AT THE AMERICAN LIBRARY ASSOCIATION’S 2006 ANNUAL MEETING IN NEW ORLEANS, I was one of three panelists who participated in the Rare Books & Manuscripts Section’s conference program entitled “Re-imagineering Special Collections: Building Designs and Considerations for the 21st Century.” While I was reasonably comfortable with my understanding of Walt Disney Imagineering (from which our program title was taken), it was difficult to imagine that, in Special Collections at the University of Houston Libraries, we had come up with anything so novel or different (let alone newly imagined or creative) to be called “imagineering.” To me, imagineering means ground-breaking innovation, a making-new-from-scratch. A transformation as we moved into the 21st century more aptly describes what we planned for and undertook in our library’s most recent construction and renovation project.

My presentation in New Orleans, which followed the thirty-nine-year history of our Special Collections Department, highlighted the problems of a physical space already on the verge of obsolescence when its initial construction was completed in the late 1960s. We certainly took the opportunity to plan for changes and improvements in the construction of new and refurbished space. We addressed a number of long-standing shortcomings to the extent that funding would allow as we brought our space out of the mid-20th century.

1. The Rare Books & Manuscripts Section’s conference program was held in the Morial Convention Center on June 25, 2006. The panel consisted of moderator Lois Black, at that time Special Collections Librarian at North Carolina State University, and panelists Jeanne M. Hammer, then Assistant Director for Finance and Administration at the same university library, and Jeanette S. Blackburn, Senior Associate at the architectural firm Shepley, Bulfinch, Richardson, Abbott in Boston, Massachusetts.
2. Walt Disney Imagineering was the entity formed to create Disneyland, the Disney company’s first theme park, opened in Anaheim, California in 1952. Corporate Web site available online at http://corporate.disney.go.com/corporate/overview.html (accessed May 16, 2006).
3. The Special Collections construction and renovation was part of a larger project that included the addition of a new wing and the renovation of the first three floors of the original 1950 library building.
If the most basic premise of libraries is to provide access to information, as Michael Buckland posited in the early 1990s, what are the best ways to go about creating the optimal environment in which to provide that access in ways that complement changes in research and information-seeking? Technological and programmatic innovations all point, by greater or lesser degree, to a more concentrated focus on library patrons’ needs and the ease and speed at which information is delivered. This requires constant rethinking on the part of library staff to bring the patron into more immediate contact with the information sought, closer to the time it is needed or desired. This rethinking also is necessary for rare book, archival, and special collections facilities if we are to better serve our patrons.

How have those of us in special collections responded to these innovations? To my mind, just about every change that has taken place since the 1980s in some way points to a shift in our transformation from keepers to marketers of unique materials and the information held therein.

**Taking Stock of Key Issues**

The literature is replete with books and articles that address how libraries, and the special collections departments within them, have changed over the final third of the 20th century and into the new millennium. What areas of change are most frequently discussed in the literature? I will address four of these: technology, the environment, security, and academic instruction. I will also show how my own department measured up in each instance and what changes were made over time, culminating in our new facility.

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8. In each instance, as these concepts affected Special Collections at the University of Houston, my focus will be on physical manifestations.
**Technology.** In the decades since the University of Houston Libraries’ Special Collections first opened its doors for the 1967–68 academic year, myriad technological applications have touched and transformed library operations. Yet, even the most basic sorts of technology were slow in coming to our department. The desktop computer did not arrive until 1983. We were the recipient of one of the first of 350 Digital Equipment Corporation’s personal computers on the main campus.9 Access to the online catalog was not established until 1988. In the Libraries’ early networked environment, it was difficult to provide connectivity to Special Collections due to the seven-floor distance from the computing hub and the difficulties and costs involved to run cable. We made do with one desktop computer with only word-processing capability until 1993, when the Systems Department began its first large multiphased investment of personal computers for staff, enabling us to send and receive e-mail. Our staff finally began to feel technologically connected to the rest of the organization in 1994 as the Internet became one of our work tools.10 Five years later, we acquired an Epson 836XL tabloid-sized scanner and began to digitize materials. Our first digital project was the creation of an online exhibit of historic Texas postcards. It went live in January 2001.11 The following year we received a Nikon D1X digital camera, allowing us to begin digitizing images from rare books.12

**The environment.** The wing in which our first Special Collections resided was already under construction in 1966–67, when attention to the preservation of library materials and the environments in which they resided began to reach the collective consciousness of library planners nationwide. This shift in thought came about as the result of post-World War II special collections growth and a focus on specific subject collections.13 A more acute influence on environmental (and preservation) issues was the disastrous November 1966 flood in Florence and Venice and surrounding countryside, affecting thousands of art works, books, and manuscripts,14 and the outpouring of restoration assistance from American and

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11. Julie Grob, e-mail message to the author, May 14, 2007. This online exhibit is entitled Historic Texas Postcards from the George Fuermann Texas and Houston Collection, prepared by Special Collections librarian Julie Grob and digital intern Monica Zarzycka.
12. The digital camera was part of a Telecommunications Infrastructure Fund grant, written by the Libraries’ Systems Department.
European experts. Unfortunately, our library’s environmental and storage conditions did not benefit from this improved environmental scrutiny.

**Security.** A survey of the literature concerning the issue of overall library security shows that the topic received little concentrated attention before the 1970s. Zeidberg and Allen provide articles that aptly capture the state of affairs in special collections repositories in the 1980s and 1990s. Wilkie and Goodbody et al., among others, continued the discussion about security and theft in the current decade. Though library thefts are as old as the existence of collections themselves, Zeidberg points to a significant upturn of theft as prices for rare materials have precipitously risen. The 2006 publication of the RBMS Security Committee’s “Guidelines for the Security of Rare Books, Manuscripts, and Other Special Collections” includes a brief summation of the Guideline’s history by Everett C. Wilkie, Jr., chair of the Security Committee:

The “Guidelines…” began in 1978 with an ad hoc charge to the RBMS Security Committee [also] to develop guidelines for marking rare materials… [These] were separately published in 1979 and when the present guidelines were originally published in 1982, the marking guidelines became an appendix to that document, a position they continue to occupy… [They] have been revised on the ACRL five-year review schedule since their inception…

Attention to any security plan for our department was minimal, at best. The only physical deterrent to theft consisted of locked stacks. Scant control could be exercised over reading room entry and egress, and our floor plan made supervision of patrons difficult, which no furniture arrangement seemed able to address successfully.

**Academic instruction.** During the 1980s and 1990s, academic libraries began to respond to a new instructional direction that focused on the development of


18. Zeidberg, 19. He documents reported thefts and missing materials in American libraries between 1979 and 1986 alone totaling over $2 million. All but $25,000 of this figure consisted of rare books, manuscripts and documents, maps, engravings and plates.

interdisciplinary relationships among various subject disciplines, a movement that continues to gain momentum. While instruction has taken place in our facility since its opening, not until the early 1990s, with the addition of extra professional staff, did we begin to proactively market to a wider variety of subject disciplines beyond English and history, and undertook faculty/librarian team teaching.\(^\text{20}\) A truly appropriate space in which to conduct more than the traditional one-time class visit to Special Collections did not exist until our move into new quarters in 2005.

**The Way it Was**

What transpired in the twenty-four year period—from 1984 when I began my tenure at the University of Houston Libraries, to 2005 when Special Collections moved into its new facility in the M.D. Anderson Library—to bring our department out of the 1960s? Put succinctly, ours was, and continues to be, an effort to remove barriers to Special Collections as place as well as to the content of special collections materials. Incremental changes have been made over time, culminating in a newly located department straddling the new wing and a reconstructed portion of the 1967 building addition. What follows is a discussion of the issues we have addressed. While neither as all-encompassing nor as far along as I might have wished, I nonetheless count our blessings from the vantage point of the early 21st century because, in 1984, our Special Collections, for all intents and purposes, was frozen in the 1960s.\(^\text{21}\)

The most generalized of our original problems was the department’s location, which created challenges in terms of accessibility to collections, to reference and instructional services, and to staff. Being seven floors away from the other library services made it difficult to attract patrons to this isolated outpost at the top of the tallest stacks tower. Sid Huttner expressed a familiarity with such isolated operations when he wrote, “Many rare book and manuscript librarians work in attics and basements, often posh attics or basements, but nonetheless far from the front door.”\(^\text{22}\) Attracting patrons was a challenge I believe we never successfully met, irrespective of constant marketing of our services and materials. A basic isolation from

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20. Pat Bozeman to Library Administration and Department Heads, August 22, 1995, “Special Collections End of Fiscal Year Report—August,” Special Collections files, University of Houston Libraries. A typical instruction schedule from 1990 onward included courses such as art, art history, graphics, paleontology, classical and modern languages, Mexican-American studies, women’s studies, mechanical engineering, and music. Courses such as the Flowering of the Middle Ages (history) and Flowering of the Renaissance (English), Human Situation – Antiquity and Human Situation – Modernity (Honors College) focused on a multidisciplinary approach.

21. The first building addition, referred to as the “stacks tower,” included the Special Collections Department on its top floor.

our colleagues persisted, despite efforts to bring them into our space and mixing with them in other areas of the library. I hear similar feelings expressed by personnel in our various branch libraries located within the colleges. The tendency is for library staff to think of library peers whose home bases are not points of regular contact as “apart-from,” if they think of them at all.

Our overly large reading room space was expected to serve too many functions: a place of research, class instruction, and a venue for exhibits, special events, and library meetings. The result was a room that served no function well, least of all that of a reading room. Reference service and research seemed afterthoughts, with reader space squeezed into a back corner of the room. The rest of the room was filled with an assortment of upholstered sofas, chairs, and coffee tables, creating the ambiance of a women’s dormitory lounge, circa 1960. Further strengthening the perception that a functioning reading room was not an original priority is this excerpt from a report written by the department’s first curator:

The period from September 1967 through August 1968 saw…Special Collections…begin as a separate entity with its own facilities. In September there was a beautifully proportioned room, but no furniture. The first patrons…worked sitting on the…carpet in the bare Reading Room. The books had been moved up and were behind lock and key; there was a curator to find needed material—and the good-humored acceptance of the floor as a reading space set the tone for a year of wild scrambling to serve the patrons while trying desperately to find out what was where...

Illustration 1. Social event in the original Special Collections reading room, 1969

23. The University of Houston Libraries maintains the John O’Quinn Law Library located within the Bates College of Law, and branch libraries for Architecture & Art, Music, Optometry and Pharmacy, all located in academic buildings.
24. Conversations on July 20 and 24, 2006, with Catherine Essinger and Suzanne Ferimer, Architecture & Art and Optometry branch coordinators, respectively.
25. Facilities Planning and Construction, “Planning and Policy Analysis: Room Inventory by Department” (working paper, Facilities Planning and Construction, University of Houston, 2000).
26. Marion Orgain to Library Administration, 1968, Library Administrative Records, University Archives, 1996-2006, University of Houston Libraries. The original Special Collections reading room consisted of 1,240 assignable square feet (asf).
I did not share the curator’s opinion with regard to a “beautifully proportioned” room and found it difficult to imagine any library operation opening for service to the public under the circumstances she describes. Rows of windows surrounded our reading room and stacks creating an unnecessary risk to people and materials, especially for a building situated only fifty miles from the hurricane-prone Gulf Coast.

In 1974, seven years after the Libraries’ expansion into its first stacks tower, a new set of program plans called for a second addition, with Special Collections moving to a more accessible location. Project Planning Committee members wrote, “One of the faults of the existing [Special Collections] is that the reading room and [the] reception area are combined. Lack of conference room space…results in meetings being held in this area…” Committee members realized that Special Collections needed an area devoted to quiet research and that “office space should be provided for the Curator and Assistant Curator…with work space for student and clerical staff.” This new plan called for three building phases over a period of thirteen years, incorporating expansion and remodeling. In the first phase, scheduled for completion in 1977, the relocation and improvement of Special Collections were prioritized as number six in a list of fifteen objectives. Unfortunately, the proposed move and departmental reconfiguration failed to take place.

By the mid-1980s, the Libraries’ meetings and most social events had moved to more appropriate venues. Special Collections’ lounge-like furniture was removed, and remaining furniture was rearranged to better serve patrons and staff alike. Still, the reading room’s size, shape, and unsecured entrance made proper surveillance of moving traffic and seated patrons difficult for a very small staff, no matter what the furniture arrangement.

Other multiuse issues continued to plague our space throughout the 1980s and early 1990s. As programs expanded and staff members were added, there was no option but to house them around the periphery of the reading room. Where once, social functions took precedence, now additional staff and workstations interfered...
with what should have been a quiet area devoted to patron needs. Two librarians worked in makeshift cubicles, making telephone conversations audible to other staff and patrons. There was no place, except for the department head’s office, where a librarian could conduct a private conversation with another staff member.

The chilled water HVAC system in the stacks tower cooled the air and controlled humidity by electric reheats. Outside air was not filtered or preconditioned, though pleated filters existed on each floor to reduce particulate matter circulating inside the building. As long as temperature and humidity controls were set and maintained properly from the central Physical Plant, the system maintained acceptable levels of both for rare and unique materials storage. Variations were reported to Physical Plant personnel and received relatively quick weekday response. Difficulties arose when campus administration mandated energy cutbacks over weekend and holiday periods, causing significant fluctuations in temperature and humidity throughout the library.

Despite repeatedly voiced concerns, these cutbacks continued, and in May 1996 a mold outbreak affected the bindings of approximately 1,000 Special Collections books. Mandatory cutbacks no doubt resulted in overall energy and cost savings, but the Libraries and Special Collections bore the subsequent cost. Four librarians and three staff members labored for twenty working days (1,120 hours) to clean compromised books and shelves at a cost of $9,400 in staff time. No fire detection or suppression systems existed in the original plan for the stacks tower. In 1999, as part of an environmental upgrade, smoke and heat detectors were installed throughout the stacks tower wing.

This stacks wing was lighted with florescent fixtures, and it was a long-standing policy that stack lights were turned off when not in use. Florescent fixtures in the eighth-floor stacks were not fitted with ultraviolet filter sleeves until 1985. Fixtures on the seventh floor remained without ultraviolet sleeves since archival collections were boxed and no rare books were shelved on that floor.

All floors in this stacks tower were furnished in 1967 with new seven- and nine-inch deep shelving throughout “for housing…quarto and oversize books.”

31. Temperature and humidity were monitored from 1985 onward. A sampling of hygrothermograph charts, recorded in the eighth floor Special Collections stacks during the 1990s, shows an average temperature range of 66–70 degrees Fahrenheit and a relative humidity average between 45 and 55 percent.
33. University of Houston, Budget for the Fiscal Year 1996–97 (Houston, Tex.: The University, Aug. 1996), 1: 539–42. Figures extrapolated from reported salaries and wages.
34. Alfred Hodina (Assistant to the Director and person in charge of the move into the stacks tower addition) to Library Administration, September 12, 1966, Library Administration Records, University Archives, 1996–2006, University of Houston Libraries.
special considerations were made for deeper book or archival shelving, as the two sizes of shelving were considered adequate. However, this shelving was woefully inadequate for housing either rare books or manuscript collections. Looking down the stack ranges, one could see too many books, and all of our archival boxes, jutting out beyond their means of support. Later, seventeen-inch depth oversize shelving was acquired for books measuring, in height or width, thirty centimeters or above, but steady collection growth and the lack of appropriate expansion space meant that oversized materials were often stacked five and six items deep, a far-from-ideal situation.

Manuscript collection containers were particularly difficult to access in aisles with only a thirty- to thirty-four inch clearance between ranges. Barely enough of a passageway existed for staff to maneuver for paging and shelving, creating no lack of opportunity for accidents, should one’s manual grip or sure-footedness falter. In this crowded stack space a makeshift exhibit preparation area hugged the wall between the doors of two of the reading room exhibit cases. A less optimal arrangement would have been difficult to imagine.

The main exhibit area on the first floor was constructed with scant attention given to proper lighting or microclimate, but its location in a high-traffic area made it the

35. Facilities Planning and Construction, “Planning and Policy Analysis: Room Inventory by Department” (working paper, Facilities Planning and Construction, University of Houston, Houston, Tex. 2000). A study of the original shelving plan revealed no significant change between the 1960s arrangement (save the addition of 17-inch deep oversize shelving prior to 1984) and that which existed from the mid-1980s to the end of 2004, the time frame representing the author’s tenure in the original Special Collections space. In December 2004, Special Collections moved into renovated public and office space and newly constructed stacks space on the second floor of the M.D. Anderson Library. The eighth-floor stacks consisted of 4,715 asf.

36. Prior to October 1996, when the University Archives was established officially as a staffed unit, Special Collections manuscript collections were housed in the eighth-floor stacks, as was a small subset of frequently called-for historical university photographs. The bulk of university archival records, very few of which were then arranged or described, were stored in a closed stacks area one floor below.
preferred location for exhibit installations. A secondary exhibit area consisted of nine large cases built into the wall that separated the eighth-floor reading room and stacks. Once more appropriate areas were available for social functions and other events, only a small handful of library patrons and special guests could be enticed to come to this out-of-the-way location to view an exhibit. We discontinued use of these reading room cases because it took more staff time and labor to keep them filled than we had to give.

Expansion and Some Temporary Fixes

In the summer of 1994, the Libraries were asked by the director of the Women’s Studies Program to house the fledgling Women’s Archives & Research Center (WARC) collections and to commit to the care of WARC collections in our stack space. This accelerated the discussion for creating an archival unit and expanding the department’s footprint. Library administration announced plans for the University Archives that also would include WARC materials. This dual unit, reporting to Special Collections, would be housed in adjacent space on the seventh floor, previously used for library storage. Beginning in the fiscal year 1995–96, a newly hired archivist, staff assistant, and work-study student tackled the job of sorting and clearing many years’ accumulation, a necessary task before the renovation project could begin.

Seventh-floor renovation plans included a new, dedicated reading room and reference desk, the archivist’s office, a separate staff work area and processing room that visually connected to the reading room by a glass wall that provided a second sightline from which to view patrons, and a second secure stacks area. It was imperative that this reading room function well with only 2.25 FTE staff. Renovation

37. These substandard cases, with sliding glass doors that allowed the dust from heavy foot traffic to accumulate within the cases, created the need for regular dusting of materials and shelving alike. They remained in use until the beginning of the 2002 construction and renovation project; however, from 1985 forward, care was taken to exclude from exhibit any materials that could not be easily cleaned.

38. From the late 1980s onward, exhibits were concentrated almost exclusively on the first floor of the library, where the gate count recorded between 9,000 and 10,000 students and faculty entering the building on a daily basis.

39. Professor Cynthia Freeland, Director of the Women’s Archives & Research Center, University of Houston, to Library Director Robin Downes, March 27, 1994, “Prospectus, Women’s Archive & Research Center,” WARC files, University of Houston Libraries. The Women’s Archives & Research Center was the creation of the University of Houston’s Women’s Studies Program and an independent board of directors formed expressly to oversee the activities, programs, and collection solicitation of WARC, which came into being in 1994.

40. Andrea Bean Hough, “Planning, Supervising, and Surviving the Renovations of the University of Houston Archives,” (panel presentation, annual meeting of the Society of Southwest Archivists, Galveston, Tex., May 29, 1997).

41. Facilities Planning and Construction, “Planning and Policy Analysis: Room Inventory by Department” (working paper, Facilities Planning and Construction, University of Houston, 2000). This renovation added 5,311 asf stack space, a public reading room of 816 asf with nine tables for patrons, and 688 asf staff office and work space.
began in May 1996, and the new facility opened in October of that year.\textsuperscript{42} Early in 1997, the formal agreement between the Libraries and WARC was signed.\textsuperscript{43}

Several changes resulted: a pleasant, functional reading room with a much better floor plan was appropriately sized and configured, allowing greatly improved supervision of patrons. A dedicated processing area and two staff workstations provided larger work surfaces and available collection storage during processing. The additional stack area was organized to house archival collections and university theses and dissertations.

Transfer of these collections from the eighth-floor stack ranges relieved some of our eighth-floor overcrowding. Likewise, the relocation of the reading room provided patrons with a dedicated work space, free of office interruptions and noise. Still, we were required to hold classes in the former reading room on the eighth floor, where staff and workstations continued to be added as programs grew.\textsuperscript{44}

**An Opportunity to Start Anew**

Library administration also began discussions in the mid-1990s concerning the addition of a third wing and an extensive renovation of the original 1950 building core. A Task Force on Library Space Planning was appointed in July 1995 and charged “to prepare a program statement on the desired design elements of an expanded library facility,” with the expressed goal of providing “a focus for the initial discussions of a Library Space Planning Committee…to be appointed.”\textsuperscript{45}

The task force’s resulting Program Statement discussed topics such as print collection growth and storage needs, digitization and the conversion of printed materials, technological infrastructure requirements and general-use seating. Special Collections growth also was emphasized:

[The department] has undergone unprecedented growth in the last few years… Donations of personal papers and other materials are increasing, and it is anticipated that University Archives collections will grow quickly

\textsuperscript{42} Pat Bozeman to Library Administration and Department Heads, October 29, 1996, “Special Collections Report—October,” Special Collections files, University of Houston Libraries.

\textsuperscript{43} “A Memorandum of Agreement Regarding the Women’s Archives, University of Houston Libraries and the Women’s Studies Program, University of Houston,” January 23, 1997. WARC files, Special Collections, University of Houston Libraries.

\textsuperscript{44} At the time the original reading room space on the eighth floor was vacated in January 2005, it accommodated two librarians, two full-time staff members, three interns, and one work-study student.

as campus units submit materials…. Overall, a fifty-seven percent increase in…storage space is needed to accommodate continuing collection growth over the next twenty years. Special Collections…materials must be housed in highly secure and strictly climate-controlled conditions. The current facility cannot even house the existing collection, and existing environmental controls are inadequate.46

Then-director Robin Downes submitted a Program Statement to university administration early in 1996, a document that set forth the argument for critically needed physical expansion to relieve serious overcrowding and to relocate collections and services.47 Campus administration approved the request to move forward with formal space and program planning, which began in November of that year.48

The project encompassed both the construction of a new wing and renovation of the original library building and portions of the first three floors of the 1967 stacks tower. As programmatic and space planning groups formed and began their work, Special Collections staff turned its attention to envisioning and planning a space that would be closer to core services and more accessible, incorporate improved work flow and differentiated spaces, give us a separate, dedicated classroom, and one that, programmatically, would be more closely integrated with other library units and functions.49

Best practices for special collections and archives construction and renovation are well defined and abound in the literature.50 It was critical that we did our homework and made sure that unique requirements were known and understood by key library administrators and the personnel chosen to manage the construction project from within the organization. It was equally important that these requirements be transmitted to, and understood by, design and project architects, university Facilities Planning personnel, and, later, construction contractors and subcontractors.

46. Ibid.
48. John Ivancevich, Provost, e-mail message to Director of Libraries Robin Downes, October 29, 1996. Also: John Ivancevich to Library Space Planning Committee and Ex Officio members, November 8, 1996. “Appointment to the Library Space Planning Committee,” Director’s chronological files, University of Houston Libraries.
49. Special Collection staff began biweekly (and later, weekly) meetings to plan for a new department and, as construction got underway, to stay on top of relevant developments. One of the Libraries’ personnel who served as an internal project manager regularly attended these meetings to give updates, answer our questions, and pass along our concerns to Library Administration, architects, and construction supervisors.
50. See note 70 for sources used in our planning process.
Goals for Transformation

The goals deemed most important for Special Collections to achieve enhanced accessibility through technology, environmental factors, security, and instructional potential included:

- A greatly improved location, more central to the library’s other public services and easier for patrons to access. Fortunately, Dean of Libraries Dana Rooks championed a more visible and accessible location from the time of her appointment in 1997. She understood the importance of Special Collections’ centrality to the Libraries’ mission and its close programmatic connection with other reference and instructional services.
- Improved stacks and exhibit areas substantially removed from sources of natural light, with the best environmental climate the budget would allow and with better regulation of temperature, relative humidity, and air quality.
- Sufficient collection storage space to accommodate twenty years’ growth, with load-bearing capacity to support compact shelving.51
- Sturdy stack ranges to fully support all collection materials, with a minimum thirty-six inch distance between all ranges for ADA compliance.52
- A dedicated reading room and classroom, each with improved traffic flow patterns and sightlines.
- Ample dataports and electrical outlets for expanding technological requirements.
- A room with a built-in island and sufficient storage, dedicated to the preparation of exhibits, and construction of book boxes.
- Large office spaces and work areas to accommodate collection processing and temporary storage of record center cartons.53
- A centrally located area for bulk processing, allowing tables and shelving to be easily reconfigured as required.

51. Floors in the new wing of the M.D. Anderson Library were designed and engineered to support a live load of 300 pounds per square foot, ample for compact shelving. New shelving for books measuring 29 cm in height or depth, or less, totals 22,512 lin. ft. Shelving for oversize books totals 6,270 lin. ft., and for archival collections 3,744 lin. ft. These figures represent 32,526 lin. ft. of usable shelving space. Stack space currently left open will allow for an additional 1,008 lin. ft. for regular books, 3,762 lin. ft. for oversize books, and 384 lin. ft. for archival collections. Empty floor space also exists to accommodate an as-yet-undetermined combination of shelving types, though it is becoming clear that archival collection growth will dictate what the primary need will be. Also, subsequent (and, earlier, unexpected) formation of a Houston History Archive, in cooperation with the university’s Public History Program, has accelerated archival collection growth, thereby diminishing, by 50 to 60 percent, the years originally forecast before reaching archival collection capacity is achieved.
52. The Americans with Disabilities Act, passed by Congress in 1990.
53. Shepley, Bulfinch, Richardson, Abbott, Architects, Master Planning Study for the M.D. Anderson Library. The University of Houston. (Boston: Shepley, Bulfinch, Richardson, Abbott, Architects, 1998), 15. Initial space planning figures suggested for offices was 120 asf per person and 150–175 asf work space per staff processor (including cubicle workstation space).
• Electronically programmed levels of secure access, a motion-detection alarm system, and strategically placed security cameras and monitors.

**New Construction and Renovations**

The University of Houston’s Board of Regents approved the construction and renovation projects in November 2001, and groundbreaking for the new wing took place in April 2002.\(^{54}\) We were fortunate not to be displaced over the next two years and were able to maintain Special Collections operations, with no interruption of services, from the seventh and eighth floors.\(^ {55}\) But we did face interruptions at the conclusion of the project as a result of being forced into a premature move at the close of 2004 to accommodate renovation on the seventh and eighth floors, as per the construction schedule. All collections were moved into the new stacks, despite the fact that several construction-finishing tasks had yet to be completed: floating (leveling) of the cement floor and installation of floor tiling, hanging and painting of pegboard around peripheral stacks walls, installation of fire door alarm mechanisms, and testing of the HVAC system.

Staff and furnishings relocated immediately following the collections move.\(^ {56}\) Since subcontract construction crews needed daily access to the Special Collections stacks, we were required to divert staff from normal duties to ensure that materials remained secure. Collections and staff were unnecessarily exposed to dirt and dust, a situation that would have been avoided had the upper-story renovation been more realistically planned and scheduled.

**The Clarity of Hindsight**

The premature move into our new space provides a natural segue into a discussion of other problems that arose relating to construction, despite the library’s best efforts at planning, communication, and oversight. No library construction project comes to its conclusion without a few things going awry, nor is a library staff, at the end of such a project, totally free of regrets. Special Collections faced three major problems:

1. Mechanical subcontractors bypassed new construction on the floor above our stacks that had been expressly configured to keep the heating and cooling condensate drains well away from this sensitive stack area


\(^ {55}\) All other library departments were required to move into temporary locations at least once during construction and renovation, some departments enduring as many as three relocation disruptions.

\(^ {56}\) The only department closures during the construction project occurred between December 2004 and January 2005 when collections, and then staff, were moved to the new and renovated second-floor locations. Seventeen of the thirty-seven days fell during normal holiday or weekend closures, with twenty days allotted for collections, furniture, and staff moves.
(save for the delayed-action fire suppression system). We quickly discovered this intrusion into our stack space once we were allowed supervised entry into the construction site. Even so, it was too late to insist upon a correction that would not incur severe budgetary overruns and scheduling delays. Not only did this result in the biggest construction error to occur within our space, but it stands as the most unfortunate outcome of the entire construction project. Particularly galling was the fact that both librarians and the architects had planned so carefully to avoid such a scenario. The compromise to overcome the intrusion of overhead drains required that all condensate-carrying drain pipes be enclosed within larger pipes, affording a measure of added protection against a potentially hazardous situation. Still to be resolved is the problem of some stacks lighting that is obscured by the condensate drainage system.

2. The roofing subcontractor failed to notice that his crew had covered over two of three scuppers that drained water from a small portion of roofing connecting the 1967 stacks tower with the new addition. Substandard work and lack of oversight, coupled with a heavy thunderstorm after we occupied our new space, caused a near-disastrous deluge of water pouring into the department’s new foyer. This avoidable accident necessitated temporary relocation of our new reading room and the subsequent closure of our classroom until January 2006 while the affected areas underwent water vacuuming, drying, assessment, demolition, mold remediation, rebuilding, recarpeting, and final inspection.

3. Despite exceptional care in planning for and communicating our specific requests with regard to new exhibit cases, project architects and case

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57. The third floor above the new Special Collections stacks was designed and constructed to include a sealed “bathtub” for the collection of condensate coming from the heating and cooling units. Drainage over the rim of this tub structure was situated well away from the stack area below, having been placed adjacent to the external wall of the building. Construction was successfully completed and flood-tested. It was a major mechanical contractor error that the Special Collections stacks ceiling was breached counter to original plans and drain pipes were installed.

58. Water fell in such volume and with such force that it rapidly pushed beneath doors and walls into the adjoining reading room and classroom. Fortunately, this emergency occurred an hour prior to closing while staff members were present and emergency assistance from a variety of campus resources could be summoned quickly. Reading room shelves were emptied, books were safely stored out of harm’s way, classroom furniture was secured, and a university maintenance crew vacuumed water and debris and set up industrial fans to dry the affected spaces. Thankfully, the storm blew over within two hours.

59. As with most catastrophic occurrences, it was the convergence of several problems, building one upon the other, that created a situation resulting in the partial water damage to Special Collections. First, the existing flat roof directly above our foyer area had a low spot that caused rain water to collect and stand, a problem left uncorrected from an earlier roofing project. Next, two out of three scuppers draining that particular area were totally compromised, having been covered with roofing material during the recent construction; and, finally, intrusive tree roots had grown close enough to the building to carry water away at ground level.
builders pushed hard for a "ceiling-suspended rod" shelving system, ignoring calls for a much simpler and more workable shelving design. Expressions of concern were not acknowledged, and repeated requests for working drawings or photographs of the shelving system being touted were not forthcoming. Making matters worse, when the exhibit cases arrived and were installed, their depth measured only twelve inches instead of the eighteen inches stated as the minimum requirement. A curator was left scrambling to rework a major exhibit within days of its public opening.  

These problems were serious ones, yet we were successful in achieving most of the goals we had set out at the beginning of the construction and renovation project (enumerated earlier). The outcomes are as follows:

1. Our centrally located department resides in a visible, easily accessed second-floor location containing 20,875 assignable square feet (asf). Greater use is made of our facilities and collections, both we and other library staff members move more easily about our respective departments, and other departmental librarians and staff have come to express a desire to take part in selected Special Collections’ operations.

2. A powerful, new HVAC chilled water system, with double capacity, works well within accepted ranges of temperature and relative humidity control. Outside air is dehumidified and preconditioned prior to building entry, and particulate matter is greatly reduced as the result of both pleated and carbon filters through which outside air must pass.

3. Two new exhibit spaces, located in high-traffic areas of the library, feature diffused lighting, microclimate humidity control, doors with protective sealing that prevents particulate intrusion, and self-contained storage units.

4. Fire and water alarms consist of an extension of the smoke and heat detectors installed in 1999. Unique to the new wing, the stacks area is


62. Special Collections staff members have been asked to make presentations about our collections and the types of work we do, both for the entire library staff and, more specifically, to introduce staff of branch libraries to collections that directly relate to specific subject areas: architecture and art, music and optometry.

63. Judy Myers (Assistant to the Dean of Libraries), in discussion with the author, April 26, 2006.
equipped with a preaction dry pipe fire suppression system. The remainder of our space is fitted with a wet pipe system.

5. Over 12,500 asf stack space is fitted with high-density compact shelving, appropriate for various book sizes and archival collections. New shelving for books was purchased to replace original 1967 shelving with insufficient depth. Oversize shelving was reused, at considerable cost savings. The ease of materials retrieval and reshelving is greatly improved since aisles between stack ranges now meet the thirty-six inch ADA requirement.64

6. A dedicated workroom exists for exhibit preparation and construction of book boxes, containing a large island work surface with storage options built into its base and ample storage for several types of supplies along the perimeter.

7. Our new reading room functions well for staff and patrons. It has become easier to attract students and faculty. A dedicated classroom allows us to pursue a more active instruction program not only for on-campus classes but for area and regional meetings and workshops that have the added benefit of attracting a more varied clientele.65 Librarians set up and strike class materials at a less harried pace, knowing that the safety of rare materials is no longer compromised in a multiuse space.

64. As per the Americans with Disabilities Act, cited above.
65. Examples of groups using the Special Collections classroom include breakout sessions for the Texas Medieval Association’s annual meeting (2005), local meetings of the Archivists of the Houston Area (AHA) (2005–2006), an AMIGOS-sponsored Book Repair Workshop (2007), and, most recently, an upper-level, research-based English undergraduate course, designed jointly by Professor David Mazella and our Instruction Librarian, Julie Grob. This class met in our Special Collections classroom five times over the spring 2008 semester to discuss, research, and complete assignments using 18th-century books.
8. Five offices for librarians and six staff work spaces are sized at 120 asf each, and each of twelve student workstations measure 80 asf. Workstations and the 700-asf processing area are easily reconfigured as varying staffing levels and processing needs require.

9. Individually programmed electronic security cards insure location- and time-appropriate levels of access depending upon job function and need, not only in Special Collections but throughout the building. All entries and exits by staff and student workers are recorded by date, time, and place, allowing for close monitoring. Cards are reprogrammed centrally in the library with just a few keystrokes as personnel, schedules, and work needs change. Special Collections had the added protection of a motion detection alarm that provides perimeter security. High-resolution, dome security cameras with live monitoring are scheduled for reading room and stacks placement as funds become available.

10. A dedicated camera room was constructed to enable us to control light conditions during photography sessions without disrupting other work. The room is painted with nonreflective black paint and is outfitted with quartz ceiling lights, compatible in temperature range with our copy stand lights. This self-contained space is a vast improvement over our former setup in which the copy stand was wedged into a corner of our stacks and could be powered only with the addition of several feet of extension cords that snaked across an aisle to the nearest electrical outlet.

11. Dataports and electrical outlets support current and future technological requirements, for both patrons and staff. The Libraries now have wireless access. Patrons may bring their own laptops or check out one of the Libraries’ circulating laptops. As our staff computers are replaced on the current three-year cycle, we will have the option to choose wireless laptops or note­books, which will afford greater flexibility as we pursue “taking the library” to students and faculty rather than always expecting them to come to us.

Despite the headaches that accompany construction and the inevitable disappointments experienced at any project’s conclusion, the University of Houston Librar-

66. Assigned square footage figures from Shepley, Bulfinch, Richardson, Abbott, Architects, Master Planning Study for the M.D. Anderson Library, 15–16. Special Collections currently has four librarian lines. One additional office was included in the floor plan in anticipation of an additional professional position at some future date.

67. Laptops come with Windows XP, Internet Explorer, Netscape, Microsoft Word, Excel, PowerPoint, and the university’s VPN client. Borrowers must have a CougarNet account to receive access to, and get file space on, the university’s Windows computing resources.
ies’ construction and renovation projects resulted in a greatly improved facility. The hallmark of its success lay in the levels of specificity at which library administration involved staff in the project from its earliest Discovery Phase in 1995 through the end of 2005 when final punch list items were being completed. Special Collections turned out as well as it did because we were encouraged to stay actively involved throughout the project. Both design and project architects spent hours with our librarians, patiently translating needs and desires into plans and drawings, and they offered counsel on many issues. We maintained direct, daily contact with the two librarians serving as building project managers and with the university’s Facilities Planning project manager. Their advocacy was indispensable and they served as ombudsmen for any difficulties that arose.

This level of staff involvement required a commitment on our part. It was imperative that we take responsibility for becoming familiar enough about the construction process and its various elements to be proactive in stating the department’s needs. Also, to the extent that we were allowed within the construction site, we needed enough knowledge to alert building project managers in a timely manner if anything went awry.

Suggestions for Construction Project Success

I offer thirteen suggestions gathered from a variety of helpful reference sources, as well as from our own experience in moving through the entire planning, design, and construction phases of the building project.

1. Gather well-respected literature relevant to archival preservation, storage, exhibits, security—anything that will help make the case for properly constructed special collections space. The Society of American Archivists’ publications are a good place to begin. An initial group of

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68. Bailey et al., “Program Statement,” as cited in note 45. The group of librarians who served on the Task Force on Library Space Planning was the first of several staff groups to work on various phases of the building project.
69. The Boston firm of Shepley, Bulfinch, Richardson, Abbott were the design architects for the University of Houston Libraries’ project. Morris Architects were the project architects.
supporting materials might include Thomas P. Wilsted’s *Planning New and Remodeled Archival Facilities*, Sherelyn Ogden’s *Preservation of Library & Archival Materials*... and “Environmental Conditions for Exhibiting Library and Archival Materials” (NISO).\(^7\) Also helpful are sources such as the late Susan Swartzburg’s *Libraries and Archives: Design and Renovation with a Preservation Perspective* and Mary Bowling and Richard Strassberg’s CD and pamphlet, *Security in the Reading Room*.\(^2\)

2. In the initial stages of design, create a document that prioritizes those things that will make the very best special collections the budget will allow. Support these needs with succinct factual information taken from one’s own surveys that outline current deficiencies, as well as published source materials that lay out best practices adhered to when constructing specialized facilities. These documents will not only bring critical information to the early stages of planning but will also serve to raise the consciousness of any persons, unfamiliar with the needs of such facilities, who are involved with the building or remodeling project.\(^3\)

3. Request that a special collections librarian be included on the library’s building planning project team. Explain why this is important to the overall project and how it will have a positive effect on desired outcomes.

4. Negotiate for special collections:
   • to be located close to other relevant public service programs;
   • to have a safe, secure, and environmentally friendly space for people, collections, and exhibits;
   • to provide suitable storage for a wide variety of collection formats;
   • to plan for collection growth; and
   • to have ample work processing areas that can be reconfigured as required.

5. Develop a set of questions that need to be answered, and contact colleagues whose institutions have recently undergone construction or

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73. Wilsted’s recent volume, cited earlier, provides a detailed, step-by-step resource for the planning of an archival (or special collections) facility and should serve as an excellent primer for anyone undertaking a building or remodeling construction project.
renovation projects. Focus on projects completed within the last five years.\textsuperscript{74}

6. Visit as many newly constructed and newly renovated special collections and archival facilities as possible. Document others’ facilities with photographs and take extensive notes. These visits provide first-hand knowledge of what has changed and improved as a result of a building project and, more important, what has not worked as well as originally planned. Ask to speak with staff members at different levels of the department or organization for a more well-rounded view of the project and its outcomes.

7. Learn the basics about reading architectural drawings and specifications. Rudimentary knowledge of how to interpret these documents will allow staff to contribute in a meaningful and timely way with architects and contractors.\textsuperscript{75} If other library staff members have worked on a previous building project, they will be very helpful resource people to those who have no such experience.

8. Ensure that staff members contribute to the project’s needs assessment and planning process phases. Design ideas and the resulting program plan will be strengthened as a result of this input. At the very least, they will be more apt to buy in to the envisioned outcomes.

9. Exasperation and negativity at administrative and management levels can spread into the ranks with alarming speed. Construction will affect every facet of daily work, so keep staff focused on the results, not the interruptions, noise, and inconvenience of construction and the compromised working conditions that simply must be endured.

10. Planning and construction phases are not the time to undertake special work projects. The focus needs to be on planning and construction efforts and on how to maintain day-to-day departmental and cross-organizational operations with minimal interruption.

11. Communicate regularly with the library’s building project manager.

\textsuperscript{74} Such a set of questions may serve as the starting point for fact-gathering conversations for onsite visits as well.

\textsuperscript{75} Raymond M. Holt, Planning Library Buildings and Facilities: From Concept to Completion (Metuchen, N.J. and London: Scarecrow Press, Inc., 1989). Particularly helpful to me during the University of Houston Libraries’ planning process was the chapter “Technique of Plan Analysis.”
S/he will be in direct contact with the architects, contractors, and sub-contractors and is responsible for seeing that problems have solutions.

12. Keep a detailed, up-to-date list of the problems that cannot be fixed in the midst of construction to give to the building project manager. The contractual obligation in any construction project includes a series of punch lists as the project nears completion. These lists point to items requiring the contractor’s attention, such as defects in workmanship or problems that have been overlooked. Punch lists will be developed by the architect, the construction supervisor, and library personnel whose primary function has been to work on the project.

13. Avoid moving into a space before it is completely finished and construction crews have vacated the premises and the HVAC system is thoroughly tested. Collections are at risk from particulate matter stirred up if any construction or finishing tasks are incomplete, from any number of potential workaday mishaps, and from potential theft. Staff is at greater risk for respiratory ailments, and normal access to collections is unnecessarily impeded.

**Conclusion**

I have stated that no building project is totally free of problems along the way or, in the end, mistakes that should not have happened. Sufficient planning before the process begins and sound management during it will ensure a smoother path along the way and a better result. The suggestions above will help to achieve the desired results for a space that comes as close as possible to meeting the requirements for a special collections facility that is programmatically well planned and well situated, not only for the present but into the future. Following this prescribed route also will afford the best possible conditions for collections to reside and for patrons and staff alike to thrive.

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