o'clock, but I couldn't enter the room at all. I looked at the OrigamiUSA site and Zoom's official site because I thought there was a problem, but there was nothing special posted. So, I waited in front of my computer for more than 20 minutes and finally realized. The Summer time was over. The class started promptly "on time" with an hour delay. It was a moment when I related to the difference between American and Japanese culture. I'm relieved that I'm glad it was not a switch from winter to summer.

In the latter half of the schedule, Linda gave a lecture on "Crane Star" using the technique of continuous cranes, and Kathleen gave a lecture on "Chinese Threading", a practical model. On the final day, November 11th, Patty was the instructor, and she taught Tomoko Fuse's "Flap Crane", Akiko Yamanashi's "Crane with Growing Feathers", and Makoto Yamaguchi's "Triangle Tray with Lid" in 2 hours. The classes were held one after another. On the last day of Japan's origami day, she said that she chose Orizuru and Yamaguchi, as they related to WOD. I was excited by the passion for origami friends around the world.

As of the final day, it was announced that the total number of participants was 711. I thought it would be difficult to participate in the 2-hour class every day, but I was able to spend a relaxing time with the conversation with the instructor as the background, and I ended up participating in live sessions for 16 days. It's regrettable that I couldn't take three of the classes, even though I had some other appointments.

The 19-day daily Zoom classes require tremendous energy from the host's point of view, and I think the success of the event was a result of the extraordinary efforts of the organizers. It was a fun and very fulfilling event where you could feel the great power and delicate care of women, including president Wendy, facilitators Patty, Kathleen, and Linda. Thank you to all.

**(Page 36) Orisuzi ("Fold Creases")
Friendship with Origami
By Yoshiko Watanabe**

Almost 30 years ago, it was the first time I traveled abroad. The destination was Bali. I couldn't speak

Indonesian or even English, but I wanted to interact with the local people and have an exciting experience, so I thought of the idea using "origami".

I prepared a lot of Yuzen Japanese paper Chiyogami before departure and always carried it with me during the trip. I was very pleased to fold and present Japanese traditional models such as the "Tsuru" origami crane, "Yakko-san" samurai's attendant, and "Fuusen" balloon to those who took care of me locally and those who I met.

It was when I visited a certain village. I encountered about 10 small children playing. Just as I said, "Now!", I immediately took out Chiyogami and started folding it on the spot. At first, there was a child who looked with a funny face. However, as a piece of beautiful paper gradually changed its shape, I gradually began to face each other's heads looking into my hands.

If you poke the finished "fusen" balloon with your hand and show it, the play is universal, and you immediately imitated it and enjoyed it. Next was the crane. However, the children didn't know the origami crane, and it seemed that they couldn't imagine how it would be flapping its wings. When I compared it to the legendary Indonesian god bird "Garuda", all of them cheered and stared at me with wide opened eyes. "To me!" "To me!" As a result, many birds were folded. Thanks to origami, I was able to experience wonderful encounters even if I didn't understand the language, and it is still an valuable memory.

The current relation between me and origami is the OATC (Origami Artist Trading Card). At regular exchange meetings, you can exchange cards with people from all over the country. People who I have never met and don't even know their faces, but I feel a strange connection to the fact that a card with their thoughts and images arrives at my hands.

For me, origami has always been a carrier of various connections. I'm looking forward to seeing what kind of relationship is waiting for us.

**(Page 37) Shirokujichu ("Every Minute Origami")
47, 48 and 49
By Jun Maekawa, Japan Origami Academic Society (JOAS), board chair**

I once asked Masao Okamura about the fact that there are 49 kinds of "Senbazuru Origata" models, "Do you think Iroha has something to do with 47 characters?" I don't remember the details of the answer, but I'm sure "Iroha Karuta" may add "Kyo" at the end to make it 48, and if you add "N", it becomes 49. But since the model names in "Senbazuru Orikata" start with the same initials, the conclusion was that it was probably not correlated. In fact, there are some "Senbazuru Orikata"

modesl that start with the same sound, such as "Hanami-guruma", "Hanatachibana", and "Hanabishi". I asked again, "Why don't we add Sanpei Kayano (Kanpei Hayano in the play) and Takumi-no-kami to the 47th priest and give special attention to the number 49 in Tadaomizo?" It probably has nothing to do with "Orikata".

Okamura was the one who told me what I knew, while feeling what I was interested in even with such an idea. He was the most knowledgeable person about plays such as Tadaomizo.

If you think about it again, adding "Kyo" to 48 in Karuta may correspond to the fact that there are 48 Hanafuda cards, or because Tokaido is 53 Stations is a little different. I thought I wanted to talk with Okamura about things like Neto (I remember talking about this story) and stories that I couldn't conclude. But that is not possible any more.

In addition, the number 48 is a number that is also used to simply mean that there are many, such as a "thousand" paper cranes. Forty-eight moves of sumo and forty-eight waterfalls are the decisive factors for sumo wrestling, and it seems that the forty-eight waterfalls, which are the scenic spots of the beauty of the valleys in each region, are not exactly 48. It happens that there are 47 prefectures, but the recent groups are composed of 46 and 48 members, which may be due to the fact that there are many. I write this article on Okamura's 49th day (a few days later). It is an important day in Buddhism, but the passage of these days is quick.

(Page 39) Paper Folders on File File #86 – Kohei Kamei Report by Editorial team

Short bio

Kohei Kamei = Born in Aichi prefecture in 1983. He works as an office worker in Nagoya and engages in origami activities. She started creative origami around 2014. He belongs to the Origami Tanteidan Tokai Tomo-no-Kai local area group. In 2020, Fumiaki Kawahata, the JOAS board member, appointed him as "Tokai Tomo-no-Kai Zoom leader" becoming a core member of the online sessions.

Tell us your origami and creative history.

I first came to know origami when I was in kindergarten. Looking at a book for early childhood education, I was motivated to fold anything by having my mother help me and teach difficult points. By the time I went to elementary school, I met the revealing book "Viva! Origami". I was wondering how many sheets the scary Devil on the cover was made of, but when I looked at the contents, it seemed to be just one

sheet. I couldn't understand any of the models, and my mother couldn't help me either. So, I cried and persevered to fold every night (laughs). In the 6 years of elementary school, I would like to say that I captured the essence of "Devil 2" and started on the path of creation. But, in fact, there has been a blank of about 20 years since then, and I have only started creating for the last 5 or 6 years.

Please tell us your favorite origami models and creators.

I like the folding process of John Montroll's "Camel" with two humps. You can even feel the mystery of life as some "simple paper camels" become camels, and you can experience the feeling of the god who created the camels. Also, my favorite three-dimensional objects are Nishida Shatner's "Predator" and "Dali Elephant". In particular, "Predator" has a crease pattern posted on his homepage, and it is possible to try to reproduce the model. But it is still not clear how to finish it with the overwhelming quality like that figure. This model reaffirmed the depth of origami.

What do you have in mind or like to pay attention to when creating origami models?

I think that creative origami is close to the feeling of "climbing" a mountain. First, there is the unexplored peak, challenging us to find a motif or idea that no one has made, search for a route to the top, repeated trials and errors, until completing the model. Is the work of creating origami diagrams just like preparing for a mountain trail and having people enjoy it? The important thing is to identify the "top" firmly first. The work will be completed when that is cleared! If you do not decide in advance, it will never be completed, so it is important to work with clear goals.

Please tell us if you have any thoughts about corona pandemic and origami.

Various events are restricted due to unprecedented disaster. There are many people who are newly invited to participate in online sessions that utilize Zoom, but I think that there are many origami enthusiasts who are inevitably feeling "left behind". At the Tokai Tomo-no-kai local area group, where I participate, I think it is important to provide guidance on how to participate by means of letters and postcards, and to appeal that activities are continuing in the form of a newsletter, which are currently in preparation. It is unlikely to be settled in 2021, at least in the first half of the year. And it will be difficult to hold similar events after that. I think it is necessary to seek new activity formats and make efforts to lower the hurdles for participation.

Please tell us your thoughts about origami

these days.

With the spread of social media and video sites, it is now easier to send and receive model information, and the overall level has risen dramatically. However, what I especially feel about insect-based creative origami is that there is a "correct form" somewhere and we are competing for how close it is. In the extreme, the apex is at the top. I feel like I'm fighting and trying to reach it. I don't mean to deny the attitude of trying to reach one goal, but I also want to see a model with a strong personality that has reached "the goal, which I have decided". I want to create models that stand out in various perspectives.

Is there anything you keep in mind when giving a class?

It's a trivial matter, but I try not to try to say something like "That's why" or "I told you ..." that would block the questions from the participants. I also experience more things that I can't do than others, so even if I can't do it on the spot, I try to be careful about the wording during the class so that I don't lose my mind to challenge later.

What would like to do in the future related to origami?

Thankfully, I feel that the number of origami-kids who are elementary school students is increasing these days. Since I had a past when I was a junior high school student, and I once left origami, so I think it would be great to have a workshop to create interesting models with more folds and to work on creative origami so that kids who have acquired skills will not leave. It would be great if we could hold a meeting, broaden the horizons, launch the "Origami = Parents' Association with Kids" and have them participate as a whole family, and have more people enjoy origami.

List of Pictures:

Bottom Left: French Bulldog.

Bottom Right: Shoebill

(Page 40) Rabbit Ear Information

An origami work examination of Dahlia, Hanawa Town, Fukushima Prefecture was held at the JOAS Hall of the Japan Origami Academic Society

The judging was led by three JOAS representatives, Jun Maekawa, Seiji Nishikawa (JOAS Councilor), and Makoto Yamaguchi (JOAS Secretary-General). I felt that all the works were filled with thoughts. Among them, the work of Seiichi Ishii (Fukuoka City, Fukuoka Prefecture), who was by far the best, was selected for the highest award.



◆ Dahlia Origami Contest Award Announcement / Excellence Award Table

Results of origami models of Dahlia, Hanawa Town, Fukushima Prefecture

(Report: Hanawa Town Tourism Association, Hanawa Town Hall Town Promotion Division, Warashina Mitsuru)

From July 1st to November 30th last year (2020), the Hanawa Tourism Association sponsored a Dahlia origami model event (sponsored by the Japan Origami Academic Society, Hanawa Town). The selection of the excellent models was held on December 6th at the JOAS Hall of the Japan Origami Academic Society, and the following masterpieces were selected by the people involved in the Hanawa Tourism Association, the Japan Origami Academic Society, and Hanawa Town.

Hanawa prospered as a heavenly territory during the Edo period, and it is a land with a unique culture woven by the Kuji River and the terrain that occupies a large area of forest, and the town's flower, dahlia, is a special product that moisturizes the heart. The town has started activities to express dahlia with origami for several years, and also holds a dahlia art exhibition by collecting various models including origami. In March of last year, the Hanawa Origami Lovers Association was also established by the townspeople. This time, in order to further enhance the artistic quality, the Japan Origami Academic Society was asked for cooperation and to solicit dahlia origami models from all over the country. There were 76 entries. Thank you to all the applicants.

• Best model award

Seiichi Ishii (Fukuoka City, Fukuoka Prefecture)

"In the wake of this call, I created a new dahlia based on model that was published in Origami Tanteidan No. 146. I increased the number of petals from 80 to 96."

• Excellence Award / Japan Origami Academic Society Award

Yuki Sato (Kyoto City, Kyoto Prefecture)

"For different colors, I used the front and back of the

paper. I was able to make it bloom beautifully." Yoshimasa Tsuruta (Fukuoka City, Fukuoka Prefecture) "The flower language of white dahlia is said to be 'gratitude', so I thought it would be nice to express my gratitude by putting the dahlia that I folded with all my thoughts into the frame while thinking about the others."

• **Makoto Mayor Award**

Tomohiro Miyanaga (Tsukuba City, Ibaraki Prefecture) "I packed the image of the dahlia that I saw in the summer into a case that imitated a specimen box. I want you to feel the diversity of the dahlia as if you were looking at the illustrations in the picture book."

• **Judge's Special Award (Children's Encouragement Award)**

Takahiro Hori (Nagakute City, Aichi Prefecture) "I decided to fold it in steps to express the dahlia flower. As a result of adding stems and leaves, I decided to put the four corners of the square on the flower, two leaves, and a vase, and completed it."

◆ **Invitation to Origami ATC exchange meeting** By Eiko Matsuura

The Origami ATC Study Group holds a card exchange meeting once every two months. With a small frame of 64 x 89 mm, participants make a card that expresses with origami the theme set each time and exchange it with each other.

Until a year ago, 7 to 9 people gathered face to face at the venue to hold an exchange meeting each time. But since last year, due to the corona virus, only mail participation is accepted. However, people from all over the country are enthusiastically participating, from Hokkaido in the north to Kyushu in the south, and we maintain a participation scale of around 30 people each time. In addition, the number of people who are interested in present cards on social media is increasing. This number is likely to gradually continue increasing in the future. It is attractive to exchange real cards with people who are far away and receive them. Please feel free to join us.

◆ Card rules: The completed size of the card should be 64 x 89 mm / One or more origami elements should be included / The thickness should be 8 mm or less (for convenience of mailing participation) / Card title, author name (nickname is also acceptable) on the back side, Be sure to describe the origami model you used by giving credits of its creator.

◆ Mailing method: Enclose 3 to 9 cards and a reply envelope (No. 3, in Japan) with the address and a stamp attached. Send it to Origami House (Same as

the address on the lower right P. 42) / The stamp for the reply envelope [within Japan] is 84 yen for 3 sheets, 94 yen for 4 to 6 sheets, and 140 yen for 7 to 9 sheets.

◆ Next event: February 21st (Sun) / Deadline for mailing participation: Must arrive on 18th (Thursday) / Theme: Winter fun

We are also considering holding an online meeting to introduce the participation card using Zoom in the future. We would like to invite not only those who participate by mail but also those who are interested in the meeting.

◆ **JOAS Online Meeting Report of Participants from Overseas**

By Kay Eng, from New York

On Friday, January 8th (Note: Eastern Time), I attended an online meeting of the Origami Tanteidan Tokyo Tomo-no-Kai. I was very happy to meet online Japanese origami friends who I had met at the convention. Fortunately, the lecturer at the regular meeting was Miyuki Kawamura. The model presented was a cute checkered box and a cow. This lovely box is folded from two squares, one for the lid and one for the box body. The pattern on the top of the box was a very interesting and unique design. The edge of the lid could be finished both curved and straight. The three-dimensional cow was folded from a square. The lunar calendar says this year is the year of the Ox, so it's perfect for this year. Miyuki-san, thank you for sharing your wonderful model. Unfortunately, I don't understand Japanese, but Miyuki-san's teaching method was wonderful, so I was able to keep up with it. But I have to admit that there was a wonderful angel named Ayumi who occasionally sent me chat messages in English. If there is one good thing about the pandemic with COVID-19, it is the development of online origami classes using Zoom. You will have the opportunity to comfortably fold origami from around the world at home, which will allow you to maintain your love for origami until you can meet again in face-to-face classes and conventions. Due to the time difference between Japan and New York, USA, I had to wake up at 11:30 pm. This was a big challenge for me, as I usually fall asleep around 9 pm, but it was worth it to stay up until around 1:30 am. I wish you all a healthy and happy New Year.

By Kristen Alberts & Victor Yang, from Seattle

On December 26th, I participated in the 3rd Kansai Tomo-no-Kai Online Meeting. It was Christmas night in Seattle time, but I couldn't go on a family trip, so I couldn't say it was a substitute, but I had a good time. We first met Miyuki Kawamura and Yamaguchi when we first attended the Origami Tanteidan Kyushu

Convention in 2019. It was such a fun experience that I planned to visit Kyushu again in 2020. It was a pity that the Kyushu Convention could not be held, but it was fun to be able to meet again with a nostalgic face at a regular meeting in Kansai.

It was my first time to participate, but I felt welcomed. I introduced myself and greeted everyone. The host asked me in English, "Raise your hand if you have any questions," but it wasn't necessary. Ayumi Hayatsu, a Seattle friend, sent me a text translation during the meeting, and she was able to learn how to fold the three models. Even if I didn't understand Japanese, the instructor explained each model in an easy-to-understand manner, so we were able to keep up with it smoothly. I felt as if I had returned to the convention.

Thank you to all of JOAS, Koichi Tateishi, Miyuki Kawamura, and Ken Mizuno of the Kansai Tomo-no-Kai for their warm welcome and fun origami class. It reminded us that it is one of the real pleasures of origami lovers to be able to connect with people all over the world by sharing our love for origami. I would like to continue to participate in online meetings, but one day I would like to visit Japan again and participate in conventions.

By Patricia Grodner, Albuquerque

I participated in the online meeting of the Origami Tanteidan Tokyo Tomo-no-Kai on January 9, 2021. I didn't have to fly for hours on an airplane, just turned on my computer and I was able to participate with many origami friends.

It was a special meeting where Miyuki Kawamura taught us two models. Both were very fun. I would like to thank JOAS for reaching out to the origami community and sharing the joy of origami during this difficult time.

◆The 29th Origami Science, Mathematics, and Educational Research Meeting By Jun Maekawa

On December 12, the 29th Origami Science, Mathematics, and Educational Research Meeting was held online (as previously). Immediately after the meeting of "Applied research on art, mathematics and engineering based on the science of origami" was held last week by the Meiji University Institute for Advanced Mathematical Sciences, about 50 participants from overseas. There were also participants from the school and junior high school students.

Of the 14 presentations, Jun Mitani's presentation was about the maximum volume of the curve to be pushed in the so-called "pillow box," in which both ends of the envelope are pushed into the creases of the curve to

make it three-dimensional. It is interesting that origami research, even in the study groups that tend to be specialized, such studies lead to everyday life.

The announcement by Junichi Miyoshi was also related to the envelope-shaped wrapping. It was about a study on the conditions under which the shape of the wrapping paper should be rectangular without excess or deficiency when wrapping a polygon (polyomino) with irregularities such as a Tetris top. In such research, computers are usually used to cover patterns, but in order to get computers to do their jobs, first of all, ideas and algorithms (calculation procedures) derived from them are important. Thinking about efficient algorithms is one of the important research themes of computer science, and research on origami and folding is a good material.

In addition, Eiko Matsuura's survey of origami enthusiasts' activities in the United States after the war, and Rinki Imada's study of the sea cucumber-shaped columnar structure of continuous basic balloons, why periodic deflection occurs. The content was diverse, including analysis. It's exciting to see that they are connected by a single keyword, origami. There was also an exchange where joint research was likely to begin with questions. Please visit the JOAS website for a summary of the presentations, including those that could not be presented.

<https://origami.jp/osme/>

Editor' s Notes

By Makoto Yamaguchi

■ As you know, online meetings using Zoom are now popular. ■ Under such circumstances, the number of participants from overseas had been increasing. ■ At the Tokyo regular meeting, the participation qualification is more than the Tanteidan magazine subscriber. ■ Kay Eng, who sent me a report, took this opportunity to register as a subscriber and participate. ■ Thank you very much. ■ I met Kay at the OUSA Convention about 25 years ago, and he took care of me every time I participated in the OUSA Convention. ■ She has participated in the Tanteidan convention many times. ■ She is a pure lover of origami and participates in various Conventions. ■ Patricia Grodner is a board member of OUSA. ■ She is also a core member of PCOC and has expanded the WOD activities to raise funds for this year's PCOC. ■ Please refer to the color page. ■ Zoom may change the form of future activities.

ORIGAMI

TANTEIDAN

折紙探偵団

M A G A Z I N E

クローズアップ Close-up

時代と文化を超えた折り紙の旅

An Origami Journey Across Time and Culture

クリス・K・パルマー

Chris K. Palmer

折り紙 Diagrams

馬

Horse

佐原広樹

Sahara Hiroki



展開図折り挑戦! Crease Pattern Challenge!

「グリフォン」榎本昌芳

Griffon: Enomoto Masayoshi

おりがみ我楽多市 Origami Odds and Ends

「お多福の面」満田 茂

Otafuku Face: Mitsuda Shigeru

ユニット折り紙カルテット Modular Origami Quartet

「八角形XYZ」「切頂六面体」「市松かご」「八角螺旋」前川 淳

XYZ Octagons, Truncated Hexahedron, Checkered Cage,

Octagonal Spirals: Maekawa Jun

通巻 195 号

About - Origami Tanteidan Digest

The objective of the Origami Tanteidan Digest is to share the articles on Origami Tanteidan magazine and provide an English summary of most (but not all) text. The numbers indicated as "Page xx" refer to the page numbers of the original articles in the magazine. While not all content is translated, it should give you an idea about what the article is about. Depending on the context, "Translator's Note" will be provided for clarity or terms that might not translate easily either because of the language or technical nature. We hope you will enjoy. Let us know if there is anything we can do to improve or any further comments. Please contact our editorial department at: editor@origami.jp

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Translated by Marcio Noguchi

(Page 7) Origami and Its Neighbors
#114 – Discontinued
By Tomoko Fuse

I ordered a roll of paper that I love to use for installations such as "OROCHI". Then I received the following reply: "The shipping schedule is going to be two weeks later. There will be 20% price increase from this spring. In addition, the Neoporin (brown) line will be discontinued by the end of the year. (This product will disappear from the world.)

"Whoa!" I took a deep breath. The final word is shocking. Even so, it is unexpected that two favorite papers will be discontinued one after another this year. Before this, I heard about the discontinuation of "shoji" sliding door paper called Twinguard, which I used a lot for MUGEN "infinite" folding. And now, the OROCHI paper? It is a big disappointment for the paper that I finally found out. My stamina and lifespan, as well as the paper, would deteriorate, so I decided to stock up on a few of both types. Things that I always thought would be available are now immediately gone. I got goose bumps all over before I knew it. And I feel that the world is changing rapidly.

"It's been a restless day for some reason." I have visited Tokamachi city a few times for a YouTube shooting where I was interviewed by Fram Kitagawa in connection with the ETAT, and for a workshop I hadn't seen in a long time. At the same time, I did the final proofreading of "Unit Box", which will probably be published by NuiNui, with headquarters

in Switzerland. This book has 320 pages, and Tomomi Ohara, Chiyo Kawai, and Ako Kawasaki helped me with the production of the boses. Four people did the proofreading. It took me a long time to get to the final draft. I think it turned out to be a good book.

There were many other things, and while I was ignoring them, the grass in the garden and the field was growing rapidly, thanks to the high temperature and heavy rain this summer. And the things I wanted to grow were under pressure. I went inside for the first time in a few days, and while horseflies and gnats were flying around, I picked weeds and smelled the stuffy soil and grass. Animals are still encroaching on human territory, pushing the grass away after they walk. And they are eating the lily, daffodil flowers, and the leaves of the hydrangeas as if they were tasting them.

(Page 13) Close-up
An Origami Journey Across Time and Culture
By Chris Palmer

Chris Palmer = Chris Palmer is a Fine Artist who has specialized in traditional and modern geometric art, ornament, textile design, digital fabrication and folding. He is currently GIS Visualization Lab manager in the Department of Urban Studies and Planning at UC San Diego. In 1995 he developed a novel technique for folding fabric and published a book called Shadowfolds about it with his co-author Jeff Rutzky. He is one of the featured artists in a

feature-length documentary about origami called *Between the Folds*.

Growing up, I enjoyed folding paper and making figures using origami. I remember the first things I learned on the playground around age 7; the waterbomb, crane and from a classmate the Sonobe unit (I didn't know the name then). I made the 12-unit ball and then figured out I could also make a 30-unit ball. Later I remember making most of the models from Robert Harbin's *Origami: The Art of Paperfolding*, John Montroll's *Animal Origami for Enthusiast*, several other books of his and some by Robert Lang as well. My childhood origami play was a solitary activity and I remember only ever having 6" origami paper, perhaps I thought that was the only kind there was! I kept some interest in origami through high school and into college where I studied printmaking specializing in lithography. Two of my senior year projects involved origami; printing a graphic of a dragonfly onto an origami dragonfly and making an edition of graphics of shapes from biological figures onto Sonobe units to form a representation of a blastula ball of cells. All my early origami activity was from books (or the playground) and I did not use it to express my own creativity. I think of it as like studying music by playing many songs but never composing any new songs.

After college

After college where I received my BFA from UC Santa Cruz (CA) in 1989 my origami interest continued but shifted away from figures towards geometric models. *Origami Boxes* by Tomoko Fuse and *Origami for the Enthusiast* by Kunihiro Kasahara became my obsessions. I folded all the models in these books and even printed ornamental graphics onto the units by xerox for some of Tomoko's boxes. I also took apart my copy of *Origami Boxes* and laminated the separate pages so it would be more compact and protected in my backpack. At the same time my lifelong artistic interest and practice of drawing became channeled to traditional ornament largely inspired by George Bain's classic book *Celtic Art: The Methods of Construction*.

Trip to Spain

When I traveled to Spain in the summer of 1990 to visit some college friends living in Granada, I fell in love with the medieval castle the Alhambra. I decided to live there for six months and study the elaborate mosaics left by the Moors. First, I lived with my friends in the caves of Sacromonte above the old town, then later in other caves. Hundreds of

caves were abandoned and available for travelers to fix up with doors and furniture but were rustic with no running water or electricity and cooking on propane stoves or open fires. Water was carried in plastic jugs and reading and drawing at night were by candlelight if at all.

Tiling Study

The view of the old town below and the Alhambra from the hillside at the cave door was spectacular and I looked forward to my weekly visits to the castle to record the patterns inside. I had no camera and so made only hand drawings for three hours each Sunday. Many hours of drawing and study during the week helped me learn to interpret the geometric language of the tilings until my next visit in person to observe and gather more sketches. Since then I have spent countless hours over many years to this day composing these ornamental patterns. I love the rich geometry of the medieval geometric ornamental style I found there and the amazing way that the medieval craftsmen reach across the ages and give me and anyone who gives attention to their artifacts a path to contemplate infinite beauty.

Combining tilings with origami

On my return from Spain in 1991 I began for the first time to create my own origami designs. Examples of flat units connecting to form a tiling by Tomoko Fuse in her book *Unit Origami: Multidimensional Transformations* (p.51,55) inspired me to try and do the same with the patterns I was studying. I also wondered what it would be like to use cloth like it was paper, by starching it so it would fold similarly. I fit starched folded cloth units I designed together and sewed them into a kind of quilt. I was very happy with the development of this work but later abandoned it for reasons explained below.

Meeting my origami idols in NY

For the first time I began to meet people who also enjoyed origami including some of the authors of my favorite childhood books. I met with origami masters Robert Lang, Peter Engel, and Jeremy Shafer; they encouraged me to express the tilings I was studying by using a single sheet of paper rather than with units. They explained that in Japan, another origami master, Shuzo Fujimoto, was well known for his work in this area. From photographs of Fujimoto's work in books, I studied and learned his techniques for expressing tilings as folds in a style I later learned he called Hira-ori. My friendship and collaboration

with Jeremy Shafer led to work we created together, incorporating the tessellation principles I studied in the Alhambra.

Origami Science invite - meeting Fujimoto-sensei in Japan

In the summer of 1994 at an Origami USA conference in New York City (my first!), I met Makoto Yamaguchi, Tomoko Fuse, Jun Maekawa, and Toshikazu Kawasaki. It was thrilling to meet and share my work with the authors of books I was so inspired by. They invited me to Japan to present my work at the upcoming Origami Science and Art meeting in Otsu and to meet Fujimoto-sensei. I wrote a paper borrowing a friend's computer to type and print and cutting and pasting drawings and xerox copies in a crude manner I look back on with some amusement.

I'll never forget first meeting Fujimoto-sensei outside walking into the meeting hall and his excitement to show me his masterworks. Tomoko Fuse was there and helped us communicate but mostly we did not need words, only smiles of joy at seeing each other's work. Later after presenting and enjoying the meeting Fuse-sensei helped arrange for a visit with Fujimoto-sensei at his country home. I was warmly hosted by his wife and him and we spent a nice time continuing to share our works. His encouragement was profound, and I was grateful to have his blessing as I continued to explore his art in the years to come. These experiences, all the wonderful people I met and the generous hosting of Yamaguchi-sensei made my first visit to Japan a truly special time.

Developing cloth folding

On my return my interest in using textiles resumed, focusing on the Hira-Ori works I continued to design and exploring the best techniques to achieve them. I stumbled a few times while figuring out how to efficiently make such complex patterns easy to produce. Once again, I tried using starch to treat the single sheet of cloth like paper, but it was still very difficult to fold. Each time I successfully folded a small, starched cloth pattern I felt very pleased with the result. Finally, I made a scaled-up piece from a large flannel bed sheet that took me a whole day to starch and another day to fold. It was not as stiff as paper, but I managed to fold it sometimes using a long stick to make the long folds. After I was done, I realized because it was so large and floppy compared to paper it would not hold itself together. So, over the course of a week, I hand stitched along the base of every pleat to secure it.

Upon completion I was very satisfied with this novel creation. I thought quilters spend a similar amount of time to produce a quilt and so it would be fun to teach and share my technique with this crafting community. A part of me though was still restless. Playing with this finished "origami" quilt, smushing around the starch fixed pleats that were now safe to mess up I observed something interesting. As the starch wore out and the cloth became completely floppy again the pleats that were fixed but more importantly the complex forms at the meeting of many pleats (the "twists") were forced to return if the arrangement of pleats was laid down again. A profound insight came to me: instead of folding the cloth like paper, draw only a little bit of cloth with points that pull the pleats together. I'll never forget the first time I tried this idea unsure it would work. After the cloth was gathered it looked messy as the pleats were not yet laid in their proper direction. As I pushed them in place and the twists formed without difficult manipulation I saw in my mind's eye the joy I and countless others would have easily making all the patterns I had already made in paper and the many more that were possible for years to come. The insight was to not think of the cloth as if it were paper.

For almost two years (1995-6), I lived simply in the country on a farm in eastern Washington to study and develop translating the crease patterns I made for paper to cloth. Once again, I had no electricity and used candles for drawing at night. I learned to hide my cloth in metal cans from field mice who were happy to use the material for their nests if I left it out overnight. I made many experiments researching kinds of cloth, scale of pleats, levels of detail and more as I mastered this new technique. In my research I also learned that this technique was known in some textile traditions. What I brought to this tradition was an enormous wealth of new patterns that would not have been possible without combining the work of Fujimoto-sensei's paper Hira-ori and my own efforts to add the medieval patterns to this technique. At the end of this time, I moved to Portland Oregon for six months to produce a portfolio of approximately thirty patterns in silk. Then I moved to New York to show this work to fashion and textile designers. I had an introduction to Issei Miyake from a friend of his but unfortunately, I was not able to see it through. I did though have a great experience working with fashion designer David Rodriguez for a few seasons 1998-2000 to incorporate my folded designs into haute couture. Another important commission came producing folded panels for state rooms on a luxury yacht in

Relationship with apprentice/student Ushio Ikegami

I ended up living in Baltimore, Maryland and working in a fabrication shop while I continued to work in NY with David. In 2001 with an introduction from Yamaguchi-sensei, a student, Ushio Ikegami came to live and study with me in my home and studio. I taught him to draft with AutoCAD to draw and study his origami designs and produced a string figure CD of his original figures. Ushio also studied Hira-ori and my cloth folding technique and we worked together on an important project.

Making gifts for Fujimoto-sensei with Ushio and delivering them

To thank Fujimoto-sensei Ushio and I produced many of his most well-known Hira-ori patterns in silk with frames as gifts. In 2002 I sent them to him by post. Later I was happy to learn from Fujimoto's family that our effort to thank him for his enormous generosity and love was appreciated. Yamaguchi-sensei, Ushio and I visited Fujimoto-sensei in 2009 at his country home where I gave one last gift, a cotton quilt with the pattern from his famous book. Later in 2011 I sent Fujimoto-sensei a copy of my book *Shadowfolds* and I hope he felt how his work would be enjoyed for all time by many people all over the world.

Conclusion

Although to this day I enjoy the activity of composing and folding Hira-ori with paper and it is a necessary part of the process of finding new patterns I knew that in paper it could only ever be shared with a very small group of highly technical folders. With the publication of my book *Shadowfolds* and a second planned book, *Shadowfolds Further*, I am happy to share these beautiful patterns with many more unskilled people from all over the world (see #shadowfolds on Instagram!). This has also been proven over the years in many workshops I have given for children. I can truly say if you can tie your shoe, you can fold a *Shadowfold*.

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Page 13 bottom left: original Sonobe modular from 33 years ago.

Page 13 bottom right: hand drawn pattern.

Page 14 bottom left: Visited to Fujimoto's house and a gift of a cotton quilt with a pattern from the book.

Page 14 bottom right: Tessellation design on fabric.

Page 15 center left: Design with tessellation.

Page 15 center right: *Shadowfolds* cover (from JOAS

(Page 16) From the Bookshelves of the JOAS Library Book #85: "Works of Hideo KOMATSU" by Hideo Komatsu

Naoto Horiguchi = Born in 1983. As someone who has had an immune disorder since I was a teenager, I feel like society has come closer to my lifestyle in this age of sensitivity to infectious diseases.

The "works of Hideo Komatsu" (Fig. 1) presented in this article was published in 2012. It is a collection of origami diagrams that summarizes Hideo Komatsu's works from his early days to around the date of publication. Komatsu, who contributed an article in the previous issue, is still active in the front line of creative design and critic, so there is no need to introduce him. Komatsu is a narrative type of creator. He has an endless intellectual curiosity about origami and tries to understand origami by clearly verbalizing the themes and points of each of his works. These themes are explained in the column of each model in this book, and more details are mentioned in Komatsu's blog. Reading these together will deepen your understanding of Komatsu's works. However, the folding diagrams are probably the most important materials for understanding his models. As stated in the preface of the book, the creation of diagrams to explore his own work in greater depth and share his achievements is essential to Komatsu's creative style.

Of the 20 models published in this book, 4 are newly drawn diagrams. Others are diagrams published in other books in the past. However, it is not a mere repost, but an addition and correction. Of course, the additions and corrections made when the published diagrams were put together into a book have been made in all the other diagrams. However, when considering the significance of origami in Komatsu's work, how the origami was revised has an important meaning. In some cases, even the model itself has undergone major revisions to refine the folding process. (Note 1) His early model "Tiger" was the third diagram after revisions.

Focusing on these modifications is synonymous with tracing the evolution of Komatsu's view of origami (Note 2). As an example, let's look at the change in the diagram of "Horse", an early representative work of "Komatsu's model", which is now called "angular system". The main changes include (1) simplification of the creases at the beginning (Fig. 2), (2) flattening of the internal

structure (Fig. 3), and (3) improvement of the reproducibility of the lower body finish (Fig. 4). The folding diagram of "Hippopotamus" was also corrected in the same way as (1), and it can be said that the latter is the result of respecting the "easy-to-fold" process and the precise reproduction of the folding line structure (≡ crease pattern). Also, (2) seems to be a modification that prioritizes ease of folding over the "puzzle-like fun" of the internal structure. Komatsu has stated that he emphasizes the balance of "modeling," "structure," and "process" in his creation (Note 1), but it can be said that these revisions emphasized "process" rather than "structure." Also, (3) can be seen as the result of organizing the finishing "form" while searching for a process that is "easy to fold and interesting". Modifications to the modeling surface like (3) can also be seen in the head of the "Dog" and the ears of the "Rabbit". It is said that the previously mentioned Squirrel was also remodeled with a compromise of "modeling," "structure," and "process," ultimately giving priority to "process." (Note 2) For those readers who have both the original diagram and this book being presented, I recommend that you try to "read" the folding diagrams by comparing them. This book is suitable for a reading experience that considers the author's intentions through diagrams. The first appearance of each diagram is described in this book. Many of these books are difficult to obtain today, but they are all available in the [JOAS] Origami Library.

As it is the case for the models published in this book, works that clearly embody the view of origami as a style are easy to be criticized regardless of whether they are good or bad. That's right, this book includes a review by Seiji Nishikawa. His comments enhance the charm of this book as a "reading material". In the review, it is written that Nishikawa started to work on 15-degree design models after "Giraffe". Looking at the prosperity of "angular systems" (including "integer-ratio angular systems" in grids and box-pleating systems) up to the present moment, this can be seen as an example of the influence that the works in this book have had on other creators. Nishikawa describes Komatsu's work as having a "stoic design", and touches on research into how to actually reproduce (such rigor), as well as the creation of models with extremely high reproducibility due to angle restrictions. This is probably what pointed out the above-mentioned "structure" and "process".

However, it cannot be overlooked that Nishikawa also praised Komatsu's "high level of sketching ability". He said, "We aim to achieve both

reproducibility and realism without compromising or giving up." Komatsu himself has previously stated that he does not place much emphasis on the formative aspect of his own creations (Note 3), but I think Nishikawa's assessment of the formative aspect is somewhat understandable. Komatsu later looked back on this book and said, "(At the time of publication), I could no longer compete with the 'newness' of the model. Certainly, it is true that Komatsu's work-like style has spread and become generalized as 'angular system'. However, as Nishikawa mentions in his commentary about Komatsu's trust in 'tenacity', he selects and sharpens the seeds of creation (≡ "mitate"- figurative expression) based on the vast amount of knowledge of other people's existing models. The strength of Komatsu's work is to make it smooth. This is the source of creating shapes (≡ origami-likeness) that people vaguely want in origami, regardless of whether they are familiar with origami. If the works published in this book become "commonplace" when looking back now, that would be proof of not only the structure and process of the model but also the strength of the modeling. These strengths are measured on a different scale than innovation and novelty. In addition to the works published in this book, Komatsu's works are presented in the color pages of this issue. It would be interesting to compare Komatsu's early models, such as the "Fox" and "Horned Owl" presented in this book, which remain more of a search for a unique formative style, before the style of Komatsu's works was established.

Even if you are a non-creative reader, I would encourage you to fold the models published in this book at least once and imagine how you would express the figure of the same subject. I think you can get a glimpse of the strength of Komatsu's selection of likenesses. Thinking about "what would I do?" in front of a "well-made" models is an opportunity and a help to start creating.

Notes:

- 1) "Improvement of Squirrel and the three major elements of origami" <https://origamiplans.hatenablog.jp/entry/20090524/squirrel2009>
- 2) It is said that one of these correction policies was the control of paper overlap. "The story of Crabs and overlap control" <https://origamiplans.hatenablog.jp/entry/20160408/1460126916>
- 3) For example, <https://origamiplans.hatenablog.jp/entry/20080416/whyboxpleats>
- 4) "About 'Hideo Komatsu Works'" <https://origamiplans.hatenablog.jp/entry/20140317/wohk>

Figures:

Figure 1 – Cover of “Works of Hideo Komatsu”.

Figure 2 - Comparison of new and old diagrams of the Horse (left: “Origami Tanteidan Magazine No. 60”, right: book presented). Note the number of creases.

Figure 3 - Comparison of old and new diagrams of Horse (same as Fig. 2). The initial diagram (steps 79-80) consisted of steps of pulling out the squash and inserting the paper.

Figure 4 - Comparison of old and new diagrams of Horse (same as Fig. 2). The shape of the hind legs is different. The modified version of this book has clear reference points and is easier to make the shape stable.

(Page 18) Here We Are, THE ORRRIGAMI TANTEIDAN

This section will explore a wide range of topics related to origami and introduce you to some little interesting trivia facts. We also accept questions, and additional information from readers. Please, feel free contact us via email webman@origami.gr.jp.

#61 – Practical Origami Tools in '100-yen' Shops By Eiko Matsuura

Eiko Matsuura = Worked at Origami House for about 20 years since 1999. Currently, a self-proclaimed origami specialist writer who edits, designs, and writes origami books. This spring, she completed 14 years of university life. She has a Bachelor of Arts in Art and a Doctor of Education.

Trivia 1: “Wood pinch should be used properly considering strength” by Kyohei Katsuta

Trivia 2: “Dressing bottles are the strongest for CMC” by Satoshi Kamiya

<Let's go to 100-Yen stores! >

The Japanese 100-yen stores (hereinafter referred to as 100-yen) is known around the world for its high quality, offering a wide-range of most household goods. Even overseas origami professionals who have visited Japan are afraid that they will buy too much because they can buy it for 100 yen + tax [currently 10 yen, so a total of 110 yen]. This time, I would like to present 100-yen goods that Satoshi Kamiya and Kyohei Katsuta of Origami House use for their own origami.

The three major 100-yen stores [in Japan] are Daiso, Seria, and Can ★ Do, with the top Daiso having 5,892 stores in Japan and overseas, offering 76,000 items (as of the end of February 2021, Source: Industry Trends Search <https://gyokai-search.com/3-100yen.html>). Note: Items are subject to replacement, and even the same standard product may be renewed or discontinued. Seasonal items are discontinued as soon as they run out of stock, so it's a good idea to buy on the spot items that you like.

It's fine to use the product for its intended original purpose, but I often come up with practical and unexpected uses for the items. So, one way to enjoy 100-yen stores is to walk around and think about ways how to use the products. There are also several goods that are practical in the 200-yen and 300-yen stores, which have been increasing in popularity in the recent years, so it's a good idea to decide on a little extravagance (?). We hope that this article will help you improve your skills with 100-yen stores.

<Beginner level>

○ Origami paper

The number of origami paper is increasing year by year, and the quality is also improving. There are some made in Japan as well as overseas, but recently there are no problems with the paper and printing quality, and some of the patterned papers in particular have a good style.

There are items with 40 to 50 different colors for white-back origami paper. There are colors that Toyo's “60 Colors Creative Origami” does not include, so it would be a good idea to check them out. There are few types, but there is also a single-color set containing 80 sheets. If you use a color frequently, you will want to purchase it. There are also items made by cutting into squares: Japanese paper, high-quality paper, and special paper. There is also a set of Tant paper with colors different from those of major manufacturers such as Toyo, Grimm, and Ehime (Photo 1).

○ Large paper/wrapping paper

25 cm large origami paper, and some which are 50 cm, or more are available, but be careful as it may be thicker than normal 15cm origami paper. The large-sized papers in the stationery section and the rolled up wrapping papers include paraffin paper, kraft paper, and Japanese paper with different colors on both sides. You will need to cut these into squares yourself and make sure the thickness is suitable (Photo 2).

○ Origami case

The plastic wrapping containing the origami paper is easy to tear, so a square case that can withstand long periods of storage and removal would be appreciated. Transparent and semi-

transparent materials allow to quickly see what is inside. The plastic boxes can also be stacked on top of each other, making it convenient for storage. The “clear file” types, which has been in circulation recently, is suitable for finely sorting and storing or carrying. Kamiya suggests that it is easier to use if you cut the leftovers from large piece of paper into 15cm squares and store them in such cases.

<Intermediate>

○ document case

A plastic box-shaped case that can hold A4-size paper (Photo 3). It can be used as a toolbox, but I would recommend using it for storing smaller models. Space can be used effectively because it is possible to see the contents and it can be stacked. Paper boxes are convenient for storing models, but the contents cannot be seen unless they are opened, and if they are opened and closed frequently, they worn out quickly, so transparent plastic boxes are more useful. According to Kamiya, the one with no side dents on the main body side is easier to use, and Daiso's 200-yen product is better from a cost performance perspective.

○ plastic bag with zipper

There are sizes of plastic bags that can fit up to A3 paper (approximately 30 x 42 cm), and there are a wide variety of small sizes such as for A7 and B8. It is an indispensable item for storing small models and irregular-shaped scraps of paper. For a three-dimensional models, fold the corners of the bag and tape it, create a gusset, and seal the bag while letting air in. Although it takes up space, storage efficiency is improved (Photo 4). A super fanatic uses zippered bags to keep finished models moist when wet-folded. Many of them have a zipper on the short side, but if there is a zipper on the long side (side opening), it will be easier to put in and take out the contents.

○ Poster tube

A 300-yen product from Daiso. It is used for storing and carrying drawings, which used to be available only at large stationery stores, and is an item that origami artists would want to use for storage of large paper (Photo 5). Since it can now be obtained for 300 yen for what was originally 2,000 yen or more, there are some drawbacks. For example, the lid may drop easily, when you stretch out the tube, so if you're intending to carry for a long time, it's a good idea to reinforce it with tape. You can take it with you when you go shopping for large-sized paper, or you can sort and store it by type.

<Advanced version>

○ Wood clothespin

Katsuta's favorite item is this wooden clothespin (Photo 6). While creating a model, it can be used for parts that you want to hold down temporarily or for fixing glue, and it creates less damage on paper than the plastic pins. They come in a wide variety of sizes, so it would be nice to have a variety of them. There are individual differences in the pressing force, so the trick is to check and use them based to the situation.

○ Dressing bottle

Kamiya's highly recommended 100-yen store good is a bottle to dissolve the CMC glue used for paper lining and finishing (Photo 7). Since the lid can be removed, it is easy to add the powder, and the thin nozzle allows you to dispense small amounts at a time. It's more flexible than a plastic bottle and can be pushed out, so it's easy to use even after it's melted. You can make it thicker and dilute it in a separate container as needed. Kamiya points out that CMC is used as a thickening agent in food such as dressings, so in a sense it may be an appropriate usage.

This time, I interviewed two origami masters and presented mainly those items that are relatively easy to obtain. However, there are more maniac “uses”, which we can present in the future depending on the popularity of this first article.

List of Figures:

Figure 1: Special origami paper. There are many types such as Japanese paper style (upper left), thin color quality (upper center), Tant (lower left).

Figure 2: Large size paper or wrapping paper. There is also the First Vintage cut into A4 size (center).

Figure 3: A document case that can hold A4 paper. If you use 100 yen handicraft cotton as a cushioning material, it will be even more durable.

Figure 4: Zippered plastic bag. As shown on the left, creating a gusset makes it easier to store three-dimensional models.

Figure 5: Poster tube. When stretched, it is 1m long and can hold a full sheet of duodecimo size-46 paper (788mm x 545mm).

Figure 6: Katsuta's favorite wood clothespin.

Figure 7: Dressing bottle.

(Page 36) Orisuzi (“Fold Creases”) Origami ATC By Chizuko Kochi

OrigamiATC is an activity in which 2.5” x 3.5”

(64 x 89 mm) origami cards are handcrafted and exchanged (details can be found in Origami Tanteidan Magazine, No. 162, pages 18-19). I learned about it in 2013 and started participating in exchanges. After that, the Origami ATC Study Group was established in January 2014, mainly by regular members, and I became part of the management staff. In the past two years, due to the Covid-19 pandemic, we have not actually gathered in person, and it became an exchange meeting only by mail. But thanks to the enthusiastic participants from Hokkaido to Kyushu, it continued for 10 years.

The OrigamiATC tends to be thought of as a simple game where you just fold an origami model into small pieces and stick them on a card, but it has a lot of depth. The exchange meeting is held once every two months, and you can create your own cards according to the theme set each time. What you want to express, which origami model to use, what kind of paper (color, pattern, texture) to fold, what size to fold, what to do with the background, how to use elements other than origami, so by a repeated process of trial and error I will create one card. It's thrilling when it works the way you want it to be. It's also fun to show your friends a photo of the card on social media before sending it to the exchange party. And I can't describe the excitement I felt when I received the card by mail. Growing the small collection is also quite exciting. When I see ideas and brilliant sense that I can't come up with, I think I'll try harder next time.

The name of the origami models used, and the name of the creator should be written on the back of the card, but in case when the creator is unknown, say after watching YouTube, the management staff may investigate for the creator. Respecting creators is also an important part of our activities.

OrigamiATC is a time to face yourself and a place to interact with origami friends, condensing the fun of origami. Contact us if you would like to create your own!

(Page 37) Origami-Zanmai (This Origami and That) **Coming across Geometrical Wonders** **By Seiji Nishikawa, JOAS board chair**

When folding origami, corner to corner and some of the creases match perfectly in many places, whether because of precise geometry or by a strange approximation. It's fun anyway.

I think Figure 1 is a common sight for people who are familiar with box-pleating origami. A triangle placed diagonally on a square becomes an isosceles

triangle. It feels good to have various diagonal lines that fit perfectly with the lattice points.

Fig. 2: Dividing one corner into fourth, and half on the others, we can obtain a very simple shape that looks like a fusion of a fish base and the "catamaran" base. This is the example I used in the "Pentagonal Wild Boar" published on Origami Tanteidan Convention Origami Book Vol.25. I was happy with the result, even though it was somewhat an obvious result.

Fig. 3: Is it true? A little while ago, HN_Nata_de_Coco posted on Twitter. It would be interesting if it could be used to fold a regular heptagon. A mysterious relationship that is pleasing even if it is an approximation. It seems to be true, not an approximation.

(Page 38) Crease Pattern Challenge **Challenge 141: Griffon** **By Masayoshi Enomoto**

Created: 2022/8/4

Paper Size: 78 × 78cm

Length: 27cm

Ever since I started creative origami, I've continued to make prototypes with the hope that one day I'll be able to make a griffon. Many people have created models under this theme, but in my mind, the griffon had an impressive head with ear-shaped feathers, so I started designing the head to make it look like that image.

At first, I was creating a diamond-shaped figure, but the balance between the head and the front legs was not good, so I gave up creating it for a while. However, one day, by chance I happened to see a full-body design of a griffon in another model I was working on, so I incorporated the structure of the head that I had created before, completing the shape I had envisioned. After that, as I re-arranged the whole model, it turned out into an upside-down version of a blintz bird base.

"Now, let's explain how to fold it." First, create the creases for the hind legs and tail, then make the basic shape of the blintz bird base, and fold it as shown in the collapse (Figures 1 and 2).

When you have finished folding, first fold the lowered wings and body together, then change the direction of the head. After that, lift the wing up to fold it inwards, and fold it to match the bottom edge. After folding the corner to the opposite side, fold it diagonally to make the wings, then fold it from the base to create a three-dimensional shape.

For the front legs, fold the edges together, spread

the raised part and fold it down. Then shift the edges and fold it back together to adjust the shape of the leg.

After folding the hind leg in the middle of the second piece from the front, fold the overlapping edges in half to make it thinner, then fold it again in the middle and make fingers at the tip of the corner.

Make the tail thinner in half, fold it all together, then pull it back to make it even thinner. At the same time, the internal corners are also folded inward to shape the body. Then, widen the edge of the corner a little to create a roundness. The tail is the thickest part, and as the toes on the hind legs shows the color of the back side of the paper, we recommend a slightly thin paper with the same color on both sides, 60cm square or larger.

List of Figures:

Fig. 1: Collapsed base.

Fig.2: View of front legs hidden under the wing of the collapsed base.

(Page 39) Paper Folders on File File #94 – Yutaro Itabashi Report by Editorial team

Short bio

Yutaro Itabashi = Born in 1993 in Gunma prefecture. When he was a university student, he founded the Gunma University Origami Research Group “Origin” and is currently working as a neurosurgeon while involved in origami activities. Instagram: @bacillus_origami

How did you start origami?

When I was young, my body was weak, and I was repeatedly in and out of the hospital. And there were no smartphones or Internet, so origami gave me a sense of fun in my boring hospital life. Origami was silent and mess-free, so it was perfect for a hospital life. After that, I became absorbed in the world of origami, and tried various origami books at libraries and bookstores. I learned about Japan Origami Academic Society at the age of 10, and have continued to this day.

What inspired you to create?

After entering Gunma University, I created the Gunma University Origami Research Society “Origin”, and in the process of its activities, I designed the Gunma Prefecture's mascot character “Gunma-chan”. When I used it in an origami class, it was very well received, so I started creating for events and by requests. Recently, I have created several origami

pieces related to space, such as astronauts and the H-2 rocket. In the meantime, I also do independent creations.

Please tell us about Gunma University Origami Research Group “Origin”.

In 2012, I entered Gunma University School of Medicine. At that time, Gunma University did not have an origami club, so I founded Origin with the idea of creating an organization like the University of Tokyo Orist. At first, it was small, just a gathering to fold origami, but after origami classes were held externally, the name spread and the number of club members increased. There were also projects unique to the Faculty of Medicine, such as an exhibition of models at a hospital and an origami class at a hospital. Activities have continued even after my graduation, and this year marks its 10th anniversary.

Do you find origami useful in your work as a doctor?

Origami stimulates the entire cerebrum by looking at objects (occipital lobe), recognizing them (parietal lobe), recalling memories (temporal lobe), and assembling them in order (frontal lobe). I believe that such training of the brain is useful for treatment including surgery. I also donate my models to patients and hospital wards, and sometimes receive words of appreciation. There is no shortage of topics to talk about, so origami has helped me in many ways.

What are your future goals?

“Despite the restrictions due to the Covid-19 pandemic, I would like to resume origami class activities little by little.” Since the number of original models has increased, my future goal is to organize the process of the work and write a digital diagram that can be published in a book. Also, in relation to my main business, I am thinking of conducting medical research on the effects of origami on the brain.

What do you expect from the origami world in the future?

“I'm still young, but it's true that there are more and more young people who are far more resourceful than me.” Now, with the development of the Internet, many people can easily get in touch with origami. On the other hand, there is a lot of attractive entertainment and information overflow, and we do not know what the mainstream of entertainment in a few decades will be. However, I believe that origami, which can be enjoyed by looking at it and folding it, is a content that can

be enjoyed by people of all ages and generations. Through my origami activities, I hope that many people will know the charm of origami, that those who know the power will become the creators, and that the world of origami will spread further.



The 27th Origami Tanteidan Convention (Online)

Special Guests:

○ David Brill: Origami has been a huge part of David's life since learning the traditional flapping bird almost 70 years ago, and the act of folding and exploring new creative ideas remains a big excitement. Over the years he has travelled to meet and make lifelong friends with origami fans in many countries. David is delighted to be the guest at this online event. Now face to face conventions are starting up again, he hopes he'll soon meet you all personally!

○ Jeremy Shafer: Loves designing origami and sharing it on YouTube channel: <https://www.youtube.com/jeremyshaferorigami>. Often designs subjects that are requested by viewers or what seems to be trending. A few of his specialties are flashers, flickers, pop-ups and action origami. Some other hobbies include juggling, salsa dancing, handwhistling and unicycle basketball.

Continuing from last year, the online convention will be held from November 25th to 27th.

The outline of the event is as follows. Everyone is encouraged to participate. This year's convention will invite David Brill (UK) and Jeremy Shaffer (USA) as guests of Issei Yoshino Foundation.

<Overview>

Date: November 25th (Friday) to 27th (Sunday), 2022
Venue: Zoom conference room 4 channels
Classes: Scheduled for a total of about 40 sessions.
The currently scheduled instructors are as follows (in no particular order). David Brill (UK), Jeremy Shaffer

(USA), Yoo Tae Young (Korea), Park Jung Woo (Korea), Kazuhiro Tominaga, Keigo Matsuda, Riku Ikuno, Yutaro Itabashi, Hitomi Kato, Eitaro Shiomi, Ayumi Hayatsu, Ako Kawasaki, Chiyo Kawai, Yasuko Kizushi, Shigeru Mitsuda, Miyuki Kawamura, Jun Maekawa, Kohei Kamei, Fumiaki Kawahata, Hidehisa Inayoshi, Yoshihisa Kimura, Satoshi Kamiya, Kyohei Katsuta, Gen Hagiwara, Akiko Yamanashi, Hideo Komatsu, Ken Mizuno, Katsuhiko Yamakita, Koji Ouchi, Shotaro Mineo, Mariko Miyamoto, Kaito Nagayama, Hiroaki Kobayashi, Naoto Horiguchi, Itsuko Aoyagi, and Harumi Ito.

• **Registration: The registration form will be available on the website of Japan Origami Academic Society.**

Applications will start from October 1, 2022
Participation fee: 4,000 yen (including family members)

Online meeting passport (22Q3/October-December): 500 yen discount (Password of Q3 passport required)
Members of the Japan Origami Academic Society or magazine subscribers: 500 yen discount (As proof for subscribers, please include when registering, the English name of the green model on page 23 of Issue No. 193 of Tanteidan Magazine)

Students: 1,000 yen discount (Please include the school name and grade when registering)

*Participation fee for student magazine subscribers with a passport will be 2000 yen!

•Program:

From the evening of the November 25th, a special lecture will be streamed by an overseas guests, David Brill, Jeremy Shafer and Koji Ouchi, Eiko Matsuura, and Yohei Yamamoto, who have recently obtained doctoral degrees on the theme of origami.

On November 26th and 27th, we will deliver origami classes via Zoom channels.

Program details will be announced on the website.

<Origami ATC exchange debriefing session>

Date: November 25th (Fri) 21:00-22:00

The OrigamiATC Exchange Report Meeting will be held by the OrigamiATC Study Group. We will present the cards that participated in the exchange meeting in October on Zoom. The exchanged cards will be sent to the participants before the convention, and the photos of the models will be published in the online exhibition room. Convention attendees can observe even if they have not sent any card.

- Card delivery deadline: October 20th (Thursday).
- Theme: None (Free); Include at least one origami model.
- Card size: 64 x 89 mm, thickness 8 mm or less.

• On the back, write (1) the title of the model, (2) the name of the creator (nickname is acceptable), (3) the name of the origami model used + the name of the creator, or the name of the reference and the name of the author.

• How to apply [in Japan]: Send 3 to 10 cards. Enclose a stamped self-addressed envelope ("Nagagata" Envelop No. 3 - 120 mm × 235 mm), addressed to Origami House. If you wish 3 to 4 cards: 84 yen, 5 to 8 cards: 94 yen, 9-10 pieces: 140 yen.

* After the convention, you can watch the videos of all the classes during a limited time.

*The participation fee is the same for those who cannot participate in the live sessions on the day and only watch the recordings.

<Future plans>

The details will be posted on the Japan Origami Academic Society website.

Contact: convention@origami.jp

◆ Announcement of the General Assembly Meeting

The general assembly meeting will be held online from 14:00 on Friday, November 25, 2022 as follows.

1) Name: 23rd Japan Origami Academic Society (JOAS) General Assembly

2) Date and time: From 14:00 on Friday, November 25, 2022

3) Meeting method: Online by Zoom

4) Eligibility: Members of Japan Origami Academic Society as of September 30, 2022 (resident in Japan)*

*Please note that magazine subscriber are not eligible.

5) Participation method: Information will be mailed to members in a sealed letter around the end of October 2022.

• Please return the enclosed general assembly meeting participation application form and power of attorney.

• The password for web registration will be included in the invitation, so please use the password on the Japan Origami Academic Society website and fill in the necessary information such as your e-mail address.

• At a later date (after November 19th), we will send you the Zoom address for the general assembly meeting by email, so please enter the Zoom session between 13:40 and 13:55 on November 25th.

*On November 25, 2022, the Origami Tanteidan Online Convention will be held after the general meeting. The Zoom address for the online convention and the general assembly meeting will be different, so please do not get confused.

◆ 2022 OrigamiUSA and Japan Origami Academic Society Joint WOD Event

Although many face-to-face origami events have been canceled due to the pandemic, you can still enjoy World Origami Days (WOD). OrigamiUSA's Origami Connect team and the PCOC team have organized an online origami class during 19 days from October 24, 2022 to he November 11 (US time). In addition, this year's event was held jointly with the Japan Origami Academic Society, and each day featured various origami themes (tessellation, units, modulars, etc.). Popular creators such as Jun Maekawa, Fumiaki Kawahata, Miyuki Kawamura, Akiko Yamanashi and Shigeru Mitsuda from the Japan Origami Academic Society, Jeremy Shafer, Beth Johnson, Aldos Marcell, Ekaterina Lukasheva and Linda Mihara from OrigamiUSA will participate.

This event will also be a fundraiser for the 2023 Pacific Coast OrigamiUSA Conference (PCOC).

We encourage everyone to consider participating in the WOD event.

Dates: October 24th to November 11th (WOD period)

2022 OrigamiUSA WOD Official Website: <https://origamiusa.org/wod2022>

Agenda:

• October 24th (US time) / October 25th (Japan time):

○ WOD Opening, Wendy Zeichner, Makoto Yamaguchi (video)

• October 25-November 10 (US time) / October 26-November 11 (Japan time), approximately 45-90 minutes starting at 8:30 am (Japan time):

○ WOD classes

• November 11th (US time) / November 12th (Japan time):

○ WOD Closing

Detailed program: <https://origamiusa.org/wod2022-schedule>

Participation fee: \$40 (\$5 discount for OrigamiUSA members)

WOD T-shirt: <https://origamiusa.org/wod2022-apparel-gold-mine>

◆ World Origami Days (WOD)

WOD will be held from October 24th, the birthday of Lillian Oppenheimer, who contributed to the popularization of origami around the world, to November 11th, the Origami Day established in Japan in 1980. With the aim of spreading origami to more people, we are planning various origami activities. OrigamiUSA and JOAS have been working

together since 2011 to further expand this WOD activity. JOAS will hold three events this year as well.

[My WOD Report]

This is a project to present origami models through social media that started in 2014. During the WOD period, please post your favorite folded model on the social media (like on Facebook WOD page). Use the "WOD Entry Sheet" to take the photos to be posted. Please download the designated sheet from the Japan Origami Academic Society (JOAS) website, fill in the model name, the name of the folder, the creator of the model, and the region (country) you live in. Then place the model on the sheet and take a photo. You can also paste the filled-in part on the photo (see the sample photo on the WOD website). The hashtag is #MyWOD. Posted photos will also be used for Origami Art Museum exhibitions.

[Origami Art Museum Exhibition]

Photos of "My WOD" posted on Facebook, Twitter, and Instagram, as well as photos of models submitted to the "Origami Theme Exhibition", will be posted on the WOD page (on the JOAS website) from October 24th. Photos will be posted in order of arrival.

[Origami Theme Exhibition]

The theme is next year's zodiac "Rabbit". You can submit new or old models, as long as it was created by the person submitting the entry.

Online exhibition: The method is the same as "My WOD report". It will be posted on the page of the Origami Art Museum. You can also send the photos directly to the email below.

- Email address: wod@origami.jp
- JOAS website: <https://origami.jp> (inquiry form)
- For OrigamiUSA's WOD activities, please see the special web page below. <http://origamiusa.org/wod>

◆ KOA Online Convention Participation Report

By Katsuhiko Yamakita

The 12th Korean Origami Association (KOA) Convention was held online on August 20th and 21st, and I participated.

There were about 160 participants, including more than a dozen participants from Japan, and among them, there were 5 outstanding instructors: Jun Maekawa, Fumiaki Kawabata, Miyuki Kawamura, Satoshi Kamiya, and Gen Hagiwara. There was a total of 16 classes divided in two classrooms, A and B, so you can see that overall, this year we had a large

percentage of Japanese instructors. I could only confirm the demographics of the participants on the South Korean side through the screen, but kids and mothers with kids stood out. All but two of the instructors were young men. Most of the contents were folded from single square and themed on creatures.

Even though it was an overseas convention, I participated via Zoom, which was the same user interface as the Tomo-no-Kai local area group [in Japan] Zoom meeting. Also, there was no time difference with Korea, so it was a big advantage that you can participate in the daytime. This year's application forms were also available in Japanese, so I was relieved. The program for the day and a summary of the participation were sent as attachments in Japanese, so I didn't have to worry about anything. It was possible to enter the room with one click on the day of the event. However, the event was conducted in Korean, so that was the only language problem I faced. But words are not essential for origami classes, right? After all, all you must do is fold as it flows on the screen (laughs). In addition, even if you did not understand, the videos distributed of all the classes was guaranteed to be available for one month after the convention. So, it was safe. I don't know how the event will be conducted next time, but those readers who are interested, I strongly recommend you consider participating.

In conclusion, it was a very fulfilling two days.

◆ Models from Regular Meetings of Origami Tanteidan Groups

- Shark by Masayoshi Enomoto
- Beetle by Eitaro Shiomi
- Dalmatian by Kazuki Fukuroi
- Sandwich by Shigeru Mitsuda
- Swan by Rinryo Maruyama
- Rabbit by Shigeru Mitsuda
- Sea Horse by Rinryo Maruyama
- Eagle by Kazuki Fukuroi
- Eastern Dragon by Masayoshi Enomoto
- Frilled Lizard by Kaisei Minato

◆ Editor's Notes

By Makoto Yamaguchi

■ Due to a lot going on, I will take a break from the current editorial notes.