

## Re-engineering Broken Book Spines

Books provide a unique set of considerations for the conservator, as they seek to preserve not only the volume's historic record but in most cases also its functionality. Often the fragility of the historic materials makes it difficult to maintain function without sacrificing the object's history, limiting a future researcher's ability to ask and answer certain questions. Thus, employing a treatment that can improve a book's accessibility while protecting its physical historic record is ideal. For more than 50 years, variations of a spine reback have been the primary option to repair books and their spine covers. The technique is effective but invasive, requiring the conservator to lift or remove original components to anchor newly added repair materials. The treatment we propose is an innovation in book repair that will offer conservators an alternative. Originally developed by Jana Dambrogio more than 15 years ago while studying and conserving two large and diverse historic collections, this treatment is tailored for books with broken spines or detached boards. The Re-engineering Broken Book Spines (RBBS) research group, formed 2 years ago, performed variations of this treatment on more than 20 books found in the General and Special Collections of the MIT Libraries. The group will present information about how the treatments have fared on the books over the past 2 years, including the benefits and limitations of the procedure. Often the damage occurs at the "joints" and "hinges," the flexible areas that allow the front and back covers to flex open and close. The repair uses methyl cellulose, wheat starch paste, various weights of Japanese tissues, and sometimes textile for badly damaged or heavy books. This treatment is delicate yet sturdy, and although originally developed for non-circulating special collections, recently it has also been implemented into circulating collections. With its versatility, noninvasiveness, aesthetic sensitivity, and time and material economy, this repair results in a custom-made, functional, and historically conscious treatment that serves well for both special- and general collections care.

JANA DAMBROGIO  
Thomas F. Peterson Conservator  
MIT Libraries, Wunsch Lab  
Cambridge, MA  
jld@mit.edu

AYAKO LETIZIA  
Conservation Associate  
MIT Libraries, Wunsch Lab  
Cambridge, MA  
ayako@mit.edu

MARY UTHUPPURU  
Springleaf Press  
Bloomington, IN  
mary@springleafpress.com

BRIEN BEIDLER  
Bloomington, IN  
brienbeidler@gmail.com

KATE BEATTIE  
MIT Libraries, Wunsch Lab  
Cambridge, MA  
knb@mit.edu

EMILY HISHTA COHEN  
Paper Conservator  
MIT Libraries, Wunsch Lab  
Cambridge, MA  
cohen.emily.h@gmail.com