

A Constellation Of Origami Polyhedra

Learn to fold incredible geometric origami models from "The Queen of Modular Origami!" In this book, Tomoko Fuse—Japan's most famous living origami artist—shows you how to create amazing polyhedral models using the techniques of modular origami (where many paper sheets are folded then locked together without glue or tape). Make 64 intriguing modular models, including: Stackable Modules—The perfect starting point for novices, these simple constructions result in stunning three-dimensional forms 3-D Stars—Dazzling decorative starbursts that look great on a Christmas tree, on your mantle—or even in an art gallery Manifold Modularity—"Inception-like" models in which individual modular constructions themselves become modules within a larger piece Cubes and Boxes—Perfect for gift giving—and there is no finer teacher for these than renowned origami box specialist Tomoko Fuse And many more! *Recommended for experienced folders and up*

Forty original models range from simple to advanced and produce striking stars that can be used as decorations and awards. Full-color photos illustrate Map Compass, Radioactive Star, Sun, many other patterns.

John Montroll has consistently expanded the limits of the ancient art of Japanese paper folding. Now in this exciting new volume of more than 30 original models, the world-renowned origami master departs from the traditional square form and crafts each eye-catching creation from an ordinary dollar bill. Using the familiar rectangular shape as a base, Dollar Bill Animals in Origami offers more than 800 clear, easy-to-follow diagrams for every level of folder, from beginner to expert. You may use either actual dollar bills or any paper cut to the same proportions to create a stunning display of animals of land, air, and sea: giraffe, unicorn, apatosaurus, parrot, owl, shark, and many more. Also included are pictures of each completed project and guided instructions for basic folds. With this innovative book, an exciting journey in origami art is as close as the nearest dollar bill.

Winner of the 2017 JPBM Communications Award for Expository and Popular Books. "A delightful meta-biography--playful indeed--of a brilliant iconoclast." --James Gleick, author of The Information John Horton Conway is a singular mathematician with a lovely loopy brain. He is Archimedes, Mick Jagger, Salvador Dali, and Richard Feynman all rolled into one--he boasts a rock star's charisma, a slyly bent sense of humor, a polymath's promiscuous curiosity, and an insatiable compulsion to explain everything about the world to everyone in it. At Cambridge, Conway wrestled with "Monstrous Moonshine," discovered the aptly named surreal numbers, and invented the cult classic Game of Life--more than just a cool fad, Life demonstrates how simplicity generates complexity and provides an analogy for mathematics and the entire universe. As a "mathemagician" at Princeton, he used ropes, dice, pennies, coat hangers, even the occasional Slinky, as props to extend his winning imagination and share his many nerdish delights. He granted Roberts full access to his idiosyncrasies and intellect both, though not without the occasional grumble: "Oh hell," he'd say. "You're not going to put that in the book. Are you?!?"

This book unravels the mystery of Geometry in Origami with a unique approach: 64 Polyhedra designs, each made from a single square sheet of paper, no cuts, no glue; each polyhedron the largest possible from the starting size of square and each having an ingenious locking mechanism to hold its shape. The author covers the five Platonic solids (cube, tetrahedron, octahedron, icosahedron and dodecahedron). There are ample variations with different color patterns and sunken sides. Dipyramids and Dimpled Dipyramids, unexplored before this in Origami, are also covered. There are a total of 64 models in the book. All the designs have an interesting look and a pleasing folding sequence and are based on unique mathematical equations.

"Instructions for 27 models of fantasy figures including 10 dragons, a wizard, ogre, unicorn, phoenix, and other imaginary creatures"--

This cosmic kit is bursting with exciting models inspired by stars, planets, and space exploration. These easy origami projects will transform young folders into intergalactic travelers as they pilot their starship through the Solar System and beyond! Celebrate the 50th anniversary of Apollo 11's lunar landing in a hands-on way with this kit. Kids can learn about the moon and what it takes to get there, as each model comes with information on astronomy and cosmology. Blend an interest in our Universe with the fun of origami paper folding! The breathtaking night sky fascinates children everywhere, inspiring an appreciation of science and astronomy, as well as science fiction stories, comics, cartoons and films. Many kids even dream of becoming an astronomer or astronaut when they grow up, which makes this unique kit a perfect gift. The included large wall poster is packed with colorful graphics that relate interesting information about the Solar System, the Milky Way galaxy, and the Universe--the perfect way for kids to decorate their room or classroom while they deepen their knowledge of the cosmos. This origami kit includes everything you need: A full-color instruction book containing easy, step-by-step instructions for 12 models 48 sheets of folding paper A 21" x 24" fun and educational wall poster Online video tutorials Kids will have a blast folding the unique models, including: A Rocket--with its classic red fin styling, the model is ready to soar into the unknown on a voyage of discovery. A Dwarf Star--one of 4 types of star models in the kit, this one has 4 points and can be folded up in just 10 steps! A Flying Saucer--a ring-like enigma from another galaxy. Do they come in peace? Planet One--a crater-pocked rocky planet, ripe for imaginary exploration A Space Hero Picture Frame--intrepid explorers are eligible for induction into the "Hall of Heroes" gallery by way of this cleverly folded frame And many more!

Integrate practical insights from modern physics, ancient Hermetic Laws, non-dual meta-physics, transpersonal psychology, and humor, as tools for undoing conflicting beliefs we've dreamed ourselves into. The seven Hermetic laws are explored in depth and demonstrate how a mindfulness that embraces 'other' as 'self' can reverse the typical misapplication of these inescapable laws of Mentalism, Correspondence, Vibration, Polarity, Rhythm, Cause & Effect and Generation. Ubiquitous geometric symbols, paired to each of these laws - the circle, vesica piscis, sine wave, line, spiral, fractal and yin-yang - and their countless commonplace variations, seen from the vantage point of shared interests, reflect these ideas. The inspired use of natural law restores attributes of life, love, strength, purity, beauty, perfection and gratitude to our awareness.

The present volume provides a fascinating overview of geometrical ideas and perceptions from the earliest cultures to the mathematical and artistic concepts of the 20th century. It is the English translation of the 3rd edition of the well-received German book "5000 Jahre Geometrie," in which geometry is presented as a chain of developments in cultural history and their interaction with architecture, the visual arts, philosophy, science and engineering. Geometry originated in the ancient cultures along the Indus and Nile Rivers

and in Mesopotamia, experiencing its first "Golden Age" in Ancient Greece. Inspired by the Greek mathematics, a new germ of geometry blossomed in the Islamic civilizations. Through the Oriental influence on Spain, this knowledge later spread to Western Europe. Here, as part of the medieval Quadrivium, the understanding of geometry was deepened, leading to a revival during the Renaissance. Together with parallel achievements in India, China, Japan and the ancient American cultures, the European approaches formed the ideas and branches of geometry we know in the modern age: coordinate methods, analytical geometry, descriptive and projective geometry in the 17th and 18th centuries, axiom systems, geometry as a theory with multiple structures and geometry in computer sciences in the 19th and 20th centuries. Each chapter of the book starts with a table of key historical and cultural dates and ends with a summary of essential contents of geometry in the respective era. Compelling examples invite the reader to further explore the problems of geometry in ancient and modern times. The book will appeal to mathematicians interested in Geometry and to all readers with an interest in cultural history. From letters to the authors for the German language edition I hope it gets a translation, as there is no comparable work. Prof. J. Grattan-Guinness (Middlesex University London) "Five Thousand Years of Geometry" - I think it is the most handsome book I have ever seen from Springer and the inclusion of so many color plates really improves its appearance dramatically! Prof. J.W. Dauben (City University of New York) An excellent book in every respect. The authors have successfully combined the history of geometry with the general development of culture and history. ... The graphic design is also excellent. Prof. Z. Nádenik (Czech Technical University in Prague)

Shows how to fold paper to create fish and other sea creatures, offering twenty-four models, ranging from intermediate to complex, with explanations for representing scales, fins, gills, and other distinctive characteristics.

Internationally renowned origami artist John Montroll presents 26 models of horses. Full-color illustrations accompany detailed instructions for folding fanciful figures -- including a stick horse, rocking horse, unicorn, and Pegasus -- as well as actual breeds such as Clydesdale, thoroughbred, and mustang. Suitable for folders at all levels, the models range from simple to complex. Dover Original.

This book constitutes the refereed proceedings of the 4th International Workshop on Visual Form, IWVF-4, held in Capri, Italy, in May 2001. The 66 revised full papers presented together with seven invited papers were carefully reviewed and selected from 117 submissions. The book covers theoretical and applicative aspects of visual form processing. The papers are organized in topical sections on representation, analysis, recognition, modelling and retrieval, and applications.

More than 30 domestic creatures include fish, birds, cats, and dogs as well as a mouse, hamster, ferret, rabbit, and other pets. Easy to intermediate-level projects offer simple instructions and ample illustrations.

Origami goes global with 33 models by designers from more than 15 countries, including Australia, Hungary, Bolivia, China, India, and more. Figures range from simple to moderately difficult and include a frog, ocean liner, penguin, hot air balloon, dragon, and kangaroo. Notes on each model include comments on individual styles and methods of paperfolding.

Too hip to be square. Shape up with this mind-blowing set that--quite honestly--we didn't even know was possible until our editors discovered the exquisite artwork of Heinz Strobl's Snapology Project. Inspired by his work, our designers have created Geometric Origami, a new, sophisticated origami kit for advanced origami artists. Create 15 paper projects using the specially designed strips included in the set: Tetrahedron, Hexahedron, Octahedron, Dodecahedron, Icosahedron, Truncated Tetrahedron, Cuboctahedron, Icosidodecahedron, Rhombic Triacanthahedron, Snub Dodecahedron, Zonohedron, and Buckyballs. Don't worry--there's even a few pronounceable shapes like an Egg and a Geometric Bracelet, plus more surprises. (We would include them here, but we're still looking up their proper spellings.) * Gain a whole new perspective on geometry and the world of origami. * Great fun for the entire family--or for your local geometry professor. Geometric Origami offers the next generation of art and paper crafting for origami enthusiasts.

Transform ordinary dollar bills into a unicorn, dinosaur, dog, elephant, and other creatures. More than 30 original models by a renowned origamist will appeal to paperfolders from beginners to experts.

Martin Gardner's Mathematical Games columns in Scientific American inspired and entertained several generations of mathematicians and scientists. Gardner in his crystal-clear prose illuminated corners of mathematics, especially recreational mathematics, that most people had no idea existed. His playful spirit and inquisitive nature invite the reader into an exploration of beautiful mathematical ideas along with him. These columns were both a revelation and a gift when he wrote them; no one--before Gardner--had written about mathematics like this. They continue to be a marvel. This is the original 1988 edition and contains columns published from 1974-1976.

From the simple Triangular Diamond and the Tower to the more advanced Cuboctahedron and the magnificent Stella Octangular, 30 multifaceted marvels will not only challenge devotees of the ancient Japanese art of paperfolding but will also appeal to students and others interested in math and geometry.

A guided journal that uniquely combines personal writing and meditation—two of the most beneficial self-help processes available In this book, Beth Jacobs—who has taught and written extensively on both Buddhist psychology and therapeutic writing—provides a variety of writing techniques and exercises that are matched with specific Buddhist meditation instructions and teachings. She describes meditation practices and Buddhist concepts along with writing exercises that bring the material to life. Writers will find exercises that deepen their experiences in general and writing in particular. Meditators will find Buddhist concepts clarified and techniques expanded. All readers will discover a laboratory of writing as experimentation, with structures that open ideas, break habits, and combine experience in novel ways. This impressive collection of engravings illustrates A Midsummer Night's Dream, The Merry Wives of Windsor, The Tempest, Two Gentlemen of Verona, Measure for Measure, Macbeth, Julius Caesar, and

26 other plays.

With little more than a sheet of paper and some dexterity, crafters can make 75 origami projects designed for everyday use. Generally speaking origami, Japanese paper-folding, is a casual hobby for all-ages. While some projects have practical applications most tend to be for aesthetic or entertainment purposes. All-Purpose Origami's patterns on the other hand are much more meaningful. The 75 projects compiled were crafted for the sole purpose of at home use. Whether to be applied in the dining room for special occasions or for Eco-friendly items around the office, these easy to follow patterns are designed to last and to look stylish for days and weeks. Perfect for use at home the cups, boxes, envelopes and table placement patterns in All-Purpose Origami are as resourceful as they are fun to make!

This collection teaches you how to fold 37 original origami stars, each from a single square sheet of paper. Great care has been taken to keep each folding sequence elegant. The models are amazing and striking, are enjoyable to fold, and can be used as awards and decorations, and on festive occasions. Several stars use both sides of the paper to highlight interesting color patterns. Duo origami paper, which has a different color on each side, is ideal for these models. Most of the stars are two-dimensional and a few are three-dimensional. Several sets of related stars are included. There are solid-color and two-toned models. The radiant stars each have an impressive alternating color pattern. The twelve-point star looks as if it was woven from strips of paper. The magic star resembles a model made from eight sheets, but is easily folded from a single square, like all the others in this book. Most of the designs are by John Montroll; several are by Russell Cashdollar. The models range from simple to complex, but not too complex. Clear step-by-step instructions show how to fold stars with varying number of points, shapes, and color patterns.

More than 20 original models range from simple to advanced and include a butterfly, praying mantis, grasshopper, hornet, ant, several beetles, and other bugs. Full-color illustrations of finished models, plus detailed instructions with diagrams.

Presents instructions for folding thirty-nine origami models, from geometrical figures to an elephant--each made from a single sheet of paper--that emphasize the mathematical principles behind each design. Origami5 continues in the excellent tradition of its four previous incarnations, documenting work presented at an extraordinary series of meetings that explored the connections between origami, mathematics, science, technology, education, and other academic fields. The fifth such meeting, 5OSME (July 13–17, 2010, Singapore Management University) followed the precedent previous meetings to explore the interdisciplinary connections between origami and the real world. This book begins with a section on origami history, art, and design. It is followed by sections on origami in education and origami science, engineering, and technology, and culminates with a section on origami mathematics—the pairing that inspired the original meeting. Within this one volume, you will find a broad selection of historical information, artists' descriptions of their processes, various perspectives and approaches to the use of origami in education, mathematical tools for origami design, applications of folding in engineering and technology, as well as original and cutting-edge research on the mathematical underpinnings of origami.

Contains step-by-step, illustrated instructions for completing a variety of multidimensional origami projects.

Suitable for folders of intermediate to advanced skills, the book presents step-by-step instructions and full-color photographs for more than two dozen breeds ranging from the familiar to the more exotic.

"From the internationally renowned origami master comes this wild collection of more than 20 jungle and forest animals. Models include an aardvark, panda, giraffe, rhinoceros, moose, and zebra, ranging in complexity from fairly easy to advanced. This guide's handsome, full-color format will appeal to a wide range of paperfolders"--

This manual features 17 easy-to-master projects involving the Platonic solids: the tetrahedron, hexahedron, octahedron, dodecahedron, and icosahedron. Includes detailed diagrams and photos of all the completed models.

Appealing to everyone from college-level majors to independent learners, The Art and Craft of Problem Solving, 3rd Edition introduces a problem-solving approach to mathematics, as opposed to the traditional exercises approach. The goal of The Art and Craft of Problem Solving is to develop strong problem solving skills, which it achieves by encouraging students to do math rather than just study it. Paul Zeitz draws upon his experience as a coach for the international mathematics Olympiad to give students an enhanced sense of mathematics and the ability to investigate and solve problems.

Origami master John Montroll introduces nearly 50 figures that range from simple to sophisticated. They're perfect for those who are familiar with the basics but seek more challenging models as well as for experienced folders. Models include a cup, hat, sailboat, crane, frog, and fish for beginners; a pheasant, robin, pig, and octahedron for intermediate folders; and a deer, elephant, bee, and waterwheel for advanced origamists — plus many other imaginative figures. Clear instructions and crisp diagrams accompany each project.

The first edition of Connections was chosen by the National Association of Publishers (USA) as the best book in OC Mathematics, Chemistry, and Astronomy OCo Professional and ReferenceOCO in 1991. It has been a comprehensive reference in design science, bringing together in a single volume material from the areas of proportion in architecture and design, tilings and patterns, polyhedra, and symmetry. The book presents both theory and practice and has more than 750 illustrations. It is suitable for research in a variety of fields and as an aid to teaching a course in the mathematics of design. It has been influential in stimulating the burgeoning interest in the relationship between mathematics and design. In the second edition there are five new sections, supplementary, as well as a new preface describing the advances in design science since the publication of the first edition. Contents: Proportion in Architecture; Similarity; The Golden Mean; Graphs; Tilings with Polygons; Two-Dimensional Networks and Lattices; Polyhedra: Platonic Solids; Transformation of the Platonic Solids I; Transformation of the Platonic Solids II; Polyhedra: Space Filling; Isometries and Mirrors; Symmetry of the Plane. Readership: Polytechnic students, architects, designers, mathematicians and general readers."

This compilation of 34 original models by origami master John Montroll offers folders illustrated directions for creating a fabulous array of avian creatures. Ranging in difficulty from intermediate to complex, the figures include a hen, chick, and rooster; waterfowl such as a duck, heron, and swan; and other wild and domesticated birds.

Mix and match this strange stationery for a singular correspondence.

Created by an origami master, these 23 models offer a menagerie of easy-to-fold animals. Figures include birds—a cardinal, parrot, bald eagle, and cranes—and a fox, pig, hippo, elephant, lion, and others. Diagrams illustrate every step of the folding process, and full-color pictures depict the completed models. Internationally renowned author John Montroll has significantly increased the origami repertoire with his original designs. Best known as the inspiration behind the single-square, no-cuts, no-glue approach, the American origami expert offers readers meticulously developed folding sequences that allow them to create better models with fewer steps. Dover (2014) original publication. See every Dover book in print at www.doverpublications.com

New collection of 35 original models by the origami master ranges from simple (ladybug, angelfish, sailboat) to complex (grasshopper, woolly mammoth), with a crane, lion,

peacock, and several geometric shapes in between.

Reproduced from a rare original, this 1893 catalog provides nearly 800 detailed illustrations of stair railings, mantels, gables, moldings, and ornaments. Varied, unusual examples make it an inspiring, instructive resource.

Tomoko Fuse has been one of the world's premier origami artists for more than 35 years. This beautifully photographed book examines the three-dimensional geometric designs she is famous for. Fuse, often referred to as "the queen of origami," discovered the art of folding paper at just seven years old. She has come a long way since then, having had her work highlighted in exhibitions around the world, including Paris Origami (Carrousel du Louvre, 1998), On Paper (Crafts Council London, 2002) and her solo show Yorokobi (Bauhaus Dessau, 2004). In addition to teaching, folding and writing, she also collaborated with designer Denis Guidone for Milan Design Week 2018 and was a featured artist in Nova's episode "The Origami Revolution" (February, 2017). An artistic anthology of her most impressive work, Tomoko Fuse's Origami Art can serve multiple purposes: as inspiration for an experienced origami folder; as a truly impressive coffee table book for the artistically-minded; or as a push for intermediate folders to try their hand at modular origami models.

Step-by-step instructions and 970 clear diagrams show beginning and experienced paperfolders how to create 27 amazing polyhedra from one sheet of paper. Graded according to difficulty, the projects range from a simple cube, tetrahedron and octahedron to a challenging rhombic dodecahedron, sunken icosahedron, and an antidiagonal with pentagonal base.

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