

## Towards Community Intelligence: Campus Planning and Design

SIMON ATKINSON  
University of Texas at Austin

ROBIN FRAN ABRAMS  
Texas A&M University

### INTRODUCTION

The two flagship universities of the State of Texas have recently undergone extensive campus planning exercises. The University of Texas Campus Master Plan was completed in 1999 by Cesar Pelli & Associates and Balmori Associates. The Texas A&M University Campus Master Plan was completed in 2005 by Michael Dennis Associates, with BGK Architects. Both plans are sensitive, aesthetic documents, and incorporated input from extensive public planning processes in the making.

Although the two campuses are quite different in nature, the introductions to both plans cite Thomas Jefferson's plan for the University of Virginia – the academic village – as the ideal utopian setting for a place for learning. The original UT campus, at its beginning located on the edge of a small city, did not make reference to Jefferson's design. It consisted of a single, large building situated in the middle of a piece of land, reflecting the siting of a courthouse or capital building. It established "place" by means of its scale, its position at the top of a hill, its juxtaposition with the capital building, and its path connections to existing streets.

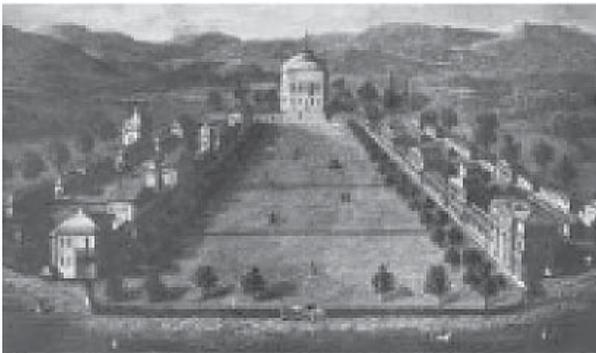


Fig. 1: Academic Village



Fig. 2: UT Original Campus Plan

The original Texas A&M University (TAMU) campus was built in a field in the middle of nowhere, with no adjacent development other than a railroad track. Its original plan consisted of a formally clustered set of buildings that frame a central quadrangle, an academic village very much in the Jeffersonian tradition. Both campuses have, since adoption of the plans, instigated significant building works, which provide evidence of the degrees of effectiveness of the planning exercises.

### UNIVERSITY OF TEXAS CAMPUS MASTER PLAN

The preface to the UT Master Plan states: "Linking people to a place through a shared sense of commitment is what building a community is all about."<sup>1</sup> This plan places a strong emphasis upon

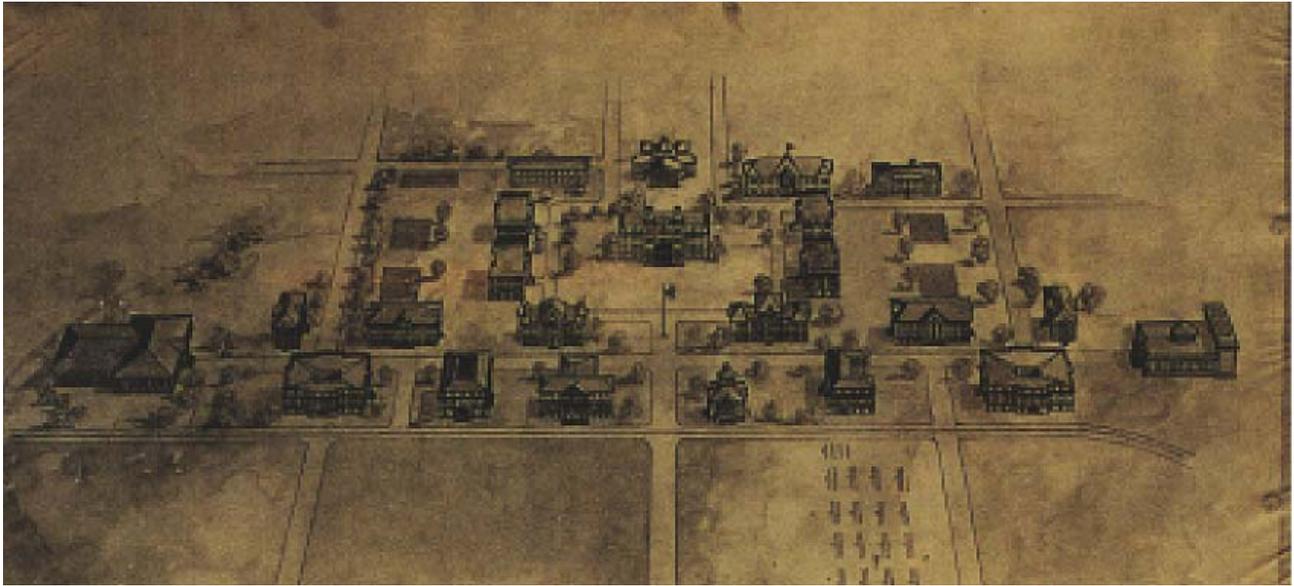


Fig. 3: TAMU Original Campus Plan

recapturing what is perceived to be the “golden age” of the campus, a Beaux Arts campus core, designed by Paul Cret. Here the buildings form a tightly clustered network of striking, shady courtyards, filled with tropical plants, and overlooked by buildings of textured limestone, with outstanding metal ornamentation, exuberant entrances, custom metal lighting fixtures, ornate tile decoration, and pantile roofs.

It recommends the return to:

- a strong pedestrian core;
- established Beaux Arts architectural language;
- interlinked open spaces;
- additional on-campus housing
- centers for student activity
- increased density in the core campus
- strengthened identity of the campus.

Significant space in the plan is devoted to illustrating the architectural features that make the campus distinct, such as the classical facades, entrances, materials, and decoration. As well, a further chapter analyzes existing open spaces to develop a pattern for replication.

Much of the impetus for this plan on the UT campus came from the construction of several very large structures in the 1970s and 1980s that broke away from the traditional campus, both in layout

and architectural style. These buildings did not frame intimate outdoor spaces, were not pedestrian-friendly, were somewhat Brutalist in style, and relate very little to the rest of campus. Thus there was a strong tendency amongst participants in the planning process to yearn for a return to the qualities that make this campus truly distinctive, in other words, the master plan became a looking backward exercise rather than forward thinking.

One of the first structures to be commissioned post-master plan was the Blanton Art Museum.



Fig. 4: Character Study for UT Campus

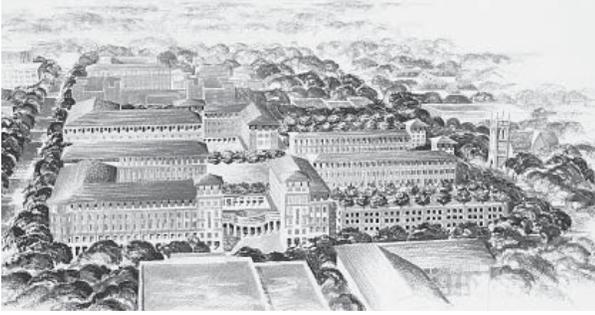


Fig 5: Design for New Campus Buildings

The Dean of Architecture, who had had a hand in the hiring of Pelli for the campus plan, played a central role in the securing of Herzog and DeMeuron for the museum design. The H&DM design was a contemporary design, most of which was underground, covered with a low, swooping roof form. The president of the university having praised the architects, "Herzog & de Meuron is known for creating highly imaginative buildings that stand in harmony with their purpose, materials, and site...The new Blanton Museum will be not only an architectural landmark for The University and the city of Austin, but a building that will engage students, faculty, and visitors from all backgrounds with the world's artistic traditions." The design, however, was rejected by the Board of Regents, on the basis that it did not "match" the architectural language of the campus, as outlined in the master plan, and the architects were fired, thereby eliminating the opportunity for the university and the city to gain a world-class contemporary building, and causing the Dean to resign his position. In the intervening years, the museum has been built, and it is a bland recreation of the Beaux Arts, without windows, and without demonstrating any understanding of scale, ornamentation, nor linkage with adjacent buildings. In fact, this attachment to the Beaux Arts has

now been expressed in the design of several new buildings on campus. University buildings throughout the world are tending to have much larger programmatic requirements than previously, primarily due to the need to stuff as many users as possible inside, not knowing when the next building opportunity might arise. This seemingly immutable fact, combined with UT's attachment to a single style that is not about massiveness, has now resulted in several buildings that look like an unhappy marriage between brutalism and the Beaux Arts, providing the authenticity of neither. This is particularly the case of the new Student Life Building and a new hall of residence (which required the destruction of a striking Victorian campus building), a corrupted form of "Beaux Arts on steroids". Even the football stadium, one of the largest in the nation, is being given a Beaux Arts face lift.

While a number of the goals of the UT plan are appropriate, the way in which the master plan is presented greatly simplifies large, significant issues, making it all too easy for the uninformed, yet influential, to attempt to apply formulaic solutions where they might be inappropriate. It illustrates also the power of the Boards of Regents, with the master plan in hand, to use it to suit their own means, and the limits of their understanding of contemporary architecture and placemaking.

This plan, completed in the late 1990s, shuns all mention of sustainability, and clearly does not put forward the university as a context for innovation, or setting an example for society. The future is only represented in this plan as a means of recreating pieces of the past; while it allows for contemporary building designs "where appropriate", it gives little guidance of how and where that might happen to any degree.



Fig. 6: Herzog and DeMeuron Design for Campus Museum

## THE TEXAS A&M UNIVERSITY CAMPUS MASTER PLAN

The TAMU planning effort was led by Michael Dennis, Professor of Practice at MIT, and principal of Michael Dennis Associates, a Cambridge firm specializing in campus planning and design, and was facilitated by Barnes, Gromatsky, Kosarek Architects, Austin. The 19<sup>th</sup> century campus of TAMU was pedestrian-scaled, with open spaces framed by buildings possessing a degree of architectural interest, particularly in their ornamentation. The campus was purposefully located in an agricultural setting, with ample land for growth. It remains to this day surrounded by experimental farm fields. Subsequent periods of campus expansion brought larger and larger buildings spaced further and further apart. The university had two growth spurts, one in the mid-20<sup>th</sup> century when the academic discipline of engineering (the "M" in A&M) emerged, the second twenty years later, when the campus began to admit women and doubled in size.

The ultimate in campus expansion occurred when West Campus began to develop near the turn of the 20<sup>th</sup> century, leaping across a state highway and railroad right of way, and devouring cotton fields. This is in contrast with the growth pattern of an urban university that is typically ringed with highly valued private property. West Campus became an unwalkable outlying suburb with large isolated buildings (collegiate empires) surrounded by spacious parking lots. Thus when the master plan process began, the campus was a mix of older, more characterful building clusters and the outer ring sprawl of West Campus, with an area of middle scale, mid-century "inner suburb" buildings and open spaces in between.

The Campus Master Plan is "intended as a strategic and tactical guide for the physical development of the campus over the next fifty years. The goals are:

- 1 Reinforce campus identity
- 2 Reinforce campus community
- 3 Establish connectivity
- 4 Establish criteria to create architecture that contributes to the campus community
- 5 Promote spatial equity and appropriateness
- 6 Establish an accessible, pedestrian campus
- 7 Promote sustainability



Fig. 7: Typical West Campus Building & Siting

- 8 Develop a supportive process to attain the above goals

Examining these goals two years after completion of the plan, they appear to be very much inward-focused, with apparently little concern for the world beyond the campus. In an attempt to refine these goals, the plan goes on to state more specific recommendations:

- 1 Extend the existing civic and landscape structure of the historic core through to West Campus;
- 2 Unite East and West into one campus by building development along the campus' central axis
- 3 Increase the building density of Mid-and West Campus
- 4 Create new quadrangles in Mid-and West Campus
- 5 Redevelop Wellborn Road as a tree-lined boulevard framed by buildings
- 6 Develop two underpasses under Wellborn Road and the railroads
- 7 Redevelop University Drive as a safe, pedestrian-friendly tree-lined boulevard;
- 8 Replace surface parking with green spaces, buildings, and garages, and limit private vehicles to the perimeter of campus
- 9 improve the quality of architecture and landscape.<sup>2</sup>

The plan is further directed towards specific projects:

- 1 New Main Drive
- 2 The Administration Building East lawn area
- 3 The East Quad
- 4 The pedestrian walks on the north and south side of the East Quad and Library

- 5 The Library Quad and Diversity Plaza
- 6 The Academic Quad and Military Walk;
- 7 The Drill field ,etc. i.e., a series of places<sup>3</sup>,

The above list are specific formalistic works, the implementation of which will help to create a campus with a more “urban” character. The campus planners worked over a two year period, ultimately coming to the conclusion that the heart of campus had moved from the historic, picturesque campus towards the west, and in fact was centered precisely on a four lane state highway plus railroad right of way that divided east and west campuses. The thrust of the plan was centered on figure ground analyses of old campus vs. new, and endeavored to create revised figure ground patterns for the newer areas of campus that reflected the scale of the older. This went hand in hand with design guidelines for new campus buildings that were smaller in scale, and that would have the potential to frame public spaces, rather than occupying the center of them. In short, the plan is centrally focused on the design of campus from the perspective of pedestrian experience, and the creation and occupation of high quality public spaces.

The campus planners were working within a context of conservative and cautious decision makers. If they had any tendency to expand the limits of campus planning, it was subservient to the need

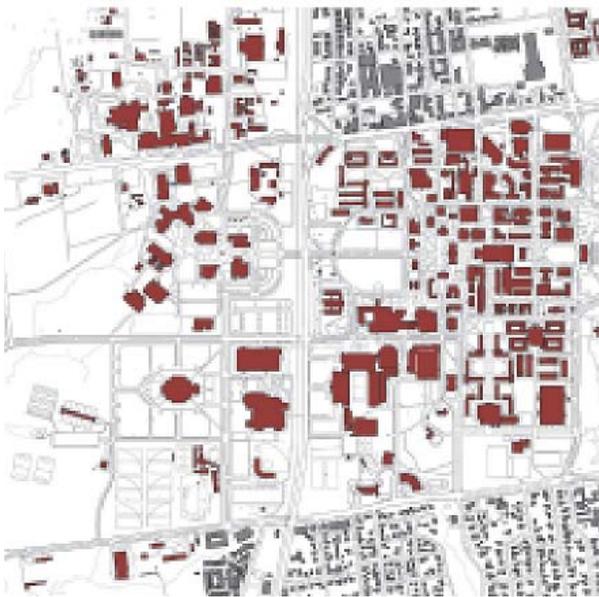


Fig. 8: Existing Figure Ground

to alter the course of campus development at TAMU in the gentlest possible manner. They used a common sense approach, with constant reference to ideas that were tried and true on campuses throughout the country, particularly at Ivy League Schools. The end result is an impressively descriptive and aesthetic planning document that, while respecting TAMU for what it is and how it sees itself, does not really challenge the status quo in any significant way. Undoubtedly, the intuitive architects and planners realized from the beginning that their proposals would be filtered through the approval process of an institution that not only was public, but formerly military in nature and view. Bearing that in mind, the ideas they did manage to get across, while not breaking new ground, will undoubtedly make the campus a better collection of places.

In retrospect, however, one can see how many opportunities were missed to explore the ways campus environments can have an impact on learning processes, to question the physical manifestation of a university campus in the digital age, and to push the envelope in terms of 21<sup>st</sup> century campus buildings that go far beyond a desire to attain a silver LEED rating. The reality is that buildings get built on campus primarily through private fundraising within discipline areas, not necessarily through forward thinking campus planning, even when it does exist.

The first post-master plan building project that



Fig. 9: Proposed Figure Ground

occurred at TAMU was actually initiated during the planning process, a multi-disciplinary Life Sciences academic building. The site for the building had been chosen prior to the plan, and thus was not recommended through the planning process. The campus master plan provides a proposed figure ground for the sub-district in which the building is located: small-scaled, rectilinear buildings enclosing a series of interconnected "quads". The building site, however, evolved into two large-scaled non-rectilinear buildings that sit in the middle of their sites and face each other, creating an "accidental" open space in between that could hardly be described as "framed."

The campus website for this building (<http://ilsb.tamu.edu/>) makes a great play of the fact that it is aiming to achieve LEED silver rating. Here is another example of how the campus plan falls short of the university's potential role in creating demonstration projects from which the greater community can learn. Supposedly this is to save on costs, which is ironic, considering across campus hundreds of thousands of dollars are simultaneously being expended on the university's Solar Decathlon entry, a temporary building that will never be occupied.

The second building proposal that has arisen is a new engineering building, to be located at the edge of the older part of campus. Again, a focused plan was developed to sensitively site this building, with the intent of making "community". The campus planners recommended it be split into two buildings, and that they be used to frame a prominent classical-styled building that sits alone, in the midst of open space, at the front entrance to the campus. The planners went to great effort to illustrate through sophisticated animated imagery that framing the entry building with two side structures not only created a new, dramatic open space, but actually enhanced the view of the central building. Entered in the discussions was a campus "myth" that no buildings were to be allowed to project in front of this building. Since no written policy could be found in support of this, the planners were encouraged to explore this possibility. However, when the President of the University got wind that a member of the Board of Regents did not wish to violate this mythical policy, the planners were notified to immediately stop all work in that vein, and find another place

for the engineering building. The Dean of Engineering's representative on the campus planning committee, having already secured funding and an architect, expressed frustration that the campus planning exercise was slowing up their building process, and they preferred to be able to make decisions without public debate about placement of the building. In other words, three years of a campus planning effort had achieved very little to convince two of the main stakeholders, a regent and a dean of the role individual buildings had to play to create campus.

## DISCUSSION

Historically, from the point of view of "community", we knew what "university" was – a physical manifestation of the very meaning of "civilization". Well before the Renaissance, universities represented not only a standard of learning and of a learned community, but offered a significance in their architecture. This status continued through the Renaissance, and was a part of the coming of age in the inventiveness of the industrial city. The typological form became the signifier of a new America as it built state capitals and formed new seats of learning among its expansive agrarian societies. This importance became a visual statement of excellence in society, but what of the university now? With their increasingly exclusive environments, over-bulked and substandard buildings, lack of community, extensive parking structure, and lack of any understanding of sustainability or quality, the future looks increasingly bleak.

In a rapidly urbanizing world, universities must regain their status as centers of intelligence and creativity, integrated into the body politic of society. In a time of transient values, erosion of urban fabric, and a continuing wasteful society, universities must set an example of ingenuity, resourcefulness, outreach, and permanence. In so doing, their graduates and society at large build upon that same message. These values somehow are not translated into practice in the design and planning of campus futures. The following points are indications of the ways universities could, again, set the standard for community architecture and urbanism.

- 1 *Connectivity*: stresses the importance of an accessible society, where a university both

stimulates and sets an example through safe and convenient linkages within and without. The following could be considered:

- the development of demonstration walking environments examining safety, thermal comfort, and legibility;
- developing linkages that go beyond campus, inviting others to share its unique resources, between campus housing, classrooms, local shops, and amenities; Walking and cycling can be encouraged, opening dialogue with the local economy (not mentioned at all in the master plans);
- the university can stimulate systems of separated bike routes, linked to public transit, and giving priority to sheltered bike parking. It could offer its own bicycles;
- all automobiles should be prohibited, and service vehicles make use of alternative fuels;
- experimental transit can be adopted, helping to underwrite the cost of the city system.

Through intervention, experimentation, and example, the university thus becomes the leader in redirecting the way we move.

2 *Placemaking*: Universities have always provided open spaces, both formal and informal. The word, "quad", translated through a wide variety of manifestations is an academic space, wrapped by, and in association with buildings. Other gathering words, such as mall and commons are also closely associated with university. The following could be considered:

- all contemporary, sustainable buildings can contribute to making place. This might be for a hall of residence, a particular area of study, or adding to the general experience of the campus;
- an outdoor life can be encouraged by inquiry into, and the development of thermal and social comfort and place, ecological places, art places, ceremonial places, performance places, demonstration places.

3 *Ingenuity*: There was a time when laboratories, housing, classrooms, libraries, obser-

vatories, museums, etc. were evident from the outside; the university could be "read" as a place of discovery, displaying not only the creation of knowledge, but also a rich assemblage of architecture that was inventive. Part of this ideology has continued with art galleries and presidential libraries, but the combining of university functions into large, anonymous structures reflects its pulling away from engagement with the public spaces it may or may not frame. The following could be considered:

- student housing can be designed as demonstration projects of state-of-the-art sustainable living, and should be provided either on campus or within bicycling distance;
- universities should move away from remote campuses, and develop ingenious ways to visually and functionally integrate and layer uses on the central campus, including labs, establishing new architectural typologies;
- "showcasing" should become an important aspect of the university's architecture, apart from that which already takes place in football stadiums and other sports facilities. This principle, which Kevin Lynch refers to as "transparency", can be represented through a willingness to show and demonstrate work and collections of the university population, which are the underpinnings to society's support of invention and culture.

4 *Resourcefulness*: Universities have become vast energy sinks, with sealed buildings, high water usage, and car parking "bunkers." They need to become demonstration projects of resource conservation. The following could be considered:

- large scale water harvesting, illustrated through visible demonstration projects, and used for toilet flushing, cleaning, and irrigation;
- use of indigenous and low-maintenance landscape materials;
- construction of long-life buildings;
- generating electricity from wind turbines and photovoltaics;
- making use of passive heating and cooling systems, and providing shade to open spaces and areas of circulation.

5 *Legibility*: University environments need to be open, accessible, and easy to read. As such, people learn to “navigate” through a series of signals where building, place, and event, combined with landscape, color, and material, offer a readable language. The following could be considered:

- rather than define “university” through increasingly walled-off perimeters, reach out with buildings and pathways to join with wider society;
- rather than force contemporary buildings into a limited “coda” (i.e., Spanish colonial with pantile roofs), recognizing that it is both the individuality of buildings, and relationship between buildings that creates identity. Therefore, allow buildings and places to speak of their times, forming a rich dialogue of both identity and spatial experience.

6 *Beauty* is not a word we would readily associate with university campus planning. If quality of life (perhaps in opposition to individual wealth) becomes the central criteria for future society, then the development of an aesthetic becomes central to the life of a university. The following could be considered:

- all furniture and fittings be locally made, and of enduring quality;
- all rooms have opening windows with good sense of light and quality of materials; offices, classrooms, studios, lecture theaters, become demonstrations of improved interior environments;
- all buildings become classics of the age in which they were built, both a representation of a society and a region, as well as technological advance.

This challenge brings “university” once again to its role as one of the central focuses of society. Rather than designing the future campus as an homage to the values of the former campus, it develops an identity as propagator of new knowledge and societal intelligence.

## ENDNOTES

1. University of Texas Campus Master Plan “Cover”. Refer to <http://www.lib.utexas.edu/books/campusmasterplan/toc.html>
2. TAMU Campus Master Plan, Executive Summary Page 21. Refer to <http://www.tamu.edu/campusplan/>
3. Ibid.