III. MGOPIO I

Here follows our collection of Phase I data into a statement of Mission, Goals, Opportunities, Problems, Issues and Options -- categories that can lead from analysis to synthesis and eventually to a plan. Although many of the issues are posed as questions, we suspect that resolutions will not be "either-or." They are more likely to be "both-and" -- "this here and that there" or "this now and that later."

At this point, options are set out to determine the scope of the problem and the range of possible solutions and to uncover further sources of information. It is too soon to make decisions, as more information is needed to make good choices. In all likelihood, the response to this first report will lead to other, perhaps more realistic, options.

A. MISSION OF THE UNIVERSITY

Here, as a preamble to the MGOPIO of the plan, we reproduce -- for discussion, comment, and elaboration -- the University's published mission and vision statements.

The mission of the University of Michigan is to serve the people of Michigan and the world through preeminence in creating, communicating, preserving and applying knowledge, art, and academic values, and in developing leaders and citizens who will challenge the present and enrich the future.

As we enter the twenty-first century, the University of Michigan intends

- To be a source of pride for all the people of Michigan and have a place in the heart of every member of the University community.
- To have a place in the dreams of every potential member of the community of students, staff, and faculty.
- To be recognized as a university that honors human diversity.
- To be a scholarly community in which ideas are challenged, while people are welcomed, respected, and nurtured.
- To be an institution whose environment fosters creativity and productivity among all faculty, staff, and students.
- To occupy a position of unique leadership among the nation's universities in research and scholarly achievement.
- To be a community whose members all share responsibility for supporting its mission and receive recognition for their contributions.

[The Regents of the University of Michigan, http://www.umich.edu/UM-Mission.html]

How should this tie in to the University's mission statements for its campus and the planning of its campus?

The Advisory Committee suggests an addendum to the mission statement defining the value the institution places on creating and maintaining a physical environment that enhances the University and the City as places to live and work.

B. PLAN OVERVIEW

1. Mission and Goals of the Plan

At the end of Phase I, the Advisory Committee notes, "We hope to be, or become, a single campus with interlocking parts -- a Uni-versity. This conclusion can be used to frame the next phase(s) of the development of the Campus Plan, which should promote this integration by every possible means, including links, transportation, decisions regarding aesthetics, housing, landscaping and the like."

As we now understand it, the Campus Plan should devise strategies that:

- Define a physical setting for the life of the mind of a great University and for those who use and support it. Allow for the complex and shifting reality of the life of the mind.
- Establish an overall framework and hierarchy for development, relating physical priorities to academic and financial policies.
- Promulgate an understanding of the physical campus, its historical development, aesthetic dimensions, present patterns and conditions, and future options, and its place, historically and today, in the growth of Ann Arbor.
- Encourage a sustainable, liveable, amenable and beautiful environment.
- Provide facilities for education and research that promote the public good, foster areas of creative collaboration, and support individual excellence.
- Encourage an intensity of cultural, recreational and social activities, and define a spectrum of residential opportunities, on and off campus, that will continue to attract and help to hold the highest caliber faculty, students and staff.
- Nourish the arts on campus and in Ann Arbor, including establishment of an Arthur Miller Theater.
- Increase physical opportunities for interdisciplinary collaboration University-wide, perhaps especially in relation to growth in the sciences.
- Define and develop the roles of each of the University campuses. This includes providing a more convivial environment for the North Campus with imageable connections to the rest of the

University, and identifying appropriate purposes for UM-owned properties east of Highway 23.

- Balance densification and outward expansion.
- Help define a "home" for each member of the University community -- a physical location identified as the central place of experience for each faculty, student or member of staff.
- Help evolve a planning process that establishes an appropriate balance between centralized and de-centralized decision making, and invites participation of the wider University community, relevant governmental agencies and local citizens.

As planners, we must seek truth but know we will not altogether find it. As artists, we leave room for many truths; seeking beauty, but knowing that, in truth, beauty may at times be agonized.

If these are key themes and most general goals of the study, what major concerns emerge from them? What principles should direct our approach to them? What policies can be derived from them?

$2. \quad Opportunities$

- The University-wide love for the campus in its Ann Arbor setting and the realization that extensive growth could obliterate this traditional image will lend support to this project, as it attempts to redefine the broader campus to meet future needs without sacrificing its loved identity.
- The advent of a new University administration opens the way to a reassessment of policies for the campus as an integrated whole. Broad strategies can be set and implemented for its development in line with changing academic, financial and administrative policies.
- The University's tradition of interdisciplinary study and the trend toward increased collaboration could help forge new programmatic and physical links across campuses.
- New technologies, new teaching methods, new techniques in research or management, in use or under consideration, could help create new linkages between activities, and alter requirements for facilities.
- Given the large geographic area and population of the campus, the University's decisions regarding land use, physical character, and environmental stewardship could have far-reaching benefits for the community.
- The size and extent of the campus allows room for University expansion into the unforeseeable future and probably buys time too. There is the opportunity to densify with discrimination, not overcrowd the Central Campus, not underserve the North Campus, and to keep the sunlight on courts and buildings during the winter.

3. Problems

- The campuses are far from each other, geographically and perceptually.
- Connections between some campuses are difficult to visualize. What ideogram could clarify the Central-North campus connection?
- Decentralized decision-making has contributed to the excellence of many different spheres of the University, but has also made coordination of facilities planning difficult, and made "public goods" such as Hill Auditorium hard to support.
- The remoteness of housing and many campus activities from the core increases the dependency of the campus on automobiles and buses.
- The reduction of open space and increased vehicular traffic associated with rapid growth and expansion of the University in the last few decades have mirrored those of the state and the region. A 1997 article in the *Ann Arbor News* (January 19, 1997) noted that the amount of urbanized land in Michigan grew by 76 per cent between 1960 and 1990 -- six times the rate of population growth. According to the same article, between 1980 and 1990, Washtenaw County roadways became 37.9% busier (2 million more miles driven daily) and County farmland decreased by 27.4% (55,000 fewer acres in farms).

4. Issues

- The University's patterns of activities and systems are a constantly shifting set that move over the less changeable infrastructures and structures of the physical campus. What are the University's overarching disciplinary and interdisciplinary foci today? How might this situation evolve over the next 25 years? What physical shifts and extensions will this require? What types of reweighting might this involve for the various campuses and landholdings?
- How can we respond to changing patterns of activities, collaborations and associations now, yet leave flexibility for future rounds of change in educational and administrative policy? With generic, loft-like buildings that fit like mittens not gloves, allowing a succession of uses and relationships over time? Within a flexible grid, like the original plan of Ann Arbor? Within and across distinct precincts? Which elements should be fixed and which changeable?
- To what extent should town and gown be physically integrated? Should the University continue the practice of closing streets to create pedestrian precincts? The University's Office of Business Operations comments that including traffic and commerce as part of the fabric of the University would be "clearly contrary to our effort -- and that of most universities -- to provide as much safety as possible for pedestrians on campus...and encouraging a physical environment suitable for contemplation, study, and research. This is a university, not an entertainment district. While some of the

universities in the world's crowded cities cannot avoid mixing academic buildings with the city environment...we can and should." On the other hand, Advisory Committee member Colin Day notes that "in the humanities and social sciences (at least) nurturing is less done by the construction of buildings than by the creation of opportunities for serendipitous encounters, informal meetings and the like. ... The great strength of Ann Arbor as a university town is the proximity and inter-weaving of downtown activities with the University: the downtown is where many of those serendipitous meetings can and do occur. The need to nurture and inter-weave with downtown is part of the program of sustaining the creative academic environment." Where should the University place itself within this spectrum? Could the answer be different for different areas of campus?

- As in the 1960s, Michigan still faces the issue of extended or compact growth. The decision then seemed to be between a growing center or a limited center with satellites. The pattern today resembles less and less that "garden city" ideal. Four areas demonstrate some aspects of a center: Central Campus, downtown Ann Arbor, Medical Center and North Campus; and there are several outlying areas, South Campus, the properties east of Highway 23, Briarwood, etc. How shall we define them, together and apart, and in relation to the City and County?
- Where does the new administration see the place of decision-making about the physical campus, in whole and in part, in the polity of the University and of the City? What are the issues of democratic participation and of centralized and decentralized decision-making?
- What should the roles of strategic planning and opportunism be in the future development of the campus? The University's Business Operations Office notes, "Units have always been encouraged to take advantage of sudden opportunities along their road to excellence. ... A plan needs to recognize this and to provide a way to deal with random uncertainties."
- How can we (all), as artists, draw profound meanings from the fabric, history and iconography of the University and help these emerge in its physical development? What kind of beauty can this drawing engender?

5. Options

In the maps that follow are some first notions of the University's overall options. They are what we have heard at meetings or what have occurred to us during fact gathering and analysis. They are exaggerated and feasibility probably lies somewhere between them. They are also unrelated to each other. What should grow from them, and from the response to this Overview, is a larger sense of where the real options lie. Then, these can be combined into sets of realistic, internally consistent alternatives that represent valid choices to be made about campus development.

The major options will derive from alternative assignments and reassignments of activities and systems within the University and consequent shifts of emphasis within its campuses and landholdings.

a. New Ideograms: Reweighting the Campuses

If the alternatives between densification and suburban nucleation posed in ideograms in 1963 no longer hold, what are the new ideograms? Here are five further alternatives (p. 71):

- Central Campus is "downtown." South Campus is "the urban fringe." North Campus is suburbia. East Property is exurbia.
- An extended Central Campus. Central Campus, downtown, Medical Campus, plus the built-up portion of North Campus are linked by transit. Residential North Campus and East Properties are the University Residential Life's suburban component; academic uses there relate to the Botanical Gardens or to suburban research parks. South Campus is attached to Central Campus ceremonially, processionally and iconographically.
- *Two centers*. Somewhat like "extended Central," but central-type activities extend in North Campus and Medical Campus decentralizes.
- North Campus the new center. It has considerable room for expansion and parking -- if we accept its already ongoing densification and some loss of landscape. There are prospects for enlivening its atmosphere if we accept some loss of design purity and control. Is Central Campus then Old City? East Campus the "new" North Campus?
- Each campus a tub on its own bottom. Each has a different identity and enough self-sufficiency (and computer connections) to reduce the requirements for movement between them. Global ties vie with local loyalties.

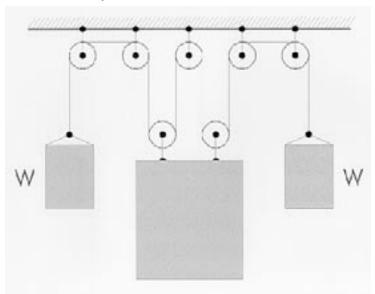
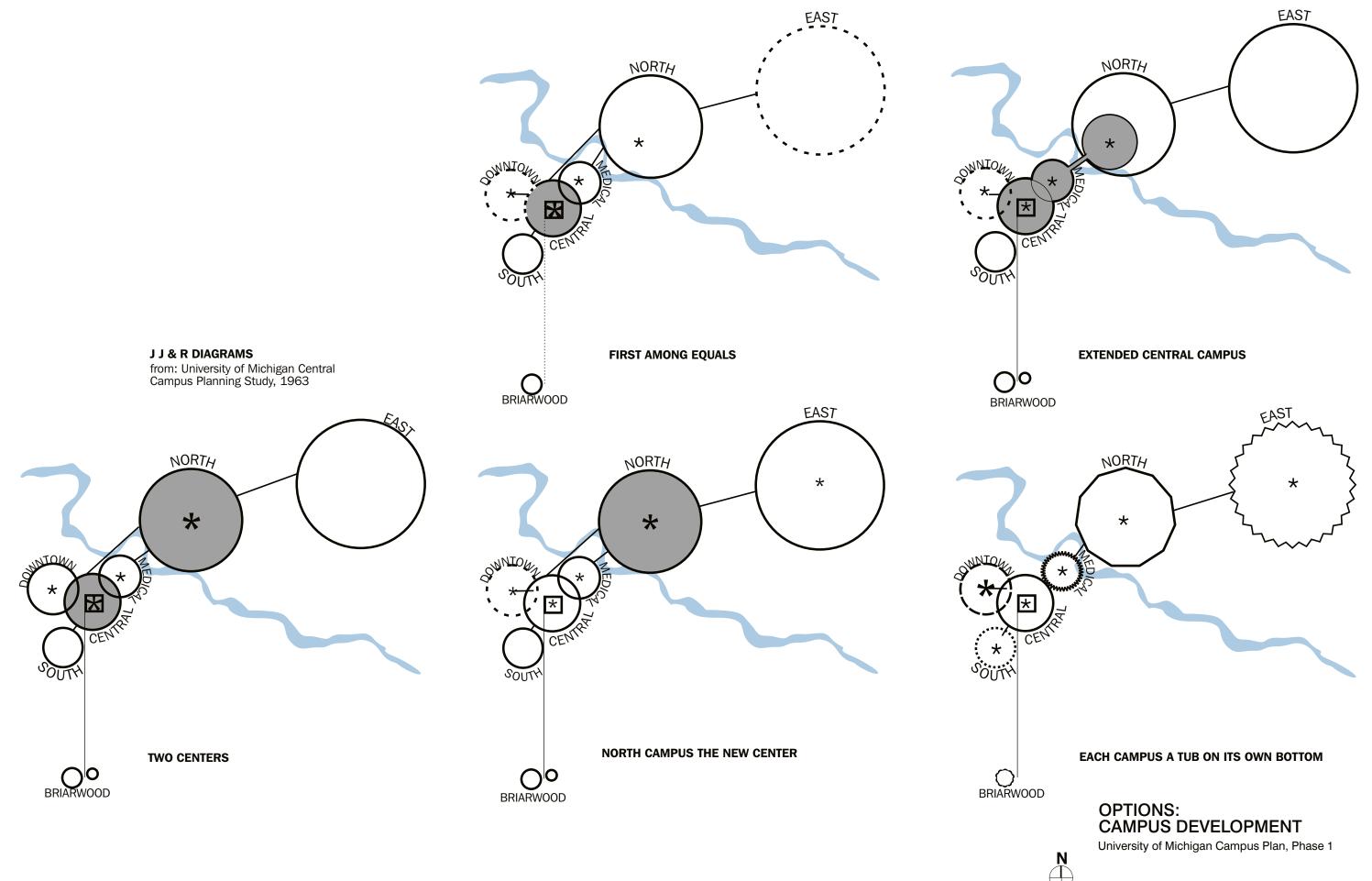


fig. 37. City Physics: Re-weighting the Campuses



b. Other General Options: Campus Relationships

Other options, still at a general level, involve relations between Central, Medical and North Campuses and downtown Ann Arbor:

- The Arts. Present activity patterns suggest an option for developing a performing arts locus east-west on campus from performing spaces in the Music School, Media Center, and Medical Center, via Power, Mendelssohn, Hill and Frieze, on to the shops ands restaurants of Liberty Street.
- The interdisciplinary collaboration of Medicine, the Life Sciences and Engineering traces an arc across the academic and institutional universe, within the University and beyond. Where, in a spectrum from the Internet to bricks and mortar, will most of that collaboration take place? Sites where major collaborative facilities could be considered (fig. 38) include the old hospital site, the "cathole" site off Washington Avenue at Palmer, sites off Glen Avenue around E. Ann Street, several near Wall Street, and perhaps even a North Campus site related to Engineering and the VA Hospital. A transit-like connection could pick up all these sites with perhaps only four stops between engineering and medicine, in order not to stress the schedules of busy medics and engineers.
- Reweighting the Central Campus force diagram (p. 73). "City physics" sees the campus infrastructure as a diagram of forces, loaded in different ways at different times in response to changing pressures. Such an interpretation suggests that the pull of the Medical Center and North Campus may, over time, shift the center of gravity within Central Campus northward across North University Avenue, to Rackham and Power. Developments for the arts, sciences, medicine and engineering discussed above should accentuate that trend, if they take place on the sites discussed. The east-west alignment of performing arts facilities on campus and in Ann Arbor roughly along Washington Street could be seen as a campus axis involving the newest developments in the arts and sciences, supported by outriggers south (Hill Auditorium) and north in the Medical Center and North Campus (Music School, Engineering, Architecture).

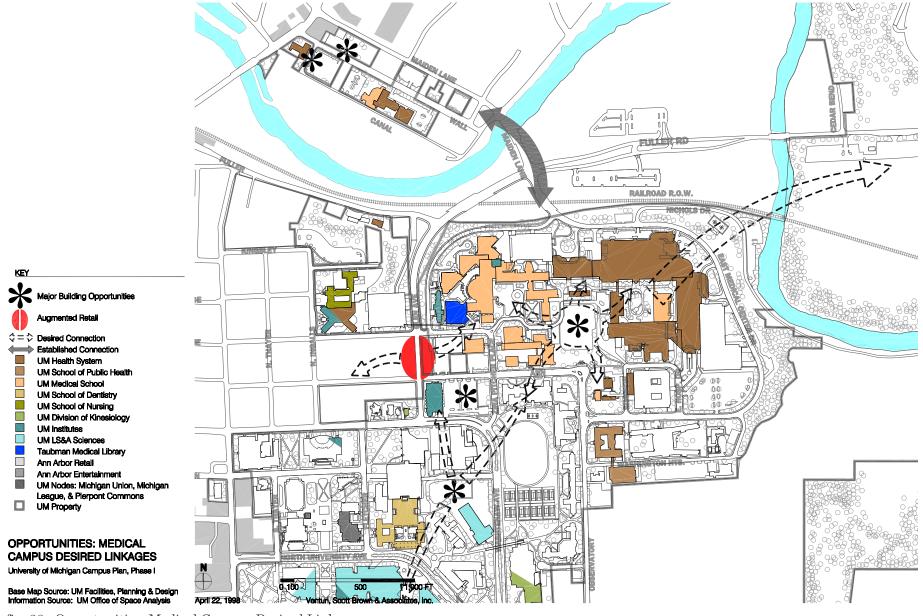
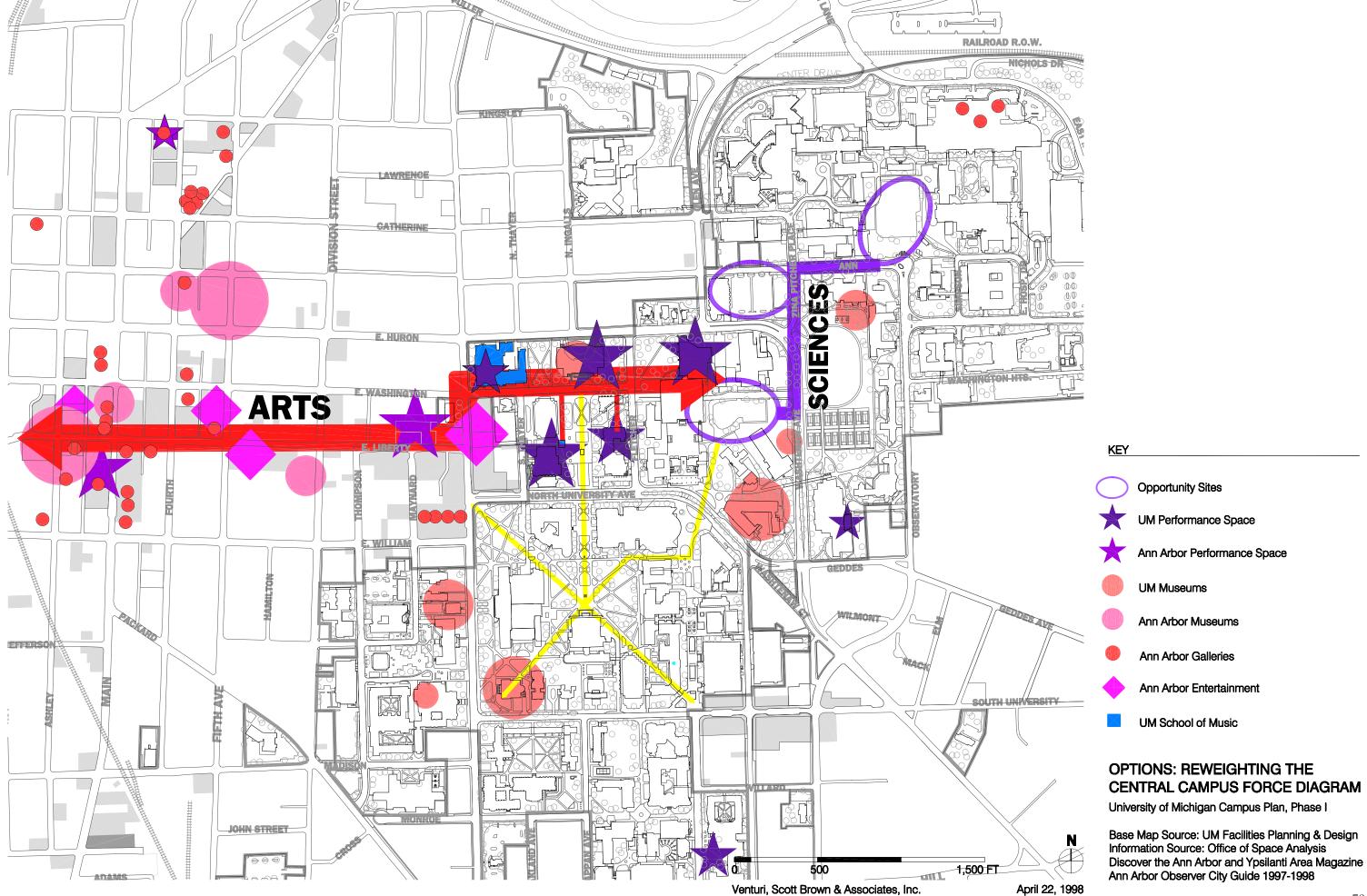


fig. 38. Opportunities: Medical Campus Desired Linkages



C. AESTHETICS, DESIGN AND PRESERVATION

1. Mission and Goals

- Maintain and augment the campus's beauty for the enjoyment of the University community, alumni, alumnae, and visitors. Understand its many landscapes and the opportunities each presents.
- Preserve precincts, complexes, buildings and open spaces and design new facilities and spaces that underpin the history and beauty of the University and Ann Arbor. Describe their historic importance and present relevance, define their character and, where necessary, recommend reuses that are appropriate to campus needs today. Mediate between the need to add new facilities and the need to support and maintain those the University already has.
- In the design of major campus open spaces, build on the "givens" of topography, native plant communities, the surrounding context of built forms, and the best elements of the historical landscape.
- In the design of campus landscape spaces (both hard and soft) encourage communal academic life and create lively, liveable places for people to live, work, play, and learn.
- As new buildings are added, preserve and integrate existing campus landscapes, including gardens, courtyards and greens.
- Create multi-scaled open space networks that connect the University to the town, the campuses to each other, and the river to the campus.

2. Opportunities

- The many landscapes of the University's campuses and properties, each with its own characteristic forms, symbols, and contexts, provide strong points of departure, good models and abundant opportunity for diverse forms of development in the future.
- Preserving historical buildings and spaces of the Central Campus and pointing up their areas of vital interface with the city could contribute to the University community's sense of its own history.
- Existing open spaces could provide the foundation for a University-wide open space network. New buildings can provide opportunities for new, related outdoor spaces linked to a wider network.
- The planned renovation and selective restoration of Perry and Frieze could help set standards for dealing with historic buildings on campus. The planned renovation of the LS&A building, if sensitively accomplished, could help foster renewed appreciation for the University's post-WWII modern buildings.

- The three large sites in and near the Medical Campus and the plans for the Arthur Miller Theater could help to infuse the area north of the Diag with lively, interconnected amenities and produce an exciting, new element of campus and urban design.
- Regional changes in medical care provision and consequent redeployment of medical activities could provide the opportunity to reduce densities and increase amenities on the Medical Campus.
- The intimate relationship of the land at the base of the Medical Center to the Huron River Valley could help establish better links between the campus and the river. To the extent it became more perceptible from campus, the river flood plain could provide opportunities for knitting the campuses together, and add to the treasury of Michigan's loved and remembered landscapes
- Changes in the North Campus -- the heightening of retail and amenity services in and around Pierpont Commons and Bonisteel Boulevard, and the juxtaposition of the Media Union and the Lurie Building with "forest clearing" buildings such as the Music School -- could produce a new, vital identity for this Campus.

3. Problems

• The overlap of 20th century transportation systems and planning philosophies upon the swiftly growing campus have resulted in many landscapes, admirable diversity, and also jarring mismatches and discontinuities where systems or philosophies have not meshed with what lay under them. These tend to occur in the in-between areas -- at breaks and fissures in the topography, at the edges of precincts and campuses -- leaving an impression of the campus as a series of preferred views surrounded by places not intended to be seen.

- The Huron River, historically part of several important vistas from both North Campus and Central Campus, has not been fully integrated as a landscape or an amenity, and has been cut off from the University by the development of roads and buildings.
- A number of roads and vistas in central areas end in blank walls, service yards or parking structures (fig. 39).
- Some important landmarks, such as Hill Auditorium (fig. 40) and the Rackham Building, remain underused and/or in need of renovation.
- The *Town/Gown Study* completed by the College of Architecture and Urban Planning in 1993 noted that "the edge of campus is left to storage facilities, parking garages, parking lots, and gigantic athletic facilities surrounded by even more parking lots."



fig. 39. View North Along Maynard Street



fig. 40. Hill Auditorium

- The scale of development of the Medical Center and the North Campus has been vast, without sufficient mediation by the smaller scale that has historically brought grace to the monumentality of institutional buildings. The Diag of the North Campus is wide and windswept and without clutter, and the scale of the Medical Center perimeter buildings is formidable.
- Winters in Ann Arbor can be dreary, and in many cases the south sides of courtyards have been infilled with tall buildings, casting the exterior spaces in shadow.

4. Issues

- What are the "many landscapes" of the University? What are their positive and negative characteristics?
- What campus buildings, landscapes, and landmarks should be considered "sacred?"
- To what degree should the various campuses and holdings have an aesthetic commonality? Should they be as unified as possible or should each have its own distinct character? Within each, should unity or diversity be emphasized? Should that vary by campus?
- What is the architectural and landscape character (or characters) of each campus? Should a different landscape be fostered on each campus or should the University-wide landscape be similar in organizing principles, types of spaces and plantings?
- The Advisory Committee asks, "Shouldn't we risk rethinking the character of the entire University physical presence rather than assume we should build upon six very different existing tendencies?"
- What policies and processes could help preserve the positive aesthetic qualities and characters of the campus? What processes could help preserve its historical and emblematic elements? What processes could help preserve landscape character and still accommodate new facilities? How can these serve as points of departure for growth and change?
- Where is that "special landscape" that sears the memory and is associated forever with our college days?
- In addition to their scientific and educational value, what is the cultural and symbolic value of rare original landscapes, for example, Radrick Forest and Fen? How can this value be communicated to the University community?
- Can the Huron be our Seine? Are there other potential grand landscapes to be discovered and developed on North Campus or the properties east of Highway 23?

5. Options

Options for aesthetics, design and preservation will grow out of the "Learning From" studies described in Section II B and C and from choices made between the options suggested in other sections of this MGOPIO. These choices will themselves be determined, in part, by their likely aesthetic impact on the physical campus.

Design options can be described through actual designs and also through guidelines that would accompany the plan documents. Here we present some preliminary considerations regarding how design might relate to pragmatic decisions facing the University; these might lead to but are not yet options.

- a. Aesthetic Dimensions of University-wide Systems
- The Larger Landscape. If every academic landscape worth remembering has at its base some component of natural landscape -- a Cam, a Charles -- and if, through its topography, the Huron cannot quite be this to Michigan, we submit, as a joint candidate, a combination that includes the Huron, the arboreta, the Radrick natural areas, two Diags, the Music School and, for not altogether describable reasons, the Stadium.
- Areas of Academic Intensity. The map showing distributions of labs and classrooms (p. 45) depicts graphically the emerging, campus-wide pattern of intensities and suggests how far we already are toward the four-center general option described in Section III.B5. Design guidelines for these areas will be those for urban complexes where architecture defines the shape of exterior spaces -- they will cover scale, bulk, height, window-openings, cornices, roofs, materials, views and vistas, the unique and the generic, and the relation between campus and city, private and public, unique and generic, old and new, large and small, and high and low
- Imageable Transportation Routes. The transportation options under discussion (Section III.D.5) give rise to the possibility of several "bright light" routes through the campuses that could become M-Emblems: the Stadium Processional, the Town and Gown Avenue of the Performing Arts and the Bonisteel Transit Trip. What should be the character of each?
- Housing. Another larger system is the matrix of housing within which Ann Arbor and the campuses sit. The aesthetic component of a University-wide and regional housing policy would contain both an urban and a suburban dimension. North Campus housing could be to the North Campus Center what "beyond the walls" (fuori le mura) was to the medieval town. This and aesthetic options for inner city housing should be explored in future planning phases.

b. Urban and Campus Landscapes and Spaces

As choices are made regarding the kinds of campus development necessary and desirable, the following might be considered:

- Understanding and loving the Ann Arbor grid plan, the richness of its retail, house and church architecture and the nature of the soft and hard edges it forms with the University, could help to define the future coexistence of town and gown.
- Providing intimate, detail-rich transitions between large open spaces could help reinforce a hierarchy and system of open space including all scales from small, intimate courtyards to large open greens, from the maze to the Mall.
- Infilling specific underused areas to contain sprawl, if completed in a manner which reinforced a logical network of open spaces, could help preserve a strong sense of "campus."
- Preserving and integrating natural features and sensitive areas (woodlands, stream valleys, and wetlands) into recreational and habitat corridors could preserve and enhance the sense of place and the viability of regional park systems, and support local biodiversity.
- Completing restoration and renovation of important campus buildings, for example, Hill Auditorium, could reinforce to the University community the value placed on these important historical assets.
- Developing sunny, south facing courts and spaces protected from winds could extend the periods of outdoor activities in spring and fall seasons.
- Re-establishing lawn extensions at the residential edges of Central Campus could help make a transition from the University landscape to the landscape fabric of Ann Arbor.
- David Michener, Assistant Curator at the Matthaei Botanical Gardens, suggests that the entire campus might be considered an arboretum, with curated plants enhancing the unique identity of each place.



fig. 41. Historical View of Campus Paths in Winter (*Photograph: The Bentley Historical Library*)



fig. 42. View South from Thompson Street Parking Structure

c. Individual Campuses and Properties

- Central Campus and Downtown Ann Arbor. Whatever their political and functional separations, aesthetically these are point and counterpoint. The Central Campus plan must make the rules for the interweaving of town and gown at the point of meeting, suggesting means for mending ruptures that occur at points of violent juxtaposition -- for example, at the Thompson Street garage (fig. 42) -- and ways of protecting combinations that delight.
- Medical Campus. Could recent and ongoing shifts in health care provision allow some de-densification of the walled fortress? Changing to uses that let the public in has been suggested for some spaces and floors. Could there be some concomitant opening of access from the perimeter to the interior? Could such changes decrease traffic volume on the ring road? How much demolition would be required in the Medical Campus interior if additional sites are available between Central Campus and the Medical School?
- North Campus. The mythic Northern Landscape has come under a campus building onslaught and is now besieged around the edges. It is in its glory only at the Music School. We wouldn't harm a hair on its head. But what is the new landscape we now have?

- Indications are that large-scale building is still in store for the North Campus; this may give it the urban density required to support the lives of those there now and allow consideration of a transit system that will facilitate communication with colleagues to the south. This densification, if designed well, could end the inbetween aesthetic state the North Campus center is in now. North Campus needs to define its own Diag. Could the North Campus be reforested in select locations?
- East Properties. Between a rural landscape, exurbia and suburbia, its form is impossible to predict without an understanding of the ecological and regional economic forces of its field and an analysis of the Medical System's plans for its "East Medical Campus." It is, inter alia, a land bank, a time machine, a lung. It should not become a dump.
- South Campus. A playground of the gods, the terminal of a processional, but no longer the terminal of the campus, an industrial zone, an intrusion on a neighborhood, the locus of the University's prime emblem?
- Wolverine Towers. The new campus outpost? A way station to Ann Arbor airport? Temporary accommodations?
- Briarwood Facilities. The southern tip of the Ann Arbor campus? Or no less central than the Health System facilities in other parts of the region?

D. THE ENVIRONMENT AND NATURAL SYSTEMS

1. Mission and Goals

President Bollinger's charge to the Campus Plan Advisory Committee describes a campus plan which "celebrates the highest principles of aesthetic and environmental design" and "creates and sustains the vitality of a place easily identified as a 'community.'

" The Advisory Committee has asked that the plan consider issues of sustainability. To achieve these aims, development and management of University of Michigan properties should support the ongoing processes that sustain life and should promote their continuing function.

- Consider the effect of every intervention on the larger community, how the microcosm of each building, space, street, and parking lot is integral to the macrocosm of the University and the region.
- Design new site development to preserve natural hydrologic patterns, existing terrain, and native plant communities to the greatest extent possible, and promote the recovery of damaged sites and sustain the health of undisturbed ones, whether infill on existing urbanized land or new buildings in rural areas.
- Enhance programs already implemented by the University to promote landscape management practices that restore, preserve and sustain the larger landscape context.
- Foster local biodiversity by preserving significant natural landscapes, restoring degraded landscapes and creating new indigenous landscapes where appropriate.
- Develop campus spaces to provide a linked system of lively, humane, community places. These should build on the broad range of landscapes offered at the University, from intimate alcoves and courtyards to large communal gathering places.

2. Opportunities

- The University is at present engaged in a number of important collaborative environmental initiatives. Campus-wide policies on environmental planning, design and management could reinforce these efforts.
- The University is a leader in research and teaching about the landscape. Drawing on the expertise within the institution could help Michigan become a model of environmental responsibility. The University's extensive campus, currently undeveloped in some areas, could be a laboratory for solutions to larger environmental problems and a model for site sensitive development.
- Much of Fleming Creek falls under the control of the University's policies. This watershed is comparatively undeveloped and the creek is in a relatively undisturbed condition. Sensitive, development of East Properties -- preserving the stream corridor and its riparian buffer, minimizing impervious surfaces, and using innovative recharge methods in the uplands, can add value to development.

- On the North Campus and East Properties there is still the opportunity for development to respect the natural topography and vegetation.
- The Radrick Fen and Forest present an opportunity to preserve a significant indigenous ecosystem and provide a valuable teaching tool, in combination with resources at the Arboretum and the Botanical Gardens.
- Present stormwater management plans for the University could explore minimizing impervious surfaces and dual use of paved surfaces for, for example, both parking and recharge.

3. Problems

- The older campus areas fall largely within Allen Creek and Malletts Creek Watersheds, both of which have been described as "severely degraded" by Paul Rentschler, Executive Director of the Huron River Watershed Council, who states that "as far as we can identify the source of these problems, the degradation of Malletts Creek stems from heavy stormwater inputs and the resulting extremes in flow, which cause further erosion." As part of the watershed, the campus may be contributing to this problem; it could also be a part of the solution.
- The University controls only a bottom portion of the Fleming Creek watershed, which is of relatively high quality. Current development pressures, both beyond and within University holdings, threaten to degrade present conditions.
- The construction of new buildings, parking and other facilities has increased the amount of impervious surfaces on the campus, and this process will continue.
- According to Henry Baier and Terrance Alexander of UM Occupational Safety and Environmental Health (OSEH), the University's decentralized decision process "makes coordination with environmental health and safety activities across the diverse groups difficult."
- Owing to decentralization, not all University-related projects follow the environmental guidelines established by OSEH.

4. Issues

- The University has already assumed considerable responsibility in environmental matters. What further responsibilities should it take? Should it take a leadership position? What kind of neighbor should it be? What programs already underway could provide the necessary foundation for leadership? Should the University adopt environmental policies at all scales, including the design of individual facilities?
- How will environmentally responsible positions and actions be defined? What policies and mechanisms would be needed to establish University-wide standards and ensure follow through?

- What should University policy be towards significant ecological plant communities and habitats -- for example Radrick Forest and Fen and tributaries of the Huron River that run through University property? Can the preservation of significant natural areas be balanced with the demand for new buildings, recreational facilities, and parking?
- To quote Radrick Farms Manager Tracey Jones, "Is demand for expanded recreational facilities...more important to the overall University community than preservation of Radrick Forest as it stands today?"
- What constitutes a liveable campus? The ability to walk to a variety of facilities and activities? Indoor and outdoor spaces that encourage communal academic life? Integration of buildings, terrain and vegetation?
- According to Joan Martin of the Huron Valley Watershed Council, portions of the northern and western Huron River watershed are still rural, in open space or preserved as natural areas. Planning initiatives undertaken by the City, County, and University will be critical to the future of this area. While some collaborative initiatives are in place, what further joint planning efforts should be taken?
- How should the University address the environmental impacts of housing, transportation, parking, and development? Many in the University population of 59,000 commute from distant off-campus housing, placing a demand on roadways, infrastructure, and the land that affects pollution and stream quality, contributes to the loss of open space and upsets the delicate balances of plant and animal life. How can the University work with regional jurisdictions to deal with these related issues, shared by all?
- During the Phase I process, two alternate philosophies of environmental stewardship have been expressed in the dialogue with the University. The first is an inward-looking approach, stating that the University should concentrate on its own property holdings, basing priorities for future criteria primarily on internal needs and objectives. The second view holds that the University of Michigan is part of a larger whole; for developing internal strategies, this view looks outward to the surrounding region in setting priorities, in tandem with addressing its own needs. How should these conflicting value systems be resolved?

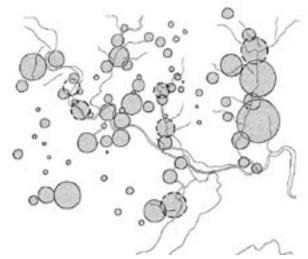


fig. 43. Open Space: Polka Dot Model

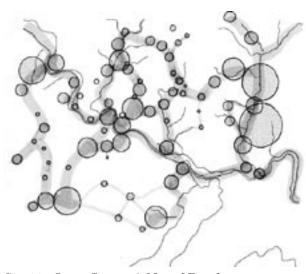


fig. 44. Open Space: A Net of Pearls

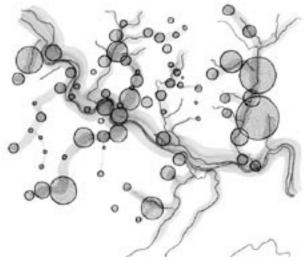


fig. 45. Open Space: Roots and Shoots

5. Options

a. Open Space and Landscape

Options for open space systems and landscape treatment are presented at regional, city and campus scales. Although what the University elects to do on its campuses can to some extent influence regional and city patterns, choosing or accomplishing *any* of these wider options will require a great deal of participation and cooperation among the University, the City and the broader community.

Regional Scale

- Polka Dot Model (fig. 43). Open space parcels, ranging from public parks to sports fields to natural areas, are dispersed throughout the University and the City of Ann Arbor. Open space links between these parcels are generally linear connections along stream corridors or bicycle lanes. These connections, because they are incidental to this system, tend to be fragmented and to support more limited recreational and conservation opportunities. The dispersed model has the potential to serve community needs quite well but is less effective in the stewardship of natural resources.
- A Net of Pearls (fig. 44). In this model, too, open space parcels are dispersed throughout the University and the City. Additionally, a web of open space connections, ranging from narrow recreational trails to wider greenway corridors, provides linkages between the larger open space "anchors." The establishment of connections is prioritized between the largest landholdings. Upland connections and lowland connections are given equal priority. The Huron River becomes one thread within a larger network.
- Roots and Shoots (fig. 45). This hierarchical system is organized around a central corridor -- the Huron River valley -- which is emphasized as the principal natural resource. The many secondary branches provide access between open space parcels and the main stem of the system. This branched open space system fosters larger, multi-functional corridors providing a wide range of opportunities for recreation, habitat conservation, and water resources management.

City Scale

The restoration and recreational development of river fronts is a major civic and environmental emphasis in our cities today. The range of opportunities for the University of Michigan ranges from preserving the status quo to substantial restoration efforts.

• River as Invisible Thread (fig. 46). In the absence of coordinated planning efforts to make the Huron River a centerpiece, development patterns will continue as they are. The presence of the river will not be a major element in the experience of the city and will not be visible from a distance. The construction of parking lots, sports fields, and roadways would continue, with some restrictions mandated by

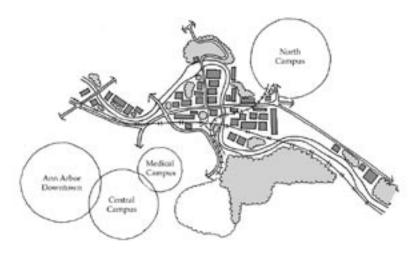


fig. 46. River as an Invisible Thread

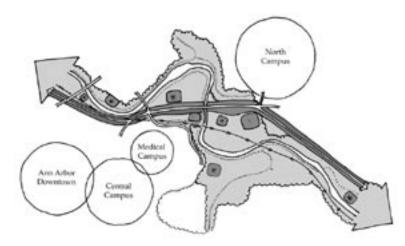


fig. 47. River as an Embroidered Ribbon

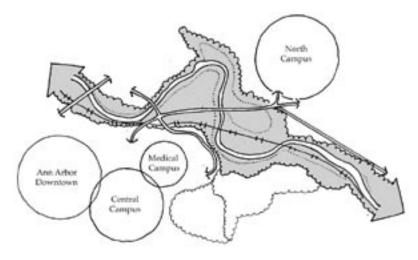


fig. 48. River as a Wild Ribbon

Federal and local regulations. Access to the river edge may be limited to specific sites which are linked by roads, but could also be developed as a connected riverwalk. This scenario does not take full advantage of opportunities to improve recreational and environmental conditions.

- River as an Embroidered Ribbon (fig. 47). The river and the adjacent floodplain are largely restored to a ribbon of continuous natural vegetation, making it a visible element in the landscape. Existing roadways in the valley are tied together as a coherent, scenic parkway. Adjacent recreational trails link limited amenities such as sport fields, boathouses, and picnic areas. This model seeks to establish a balance between recreational use and restoration of the most sensitive areas to a natural condition. For this approach to be effective, development of the slopes adjacent to the valley bottom should be carefully interwoven with a robust open space network connecting the river to upland development.
- River as a Wild Ribbon between Urban Centers (fig. 48). This model envisions a continuous natural river valley between Barton Pond and Gallup Park, and excludes built elements except bike and pedestrian paths. Parking and other facilities are provided at the perimeter of the ribbon.

$Campus\ Scale$

Each option implies a particular planting vocabulary and organization, and the existing landscape may suggest an appropriate range of options for a particular place. As at other scales, choices at the campus scale are likely not to be "either-or" but "both-and" or "this here and that there."

- Central Campus Model (fig. 49). In this model the traditional collegiate campus elements of greens, courtyards and malls, structure the landscape. Like a green rug, the lawn unifies campus spaces. Large canopy trees in informal groups provide scale and shade. The model is the English park, the New England Green and the Victorian "shadow" lawn. This is not a landscape of small fussy elements. Low hedges and open fences define the front lawns of buildings where the campus meets public streets, primarily at the perimeter. Massed shrubs accent transition points such as building entrances.
- *Music School Model* (fig. 50). Woodlands and natural landscape are the matrix in which individual buildings are dispersed; grass is limited to small sunny glades and high use areas near the buildings. The deciduous woodland and its flowering understory provide a bold landscape framework where flowers and color appear as broad, sweeping effects. The landscape infrastructure -- parking, paths and roads -- should not fragment the woodlands nor separate them from the buildings.
- Suburban Model (fig. 51). Space flows freely and lawns form a wide apron around individual free-standing buildings. Ideally, large canopy trees provide a transition between these buildings

and the big lawns. Alternatively, the plantings may appear as isolated, scattered elements. At a larger scale, this model does not encourage pedestrian activity but promotes vehicular use.

• Academic Village Clusters in a Natural or Rural Landscape (fig. 52). Clusters of buildings -- including teaching, research, housing, and recreation -- around a central garden core, are set in a more rural or natural setting which reflects and preserves the surrounding landscape.



fig. 49. Central Campus Model (Photograph: The Bentley Historical Library)



fig. 51. Suburban Model (Photograph: Andropogon Associates, Ltd.)

b. General

Further options for consideration in the planning of environment and natural systems include:

- Limiting building of active recreational areas and parking lots in the upper floodplain terraces to allow a riparian buffer along the creek.
- Minimizing unnecessary grading, preserving natural stream channel configurations, and preventing the removal of native vegetation to help preserve and maintain natural systems.



fig. 50. Music School Model (Photograph: Andropogon Associates, Ltd.)



fig. 52. Academic Village Cluster Model (Photograph: Andropogon Associates, Ltd.)

Determining areas appropriate to indigenous plant communities and those appropriate to a more traditional collegiate landscape of lawn, specimen trees and planting beds. The range of potential landscape expressions and potential plant communities and habitats for the Washtenaw County region could be identified and used as parts of the University landscape vocabulary.

• Implementing new techniques for water resource management, "best management practices," which call for infiltration rather than conveyance of stormwater, to reduce run-off quantity and velocity and hence pollutants. These approaches would build on existing University efforts to reduce water pollution impact.

Correspondence and conversations with Henry Baier, Terry Alexander and others in Business Operations describe these existing initiatives, including:

- -- erosion and sediment control guidelines (on construction projects and on maintenance activities that disturb the soil)
- -- elimination of illegal dump sites
- -- cleanup of wetland areas
- -- reducing de-icing salts
- -- integrating pest management programs to reduce use of herbicides and fertilizers
- -- identifying the discharge points from facilities into either the sanitary sewer or the storm water management system.

Because greater than 10-15% of impervious areas within a watershed can lead to degradation of water quality, consider:

- -- Limiting impervious surface to roads, building roofs and parking lots and limiting turf to peopled campus areas, wherever possible.
- -- Maintaining as many permeable surfaces -- woodlands, planted areas, and porous paving -- as possible to increase stormwater infiltration and recharge groundwater.
- -- Using porous pavement with an infiltration basin beneath or traditional pavements piped to underground infiltration basins, to help balance demands for parking with the need for greater areas of infiltration by solving both requirements in a single area. Active recreational areas throughout the University, such as ball fields, can also serve as infiltration basins.
- Furthering a holistic view of water resource management considering the entire "water balance" of the University properties (both quantity and quality). Studies could be initiated of each sub-watershed within the University properties to record the predevelopment drainage system, the present campus infrastructure, and to measure the percentages and patterns of pervious, semi-pervious and impervious surfaces in each of these sub-basins.

E. ACTIVITIES, FUNCTIONAL RELATIONSHIPS AND SPACE USE

1. Mission and Goals

- Understand the patterns of activities on campus, their internal dynamics, relations to each other, and trends in the future.
- Establish activity relationships that will help to improve the atmosphere and quality of life for students, faculty, and staff campus-wide, and for patients and their families in the Medical Center. For example, provide or support a wider and better selection of retail and restaurant uses in the North Campus.
- Create spaces campus-wide that reinforce a sense of community and encourage interaction between disciplines and between faculty and students.
- Improve linkages between uses on different campuses. For example, help connect Medical Center faculty, staff, students, patients and their families to Central and North Campuses and downtown Ann Arbor.

2. Opportunities

- The broad spectrum of available types of land on campus infill parcels on Central, large sites on North Campus and open landscapes on East Campus -- could support a variety of uses and relationships.
- On Central Campus, opportunities have to do with changes within the heritage of existing buildings, as policies and patterns change. Using an existing building more intensively may obviate the need to build a new building and save the lifetime costs of maintaining and operating two buildings. Many campus buildings have changed their uses over and again, their simple, generic loft-like plans and structures allowing them to do so.



fig. 53. Engineering Arch (Photograph: Andropogon Associates)

- In the area between North University Building and the Central Power Plant are sites that could provide a location for facilities that help foster collaboration between the Sciences on Central Campus and the Medical School. This should be achieved without disturbing the functions and service linkages around the power plant, though it may require the relocation of other facilities planned for the site.
- The students and others on North Campus now could probably support a larger volume and greater variety of retail activity than exists on or near that campus; this should be verified in future phases of the plan. The popularity of the Media Center could be a catalyst for convenience and 24-hour retail uses -- late-night food outlets, for example -- and also for cultural activities that could join musicians, engineers, and architects. A jazz bar? A cybercafe? Dartmouth Library will have one; Harvard's Loker Commons is home to student study groups with their laptops. Several sites on North Campus, including on the Diag, could be developed for activities and populations that augment the conviviality of the central portion of this campus.
- The large open area at the center of the Medical Campus could house important future uses that help link the Medical Center to Central Campus. A building here could help, as well, to enhance the amenity of the Medical Campus core and to re-establish its relationship to local city streets. In the near term, a reconfigured and re-landscaped parking lot is planned for the site.
- "An excellent exception within the medical campus to the absence of connectedness to non-clinical centers can be found in the Cancer Center where patient care and research are geographically bound together, inviting stronger and more productive activity from each. This center underscores the concept of programs wherein individuals, who, by the nature of their work, have strong, similar interests and goals, can come together, stepping beyond (but not out of) the more traditional boundaries of academic departments, disciplines, reporting lines and budgets." (From MacDonald Dick II, M.D.)
- The "soft," changeable nature of the Wall Street area, and the vacancy of the former Kroger supermarket, could help forge a supportive mix of uses there with good linkages to the Medical Center and Central Campus. This is true as well of the area west of Glen Avenue and north of East Huron Street, where affordable housing and retail uses could be a much-needed convenience to the Medical Center. These amenities need not be University-owned.
- The relocation of the Burnham House, now underway, and its reuse as the Arboretum's visitor center, could help establish better links between the Medical Center, the Arboretum, and Central Campus, especially as the main floors of medical buildings in this south-east quadrant of the Medical Campus coincide with the exterior ground level.