Poetic Science: Bookworks by Daniel E. Kelm

on view October 12, 2007 - February 10, 2008

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Exhibition Description

Poetic Science will be the first solo exhibition in New England focused on the work of Easthampton-based artist/binder Daniel E. Kelm. Before settling into a career in the book arts, Kelm received formal training in chemistry and taught at the University of Minnesota. Kelm combines his knowledge of physical science and bookbinding with interests in alchemy and philosophy to produce a unique body of sculptural and kinetic bookworks.

As his work has progressed, the artist has developed innovative binding structures and refined his extensive knowledge of materials. According to Kelm: “The deep, expressive qualities of a binding are to be found not just on its surface, but in its form, material, and movement. When these integrally support the text and imagery there is a synergistic effect, and the impact is potent.”

The exhibition features thirty works by the artist and will be accompanied by video and web-based publications that will allow viewers to explore fully the role of movement in Kelm’s work. A concurrent exhibition of twenty of Kelm’s interpretive fine bindings, collaborations with some of the country’s best known artists, writers, and publishers, will be featured in the Book Arts Gallery on the third floor of Smith College’s Neilson Library. This section of the exhibition will showcase outstanding examples of tooled leather, cast paper, and other inventive approaches to traditional book binding.

Poetic Science: Bookworks by Daniel E. Kelm is supported in part by the Charlotte Frank Rabb 1935 Fund, the Berkshire Taconic Community Foundation, the Tryon Associates, the Friends of the Museum, and the Museum Shop.
Why we made this Teacher Pack

This fall the Smith College Museum of Art (SCMA) welcomes the special exhibition, *Poetic Science: Bookworks by Daniel E. Kelm*, on view on the second floor from October 12, 2007 - February 10, 2008. The Education Department of the SCMA has prepared this Teacher Pack for K-12 teachers to use in preparation for class visits to the Museum and to process that visit afterwards. Background information and suggested activities that correspond with the exhibition are included, along with a CD with still images of some of Kelm’s bookworks and a DVD where Kelm speaks about and demonstrates some of his bookworks. Educators may adapt this information into lesson plans suitable for their classrooms; we ask that you please only project or reproduce the images or video within your classroom.

BookMarks: A Celebration of the Art of the Book

*Poetic Science: Bookworks by Daniel E. Kelm* represents the SCMA’s contribution to the Museums10 BookMarks project, a four-month, region-wide celebration of the art of the book featuring exhibitions and programming by Museums10. For a complete listing, visit: [www.museums10.org](http://www.museums10.org)

The SCMA has chosen “the Art of the Book” as its theme for the fall slate of school tours and family programming. Guided school tours will discuss the connections between books and art, and will include stops inside Daniel Kelm’s exhibition.

For Further Assistance

Feel free to contact Julie Zappia, Associate Curator of Education, at (413) 585-2773 or jzappia@smith.edu, for more information or ideas about how to integrate this exhibition and/or SCMA’s permanent collection into your classroom. This packet was written and compiled in spring 2007 by Julie Thomson, UMass Graduate Intern for Museum Education; Emily Casey ’09 and Sophia LaCava-Bohanan ’08, Student Assistants for Museum Education, and Julie Zappia.

Thank You

School and teacher programs at the SCMA are supported by the Maxine Weil Kundstader ’24 Fund, the Estelle Glatt Sosland ’46 Fund, the Friends of the Museum, and Smith College. The bus subsidy program is funded by the Friends of the Museum.
Biographical Information

Daniel Kelm did not always intend to be an artist. As a college and graduate student in the late 1960’s and early 1970’s, he studied Chemistry and Philosophy at the University of Minnesota. There, he spent his time both studying and teaching classes. It was not until 1978 that Kelm began his exploration of book binding through the university’s Library Bindery. His growing enthusiasm in this field prompted Kelm to leave the world of sciences to pursue his interest in the arts, specifically the skilled traditions of book binding, and the making of artist’s books.

After serving as an apprentice in bookbinding production studios across the country, developing his specialized skills in traditional techniques, Kelm opened his own studio – The Wide Awake Garage – in 1983. The success of his studio work fostered the foundation seven years later of the Garage Annex School for Book Arts in 1990. Bringing together book binders and historians, the Garage Annex offers workshops and apprenticeships in book binding for established artists and students alike. Now based in Easthampton, MA, Kelm gives lectures across the country, teaches at the School for Book Arts and continues to create his own bookworks independently and collaboratively. Kelm will speak at the SCMA twice this fall--at his exhibition opening on Friday, October 12, and at the Teacher Workshop on Wednesday, November 7. See www.smith.edu/artmuseum/programs/index.php for detailed information.

Artwork Description

I am an experimenter, inventor, and artist. The discovery of interconnections thrills me. My expression as an artist emerges from the integration of work in science and the arts. Chemistry has for more than forty years helped me shape an understanding and respect for materials. Philosophy challenges me to map out perspectives from which to consider intellectual activities. Alchemy provides me with a historical model of a physical existence infused with spirit. Bookbinding gives me the opportunity to create beautiful objects with respect for materials and regard for the environment.

~ Daniel Kelm, from his Wide Awake Garage biographical statement

Books are by their nature kinetic objects that ask their readers to physically interact and manipulate them. Kelm takes the kinetics of the book beyond the realm of the expected, and creates bookworks that challenge the reader’s perception of what a book is. The physical interplay of reader and book, in Kelm’s work, is such that the reader is able to observe, touch, disassemble, observe again, and reconstruct. The book is, therefore, interpreted not only by the text or images that are included within its pages, but by the very interaction the reader has with it.

Kelm’s training in chemistry can be evident in the shapes of his bookworks. Where a reader typically expects that a “book” has a cover, spine, and pages, Kelm’s books sometimes take on such complicated geometric forms as the dodecahedron, as in the example of Mars (2005), pictured on the next page.
Mars, comprised of a few pieces illustrated below, is one of the bookworks that is included in the DVD produced especially for the exhibition in which Kelm demonstrates how the book can be disassembled and reconstructed. This DVD, included with this packet, will also be on display in the gallery and will help viewers to experience the importance of form and movement in Kelm’s work.

One of the SCMA’s goals for hosting this exhibition is to spread the word about Kelm’s artistry. Jessica Nicoll, Director and Chief Curator of the Smith College Museum of Art says about Kelm, “(He) has had a long career contributing intricate traditional interpretive bindings for a variety of published artist’s books, but his own personal work is less known.” Instead of creating a catalogue for the exhibition, a web-based publication is in the works, which will be accessible through the SCMA website after the exhibition opens. The web-based publication will provide widespread accessibility to Kelm’s work, and will be the first large-scale publication devoted to his work.


Mars (detail), configured as a dodecahedron.

Mars (detail), partially pinned together.

Mars, in one of its unfolded positions, spells out the word “WAR.”
The History of Bookbinding*

*words in bold are included in the glossary on page 8

Book-bindings have two purposes: they protect a text block, or collection of written pages from wear and tear, and they also transform a disorganized pile of papers into a coherent whole – a book. From this simple purpose, book-bindings have evolved into an art form of their own. From early medieval manuscripts to the elaborate artists’ books of artists like Daniel Kelm, the development from the simply utilitarian to the beautiful has been occurring from the very beginning of book-making and book-binding.

The earliest ancestors of the modern book were Babylonian clay tablets dating from 3800 BCE found in the Cradle of Civilization. Clay tablets were formed from a muddy paste that would be inscribed while still wet and then baked in the hot sun. Approaching the Common Era, this simple design was further developed by the ancient Egyptians through the innovation of papyrus scrolls. Made from living plant fibers rather than hard clay, papyrus scrolls could be rolled up and easily stored. The library in ancient Alexandria was said to contain somewhere near seven thousand scrolls in its collection – no small feat considering each scroll was handwritten!

Though papyrus scrolls were more convenient, their major drawback was the fragility of the material. Dried papyrus crumbled and disintegrated quickly. Around the dawn of the first millennium and into the Middle Ages, the concept of the papyrus scroll was expanded upon. Scrolls were made of more durable animal hide in the form of vellum or parchment. In medieval Europe, monks from various religious traditions were the continent’s foremost book binders. Not only did they store manuscripts as scrolls, they also used a system akin to modern books where sheets of parchment or vellum would be folded and bound together. These codices were stored in cases made from two pieces of wood, perhaps wrapped in leather. These cases became more and more elaborate as the wood covers were more carefully bound in the leather, and then intricately decorated with gold leaf and leather inlays.

The advent of the printing press in the 1400’s separated the role of the book printer from that of the book binder, inspiring an increase both in the number of specialists in the field as well as the techniques of book binding. Text blocks were made of paper rather than animal skin, and the words were printed using letter blocks rather than entirely written by hand. Cases became more lavish, oftentimes commissioned by individual patrons developing their libraries. One noted European patron in the sixteenth century was the Treasurer-General of France, Jean Grolier. His library revealed a large number of books whose bindings were personally commissioned by him, as well as collections of beautifully bound books given to the vicomte by friends. Grolier is also believed to be the man who first displayed books on his shelves spine-edge facing out, with the title embossed on the spines; before the spine had always pointed toward the wall, and the book title would be inked on the fore-edge which faced the center of the library. Though the printing press had somewhat automated the process of making books, the lavish collections of Grolier and others show that the process was still a laborious and expensive one, demanding a good deal of hand-done work, making each volume a one of a kind object.
Even into the nineteenth century, small enterprises worked to maintain the beautiful art of book binding. In particular, the binder William Morris worked individually with writers, artists and patrons to design beautiful book bindings to protect treasured writings and manuscripts.

With the technological advances of the modern age, however, books can now be mass-produced quickly and cheaply with absolutely no hand detailing. In many ways, the casing of the books found in bookstores and libraries has regressed from a hallowed art form to its utilitarian beginnings as two pieces of wood encasing manuscript pages.

To combat this, the skilled tradition of book binding is fostered and challenged through the medium of the artists’ book. First invented in the early twentieth century as part of the avant-garde movement to make art available to the masses, artists’ books range in shape and content as a reflection of the artist’s intent. The experimental medium was later picked up by artists such as Yoko Ono and Andy Warhol in the 1960’s as part of the Pop Art movement. The form was officially recognized as a genre in the 1970’s, inspiring the first serious artistic discussion and criticism of the medium as well as leading to the development of institutions to study and explore the art form.

A product of this artistic legacy, Daniel Kelm combines specialized traditional practices of bookbinding with his own innovative vision to create a broad scope of bookworks on a variety of subjects. The artist has written that “the deep expressive qualities of a binding are to be found not just on its surface, but in its form, material, and movement. When these integrally support the text and imagery there is a synergistic effect, and the impact is potent.” Thus, for Kelm, the very binding of a book, manifested in his own artists’ books, subsumes the “casing,” the “text block” and every other technical aspect of the medium to express the spirit of the book in image and word, shape, color and texture. Reflecting his own background in chemistry and philosophy, Kelm’s book works delve into the subjects of alchemy and physical science as well as the history of his own medium and other more fanciful topics. While potentially thought provoking, the products are ultimately beautiful pleasures to the eye, justifying the record of one seventeenth century bibliophile who wrote in his diary after a successful day of shopping: “After that to a booksellers and bought...for the love of the binding...three books.”

For Further Reference

Daniel Kelm and Greta E. Sibley’s Garage Annex School for Book Arts
www.garageannexschool.com

Hollander’s
Specializing in decorative papers, bookbinding supplies, and workshops (located in Ann Arbor, MI). They offer a comprehensive selection of books about bookbinding available for purchase on their website:
www.hollanders.com/supplies/bookbinding/booksonbookbinding.htm

The Book Arts Web
www.philobiblon.com

Weitz, Weitz & Coleman
An American company specializing in custom binding; the site links to slide show of a professional rebinding an old book using traditional by-hand techniques.
www.weitzcoleman.com/history.html

Bindings at the British Library
You can view a random selection of images in a “picture gallery” where they appear as thumbnails; when you click on them, you get a larger image and information on the provenance. The books are mostly 16th and 17th century European.
www.prodigi.bl.uk/bindings
Glossary of Bookbinding Terms

**Artists’ book:** A work of art in book form. Artists’ books can be works published in small editions, or one of a kind objects that expand and develop the idea of a book. The shape of artists’ books varies from scrolls and fold outs to a collection of loose items in a box resembling a case. (ex. *Mars*, by Daniel Kelm, pictured on the cover of this packet)

**Case:** The cover of a book that protects the textblock from damage. The case can be a traditional modern cover, two pieces of wood, or even the leather wrapping used in ancient times. An example of an innovative case is Daniel Kelm’s *Religio Mathematica*, pictured at right.

**Codex:** A set of folios nested together and secured by stitching along the center fold. The fragile pages of a codex could be stored safely pressed in a case made of two pieces of wood. For further protection, the case could be wrapped in leather.

**Folio:** A single sheet of parchment or vellum folded in half to make two leaves, or pages. Folios are then gathered together to make a codex.

**Fore-edge:** The edge of the book opposite the spine-edge. The fore-edge is the exterior part of the book that reveals the pages inside.

**Papyrus:** A kind of manuscript page best known in ancient Egypt. The stems of the papyrus plant were split into fibrous strips that were placed together in both horizontal and vertical patterns. After being soaked in the Nile, the pages were left to dry in the hot sun. Later, the dry pages would be hammered into sheets and polished with ivory so that they could be written on. Papyri were stored rolled up, as scrolls.

**Parchment:** A type of manuscript page from the Middle Ages made of stretched and cured calf skin.

**Spine:** The outside binding that holds the volume along its edge.

**Text block:** The leaves of a volume that are bound together. This is the inside of the book containing the pages.

**Vellum:** A type of manuscript page from the Middle Ages made of stretched and cured sheep skin.
Before Your Visit: Observation and Writing

You can't judge a book by its cover!

Lesson Goal: Expand students' knowledge of what a book is (or can be).

Overall Objective: Students will visually analyze some of Daniel Kelm's bookworks (in reproductions) and respond in written format.

Massachusetts Curriculum Framework Connections: ELA, General Standard 19: Writing (can be applied to this activity for grades K-6 as students will be working with the basic elements of fiction and poetry). Arts Curriculum Framework, Visual Arts, Connections Strand, PreK-12 Standard 10: Interdisciplinary Connections (this activity integrates observation and enjoyment of a visual, artistic medium with an exploration of language arts skills). Arts Curriculum Framework, Visual Arts, PreK-12 Standard 5: Critical Response (students will describe and analyze the work of Daniel Kelm).

Supplies Needed: ~ CD Rom with images and DVD included in this packet
~ a way to project or reproduce or project those images
~ paper and writing utensils

Directions:

1. When discussing reading and literature, people often say, “You can’t judge a book by its cover.” The outside of a book or a person may at first look unappealing, but further observation and experience proves this not to be the case. However, while some of Daniel Kelm’s bookworks have text in them, some of the books are all “cover.” The shape of the book – the “cover” – is what tells the story. While Kelm’s work may initially belie the warning not to “judge a book by its cover,” it in fact supports it. Kelm’s books open and unfold in surprising ways. They need to be explored from all sides to finally get an idea of the story he is telling.

2. For a class activity, have the students creatively put this process of “judging” a Kelm bookwork by its cover into words. After looking at different images (provided in the teacher pack) of a particular Kelm bookwork, encourage the students to express in writing their thoughts on the book.

~ What is the story of this book? What do you see that helps you interpret it?
~ What can we learn from it just by looking?
~ How does it make you feel? Does it remind you of anything?

3. Responses can range from fictional narratives based on what is seen in the images to imaginative stories of the book’s history. Some students might want to explore prose while others would enjoy crafting a poem inspired by the bookwork. The DVD should be shown after the students projects are completed, so that they can see the artist how the artists shows us what's inside the “cover.”
Before Your Visit: Discussion

Books have changed a lot over time!

Lesson Goal: Learn about the history of books and bookbinding.

Overall Objective: In the course of preparations to visit Poetic Science: Bookworks by Daniel E. Kelm, students will discuss the history of the book and artist’s books.

Massachusetts Curriculum Framework Connection: This kind of discussion dovetails neatly with Arts Curriculum Framework, Visual Arts, PreK-12 Standards 8 and 9 as it encourages students to consider the effects of inventions and technologies on the shape and meaning of the book. This allows them to consider the book as an art object as well as a container for ideas. Using glossary terms and their knowledge of the history of the book, they can discuss how and why books changed, how books range in shape and meaning through diverse cultural parts of the world, and how place influences shape. Using the curriculum guidelines, they can then discuss the book as they would a work of art.

Supplies Needed: ~pages 6, 7, 8 of this Teacher Pack
~encyclopedia entry for “Book”
~if possible, websites that display images of books throughout time (such as Wikipedia-- http://en.wikipedia.org/wiki/Book)

Directions:

1. Explore the different kinds of books made in different cultures throughout time. Compare and contrast how they look and the sophistication of used materials (i.e. clay tablets in ancient times to factory made, mass produced books today).

2. How are the shapes of books informed by the materials available to their makers? (i.e. the Egyptians used papyrus leaves, the waters of the Nile and the hot Egyptian sun in the manufacture of their paper because those were the materials available)

3. Looking at different sorts of books, when was it important that the book itself be beautiful, and when did it just have to be functional? Why do you think there is a difference? (i.e. Bibles and religious books in monasteries were bound beautifully because they were considered to be holy or spiritually valuable, but many papyrus scrolls in the library of Alexandria were plain, because they just were meant to hold information)

4. Discuss the birth of the artist’s book. What makes this kind of book different? Why did it develop? How is the reason for an artist’s book different from the reason for a regular book? Compare images of Kelm’s books to regular books in the classroom.

5. If appropriate, guide the discussion to a consideration of how books are valued in our time. Are books valued for how they look? For their ideas? Are books necessary with computers? These are important questions to keep in mind when thinking about artist’s books.
After Your Visit: Imagining and Creating
Books can hide secrets!

Lesson Goal: Create a bookwork of your own inspired by Daniel Kelm's work.

Overall Objective: Students will explore the concept of the “secretive” properties of Kelm's books, then create their own using a box format.

Massachusetts Curriculum Framework Connection: This activity is in accordance with Arts Curriculum Framework, Visual Arts, PreK-12 Standard 2 as students can experiment with a variety of media in the creation of a 3-D work of art. They will also learn and practice specific vocabulary as found on the glossary page devoted to book binding.

Supplies Needed: ~empty cigar boxes or containers similar to cigar boxes
~items to decorate the cigar boxes: construction paper, markers, paint, etc., whatever is available to you

Directions:

1. Books can hide secrets. A plain book cover can hide inside it wonderful adventure stories, beautiful illustrations and all sorts of flights of fancy. After completing the pre-visit activity and seeing Poetic Science: Bookworks by Daniel E. Kelm, students will learn that some of Kelm's books also hide secrets. While they often look like one thing, when explored a bit more, they become something completely different! In order to play with the ideas of what a book is, and how the book shape can be changed and adapted for creative purposes, students can try their hand at this fun project.

2. In some of Kelm's bookworks, what initially looks like a book acts like a storage box. Collect enough cigar boxes for all of the students in the classroom. After some brainstorming, have students decorate the cigar box cover to make it look like a book.

3. Using the glossary page, talk about the different parts of the book being recreated through materials on the cigar box. Make sure that the cover is convincing – is there a title on the book? Does the spine show the book's binding?

4. When the outside is completed, the box can be used to hide treasures. The “book” is good camouflage for the treasure box to sit on a shelf or beside a bed. What special things would the students like to hide? A letter or rocks and shells collected from a vacation? A photograph? Anything can be put in there!
After Your Visit: Integrating Art and Research


Overall Objective: To think creatively about a topic of interest, students can research and present a short report in an unusual and artistic form.

Massachusetts Curriculum Framework Connection: Following ELA Curriculum Framework General Standards 23 (Organizing Ideas in Writing) and 24 (Research), students can research their topic at the appropriate level and organize their ideas within an artistic medium. Arts Curriculum Framework, Visual Arts PreK-12 Standards 6 (Purposes and Meanings in the Arts) and 10 (Interdisciplinary Connections) will be fulfilled as students consider the purpose of using an unusual artistic medium to present factual information.

Supplies Needed: ~a variety of book-related topics for students to choose from
~resources related to those books topics (web, encyclopedias)
~a book about making pop-up books, such as Gwen Diehn’s Making Books That Fly, Fold, Wrap, Hide, Pop Up, Twist, and Turn (Lark Books, 2006)

Directions:

1. Sometimes, reading about a subject can be more fun when it is presented in an unusual way. Many of Kelm’s books deal with complicated subjects like astronomy or history. Kelm uses the shape of the book to help present the information in an interesting way. The different portions of the bookwork can contain maps or diagrams in lush colors and careful details. The layout of the book – how it unfolds – helps guide the viewer through the knowledge Kelm is offering.

2. Have students choose a subject for a short report, perhaps related to the theme of books – the history of books, the history of paper, the artist Daniel Kelm, what is an artist’s book, etc – or related to class work.

3. After the research portion of the project is completed, offer students a range of unusual book types from which to choose for their own presentation – for example those found in Gwen Diehn’s Making Books That Fly, Fold, Wrap, Hide, Pop Up, Twist, and Turn. Discuss logical ways to mesh the report’s information with the shape of the book. What helps the reader move from one idea to the next? What is too confusing?

4. As students put their books together, they will be integrating visual and language arts.

5. Finally, the criteria for informational/expository writing found in ELA Curriculum Framework General Standard 19 will be fulfilled as student draft and edit their reports. When the bookart reports have been completed, students can present their work in an informal classroom setting.
OTHER RESOURCES AVAILABLE to YOU

@ the Art Museum

Cunningham Center for Prints, Drawings, and Photographs
This part of SCMA houses over 16,000 works on paper including prints, drawings, photographs, watercolors, and illustrated books. The center is open for class and individual visits by appointment only on Tuesday-Friday from 1-4pm. To schedule a visit or to obtain more information, call (413) 585-2764 or email ccenter@smith.edu.

SCMA Records Room
Explore curatorial files and access slides and disc images on the fascinating spectrum of works within the Smith College Museum of Art collections. Visits by appointment only during business hours. Contact the General Administrative Offices to inquire, (413) 585-2761.

Museum Website
Use our website to get the scoop on upcoming exhibitions, as well as accurate event and contact information. Stay tuned; we are currently developing the education portion to include curriculum packs for teachers! www.smith.edu/artmuseum For information about other museums around the Northampton area, please visit www.museums10.org/.

Database
Search this developing database by title, artist, or artist's culture to dive into the art collections of the Five College Museums and Historic Deerfield! http://museums.fivecolleges.edu

Friends of SCMA
Consider membership at the Educator or Individual level to receive the museum newsletter, and enjoy discounts to teacher workshops and special programs. You can purchase a membership online at www.smith.edu/artmuseum (click on “Join”), or call (413) 585-2777.

@ the Art Library (adjacent to the Art Museum)

Hillyer Art Library
Research any art topic or keep up with the latest exhibition news through Hillyer’s extensive collection of books and periodical holdings. Regular hours during the Fall 2007 semester: Monday – Thursday 9:00 A.M. – 11:00 P.M., Friday 9:00 A.M. – 9:00 P.M. Saturday 10:00 A.M. – 9:00 P.M., Sunday 12:00 P.M. – 12:00 A.M. (413) 585-2940 www.smith.edu/libraries/libs/hillyer