



Robert Sabuda & Matthew Reinhart

Author Program In-depth Interview

This interview is a compilation of discussions that Candlewick Press had with Robert Sabuda and Matthew Reinhart. It was organized by TeachingBooks.net.

QUESTION: Your intricate pop-up books (*Encyclopedia Prehistorica: Dinosaurs and Sharks*, *The Night Before Christmas*, *Alice in Wonderland*, etc.) are amazing works of art. How did you get started making pop-ups?

ROBERT SABUDA: I made pop-ups as a kid, and for me it was an exploration. I examined pop-up books to see how they were put together; I wanted to see what happened down in between the pages and how things were glued on. I was about eight years old when I made my first pop-up book. I made a pop-up *Wizard of Oz* out of manila filing folders and colored pencils.

MATTHEW REINHART: The first pop-up I ever made was as a teenager. I used to make them for my friends for birthdays and things like that.

QUESTION: Robert, you've published children's books that were two-dimensional. Now, it appears you work solely in three-dimensional pop-ups.

ROBERT SABUDA: I've always loved children's books and I've always been interested in nontraditional children's books. My children's book career started with picture books, but all my styles are different. I've always worked so much with paper in my illustrations, such as paper collage and paper mosaic, that I knew my work would evolve into three dimensions. Since I loved pop-up books as a kid, I thought I'd try making a pop-up book. I thought it wouldn't be that difficult to do. Well, it was much harder than I thought.

I taught myself how to make pop-ups. It's a challenge because with two-dimensional artwork, you can create any world you want, but in 3-D, that is not the case. The paper will only do certain things at certain times, and that's the real challenge of getting a pop-up to work. I love it. It's almost like a mini stage and you've got actors that must interact and work within a three-second time period.

QUESTION: Matthew, how did you get your start creating pop-up books?

MATTHEW REINHART: I have a very different background from Robert. My parents wanted me to go to medical school, so I studied biology for my undergraduate. I really enjoyed it — I love zoology and paleontology. But, I decided that medical school just really wasn't for me.

Throughout my whole life, I've always drawn and made artwork in some way or another. I made pop-ups as well. So I decided after college that I would go to art school, and I studied industrial design at Pratt Institute in Brooklyn, in New York. I was really interested in learning toy

design. I love toys; I have a huge collection of Transformers and Star Wars figures. And I always wanted to be in the toy business.

QUESTION: How and when did you begin to collaborate?

MATTHEW REINHART: I moved to New York after college, and met Robert while doing some volunteer work. His book, *Christmas Alphabet* had just come out, and he told me he had studied at Pratt Institute in Brooklyn. I was inspired, so I enrolled as an industrial design student (specifically toy design) the following year. Pratt was fantastic, though my initial dreams of being a toy designer soon transformed into paper engineer with the help of Robert. Now we create pop-up books together and I create my own as well.

ROBERT SABUDA: Working or collaborating with another artist like Matthew is great! We can bounce different ideas off of each other. He'll offer suggestions to improve the paper engineering of the pop-ups. When I'm finished with my part, Matthew will begin to create the color artwork that will go on the pop-ups. I make suggestions to him for this part.

QUESTION: Your collaborative book, *Encyclopedia Prehistorica: Dinosaurs* appears to be more extensive than any other pop-up book to date.

ROBERT SABUDA: What we conceived of for *Dinosaurs* was certainly something new — not only for the children's publishing industry but for us as well. *Dinosaurs* was the biggest pop-up book we'd ever created. It had more pop-ups than anything that had ever come out of our studio.

One reason was there were so many dinosaurs that had interesting facts or quirks, and we wanted to include as many as possible. In order to do that, we created extra little flaps that are on the sides of the pages. So on each page, you can learn a lot about one main dinosaur in the center, then in the side flaps, you can learn about a relative of or different varieties of that dinosaur.

We wanted to be able to give the reader the opportunity to understand that there was more than just the central dinosaur — that each dinosaur is part of a larger family, and the varieties branch out. We wanted the book to be chock-full; it's like an encyclopedia of dinosaurs, in pop-up.

MATTHEW REINHART: The first pop-up book I owned was a dinosaur book given to me when I was six; I thought it was the best book. The book only lasted about a week until my little sister got a hold of it, and then all the heads were ripped off and there was nothing left of it. So, doing a dinosaur pop-up was actually a huge dream.

QUESTION: What is your collaboration like?

ROBERT SABUDA: When we collaborate together on a project, our roles with the project depend on what that project is. With *Dinosaurs*, Matt's having a biology background made it appropriate for him to write the manuscript and come up with all the correct terminology, while I was beginning to work on the three-dimensional aspects, putting the pop-ups together, making rough versions of them. We worked in tandem, and then Matt created the final artwork.

MATTHEW REINHART: I also laid out what pop-ups would be done where, what would be the most spectacular things on each page. We worked back and forth with some of the pop-ups. If he had a question about how a dinosaur may have moved, I knew a little bit more about it, so I may have changed around the anatomy so that it looked closer to what paleontologists believed the creature looked like.

QUESTION: What are you hoping children experience when reading/interacting with *Dinosaurs*?

ROBERT SABUDA: We wanted the book to be fun so the child would be able to open it up and say, “Wow, these creatures lived.” I believe so many books look at dinosaurs from afar as if they’re not only extinct but they’re also foreign and alien to us. That doesn’t have to be the case. I want people to open up our dinosaur book and feel like, “Yes, they’re here in some form and these were living, breathing creatures.”

MATTHEW REINHART: Most dinosaur books that I read while doing research for *Dinosaurs* were a little drab. Robert and I really wanted to breathe some life into the dinosaurs in our book. The movement and color of our pop-up illustrations make the dinosaurs vibrant and exciting, which is what our goal was.

QUESTION: How did you decide what color and movement to assign each dinosaur?

ROBERT SABUDA: We wanted it to be an art form, evoking the living, breathing, moving life form. The pop-up is not just an illustration on a piece of paper — it’s the actual shapes and forms of that creature.

Certainly working on something that’s so unknown like dinosaurs creates challenges because you want to be accurate. The hope is that an educator will be able to use this book and share it in a classroom with students. But so much is not necessarily known about dinosaurs, and that gives one certain creative license, which is wonderful. We don’t really know dinosaurs’ color, eye shape, feathers or no feathers....

The movements in the book are accurate to the way dinosaurs would be able to move, but there was a luxury of creative freedom when determining some of the colors and shapes. The dinosaurs were placed in certain stances to show what they could do in an animated form that would convey more of who they were as dinosaurs.

MATTHEW REINHART: We looked at dinosaurs from many different angles. For example, because the ankylosaurus was known for hitting other dinosaurs with his big tail, we decided to have him hit the reader with his tail as the pop-up opened up.

Since the brachiosaurus was such a huge dinosaur, that pop-up really shows its movement and really makes it just grow on the page. The most frightening thing about T-rex would be having him come straight at you and close his mouth down upon you, so we made T-rex’s head come out. He really explodes off the page and just bites down with a big chomp on the reader. And, the archaeopteryx flies off the page at the end of the book.

Regarding their coloring, we decided to go with the personalities of each of the dinosaurs and make artwork for the colors of their skin in accordance with that. So for the T-rex, which is a big, fiery, scary-looking monster, we decided to go with a really bright red with lots of black, so he would look much more menacing. And he has a little bit of yellow in there too. His teeth are also a little bloodstained because he’s just had a meal.

QUESTION: Please explain your process for creating a pop-up illustration.

ROBERT SABUDA: One of the most important parts of making a pop-up book is the paper engineering — this comes first. I make many different models using simple tools (scissors, cardstock and some tape), and begin folding and taping, trying to get the pop-up to work the way I want it to work.

I start out very simple at the beginning: just some basic shapes, squares, and some v-folds, and cutaway parts that will pop out or stick out from the page, until I'm really satisfied with the movement. I spend a lot of time just getting the initial movements to work for the pop-up.

It's really messy at this point. There's tape on it and it doesn't fit all the way inside the page. But I'm not really concerned about that. I just want a very general vision of what, for instance, T-rex's head is going to look like when it comes chomping down on the inside. So after I have this basic movement developed for the T-rex head, I'll move on to a more finished version. I'll start to add some detail work to it, so I'll put in the teeth and it has a big, long tongue, and I'll cut out a hole for the eye on the side, making sure all the while that the mechanism opens and closes properly. After I've worked that out completely, I'll start to do a more finished version and put in small details.

One of the things I like is sometimes when the pop-up is opened and closed, we can hear whether it's working properly or not. We can hear whether it's getting caught or whether it's sticking.

After I make small versions, I'll move to the final size. But even when I get to this point, there will still be a lot of adjustments. It will take weeks to develop lots of different prototypes and details.

I work in white exclusively at this point, because I want to see just how the forms, the shapes, the lights, the darks, the shadows of each pop-up look when they sit cleanly on the page. I just love to see all the lights and the darks and the shadows of the paper in the three-dimensional form when it opens and, most importantly, when it closes.

MATTHEW REINHART: I cut the painted paper with an Exacto knife and glue it very carefully together using the die lines. The die lines are the lines that are used to cut out the pieces of the pop-up book. We make hundreds and hundreds of pieces for each book. I'll use them very carefully and slide together different pieces of colored paper so that the artwork looks right when it's all put together in one big pop-up.

QUESTION: What else goes into the making of a pop-up book, once the illustrations are completed?

ROBERT SABUDA: The books have to be hand-assembled. We have to be perfectionists because it's relatively easy to make something pop up, but it definitely has to be able to pop shut again.

So that's where we come in and tweak areas and make sure that the pop-ups are cut correctly and that everything is moving properly, because even though it works once correctly here in the studio, we have to make sure it's going to work correctly down the line when it's being made hundreds of thousands of times.

MATTHEW REINHART: Usually very, very small tweaks are made at the final stages in production when we're on press. And they're usually little things like adding an extra fold to make something work properly or cutting off a small piece.

QUESTION: What advice do you have for students interesting in learning how to make pop-ups?

ROBERT SABUDA: When I was young, I had paper that I would fold and cut and glue to make the pop-ups on my own, and I liked that aspect of using my own imagination to make pop-ups. But today, kids have more opportunities to learn.

If they want to, they can go to my website, RobertSabuda.com and access an entire section of pop-ups that they can print out, fold and make. The instructions are included. It's a really good hands-on craft project, because kids can learn about paper as an art form and about the movement of the paper. There are mathematical concepts you can learn about pop-ups as well.

QUESTION: What, in your opinion, is the magic of the pop-up book?

ROBERT SABUDA: There is so much technology in the world: video games, computers, 500 channels on your television set. But a book is still a perfect means of communication that you can enjoy privately. A book is really a personal way of communication, and I enjoy adding the interactivity of a pop-up book. When you turn the page of a pop-up book, you're in charge of how it's going to look when it opens. You've made that happen all by yourself without any electricity or batteries. Anybody can make that magic happen themselves.

These days, you can find pop-up books in libraries. Educators use them in the class to teach. Librarians will circulate them. The love of an interactive book, in a human's hands, should never be underestimated.

Books by Robert Sabuda

- ENCYCLOPEDIA MYTHOLOGICA: FAIRIES AND MAGICAL CREATURES (co-created with Matthew Reinhart), Candlewick Press, 2008
- CHRONICLES OF NARNIA: BASED ON THE BOOKS BY C.S. LEWIS (co-created with Matthew Armstrong), HarperCollins Children's Books, 2007
- ENCYCLOPEDIA PREHISTORICA: MEGA-BEASTS (co-created with Matthew Reinhart), Candlewick Press, 2007
- WINTER IN WHITE: A MINI POP-UP TREAT, Simon & Schuster Children's Publishing, 2007
- CHRISTMAS: A POP-UP STOCKING STUFFER (co-created with Matthew Reinhart), Orchard Books / a division of Scholastic Press, 2006
- ENCYCLOPEDIA PREHISTORICA: SHARKS & SEA MONSTERS (co-created with Matthew Reinhart), Candlewick Press, 2006
- ENCYCLOPEDIA PREHISTORICA: DINOSAURS (co-created with Matthew Reinhart), Candlewick Press, 2005
- WINTER'S TALE, Simon & Schuster, 2005
- AMERICA THE BEAUTIFUL, Simon & Schuster, 2004
- ALICE'S ADVENTURES IN WONDERLAND, Simon & Schuster, 2003
- ADVENTURES OF PROVIDENCE TRAVELER, 1503, THE: UH-OH, LEONARDO!, Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 2003
- NIGHT BEFORE CHRISTMAS, THE (written by Clement Moore), Simon & Schuster, 2002
- YOUNG NATURALIST'S POP-UP HANDBOOKS: BEETLES (co-created with Matthew Reinhart), Hyperion Books for Children, 2001
- YOUNG NATURALIST'S POP-UP HANDBOOKS: BUTTERFLIES (co-created with Matthew Reinhart), Hyperion Books for Children, 2001

- BROOKLYN POPS UP (written by Pamela Thomas), Simon & Schuster, 2000
- WONDERFUL WIZARD OF OZ, THE (written by L. Frank Baum), Simon & Schuster, 2000
- BLIZZARD'S ROBE, THE, Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 1999
- MOVABLE MOTHER GOOSE, THE, Simon & Schuster, 1999
- ABC DISNEY POP-UP, Disney Press, 1998
- COOKIE COUNT: A TASTY POP-UP, Simon & Schuster, 1997
- PAPER DRAGON, THE (written by Marguerite W. Davol), Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 1997
- 12 DAYS OF CHRISTMAS, THE, Simon & Schuster, 1996
- ARTHUR AND THE SWORD, Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 1995
- HELP THE ANIMALS OF AFRICA: A POP-UP BOOK, Reader's Digest, 1995
- HELP THE ANIMALS OF ASIA: A POP-UP BOOK, Reader's Digest, 1995
- HELP THE ANIMALS OF NORTH AMERICA: A POP-UP BOOK, Reader's Digest, 1995
- HELP THE ANIMALS OF SOUTH AMERICA: A POP-UP BOOK, Reader's Digest, 1995
- KWANZAA CELEBRATION, A: A POP-UP BOOK (written by Nancy Williams), Simon & Schuster, 1995
- CHRISTMAS ALPHABET, THE, Orchard Books, 1994
- KNIGHTS CASTLE, THE, Artist and Writer's Guild Books, 1994
- MUMMY'S TOMB, THE, Artist and Writer's Guild Books, 1994
- TREE PLACE AND OTHER POEMS, THE (written by Constance Levy), Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 1994
- TUTANKHAMEN'S GIFT, Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 1994
- IBIS AND THE EGRET, THE (written by Roy Owen), Philomel Books / a division of Penguin Young Readers Group, 1993
- LOG OF CHRISTOPHER COLUMBUS, THE, Philomel Books / a division of Penguin Young Readers Group, 1992
- SAINT VALENTINE, Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 1992
- EARTH VERSES AND WATER RHYMES (written by J. Patrick Lewis), Atheneum Books for Young Readers / an imprint of Simon & Schuster Children's Publishing, 1991
- I HEAR AMERICA SINGING (written by Walt Whitman), Philomel Books / a division of Penguin Young Readers Group, 1991
- WALDEN (by Henry David Thoreau), Philomel Books / a division of Penguin Young Readers Group, 1990
- FIDDLER'S SON, THE (written by Eugene Coco), Green Tiger Press, 1988
- WISHING WELL, THE (written by Eugene Coco), Green Tiger Press, 1988

Books by Matthew Reinhart

- ENCYCLOPEDIA MYTHOLOGICA: FAIRIES AND MAGICAL CREATURES (co-created with Robert Sabuda), Candlewick Press, 2008
- ENCYCLOPEDIA PREHISTORICA: MEGA-BEASTS (co-created with Matthew Reinhart), Candlewick Press, 2007
- NO BITING, LOUISE! (written by Margie Palatini), Katherine Tegen Books, 2007
- STAR WARS: A POP-UP GUIDE TO THE GALAXY (co-created with George Lucas), Orchard Books / a division of Scholastic Press, 2007
- CHRISTMAS: A POP-UP STOCKING STUFFER (co-created with Robert Sabuda), Orchard Books / a division of Scholastic Press, 2006

- ENCYCLOPEDIA PREHISTORICA: SHARKS & SEA MONSTERS (co-created with Robert Sabuda), Candlewick Press, 2006
- JUNGLE BOOK, THE: A POP-UP ADVENTURE, Little Simon / a division of Simon & Schuster Children's Publishing, 2006
- MOMMY? (written by Arthur Yorinks; art by Maurice Sendak), Michael Di Capua Books / an imprint of Scholastic Press, 2006
- ARK, THE: A POP-UP, Little Simon / a division of Simon & Schuster Children's Publishing, 2005
- CINDERELLA: A POP-UP FAIRY TALE, Little Simon / a division of Simon & Schuster Children's Publishing, 2005
- ENCYCLOPEDIA PREHISTORICA: DINOSAURS (co-created with Robert Sabuda), Candlewick Press, 2005
- YOUNG NATURALIST'S HANDBOOK: INSECT-LO-PEDIA, Hyperion Books for Children, 2003
- ANIMAL POPPOSITES: A POP-UP BOOK OF OPPOSITES, Little Simon / a division of Simon & Schuster Children's Publishing, 2002
- POP-UP BOOK OF NIGHTMARES, THE (by Gary Greenburg et al), St. Martin's Press, 2001
- YOUNG NATURALIST'S POP-UP HANDBOOKS: BEETLES (co-created with Robert Sabuda), Hyperion Books for Children, 2001
- YOUNG NATURALIST'S POP-UP HANDBOOKS: BUTTERFLIES (co-created with Robert Sabuda), Hyperion Books for Children, 2001
- POP-UP BOOK OF PHOBIAS, THE (by Gary Greenburg et al), HarperEntertainment / a division of HarperCollins Publishers, 1999

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