Gates (Stephen F. ’68) Conservation Laboratory

The Gates Conservation Laboratory opened in the fall of 2015. This 8150 square foot facility is dedicated to conservation and exhibition work for the Yale University Library. The main treatment area was designed for book, paper and photograph conservation and accommodates up to 15 conservation staff. There are dedicated areas or room adjacent to the main treatment area for specific functional purposes such as photographic documentation, scientific study, using solvents, and aqueous treatments.

The Gates Conservation Laboratory replaces three 40-year old workspaces in the Sterling Memorial Library. In addition to tripling the square footage for conservation and exhibition operations, the Gates Laboratory is completely purpose-built, fully equipped, and reflects the highest standards of current conservation practice.

Examination Room (C-158)—shared functional area, 554 Square Feet (51.5 Square Meters)

The examination room was intended to offer a space away from the primary workspace where conservators may examine objects, carry out scientific testing, and meet with curators, faculty, students and outside researchers. Also holds the lab’s reference library, documentation files.

- Light table – (FormaSpace and custom) dimmable LEDs, moveable
- Worktable – (Formaspace) adjustable height, moveable
- Reference library shelving & file storage – Standing shelving, 3 adjustable shelves and 2 file drawers, metal
- Ceiling mounted electrical cord reels – (Hubbell) 2 each with 30 ft. cord
- Lower cabinets - (custom millwork) Blonde wood frame with solid fronts

Aqueous/Solvent Room – shared functional area. 653 Sq. Ft. (60.7 S. M)

The aqueous/solvent treatment room was designed to facilitate conservation work involving hazardous chemicals, light bleaching, and/or water. The room provides all of the necessary equipment for respiratory protection, water filtration, and drying away from other activities.

- Treatment sink - 6’ x 8’, stainless steel basin, washing tray and other vertical storage underneath
- Bleaching set-up – (various sources)
- Drying rack – (custom) 40 x 60” x 61” high, $ sliding/removable screens
- Countertops – (Trespa) TopLab Plus, 1” thickness
- Upper cabinets – (custom millwork) Blonde wood frames, glass fronts
- Lower cabinets - (custom millwork) Blonde wood frame with solid fronts
• Flat files (map cases) small – (Mayline) 2 banks of two 5-drawer units, each 46.5” x 35.5” x 16.5”
• Light table – (custom millwork) LED; dimmable
• Fume hood – (Kewuanee Scientific Corp.) Supreme Air LV, 6 ft. wide, vertical sash, electrical outlets, chemical storage cabinet underneath, opening for seated work.
• Fume extraction trunk – (Nederman) 1
  • Chemical cabinets – 2 freestanding
  • Explosion-proof fridge – (Thermoline)
  • Suction table with humidity dome – (Museum Services Corporation) 210-003 MSC Paper Conservation Table Enhanced (PCT-E), Suction Platen & Humidification Dome, Outside Table Dimensions: 92 x 122 cm (36 x 48 inches), Working Area: 87 x 117 cm (34 x 46 inches)
  • Ceiling mounted electrical cord reels – (Hubbell) 2 each with 30 ft. cord

Main Treatment Workspace – 4310 Sq. Ft. (400.4 Sq. M)

The main treatment workspace is designed for book, paper, and photograph conservation. It accommodates up to 15 staff: conservators, conservation technicians, conservation interns, consultants, and student assistants. The north-facing windows, daylight-balanced general lighting and task lamps provide just the right level and kind of light for conservation tasks that demand a high level of visual acuity and accurate color-matching. Built-ins offer storage and a computing station for each staff, while moveable worktables offer maximum flexibility.

Individual Workstations (Book)

• Task lamps – (Dazor) Lumilus LED Clamp/Base Light 41"
• Task lamps, magnifier – (LUXO) KFM heavy-duty internal-spring K-arm lamp with clamp or base
• Workstation chairs – (HAG) Capisco, mix of flat seat and saddle seat; black fabric
• Workstation tables – (Metro) 1 table per workstation; existing, moved from old labs, table tops are 30 x 60”
• Workstation tables – (Formaspace) top surface, Trespa TopLab Plus, 1 tables per workstation with adjustable height with manual hydraulic crank; mobile with lockable casters; single back shelf; power strip added for electrical outlets, table tops are 30” x 72”
• Workstation chairs – (HAG) Capisco, mix of flat seat and saddle seat; black fabric on seat and

Individual Workstations (Paper)

• Task lamps – (Dazor) Lumilus LED Clamp/Base Light 41"
• Task lamps, magnifier – (LUXO) KFM heavy-duty internal-spring K-arm lamp with clamp or base
• Workstation chairs – (HAG) Capisco, mix of flat seat and saddle seat; black fabric on seat and back
• Workstation tables – (Formaspace) top surface, Trespa TopLab Plus, 2 tables per workstation with adjustable height with manual hydraulic crank; mobile with lockable casters; single back shelf; power strip added for electrical outlets, table tops are 30” x 72”

Shared Storage for Supplies & Materials:
• Flat files (map cases) large – (Mayline) 4 banks of 2 5-drawer units, each 46.5”x35.5”x16.5”
• Flat files (map cases) small – (Mayline) 5 banks of 2 5-drawer units, each 46.5”x35.5”x16.5”
• Rolled Storage – (custom millwork) accommodates up to 8” diameter roll
• Ceiling mounted electrical cord reels – (Hubbell) 10 each with 30 ft. cord

Exhibition Support – 1272 Sq. Ft. (118.2 Sq. M)
The Exhibition Support room is a dedicated workroom for mount making, framing, and all other aspects of exhibition preparation. This space accommodates staff and several student assistants. The room is also used for custom housing work as needed.
• Center island worktable with storage – (custom millwork)
• Vertical frame storage - (custom millwork)
• Storage Shelving
• Ceiling mounted electrical cord reels – (Hubbell) X each with 30 ft. cord
• Flat files (map cases) – (Mayline) 2 banks of two 5-drawer units, each 46.5”x35.5”x16.5”
• Ultrasonic & welder table -(FormaSpace/custom) holds the welder and control box; metal sides for storage of magnetic blankets

Dirty Room – 106 Sq. Ft. (9.8 Sq. M)
The Dirty room was created for the use of tools and equipment that generate dust and debris that might contaminate other treatment works. Staff use this space to pare leather. The lab has an extensive collection of binding finishing tools, which are all stored in this room.
• Lower cabinets - (custom millwork) Blonde wood frame with solid fronts
• Kwikprint press
• Board slotting machine
Supply Room – 322 Sq. Ft. (30 Sq. M)

The supply room holds overstock of a variety of materials and supplies that are not used on a daily basis, but need to be kept on hand and organized.

- Industrial metal shelving – existing, moved from old labs
- Roll storage unit – custom, wood “cubby”

Collections Vault – 364 Sq. Ft. (34 Sq. M)

The collections vault is a secure storage space for objects temporarily in the custody of the lab for conservation or exhibition work.

- Standing book shelves – closed sides and back, adjustable shelves
- Object cabinets – (Montel) 2 standing metal cabinets with solid front doors
- Mobile shelving – existing and new (Metro)
- Vertical art storage (custom millwork)
- Flat file drawer storage – (Montel) – 1 large bank of two units on base with laminate countertop

Photo Documentation Room – shared functional area 342 Sq. Ft. (31.8 Sq. M)

The photo documentation room is a dedicated space for taking images of objects before, after and during treatment. The studio is equipped for visible light, raking light, transmitted light, RTI (reflectance transformation imaging) and ultraviolet light

- Walls and ceiling painted a neutral grey
- Upper cabinets – solid front doors, laminate
- Lower cabinet – drawers for cameras, lens and other accessories
- Ceiling mounted electrical cord reels – (Hubbell) X each with 30 ft. cord
- Electrical outlets and data ports
- Worktable for computer and screens
- Ultraviolet lamps and ceiling pantograph – not yet installed
- Flat Paper/photograph - copy stand with two strobe lamps
- Book set-up – table and backdrop, two strobe lamps
- Ceiling-mounted pantographs with ultraviolet lamps (planned and to be installed in fall of 2017)
There are two additional spaces used for conservation operations that are not contiguous or adjacent to the main Gates Conservation Laboratory:

**Box-Making Machine Room – shared functional area, 600 sq. feet**

The box-making machine room is a dedicated space for operation of the Kasemake cutting and scoring machine and other housing supplies.

- Sound-proofing to walls to muffle the noise of the machine
- Sufficient space to accommodate the Kasemake machine and associated equipment. [http://www.agcad.co.uk/digital-cutting-tables/KM7series.html](http://www.agcad.co.uk/digital-cutting-tables/KM7series.html)
- Dedicated electrical power to run the machine and compressor
- Worktable for computers and screens
- Floor space to hold a minimum of 3 pallets of boards used to construct boxes.
- Shelving to hold circulating materials awaiting boxing and housing
- Shelving to hold prefabricated housings (four-flap binders, Archival Products) and other supplies
- A large worktable for box folding and matching boxes with books and workspace for student assistants who help with housing work.
- Space for mobile carts to hold collections and constructed boxes

**Packing, Palletizing and Shipping Room – shared with all of the Preservation Department**

The packing, palletizing and shipping room is accessed by Conservation & Exhibition staff to stage packed collection items for pick-up and delivery to various Library locations on campus.

- Double doors with automating opening mechanism
- Located across from security station, which provides guards with line of sight for coming and goings from the room
- Easy access to main hallway and loading dock
- Worktable for packing and labeling
- Shelving and floor space for packed and unpacked shipping containers and boxes