

THE UNIVERSITY OF MICHIGAN MEDIA UNION



OPEN TO ALL THOSE WHO DARE TO INVENT THE FUTURE

Michigan's new **Media Union** will form the creative and collaborative core of the University of the 21st century.

Built with generous funding from the State of Michigan, our new \$40 million jewel in the crown will be filled with over \$10 million of cutting-edge equipment, encompassing 250,000 square feet of space over four levels. By September 1996 over 500 computing stations will be in place, including Apple Macintosh, Intel Pentium, Hewlett Packard, Sun, IBM, and Silicon Graphics workstations offering a wide variety of software applications to assist in the creativity process. Many of these will be in open areas. For students, faculty, staff, and even our far-flung community of alumni, the Media Union offers a radically new environment for learning, teaching, and performing. Both a physical commons for the North Campus and a virtual commons for the entire campus—open twenty-four hours a day, seven days a week—the Media Union will initially house:

- an on-line library of the future
- a laboratory for virtual reality
- interactive multi-media classrooms
- high-tech theater and performance spaces
- cutting-edge design and innovation studios

But the most innovative part of our project is its unpredictability. We can't really know what will happen there until creative people arrive.





The building itself invites participation and discourages isolation. Glass walls and doors overlook work spaces and common areas, drawing visitors into the excitement of discovery. We hope that even those who do not physically visit the Media Union will be able to view designs, artworks, and performances in the process of creation through the Internet.

We know that many important collabora-

tions happen when we least expect them. To take advantage of this fact, the Media Union's geography and its many small meeting and study rooms, equipped with workstations to facilitate group projects, are expressly designed to encourage spontaneous interaction. While some specialized labs will have restricted usage rules, much of the building is dedicated to open computing.

The Media Union will help scholars, artists, engineers and others reach out to each other across obsolete intellectual boundaries, reconstructing our ideas of art, engineering, and the humanities. Many participants will join national or international collaborative teams, pursuing research and design projects face-to-face through video across thousands of miles. Not only scholars, but also college

students, public school children, alumni, and many others will join these teams. As time and distance increasingly disappear as obstacles to collaboration, the reach of our communities is increasingly limited only by our imagination.

The emphasis in the Media Union is on "learning by doing."

Innovative explorers will bring their visions to fruition, supported by the easiest to use, most advanced technology available. As Paul Boylan, Dean of the School of Music, notes "We are creating an environment where students and faculty can dream and then act on their dreams."

The building itself

Because scholars can join activities without moving from their offices, the Media Union will act as a catalyst, building connections across our entire campus.

Edie Goldenberg, Dean, College of Literature, Science, and the Arts





For the Media Union to succeed, we must take risks, accepting that we may stumble before we can walk. When we began this project over a decade ago, we struggled to design a place that would allow colleagues from very different disciplines and across great distances to collaborate with each other. We knew that the future always holds surprises. And so the Union was expressly designed as much as possible for flexibility. For example, network connections (over 3,000) and power outlets are scattered liberally throughout the entire building, allowing equipment configurations to shift quickly and easily. Many rooms even have extra-strong floors to provide support for yet unimagined needs. We know we probably won't get it right from the beginning. In fact, it is clear that stagnation will have arrived if the Media Union ever settles comfortably into any single form.

*The winners of the new era will be creators,
and it is to them that power and wealth
will flow. The need to shape, to invent,
and to create will blur the border
between production and
consumption.*



The Challenge of Tomorrow

We have entered an age of breathtaking social and technological change. For the State of Michigan, this new time brings profound dilemmas. Through the twentieth century, Michigan industry reigned supreme in the area most critical to economic advance: transportation. But today the engine of progress has shifted—to communication and information. The most important products of tomorrow will be not *things*, but knowledge itself. To succeed, Michigan must transform its economy to meet this new reality.

At the same time, many feel that this “knowledge revolution” is leading to a parallel shift in our intellectual culture. While the “analytic” professions like law and business dominated our recent past, there is a great deal of evidence that the “creative” professions, such as art, medicine, literature, and engineering will dominate our future. It is increasingly clear that the driving intellectual activity of

our future will be the act of creation itself. With the development of the Media Union, and with several schools that focus on the act of creation, the University of Michigan is well poised to take advantage of this new economic and intellectual climate. The Media Union will remain a step ahead of

us in our technological future, giving us the chance to try out different possibilities before they become widespread realities, helping us avoid potentially expensive or even dangerous mistakes while maximizing the extraordinary capacities of our new tools.

“The Media Union will have an on-going educational program. Experts will be on-site, ready to help those who show up with just the germ of an idea that they don't yet know how to carry out. We'll also run short courses on the use of the technology, which is getting easier to use all the time. Even now, there are things an individual can easily learn how to do that took a special Hollywood studio to do only a few years ago .”

Randall L. Frank
Director of Information Technology.

Media Union Walking Tour

We invite you to tour the new 250,000 square foot building at the center of North Campus. The Media Union, opened in January 1996, is a four-level complex connected to the Chrysler Building and the Pierpont Commons. It houses traditional and digital libraries, sophisticated computational tools (including visualization & virtual reality labs, digital sound and video), and performance and design studios.

Over 500 workstations are planned to be in place throughout the building by September 1996 including Apple Macintosh, Intel Pentium, Hewlett Packard, IBM, Silicon Graphics, and Sun workstations. Software ranges from general office tools to Internet applications to advanced animation and visualization applications. The Media Union is dedicated to removing academic boundaries of the information age in order to build a foundation for learning and creativity in the 21st century.

First Floor

1. Gallery (Room 1019). The starting place for our walking tour, this versatile space can be used for numerous events ranging from art exhibitions to science fairs to conference receptions. The Gallery can be reserved for University as well as outside events. Large glass doors open up onto the outside brick courtyard.

2. Video Conference Room (Room 1180). This two-room suite can serve as a high-tech boardroom or as a meeting facility. It allows groups with far-flung members to meet and work on common projects face-to-face through video and computer links without leaving their home offices.

3. Atrium/Information Desk. The Atrium's airy space brings the seasonal light into the building. It will have interactive information kiosks, exhibits, and hands-on museum pieces.

4. Advanced Visualization & Animation Lab (Room 1401). This lab contains advanced computer and

video technology, allowing engineers, scientists, and artists to represent complex information in dynamic visual form. The 'Vizlab' is equipped with high-performance graphics workstations, image input/output devices, video equipment, speciality software, and other resources.

5. Virtual Reality Lab (Room 1405). This lab allows researchers to actually enter the new worlds they imagine. The emerging technology of Virtual Reality is expected to have a dramatic impact on all disciplines on campus by offering a new way to communicate information, visualize processes and environments, and facilitate the creative expression of ideas.

6. Design Labs (Rooms 1321 and 1365). These two labs provide temporary design project space for a wide array of creative efforts across many academic disciplines. Currently displayed is "Designed for Learning," a collaborative project between Herman Miller Inc. and the Architecture and Design Programs of the UM

School of Art. Students are exploring new designs for learning/work environments with a company renowned for its design ethos and corporate ethic.

7. Electronic Music Studio (Room 1376). The Electronic Music Studio's two-room suite is equipped with both analog and digital synthesis systems, MIDI gear, and professional recording and mixing hardware. Multimedia sound for dance, theatre, and performance arts can easily be developed here. These studios are configured to serve as both classroom and creative/research space.

8. Video/Performance Studio (Room 1356). This large area is equipped for the videotaping and editing of a wide range of artistic performances and includes dressing rooms, a stage with a sound-isolated floor, and advanced video and audio control rooms. Projects may include anything from a student video drama

to a dance troupe interacting with virtual environments provided in real time by the Vizlab and the Virtual Reality Lab.

9. Audio Studio (Room 1335). This recording studio and control room is designed for high-end acoustical and electronic digital multitrack audio recording and mixdown. This studio will serve as an audio resource and training ground, allowing us to expand our capabilities in audio recording.

10. Machine Room/Center for Parallel Computing (Room 1328). At the center of the Media Union's advancement towards the digitization of information resources, the Machine Room houses the servers that provide Internet access to a continually growing collection of archival and recent digital journals. These servers, with the capacity to store several terabytes of digital information already, are expected to expand rapidly in the near future. Also located in the Machine Room are the

leading parallel supercomputers from IBM, HP Convex, and Silicon Graphics, which comprise the University of Michigan Center for Parallel Computing (CPC). Backing this advanced computing infrastructure, are a variety of high performance, high capacity digital servers.

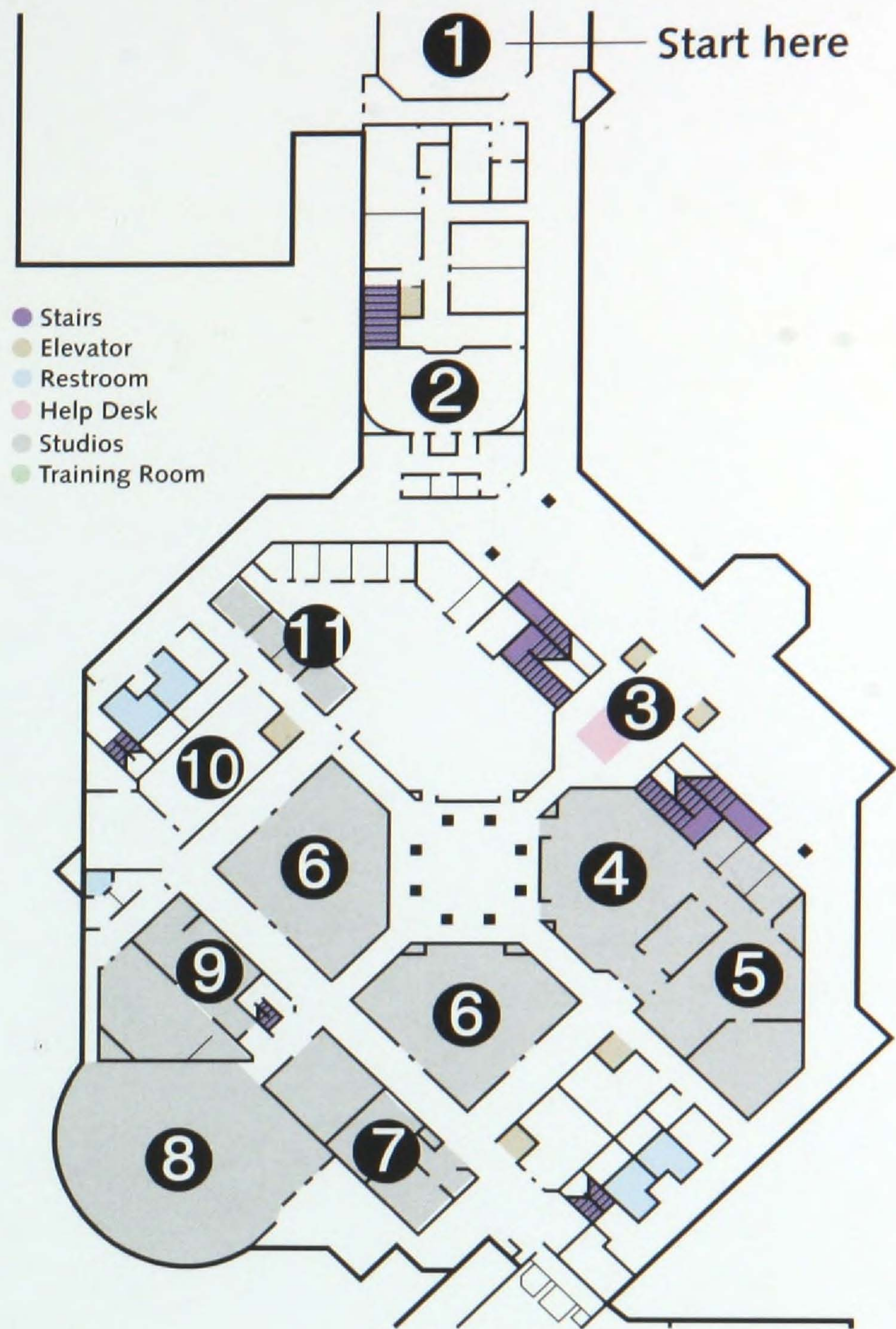
11. Multimedia Project Rooms (Room 1303, 1305, 1309, 1311). These four rooms support smaller interdisciplinary projects. In the future, they will house a full suite of tools for image creation and manipulation, multi-media authoring, and mixdown and synchronization of audio and video sources. It will be possible to create an entire multimedia CD-ROM here without

ever leaving these rooms. Current uses of these rooms include:

MusEn: This combination Music School and Engineering project explores digital signal processing.

Carillon Practice Room: This provides an opportunity for students to learn how to play music on the Lurie Carillon. The practice instrument is nearly a duplicate of the equipment in the nearby Lurie Tower.

Blue Skies: Development for the UM Weather Underground service is underway here.



Second Floor

12. The Media Union Library. The Library bridges art and technology by combining the Art and Architecture and Engineering Libraries. The Library offers integrated resources covering traditional and electronic media and supports a creative synergy between visual, computational, and design activities. The MU Library collection includes over 600,000 volumes and one million technical reports, historical records of early engineering research, archival architectural materials, and resources on intellectual property including U.S. patents and trademarks.

13. Library Reserve Desk. The Reserve Desk is the focal point for library circulation. Video tapes, course homework solutions, and old exams, U.S. patent microfilms, and books are some of the materials that can be checked out here.

14. Reference Desk. The Reference staff offer expert help with many diverse topics related to art, architecture, engineering, urban planning, and patent searching. Their guidance covers electronic media as well as paper-based collections.

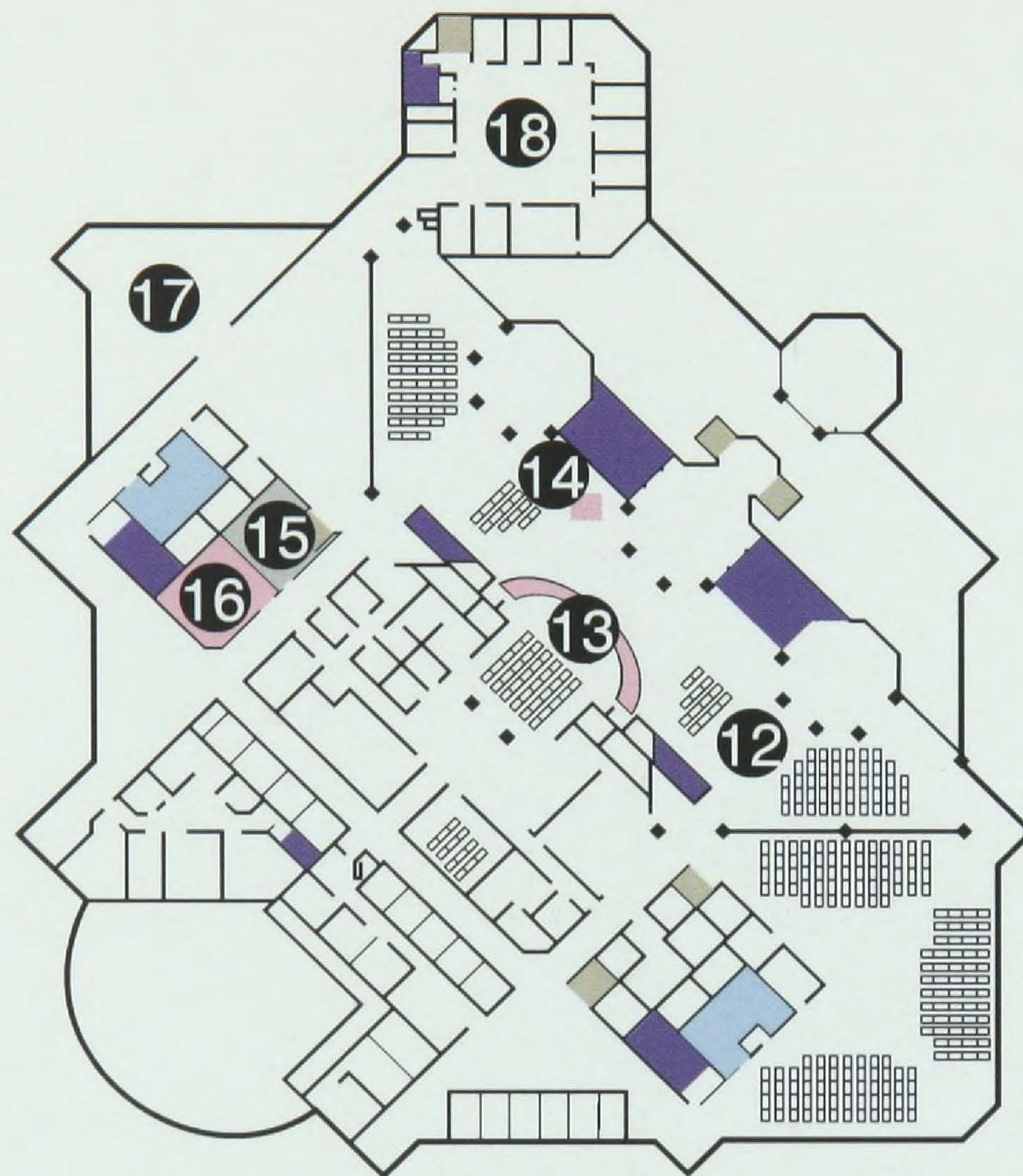
15. Media Conversion Room (Room 2318). This is the place to convert digital information from one format to another. This facility will be equipped with slidemakers, scanners, tape drives, visualizers, and more.

16. Computer Consultation (Room 2320). This is the place to go for help with computer technology at the Media Union. The professional and student staff can assist you in accessing workstations, utilizing software, and connecting to the network from home. It is also the first place that any account, software, hardware, or networking problems are reported for a quick and efficient resolution.

17. Millennium Project (scheduled to open September 1996). This facility will explore the future of the American university. This research center draws together scholars and

students both from our campus and beyond to explore various paradigms of the American university for the 21st century. Not simply a think-tank, the Institute will develop working models or prototypes of future university paradigms.

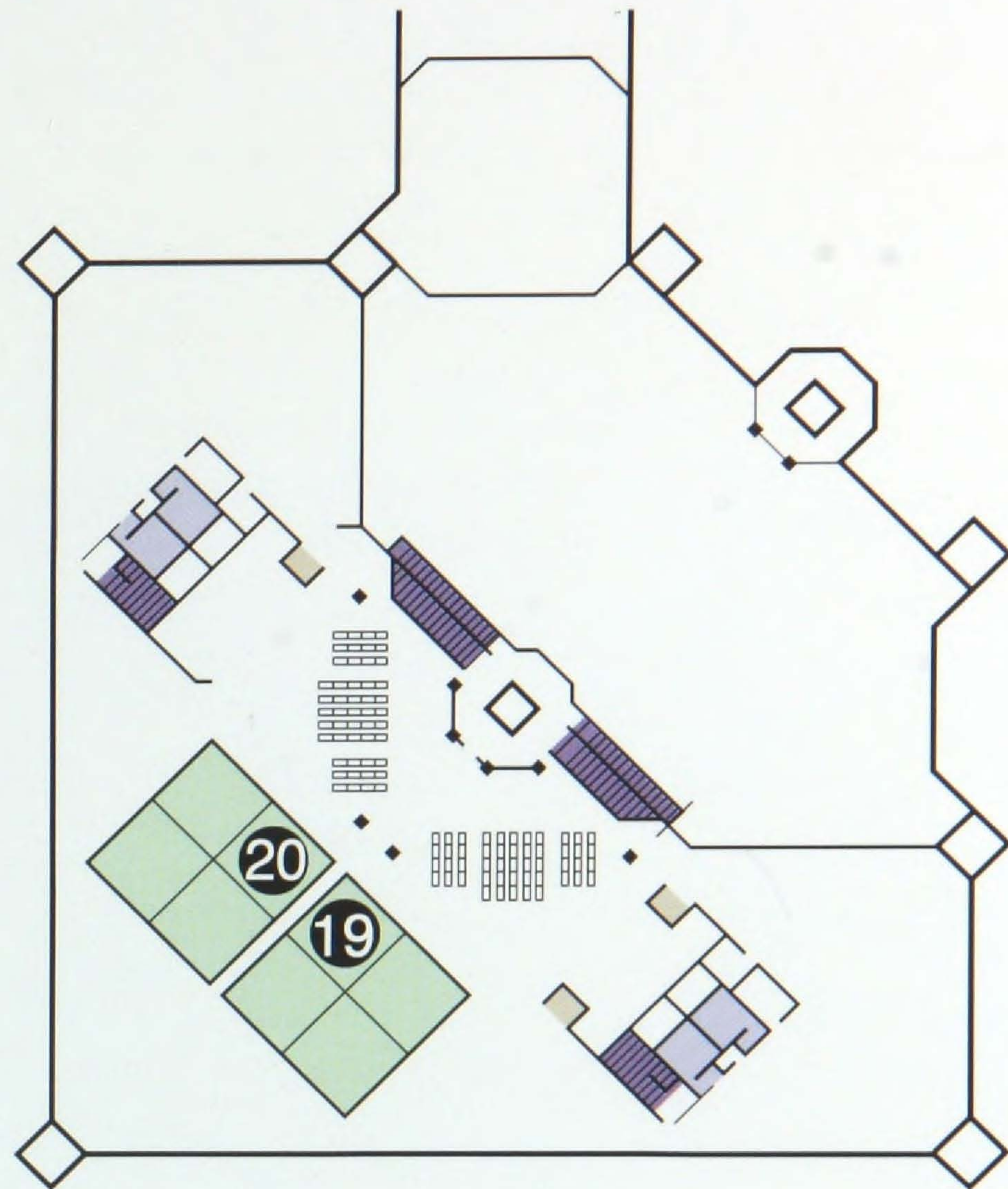
18. Administrative Offices (Room 2161). These offices provide space for representatives of several information technology-based units, including CAEN (the Computer Aided Engineering Network), ITD (the Information Technology Division), the Library, and Academic Outreach.



Third Floor

19. PC-based Training Room (Room 3358). This training facility contains 48 Intel Pentiums running Windows NT and Solaris operating systems. An instructor can look at, interact with, or project onto any student workstation from a specially designed console in the center of the room. This versatile room can also be divided into four separate classrooms.

20. Macintosh-based Training Room (Room 3336). Similar to the training room described above, this facility contains 48 Power Macintosh 7500s.



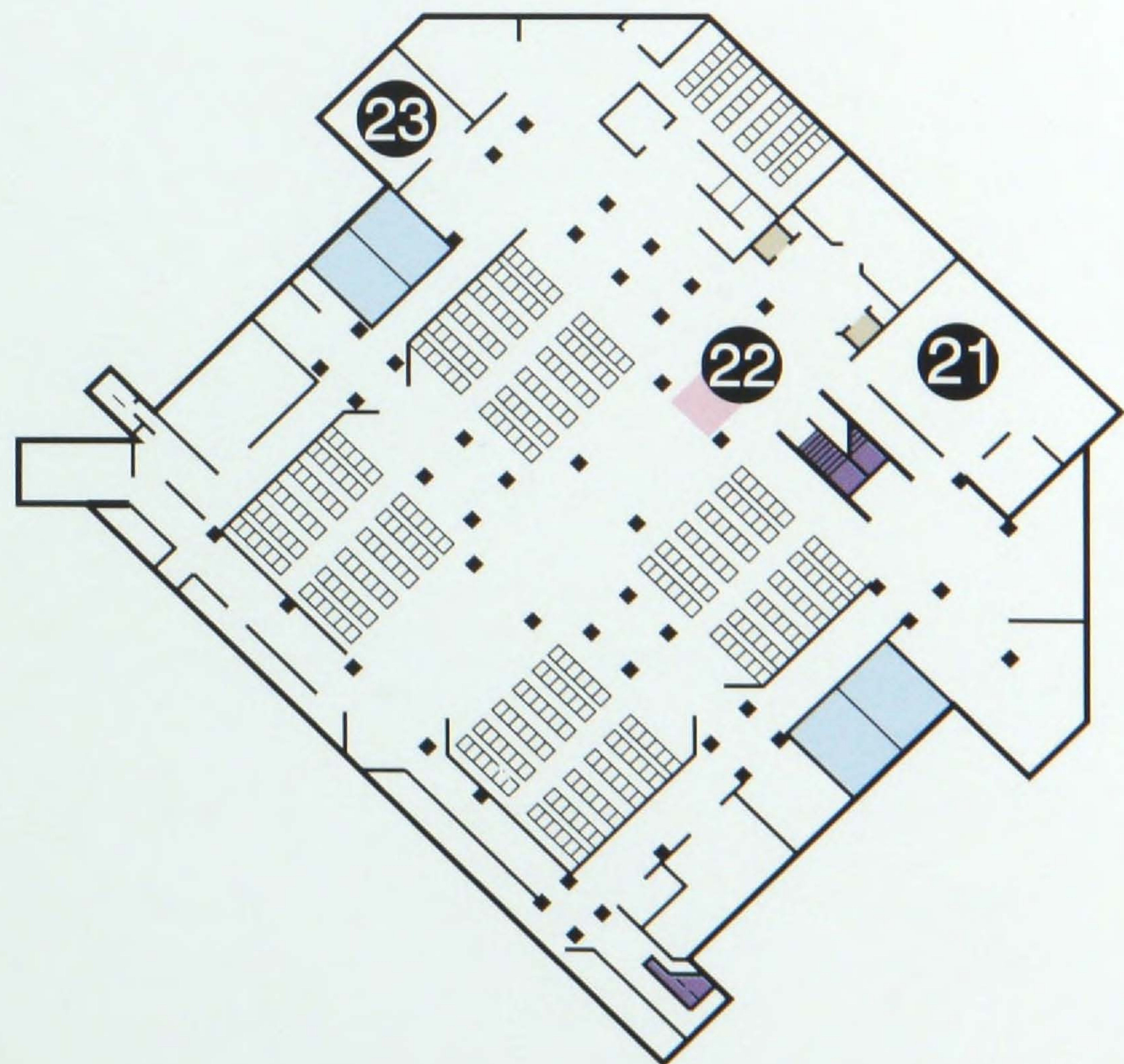
Lower Level/Basement

(scheduled to open July 1996)

21. Image Bank. The Image Bank provides access to over 55,000 slides of architecture and 20th century art images, videos, and manuscripts.

22. Monographic Book Holdings can be found in the areas of Art, Architecture, Urban and Regional Planning, Landscape Architecture, Design, Scientific Illustration, and one of the largest Engineering collections in the country.

23. Rare Books. This room houses the papers of Jens Jensen, Charles Sawyer, and a collection of archival photographs.



For additional information,
visit the Media Union web site at
<http://www.ummumich.edu/>.

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Summer 1996