TOWARD THE MASTER PLAN OF

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THE UNIVERSITY OF MEMPHIS

MAIN CAMPUS



The visual form of the University of Memphill as could be seen in the field

SITE PLANNING

GROUP ONE

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DECEMBER 12, 1996

Visual Survey Practicum

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(a) The visual problems

The survey of the University of Memphis, Main Campus was completed September 15, 1996. The survey began on a cloudy Sunday at 6:30 PM and ended in the rain and under the cover of darkness at approximately 8:00 PM. The area analyzed was approximately 2.5 by 1.5 miles. The systematic coverage of the area was done partially



Figure 1. Routes taken by the group during the visual survey.

on foot and in cars by several observers (see Figure 1). The principal visual impression of the campus as observed, gave an imageability of spatial shapelessness, heavy pedestrian and vehicular traffic, a homogeneity of use within most districts, and characteristic inhabitants.

Within the district of the campus itself (bounded by Patterson, Central, Zach Curlin and Walker), there is little in the physical structures that would give any sense of homogeneity. The structures are of many shapes, sizes, materials, and they are both old and new. The grid pattern itself is an undifferentiated development within which destinations cannot always be located with confidence. In this analysis, campus images which present design difficulties are distinguished and their detailed description and interrelations are discussed below.

The campus of the University of Memphis lies between Midtown and East Memphis. The boundaries of the site are Highland to the west, Poplar to the north, Zach Curlin to the east and Spottswood to the south. Central Avenue, running east to west serves as a main thoroughfare for the university. Although, Central Avenue serves as one of the major arterial streets to the campus, the view from Central Avenue of the campus is fairly restricted. The fringe area along Highland Avenue limits any view of the campus interior.

While the overall grid of the site tends to be vivid, the group observed weaknesses in the campus' legibility (see Figure 2). The foot path system on campus, in our view, was generally confusing. Their is no clear path from the parking on Southern, the parking on Central, and from areas west of Patterson to the interior of campus. Several paths are broken by parking lots located in the interior of campus. The path from the Administration Building to the northeast part of campus is broken by the parking lot in front of Scates Hall. The path from Walker near Zach Curlin to the University Center is another broken by a parking lot. Vehicular streets which penetrate the main body of the campus rarely have the continuity of taking the visitor from one end of campus to the other. There are not enough focal points of campus for the paths to meet and show clear direction.



Figure 2. Problems with the University of Memphis image.

The University contains several intersections which are chaotic and confusing to vehicular and pedestrian traffic traveling into the campus area. The intersections of Walker and Patterson and Southern and Patterson are disconnected making two treacherous left turns necessary to get from Patterson to the east end of Southern. There are no sidewalks with which pedestrians can use to cross with relative safety. The unconventional design at this intersection confuses all but the most highly adapted observers (see Picture 1). Access to the university may also be found from Central Avenue at Patterson. This area is considered characterless by the group due to its lack of association with the main campus. As University's main entrance, Central and Patterson is weak because it does not serve its purpose as a focal point. The line of motion here should have clarity of direction, and an imageability allowing the traveler to know they are entering the main campus. The two main parking lots on Central and Southern are considered characterless by the group due to its intersection.

The Southern Railway line which runs parallel to Southern Avenue and lies between Zach Curlin and Southern is an strong, but not a positive, boundary. The train that run on this line hinders constant flow of pedestrian and vehicular traffic. This element is considered by the group to be a dangerous point of demarcation. As shown in figure 2, Spottswood, Patterson and Poplar are weak boundaries. The site ends to the south (Spottswood) in a odd mix of academic and private housing. The northern most boundary of Poplar is weak due to the penetration of private housing on the west end. Highland serves as a weak boundary, relative to the campus, due to the lack of visibility of the campus and the heterogeneity of uses between it and the campus.

The student housing complex which lies in the northeast corner of the university area is isolated from the rest of the university by the Central parking area and Central Avenue. There is no clear path connecting the housing area with campus. The academic and recreation area along with the parking lot south of Southern is isolated from campus by the boundary of the railroad tracks.



Picture 1. The treacherous intersections of Patterson and Walker and Patterson and Southern.

The university area contains two "bottomless towers": Richardson Towers located near the intersection of Patterson and Walker, and Brister Tower located near the

southwest corner of Central and Patterson. Because these towers do not have an unobstructed view from most of the campus (which could be created by major arteries between them and other sections of campus) they are not clear direction givers and are thus seen as and named bottomless towers.

Near Norriswood, close to the McWherter Library, there lies a small house which seems out of place in a university setting. The group could find no functional relationship between this structure and the university. It is therefore named as a lack of relation in figure 2. The area west of Patterson is also named as a lack of relation. The lack of relations stem from the uncertainty of a clear university purpose of this area. The relationship of the religious centers and the housing to the university is unclear.

The area near the Field house can be a point of confusion. There is a parking lot entrance from Zach Curlin ending the path from Walker abruptly at the edge of University Center Building. The confusion of this area stems from the illegibility of the area due to the broken path.

(b) The visual form

In identifying the visual form of the University of Memphis, the group applied the elements of visual form as used by Kevin Lynch in his 1960 book <u>The Image of the City</u> (see Figure 3). Lynch used the terms node, path, edge, district and landmark to clearly delineate and interrelate the elements found in a visual survey. Lynch differentiates each element as major and minor.

The group found one major district which covers the area between Patterson, Central, Zach Curlin and Walker. We identified this district due to the similarity of design and activities throughout the area. The area north of Central where the Student Housing Complex is located was designated a minor district because of its singular use and its isolation from the major district. The residential area bounded by Norriswood to the north and Walker to the south was deemed another minor district due to its similar



Figure 3. The visual form of the University of Memphis as seen in the field.

building type and activity. In looking at the district as it relates to the campus district, it was not deemed a major district due to its lack of academic purpose. For the same reasons the residential area bounded by Patterson to the west and Houston to the east was also designated a minor district.

The group agreed that Brister Tower (see Picture 2) and Richardson Towers are both major landmarks simply due to their height. Their height makes both visible not only from most places within the site, but also as one approaches the site. The Administration Building distinguishes itself as a major landmark due to the uniqueness of its architecture in relation to the other buildings in the site. The columns in the facade add to its stately character distinguishing it as a more formal and important building. The McWherter Library is our final major landmark. It stands out as such due to its importance to the whole city and region as a information source and, like the Administration Building, distinguishes itself in its architecture.

In addition, the library's connection to the park-like planned space (designated as a node) directly in front of its entrance further adds to its imageability. The University Center, Wesley Towers and Scates Hall were identified as minor landmarks. The University Center was identified, like McWherter Library, due to its connection with the park-like planned space (designated as a node) in front among other reasons. The UC also serves as a meeting place for students, a resource center (the bookstore), a place for lectures and, in general, a place for outside information to penetrate the barriers of campus. The UC was designated as a minor landmark and not a major due to its location across from a major

landmark, the Administration Building. Wesley Towers appears as a minor landmark. Due to its height and location to the campus it guides visitors to the site. The unusual architecture of Scates Hall lists it as a minor landmark. The departure of style found in its facade distinguishes it from the rest of the buildings on campus.



Picture 2. One of the major landmarks of the campus is Brister Tower.

The group found three nodes; two major and one minor. Two major nodes were found to be located in planned meeting spaces near two major landmarks. One was found in the planned park-like site in front of McWherter Library. People can be found meeting friends, studying and eating lunch. It is a hub of activity for the site. The other major node is found in front of the Administration Building in a similar setting. The area serves as a meeting place, relaxation and study area and an area for public gatherings (i.e. step shows, concerts, speeches). The minor node is located at the corners of Southern and Patterson and Walker and Patterson. Although, this entrance to campus is a confusing one, it serves as an entrance for vehicles and pedestrians. In addition, this area serves as a gate from campus to another student activity area on Walker where another academic book store and student oriented businesses are located.

The group found Patterson and Walker to be the major paths of the site. People use these exterior streets to guide them around campus. Unlike interior paths, students and residents of the surrounding neighborhoods frequently use these paths as both drivers and pedestrians. A general minor path was delineated going through campus starting at either Central or Southern, traveling through the major nodes in front of the McWherter Library and the UC. Also, minor paths were designated coming out of or near both nodes east and west to the Patterson and Zach Curlin (see Figure 3 above). These paths were designated as minor in relation to the whole site area because they are primarily used by students and people related to the University and they are only traversable by foot. Central Avenue is defined as a minor path as well. The group felt that most of the pedestrian traffic cuts across Central as opposed to traveling on it east and west.

Zach Curlin is listed as a major edge of the campus. It is a well defined boundary between campus (a major district) and the residential area east of the site (a possible district not in the study area). Unlike Central, Patterson and Southern, all minor edges, no campus activity takes place across it. The minor edges of the site, as listed above, are listed as such due to their penetrability. Parking and student housing (University provided and private) are located across all these edges. Due to the railroad crossing at Southern much debate on whether it was a major or minor edge occurred. It was decided that Southern was a minor edge due to the amount of University activity that takes place south of it. South of Southern lies the Physical Education Building, recreational facilities and a good amount of University provided parking.

(c) Detail form qualities and the possibilities for change

In order to exhibit the detailed qualities of the study area, we have chosen, not unlike Lynch, to examine a district and a node. The elements we chose are the residential district west of Patterson bounded by Patterson to the east, Highland to the west, Norriswood to the north, and Mynders to the south (see Picture 3 and Figure 5) and the node located in front of the McWherter Library (see Figure 6 and a location map as Figure 4).

Beginning at the intersection of Mynders and Highland heading east, there is a mixed use of land. There are a few bungalow houses next to small apartment complexes. These apartment buildings are very small with an estimated 10 to 12 units in a two story brick frame. Continuing along Mynders you notice narrow streets with cars parked on both sides making driving quite difficult for motorists. As you approach the campus, you notice fraternity houses in various stages of disarray. Most of them display unkempt lawns and are badly in need of paint. In general, Mynders lacks thematic unity, in regard

to the mixed uses of the apartment buildings, small bungalow homes and the fraternity houses. Traveling on Midland heading west from Patterson, once again there are



Picture 3. The residential district west of Patterson.

fraternity houses in the same shape as previously mentioned. This street is overwhelmingly crowded with cars parked on both sides of the road. The further you get from campus on Midland, you begin to see small residential bungalow houses on both sides of the street. The lawns are in need of care and homes are deteriorating.

Continuing along Midland near Highland, there is more mixed use. On the left there is a library with a limited parking sign. There is an apartment unit on the right with two residential homes next door. On the northeast corner of Highland and Midland there is a

church with very distinguishable characteristics which contrast with the surrounding area. Traveling along Watauga heading east toward campus a retirement village is on the left and a nursing home on the right. Passing the nursing home and retirement village



Figure 4. Locational maps exhibiting the district and the node discussed.

there is continuity on both sides of the street. Here, are one story brick homes and a few homes with siding. Some of the houses have low sloping roofs indicating small attic space by the dormer window. All the homes mentioned generally have small front porches with square brick columns for support. Also it is quite noticeable that there are no garages, only carports. Interestingly, there are large trees along this street versus smaller trees on Midland and Mynders, which indicates a more stable neighborhood. In contrast to Midland and Mynders, continuing toward campus there are more residential



Figure 5. Characteristics of residential district west of Patterson.

homes closer to campus. Norriswood heading west from Patterson indicates only residential land use to the south. On the north side there are buildings and parking areas relative to the campus. At this location we note that on the west side of Patterson running north and south there are also buildings related to the campus area, such as numerous religious student services. Continuing west along Norriswood, the houses to the south are two story. Note that along this street all houses have shutters on the windows. Here we see a change in the thematic unit. There are no small porches and instead of square brick columns there are Doric columns. Continuing along Norriswood there is a higher level of thematic unity as mentioned above, until we get to the nursing home on the left which discontinues the residential district to Highland.

Of the areas discussed, Mynders to the north and south lacks any continuity and thematic unity to the surrounding area. Items that need to be changed include the overall appearance of buildings, which need paint. Another issue is the mixed use along this street of fraternity houses, apartment buildings, and residential homes. The other four streets, Midland, Watauga, Brister and Norriswood would benefit from fresh paint and much needed landscaping.

The node in front of the library is a very large open space between 4 and 5 acres. Standing inside the library on one of the upper floors, shows open space that seems to radiate out to the west from the library. There are several landscaped planters on both sides of the main walkway situated at 45 degree angles. The two square planters closest Communication and Fine Arts bldg.



Figure 6. The visual elements of the node in front of the McWherter Library.

to the library have very large oak trees in each one. The library was probably built in such a way that two trees would frame the stone entrance. From a distance you can barely see the dome situated on top of the library. In front of the library it appears that there are several areas marked by orange cones for tree planting. In 20 to 30 years the view of the library will be somewhat obstructed by these trees, at least seasonally. There are several light poles which add to the thematic design of the area by not overwhelming it. There are only six park style benches in this area of open space. However, along the inside of the landscaped planters toward the main walkway there are concrete slabs bordering the edge.

Although not indicated, these slabs appear to be for people to seat themselves. The walkways in this node are imbedded with a pattern. Lighter colored blocks of concrete are broken up with thick lines of brick. Where paths come together, as in the circle in the middle surrounded by the two large planters, the pattern turns to geometric shapes (circles and squares) overlaid to create a focal point (see picture 6). These paths create a sense of motion with their kinesthetic quality of turning and rising slightly. This area is not conductive to a relaxing atmosphere, it suits as a short resting spot. The purpose is one of a node; helping people get from one place to another.

(d) Frequency and relative frequency of the group response to the classification of the elements

In a continuing attempt to follow Lynch's work exhibited in <u>The Image of the City</u>, individual members of the group identified their thoughts on which images are major and minor nodes, paths, edges, districts and landmarks. The responses were tabulated and recorded on the map below (Figure 7). This map exhibits how peoples' surroundings can be viewed in various ways. The northern most boundary, Poplar Avenue, was considered an edge by 50% of the group. The area bounded by Central, Highland, Poplar, and Patterson was listed as a district by 50% of the group. Highland was considered and edge by 37% and a path



Figure 7. The University image gathered from the group as individual surveys.

by 25%. Fifty percent of the group felt that Richardson Towers was a landmark and 25% felt it was node. The intersection of Patterson and Central was listed as a node by 25% of , the group. Patterson was considered a path by 75% and edge by 25% The area that is bounded by Highland, Norriswood, Patterson, and Walker was unanimonasly decided as a district. Watauga was considered a path by 25%. Of the group, 12.5% considered Midland a path. The section that is bounded by Spottswood, Echles, Minor and Southern was considered a district by 50% 37% of the group listed Spottswood as edge. The eastern part of Spottswood was listed as a district by 75% of the group. Echles was



Picture 4. The railroad tracks makes travel difficult onto campus from the south.

considered a path by 25%. The railroad tracks were considered an edge by 87.5% (see Picture 4). Southern was listed as a path by 50% The whole area that sits in the middle of

Walker, Zach Curlin, Patterson, and Central was listed as district by 75% of the group. Brister Library was listed as a landmark by 50%. The area in between Administration and University Center was considered a node by 75%. The University Center was listed as landmark by 12.5%. Administration Building was listed as a landmark by 75%. The area in front of Jones Hall was listed as a node by 25-50% of the group. The area that runs from Central to Walker was considered a path by 62.5% of the group. The Field House was considered a landmark by 25%. The new Library was considered a landmark by 75%. Grandview Street was considered and edge by 12.5%. Student apartments was considered a district by 12.5%.

Part II. A Visual Plan of the University of Memphis, Main Campus

(a) Concepts of the possible visual form

Using the previous maps as guidelines the group identified conceptual possibilities for change. The goal is to reinforce existing elements, create new elements and connect them to the existing elements to enhance the imaginability and legibility of the site.

Zach Curlin, which runs north/south along the eastern boundary of the main campus, has been selected as a path which can be strengthened by extending it to the south across the railroad tracks to Southern Avenue. This will provide greater form simplicity, as suggested by Lynch, by helping to clarify the grid system of paths in that area, which is currently cut off at Walker north of the railroad. Although, a nice sense of motion will be changed by straightening out this street accessibility around the campus will be enhanced due to changes listed later in this section.



Figure 8. The visual form of the University of Memphis as could be seen in the field.

A node and landmark on the south side of Central, where the main pedestrian crossing currently exists, would serve as visual symbol for observers entering the campus area. The landmark would be large enough in stature for individuals to recognize it as a major symbol of the university. The node would serve as the northern anchor of a new pathway that would extend southward to the current Southern Avenue parking lot. These new nodes and landmarks would create singularity in visual form. Focal points would be created making elements stand out and creating a continuity of path. Connecting the north/south path with two additional landmarks will create a time series of landmarks. This will aid the pedestrian in direction and will make the trip a memorable one.

An additional node and landmark would be created to the south of Southern Avenue and to the north of the Physical Education Building (see Picture 5). The landmark will serve as a symbol to the south of the railroad tracks indicating to observers where the campus district diminishes and finally ends. The landmark would exist within a node. The node will be the southern anchor of the new path that extends northward to Central Avenue. One objective of this path is to reduce the influence of the railroad line (edge) on the image of the area.

The parking lot located to the east of the Administration Building would be converted to a node. This parking lot currently serves as an unplanned pedestrian pathway for individuals walking to and from surrounding buildings in this general area. A new node at this location would contribute to the sequence of nodes and landmarks that would enhance the new path running north to south from Central to Southern Avenue.

The Commercial District which lies to the southeast of the main campus will be enhanced by developing continuity among the structures of the area. The goal is to enhance the observer's perception of the Commercial District as a unique and identifiable area.



Picture 5. The south parking lot without a node or path to direct people comfortably onto campus.

The Residential District located to the west of the main campus will be improved, similar to the Commercial District, in order to provide greater continuity among the images of the area. An observer traveling through the west section of the University of Memphis area should have a clear perception of where each district (residential, commercial, main campus) begins and ends. (b) Modifications in respect to recommendations of the possible visual form

The key determinants of the final plan relates to the imageability of the campus; merging elements into a unified whole. The goal is to reinforce existing elements and to create new elements connecting them to the existing ones.



Figure 9. The location of areas of modifications which are detailed in map form.

The proposed modifications will be discussed beginning with the crosswalk on Central leading pedestrians from the main district of campus to the northern parking lot. The proposal is to create a node and landmark in place of the existing crosswalk (see Figure 10 and location map, Figure 9).

The north parking lot should be landscaped; and in front of the student housing on that parking lot lighting and sidewalks are proposed which would connect the housing with the new node. The landscaping on the north parking lot area will act to hide the view of the parking lot attempting to soften this area and to give it character.



Figure 10. Modifications to the crosswalk across Central to the north parking lot.

An organized set of paths will be structured leading from the node in front of the McWherter Library to the space just north of the Theater and Communication Building. A new path formed by an overhead pedestrian crosswalk could link the north parking lot and the new node south of Central. The paths would be given identity and tempo not only in their form, or by their nodal junction, but by skirting the landmark. Light poles existing in the McWherter Library node and patterns like the ones embedded in the paths around and in the node are suggested to be used in the new node and carried throughout the University.

The point is to increase safety for pedestrians and to make the university edge stronger. The hope is that the pedestrian path would be strengthened by making the path into campus from the north more legible and imageable.



Picture 6. Existing examples of proposed lighting and patterns imbedded in paths

The area in the middle of Theater and Communication complex, currently an underused amphitheater, will be opened up connecting it with the Central Avenue node with patterned paths like the one pictured above. The objects (landscaping and patterned walkways) along the path will be arranged to sharpen the effects of motion, so the course of the path ahead may be made visible. The dynamic shaping and texture of the movement will give it identity. The well-known origins of landmarks will help to tie the campus together, giving the observer a sense of bearings.

As previously mentioned, it is proposed that Zach Curlin be connected to Southern with a vehicular and an overhead pedestrian path running across the railroad tracks. The south parking lot will be converted to a node with an increased volume of parking to make up for the elimination of interior parking lots. The parking lot is currently the very antitheses of visual imageability. A minor landmark would be added in front of the new parking to connect to the path running south to north and to create a time series of landmarks along that path giving it a kinesthetic feel. A new path would be created as over the railroad tracks to Walker. This would help to ensure the safety of pedestrians crossing the tracks to access the main campus.

As previously mentioned in Part II. b, all interior parking lots will be done away with to create green spaces. The parking lot in front of Scates Hall will be turned into a node which would be located along the series of nodes running north to south (see Figure 11 and Figure 9 for location). It would tie the paths from the southeast and the paths coming from the existing node in front of the University Center to the path heading north

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Figure 1 Modifications to the parking lot west of Scates Hall and its path.

through the McWherter node, the Central Avenue node and ending at the north parking lot.

It is proposed that all interior campus paths be closed to automobiles. This would include Walker; which is why it is important to increase circulation around campus (Central, Patterson, Zach Curlin and Southern) by connecting Zach Curlin to Southern.

In place of the existing roads, it is proposed to lay down a patterned walkway like the one existing in and around the McWherter Library node. The paths should be lined by trees where they are not already. These paths would be wide enough and should contain relaxed curbs to allow maintenance and delivery vehicles to still access the interior campus. This is exhibited already from Walker onto campus in front of the old library extending to the curving road in front of Mynders. The new pathways with a series of nodes connecting them will give consistency to the image. The pavement texture is important to the changes. The planting detail will serve equally well, reinforcing the path and node images very effectively.

Part II: A Pattern Language Practicum

The purpose of this practicum is to provide specific design solutions for the problems identified in the Visual Survey. *A Pattern Language* by Christopher Alexander et al. was used as a guide in this process. The authors take frequently occuring problems and present a combination of design patterns that can be used to solve each problem. Every pattern is numbered for easy reference. Patterns vary in scope and size, so that the smaller the number the larger the scope of the pattern.

For clarity each pattern here was presented in an identical format, using Alexander's writings as a guideline. The problem was identified, described, and followed by a photograph as the problem exists in the campus area. Secondly, a short explanation was given on why a problem was selected and its effect on the campus image. The pattern used to solve each problem will be shown in tree diagram form. The tree will be divided into larger and smaller patterns which provide the context for the solution. A description of how the smaller patterns fit into the larger pattern was presented in this part of the text. Finally, a solution statement was given describing the positive effect the pattern would have on the image of the University of Memphis main campus. The final diagram is a plan view of the main campus with our suggested improvements.

Activity Node (50)

Problem

The available facilities on campus are spread so thin that they have no impact on the overall image of the campus. The insufficient number of gathering spaces on campus makes the University of Memphis an unnecessarily isolated place for the thousands of students, faculty members, and others who walk through the area daily. Activity nodes must be created to increase interaction among members of the campus community, the campus must be a place to "be in" rather than pass through.



Picture 7. A great gathering place, for cars. The campus lacks needed pedestrian activity nodes (50).

The campus is full of dead, underutilized areas. In the previous practicum, the group suggested the creation of a new activity node located between the Administration Building and Scates Hall where a parking lot is currently located. A node at this location would help eliminate many problems as well as enhance the paths that pass through this area.



Figure 12. A tree diagram of an Activity Node (50) as outlined in A Pattern Language

Solution

The Activity Node (30) was completed by several smaller patterns. These patterns contributed to our design solution and are discussed in the following text. A fountain,

placed in the center of the area, will enhance the focus of the node and provide a source of tranquillity. Trees will be placed between the walks approaching the node to form well-defined avenues and in a circular pattern along the outside of the node to clearly define the node's boundaries. The node will become part of the sequence of goals located along the north/south path, which will make traveling from one end of the campus to the other easier and more understandable for the pedestrian (see Figure 13).

The patterns introduced in this section will help make the main campus a more hospitable place by providing the campus community an excellent place to rest, interact, or study near the heart of the university. The node will benefit existing paths as well as other nodes. The image of the main campus will also be strengthened by converting an uncharacteristic place into a university asset.



Figure 13. A plan view of a typical activity node (50) on the University of Memphis campus.
Network of Paths and Cars (52)

Problem

Consideration has not been given to places where cars and pedestrians meet on campus. Cars pose a dangerous threat for pedestrians, yet activities usually occur at locations where the two meet. To completely segregate cars from pedestrians would have a chilling effect on the lively activity created by this mixture. To keep the pedestrian and car paths as they exist currently on campus would continue the ever-hazardous conditions which have resulted in several cases of students being seriously injured or killed by cars. A system must be devised which maintains the level of activity caused by the meeting of cars and pedestrians, while at the same time minimizing the risks caused by this mixture. A system where cars and pedestrians are kept apart, but also meet at specified points.



Picture 8. A surge of cars approach on Highland Avenue. A definite hazard to your typical pedestrian

A major consideration of the network of paths and cars (52) should be the shared car/pedestrian paths located within the University of Memphis campus. An overwhelming majority of the traffic within campus consists of pedestrian traffic, yet the frequent flow of cars that travel through campus often dictate when and where a pedestrian can walk.



Figure 14. Plan view of the current network of paths and cars (52). Cars and Pedestrians use the same paths.

In the previous practicum, the need to eliminate automobile traffic from the within was discussed as a way of strengthening the image of the University of Memphis. By removing the limitations imposed on pedestrians by automobile use, paths can be redesigned to better serve the pedestrian and to further strengthen the overall imagability of the campus.



Figure 15. A diagram of Network of Paths and Cars (52) as outlined in *A Pattern Language*. Solution

There are several patterns that contribute to the Network of Paths and Goals (52). Bulging and narrowing the path shape at various points provides extra usable path space which in turn promotes activities in the paths, rather than passing through them. As mentioned previously, trees can be used on both sides of the path to create an avenue. A bus stop should be placed where car and pedestrian paths meet. Several benches with an awning and a large sheltering (umbrella) tree would provide a place to protect and comfort waiting bus riders from the elements. A free standing bulletin board should be placed nearby to serve bus riders. A street cafe located along this new pedestrian path will provide an opportunity for students and faculty to interact with one another and sit outdoors for long periods of time. Sitting walls and benches placed along the outer boundaries of the path provide optimal path use and pedestrian convenience. Figure 16 shows a map of the new pedestrian path meeting Patterson Avenue, which will remain open to vehicular traffic.

The combination of these patterns will provide an environment where the pedestrian feels less threatened by automobile traffic, while still providing meeting points for pedestrian and vehicular traffic. Clear pedestrian and vehicular paths further enhance the of University of Memphis image by eliminating the conflicts between car and pedestrian which were cited as a problem in the first practicum.



Figure 16. Plan view of new pedestrian path meeting Patterson Ave.

Looped Local Roads (49)

Problem

As stated previously, restricting vehicular access within the main campus area is a major objective of this plan. Through traffic can be hazardous and noisy. Yet, cars cannot be completely banished, since students and residents use cars to travel to school and home. A looped road system in the University of Memphis Area would keep the school and nearby homes accessible to automobiles, while also discouraging through traffic.



Picture 9. Through traffic is dangerous to students and residents.

Solution

The design objectives for Looped Local Roads (49) are completed by several smaller patterns. Of primary concern was the efficient movement of automobiles on the roads surrounding the main campus. Implementing one proposal, the closing of Walker Avenue from Patterson Avenue to Zach Curlin, would, without modifications, only cause more problems for vehicular traffic passing through the intersections of Patterson and Walker, and Southern Avenues and the railroad tracks. In addition, more traffic congestion on the remaining on Central Avenue, Southern Avenue, Patterson Avenue, and Zach Curlin would only further encourage the use of nearby residential streets as shortcuts to avoid congested intersections.



Figure 17. A tree diagram of Looped Local Roads (49) as outlined in A Pattern Language.

Figure 18 shows a T-Junction proposed at the Patterson, Walker, and Southern intersection. Figure 19 shows a T-Junction for the new Zach Curlin/Southern Avenue intersection proposed in the first part of this report. Creating T-Junctions at these locations would improve traffic circulation in the university area and reduce the frequency of traffic accidents.



Figure 18. Proposed changes for Patterson/Walker/Southern intersection.



Figure 19. Proposed changes for Zach Curlin/Southern Avenue intersection.

Creating stronger neighborhood boundaries for the residential districts surrounding the main campus will help reduce the amount of drive through traffic. This will also strengthen the overall image of the residential areas. The placement of main gateways at the spots where major paths meet neighborhood boundaries will help make the observer more cognizant of where the neighborhood begins and ends. Figure 20 shows these patterns as they would be used in the University of Memphis Area.



Figure 20. Looped Local Roads (49) for the residential area west of campus.

Another pattern which will aid in the creation of distinct boundaries between districts is Building Fronts (122). The commercial district located along Highland Avenue between Mynders and railroad tracks was chosen as an area in need of strengthening. It was the recommendation of this report that future buildings be required to have smaller setbacks, placing the buildings so that they form a coherent front lining along Highland Avenue. By removing current building setbacks, the relationship between building and path can be improved, bringing a unique quality to this district.



Figure 21. Highland Avenue Commercial District after Building Front (122) modifications.

Road Crossings (54)

Problem

Pedestrians are placed at risk by cars in places where paths and roads cross. This hazard occurs to the greatest extent at two locations in the University of Memphis area, the Southern and Central parking lots. At both locations students arriving on campus must cross roads filled with vehicular traffic. In addition to vehicular traffic, pedestrians approaching the main campus from the Southern parking lot must cross an active railroad line



Picture 10. Southern parking lot. Students must avoid cars and trains to reach campus.



Picture 11. Central Parking Lot. Students must cross a busy Central Avenue to reach campus.

Road crossings must be created that provide pedestrians a safe and reliable way to reach the main campus. Elevated walkways located at the Southern and Central parking lots would separate cars and pedestrians. In addition to safety benefits, the walkways will provide opportunities to diminish image weaknesses discussed in Part and provide gateways to campus. Figure 18 shows the patterns that will be incorporated in the design solution.



Figure 22. A diagram tree for Road Crossings (54) as outlined in A Pattern Language

Solution

Figure 22 shows the patterns used in conjunction with elevated walkways. Figure 23 shows proposed changes incorporating an elevated walkway and other design elements for the area of the Southern Avenue parking lot



Figure 23. Plan view of changes to Southern Avenue Parking Lot.

The elevated walkway, which will be referred to as a pedestrian bridge, will span from the Southern Avenue parking lot, crossing Southern Avenue and the railroad, to the area of the current Walker Avenue. As stated earlier Walker Avenue will be converted to a pedestrian-only path, the path area where the bridge and the former Walker Avenue connect will be widened. Modification of the path shape of Walker Avenue will accommodate seating and draw activities which encourage pedestrians to stay, rather than solely pass through the street.

There will be three ways to access the pedestrian bridge from the Southern parking lot (see Figure 23). At ground level, stairs to the bridge will lead from an activity node providing students an opportunity to interact and relax. Surrounding the activity node will be a multi-level parking garage increasing the parking capacity of the university while lowering the amount of land area dedicated to parking. Retail space will occupy the ground level of the parking facility. The shops will provide the area with needed shopping facilities (see the Web of Shopping section later in this report). The shops will also provide an aesthetic benefit by shielding the garage from the view of passerby's. Use of trees and other natural vegetation will contribute to this effect

The second and third access points to the pedestrian bridge will be from the western and eastern wings of the parking garage (see Figure 23). At both of these access points an elevated pedestrian walkway will connect the parking structure to the bridge. The bridge will act as a landmark, signifying an approach to the university. The walls of

the pedestrian bridge will be inscribed with "The University of Memphis" to contribute to this effect

A pedestrian bridge of similar design will also be built at the Central Avenue parking area. Design changes for this area are shown in Figure 24. Unlike the Southern Avenue parking area, a multi-level parking facility will not be built at this location. An activity node of similar purpose and design will be built at the Central Avenue parking lot (see Figure 24). Also similar to the Southern Avenue lot, the pedestrian bridge will serve as a gateway for traffic approaching the university on Central Avenue.



Figure 24. A plan view of the changes proposed for the Central Avenue Parking Lot

Web of Shopping (19)

As stated in the previous text, this report proposes that the ground level of a multilevel parking structure at Southern Avenue be dedicated to retail shopping. Retail shops were proposed to meet a market demand serving students and surrounding residents. As suggested by *A Pattern Language* a three-step process was used to determine the location of shops.

A survey of existing shops in the University of Memphis area was taken. Existing shops were placed on a map. Figure 25 shows existing shops with a retail or food base in the subject area.



Figure 25. Existing Food or Retail Shops in the University of Memphis Area.

Figure 26 illustrates the second step which was to identify and locate potential consumers in the University of Memphis area.



Figure 26. Location and Density of Potential Customers in the University of Memphis Area An evaluation of gaps in services was made by comparing the existing shop locations (figure 25) with the location and density of potential customers (figure 26). Our research showed that the greatest gaps exist on the campus itself. Due to the space limitations of the campus and in light of the proposed restriction of vehicular traffic in the interior of campus, we selected the proposed Southern Avenue Parking Garage (figure 23) as a site for several retail or food shops. Figure 27 shows existing and proposed shop locations.



Figure 27. Proposed and Existing Shop Location in the University of Memphis Area.

The proposed locations will enhance the access of such services to members of the university community. By locating shops within a close proximity to Southern Avenue, consumers outside the university community will have reasonable access to these services as well.

APPENDIX



Visual survey map



Problems with the University of Memphis image





Location of McWherter Library node and campus residential district



Highland Street





Two story houses



The University of Memphis image as derived from group survey



j	# OF RESPONSES	FREQUENCY	PATH	EDGE	NODE	DISTRICT	LANDMARK
	6-8	OVER 75%				<i>v</i> ////////////////////////////////////	¢
	4-5	50-74%				****	\bigtriangledown
	2-4	25-49%				*******	•
	1	12.5-24%			D	1/1/1	\bigtriangledown



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Location of Central Avenue node and Administration building parking lot





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¥ ◆ 100 Feet The visual elements of the proposed Administration Bldg. node Proposed node Field House Path Gymnasium Scates Hall University Street 0 0 0 0 O 0 Bench Tree University Center 0 ***** 0 I Administration Bldg. Sense of Slope Light pole 0 Mitchell Hall 0 Street State O



Proposed Path Network



Proposed Activity Node



Patterson/Walker Avenue "T" Junction







Southern Avenue Parking Facility and Activity Node




Bench









Food Services

Bookstore

GROUP MEMBERS

FLORA BARNES

SHANNON DIXON

TODD GRIFFIN

STEVE HEDGES

SEAN ISHAM

MARZETTE JERNINGHAM

QUINCY JONES

JOHN LANCASTER