Spatializing the Knowledge Economy:
The Campus as a Discursive Project, Parallel Project,
and More-than-Institutional Project

by

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To Him belongs the praise in the beginning and in the end.

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Abstract

In contrast to the normative scholarly and professional expectation that the university's spatialization be tightly coupled with its institutional purposes and prerogatives, this dissertation posits that the institution and the campus may purposively be loosely coupled. Employing a multimodal research design that incorporates interpretive, historiographical, and qualitative strategies to bear upon textual, visual, and spatial data, this dissertation can be understood as a multipronged study that nuances the campus-institution relationship and challenges a straightforward indexicality between them. Guided by this overarching objective, this dissertation comprises three distinct core chapters, each with its own focus under the larger umbrella of the campus-institution nexus. This set of approaches allows me to parse both the conceptual context of higher educational spatialization as well as specific instances of this spatialization at the intersection of the institutional, the national, and the global.

The first core chapter takes up the campus as a discursive project, surveying the range of campus planning and design monographs to trace the ways in which scholars, practitioners, and other authors have written the campus into existence as a spatial concept, rather than an institutional metaphor. Showing that variant understandings of the campus' orientation towards its institution animate this discursive production, this chapter posits what might be called 'the discursive campus' as a conceptual assemblage of these different epistemic logics.

The second core chapter elucidates the relationship between institutional and spatial form during the rapid founding of an elite graduate research institution, King Abdullah University of Science and Technology (KAUST), in Saudi Arabia, a wealthy absolute monarchy. This context – where both the institution and the campus started out as blank canvases for founders to aspirationally shape – shows that their formation were parallel projects, with the campus project ultimately serving as a Saudi-based anchor for the globally-oriented institutional project.

The third core chapter focuses on the masterplans of Sabah Al-Salem University City (SSUC), a new campus for a preexisting but spatially-fragmented public university in Kuwait, a parliamentary emirate. Here, campus design had to contend with institutional and contextual

pressures, such as the need for additional space and to heed a new segregation-of-the-sexes law; this chapter shows how two successive masterplans in turn engaged and addressed concerns much broader than the institution's. Though ostensibly products of specific campus design commissions, these masterplans constituted more-than-institutional documents.

These three core chapters substantiate my affirmation of the viability of a discursive and designerly understanding of the campus that is not in lockstep with the university institution. This examination of the discourse alongside two projects in relatively understudied Gulf countries demonstrates that the planning and design of campuses entail much more than simply responding to given institutional data and desiderata. Campus projects are means of working through a broader cacophony of desires, and serve as records of their management, reconciliation, or obfuscation.

Prologue

> "Universities are 'places' as much as they are institutions."
> —Brian Edwards, *University Architecture*[1]

The sudden change in the ways by which most of the world conducted its academic activity during the coronavirus pandemic made manifest the university's ontological duality. Though campus operations were all but shut down at most universities and people were asked to stay home, the academic enterprise did not stop but simply shifted to a virtual space online.[2] The university institution continued to function and carry out its primary role of education, just not within the university's physical space. Research activity that did not rely on specialized facilities was also expected to be conducted away from campus. The remote conduct of its operations during the pandemic demonstrated that the university could exist and continue to provide services without occupying a dedicated physical space.

Nonetheless, had someone passing by an empty, shuttered campus during the height of the pandemic pointed to it and said "here is the University," that passerby would not be incorrect. Even though the campus at that point was just a dormant husk owned by the University institution, it still was a part of the University—it just was not *the* University.[3] The campus remained the most conspicuous thing that the passerby could point to as a referent for

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[1] Edwards, Brian. *University Architecture*. London: Spon, 2000: 150.

[2] For example, see Wardak, Dewa, Carmen Vallis, and Peter Bryant. "#OurPlace2020: Blurring Boundaries of Learning Spaces." *Postdigital Science and Education* 4, no. 1 (2022): 116–37.

[3] Though both institution and campus make up the university, it is reducible to neither of them. One could imagine universities deciding to shutter their campuses permanently in order to operate almost exclusively as virtual institutions – becoming what we may call astralized universities – adopting the distance learning model spearheaded by Southern New Hampshire University and Western Governor's University. For more on these, see Gardner, Lee. "The Rise of the Mega-University." *Chronicle of Higher Education*. February 17, 2019. https://www.chronicle.com/article/mega-universities-are-on-the-rise-they-could-reshape-higher-ed-as-we-know-it/. And Boggs, Hamilton, Paula Forero-Hernandez, Martha Laboissiere, and Kevin Neher. "Scaling online education: Five lessons for colleges." *McKinsey & Company*. February 15, 2021. https://www.mckinsey.com/industries/education/our-insights/scaling-online-education-five-lessons-for-colleges. And Busteed, Brandon. "Why Having Two Types Of Elite Universities Will Restore Confidence In U.S. Higher Education." *Forbes*. May 7, 2022. https://www.forbes.com/sites/brandonbusteed/2022/05/07/why-having-two-types-of-elite-universities-will-restore-confidence-in-us-higher-education/?sh=2a68602f218f.

this entity that we call the university, but it would have been obvious to anyone that almost everything done in the name of the university was *not* taking place in the physical space that the passerby pointed at. The campus as a space and the institution as an operation were overtly decoupled during this exceptional moment in time. While the changes to academic life compelled by the pandemic called attention to the university's dual institutional-spatial character, they also demonstrated that institution and campus did not always have to be in sync. While the university can exist as a non-spatial educational and research institution, this dissertation is concerned with its endemic existence as a spatial condition. I undertake this tripartite study in order to parse some of the ways in which the university campus plays a role alongside but not necessarily (over)determined by the university institution.

The three core chapters that make up this dissertation tackle different questions related to my broader questioning of a one-to-one relationship between the academic institution and campus. The first of these chapters delineates the ways in which writers have written the campus into existence as a spatial concept. One way I like to think of this chapter is as an attempt to show what type of understanding readers would gain about the campus had they only ever read about its design without ever setting foot in one. The subsequent chapter elucidates the relationship between institutional and spatial form during a university's rapid founding within a wealthy absolute monarchy. This context, where both the institution and the campus started out as blank canvases for founders to shape according to their aspirations, provides an opportunity to understand a uniquely deliberate experience of the university's duality as an institution and a campus. The third core chapter focuses on the masterplans of a new unitary campus for a preexisting but fragmented university in a parliamentary emirate. Through masterplanning, campus design had to contend with extant institutional and contextual logics and pressures, and the chapter shows how the masterplans tried to engage and address concerns much broader than the institution's. Taken together, the chapters suggest the viability of a discursive and designerly understanding of the campus that is not in lockstep with the university institution.[4]

Whether or not you find such a claim palatable, let us agree that the campus matters dearly, especially for one's experience of an institution. Personal experience can say as much. When I was an undergraduate architecture student, the fact that my school of architecture was a block away from my university's campus proper largely determined my campus experience and,

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[4] To adapt Harold Shapiro's characterization of the university as society's servant and critic, I wonder here if the campus may also be cast as its institution's servant and critic. See Harold Shapiro qtd in Mullen, Jacqueline, and Jackson Voss. "Servants and Critics." *State & Hill* (Fall 2017): 6–13.

critically, my sense of belonging to an institution whose central space I was never fully at home in. At another university that I attended, the library and student union were centrally-located and frontally-coupled; this spatial dyad felt like the campus' beating heart, energizing the space and its community of users, day and night. My transition between another pair of universities reinforced this consciousness; though I moved to a place that was better by almost every institutional metric, the new institution's campus was no match to the former and was, in more ways than one, quite alienating. It took me a long time to feel at home on this new campus, whereas I had felt at home almost instantaneously on my preceding institution's campus.

This is to say that the time I have spent on different campuses has made me acutely aware of just how much a spatial environment conditions our encounters and experiences of an institution—even of a city or country. For students studying outside their hometowns or homelands, their experiences of their host city and nation are largely conditioned by a campus experience. To take the prime global destination for international students as an example, I wonder about how many international students recount their encounter with America and Americans based largely on encounters on or around campus. I imagine most of them would. This experience of America is overwhelmingly a campused one. We must bear in mind, though, that the archetypicality of the collegiate experience is relatively unique to the Anglophone world, with the commuter campus being just as common around the world.[5] Nevertheless, for those enrolled in a higher education institution, the campus often does become that around which their phenomenological experience is oriented, regardless of whether they live on one.

Through this dissertation, on a level more general than its particular claims, one could say that I endeavor to make a case for paying more attention to the physical campus and the questions it raises—a case for orienting ourselves as scholars to it. For those who have experienced life on many different campuses, I hope this dissertation pays due homage to the campus' significance as a spatial design that colors the endless varieties of the experience we call "higher education." Prodding you to take off your hat as campus experiencer, I encourage you to put yourself in the shoes of those who contemplate, conceptualize, envision, plan, and design the campus—to imagine what considerations might have led universities to spatialize in the ways that they have.[6]

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[5] By collegiate I mean higher education as a residential experience—i.e. college as an advanced boarding school.

[6] For a short yet seminal primer on what it means to approach the world and intervene into it as a designer, see Cross, Nigel. "Designerly Ways of Knowing." *Design Studies* 3, no 4 (1982): 221–7.

Extended embodied experiences on sundry campuses aside, this dissertation beckons to those with scholarly and professional interest in the campus as a physical space, particularly as an institutional one. Though the work herein does not lend itself to any obvious or immediate application in campus planning, and though it challenges any straightforward relationship between institutional purposes and campus design, I hope it nevertheless provides an insightful dive into a broad and somewhat divergent range of understudied matter.[7] On that note, I hope that scholars and students of the Middle East find in this dissertation a productive spatially-attuned approach to studying the region, to contrast with that corpus of scholarship's largely historical and textual focus. This intention extends to higher education studies, which suffers from a surprising dearth of attention to questions of space. I would be quite heartened if my work gives this intersection of audiences beyond the disciplines of architecture and planning much scholarly food for thought.

It has certainly given me much to think about. This dissertation is the outcome of a research project catalyzed by an observation I made years ago; I was struck by the fact that two neighboring, wealthy Arab countries decided to establish marquee new campuses on which daily life would look very different from how it is in the rest of their respective countries. More striking was that, in pursuit of this common goal, these campuses took opposite approaches to the segregation of the sexes: one sought to introduce it, the other dispensed with it. As I looked into these projects specifically and campus planning generally, it became clear to me just how rich they were as subjects of research, beyond my initial observations. Rather than exhibiting unidimensionality, this subject matter provided an encounter with – and opportunity to understand – the campus' polyvalence. Over the course of this research, I became increasingly interested in interrogating prevailing assumptions about the relationship between the university's institution and campus. The result, I hope, is a set of detailed accounts of both discursive and design projects that cast fresh light on this relationship.

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[7] At different points, the material under examination might be a set of books or a selection of projects located in relatively understudied geographies.

Chapter 1

Introduction

The university is both an institution and a campus, an organizational complex and a physical estate, an intangible space and a tangible one.[1] The latter is usually understood to be in service of the former. By this logic, the university campus does not just belong to the university institution, but is supposed to be beholden to its purposes; the university's physical space ought to be attuned – ideally even fine-tuned – to its institution's deeds, dynamics, and desires. In other words, the ideal is that the university's spatialization be tightly coupled with its institutional form and activity. This dissertation questions the tightness of this coupling. It posits instead that the institution and the campus may purposively be loosely coupled.

1.1 Rethinking the Coupling of Institution and Campus

Before I explain this dissertation's structure, the foci and methods of its chapters, and some salient conceptual underpinnings, let me expound here on the scholarly conversation with which I understand my present work to be in conversation. Showing how the planning of the

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[1] In noting how it sustains its identity through time, architect and preservationist Jon Buono reiterates the university's binary composition: "The history of an educational institution is maintained both in its traditions—the customs and practices of the school—and in its physical dimension—the buildings, landscapes, and other cultural resources that define its 'campus.'" Buono, Jon. "Modern Architecture and the U.S. Campus Heritage Movement." *Planning for Higher Education* 39, no. 3 (2011): 88. In his latest book, architectural historian Reinhold Martin makes a cognate observation. He foregrounds the university's materiality as the critical means of interrogating the institutional type's rhizomatic historical development. His account affirms that this knowledge-producing entity manifests both institutional and material beings: "the modern university is constituted by a series of material, institutional, and epistemological boundary problems. . . . [it] is, in short, a world of gates, screens, departments, papers, reports, and other media." Martin, Reinhold. *Knowledge Worlds: Media, Materiality, and the Making of the Modern University*. New York: Columbia University Press, 2021: 6–7. Paul Temple critiques how questions of institution and space occupy different niches in the scholarly landscape: "the physical and intellectual aspects of the university are typically approached from different directions, with different professional groups using different methodologies." Defining the university as essentially "a set of arrangements for managing social knowledge and relationships associated with it," Temple suggests that the university's duality is captured by an urban metaphor; he cites the two medieval French ways of conceptualizing the city, whereby the French used "the term *cité* to refer to human interactions in urban spaces, as distinct from the separate yet encompassing *ville* infrastructure"—i.e. these arrangements are either institutional or spatial. Temple, Paul. "The University *Couloir*: Exploring Physical and Intellectual Connectivity." *Higher Education Policy* (2021). https://doi.org/10.1057/s41307-021-00253-x

academic campus is currently conceptualized as being tightly coupled with that of the academic institution sets the stage for my varied accounts of the campus as a para- and supra-institutional project. I do this less to question the fitting of campus planning to predefined institutional goals as a best practice than to suggest expanding its possibilities; my intention is to make evident that the specificities of the institution are correlates of its campus' spatialization, not its determinants. For institutions in possession of campuses tightly and adeptly fit to them, I applaud such an outcome; at the same time, where the coupling between them is loose, I resist the characterization of that as an unbefitting outcome – as a failure – of campus design. That is to say, loose coupling might be just as viable an approach to campus building as tight coupling is.

For Richard Dober, the most prolific writer on campus planning and design, the campus has always been a means to institutional ends, whether those are functional, experiential, or symbolic. Though he understood that this spatial type has its particular history and that its instantiations are enmeshed in larger social, political, and economic spheres, his understanding of the campus' role was linked primarily to its ability to fulfill institutional goals and enliven the experiences of its institution's members. As he generally saw it, good campuses are ones purposively planned to fulfill well-thought-out institutional goals.[2] I will discuss more aspects of Dober's thought in more detail later in the dissertation, but suffice it to say here that his conceptualization of campus design aligned with the Modernist dictum "form follows function." Campus design is to be at its institution's beck and call, the university's spatialization in thralls to its institutional logic.

This understanding of the relationship of the campus to the institution persists. As leaders of higher education institutions, Carney Strange and James Banning have called for a reconciliation of institutional place to institutional purpose. They assert that the university is an organization that is dedicated first and foremost to learning, and that its physical space must always be conceived and judged in light of this purpose. Understanding campuses as "places of distinction" that "aim to create spaces that are both memorable and facilitative of those who use them," Strange and Banning cast campus design normatively as a servant to this institutional purpose: "Questions about what designs best achieve these ends have long been and continue to be debated as campuses evolve in response to student and institutional needs."[3] Higher

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[2] See, for example, Dober, Richard. *Campus Planning*. New York: Reinhold, 1963.

[3] Strange, C. Carney, and James Banning. *Designing for Learning: Creating Campus Environments for Student Success*. 2nd ed. San Francisco: Jossey-Bass, 2015: ix. More on Strange and Banning's views is in the Appendix.

education scholar Paul Temple agrees. He affirms that "the university's physical form and its academic outputs need to be understood together," and that campus planning ought to "work with academic planning in supporting intellectual endeavour."[4] Like Strange and Banning, Temple sees potential to more effectively tighten the physical and educational dimensions of the university. This view of the campus-institution relationship makes sense when the university is deemed a primarily-educational institution, but the currency of this view is not limited to this conceptualization of the university's purpose.

Even when the university has been perceived in broader institutional terms, the campus' role has nonetheless been understood as beholden exclusively to the institution. Over the course of his career, campus planner Michael Rudden persistently observed that campus planning initiatives were hobbled by a lack of clarity about their institutional purposes. In his engagement with planning efforts undertaken by many institutions, he noticed that they tended to plan without a clear idea as to why they were doing it nor what they expected to get out of it. In his experience, a major shortcoming of these initiatives was that they were not tightly linked to detailed knowledge of the "state of the institution" and a rigorous projection of its needs:

> Too often, insufficient information was provided to determine if special expertise should be included on the planning team, such as a traffic engineer, real estate advisor, academic planner, facilities assessment specialist, or economic development planner. Incomplete descriptions of existing institutional data, studies, and facilities documentation required assumptions that, if misinterpreted, could be expensive to overcome once planning started. However, the most common shortfall was a requested scope of planning that was not aligned with the institution's likely resources.[5]

His advice is for institutions to identify the reasons for undertaking planning and communicate this effort's primary purposes as a prerequisite to engaging in it.

For Rudden, campus planning must be tailored to clearly articulated institutional purposes if it is to be successful—that is, if it is to be "productive, timely, and cost-effective."[6] He delineates ten different reasons for campus planning: responding to a strategic plan, leadership changes, local regulations, funding requirements, managing space usage, facilities maintenance

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[4] Temple, Paul. "The University *Couloir*." 2021.

[5] Rudden, Michael. "Ten Reasons Why Colleges and Universities Undertake Campus Master Planning: (And How to Align Your Campus Planning Effort to Best Address Them)." *Planning for Higher Education 36*, no. 4 (2008): 34.

[6] Ibid., 34.

issues, land management issues, town-gown relations, reacting to space shortages, and identifying campus growth possibilities. In addition to these prevalent ones, he mentions several emerging reasons to produce masterplans, like security, sustainability, energy needs, adult education, and profit generation. Of all these reasons, only responding to municipal regulations, funding requirements, and neighborly pressures are not internally-generated institutional concerns. Besides the perennial question of cash flows, these external-facing reasons he supplies concern no more than the university's immediate locality and may only be pertinent in urban settings. It is clear that his reasons to masterplan are largely institution-centric.

Thus, when Rudden advises universities to "link their campus development planning efforts and planning tools to the primary purposes for which the planning is undertaken," he defines campus planning's primary role as a means to achieve institutional objectives.[7] In his account, the masterplan is subsumed by a larger set of institutional roadmaps. He explains that colleges have traditionally produced five types of plans – strategic, academic, information technology, facilities, and financial – and that the facilities masterplan ought to be integrated with the rest, the main concerns of which can broadly be divided into academics and finances. If one can think of these plans as both catalysts and records of institutional clarity and specificity about major issues of concern, then one can also see how they may be understood as the guides by which the university is to spatialize. In no uncertain terms, Rudden understands campus planning as a purposive "response to evolving institutional priorities and resources," whose "preplanning efforts should involve a comprehensive assessment of your institutional planning goals, priorities, and resources."[8] In essence, his account holds that campus and institution are tightly coupled.

In a more comprehensive account of university planning that does not center the campus masterplan, the latter's role has also been understood to be contingent on the former. A short book on institutional strategic planning published in 2012 by the Society of College and University Planning casts campus masterplanning as being predicated on clear institutional goal-setting. In this *Practical Guide to Strategic Planning in Higher Education*, scholar and consultant Karen Hinton portrays the strategic plan as the university's concrete appraisal and delineation of its status quo and intended future development. As the means "to bridge the gap between . . . the current and envisioned state of the institution," the strategic plan ideally builds on an honest mission statement, along with an aspirational articulation of institutional vision

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[7] Ibid., 40.
[8] Ibid.

and values, by providing clear, specific goals and, critically, an actionable implementation plan.[9] Based on her description, this general plan is akin to a combination of a curriculum vitae and resume for the institution.

For Hinton, the strategic plan is the university's overarching roadmap into the future; subsumed under this comprehensive, integrative plan are other types of plans, of which the facilities masterplan is one.[10] Overlapping considerably with Rudden's reasons, the issues that she sees the strategic plan addressing are student population, enrollment projections, new academic programs, changes in pedagogy, initiatives and partnerships, student services, staffing needs, staff training and development, community relations, facilities initiatives, and information technology. In a more fine-grained manner than Rudden, she also delineates the various specialized plan types that an institution would develop to address these issues: academic plans, enrollment management plans, budget plans, information technology plans, facilities masterplans, advancement plans, student services plans, library plans, residential life plans, athletics plans. Of these, she identifies the masterplan, the budget, and the student services plan as the only ones that engage all of the issues covered by the strategic plan.[11] Though I find the comprehensiveness of the student services plan arguable given that instruction-free research and community service are major components of many academic institutions, money and space indeed touch almost all aspects of university life. The implication of her description is that effective budgetary and campus planning are predicated on clear, comprehensive, concrete institutional goal-setting across the spectrum of academic operations.

In fact, Hinton is adamant that campus planning should follow institutional planning, explaining that universities "considering a major facilities plan or master plan project should

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[9] Hinton, Karen. *A Practical Guide to Strategic Planning in Higher Education*. Ann Arbor, MI: Society for College and University Planning, 2012: 6. More recently, Peter Eckel and Cathy Trower distinguish between strategy and planning which correspond, respectively, with the statement of mission (and vision) and the implementation plan in Hinton's account. See Eckel, Peter and Cathy Trower. *Practical Wisdom: Thinking Differently About College and University Governance*. Sterling, VA: Stylus, 2018.

[10] As scholar of higher education Cameron Fincher put it, strategic planning is ostensibly a form of institutional meta-planning, that is, "the planning of a plan to supercede all other plans." Fincher, Cameron. "What Is Strategic Planning?" *Research in Higher Education* 16, no. 4 (1982): 373. More concretely, Robert Cope defines strategy as "the pattern of objectives, purposes, or goals and major policies and plans for achieving these goals stated in such a way as to define what the college or university is or is to become. Strategic policy planning results in: (1) the determination of the basic long-range goals of the institution, and (2) the adoption of courses of action and (3) the allocation of resources necessary for reaching these goals - all being integrated and unseparable." Cope, Robert. *Strategic Policy Planning: A Guide for College and University Administrators*. Littleton, CO: Ireland Educational Corp, 1978: 8–9.

[11] Hinton, Karen. *A Practical Guide to Strategic Planning in Higher Education*, 2012: 37.

take the time to first complete an institutional strategic plan."[12] The temporal delay she encourages casts the masterplan as dependent on the university's broader growth strategy. She sees in the information-rich institutional self-awareness engendered by strategic planning as the surest foundation for masterplanning:

> Strategic plans provide critical guidelines to an institution by developing the information necessary to ensure facilities meet the current and anticipated needs of students, faculty and staff. Some of the most egregious examples of mismanaged planning can occur during a facilities or master plan process. The costs in these circumstances are large because they involve capital funds and the long-term problems associated with physical spaces that do not support campus operations.[13]

Here, the assumed goal of campus planning is providing a tight spatial fit with the institution's straightforward operations. Hinton's guidance renders the masterplan, not unreasonably, as subservient to the strategic plan. Though she approaches the relationship between institutional planning and campus planning from the institutional perspective, Hinton's guidance ends up resonating with Dober's and Rudden's understanding of campus planning as primarily a spatialization of institutional goals.

Against the grain of this scholarly and professional agreement about tight spatial-institutional coupling, I wonder if this is necessarily the relation of campus to institution. In other words, can we begin to decouple the spatialization of the campus from institutional prerogative? Through the different chapters in this dissertation, I would like to suggest that the coupling between the institution and the campus can be looser, even when a tighter relationship is feasible. Here, I build on accounts of campus planning where a supposedly tight coupling between the two is subject to question. For example, when campus planner Richard Neuman remarks that more "prospective students are seduced by the bucolic beauty of the campus than by . . . the quality of the academic programs themselves," he implies that the spatialization of the campus is not necessarily an index of institutional activity, even one as central as education.[14] In Stefan Muthesius' account of how post-WWII campus planning efforts in North America and Western Europe were driven by an idealist impulse to produce spatial compositions that transcended the university's humdrum role as a professionalization institution producing

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[12] Ibid., 40.
[13] Ibid, 39.
[14] Neuman, David. *Building Type Basics for College and University Facilities*. Hoboken, NJ: Wiley, 2013: 19.

subjects beholden to dominant social, economic, and political structures, he ultimately admits that these aspirations did not end up yielding campuses that avoided hewing closely to a narrow set of instrumental institutional goals.[15] His study suggests a dialectic relationship between the university's spatial and institutional characters. More recently and much more explicitly, Francesco Zuddas' account of the campus development surge in Italy after 1968 shows that campuses were designed less as spaces catering to the particularities of their academic institutions than as experiments in new modes of urbanism for a nation in the thralls of social unrest.[16] At this place and moment in time, campus planning was deployed primarily as a means of city-making. These accounts appear to cast doubt on the tightness of the campus relationship to institutional ends. Beyond these studies' historicism, my intention in this dissertation is to make a more overt, contemporarily-oriented case for the possibility of a loose coupling between them.

1.2 Research Questions

In order to question the notion that campus spatialization is determined chiefly by institutional purposes and prerogatives, this dissertation takes up the following research question: *In what ways can we conceptualize a loosely-coupled relationship between the university campus and institution?* Under this overarching question, I pursue the following subquestions:

- How has the campus been discursively conceptualized as a physical space and not as an institutional metaphor?

- What was the role of the campus and its relationship to the institution as they were created to rapidly bring into being an elite university?

- To what extent did the masterplans of a new campus engage and serve purposes broader than those of the academic institution to which it putatively belonged?

Guided by these questions, this dissertation comprises three distinct core chapters, each with its own focus under the larger umbrella of the campus-institution nexus.

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[15] Muthesius, Stefan. *The Postwar University: Utopianist Campus and College*. New Haven, CT: Yale University Press, 2000.

[16] Zuddas, Francesco. *The University as a Settlement Principle: Territorialising Knowledge in Late 1960s Italy*. New York: Routledge, 2020.

The first of these chapters, "The Discursive Campus," focuses on campus planning and design discourse over the past six decades. My objects of analysis here are the monographic texts focused on the physical campus. The common discursive elision between the institution and campus is an indication of their pervasive conceptual tight coupling, so this chapter centers the discussions of the university's campus qua campus. Against the common use of the campus as a metaphor for the institution, I aim to show how the campus has been conceptualized as an object of discourse that understands this object as a designed physical space, rather than an institutional metonym. Identifying the different conceptions of the campus one might discern from the campus discourse, my goal is to sketch an outline of what I call 'the discursive campus.' I argue that, rather than being the mere product of a functionalist/humanist binary, the discursive campus is an assemblage of three broad epistemic logics, each with its particular disposition toward the instrumentality of the physical campus: approaches that see the campus through intrinsically instrumental, market instrumental, and non-instrumental lenses, respectively.[17]

The following chapter, "Instant Knowledge, Instant Campus," focuses on the way King Abdullah University of Science and Technology (KAUST) was brought into being in Saudi Arabia. By analyzing the space of the campus as well as different ephemera like brochures, partnership agreements, websites, speeches, blogs, opinion pieces, news releases, and recruitment material from the period of its founding, my aim is to understand the assigned role and purpose of the campus in relationship to institutional formation within the context of KAUST's unique, rapid genesis as a specialized "world-class" university. My account of the role that the campus was conceived to play in the formation of a new, elite university argues that KAUST's campus was a critical (and expensive) appendage to the institution, but an appendage nonetheless; the forming of the institution and the campus were parallel projects, with the latter serving as an anchor in the kingdom to the former, which is more at home in the global "space of flows."

The third core chapter, "Design and the Politics of Binity," focuses on Sabah al-Salem University City (SSUC), a new campus for the only public university in Kuwait. Under analysis in this chapter are two masterplans, designed by different firms, during the early years of the megaproject. My aim is to understand whether, in addition to academic institutional purposes,

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[17] By intrinsic instrumentalism I mean understanding the campus as a means to ends intrinsic to its institution's purposes and operations. By market instrumentalism I mean understanding the campus as a means to ends dictated by the environment or "market" it finds itself in. And by non-instrumentalism I mean understanding the campus as a means to no particular diegetic ends.

statutory, constitutional, and urban-national desires can be read in the form of the public university campus as masterplanned. The chapter essentially parses and reveals what type of institutional documents the campus masterplans were. I argue that, though they were ostensibly products of specific design commissions, SSUC's campus masterplans were more-than-institutional documents; they were instruments of desire management that catered to requirements and ambitions more expansive than the academic institution's—namely those of the state and its institutions. At the end of the dissertation is a short conclusion highlighting some common threads and themes from the three chapters.

1.3 Research Design

In aggregate, my dissertation can be understood as a multipronged study of the relationship between the university institution and the university campus (Table 1.1). Challenging the presumption that the campus exists and ought to be planned chiefly to serve the specifics of the institution to which it belongs, this research shows the possibility of analytically and empirically decoupling the institution and the campus—in discourse, during institutional formation, and while masterplanning. Another way to read my dissertation is as three examinations of the campus as distinct from the institution: the campus as a discursive project; the campus as a parallel project, the campus as a more-than-institutional project. In short, the campus is not merely the physical-spatial embodiment of the academic institution; the two can be loosely coupled. This claim nuances and complicates the relationship between the university institution and campus, challenging a straightforward indexicality between the two.

	Chapter on Discourse	**Chapter on KAUST**	**Chapter on SSUC**
Research Question	Against the common discursive use of the campus as a metaphor for the institution, how has the campus been conceptualized as an object of discourse that understands this object as a designed physical space (rather than an institutional metaphor)? [i.e. what conception of the campus does one get from the campus discourse?]	Within the context of KAUST's unique, rapid genesis as a "world-class" research university, what is the purpose and role of the campus in relationship to institutional formation? [i.e. what role does the campus play in the formation of a new, elite university?]	Within the Kuwaiti context and its pressures on the university, can statutory, constitutional, and urban-national desires (in addition to academic institutional ones) be read in the form of the public university campus as masterplanned? [i.e. what type of institutional documents were the campus masterplans?]
Objects of Analysis	monographic texts	university formation	designed masterplans

Timeframe	1963-2020	2006-2009	2005-2010
Methods	content, discourse analyses	content, discourse, historical, ethnological analyses	content, discourse, historical, formal analyses
Argument	Rather than the mere product of a functionalist/humanist binary, 'the discursive campus' is an assemblage of three broad epistemic logics, each with its particular disposition toward the instrumentality of the physical campus: approaches that see the campus through intrinsically instrumental, market instrumental, and non-instrumental lenses, respectively.	KAUST's campus is a critical (and expensive) appendage to the institution, but an appendage nonetheless; the forming of the institution and the campus were parallel projects, with the latter serving as anchor in Saudi Arabia to the former, which is more at home in the global "space of flows."	Though ostensibly products of specific design commissions, SSUC's campus masterplans were more-than-institutional documents; they were instruments of desire management that catered to requirements and ambitions more expansive than the academic institution's—namely those of the state and its institutions.

Table 1.1 An overview of the tripartite structure of the dissertation

As a whole, the dissertation is a product of a multimodal methodological approach, incorporating interpretive, historiographical, and qualitative strategies, to bear upon textual, visual, and spatial data. I employ content, discourse, and formal analyses of the data, coupled with site observations. Content and discourse analyses can be thought of as scrutinizing documents to read the lines and read between them, respectively. Formal analysis attends to both conceived and executed forms as documents and mediums of information. Given that architects can read form in a world of complex problems occupying physical space and the pervasive "complexities of the social, the political, and the economic," architectural thought leader Sarah Whiting asserts that "it behooves us to also engage their formal repercussions."[18] Historical analysis refers to the contextualization of the research subject within broader local histories; though none of my chapters purport to be histories, I do attempt to briefly situate the projects under examination in the second and third chapters within their national developmental contexts. Ethnological analysis relies on personal observation and the embodied experience of the researcher. Together, these approaches allow me to parse both the conceptual context of higher educational spatialization as well as specific instances of this spatialization at the nexus of the institutional and the national.

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[18] Whiting, Sarah. "Let's Try to Be Relevant." Interview by Florencia Rodriguez. *Harvard Design Magazine* 48 (2021): 14–21.

In other words, the subjects of my examination are not only spaces and structures but also the discursive and procedural means through which actors made sense of campuses and their development. By highlighting discourse, rhetoric, and process alongside plans and designs, I try to bring into focus the subjectivity inherent in such undertakings despite their technocratic appearance. By the end of this dissertation, I hope it becomes clear that, even though campus conceptualization is subject to the discursive and political regimes within which it is undertaken, the act of undertaking reconstitutes it as an interlocutor with those regimes.

1.4 Some Conceptual Considerations

My approach in this dissertation centers an engagement with the campus as a conceptualized design, not necessarily a physically executed one. This conceptualization can take textual, procedural, representational forms, in addition to the physical, spatial forms with which architecture is most associated. It is with this range that I engage. Robin Evans has explained that, while it may be argued that "the essence . . . of architecture *tout court* is not in the concrete object but in the cerebral design," architecture is more accurately understood as the act of thinking through the implications of spatial ideas, of representing them, and of translating between modes of their embodiment—as he puts it, design "is action at a distance."[19] Conceptualized this way, architecture does not require turning an idea into an actual building, but does necessitate that an idea be taken up by acts of design—ones not limited to drawing. By examining conceptualizations of the campus as a discursive construct, as a concretizer of a nascent organizational formation, and as an implementer of academic and legal desires, my dissertation takes up and nuances the idea that architecture, fundamentally, is the representation of envisioning activity and the communication of the working-through that is design.

This understanding of architecture as a purposive, generative exercise of thought is perhaps best exemplified by Robin Evans' famous maxim that "Architects do not make buildings; they make drawings of buildings."[20] But the primacy of intellection in design is not limited to the scale of the building. In his book on the mediated representation of New York during the 1960s and 70s, McLain Clutter shows how urban space can be (re)fashioned through

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[19] Evans, Robin. *The Projective Cast: Architecture and Its Three Geometries.* Cambridge, MA: MIT Press, 1995: 354–63.
[20] Evans, Robin. "Architectural Projection" in *Architecture and its Image: Four Centuries of Architectural Representation: Works from the Collection of the Canadian Centre for Architecture.* Edited by Eve Blau and Edward Kaufman. Montreal: Canadian Centre for Architecture, 1989: 21.

(re)imagination, as a cerebral act and a material production process. Representations act upon the city as a spatial and social construct, "moving through and reorganizing the interrelated and underlying interests, economies, and imaginaries composing contemporary urbanism to effect new aesthetic regimes, collectivities, and vectors of subjectification."[21] Though he specifically focuses on the civic deployment of film, his account reiterates that intellectual conceptualizations and graphic representations have the capacity to condition the perception and experience of large swaths of space.

Clutter's analysis also demonstrates that architecture-cum-design can be political even in the absence of its physical spatialization. His account resonates with Pier Vittorio Aureli's conceptualization of the design project in *The City as a Project*.[22] Aureli champions an expansive view of architecture as an intellectual enterprise whose flagship product is the conceived city. Architecture does not reside only in the realm of the physical but, more importantly, in the imagination, where the data and stimuli associated with a given location are synthesized into the coherence that is the city. In this definition of architecture and urbanism, the conceptual reigns, and so does the political. The architect's production of ideas, images, and plans mediates the agonism of agents in the urban polity. If Evans made a clear case for spatial design as an ideational practice, Aureli makes the case that it is inexorably political; the exercise of thought is an exercise of power. To borrow Aureli's terms, this dissertation does not attend to any campuses per se, but to campus *projects*. One effect of focusing on the campus as a project of the supra-institutional variety is to render professional practice and its products, once again, political.

But beyond that, my research interprets the campus within a spectrum of contexts broader than its institution, whether that context is discourse, a national history, a set of contemporary anxieties and aspirations, or a regime of the legal, economic, or cultural sort. Inspired by the works of these theorists, my approach in this present work is interpretivist. Mine is a qualitative study. As a type of research that makes use of a wide range of source types – including in situ observation and analysis of artifacts, buildings, urban context, and landscape sites; photos, drawings, or virtual representations of artifacts and sites; public documents; audio visual material; and artifactual or site documentation – this scholarly strategy, Linda Groat and David Wang explain, "depends on, rather than rejects, the researcher's interpretation of the

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[21] Clutter, McLain. *Imaginary Apparatus: New York City and Its Mediated Representation*. Zürich: Park Books, 2015: 192.

[22] Aureli, Pier Vittorio, ed. *The City as a Project*. Berlin: Ruby, 2013.

collected data."[23] As sociologist Gaye Tuchman puts it, a qualitative approach, whether historical or contemporary in focus, is characterized by the "recognition that research is an interpretive enterprise."[24]

At this point, it is worth noting the national and international valences of campus building as they relate to parts of my research. Given that the monographic discourse about the campus, which I survey in the Appendix, leans heavily towards North America and Europe, the campuses that I analyze in the other chapters are located in the Arabia. In addition to being relatively understudied within the disciplines of architecture and planning, this region hosts ambitious, generously-supported wholecloth campus projects.[25] This provides an occasion to study campus planning and design in instances where economic largesse affords the opportunity to freely shape and align campus form at the moment of its inception. Higher education administrator Kevin Kirby explains that campus development almost always takes place incrementally—space by space, building by building, project by project. Conversely, establishing a whole campus de novo is a rare, unique occasion, affording uncommon possibilities. "Even in an era when people are overwhelmed with information," he remarks, "the creation of a new campus captures the attention of stakeholders both inside and outside the university in a way that few other sustained initiatives can, and is a signal to the community at large that significant change is around the corner."[26] Though Kirby suggests that new campuses can be opportune moments for institutions to catalyze strategic change, thereby coupling more tightly their newfound spatialization with their particular aims and visions, I am more interested in understanding how they can be just as momentous and catalytic an opportunity for engaging para- and extra-institutional interests. The de novo campuses in the Gulf are ideal sites for such a study.[27]

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[23] Groat, Linda, and David Wang. *Architectural Research Methods*. 2nd ed. Hoboken, NJ: Wiley, 2013: 222.

[24] Tuchman, Gaye. "Historical Social Sciences: Methodologies, Methods, and Meanings" in *Strategies of Qualitative Inquiry*. Edited by Norman Denzin and Yvonna Lincoln. Thousand Oaks, CA: SAGE, 1998: 249.

[25] A case could be made that modern Arabia has been understudied in general. See Carapico, Sheila. "Arabia *Incognita*: An Invitation to Arabian Peninsula Studies" in *Counter-Narratives: History, Contemporary Society, and Politics in Saudi Arabia and Yemen*. Edited by Madawi Al-Rasheed and Robert Vitalis. New York: Palgrave Macmillan, 2004: 11–33.

[26] Kirby, Kevin. "The Use of Boundary Objects for Purposeful Change in Higher Education." Doctoral dissertation, University of Pennsylvania, 2006: 18. https://repository.upenn.edu/dissertations/AAI3209974

[27] The Gulf refers to the six countries of the Gulf Cooperation Council: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Of these Arabian states, campus projects in two are the focus of the latter chapters of this dissertation.

Although this region is often viewed as an exceptional higher educational space because it hosts an abundance of international academic outfits and outposts,[28] its homegrown developments try to center the domestic sphere without sacrificing global aspirations. By dedicating two chapters to such campuses, the dissertation picks up the national university-city model which Carlos Garciavelez Alfonso describes and brings it into the present. This expands and further decenters the campus planning discourse while also pivoting the contemporary focus on campuses in the Gulf from the explicitly international to the nominally national.

Conceptualizing them collectively as a pan-American "continental enterprise," Garciavelez surveys major campuses built during the 20th century across Latin America, each as an attempt by their respective nations to partake in modernity.[29] While he speaks of the rise of the university city as a historic phenomenon, a venerable product of the mid-20th century with much to offer in the sprawling urban areas of a now-globalized world, the production of such spaces is still operative today. It is prominent in the Gulf where campus building is a key part of a 21st-century push to fortify and diversify national economies. We can think of this activity as a contemporary manifestation of past attempts to author bright national futures. However, decisions to establish university campuses and how to structure them are not trivial, procedural, unscrutinized matters outside of the public eye. Rather, the new locally-cultivated, globally-minded university campuses in the Gulf are sites of encounter and mediation between manifold pressures and expectations.

To conclude, with the global diffusion of higher education, the campus has become a universal model of development. Since campuses exist all over the world, yet are not as plentiful as single buildings, they are useful points of reference for cross-cultural and trans-national study. However, few studies maintain a depth of focus on campus development as a phenomenon that is as Globally Southern as it is Western. Garcialvelez's is an exception. I hope my research can also help fill this gap. Engaging with the discursive, institutional, and spatial dimensions of campus building, this tripartite study brings the conceptual context of higher educational spatialization and globalization into relief with its localizations in the Gulf. In addition to situating the idea of the campus within a shifting discursive terrain, I analyze

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[28] For example, see Molotch, Harvey, and Davide Ponzini, eds. *The New Arab Urban: Gulf Cities of Wealth, Ambition, and Distress*. New York: New York University Press, 2019. And Kosior, Adriana, Julia Barth, Julia Gremm, Agnes Mainka, and Wolfgang Stock. "Imported Expertise in World-class Knowledge Infrastructures: The Problematic Development of Knowledge Cities in the Gulf Region." *Journal of Information Science Theory and Practice* 3, no. 3 (2015): 17–44.

[29] See Garciavelez Alfaro, Carlos. *Form and Pedagogy: The Design of the University City in Latin America*. Novato, CA: Applied Research and Design, 2014.

institutional and campus designs as ideographs of authorial grappling with particular constitutional, legislative, monarchical, social, and urban regimes. By examining the discourse as a whole in addition to two projects from an understudied region, I hope to show that the planning and design of campuses, rather than simply responding to given institutional data and desiderata, are a means of working through a cacophony of desires and differences, and serves as a record of their management, reconciliation, or obfuscation.

Chapter 2

The Discursive Campus, 1960−2020[1]

In 1960, *Architectural Record* published an article authored by Eero Saarinen tackling the distinctive difficulties and opportunities of campus planning. Its author having spent the larger part of the previous decade unsuccessfully trying to turn his masterplan of the University of Michigan's new North Campus into reality, "Campus Planning: The Unique World of the University" was an attempt to salvage value from the experience by formulating campus planning guidance. [2] The silver lining of his tribulations at Michigan was that he could postulate on campus planning not simply as a field of possibility for architects but as a formidable challenge. Beyond procedural advice like recommending that universities retain their campus masterplanners for architectural design services, Saarinen enjoined campus designs that reconciled design ambition with design context. The article was a nascent attempt by one of the midcentury's most prominent architectural figures to consciously and methodically approach the specific question of campus design. His contention was that the university campus is a unique architectural problem, warranting special attention and, by extension, the cultivation of specialized expertise. He would have been happy to see that no more than three years later a monograph on this topic had been published—Richard Dober's *Campus Planning*—but he did not live to see it.[3]

Dober's book, the first comprehensive guide for campus planning, was the genesis of the specialized discourse prefigured by Saarinen's article.[4] Described as a "landmark book" in the historical trajectory of campus planning,[5] this was the first of many books that the campus

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[1] Parts of this chapter were adapted and published in *Divergence in Architectural Research: Proceedings of the ConCave Ph.D. Symposium 202*0 (published by Georgia Institute of Technology in 2021).

[2] Saarinen, Eero. "Campus Planning: The Unique World of the University." *Architectural Record* 128 (1960): 123–130.

[3] See Dorman, John. "Eero Saarinen's Michigan." *New York Times*. October 6, 2017. https://www.nytimes.com/2017/10/06/travel/eero-saarinen-michigan-architecture-modernist-design.html

[4] Dober, Richard. *Campus Planning*. New York: Reinhold, 1963.

[5] Crawford, Mark. "A Century of Campus Planning: Past, Present, and Future." *Facilities Manager* (July/August 2014): 26.

planner authored. By far the most prolific writer on the subject, he continued to write until his death in 2014. He was the field's prime inciter to discourse. In the spirit of Dober's looking forward to its formation, I look back to catalog its contours. As a bounded begriffsgeschichte of sorts,[6] this chapter is the outcome of a survey of campus monography, perusing published anglophone books to get a sense of the shifting discursive landscape of campus planning and design.[7] The purpose of this overview of these textual engagements is to differentiate their range of authorial perspectives. In taking stock of the development of the conceptualization of the campus as an object of analysis, a textured picture of campus studies emerges.

This chapter is concerned not with the frontiers that the discourse has reached but the paths that it has taken. As a delineation of a "state of the art" for campus planning, Linda Dalton, Amir Hajrasouliha, and William Riggs' compendious review of the literature during the past quarter century is an invaluable effort at the former. They conclude that campus studies suffers from case study saturation, that the discourse is at the point where it needs "more longitudinal, comparative, and evaluative research . . . to reach more generalizable conclusions about the results and effectiveness of campus planning."[8] The presence of these gaps does not controvert the efflorescence of campus studies, which their account suggests took off no earlier than the turn of this century. More specifically, they locate the turning point at the publication of the second edition of Dober's *Campus Planning* in 1996. Books dedicated to this topic published before then indeed appear to be few and far between. Nevertheless, major monographs were published in the decades since Dober's first book was first published.

This chapter attends to these treatises, just as it attends to more recent ones, to allow them to speak once more—30 volumes in total. By doing so, I attempt to undertake a broad-ranging type of research along the lines of that which Dalton, Hajrasouliha, and Riggs enjoin. I focus on monographs – published *books* dedicated to a single topic – because these are

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[6] Begriffsgeschichte is German for *concept history*. Though this discipline's focus on explicating the historical evolution of a concept's meaning, usage, and deployment is a more expansive goal necessitating a more comprehensive methodology than mine, the intention behind my chapter resonates with begriffsgeschichte's key objective, which is to show the multiplicity of referents for any one reference and that what is signified by a signifier is dependent on the one doing the signifying.

[7] Though Arabic monographs would have enriched this present exploration and been pertinent to my research that is presented in other chapters of this dissertation, I have not encountered any whose focus is the planning and design of the university campus, except Elshoura, Asmaa. نحو حرم جامعي مستدام في مطلع الألفية الثالثة *[Towards a Sustainable University Campus at the Turn of the Third Millennium]*. Amman: Dar Ghaidaa, 2017. I have thus limited my examination to books published in English.

[8] Dalton, Linda, Amir Hajrasouliha, and William Riggs. "State of the Art in Planning for College and University Campuses: Site Planning and Beyond." *Journal of the American Planning Association* 84, no. 2 (2018): 155–6.

intentional attempts to be synoptic, to transcend the particular for the general. As such, they are endeavors to make claims about the campus as a type rather than a campus as a case. To my knowledge, mine is the first scholarly attempt to bring together and produce an account of the full range of published monographs on the physical campus as a type. While this chapter highlights the discourse's salient themes and epistemes, the Appendix provides a much more particulate deep dive into the books. A discursive survey rather than a literature review, the Appendix gives ample space to describe as a text each book's conceptualization and presentation of the campus.[9] I must note that this is not a history of the campus discourse, let alone the campus; though chronology is one aspect of my analysis, it is not primary. I am much more interested in the cross-cutting themes, values, and assumptions that condition this textual production. Moreover, focusing on the campus discourse as a textual space does not mean attending to the ways in which the campus is a space that discourse takes place in and through.[10] To be clear, my purview is a set of published monographic texts. By approaching this literature explicitly as a discourse, I paint a picture of the campus as understood through it—what I call the *discursive campus*.

2.1 Attending to Discursive Formations

Scholars of architecture and urbanism have engaged with spatial types, categories, or constructs specifically as discursively-anchored conceptual formations. For example, Rachel Kallus and Hubert Law-Yone have traced the development of the neighborhood as a concept. Rather than taking it as a given, they "approach this phenomenon as an architectural and planning paradigm . . . to comprehend its theoretical use, as well as its professional function."[11] Their work identifies the conceptual "ebb and flow" that gives "form [to] the structure of the neighborhood idea."[12] In their exploration of what makes a building "green," Simon Guy and Graham Farmer indicate that this designation has less to do with its architectural characteristics than with "the underlying assumptions, values and normative commitments" that motivate

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[9] Since this chapter limits itself to presenting the overarching themes and underlying epistemes extracted from the monographic discourse, readers interested in the more detailed exposition of each monograph are encouraged to peruse the Appendix.

[10] Unless, that is, if a book on the designed physical campus incorporates such an examination.

[11] Kallus, Rachel, and Hubert Law-Yone. "What Is a Neighbourhood? The Structure and Function of an Idea." *Environment and Planning B: Planning and Design* 27, no. 6 (2000): 816.

[12] Kallus, Rachel, and Hubert Law-Yone. "Neighborhood — The Metamorphosis of an Idea." *Journal of Architectural and Planning Research* 14, no. 2 (1997): 107.

those making the designation.[13] As they put it, the question of the "green" building has "become discursive":

> the debate around green buildings can be visualised as a landscape of often fragmented, contradictory and competing values and interests. It has become a site of conflicting interpretations in which a complex set of actors participates in a continuous process of defining and redefining the meaning of the environmental problem itself.[14]

Their approach to making sense of "green" architecture entails understanding how experts and commentators have discussed it. They delineate six competing interpretive frameworks or "general metalogics that frame our thinking about sustainable architecture."[15] What is pertinent to my present work is that architectural discourse can be an illuminating means of understanding a particular type of architecture. Greig Crysler provides a variant example of this approach. In his ruminations on the detritus of architectural publication, he points out that inseparable from an account of the wastefulness of spilled ink is what he calls "waste epistemologies"—that is, "the cognitive processes by which we understand it."[16] The key insight animating this scholarship is that our understandings of artifacts and spaces are constructed rather than self-evident; our idea of a thing is conditioned by ideation about it. Crysler's book *Writing Space*s is an even more explicit admission that published discourse itself is a critical space for scholarly examination in the fields of architecture and urbanism.[17]

More recently, Martin Murray and José Aragüez take up the categories of city and building, respectively. The former theoretically reconsiders the category of the city in the 21st century, questioning its coherence as an object of inquiry. To posit that contemporary urbanism has become the production and amalgamation of zones and enclaves, a set of processes that undermine the conventional idea of the city as a legible unity, Murray engages in an extensive reading of the vast urban literature, a discursive survey that shows how "the all-too-familiar idea

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[13] Guy, Simon, and Graham Farmer. "Contested Constructions: The Competing Logics of Green Buildings and Ethics" in *The Ethics of the Built Environment*. Edited by Warwick Fox. London: Routledge, 2000: 73.

[14] Ibid.

[15] Guy, Simon, and Graham Farmer. "Reinterpreting Sustainable Architecture: The Place of Technology." *Journal of Architectural Education* 54, no. 3 (2001): 141.

[16] Crysler, C. Greig. "Between the Cloud and the Chasm: Architectural Journals, Waste Regimes and Economies of Attention" in *Consuming Architecture: On the Occupation, Appropriation and Interpretation of Architecture*. Edited by Daniel Maudlin and Marcel Vellinga. New York: Routledge, 2014: 276.

[17] Crysler, C. Greig. *Writing Spaces: Discourses of Architecture, Urbanism and the Built Environment*. New York: Routledge, 2003.

of the 'city' – or 'urbanism' as we know it – experiences profound and exaggerated mutations in structure and form."[18] In *The Building*, Aragüez attempts to turn the discipline of architecture back to architecture qua architecture, that is, to the discrete, designed spatial object. This is not to say that he disavows theoretical exploration as an appropriate disciplinary activity, but he seeks to re-center the architectural object as the prime subject of theoretical discourse and as the ground from which to theorize. He does this to challenge the discipline's long dalliance with extramural theories and conceptual categories, many of which it has appropriated and internalized. His project is a rectificatory affirmation of the building as "a central discursive category in its own right."[19] A "general epistemological category . . . as opposed to a particular instantiation of *a* building, or the construction process of 'building'," Aragüez's "discursive building" is "a particular way of understanding reality—a form of knowledge in its own right."[20] My approach in this chapter aligns with these scholars' in that I center the campus as a conceptual category, as a reference formed through scholarly and professional discussions of referents as they exist in the world, as well as ones to be made and remade. This chapter seeks to give the reader a taste of how the campus has been discursively engaged in the major published works that take it as their focus.

In pursuing the question of how 'the discursive campus' is formed in and through these publications, my analysis takes as its objects the set of books on campus planning and design that have been published during the half century after Dober's debut. This discursive centering of the campus as a built environment contrasts with the campus' common deployment as an institutional metaphor. Many titles that explicitly invoke the campus use the word as a proxy for the academic institution. Studies of the university, even if limited to monographs, are much too plentiful to encompass in as brief an attempt to synopsize the discourse as is my goal here. I thus restrict my attention to studies of the university's campus qua campus, specifically its physical production. Though this space's social and organizational valences scarcely elude their

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[18] Murray, Martin. *The Urbanism of Exception: The Dynamics of Global City Building in the Twenty-First Century*. Cambridge: Cambridge University Press, 2017: x.

[19] Aragüez, José, ed. *The Building*. Zürich: Lars Müller, 2016: 13. He explains that in his book "the term *discursive* is used in its classical sense, i.e. alluding to the kind of knowledge that involves premises, narratives, judgments, inferences, concepts, ideas, conclusions, etc., as channeled through thought and expressed through language. In the context of architecture, it is important to distinguish it from *representational* knowledge, which instead proceeds through images, drawings, models, etc., and is associated with design and related practices, such as graphic analysis. *The Building*'s target is the former, not the latter." In my chapter, I adopt this definition, though I limit my scope to published monographic texts.

[20] Ibid., 18.

attention, the textual discussions with which this chapter is concerned attend primarily to the literal campus.

2.2 The Campus as a Metaphor for the Institution

Before delving into this specific discursive landscape, it may be worthwhile at this point to take a closer look at some examples of books that do *not* fall under its umbrella despite their invocation of 'campus.' The objective of this early excursus is to get a sense of their indexical deployment of the term before we turn to my takeaways from the monographs germane to my analysis. In the following examples, 'campus' serves as an institutional metonym, a handy conceptual analogue for all things university, rather than expressly signifying its purposive physical estate.

Remaking the American College Campus is a relatively recent example. This 2016 volume, whose goal was to take campus studies in a new direction, was edited by two professors of English. Acknowledging some of the campus planning discourse, they described its publications as "texts focused on the production of college campuses" that contrast with their collection's focus on "its reception."[21] The contributions to the edited volume, only two of which were written by architects or architectural scholars, focused less on campus design as such than on what it affords or restricts. Invested in how academic space engages the planes of activity, meaning, and experience, the editors summed up the book's collective insights in seven points:

1. On college campuses, space transforms into place in a variety of complex ways.
2. Campus architecture reflects the multiple and conflicting values of both higher education and architecture.
3. Along the same lines, campuses are also responses to power dynamics between competing interests.
4. Universities and colleges are increasingly becoming "brandscapes."
5. Campuses are built as utopian visions, which is why people are disappointed when they are not utopian (which is always).
6. Campuses are virtual, and their boundaries are unclear.
7. Campuses are both their own community and part of a bigger one as well.[22]

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[21] Silverman, Jonathan, and Meghan Sweeney, eds. *Remaking the American College Campus: Essays.* Jefferson, NC: McFarland & Company, 2016: 7.

[22] Ibid., 9–13.

These points are not completely novel; they touch upon most of the perspectives reflected in the decades-old discourse of campus planning and design to be discussed in this chapter. But the seven points also call those perspectives into question. It is true that "like all important spaces, campuses are a mix of the abstract and real, the idealized and the experienced," but what is even more important to the authors is to foreground that we "all experience campuses in our own manner, sometimes in ways that mirror the intentions of designers, but often in ways that ignore or oppose them."[23] Here the campus was problematized, recognized as a psychosocial and institutional arena that is seldom benign and whose meaning and experience are never homogeneous, static, nor bound by preconception.

Critiques of academia and its multivalence, ambiversion, and perfidy provide a fertile ground for the campus to figure indexically. A major subject of this criticism is the rapprochement between the academic and the corporate. Geoffry White's edited collection *Campus, Inc.* was an early attempt to bring together a wide range of voices from inside and outside the academy to critique this entanglement. Having recognized the increasing corporatization of the university at the turn of the century, his objective was to shine a light on this then-oft-unnoticed issue, highlighting its many facets as well as potential remedies. The book was essentially a challenge to the alliance of the university and the corporation, resolving to "prevent the university from becoming another source of corporate welfare" and, more importantly, to "democratize higher education."[24] White considered the space of the university a means of fostering democratic values, the campus being the setting of liberal enculturation and revolt against corporate greed and exploitation. Believing democracy to be incompatible with corporate power, he held that the university must maintain its complete independence if it were to be an engine of democracy. Valorizing Thomas Jefferson's idealistic rejection of the material world for intellectual monasticism, the book was a rebuke to all manner of corporate hegemony over academia, especially the compulsion to "turn students into consumers, education into training for jobs, professors into hired-out consultants and researchers, and campuses into corporate research and profit centers."[25] Despite the scathing criticism it constituted, this impassioned discussion nevertheless affirmed the undeniable affinity between the corporation and the university, particularly in their capacity as institutions occupying influential physical and intellectual space in society. What becomes evident in this discursive genre is the

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[23] Ibid., 13.

[24] White, Geoffry, ed. *Campus, Inc.: Corporate Power In the Ivory Tower*. Amherst, NY: Prometheus Books, 2000: 15.

[25] Dugger, Ronnie. Introduction to White, Geoffry, ed. *Campus, Inc.*: 21.

importance of defending the university as a place apart, as a distinct microcosm in the public sphere. Yet the space at the center of this discussion is primarily social and philosophical, not spatial and physical. Even when the putatively physical is mentioned, its materiality is hedged by a resort to intersubjectivity. For example, journalist Ronnie Dugger's aspirational alternative to the corporate university – proposed in his introduction to White's book – was to see universities "reconstitute themselves as cities for education . . . [where] the ancient traditions of the independent university and the modern traditions of American democracy can occupy and vivify their common ground."[26] In this vision, the university was conceived as a virtuous city, a unique psychosocial space of harmonious contestation—intellectual, social, and political.

Yet with frisson and contention comes risk and its management. The lively campus is liable to become a site of academic paternalism, of risk aversion devolved into risk mitigation and management. This organizational complex, the administrative university,[27] is yet another subject of critique. Jennifer Doyle's short and provocative book *Campus Sex, Campus Security*, for example, rendered the campus in images of illusory personal safety, casting it, ironically, as a safe space for rape and police brutality.[28] The incident that motivated her book was the University of California Davis Police's violent break-up of the protesters' encampment on campus during 2011's Occupy protests. Her analysis of this incident and the higher educational context it bespoke was concerned less with how the campus itself affords this kind of occupation than with how this form of campus occupation affords the university administration the authority to enforce particular norms and expectations.

These publications do the important work of reflexively mining the manifold layers and facets of the very institution that subsidized their production. That said, the work of purposely shaping the space of the university *as a physical project* has scarcely been acknowledged or examined when the subject of concern is what happens in and around this space. If the campus is mentioned in these works, it often is a stand-in for what the academic institution represents to the authors. Against this indexical paradigm, my focus in this chapter is on the campus as an object of design.

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[26] Ibid., 25–26.

[27] See Ginsberg, Benjamin. *The Fall of the Faculty: The Rise of the All-Administrative University and Why It Matters*. New York: Oxford University Press, 2011. And see Wylie, Peter. "The All-Administrative Campus: University of British Columbia, Okanagan." *Workplace* 31 (2018): 10–21.

[28] Doyle, Jennifer. *Campus Sex, Campus Security*. South Pasadena, CA: Semiotext(e), 2015.

2.3 Campus Planning and Design: Themes and Epistemes

Because of the published material and especially the discursive acknowledgement of the American provenance of the campus as a type, my study is necessarily dominated by American literature. Moreover, at first glance, the discourse appears to be of a diglossic character.[29] Though Dober published the first campus planning guide, Paul Turner's is the first comprehensive survey of American campus design. These two authors emblematize the professional/disciplinary discursive divide: Turner's study is an academic history of campus, while Dober's emerges out of a planning practice. My analysis stitches together these two conversations—but it does not stop there. A debate between functionalists and historicists is only one way to read the monographic discourse; in this chapter, I move beyond a binary reading to complicate how the discourse may be characterized, identifying six distinct, if overlapping (and intertextual), clusters of authorial dispositions: modernist functionalism, technocratic globalism, academic historicism, aesthetic systematism, institutional symbolism, and national urbanism (Table 2.1).

Modernist Functionalism	Dober, *Campus Planning*, 1963 Schmertz, *Campus Planning and Design*, 1972 Roscoe, *Planning the Campus*, 2000 Strange and Banning, *Educating by Design*, 2001 Neuman, *Building Type Basics for College and University Facilities*, 2003 Taylor, *Future Campus*, 2016
Technocratic Globalism	Dober, *The New Campus in Britain*, 1965 UNESCO, *Planning Buildings and Facilities for Higher Education*, 1975 UNESCO, *Planning Standards for Higher Education Facilities*, 1979 Kanvinde and Miller, *Campus Design in India*, 1969
Academic Historicism	Turner, *Campus*, 1984 Muthesius, *The Postwar University*, 2000 Coulson, Roberts, and Taylor, *University Planning and Architecture*, 2010 Stern, *On Campus,* 2010 Coulson, Roberts, and Taylor, *University Trends*, 2014
Aesthetic Systematism	Gaines, *The Campus as a Work of Art*, 1991 Dober, *Campus Design*, 1992 Dober, *Campus Architecture*, 1996 Dober, *Campus Landscape*, 2000

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[29] Diglossia is a linguistic concept referring to the presence and use of different registers – typically, one high, one low – of a spoken language within one linguistic community. I borrow this term, substituting an epistemic, disciplinary community for a linguistic one, and thought for language. For an introduction to diglossia, see Charles Ferguson's seminal article: Ferguson, Charles. "Diglossia." *Word* 15, no. 2 (1959): 325–40.

Institutional Symbolism	Edwards, *University Architecture*, 2000 Kenney, Dumont, and Kenney, *Mission and Place*, 2005 Chapman, *American Places*, 2006 Dober, *Campus Heritage*, 2006 Dober, *Old Main*, 2007 Dober, *Campus Image and Identity*, 2011
National Urbanism	Hoeger, *Campus and the City*, 2007 Haar, *The City as Campus*, 2011 Garciavelez, *Form and Pedagogy*, 2014 Chronicle of Higher Education, *The Campus as City*, 2019 Zuddas, *The University as a Settlement Principle*, 2020

Table 2.1 The thematic clusters of monographs examined in this chapter

This synoptic encapsulation of monographs clustered according to these thematic categories, a lengthy exposition of which is provided in the Appendix, is one way to answer the question that this chapter has taken up: what conceptualization of the campus – or 'image' of the campus, so to speak – does one get from the campus discourse? Understanding this range of authors' approaches to their campus typologies and taxonomies helps us better understand how the campus has come to be conceptualized. In their view, what makes a campus? And what constitutes its study? While some have taken chronological historiographical approaches, others have relied on morphological analyses, and some on subjective concerns like aesthetics, and more recently authors have highlighted their political valences, especially as the global has come into focus. Naturally, the idea of the campus is refracted through these authors' analytical frameworks. By seeking to understand the different ways that the campus has been conceptualized as an object of discourse that understands this object as a designed physical space rather than a metaphor for an institution, the campus may be understood as a discursive formation whose form is not exclusively a product of the people and institutions who form and inhabit actual campuses but also of those who subject it to analytical scrutiny within a context much larger than any particular campus or institution.

Beyond the discursive typology based on the books' prima facie authorial priorities presented above, different underlying logics animate the conceptualization of the campus in these works. Rather than a mere schema bridging a plethora of distinct dispositional approaches, let alone a modernist/humanist binary, the discursive campus is an assemblage of three broad epistemic logics, each with its particular disposition toward the instrumentality of the physical campus: understandings that see the campus through intrinsically instrumental, market-instrumental, and non-instrumental lenses, respectively.

Given that the earliest books came out during the height of modernism, they formed the core of the first strand. As intrinsically instrumental works, they were characterized by a technocratic, functionalist ethos recognizing in the maximization of utility the goal of campus analyses, regardless of whether the scale of their focus was local or global. This epistemic orientation was also reflected in the professional journalism of the period.

Market instrumentalism, on the other hand, blossomed later. As higher education increasingly came to resemble a market, and was recognized as such, works increasingly foregrounded brand identity and experiential appeal as means of survival in a competitive capitalist landscape—a campus market in which the competition was for hearts before minds, for public recognition before operational efficacy. Cultural context was a critical factor in these campus analyses, whether this context was understood in monadic or ecosystemic terms. These two instrumentalist conceptualizations have not been mutually exclusive. In its entanglement with urban and national affairs, the campus has been recognized as being dually-instrumental, imbricated in the material and symbolic lives of city and state, partaking in their metabolism and cognition.

In contrast to these instrumentalisms, the non-instrumental works sought largely intellectual ends. This epistemic orientation recognized the campus as an ideal type of sorts, the analysis of which was to be characterized by erudition, appealing to savants and aesthetes of various stripes. Concerned more with historicizing and theorizing around campuses that already existed than with the potentials (and pitfalls) inherent in campus-making, works in this vein were occupied less with guiding the way to a better future for and with campuses than with beholding the campus type, critically and affectionately, and documenting its promise and perils for posterity.

2.4 Roots and Routes of the Discursive Campus

These paradigms reflect three largely distinct, but nevertheless intersecting, disciplinary conversations. They are not mutually exclusive and have weaved through the discourse alongside one another since its early years (Fig. 2.1). The discursive campus is an interdialogical formation emerging from these discursive streams' intra-actions and interactions. In aggregate, it constitutes the communicative representation of a spatial type understood to be addressing, at once, pressing particularities-cum-charges (intrinsic instrumentalism), manifold relational pressures (market instrumentalism), and nothing pressing whatsoever (non-instrumentalism).
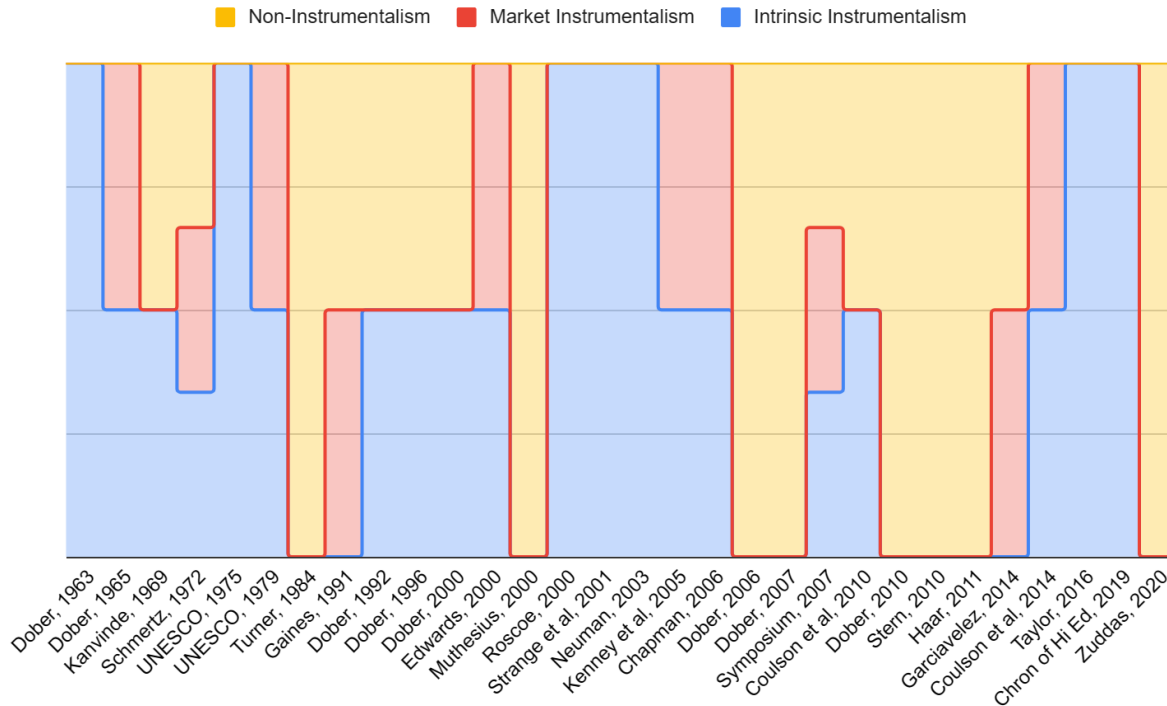
Figure 2.1 The salient epistemic logics animating the conceptualization of the campus in the monographs examined in this chapter, organized chronologically. (Source: My diagram)

The *discursive campus* is the variegated meta-conceptualization that emerges from the collective effects and interactions of these logics. Intrinsic instrumentalism has been the most dominant logic, but it has not overshadowed non-instrumentalism. Though market instrumentalism has been an enduring presence, it has not been as conspicuous, always building on the conceptualization of the campus produced through the other two logics. The origins of the discourse saw the correlation of intrinsic instrumentalism with modernist functionalism, however UNESCO's initiative did not just expand this instrumental approach globally, but it also introduced market instrumentalism by suggesting that institutions start comparing campuses across national borders such that campus development in one area may seek to live up to examples implemented in others. Though not UNESCO's expressed intent, this suggested that nations and institutions ought to design campus spaces less based on their acute understanding of their particular needs than by simply picking out from pre-existing templates marked as international best practices. Non-instrumentalism, on the other hand, sprang boldly into discursive action with the first dedicated history of the campus, after having been latent in the discourse for years. I should note that these epistemes emerge from, undergird, and apply to the analysis of discursive production, and not necessarily to the practice of campus planning and design; one would be hard pressed to find a non-instrumental form of such a practice, since it is

self-evident that designing a campus expressly to be built entails instrumentally resolving its institution's concrete spatial demands.[30]

Conceiving of the discursive campus as an inter-epistemic formation cutting across multiple thematic categories challenges a possible binary characterization of the discourse: that of a perennial divide between functionalist and humanist analytical predictions, between the professionally-oriented and the academically-oriented. Indeed, one way to understand the discursive campus is to see it as a product of discursive diglossia, of a discourse occupying registers high and low, so to speak.[31] Practice-oriented discursive production often tries to generalize from experience, even when that experience is circumstantial (i.e. the result of the practice of campus planning at any particular university), whilst the more humanistic work often tries to arrive at conclusions, conceptual and otherwise, through a broad analysis of campuses and the design work that went into their production. Yet, this binary does not reflect the nuances of the discourse, and is, to an extent, facile, if not contrived. When the campus discourse, which was largely functionalist in orientation early on, took a historical and aesthetic turn in the wake of Turner's monograph, Dober was not immune to this new discursive orientation. In fact, his prolific work is a reflection of the diversity of the campus discourse rather than a particular epistemic strand.[32]

In its capacity as an equivocal discursive capacitor, the campus emerges as a manifold. Like the city to which it is often compared, the campus means and evokes many different things to many different people. In their attempts to conceptualize the campus, authors have brought a wide range of approaches to their campus studies and typologies. What makes a campus in the eyes of different scholars and practitioners relies as much on what they seek out to see as on the lenses through which they see, consciously or not. Definitions and perceptions of the campus have continued to develop since the physical campus first became a topic about which to write.

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[30] I should also note here that it is not clear, from the other chapters in this dissertation, that tight coupling between campus design and institutional demands is always necessarily the case.

[31] As mentioned earlier, the campus' monographic discourse begins with Dober's campus planning guide published in the early 1960s. On the other hand, the most famous text – the field's classic – is Turner's *Campus*, the first comprehensive survey of American campus design. These two books are emblematic of the divide between architecture the discipline and architecture the profession: Turner's study is an architectural history of the campus in the United States, while Dober's is a handbook for a campus planning practice.

[32] See AlBader, Bader. "A Campus Biography" in *Divergence in Architectural Research: Proceedings of the ConCave Ph.D. Symposium 2020*. Edited by Hayri Dortdivanlioglu and Marisabel Marratt. Atlanta: Georgia Institute of Technology, 2021: 19–32.

The past quarter century has been a particularly fertile time for explorations of the subject, and the discourse has continued to grow.

What, then, is the discursive campus? There is no singular answer. The concept of campus is contingent. For historians like Turner, the campus is a prime artefact of a city or nation's material culture. For a planner like Dober, it is a critical site for the intervention of human reason, ingenuity, and artistry. For a journalist like Mildred Schmertz, it is the endless source of architectural stories and images set against picturesque backdrops. For a designer like Thomas Gaines, it is an art not just incarnate but alive. For scholars like Stefan Muthesius and Carlos Garciavelez, it is the inscription of socio-political forces acting on global geographies, North and South. For an urbanist and academic like Sharon Haar, it is a consequential civic actor and constituent of the urban fabric. It is recognized by entrepreneurs as an incubator of innovation and potential profit, and by critics as an object warranting a close reading and a dose of critical theory. And for those transnational collectives convening at symposia held periodically on campuses around the world, it is a fecund source of diverse insights and an exciting arena of development. Though the concerns and methods of these authors are diverse, underlying them are epistemic alignments with one or more of the three instrumentalisms.

This tripartite set of logics giving broad form to the discursive campus helps us see through this proliferation of difference in campusological approaches. A variant way of thinking about these logics is to see them as recognitions of the campus as an object, as a subject, and as an inscription. It is an object in that it is a goal and product of planning and design efforts, constituting a world for humans. It is a subject in that it is an agent in this world of humans (and non-humans), engendering relationships with and effects on them and this world. It is an inscription in that its spatialization is a material document of its objectivity and subjectivity, reflecting its entanglements and imbrications in symbolic, technical, and sociopolitical spheres. Again, these conceptualizations of the campus type are not mutually exclusive. While a close and narrow focus on the campus as a designed thing in-and-of-itself interpellates it as an artifact, the fact that it is acknowledged as a space by, for, and of humans means that spatialization and subjectivity are necessarily co-produced. Zooming further out to get a global picture of campus in a complex world, the campus becomes inextricable from culture, political economy, and geopolitics.

In terms of their resonance with the tightness of coupling between institution and campus, the three logics gravitate to different points on the spectrum between tight and loose. Intrinsic instrumentalism tightly couples the university's spatialization with its institutional

purposes and prerogatives, while market instrumentalism loosens that coupling, foregrounding contextual purposes and pressures as campus planning and design determinants. Loose coupling resonates with non-instrumentalism in that such an orientation examines campuses as extant spaces regardless of the degree of their attunement or service to their putative institutions' prerogatives. As authors have taken up the campus as a discursive category, the conceptual weight and attention paid to the relationship between it and its institutions has ranged from much to little.

Beyond these epistemic underpinnings, two salient subjects of discussion cut across many of these discursive streams. The first ostensibly concerns a style, which, following Peter Blake's apologia, may be read more as an earnest designerly mixture of ideology and aspiration—that is, Modernism.[33] Despite their varying epistemic orientations and the different foci of their works, Dober, Garciavelez, and Muthesius all highlighted the role that Modernist architecture and planning played in shaping the 20th-century development of the campus. But unlike Dober who was an advocate of Modernist architecture, Garciavelez saw in midcentury Modernist architecture a heroic, if fallible, vehicle for (inter)national higher educational aspirations, whilst Muthesius was more sober and less partisan in his examination, appraising new universities established at the height of Modernism's influence according to their self-ascribed merits. That modernism figured prominently in the discourse is not surprising, for no broad discussion of architecture after the Second World War could ignore Modernism's global impact on both the built environment and its discipline-professions.

The second cross-cutting theme concerns an analytical frame: environmental determinism. By this, I mean the idea that one's environment conditions or even determines one's identity and behavior. Though the objects of this determinism are typically people, the determining environment being the campus, the market instrumentalist logic sees the campus as an object determined by its context, ranging anywhere between the local and global. Whether a campus is determined by its environment or not, most of the authors held that this space does condition the experience of education.

This broad analytical frame correlating the social and the spatial is intertwined with much of the work produced in the environmental design disciplines, and it is a common assumption underlying many of the campus discussions. Granted, to suppose that what takes place in a space is conditioned by its properties is hardly something that sparks debate or

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[33] See Blake, Peter. *No Place Like Utopia: Modern Architecture and the Company We Kept*. New York: Knopf, 1993.

warrants justification. But, to take for granted that the design of space, especially of a purposive one like a university campus, constitutes a substantive intervention into as fraught a set of intellectual and social processes as higher education is perhaps too casual a linkage within a discourse that takes campus design seriously. This begs the question of whether a campus can, in concrete terms, be designed to further the higher education of its students—and if so, how.

Though it has not been a dedicated subject of any monograph but Strange and Banning's, this relationship has recently moved from a given in campus discourse to a research question. Against the grain of environmental determinism common in the campus planning discourse, Paul Temple has problematized the connection between campus design and the student experience. Citing his own research, he argued in a 2014 essay that student satisfaction is not significantly affected by physical space.[34] Rather, he observed a "threshold effect" such that a campus environment needs only to meet a certain standard after which it is no longer on people's minds. In other words, as long as the campus is not a source of concern for its users, it fades into the background. He explained that impressions of campus spaces do not necessarily increase impressions of an institution's quality (and thus reputation), but that the reverse is more likely the case. He thus inverted the relationship many authors assumed existed between campus experience and the perceived quality of higher education it incubates.

His was an attempt to clarify the link between an institution and its space, particularly since he considered the latter to be a "largely unacknowledged independent variable" in the comprehension of the former. Beyond the campus' conveyance of legacy, its embodiment of values, and its production of brand, Temple focused on "how space becomes place, and how it affects the academic work at the institution."[35] He understood campuses and cities to be alike in some respects and different in others. Like the city, a campus is a space of creativity and "encounter management," of bringing many people together to produce a setting where one can come into formal and informal contact with others. However, while the city tends to be parochial, the university is worldly by definition. Be that as it may, a university is "one of the most prized assets that a city can have."[36]

Building on his definition of place as "what people do with the space they inhabit, noting that the interaction may be two-way," Temple pointed to community building as the means

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[34] Temple, Paul. "Space, Place and University Effectiveness" in *The Physical University: Contours of Space and Place in Higher Education.* Edited by Paul Temple. London: Routledge, 2014: 3–14.
[35] Ibid., 6.
[36] Ibid., 8.

through which a campus may achieve socio-academic efficacy.[37] He explained that the relationship between the learning and the design of space is not direct; rather, space can be designed to foster complex social interactions, which produce both community and culture, which in turn advance learning. In more formal terms, space becomes place when "physical capital" becomes "locational capital," giving rise to an institutional culture that produces "social capital." The terminal condition, a socially-capitalized place, is a space of interpersonal trust, collective sharing, and socio-academic networking that charge intellectual production with the dynamics of discussion, debate, and dissemination, ultimately yielding better learning.

Notwithstanding his articulation of a campus connection between cultural and social capital, on one hand, and spatial capital, on the other, Temple did not definitively answer the question he posed. Rather, his point was more suggestive, opening up the assumption of much of the discourse to direct investigation. In other words, he suggested that this relationship is a worthwhile subject of further research for campus enthusiasts to take up. Hajrasouliha is one such scholar who has begun to tackle this question. His research, one aspect of which was discussed earlier, demonstrates that particular campus characteristics like density and greenery correlate with institutional metrics that measure academic success like retention and graduation rates. Others like Jos Boys, Clare Melhuish, and Angelina Wilson have attempted to produce "thick descriptions" of particular parts of particular campuses to elucidate the effect of space on student learning and engagement.[38] Should monographs pursuing these ends be published, it would signal the maturation of a new discursive orientation, of the crystallization of campus design studies, that is, a campused domain of design studies. This nascent campusology would vivify the sparse middle between the architectural and urban.

2.5 Beyond Monographs and the Global North

Having focused on monographs as the locus of the discursive campus, I must admit that the extraction of themes has been necessarily selective. Periodical publications on campus planning and design constitute a much wider and particulate field of discourse. Focusing on monographs has served to highlight for us what authors have deemed to be the generalizable issues interpellated by the campus as a type, rather than the myriad issues that any campus as a

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[37] Ibid., 4.

[38] Boys, Jos, Clare Melhuish, and Angelina Wilson. "Developing Research Methods for Analyzing Learning Spaces That Can Inform Institutional Missions of Learning and Engagement." Report from the Recipients of the 2013–2014 Perry Chapman Prize. Ann Arbor, MI: Society for College and University Planning, 2014.

case is bound to bespeak. Nonetheless, before I conclude this chapter, it might be worthwhile to mention a couple of themes that did not figure prominently within the scope of my present analysis but are prevalent in the non-monographic corpus: environmental sustainability and cultural adaptation.

Higher education as a field of policy, pedagogy, and practice can be a valuable means to test and further the broader societal quest for sustainability.[39] Campuses are often discrete territories that constitute ideal mediums by which planners, architects, and other decision-makers might take up questions of sustainable design beyond the scale of a single building.[40] The sustainable campus can thus perform as a proxy-cum-prelude for the sustainable city. For example, campuses in China have been spaces through which to test out the "sponge city" concept of urban stormwater management.[41] Moreover, some 21st-century campuses in the Middle East have been explicitly designed as embodied spatial testing grounds for sustainable architecture and urbanism.[42] Most prominent is Masdar Institute of Science and Technology (MIST) in Abu Dhabi.[43] As a design that attempted to integrate high-tech sensibility with cultural sensitivity towards a sustainable – that is, an efficient and enduring – synthesis in the Emirates, MIST is a testament to the assertion that "because every region or country has its own context[ual particulars] such as culture, history, heritage, local climate . . . university campuses [in different countries] need their own unique model of sustainability in relation to their physical forms."[44]

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39 Ryan, Alexandra, Daniella Tilbury, Peter Corcoran, Osamu Abe, and Ko Nomura. "Sustainability in higher education in the Asia-Pacific: Developments, challenges, and prospects." *International Journal of Sustainability in Higher Education* 11, no. 2 (2010): 106–19.

40 See Pieprz, Dennis, Romil Sheth, and Tao Zhang. "Rethinking the Future of the University Campus." *Journal of Green Building* 16, no. 3 (2021): 253–274. And Elshoura, Asmaa. نحو حرم جامعي مستدام في مطلع الألفية الثالثة *[Towards a Sustainable University Campus at the Turn of the Third Millennium]*. 2017. Also see Edwards, Brian. *University Architecture*. *London*: Spon, 2000. For an account that focuses less on the campus' physicality and designability than on effective leadership and administrative stewardship towards environmental sustainability on campus, see Thomashow, Mitchell. *The Nine Elements of a Sustainable Campus*. Cambridge, MA: MIT Press, 2014.

41 Zou, Pingxiu, Lei Cao, and Jean Marie Hartman. "Peiyang Campus: A Sponge City Case Study." *Landscape Research Notes* 7 (2018): 328–338.

42 Rezaei, Nazanin, and Hamed Kamelnia. "Investigation of Sustainable University Campus Design Factors in Case of the Middle East Countries." *Proceedings of the 3rd International Congress on New Horizons in Architecture and Planning*, Tehran-Mashhad, January 4–5, 2017.

43 For more about MIST, see Günel, Gökçe. *Spaceship in the Desert: Energy, Climate Change, and Urban Design in Abu Dhabi*. Durham, NC: Duke University Press, 2019.

44 Matloob, Faris. "Sustainable Campus Design in Baghdad University, Iraq." Doctoral dissertation, Universiti Teknologi Malaysia, 2016: 9.

Here, the notion of culture comes to the fore. Given that there is no universal template for a sustainable campus, let alone sustainable design in general,[45] sensitivity to the complexities of locality is a critical campus design consideration. Culture is less akin to a stratum laid over other strata within a project's set of demands than a strand interpenetrating others to make up a coherent spatial fabric. Cultural and environmental sustainability are not so much different concerns to be synthesized within a project as they are variant significations of a singular concern for project viability. Simply put, cultural sustainability is largely coextensive with environmental sustainability.

Examinations of campus design in the Global South yield this insight as they encounter attempts (or failures thereof) to produce sustainable campuses in contexts where the culture and climate diverge from those of the Global North, where modern codified design knowledge has often been produced. In campus planning, as in other domains of design practice, ostensibly technocratic guidance needs to be culturally adapted.[46] Auto-centric campus design, for instance, has been a subject of critique with respect to questions of human and environmental friendliness, particularly in non-Western contexts where car ownership cannot be taken for granted.[47] This critique suggests that humans qua pedestrians ought to be the explicit users engaged by campus design, which resonates with the sustainability-oriented recommendation that campus design seek compactness.[48] When it comes to planning campuses in diverse contexts around the world, sustainable design would do well to be both culturally specific and historically informed.[49]

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[45] See Williams, Katie, Elizabeth Burton, Mike Jenks, eds. *Achieving Sustainable Urban Form*. London: Spon, 2000.

[46] For example, see Malatji, Esrom. "The Development of a Smart Campus: African Universities Point of View." *The 8th International Renewable Energy Congress* (2017). And Zhua, Bifeng, and Bart Dewancker. "A case study on the suitability of STARS for green campus in China." *Evaluation and Program Planning* 84 (2021): 101893.

[47] See Rasdi, Mohamad. "Campus Design in Malaysia: Of Motorcycles and Mediocrity," *Malaysian Architecture: Crisis Within*. Kuala Lumpur: Utusan, 2005: 55–61.

[48] Abd-Razak, M. Zulhanif, Nur Abdullah, Muhammad Nor, Ismar Usman, and Adi Che-Ani. "Toward a Sustainable Campus: Comparison of the Physical Development Planning of Research University Campuses in Malaysia." *Journal of Sustainable Development* 4 (2011): 210–21. The coronavirus pandemic has explicated a new dimension for sustainability as it relates to campus space; see Alnusairat, Saba, Zahra Al-Shatnawi, Yara Ayyad, Ala' Alwaked, and Nasser Abuanzeh. "Rethinking Outdoor Courtyard Spaces on University Campuses to Enhance Health and Wellbeing: The Anti-Virus Built Environment." *Sustainability* 14, no. 9 (2022): 5602.

[49] See Thilagam, N. Lakshmi. "Integrated Land Use Development for Green Campus" in *Implementing Campus Greening Initiatives: Approaches, Methods and Perspectives*. Edited by Walter Leal Filho, Nandhivarman Muthu, Golda Edwin, and Mihaela Sima. Cham, Switzerland: Springer, 2015: 203–214.

Even when sustainability is not a salient discursive concern, culture still figures as a critical consideration in campus planning and design discourse. As Brian Edwards points out, effective contextual design does not only serve the university, but also its nation state; such a campus' "sense of place provides a reassuring stepping stone for younger nations engaged in the global industry of higher education."[50] For example, the postcolonial universities in Africa have had to navigate what it means to be institutions central to independent, modern African nations, despite the administrative and pedagogical legacies of their colonial hegemons; campus design was one major spatial terrain in and by which states and their institutions navigated this tension.[51] Yet, little has been done when it comes to studying these campuses as documents of this dual process of modernization and nationalization; the spatial-sociopolitical array of African university campuses is a scholarly elephant in the room that is academia.[52]

Beyond this particular continent, contemporary campus development must contend with the schizophrenic imperatives to compete and stand out, on one hand, and to assimilate and fit in, on the other. This is especially the case when the campuses being established are connected to foreign universities, particularly Western ones. When context does not substantively inform their design, such campuses can produce jarring spatial juxtapositions, like "a slab of Melbourne architectural culture dropped into a rice paddy"[53] or a "spaceship in the desert."[54] This mode of campus design cares less about fitting the university campus to the particular and unique needs of its institution than about adopting, transposing, and reproducing techno-aesthetic models that dominate in Global North. As a geographic location with a high concentration of marquee campus development, the Gulf has conspicuously grappled with this challenge, producing a range of spatial conditions for the glocal conduct of higher education in 21st-century Arabia.[55] In sum, these themes demonstrate that even when campus planning and design are taken up as

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[50] Edwards, Brian. *University Architecture*. 2000: 6.

[51] For example, see Asojo, Abimbola, and Babatunde Jaiyeoba. "Modernism and Cultural Expression in University Campus Design: The Nigerian Example." A*rchNet-IJAR: International Journal of Architectural Research* 10, no. 3 (2016): 21–35.

[52] Lagae, Johan, and Kim De Raedt. "Campus universitaires en Afrique (subsaharienne): Vers une historiographie critique d'un patrimoine architectural méconnu" in *Les Campus Universitaires 1945–1975: Architecture et Urbanisme, Histoire et Sociologie, État des Lieux et Perspectives*. Edited by Catherine Compain-Gajac. Perpignan: Presses Universitaires de Perpignan, 2015: 381–404.

[53] Hanmer, Geoff. "Unbuilt Australia: UNSW Asia." *Architecture Australia* 97, no. 2 (2008): 31. As he briefly surveys the different cases of Australian universities that had established campuses in Southeast Asia, Hanmer notes that they have largely and unfortunately not been contextual, being more interested in international belonging than local appropriateness.

[54] Günel, Gökçe. *Spaceship in the Desert*. 2019.

[55] See Mitchell, Kevin. "Design for the Future: Educational Institutions in the Gulf." *Architectural Design* 85, no. 1 (2015): 38-45.

putatively technical or economic exercises, critical questions of the cultural, social, and political are never immaterial.

2.6 Conclusion

As should be quite clear by now, this chapter is concerned with the campus type as experienced textually, not spatially nor in design practice—that is, with an explication of the campus as a discursive construction. Though I have tried to encompass the diversity of authorial priorities by identifying the six thematic categories that delineate the main purpose that the campus appears to have been ascribed in the different works, I acknowledge that other themes and categories could be extracted from the discourse. I hope this analysis is but the beginning of a richer examination of this discursive production by scholars of all stripes. Broader than these thematic categories, and cutting cross them, are the epistemic logics I see animating the conceptualization of the campus in these works: intrinsic instrumentalism conceives of the campus as a means to fulfill spatial and operational goals intrinsic to its institution; market instrumentalism conceives of the campus as a means to ends conditioned or dictated by the environment in which its institution exists (like the dynamics of a competitive market); non-instrumentalism conceives of the campus not as a means to spatial, institutional, and environmental ends, per se, but as a humanistic condition open to appreciation and critique by all.

The campus is no less than a kaleidoscopic object of design and analysis through which different institutions – like those of society and those of the university – and artifacts – like the city's public spaces and the university's grounds – come to encounter one another. If the vast literature on town-gown relations demonstrates anything, it is the complexity and riskiness of actively partaking in this relationship, especially when it comes to the physicality of the urban university's societal interfaces. What is pertinent here is that the campus, rather than reducing these complexities, can be understood as a claude glass distilling and accentuating their presence and perception. Analogically, the discursive campus brings together epistemes and disciplines. The rubbing of the "campus park," to use Dalton et al's term for the academic consummation of architecture and landscape's marriage, against the exigencies of urban design and metropolitan development is just as much the purview of discerning, critical, and dispassionate erudition as of rote, instrumental, and operative criticism. By straddling disciplinary boundaries and tying together so many domains of knowledge and practice, the

discursive campus does what boundary objects do best: "coordinate the perspectives and serve the information needs of intersecting social worlds, towards some purpose."[56]

The university's set of interests and the city's clearly find in the discursive campus a prime nexus. Yet, even when the overlaps of the urban and the institutional are discursively foregrounded, their intersection is not monovalent. For example, Temple's urban dimension refers to an ongoing functional property *of* the campus, whilst Zuddas' urban dimension refers to an historical morphological obligation *tethered to* the campus. The relationship between city and campus is subject to variant readings. And just as it helps bridge the gap between the scales of the building and the city, the discursive campus is also a boundary object between the city and the nation. "Having a national university," Mahmood Mamdani once said of postcolonial states, "was considered as much a hallmark of independence as having a flag, an anthem, a central bank and a currency."[57] The university-city formulation signifies that, in the context of the modern nation which has always been a "country of cities,"[58] the university as a physical space is a national sine qua non. The work of scholars like Haar, Garciavelez, and Zuddas suggests that the discursive campus, though much more commonly deployed as an index of the university institution, maintains an indexical relationship to the city *and* the nation. The discourse's historically-oriented and forward-looking streams alike reinforce the significance, across global contexts, of the interscalar position that the campus occupies.

This breadth of perspectives notwithstanding, the campus discourse is patently Euroamerocentric. Unfortunately, most of the campus planning and design monography is limited to Europe and North America. As given away by the subtitle of Turner's book, the university campus is taken for granted as "an American planning tradition." Scholarship on campuses around the world is limited compared to studies focused on Western cases. The pivot to non-Western contexts inaugurated by Achyut Kanvinde and James Miller, gestured by Muthesius, and taken up by Garciavelez must be furthered by more scholars and authors. Other regions of the world are fertile areas awaiting studies to explicate their particular intersections of form and pedagogy. How, for example, may one approach the postwar university if the

[56] Kirby, Kevin. "The Use of Boundary Objects for Purposeful Change in Higher Education." Doctoral dissertation, University of Pennsylvania, 2006: 3.
https://repository.upenn.edu/dissertations/AAI3209974. This notion brings to mind Reinhold Martin's broader, recent argument that "the modern university is a mediapolitical boundary problem." Martin, Reinhold. *Knowledge Worlds: Media, Materiality, and the Making of the Modern University*. New York: Columbia University Press, 2021: 6–7.

[57] Mamdani, Mahmood. "The African University." *London Review of Books* 40, no. 14 (2018). 32.

[58] Chakrabarti, Vishaan. *A Country of Cities: A Manifesto for an Urban America*. New York: Metropolis Books, 2013.

aforementioned war is updated to the Cold War or the Gulf War? What would the Pan-Arab or Eurasian project of the university-city look like? Is there a physical index to Mamdani's contested post/colonial "African University"? Examining campuses elsewhere does not mean turning our backs to the extant studies. Rather, the study of campuses in the Global South enriches our understanding of the Western examples taken as models for international development. If we are to learn more about one of the quintessential spaces in which modern subjects are formed, we need to study its manifestations across both time and geography.

Chapter 3
Instant Knowledge, Instant Campus

"The road was new, but it cut through absolutely nothing. They drove a mile before they arrived at a modest gate, a pair of stone arches over the road, a great dome atop it all. It was as if someone had built a road through unrepentant desert, and then erected a gate somewhere in the middle, to imply the end of one thing and the beginning of another."

—Dave Eggers, *A Hologram for the King*[1]

"[I]n less than a month the nucleus of a large and well-ordered city had appeared and sped toward completion: hard streets, some wide and others narrow, all perfectly straight, rolled smooth by the accursed heavy machines and coated with a gleaming black substance. Houses like the geese who flew over Wadi al-Uyoun in winter, small houses and others so tall and huge that no one could imagine who would inhabit them. Many swimming pools, on several scattered sites, near them houses made of straw and palm branches, and a long street linking the northeastern hill to the sea. Hundreds of pipes lay by this roadside, but no one knew what their secret might be."

—Abdelrahman Munif, *Cities of Salt*[2]

In one of his few televised interviews, Saudi Arabia's intrepid young crown prince, then the deputy crown prince, exclaimed that Saudi Arabia's major handicap was its unquestioned self-identification as a nation beholden to God, the Prophet, and Oil.[3] This ascendant statesman questioned not the first two elements of this triad but the last: his nation's economic reliance on petroleum. His prescription was the wholesale overhaul of the kingdom, an ambitious set of reforms dubbed Vision2030.[4] For the crown prince, diversifying the Saudi economy and radically changing the country's socioeconomic course starts with turning away from its central economic crutch. While this pivot includes fostering industrialization beyond the petroleum and

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[1] Eggers, Dave. *A Hologram for the King*. San Francisco: McSweeney's, 2012: 40.

[2] Munif, Abdelrahman. *Cities of Salt*. Translated by Peter Theroux. New York: Vintage, 1989: 207.

[3] To a question about his plans for the partial flotation of Aramco, the state-owned petroleum corporation, Prince Mohammed bin Salman answered: "What has come to be is that today it is as though our constitution is the Book [of God], the Tradition [of the Prophet], and then petroleum. This is very dangerous. What has become of us, in the Kingdom of Saudi Arabia, is a state of petro-addiction, on everyone's part. This is dangerous and this is what has stalled the development of very many sectors in the past years." Bin Salman, Mohammed. Interview with Turki AlDakheel. *AlArabiya*. April 25, 2016: 5:10–30 (my translation). https://m.youtube.com/watch?v=uhWfUK0aizw

[4] "Full text of Saudi Arabia's Vision 2030." *AlArabiya*. April 26, 2016. https://english.alarabiya.net/features/2016/04/26/Full-text-of-Saudi-Arabia-s-Vision-2030

minerals industries, it more importantly seeks to develop the kingdom's tertiary sector, which comprises the service, culture, leisure, and knowledge industries. The ultimate goal of these reforms is to transition Saudi Arabia to a knowledge economy.[5] Making strides towards a sustainable post-oil state was not a novel goal. Over a decade before the crown prince kicked off his reforms, the preceding ruler, King Abdullah, had put his finger on the same problem and set his sights on the same goal. His chosen solution, though, was not radical structural reform but an institutional model. At once a sowing of a seed and an erection of a literal and metaphorical 'beacon,' he established a flagship research university (Fig. 1).

[5] By knowledge economy, I mean an economy whose prime economic good is knowledge—that is, one reliant primarily on ideation, scientific discovery, technical innovation, translational research, information technology, and cultural production, rather than resource extraction, commodity trade, and heavy industry. See Powell, Walter, and Kaisa Snellman. "The Knowledge Economy." *Annual Review of Sociology* 30, no. 1 (2004): 199-220. "Put more prosaically," economist Ian Brinkley sums up, "we can say the knowledge economy is what you get when firms bring together powerful computers and well-educated minds to create wealth." Brinkley, Ian. "Defining the Knowledge Economy." The Work Foundation, 2006: 6. http://www.observatorioabaco.es/biblioteca/docs/98_TWF_2006.pdf. Despite the optimism around the economic potential of such a paradigm, the risks of treating knowledge as a commodity have long been clear to scholars. See Jacob, Merle. "Rethinking Science and Commodifying Knowledge." *Policy Futures in Education* 1, no. 1 (March 2003): 125–42. Also see Hellström, Tomas, and Sujatha Raman. "The commodification of knowledge about knowledge: Knowledge management and the reification of epistemology." *Social Epistemology* 15, no. 3 (2001): 139–54.

Figure 3.1 On this institutional beacon's campus is a monument dubbed the Beacon, the conical pillar in the far background. (Source: My photograph)

On September 23rd, 2009, nearly three thousand figures from the realms of international politics, business, and science converged on a small coastal town north of Saudi Arabia's second largest city, the Red Sea metropolis of Jeddah, to witness the monarch's inauguration of his namesake research institution: King Abdullah University of Science and Technology (KAUST).[6] Conceived and brought into being in less than half a decade, this graduate-only university was ambition incarnate.[7] For the founder of the Center for International Higher Education, Philip Altbach, international branch campuses have been "sprouting around the world, like mushrooms after a heavy rain."[8] KAUST is a different type of fungus; rather than establishing a satellite of an established institution, the Saudis established an institution of their own, modeled on the world's elite research universities. Such a paradigm-shifting university required a brand new, state of the art campus. Given that there was no local precedent to such an undertaking, the state petroleum corporation was tapped to apply its project and construction management prowess to this royal project. Rather than being a central concern for the university's formers, the design of the campus was delegated to the realm of technocratic expertise—the campus was a critical appendage to the enterprise, not a determinative constituent. In other words, forming the institution and forming the campus were parallel projects, kindred in the ends to which they serve, yet largely autonomous in practice. What was central to their pursuit was the character of this university-to-be as a place apart. With the creation of the university's campus put in competent hands, the founders could focus exclusively on forming a viable institution to inhabit it—an institution that would constitute a new node, and hopefully even a center of gravity, amidst the global flows of scientific research. A thousand days later, they and thousands of invited dignitaries congregated on the fledgling campus to mark the inauguration of the university (Fig. 3.2).

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[6] Mervis, Jeffrey. "The Big Gamble in the Saudi Desert." *Science* 326, no. 5951 (2009): 354-357.

[7] Whether this enterprising pursuit is of the successful kind remains an open question, but ambition it nonetheless is.

[8] Altbach, Philip. "Why Branch Campuses May Be Unsustainable." *International Higher Education* 58 (2010): 2.

Figure 3.2 A model of the campus was present at the inauguration ceremony attended by a host of dignitaries. (Source: ArchDaily[9])

Bringing a viable institution of this stature into being was a complex endeavor requiring a multipronged effort. Jamil Salmi, a higher education economist and international consultant, argues that a world-class university is defined by the alignment of three characteristics: a concentration of scholastic and research talent, abundant financial resources, and favorable, flexible governance. Supplying a heuristic for institutional excellence, he notes that universities often classified as world-class are predominantly graduate and substantively international in both composition and orientation.[10] Exceedingly challenging and costly though attaining such a status is liable to be, he admits that a tabula rasa approach can ultimately be more effective than reforming or merging extant institutions. "In countries where institutional habits, cumbersome governance structures and bureaucratic management practices prevent traditional universities from being innovative," he explains, "creating new universities may be the best approach, provided that it is possible to staff them with people not influenced by the culture of traditional universities and provided that financial resources are not a constraint . . . [and they are allowed] to operate under a more favourable regulatory framework."[11] This is the very approach undertaken to establish KAUST. Yet, Salmi's tripartite scheme elides the inescapable spatial and physical considerations of institution building. If a university is both an institution and a

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[9] "King Abdullah University of Science and Technology / HOK." *ArchDaily*. October 1, 2009. https://www.archdaily.com/36505/king-abdullah-university-of-science-and-technology-hok

[10] Salmi, Jamil. *The Challenge of Establishing World Class Universities*. Washington, DC: World Bank, 2009.

[11] Salmi, Jamil. "The Challenge of Establishing World-Class Research Universities in Developing Countries" in *University Research for Innovation*. Edited by Luc Weber and James Duderstadt. London: Economica, 2010: 282.

campus, what role then, if any, does a campus have in establishing a world-class university? In the saga of KAUST's institutional formation, the campus turns the university into a concrete abstraction. With its reality toggling between its disembodied globe-spanning engagements and its specific spatialization in a particular geography, the university's formative years betray a dialectic of corporate personhood and material presence, of existence in the space of the flows and the space of places, to use sociologist Manuel Castells' terms.[12] The campus affirms that the elite university is more than a name and reputation, that it has to possess a place;[13] while not necessarily as important as the name and reputation, that space must not let the name down. In this way, as an element of the university, the campus is necessary but not sufficient.

Examining the way KAUST was established is an opportunity to gauge whether an excellence-seeking university's institution and its campus can be formed independently from each other. Though the word campus is often used as a metonym for the institution, the designed physical space to which the former refers is distinct from the formalized human relationships and activity denoted by the latter. To think of these as being separate subprojects under the umbrella of a larger, university project is counterintuitive with respect to the disciplinary and professional wisdom that the design of institutional space ought to be intimately integrated with institutional activity.[14] Nonetheless, I argue that KAUST's genesis shows that designing the institution and the campus can be approached as largely distinct, parallel projects. To this end, this chapter details how the university's founders designed its founding, centering how they envisioned going about getting it up and running more so than whether they followed through on these plans fidelitiously and fully. That they succeeded in bringing an operational university into being within a relatively short period of time is a

[12] Castells, Manuel. "Informationalism and the Network Society" in *The Hacker Ethic and the Spirit of the Information Age*. Edited by Pekka Himanen. New York: Random House, 2001: 155–78.

[13] Though place theory is not a focus of this chapter, it may be worthwhile to note some resonances with David Canter's postulations on this topic. His tripartite model of place posits that a sense of place is the product of the intersection of spatial activity, spatial meaning, and spatial form. Understood within this framework, this campus provides a particular physical space within which particular human activities take place and to which particular meanings are attached. The campus provides the environmental container that the three elements of place can intersect within while simultaneously serving as one of those three elements. As such, the campus can be considered first amongst equals because the other two elements would not come together were it not for its spatial provision; the campus, at once, affords and completes the university sense of place. See Canter, David. *The Psychology of Place*. London: Architectural Press, 1977.

[14] See Dober, Richard. *Campus Planning*. New York: Reinhold, 1963. And Rudden, Michael. "Ten Reasons Why Colleges and Universities Undertake Campus Master Planning: (And How to Align Your Campus Planning Effort to Best Address Them)." *Planning for Higher Education 36*, no. 4 (2008): 33–41. And Hinton, Karen. *A Practical Guide to Strategic Planning in Higher Education*. Ann Arbor, MI: Society for College and University Planning, 2012. And Strange, C. Carney, and James Banning. *Designing for Learning: Creating Campus Environments for Student Success*. San Francisco: Jossey-Bass, 2015.

testament to political and professional will, dedication, and persuasiveness. During this genesis, the campus-building project was essentially appended to the institution-building one. To start my analysis, I contextualize the conception of KAUST in relation to theories of exceptional space, rhetoric and discourse articulating Islam and science, and Saudi Arabia's political economy and educational landscape. I then detail the university's institutional design and its means of acquiring a community of scholars and students, based largely on ephemera produced as a part or result of this undertaking.[15] This is followed by an analysis of KAUST's campus and the ways in which it has served to attract and sustain a co-located institutional population, particularly as I encountered it during my fieldwork. I conclude by highlighting how this space of exception within the kingdom has constituted a template-based anchor for an institution whose identity is less Saudi than worldly.

As the purposive spatialization of this world-class-seeking university, constituting what geographer Natalie Koch calls an "inter/nationalizing university project,"[16] the campus has been an extraterritory of sorts within Saudi Arabia. This exceptional space was conceived to be a space of exception, constituting "a clean, relaxed, air-conditioned, infrastructure-rich urbanism that is more familiar to the world than the context of its host country."[17] An academic variant of what architectural and urban theorist Keller Easterling calls "extrastatecraft," the campus is a socio-institutional sandbox; it has afforded the university a contained space through which it could conduct a national experiment potentially heralding a kingdom for tomorrow. Focusing on free trade zones, agricultural production hubs, tourist resorts, and information technology parks, Easterling describes a form of "incentivized urbanism" from which cultural institutions, like universities, are not exempt.[18] Placing special zones in political-economic gray areas, she explains, is a means of cutting through what states consider to be red tape in order to advance their political and economic interests. To avoid "the political inconveniences of location," these spaces are often jurisdictionally ambiguous; they are the "spatial products" of instrumental

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[15] Examples of these ephemera include brochures, classifieds, reports, press releases, and blog posts.

[16] By this, Koch means the nationalization of globalization through higher education: "From Central Asia to the Gulf, rulers and ordinary citizens alike have picked up the knowledge-based economy rhetoric and worked it into their own statist and nationalist political projects, thereby producing a unique set of geopolitical affinities and subjectivities – and this has largely taken the shape of fusing it with the conceptual and rhetorical frames of statist nationalism. While the idea of a technical national university is in no way new or unique (they are found the world over), what makes the projects I have considered here exceptional is how they are articulated together with a uniquely outward-looking understanding of domestic space." Koch, Natalie. "The shifting geopolitics of higher education: Inter/nationalizing elite universities in Kazakhstan, Saudi Arabia, and beyond." *Geoforum* 56 (2014): 53.

[17] Easterling, Keller. *Extrastatecraft: The Power of Infrastructure Space*. London: Verso, 2014: 67.

[18] Ibid., 16.

suspensions and reworkings of national sovereignty.[19] The state suspends its laws and regulations, delimits or delegates its sovereign authority, and offers legal and economic incentives to attract local and global capital, by which it hopes to embed itself into the international economy.[20] In KAUST's case, its seed funding was regally secured, so the global capital it sought was human: scientific knowledge and its producers.[21]

To think of the special economic zone chiefly as a space at the nexus of the technocratic and the technological is to obscure its character as a geopolitical instrument. Zones of this sort advertise their national host's active participation in globalization, particularly their role in its production, rather than their subjection to it.[22] Manifestations as they are of the modern nation-state's preoccupation with generating political-economic capital, these spaces are nonetheless highly imbued with symbolic capital: "Freighted with desires, sporting their global currency and their duty-free legalities, they can slither through jurisdictional shallows."[23] Urban sociologist Martin Murray argues that this "enclave urbanism" has become the 21st-century metropolitan planning mode of choice for those "seeking to emulate 'first world' amenities of the global economy," producing conspicuous islands of intentional social, legal, institutional, and physical

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[19] Easterling, Keller. *Enduring Innocence: Global Architecture and Its Political Masquerades*. Cambridge, MA: MIT Press, 2005: 1. This zone-based model of spatial and urban development has also been taken up by Big Tech. Ali Fard critiques this paradigm of "technologically decked-out enclaves, campuses, or neighborhoods, that are contextually closed-off, and . . . operate in a vacuum that is deemed necessary for 'innovation' and technological 'experimentation'," as "tech secessionism." See Fard, Ali. "Not Sharing: Urban Techno-Colonialism in the Age of Big Data." *Plat* 7 (2018): 249–56. For an account of such an in-it-not-of-it space dedicated to classic resource extraction, see the chapter titled "This Place is not Nigeria" in Adunbi, Omolade. *Enclaves of Exception: Special Economic Zones and Extractive Practices in Nigeria*. Bloomington, IN: Indiana University Press, 2022.

[20] The incentives which might be offered at zones of this type include: "holidays from income or sales taxes, dedicated utilities like electricity or broadband, deregulation of labor laws, prohibition of labor unions and strikes, deregulation of environmental laws, streamlined customs and access to cheap imported or domestic labor, cheap land and foreign ownership of property, exemption from import/export duties, foreign language services, or relaxed licensing requirements." Easterling, *Extrastatecraft*, 33–34.

[21] If I were to build on Tom Avermaete and Cathelijne Nuijsink's call to rethink the history of modern architecture as one conditioned by purposive moments and sites of transnational encounter, I would argue that the project of establishing KAUST could be understood as an architectural-institutional "contact zone," and the resultant campus might be understood as an enduring cultural-scientific "contact zone." See Avermaete, Tom, and Cathelijne Nuijsink. "Architectural Contact Zones: Another Way to Write Global Histories of the Post-War Period?" *Architectural Theory Review* 25, no. 3 (2021): 350–61.

[22] Isaac Kamola cautions against taking globalization and the global as self-evident facts, marking them instead as constructed categories. He argues that academic production, especially in the US, has been central to producing the now-widespread image and understanding of the world as global: "within the apparatus of the university, individuals engage in the material practices that reproduce an imagined relationship to the world as global." Kamola, Isaac. *Making the World Global: U.S. Universities and the Production of the Global Imaginary*. Durham, NC: Duke University Press, 2019: 24.

[23] Easterling, Keller. *Enduring Innocence*. 2005: 1.

dissonance in and around the extant city.[24] KAUST's establishment was instrumentalized as such. Its campus can be understood as a Special Academic Zone. Laden as the institution already was with royal prerogatives and national aspirations, its campus was no mere marquee repository for these but also the commencement of their fulfillment.

3.1 Faith in a Renaissance by University

In his address at KAUST's inauguration, the king described this university as the realization of a dream he had held for a quarter century. The context within which he saw this institution was much older than his reign and even his kingdom; KAUST was to be the flagship of a long dormant but unassailable civilizational venture:

"The Islamic civilization historically has played an enormous role in serving humanity. After God, the great Islamic scholars have contributed to many areas of scholarship, such as the role played by Ibn Al-Nafees in medicine, the impact Jaber bin Hayyan had on chemistry, and Al-Khawarizmi's pivotal role in algebra. Similarly, the study of sociology benefited immensely from the genius of Ibn Khaldoon.

"For all of that, the university, whose inauguration we celebrate today, did not emerge from nowhere. It is a continuation of what distinguished our civilization in its golden age. This is, first of all, what the university stands for.

"Throughout history, power has attached itself, after God, to science. And the Islamic nation knows too well that it will not be powerful unless it depends on, after God, science. For science and faith cannot compete except in unhealthy souls. And God has graced us with our minds, which we use to understand and recognize God's laws of

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[24] Murray, Martin. *The Urbanism of Exception: The Dynamics of Global City Building in the Twenty-First Century*. Cambridge: Cambridge University Press, 2017: 40. In this book on the urban machinations of the now-dominant social and political economy, Murray highlights a disjunctive form of spatial development. The enclave has become the spatial index of today's highly unequal, globalized, neoliberal world, bespeaking just how far public governance (i.e. the state) has retreated from public life. He explains that "Essential to this emerging 'enclave urbanism' is the introduction of social, legal, and physical boundaries, often relating to differentiated regimes of governance" (154).

nature. For He, the Almighty, said, 'Of his faithful, God is feared by scientists.'[25] And this is the second meaning of the university."[26]

At this inauguration, King Abdullah picked up the same themes from his speech at the groundbreaking of KAUST's campus two years earlier. At a time when Islam was conspicuously maligned in an international media awash with depictions of violent acts carried out by and against Muslims, this project was a means for the world's most prominent Muslim political figure to assert that Islam's is a "humane and noble message" speaking to "the minds and the ideas of enlightened people."[27] Critical here was making clear that the purpose of this undertaking was neither innovation nor reformation, but the revival and restoration of inherently Islamic endeavors. Science, the king averred, is Islam's legacy.[28] In that earlier groundbreaking speech, he characterized his university as a new House of Wisdom, implicitly aligning himself with the great Abbasid caliph, Harun al-Rashid, patron of a famed center of learning that attracted scholars far and wide.[29]

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[25] It is striking that KAUST's English translation of the king's speech, given in Arabic, supplies the modern notion of *scientist* for the final word in the cited Quranic verse (35:28), in lieu of the more general *scholar*. Almost all English translations of the Quran render that word, *ulemaa*, as either *the knowledgeable* or *the learned*. I have found none that have translated it as *scientist*. This textual choice is one passing instance of a modern, purposive interpretation of tradition, of which KAUST is a major institutional implication.

[26] Abdullah, The Custodian of the Two Holy Mosques, King of Saudi Arabia. "The King's Speech at KAUST Inauguration Ceremony." September 23, 2009. King Abdullah University of Science and Technology. https://www.kaust.edu.sa/en/about/the-kings-speech-at-kaust-inauguration-ceremony

[27] Abdullah, The Custodian of the Two Holy Mosques King of Saudi Arabia. "The King's Speech at KAUST Groundbreaking Ceremony." October 21, 2007. King Abdullah University of Science and Technology. https://www.kaust.edu.sa/en/about/Pages/King%27s-Speech-at-KAUST-Groundbreaking-Ceremony.aspx

[28] It is common knowledge amongst historians that systematic empirical scholarship and theoretically-grounded exploration of natural phenomena flowered as part of Islamic civilization, an ethos that eventually made it to Europe. For more on science as an Islamic phenomenon, see Nasr, Seyyed Hossein. *Science and Civilization in Islam*. Cambridge, MA: Harvard University Press, 1968. Savage-Smith, Emilie. "Gleanings from an Arabist's Workshop: Current Trends in the Study of Medieval Islamic Science and Medicine." *Isis* 79, no. 2 (1988): 246–266. Bakar, Osman. *The History and Philosophy of Islamic Science*. Cambridge: Islamic Texts Society, 1999. Iqbal, Muzaffar. *Islam and Science*. Aldershot: Ashgate, 2002. And Dallal, Ahmad. *Islam, Science, and the Challenge of History*. New Haven, CT: Yale University Press, 2010. And Barker, Peter. "The Social Structure of Islamicate Science." *Journal of World Philosophies* 2, no. 2 (2017):37–47.

[29] Though King Abdullah did not specify the Abbasid academy in Baghdad (established in the 8th century CE) as the referent of his House of Wisdom, it is unlikely that he was referring to any of the other Houses of Wisdom that existed in other parts of the Islamic World, like Egypt, Tunisia, and Iberia. The academy in Baghdad is by the far the most famous, the only one that one could argue remains memorialized in popular culture. Nonetheless, the unspecificity of the referent here reinforces the aspirational universality (in both the global and Islamic senses) that this 21st-century royal patron attached to his institution, such that it was understood to be a Saudi gift to the world. See Algeriani, Adel, and Mohadi, Mawloud. "The House of Wisdom (Bayt al-Hikmah) and Its Civilizational Impact on Islamic Libraries: A Historical Perspective." *Mediterranean Journal of Social Sciences* 8, no. 5 (2017): 179–187.

By highlighting Islamic history, speaking of "rekindling science in the Islamic world,"[30] and offering up KAUST as a neo-House of Wisdom, King Abdullah succeeded a long line of mostly scholarly figures who had made this connection (of faith and scholarship) and highlighted the indebtedness of academia in general to Islamic civilization. Take, as a parallel, former Jordanian prime minister Abdelsalam Majali, who made the case over a third of a century earlier for the university to be at the center of a modern nation state—in his case Jordan. In the same vein as the Saudi monarch, he made a connection between the national feeling at a loss that is faltering development and the tragic loss to history of a scholarly heritage begotten of Islam. In 1972, while he was the president of the University of Jordan, Majali gave a lecture at the University of Essex titled "The Development of Higher Education in the Arab World."[31] Seeing in the genesis of Islam itself an injunction to engage with knowledge – citing the first-revealed verse of the Quran[32] – he identified the Arabo-Islamic scholarly culture that flowered thereafter as the precursor and model of the modern Europeanate university that is dominant today: "the Islamic tradition of higher learning found its way to Europe not only in substance but also in form. The academic gown of the European university is a mere relic of the silk robe of the Arab professor."[33] His comparison aside, Majali attributed the rootedness of higher education itself to the sanctity Islam assigned to learning.

Other 20th-century intellectuals, like scholars of Islamic civilization Ahmad Shalabi and George Makdisi, have also emphasized the indebtedness of higher learning to Islamic civilization. The former's doctoral dissertation at Cambridge University challenged the hegemony of a "Classical" genealogy thought to underlie contemporary European culture and its academic institutions, tracing instead the development and formalization of education through medieval institutions in the Islamic World.[34] Like Shalabi, Makdisi attributed the development of European collegiate institutions and practices to the medieval Islamic ones that arose before them.[35] So important was education in the Islamic World that dedicated forms, institutions, and

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[30] Matthews, David. "KAUST Head to Underline Role in Job Creation." *Times Higher Education* 2049. May 10, 2012: 8.

[31] Majali, Abdelsalam. *The Development of Higher Education in the Arab World*. London: Longman for the University of Essex, 1976.

[32] The single-word verse (Quran 96:1) is generally translated as either *Read*, or *Recite*.

[33] Ibid., 6.

[34] Shalabi, Aḥmad. *History of Muslim Education*. Beirut: Dar Al-Kashshaf, 1954.

[35] Makdisi, George. *The Rise of Colleges: Institutions of Learning in Islam and the West*. Edinburgh: Edinburgh University Press, 1981.

spaces arose in it and eventually spread beyond its borders.[36] The universities of Bologna and Paris were not innovative forerunners of institutionalized higher education so much as they were influential European adopters and purveyors of an exotic institutional model.[37]

Yet, for some, this interest in historicizing learning was not merely academic or antiquarian. The purpose of looking back was to help define a way forward. Feelings of impotence and nostalgia may have been present, but so was the impulse to seize the historical moment and tap into the unmistakable potential for an education-driven leap forward. Majali looked to history to make sense of how the modern Arab world was to move beyond its lamentable state. Speaking of the Jordanian citizen as a model of the modern Arabic subject, he confidently declared that "If he becomes a more rational and more productive citizen through our intervention in the formation of his personality, we shall be very encouraged. We shall be happy too when he becomes a more effective agent of prosperity, justice, and peace in our region."[38] This university president clearly believed that his institution's work was critical to realizing the goal of authentic progress for his kingdom, region, and culture as a whole. And so did King Abdullah when he endowed KAUST at the turn of this century. For these national actors, these statesmen, a true university is an integral part of the response to the developmental imperative. Better yet, in addition to jumpdriving development, a turn to higher education is a return to Islam. Being a politician – and not merely that, but the sovereign of an absolute monarchy – King Abdullah was actually able to act upon this articulation, effectuating a reconciliation of estranged but filial thought worlds.[39] He resolved to establish a beacon for science in the heartland of Islam.

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[36] More recently, Ehsan Masood has sought to provide a generalist "account of the building of a civilization, and the inevitable passing of a scientific torch." In his introduction to the second edition of *Science and Islam*, he recounts Adelaard of Bath's scholastic experience as an illustrative example of the historical European effort to acquire advanced knowledge from the premodern Islamic world: "At a time when the first English universities at Oxford and Cambridge had yet to be created, this early 12th-century scholar travelled to Syria where he spent seven years learning at institutions which would have been regarded in Europe as being at the leading edge. On his return to England, Adelaard remarked how his Arabic teachers considered 'reason' alongside tradition as a source of authority. He was also aware that such a view was seen as ultra-modern among some conservatives back on home turf. Mathematics, for example, was described by one of his contemporaries, the historian William of Malmesbury, as 'dangerous Saracen magic'." Masood, Ehsan. *Science and Islam: A History*. 2nd ed. London: Icon Books, 2017 (unpaginated e-book).

[37] Masood even contends that the earliest European universities adopted the spatial forms of the Islamic universities that preceded them. Masood, Ehsan. *Science and Islam: A History*. 1st ed. London: Icon Books, 2009: 175.

[38] Majali, Abdelsalam. *The Development of Higher Education in the Arab World*. 1976: 14.

[39] Seeking to reclaim the intellectual glory of a lost (or dispossessed) past was not an exclusively modern preoccupation. For example, in the 16th century CE, İbrahim Müteferrika founded the "first state-sponsored printing press not only in the Ottoman Empire but also in the Islamic world at large … as a

3.2 Rekindling the Islamic Polity in the Muslim World

The First World War dealt a death blow to the Ottoman Empire, the territories of which encompassed almost all the Arab regions of what is now known as the Middle East. Many new states emerged out of the geopolitical disorder that followed the caliphate's dissolution. One of these was the Kingdom of Saudi Arabia, the largest state in the Arabian Peninsula. In 1932, after many campaigns over the course of two decades to conquer various parts of the peninsula, Abdulaziz Al Saud declared a unified kingdom that spanned from the Arabian Gulf to the Red Sea.[40] Critical to the success of his military campaigns was his alliance with a group of fervent puritanical Muslims who were motivated to reform religious practices in Arabia.[41] Though King Abdulaziz and this group soon had a falling out, with the latter vanquished in battle by the former's forces, the group's conservative school of thought remained constitutional to Saudi state and society.[42] One manifestation of this particular interpretation is that segregation by sex suffused most aspects of public life. The fact that within the kingdom's territories were the two holiest mosques further reinforced the conspicuous Islamic character of this new polity.[43]

Beyond an Islamically-suffused sociopolitics, Saudi Arabia soon came to be associated with one key geoeconomic material. In 1938, oil was discovered in Saudi territory, and the Arabian-American Oil Company (Aramco) was soon thereafter founded. Ever since, petroleum has underwritten the Saudi economy. Though this company was fully American-owned, extracting oil based on a lucrative concession from the Saudi government, by midcentury, the royalties it remitted to the government had increased public Saudi revenues by an order of

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reclamation of a lost Islamic golden age ... as a sort of homecoming through which the Islamic world might recover the capacity for education." Rüstem, Ünver. "Mapping Cosmopolitanism: An Eighteenth-Century Printed Ottoman Atlas and the Turn to Baroque." *Ars Orientalis* 51 (2021): 191–208.

[40] Al-Rasheed, Madawi. *A History of Saudi Arabia*. London: Cambridge University Press, 2002.

[41] Adherents of this school of thought are often derogatorily referred to as Wahabis, in reference to Muhammad ibn Abd-al-Wahhab, the revivalist theologian whose thought instigated the movement. The band of brothers who fought alongside King Abdulaziz called themselves *Al-Ikhwan*. Today, adherents of this school of thought call themselves *Salafis*, that is, predecessorials. See ibid.

[42] Saudi Arabia's legal system has almost exclusively relied on long-standing Islamic jurisprudence, not necessarily to ill-effect. For example, see Souryal, Sam. "The Religionization of a Society: The Continuing Application of Shariah Law in Saudi Arabia." *Journal for the Scientific Study of Religion* 26, no. 4 (1987): 429–49.

[43] In fact, the formal title of the Saudi monarch is Custodian of the Two Holy Mosques (literally, The Servant of the Two Venerable Sanctums).

magnitude.[44] The kingdom was suddenly flush with cash, with which it embarked on a nationwide modernization drive.

In the education sphere, this meant establishing formal, Europeanate institutions. Before the discovery of oil, there were only a dozen formal schools in the whole kingdom. By midcentury, there were 365.[45] In 1954, a Ministry of Education was formed. Three years later, the first Saudi university, King Saud University, was founded, with only nine staff members teaching 21 students.[46] Up until this point, these were exclusively male institutions. King Abdulaziz, however, understood the need for formal female education. With the blessing of an initially reticent clerical class, a public school for girls was founded in 1964. With primary and secondary education well-established in the country, the government turned to higher education. Six more universities were founded by 1975, the year when a Ministry of Higher Education was established. Indicative of higher education's expected role as an economic engine integral to the machinery of the state was the composition of the Council of Higher Education, which was established in 1993 and oversees the ministry: chaired by the king, its members include the presidents of every university plus the ministers of Civil Service, Economy and Planning, Education, Finance, Higher Education, Labour, and Social Affairs.[47]

Saudi higher educational development was not limited to the bounds of Saudi Arabia. Study abroad has been a major avenue for Saudi students at the tertiary level. The government was sponsoring such students as early as the 1920s.[48] Under King Abdullah, who acceded to

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[44] Al-Rasheed, *A History of Saudi Arabia*, 2002. By the end of the 1980s, Saudi Arabia had fully nationalized the oil company, amending its name to Saudi Aramco. See Jaffe, Amy, and Jareer Elass. "Saudi Aramco: National Flagship with Global Responsibilities." Baker Institute for Public Policy, Rice University, 2007. https://www.bakerinstitute.org/media/files/page/9f100176/noc_saudiaramco_jaffe_elass_revised.pdf

[45] Alamri, Majed. "Higher Education in Saudi Arabia." *Journal of Higher Education Theory and Practice* 11, no. 4 (2011): 88–91.

[46] Saleh, Mahmoud. "Development of Higher Education in Saudi Arabia." *Higher Education* 15, no. 1/2 (1986): 17–23.

[47] Al-Eisa, Einas, and Larry Smith. "Governance in Saudi Higher Education." in *Higher Education in Saudi Arabia: Achievements, Challenges, and Opportunities*. Edited by Larry Smith and Abdulrahman Abouammoh. New York: Springer, 2013: 27–35. And Al-Mahrouqi, Shadia, and Ahmad Naji. مجلس أمانة [The Secretariat of the University Council and the Structure and الجامعة ونظام مجلس التعليم العالي السعودي ولوائحه Bylaws of the Saudi Higher Education Council]. Riyadh: Law and Economics Library, 2012. Also see Ismail, Russayani, Yew Meng Lai, Zainal Amin Ayub, Abdul Razak Ahmad, and Chang Da Wan. "Kingdom of Saudi Arabia" in *Higher Education in the Middle East and North Africa: Exploring Regional and Country Specific Potentials*. Edited by Yew Meng Lai, Abdul Razak Ahmad, and Chang Da Wan. Singapore: Springer, 2016: 127–146.

[48] In 1927, six Saudis were sent to study at the tertiary level in Cairo, sponsored by Saudi Arabia's founding king. In 1956, there were 48 government-sponsored college students in the US. By 1980, there were over 10,000 Saudi students in the US, but their numbers shrank to around three thousand by 2005. See Ahmed, Manail. "Outward Mobility of Saudi Students: An Overview." *International Higher*

throne in 2005, the number of study-abroad students exploded. No government has directly funded so many students to study abroad as the Saudi government did in the late 2000s and early-to-mid 2010s.[49] Presented as the product of his vision for a worldly base of young Saudi professionals to anchor and drive the growth of the Saudi economy, the monarch established the King Abdullah Scholarship Program (KASP), a generous, almost universal, scholarship program that sent students to universities across the world.[50] The most common destination for these sponsored students was the United States; beyond the perception that American higher education is the world's best, this was also a geopolitical strategy to appease a belligerent post-9/11 US.[51] The first cohort in 2005 numbered around 5,000.[52] Within a decade, the size of the US cohort had increased by more than an order of magnitude: an estimated 111,000 government-sponsored Saudis were studying in the US in 2014.[53] To sustain this international effort, Saudi Arabia spent billions of dollars every year on the program.[54]

The intent was for these students to broaden their horizons and have the opportunity to gain skills akin to those of their international peers. In other words, in order to globalize the youth of its conservative society, the government embraced higher education internationalization as the primary instrument of this transformation, sending them out into the world. One challenge to this type of internationalization is the academic and cultural mismatch

Education 83 (2015): 1920. And "SACM History." *Saudi Arabian Cultural Mission*. Accessed December 1, 2021. www.sacm.org/about/history. And Young, Barbara, and Donald Snead. "Saudi Arabian International Graduate Students' Lived Experiences at a U.S University." *Journal of Learning in Higher Education* 13, no. 2 (2017): 39–40. And Taylor, Charles, and Wasmiah Albasri. "The Impact of Saudi Arabia King Abdullah's Scholarship Program in the U.S." *Open Journal of Social Sciences* 2 (2014): 109–118.

[49] See Mughal, Abdul Ghaffar. "How Did the Largest Overseas Scholarship Programme in History Narrow the Gender Capabilities Gap in Saudi Arabia?" in *Higher Education in the Gulf: Quality Drivers*. Edited by Reynaldo Gacho Segumpan and John McAlaney. London: Routledge, 2021: 85–108. See also Ahmed, Manail. "Saudi students abroad." *University World News*. December 11, 2015. https://www.universityworldnews.com/post.php?story=20151208190817896

[50] La Scala, Margaret. "International Student Mobility: The Case of Students from Saudi Arabia Coming to the United States." Doctoral dissertation, Rutgers University, 2016. https://doi.org/doi:10.7282/T3NZ89ZZ.

[51] Ibid. And AllahMorad, Sidiqa. "Education in Saudi Arabia." *World Education News + Reviews*. April 9, 2020. https://wenr.wes.org/2020/04/education-in-saudi-arabia. Also see "Scholarships Bring Record Number of Saudi Students to United States." *NAFSA*. Accessed December 1, 2021. https://www.nafsa.org/about/about-international-education/scholarships-bring-record-number-saudi-students-united-states.

[52] Brinkley, Joel. "Scholarships Send Saudis To the U.S. As Students." *New York Times*. December 18, 2005.

[53] Naffee, Ibrahim. "Number of Saudi students in US reaches 111,000." *Arab News*. April 20, 2014. https://www.arabnews.com/news/558416

[54] Pavan, Annalisa. "The Custodian of the Two Holy Mosques' Overseas Scholarship Program: Targeting Quality and Employment." *World Journal of Education* 7, no. 4 (2017): 32–39.

between the students' background and the host context: many students who pursued higher education abroad were not academically well-prepared for study at the levels expected at their destination.[55] The Saudi public K-12 system generally constituted poor preparation for rigorous college work. Saudi high school student performance on global competency exams in science and mathematics has been weak, scoring at the lower end of the spectrum on average.[56] The lack of proficiency in college-level English has also been a major impediment for those who study in the Anglophone world.[57] Moreover, in most spaces and at most levels, Saudi Arabian society is segregated by sex. Overseas study was often the first time that Saudi students got to experience long-term exposure and contact with members of the opposite sex.[58] As is the case with international students generally, a steep learning curve preceded acclimation to these new environments.

When they returned home, these students did so having undergone a counter-cultural experience. And it is Saudi former international graduate students who largely populate the ranks of academia in the country after having completed their degrees abroad. Alongside these former international students is the expatriate professoriate. Since there are not enough Saudi doctorate-holders to serve as faculty, Saudi universities have recruited non-Saudi faculty to fill this gap. The latter have comprised about one third of the kingdom's university faculty.[59] With the current "Saudification" impulse,[60] this putative overrepresentation of expatriates in

[55] Redden. Elizabeth. "Strategies for Saudi Student Success." *Inside Higher Education*. May 30, 2013. https://www.insidehighered.com/news/2013/05/30/international-educators-discuss-challenges-facing-saudi-students-and-strategies

[56] Wiseman, Alexander, Abdullah Sadaawi, and Naif Alromi. "Educational Indicators and National Development in Saudi Arabia." Paper presented at the 3rd IEA International Research Conference, 2008. https://www.iea.nl/sites/default/files/2019-04/IRC2008_Wiseman_Sadaawi_etal.pdf

[57] Jenkins, Sulaiman. "Student Motivation: The Key to Educational and Economic Reform in Saudi Arabia." *IH Journal of Education and Development* 25 (Autumn 2008). http://ihjournal.com/student-motivation-the-key-to-educational-and-economic-reform-in-saudi-arabia

[58] Young, Barbara, and Laura Clark. "Cultural Adjustment Experiences Saudi Women International Graduate Students Studying First Time in a Mixed-Gender Environment at a United States University." *Journal of Education & Social Policy* 4, no. 2 (2017).

[59] Ismail et al. "Kingdom of Saudi Arabia," 2016. Also see "18,000 expats teach in KSA universities." *Arab News*. June 13, 2014. https://www.arabnews.com/news/585946.

[60] Saudification (alternatively, Saudization) refers to the intensifying efforts to radically increase the proportion of Saudi workers across all sectors of the Saudi economy to ensure that businesses and institutions are predominantly Saudi in composition. For a relatively sympathetic account of this, see Looney, Robert. "Saudization and Sound Economic Reforms: Are the Two Compatible?" *Strategic Insights* 3, no. 2 (2004).

academia's faculty ranks has more recently been an object of societal criticism—the international flavor of the professoriate decried as an "anti-national attitude."[61]

In addition to sending students abroad and thereby indirectly funding the non-Saudi institutions at which thousands of its citizens study, Saudi Arabia has engaged in financial-academic diplomacy. It has supported many universities in the West through research grants and endowed chairs. MIT, Harvard, and Babson College are some of the universities in which the Saudi Arabian government has invested.[62] Even non-governmental institutions and private persons have engaged in this type of outreach and support. Aramco, Saudi Arabia's national oil company, provides research funding to elite US universities and has established research centers all over the world.[63] Prince Al-Waleed bin Talal, often considered the richest Saudi and Arab,[64] has also established academic centers at many Western universities.[65] All these investments and overtures have been expensive projects for Saudi Arabia, but the country's considerable financial means have rendered them manageable. KASP is the most democratic of these expensive projects, a royal bestowal of international higher educational opportunity upon the masses.

The program's patrons understood, though, that sending Saudis to where the most advanced science was located was only part of the answer to their nation's challenges. Another was to bring this knowledge to students at home. The scholarship program betrayed the kingdom's need for a home base for advanced knowledge production; KASP became the harbinger of KAUST. This idea was concretized by a land grant. Donating seafront property that he held in his personal capacity, King Abdullah endowed a new private, non-profit graduate

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[61] Al-Bakr, Fawzia. "Foreign university professors." *Saudi Gazette*. July 24, 2016. http://saudigazette.com.sa/article/159739. A Saudi professor, Al-Bakr is critical of this drive to nationalize the professions, particularly the professoriate.

[62] Johnson, Steven. "After the Killing of a Journalist, Colleges Confront Their Saudi Ties." *Chronicle of Higher Education*. October 25, 2018. https://www.chronicle.com/article/after-the-killing-of-a-journalist-colleges-confront-their-saudi-ties/

[63] Binkley, Collin, and Chad Day. "Amid global uproar, some US colleges rethink Saudi ties." *Associated Press*. October 30, 2018. And Sokolove, Michael. "Why Is There So Much Saudi Money in American Universities?" *New York Times*. July 3, 2019. And "Global research centers." *Aramco*. Accessed January 1, 2022. https://www.aramco.com/en/creating-value/technology-development/globalresearchcenters#

[64] For example, see "For 8 Consecutive Years, Prince Alwaleed Ranked Richest Arab by Arabian Business With Net Worth $21.3BN." *Alwaleed*. December 28, 2011. https://alwaleed.com.sa/news-and-media/news/tags/Personal/8-consecutive-years-prince-alwaleed-ranked-richest-arab-arabian-business-net-worth-213bn

[65] Wotjas, Olga. "Saudi prince donates £16m to improve Islamic studies." *Times Higher Education*. May 8, 2008. https://www.timeshighereducation.com/news/saudi-prince-donates-16m-to-improve-islamic-studies/401799.article

university dedicated to scientific and technological research. Instead of chartering a new public university to join the others operating as arms of the Ministry of Higher Education, he patronized the high-profile deployment of an old institutional form – the ancient Islamic concept of *waqf*[66] – to the country's higher education sphere.[67]

Through this institution, the kingdom concretized the bringing of a world-class education to its population's doorstep. For decades, many Saudi students felt that studying abroad provided much better educational opportunities and career prospects than studying at home.[68] When it came to Saudi students at the top end of the academic and professional spectrum, the kingdom faced the specter of an attritious brain drain. Though a fully-funded study-abroad scholarship provided an exceptionally generous educational opportunity to scores of students who could not otherwise afford it, such an approach may have run counter to the government's ultimate goal, which is the sustained development of the kingdom itself: "Officials who back the king['s scholarship program] hope the students will return with new ideas and a desire to shake things up. The problem: many prefer life abroad . . . There is no data on how many Saudi students plan to stay overseas, but bankers in Riyadh say some of the best talent

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[66] Often translated to endowment (or trust), a *waqf* is a privately-owned public good. A critical aspect of waqf is that once an income-generating asset is endowed and its beneficiaries assigned, it is exceedingly difficult as per Islamic law to amend the arrangement without the endower's permission. For more on this, see Ghazaleh, Pascale. *Held in Trust: Waqf in the Islamic World*. Cairo: American University in Cairo Press, 2011. And Moumtaz, Nada. *God's Property: Islam, Charity, and the Modern State*. Oakland, CA: University of California Press, 2021. For a succinct overview of the history of "the greatest form of the Islamic philanthropical enterprise" that was "the thread that stitched together the diverse tapestry of the Islamic civilization" without which "it would become nearly impossible to envision the Muslim world," see Abdurrashid, Khalil. "Financing Kindness as a Society: The Rise & Fall of Islamic Philanthropic Institutions (Waqfs)." *Yaqeen Institute*. January 9, 2020. https://yaqeeninstitute.org/read/paper/financing-kindness-as-a-society-the-rise-fall-of-islamic-philanthropic-institutions-waqfs.

[67] Though non-profit universities were not novel to the kingdom at that point, none were as prominent and state-backed as KAUST. Non-profit institutions were amongst the host of private universities first established at the turn of the millennium, during what may be considered the private turn in Saudi higher education. See Ismail et al. "Kingdom of Saudi Arabia," 2016. KAUST was a much more symbolic and high-stakes project than any of its predecessors. As an expert on higher education reform in the Gulf, Leigh Nolan explains that "Framing the endowment form of financing for a university in Islamic terms serves a dual purpose: to legitimize the endeavor as Islamically inspired, or at least consistent with Islamic law, and to create a religio-legal barrier to subsequent renegotiation of the project." Nolan, Leigh. "Liberalizing Monarchies? How Gulf Monarchies Manage Education Reform." *Brookings Doha Center*. Analysis Paper 4 (February 2012): 18.

[68] Bukhari, Fawzy, and Brian Denman. "Student Scholarships in Saudi Arabia: Implications and Opportunities for Overseas Engagement" in *Higher Education in Saudi Arabia: Achievements, Challenges, and Opportunities*. Edited by Larry Smith and Abdulrahman Abouammoh. New York: Springer, 2013: 151–158.

studying in the United States regularly ends up on Wall Street rather than heading home."[69] Though the majority of Saudi students plan to establish a career in the kingdom, even if they attain their education abroad,[70] it would not be unreasonable to expect that life abroad would appear much more practicable once a student is already living abroad. Offering the best Saudi students high-quality higher education pathways within the country was a strategy to anchor Saudi talent to the kingdom. Indeed, high-achieving students in Saudi Arabia overwhelmingly stay put, with Aramco being the employer of choice for most of them.[71]

Establishing KAUST was an effort to effect a national paradigm shift. Rather than sending the best graduate students and researchers abroad, the kingdom would create an attractive place for them, and for talented foreign scholars, at home. As one of the late king's pet projects, this new university was generously funded in the hopes that it would catapult to the top of the world's research pecking order.[72] Though such an enterprise can be cast as a vanity project,[73] it can also be understood as a way to leapfrog the country's inert academic establishment and educational bureaucracy.[74] Teaching at Saudi universities is generally

[69] Laessing, Ulf, and Asma Alsharif. "Special report: In Saudi Arabia, a clamor for education." *Reuters*. February 10, 2011. https://www.reuters.com/article/idINIndia-54785120110210

[70] "Recruiting Top Graduates in Saudi Arabia." Gulf Talent. September 2011. www.gulftalent.com/repository/int/Recruiting%20Top%20Graduates%20in%20Saudi%20Arabia.pdf

[71] In a news report on graduates' employment preferences, a representative of a Saudi recruitment firm is quoted: "Our research shows that while top Saudi graduates from [King Fahd University of Petroleum and Minerals] have many opportunities to work abroad, there is very little interest in relocating to another country as long-term expatriate workers. These findings reflect strong family ties, a deep commitment to Saudi Arabia and above all the Saudi youth's prevailing sense of optimism about the future of their country and the opportunities available to them. This should ensure that there is virtually no threat of the 'brain drain' experienced by some other Arab and Muslim societies." See "Aramco and SABIC voted most popular employers for Saudi Graduates." *Al Bawaba*. October 10, 2005. https://www.albawaba.com/business/aramco-and-sabic-voted-most-popular-employers-saudi-graduates. Despite the establishment during the 20th century of dedicated research institutions in most Arab nation-states, they have nonetheless continued to suffer from a brain drain. For more on this, see Hobson, Richard, John Lawton, Robert Fraga, Authur Clark, and Martin Love. "Science in the Modern Age." *Saudi Aramco World* 33, no. 3 (1982): 34–49.

[72] "Saudi Arabia Sending Seventh Most Students to United States." The Embassy of the Kingdom of Saudi Arabia, Washington, DC. November 16, 2010. https://www.saudiembassy.net/press-release/saudi-arabia-sending-seventh-most-students-united-states

[73] See Anderson, Lisa. "Fertile Ground: The Future of Higher Education in the Arab World." *Social Research* 79, no. 3 (2012): 771–785. See Davidson, Christopher. "US University Campuses in the Gulf Monarchies: Building Knowledge Economies in Limited Access Orders" in *The Political Economy of Education in the Arab World*. Edited by Hicham Alaoui and Robert Springborg. Boulder: Rienner, 2021. Also see Messerly, Megan. "Citations for sale." *Daily Californian*. December 5, 2014. https://www.dailycal.org/2014/12/05/citations-sale/

[74] Such a strategy to circumvent institutional and systemic inertia was in operation in other economies undergoing transition. In a discussion of private academic endeavors in Russia like the Strelka Institute, a commentator explained that this model was an increasingly pervasive nostrum: "The country's universities are moribund and behind the times. Can Moscow's entrepreneurs and philanthropists build

characterized by rote didacticism and the dominance of the humanities;[75] this particular character of Saudi academia is, in large part, a legacy of the predominance of scholasticism, theological jurisprudence, and seminary-style schooling in the preministerial days. Scientific research has been largely foreign to Saudi academia.[76] The kingdom's tertiary institutions have essentially been teaching universities. Pedagogy and teaching effectiveness have nonetheless been left to chance: "personnel decisions as retention, tenure, promotion, incentives, and sabbatical leaves are not the result of any consideration of the effectiveness of faculty members' performance."[77] Saudi faculty are socialized into a system where securing a professorship is akin to attaining tenure, without the hoops and expectations. Higher educational reform in the kingdom, especially fostering effective teaching, has faltered despite the awareness of this systemic deficiency.[78] There is a growing realization that faculties and institutions cannot be left to their own devices, that a national approach, under the aegis of the ministry, is a more effective means of pedagogical progress.[79]

something better? . . . It's an experiment increasingly embraced, in a variety of fields, by Russians who are ill-served by an aged and slow-moving university system combining the worst elements of old and new Russia. The schools are still stocked with Soviet-era administrators, cloaked in unbudging tradition, prey to antediluvian ways of thinking, and marred by massive corruption, with students buying everything from a place on the class roster to a passing grade. … Reform may be finally in the air, but its pace is glacial and uneven. Instead of waiting for universities to catch up, a handful of private initiatives are taking matters into their own hands, educating and training a hungry Russian populace in everything from modern art to data analysis." Ioffe, Julia. "Russia's New Privatization." *Foreign Policy*. June 3, 2010. https://foreignpolicy.com/2010/06/03/russias-new-privatization/

[75] Smith, Larry, and Abdulrahman Abouammoh. *Higher Education in Saudi Arabia: Achievements, Challenges, and Opportunities*. New York: Springer, 2013: 6. And Eissa, Raam. "Teaching Practices of University Professors in Saudi Arabia: The Impact on Students' Learning." Doctoral dissertation, University of St. Thomas, 2020.

[76] See Alshayea, Ali. "Scientific Research in the Kingdom of Saudi Arabia: Potential for Excellence and Indicators of Underdevelopment." *Higher Education Studies* 3, no. 5 (2013): 47–51. And Pikos-Sallie, Toni Joanne. "The Personal and Professional Benefits and Challenges for Saudi Academics after Postgraduate Study Abroad: Implications for Higher Education Reform in the Kingdom of Saudi Arabia." Doctoral dissertation, Murdoch University, 2018. Also see "Science in the Arab world." *Nature* 441, no. 7097 (2006): 1027.

[77] Al-Ghamdi, Saleh, and Malcolm Tight. "Selecting and Developing High-Quality Academic Staff." in *Higher Education in Saudi Arabia: Achievements, Challenges, and Opportunities*. Edited by Larry Smith and Abdulrahman Abouammoh. New York: Springer, 2013: 86.

[78] Onsman, Andrys. "Dismantling the perceived barriers to the implementation of national higher education accreditation guidelines in the Kingdom of Saudi Arabia." *Journal of Higher Education Policy and Management* 32, no. 5 (2010): 511–519.

[79] See Smith and Abouammoh. *Higher Education in Saudi Arabia*, 2013, particularly Saleh Alnassar and Kwong Lee Dow, "Delivering high-quality teaching and learning for university students in Saudi Arabia," 49–60.

Establishing KAUST sidestepped all this. It was a means for the state to "maneuver around its own bureaucracy,"[80] creating an institution not beholden to the ministry but to the king.[81] It was to be governed independently of Saudi Arabia's higher education system. It was to be populated by active, researching faculty and graduate students unconcerned with instruction. And it was to focus on STEM, filling a large hole in Saudi Arabian knowledge production. This small elite Saudi institution was to lead the way for the nation's system of higher education. On top of all this, what made KAUST even more unique was its demographic character: it was the first Saudi university to be coeducational and predominantly international in composition. The fact that women could drive on campus, when they were barred to do so in the rest of the country, preempted the broader societal change that was to take place just under a decade after its opening.[82]

3.3 Piecing Together an Elite Research Institution

A decorated professor of electrical engineering at the University of Michigan and, for a time, its vice president for research, Fawaz Ulaby long discussed with his peers the prospect of establishing federally-sanctioned regionally-based graduate universities dedicated to scientific research in the United States. Ulaby intimately knew how much a researcher's efforts at a typical American university, even at a leading research institution, went to waste on non-research activities.[83] He also thought that 15 years, which he identified as being roughly how long it took in American academia for a novel scientific idea to find commercial applications, was much too long.[84] Though it was an acknowledged longshot of a project, given the decentralized nature of

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[80] Nolan, "Liberalizing Monarchies?" 2012: 19.

[81] KAUST's exceptionality within the Saudi educational arena has been read by some as indicating not a gleaming shimmer of the slowly moving gears of reform but, rather, the intractability of the status quo: "Actual reform of educational practice, however, has not progressed beyond some curricula and course book changes, as well as the establishment of a controversial co-educational island of excellence, the King Abdullah University of Science and Technology (KAUST) near Jeddah. KAUST, notably, is not under the authority of the higher education ministry, even though it is envisaged that it will eventually be subjected to formal state control." The implication is that even KAUST will eventually succumb to the powers that be. Partrick, Neil. "What Does 'Reform' Mean in Saudi Arabia?" *Carnegie Endowment for International Peace*. July 27, 2010. https://carnegieendowment.org/sada/41286.

[82] In the autumn of 2017, as part of a more general loosening of a raft of extant social restrictions, the Saudi government announced the legalization of female driving, stating that women would be allowed to drive in the kingdom starting in the summer of 2018. See "Saudi Arabia to allow women to drive." *Al Jazeera*. September 27, 2017. aljazeera.com/amp/news/2017/9/27/saudi-arabia-to-allow-women-to-drive

[83] In addition to teaching and service, faculty effort ostensibly dedicated to research includes much time spent not conducting core research but engaging in ancillary and support activities, like grant writing and administrative work.

[84] Ulaby, Fawaz, interview, October 31, 2017.

the American polity, Ulaby was nevertheless excited about the novel opportunities and potential benefits that American regional federal research universities would yield. When another country showed real interest in this idea, Ulaby was happy to oblige. His hopes for a novel American university transformed into plans for a novel Saudi one.

One of Ulaby's acquaintances, Prince Turki Saud Bin Mohammed al Saud, happened to be a leader within Saudi Arabia's inchoate sphere of scientific research. Among his many positions, Al Saud chaired the kingdom's Supervisory Committee for the National Science and Technology and Innovation Plan (NSTIP), which was formed in 2005 to oversee the execution of the kingdom's National Policy for Science and Technology, which was set in 2002.[85] This policy framework delineated the technical sectors that the kingdom had to develop in order to grow its economy towards parity with the world's best.[86] The NSTIP was the quasi-governmental agency that served to coordinate and integrate the activities of the many parties and institutions whose collective effort such a developmental drive entailed.[87] One lacuna that became clear as the committee went about its work was the kingdom's need for a dedicated research university, whose focus would be to dramatically boost scientific discovery and technology transfer within the country. When Al Saud reached out to Ulaby about this, the latter saw an opportunity to be part of an institutional genesis akin to the one he had long longed for.

The establishment of a Saudi research university unlike anything before it was not only a project of the NSTIP's prerogative, but one with the personal backing of King Abdullah. He personally granted the project an almost 9000-acre plot of coastal land and charged Aramco with completing the project in less than three years.[88] The choice of the national petroleum corporation as the executor of this project stemmed largely from its reputation for professionalism and operational proficiency.[89] "The state firm has built on its historical roots as

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[85] Mehta, Jinal, Jui Vaidya, Richa Chaudhary, Vikram Ramamrajan and Ati Ranjan. "Saudi Arabia: Emergence of an Innovation Kingdom." *Aranca*. (Special Report for the Euromoney Saudi Arabia Conference, 2014). https://www.aranca.com/assets/uploads/resources/special-reports/Saudi-Arabia-Emergence-of-an-Innovation-Kingdom-An-Aranca-Special-Report.pdf

[86] "National Science, Technology and Innovation Plan: Administrative, Technical and Financial Regulations. Vol. 5." Ministry of Economy and Planning, 2012. https://npst.ksu.edu.sa/sites/npst.ksu.edu.sa/files/imce_images/Governing%20Rules%20Part-I%20%28English%29.pdf

[87] Al-Swailem, Abdulaziz. "Saudi National Science, Technology and Innovation Plan Towards Knowledge Based Economy." *BMC Genomics* 15, Suppl. 2 (2014): O2.

[88] See Verde, Tom. "Houses of Wisdom." *Aramco World* 61, no.3 (2010): 24–37. And " جامعة الملك عبدالله للعلوم والتقنية: صَدَقوا فصدِّقوا] [KAUST: They were Truthful, so they were Believed]." *Qafilah* 58, no. 5 (2009).

[89] Ulaby, Fawaz, interview, October 31, 2017. Also see Hammond, Andrew. "Liberal Enclaves: A Royal Attempt to Bypass Clerical Power." *Middle East Institute.* October 1, 2009. https://www.mei.edu/publications/liberal-enclaves-royal-attempt-bypass-clerical-power#edn2

a private American firm to promote efficiency and optimizing corporate practices," some analysts explain, and "has also used its political clout and domestic political alliances to protect itself from undue interference in its operations and from the imposition of corruption from higher levels of government and other important domestic political actors."[90] Aramco's ability to sustain and expand petroleum production for decades, along with all the institutional and infrastructural framework this has required, while maintaining a good measure of autonomy from social and political pressures has garnered it widespread goodwill and standing as a high-performing institution with a proven project management track record, so much so that it has been described as "an island of rationality and efficiency in the country."[91] Aramco's involvement encouraged Princeton University's then-president, Shirley Tilghman, to join KAUST's founding Board of Trustees, for she saw in the company something of an example for the university to follow, because it "functions on a Western model that is as far as I know utterly unique in Saudi Arabia."[92] Many sensed that, under Aramco's auspices, the project was in good hands. The university was to come into being not only under the aegis of Saudi Arabia's head of state, but also through the expertise of its most successful industrial enterprise.[93]

Though this would be a royal project, those involved understood that the university had to be financially independent of the monarch and his government, so that it might thrive and survive the end of his reign. This meant that the institution, the most prominent privately-owned public good in modern-day Saudi higher education, had to have a sizable endowment.[94]

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[90] Amy Jaffe and Jareer Elass, "Saudi Aramco," 2007: 89.

[91] Gravois, John. "Controlled Experiment: Can a new research university save the Saudi economy and transform a closed society?" *The National*. October 15, 2009. https://www.thenational.ae/uae/controlled-experiment-1.509008.

[92] Brodie, Kerry. "KAUST: Tilghman's Gamble." *The Princeton Tory*. September 22, 2009. theprincetontory.com/kaust-tilghmans-gamble/

[93] In his fictional account of a prospective American consultant's pitch to subcontract for King Abdullah Economic City, a real-life megaproject that happens to lie across a lagoon from KAUST, Dave Eggers suggests that the royal will to power is mediated by the professional corporation, that the be-ing of a monarch is enacted through his charters and charges: "He wanted to believe that this kind of thing, a city arising from dust, could happen. The architectural renderings he'd seen were magnificent. Gleaming towers, tree-lined public spaces and promenades, a series of canals allowing commuters to get almost anywhere by boat. The city was futuristic and romantic, but also practical. It could be made with extant technology and a lot of money, but money Abdullah certainly had. Why he didn't just put the money up himself, without [the developing company] Emaar, was a mystery. The man had enough money to raise the city overnight—so why didn't he? Sometimes a king had to be a king." Eggers, Dave. *A Hologram for the King*. 2012: 39.

[94] Though a private non-profit university may have been relatively novel to Saudi Arabia, it had been a proven model in the region. Most of the Arab World's most well-known universities are not for profit. See Ghabra, Shafeeq. "Student-centered Education and American-style Universities in the Arab World." *Middle East Institute*. February 23, 2012. https://www.mei.edu/publications/student-centered-education-and-american-style-universities-arab-world

Ulaby calculated that $700 million would be needed annually to cover operations. The king seeded the university's financial endowment at nearly $20 billion,[95] though $10 billion was the publicized amount.[96] To compare, right before the Great Recession of 2008, the world's largest college endowment, Harvard's, was over $30 billion, followed by Yale at over $20 billion and Princeton at over $15 billion.[97] On the eve of the financial crisis, KAUST's publicized endowment figure placed it around 6th on the list of the world's wealthiest universities.[98] There was also chatter in financial circles that KAUST's endowment might further swell to second place status.[99]

The university was also to be governed independently of the Saudi system of higher education. The magnitude of financial assets invested in the project as well as its fiduciary autonomy has led some to call it "a defacto [sic] sovereign wealth fund."[100] Its highest authority would be "an independent, self-perpetuating board of trustees."[101] Asserting this independence were its bylaws: KAUST "shall have complete freedom in governing and managing its colleges, institutes, schools, centers and departments without any intervention by others. In this regard, the University shall be exempt from those regulations, policies and procedures applicable to other universities in the Kingdom and their respective faculty members. Within the University, the teaching staff shall have the academic and cultural freedom available in international universities."[102] Before the outlines of its form were even clear, this inchoate institution was keen to present itself as being *in* Saudi Arabia but not unqualifiably *of* it.[103] In effect, this form of

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[95] Ulaby, Fawaz, interview, October 31, 2017.

[96] McEvers, Kelly. "Ambitious New University Opens In Saudi Arabia." *NPR*. November 16, 2009. https://www.npr.org/templates/story/story.php?storyId=120448256

[97] "Table 372. Endowment funds of the 120 colleges and universities with the largest endowments, by rank order: 2008 and 2009." National Center for Education Statistics, US Department of Education (2010).

[98] It has been described as "the richest university in the world outside [the] US." Conway, Mike, Alex Thompson, Pippa Cox and Will Haydock. "Staying on top: The challenge of sustaining world-class higher education in the UK." *Russell Group*. Papers Issue 2, 2010: 17. https://russellgroup.ac.uk/media/5255/staying-on-top-the-challenge-of-sustaining-world-class-higher-education-in-the-uk.pdf

[99] Olds, Kris. "The 'new global wealth machine' and its universities." *GlobalHigherEd*. May 18, 2008. https://globalhighered.wordpress.com/2008/05/18/global-wealth/

[100] Olds, Kris. "Searching for KAUST: of salaries and future insights." *GlobalHigherEd*. September 24, 2008. https://globalhighered.wordpress.com/2008/09/24/searching-for-kaust/

[101] "Q&A: Agreement between UC Berkeley's Mechanical Engineering Department and King Abdullah University of Science and Technology." *UC Berkeley News*. March 4, 2007. https://www.berkeley.edu/news/media/releases/2008/03/04_kaust-qna.shtml

[102] Ibid.

[103] An interscalar mirror to this institutional positioning vis-a-vis national context is the professional orientation towards the institution as part of which one labors; I am thinking here of Harney and Moten's

self-representation as assurance is part of the academic diplomacy that KAUST-the-institutional-idea engaged in to attract partners through and with which KAUST-the-institution could form.

Choosing "an unprecedented and entrepreneurial approach,"[104] KAUST's founders' strategy for having KAUST form its institutional self was to outsource much of this formation. They sought to partner with departments and scholars at elite global universities, inviting them to submit partnership proposals. A partnership with KAUST was designed to be an enticing prospect; in exchange for generous research grants and funded research appointments, the partners were expected to define the KAUST faculty and curriculum, periodically provide instruction at KAUST once it was operational, present their research periodically at KAUST, and collaborate with KAUST-based scholars and students on research projects.[105]

For example, Berkeley's Mechanical Engineering Department was one of the parties that joined KAUST's "Academic Excellence Alliance."[106] In addition to the open-ended expectation that the department's faculty members would set up KAUST's masters' and doctoral programs in mechanical engineering, they were expected to nominate 10 scholars internationally to serve as KAUST faculty, and, should they not be able to find enough nominees, consider filling in at KAUST themselves. Both parties were also to expect their faculty and students to visit one another over the course of the partnership, with the KAUST scholars considered by Berkeley as visiting fellows. One concrete outcome of these visits was to be a report authored by two Berkeley professors, evaluating the program at KAUST. For agreeing to all this, the Berkeley department was to receive $28 million over the term of the 5-year partnership.[107] Departments

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calls for academics to be *in* the university, not *of* it. See Harney, Stefano, and Fred Moten. *The Undercommons: Fugitive Planning & Black Study*. New York: Minor Compositions, 2013.

[104] "Fact Sheet: Professor Choon Fong Shih." KAUST, 2008: 5. http://id.buaa.edu.cn/2008041505.pdf.

[105] Ibid.

[106] "King Abdullah University of Science and Technology Academic Excellence Alliance: Collaboration Agreement between KAUST U.S. Limited and the Regents of the University of California." February 1, 2008. https://www.berkeley.edu/news/media/releases/2008/03/04_kaust-agreement.pdf

[107] The department explained that these funds "will pay for fellowships for the department's graduate students, help support its research projects, fund joint-research with KAUST, provide additional lab equipment at Berkeley, and cover administrative costs. In addition, the Mechanical Engineering Department will allocate part of the funds to increase its efforts to recruit and retain women faculty and students." "Q&A: Agreement between UC Berkeley's Mechanical Engineering Department and King Abdullah University of Science and Technology." *UC Berkeley News*. March 4, 2007. It should be noted that these types of agreements were subjects of disagreement: See for example, "Letter to the Editor." *Forefront* (Fall 2008): 2, and Schevitz, Tanya. "UC Berkeley to team with new Saudi university." *SF Gate*. March 4, 2008. https://www.sfgate.com/bayarea/article/UC-Berkeley-to-team-with-new-Saudi-university-3225553.php.

at Cambridge, Imperial College London, Stanford, and University of Texas at Austin entered into similar partnerships with KAUST.[108]

Another approach took the form of a competition, foregrounding the granting of a monetary sum as the starting point of the inter-institutional relationship. It was termed the "Global Research Partnership" (GRP). With an initial goal of disbursing up to a billion dollars over the course of a decade, this was a tripartite program that funded select postdoctoral researchers, principal investigators, and research centers around the world.[109] These were dubbed KAUST GRP Fellows, KAUST GRP Investigators, and KAUST GRP Centers, respectively. Over a year before KAUST was up and running, Cornell, Oxford, Stanford, and Texas A&M were chosen to receive around $25 million each over five years to establish new research centers.[110] By the autumn of that antecedent year, for instance, Texas A&M University was soliciting applications for KAUST-sponsored postdoctoral fellowships based at its new Institute for Applied Mathematics and Computational Science.[111]

It is little surprise that grants were awarded to establish KAUST centers abroad before KAUST proper itself was fully formed, an inverted sequence testifying to the priority that the founders assigned to developing robust international research relationships in the lead-up to the university's formal opening. Insofar as getting an institution up and running was their primary concern, acquiring a dedicated space appeared to be an appendage to that effort. Even the KAUST's founding board chairman,[112] Petroleum Minister Ali Al-Naimi, admitted that building up the institution need not wait until a campus was built: "The Global Research Partnership is a vital undertaking for KAUST, one that will begin now even as the university's physical campus is

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[108] Early on, KAUST entered into "collaborative arrangements" (MOUs) with the Woods Hole Oceanographic Institution, Institut Français du Pétrole, the National University of Singapore, and the Indian Institute of Technology, Bombay. See "Saudi Arabia's KAUST and IIT, Bombay to Collaborate on Scientific Research." *EurekAlert!* Press release. August 31, 2007. https://www.eurekalert.org/news-releases/541366

[109] "King Abdullah University of Science and Technology Establishes the Global Research Partnership to Seed Advanced Research Worldwide." *PRWeb*. Press release. August 22, 2007. https://www.prweb.com/releases/kaust_research/200708/prweb548576.htm

[110] Coulter, Kimberly. "Saudi Arabia unveils co-ed 'House of Wisdom'/Postcards from Saudi Arabia: The KAUST inauguration." *GlobalHigherEd*. October 5, 2009. https://globalhighered.wordpress.com/2009/10/05/the-kaust-inauguration/. On this note, the selectivity rate was just under 10%; in KAUST's launch of GRP, its receipt of "41 preliminary proposals from some of the world's best research institutions . . . was a strong validation of KAUST's standing as an emerging presence in the global research community." "Fact Sheet: Professor Choon Fong Shih." KAUST, 2008: 5.

[111] "Texas A&M University Department of Mathematics IAMCS-KAUST Postdoctoral Fellowships." *Notices of the AMS* 55, no. 8 (September 2008): 1043–1044.

[112] "King Abdullah University of Science and Technology Announces Inaugural Board of Trustees." *PRWeb*. Press release. October 8, 2008. https://www.prweb.com/pdfdownload/1437464.pdf

being constructed."[113] The start-up university's contingency plan should the campus not have been completed by the autumn of 2009 was to have its members – students and scholars – join laboratories and research groups at their partner institutions; the institution would have commenced operations, even if the campus project lagged behind. As the founders went about them, the institution as a project and the campus project did not necessarily have to be congruent.

Understood by its founders first as a potentially-catalytic constituent of a global web of scientific production and exchange, KAUST was to find its physical footing on the Red Sea coast and make itself at home there only after its access to this network was all but ascertained. As vital as it was to KAUST's institutional formation, the GRP was not meant to create a centralized inter-institutional network in which all STEM roads simply led to KAUST, but to foster a distributed network where sustained exchange takes place along a variety of nodes; as Texas A&M's call for applications put it,

> each [GRP] fellow will be invited to establish collaborations with KAUST faculty, postdocs, and students as well as all of the KAUST Global Research Partner institutions and individual investigators. This offers an unprecedented opportunity for postdoctoral fellows to join a remarkable network of leading research institutions and eminent scholars assembled through the KAUST GRP program.[114]

There was an expectation that there would be, under KAUST's patronage, more vigorous scientific intercourse amongst the world's leading centers of research.[115] Scarcely content with buying an expensive seat at a preexisting but capricious international scientific table, KAUST was willing to pay for a new table, designed along the lines of its particular research interests, *and* pay luminaries to join. In this light, KAUST resembled "more of a global assemblage than a national university"–this may have been an exceedingly unconventional approach but, as one commentator admitted, it was not unfruitful: "KAUST's development strategy seems to have

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[113] "King Abdullah University of Science and Technology Establishes the Global Research Partnership to Seed Advanced Research Worldwide." *PRWeb*, 2007.

[114] "Texas A&M University Department of Mathematics IAMCS-KAUST Postdoctoral Fellowships." *Notices of the AMS* 55, no. 8 (September 2008): 1044.

[115] Another way KAUST made an ecosystemic contribution was co-sponsoring the 2009 Glion Colloquium, a biennial Swiss-based forum where leaders of leading research universities come together from around the world to discuss the state and future of higher education, often joined by representatives from government, commerce, and philanthropy. See Weber, Luc and James Duderstadt, eds. *University Research for Innovation*. London: Economica, 2010: xv.

been an enormous success on a number of levels . . . In other words KAUST has become a presence before it has become a real university (in Thuwal, Saudi Arabia)."[116]

Though the GRP funding scheme was cast as a generous form of scientific altruism – as "KAUST's initial contribution to global scientific issues of particular importance to Saudi Arabia and the world" – those selected were nonetheless expected to engage with KAUST very similarly to an Academic Excellence Alliance partner:

> the Centers will work with partners from industry and other institutions, assist in setting up labs at KAUST, spend time on the KAUST campus, open classrooms to KAUST students via the Internet, conduct joint seminars, training and workshops for junior faculty, exchange faculty and students for teaching and learning opportunities, and participate in curriculum development.[117]

Baked into these partnerships was the expectation that those elements that are *of* KAUST would come to have physically propinquous engagement with those touched *by* KAUST's generosity— that the local campus would reap the fruits of what the global university sowed. Standing to benefit from the stimulus underwritten by KAUST-the-corporate-abstraction was the international, networked, scientific space of flows *with* the place-based, physically-spatialized KAUST in tow. In contrast to soliciting partnerships directly like it did through its Alliance approach, KAUST appears to have anticipated that, through its GRP, productive reciprocal collegial relationships with elite universities would emerge as an epiphenomenon of its engagement with them as a generous granting agency.

A world-class reputation in a discipline that KAUST was to house dictated who these potential partners would need to be. Cognizant of the Saudi context and its anticipated economic and scientific needs, the founders delineated four overarching interdisciplinary research domains that would encompass all KAUST academics: energy and sustainability, applied and computational mathematics, biosciences and bioengineering, material science.[118] These priority areas were further defined into specific fields of study in which students may attain degrees. Five inaugural fields were lined up–chemical engineering, mechanical engineering, materials science and engineering, civil and environmental engineering, applied

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[116] Olds, Kris. "Searching for KAUST," 2008.

[117] "KAUST announces inaugural Global Research Partnership center grants." *EurekAlert!* Press release. April 30, 2008. https://www.eurekalert.org/news-releases/761567

[118] "King Abdullah University of Science and Technology Establishes the Global Research Partnership to Seed Advanced Research Worldwide." *PRWeb*, 2007.

mathematics and computational science–and two more were expected to join the roster a few years later, electrical engineering and applied bioscience.[119] By KAUST's opening, the list of available fields had swollen to eleven: chemical engineering had split into chemical science, and chemical and biological engineering; civil and environmental engineering became environmental science and engineering; and added were computer science, earth science and engineering, and marine science and engineering. Stanford, for example, was the partner associated with applied mathematics and computer science, while Berkeley, as mentioned earlier, took care of mechanical engineering.[120] Given Ulaby's intimate involvement in this process, Michigan was vested with electrical engineering. With the partners tasked with drawing up curricula and putting forward qualified potential faculty members to deliver them, it was the founders' responsibility to fully vet and recruit these prospects. KAUST also undertook its own search for faculty. Ulaby met with every single candidate, jet setting across the world to conduct interviews.[121]

To entice the successful candidates to make KAUST their home, the founders put together an attractive compensation package, applying to this recruitment effort the largesse with which it sought to incentivize international partnerships. Its self-described "world-class total rewards package" started with a base salary that was "internationally competitive, as benchmarked with premier universities."[122] Though portrayed as in line with what the world's elite institutions were offering, this pay was in a league of its own: it was closer to 150% to double the pay at elite US universities and without tax obligations.[123] This was merely the start.

An appointment at KAUST entitled faculty members to many generous perks and benefits, all untaxed.[124] In addition to comprehensive medical, dental, and disability coverage, generous pension and savings plans, and complementary basic life insurance, KAUST was

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[119] "Introduction to King Abdullah University of Science and Technology." KAUST, 2008: 4. http://id.buaa.edu.cn/2008041504.pdf

[120] "Stanford to help new Saudi university in applied math, computer science." *Stanford News*. March 4, 2008. https://news.stanford.edu/news/2008/march5/kaust-030508.html

[121] Ulaby, Fawaz, interview, October 31, 2017.

[122] "KAUST Faculty Employment Package Fact Sheet." KAUST. (Revised January 15, 2008). http://ensimag.grenoble-inp.fr/servlet/com.univ.collaboratif.utils.LectureFichiergw?ID_FICHIER=1383653605455

[123] Coulter, Kimberly. "Saudi Arabia unveils co-ed 'House of Wisdom'/Postcards from Saudi Arabia." 2009.

[124] The trifecta of generous compensation, abundant amenities, and a resplendent lifestyle was pioneered by Dubai-based enterprises as a means of attracting Western professionals to move to the city. See Le Renard, Amélie. *Western Privilege: Work, Intimacy, and Postcolonial Hierarchies in Dubai*. Translated by Jane Kuntz. Stanford: Stanford University Press, 2021.

willing to reward those who took the risk of joining the fledgling enterprise that it was: an "overseas incentive allowance," pegged at half base pay, was earned by virtue of "accept[ing] an overseas assignment in Saudi Arabia away from their home country;" a "start-up allowance," to be completely phased out by KAUST's sixth year, recognized "the enormous time, efforts and commitments of all faculty and staff to successfully establish a new world-class University;" and a "sign-on incentive," a one-time signing bonus fully-earned at the end of the first year of employment.[125] The figure KAUST provided as an example of a *partial* accounting of aggregate take-home income was $165,000 per annum, a hefty sum by academic standards for all but the most well-established professors. Moreover, taking family expenses into account, the university provided allowances covering family moving expenses and K-12 tuition until the KAUST-based, tuition-free schools became operational. KAUST even offered free annual roundtrip tickets to children enrolled in college outside the kingdom. Housing on campus, where faculty were expected to live, was subsidized by the university. Fully-furnished, utilities-inclusive units were available for nominal rent. After a year of employment, a faculty member's whole family was to receive tickets to their home country, where they could spend the 30 days of paid vacation to which faculty were entitled.[126]

The personal financial upshot being clear, KAUST emphasized the unique research advantage it afforded, namely, the savings in time and worry that it promised its researchers by serving as a source of both employment and *guaranteed* research funding. KAUST was not merely the university under whose banner faculty were to work, but also their funding agency. This generosity was to take the place of any expectation of tenure. This is not a remotely surprising decision; a scholar whose efforts are directed toward reimagining engineering and computational education, Lynn Andrea Stein argues that "Lack of tenure is arguably a less disruptive choice in an institution whose faculty tilts towards engineering, science, and technical fields — that is, for whom employment outside of academe is a more plausible alternative than it is for those in, say, the humanities and social sciences."[127] Rather than "decouple the interests of the institution and the interests of the faculty member ... as when tenure protects a faculty member's academic freedom to pursue an intellectual agenda that might be misaligned with the institution's perception of its own interests," a STEM institution, like KAUST as Olin College of

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[125] Coulter, Kimberly. "Saudi Arabia unveils co-ed 'House of Wisdom'/Postcards from Saudi Arabia." 2009.
[126] Ibid.
[127] Stein, Lynn Andrea. "No Departments and No Tenure." *The Chronicle of Higher Education*. April 7, 2021.

Engineering before it, may be wise to adopt a tenure-free "system in which faculty members and academic institutions mutually commit to one another's continued development and thriving."[128] In lieu of offering faculty conditional job security in the form of tenure, through which compensation and research support are contingent on securing competitive external research grants, as is prevalent in top American research universities, KAUST offered funding security, tout court. As it explained,

> KAUST offers a kind of security to its faculty that is different from the conventional tenure system and should be more important to the faculty candidates . . . Compared to the uncertainty, tediousness, and time consumed in writing multiple research grant applications to government agencies, KAUST can offer the security of continuous research support. Uncertainty of research support has become the "valley of death" for academics who need long-term stable support for their work, as well for as those who seek to change research direction mid-career or to prove themselves at the start of their career. . . KAUST offers faculty appointments with an expectation of renewal as good as tenure or better, since the appointee can expect continuity of research support rather than a high percentage of rejection of government grant applications. The typical appointment is renewed annually and has a "rolling" five-year term. In other words, the faculty member will have five years of guaranteed support at any point during his or her employment. Junior faculty can earn this status at the end of this [sic] first two years at KAUST.[129]

What was on offer was portrayed as a truer freedom to pursue one's scientific research agenda without financial or bureaucratic burdens. At this university, no convincing of the worthiness of one's research project was necessary to secure funding. An employment offer from KAUST was already a stamp of approval – a mark of confidence in a faculty member's expertise, potential, and value as a researcher – which meant that the university was not interested in setting up any more quality control hoops for faculty to jump through. Rather, it sought to accelerate the research process and be as supportive of ambitious researchers as possible.

The campus itself, whilst very much under construction and somewhat of a mystery throughout the recruitment process, was another research incentive. Although the university's rapid ramp-up precluded delaying campus design and construction for input from its future faculty and administration, the founders emphasized that the anticipated facilities were

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[128] Ibid. Notably, Olin is also relatively young and, striving for transdisciplinarity, without departments.
[129] "KAUST Faculty Employment Package Fact Sheet," 2008.

enviable. For instance, on its opening, the campus would be home to one of the world's fastest supercomputers, an oft-noted point of pride. Broadly still, a billion dollars (of $2.6 billion spent on the whole campus[130]) were spent on laboratories and research spaces "in flexible building shells with interchangeable modules for different laboratory types"[131] so that faculty could customize them for their purposes. The point was not to spare an expense: "For research excellence, the limiting factor is not space or money, but KAUST's ability to recruit world-class scientists and research engineers to the campus. *The opportunity for faculty to guide the design and build-out of customized research labs and facilities is one of the most important tools KAUST has to attract these world-class scientists*" (original emphasis).[132] In this capacity, the university's spaces were to be purposely-built state-of-the-art iterations of MIT's Building 20. This famed, originally-ad hoc but long-lived, structure was the location of many groundbreaking scientific breakthroughs. This was due, in large part, to the flexibility and lack of spatial determinacy it afforded researchers, who were at liberty to manipulate their spaces.[133]

Just as critical as providing enviable spaces was populating these spaces. The faculty KAUST recruited were principal investigators expected to run "laboratories," that is, lead research groups. The university committed to funding graduate students, postdoctoral fellows, and technicians to work in these laboratories. And to ensure that recruited faculty were not hermetically cut off from their global network of peers, the university was prepared to underwrite up to six international business trips on business class for its associate and full professors. Through these benefits, the university displayed a sincere commitment "to overcome any isolation researchers might feel by keeping them linked with the rest of the world—allowing scientists to maintain appointments at other universities, for instance, and paying for travel to any meeting across the globe."[134] As a further incentive to eliminate any impression that the university was some sort of gilded cage, KAUST was willing to underwrite both pre-appointment and inter-appointment sabbaticals elsewhere, funding a researcher for up to a year before arrival, and for a year after 5 years of employment.[135]

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[130] Radsch, Courtney, Mohammed Alyous, and Hayyan Nayouf. "Saudi looks to the future, opens coed university." *AlArabiya*. September 22, 2009.
https://english.alarabiya.net/articles/2009%2F09%2F22%2F85724

[131] "KAUST Faculty Employment Package Fact Sheet," 2008.

[132] "Introduction to King Abdullah University of Science and Technology." KAUST, 2008: 5–6.

[133] Lehrer, Jonah. "Groupthink: The Brainstorming Myth." *The New Yorker*. January 30, 2012.

[134] Choi, Charles. "Arabian Brainpower." *Scientific American*. February 1, 2008.
https://www.scientificamerican.com/article/arabian-brainpower/

[135] "KAUST Faculty Employment Package Fact Sheet," 2008.

The terms the university was offering were unheard of in academia–almost too good to be true–perhaps as a way to compensate for the fact that recruitment was likely to be the first time that a researcher heard of KAUST. In their call to action, the founders did not shy away from the perception that theirs was a high risk, high reward enterprise:

> Put directly, if you currently are research productive and want to establish yourself as a world class academic in science or engineering, you can do it at KAUST more so in these times than in the U.S., U.K., and many other countries. KAUST offers a unique opportunity to get in on the ground floor, recruit additional outstanding colleagues, and launch a new research venture. If you are already a world class academic, tired and worried about writing many research grant applications each year in order to hold your team together, come to KAUST."[136]

Their recruitment package was designed to hedge as much of the uncertainty involved in such a project while highlighting all the unique perks associated with it. Their pitch was that this was a once-in-a-lifetime opportunity for researchers to take a risk on a worthwhile academic endeavour, a real chance to work together towards attaining a win-win situation, where researchers get to immerse themselves without hindrance in the research of their dreams, while the university basks in esteem as a world-renowned hub of scientific knowledge production.

This recruitment effort appears to have attracted considerable attention in STEM circles.[137] The lavishness of the compensation package undoubtedly amplified this curiosity. In 2008, GlobalHigherEd noted that the many search engine queries about KAUST that led to that blog subsequently came to be dominated by searches about KAUST salaries.[138] Yet, for those who eventually joined KAUST, handsome pay was only one part of its appeal. For Italian marine biologist Timothy Ravasi, compensation was certainly a decisive factor, but more important was the expansive "academic freedom" he expected to have at KAUST, by which he meant the ease of undertaking research due to the campus' coastal location, his unrestricted scholarly discretion, and the ready availability of research funds and resources.[139] For Brazilian materials scientist Suzana Nunes, this freedom of scientific inquiry was squarely behind her decision to move from

[136] Ibid.

[137] Glotzer, Sharon, Sangtae Kim, Peter Cummings, Abhijit Deshmukh, Martin Head-Gordon, George Karniadakis, Linda Petzold, Celeste Sagui, Masanobu Shinozuka. "International Assessment of Simulation-Based Engineering and Science." World Technology Evaluation Center. WTEC Panel Report. April 2009. https://www.osti.gov/servlets/purl/1088842

[138] Olds, Kris. "Searching for KAUST," 2008.

[139] Houlton, Sarah. "Saudi science breaks the mould." *Chemistry World* (August 2010): 51.

a German research institute, compounded by her interest in the prospect of mentoring female researchers in a more collegial, collegiate setting.[140] The motivation of personal income notwithstanding, there was genuine interest in this newfound university's scholarly and scholastic affordances. Though many prospects probably decided against taking this risk, while others likely thought twice about decamping to a place largely unknown to them before deciding to take up the opportunity, enough got on board enthusiastically. By the time KAUST opened in the autumn of 2009, 71 scholars culled from some of the world's elite universities had joined the faculty.[141] Though less than the target of 80, the recruitment effort was an overall success.[142]

This serious recruitment effort extended to the student body; attracting them was far from overlooked. Here munificence played as central a role as it did in the faculty effort. But, student recruitment was also a lock-in scheme; the founders structured admissions on a contractual basis whereby they funded the remainder of admitted students' undergraduate studies, paying their tuition fees *and* providing them with a stipend, in return for a commitment to enroll at KAUST as a graduate student.[143] Under the rubric of the "Discovery Scholarship Program," KAUST essentially paid admitted students to be amongst the first to attend it; this suggests that it would have been due a hefty refund had any admitted student not rendered to the university the service of attending.[144] Once at the university, the students would expect further largesse. That it was tuition-free was only the base on which the student incentive structure was built.[145] All students were to be fully funded, which meant free, brand-new on-campus housing and tax-free annual stipends ranging between $20,000 and $30,000, depending on their degree level.[146] And like faculty, student benefits covered healthcare and travel expenses.[147]

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[140] Ibid., 50.

[141] Durrani, Matin. "Saudi Arabia opens huge new university." *Physics World*. September 23, 2009. https://physicsworld.com/a/saudi-arabia-opens-huge-new-university/. See also Gravois, John. "Controlled Experiment," 2009.

[142] Ulaby, Fawaz, interview, October 31, 2017.

[143] Gravois, John. "Controlled Experiment," 2009.

[144] "New Scholarship Opportunity for Undergraduate Students in Science and Technology: King Abdullah University of Science and Technology KAUST Discovery Scholarship Program." KAUST, n.d. [c. 2008] (Application Deadline January 16, 2009). https://studylib.net/doc/5854105/new-scholarship-opportunity-for-undergraduate-students-in

[145] This alone was a $60,000–$70,000 value, comparable to tuition at Stanford and MIT. See "Saudi Arabia to launch elite research university." *NBC*. September 22, 2009. https://www.nbcnews.com/id/wbna32971495

[146] Ibid.

[147] "New Scholarship Opportunity for Undergraduate Students in Science and Technology" KAUST.

The recruitment effort was a global search for the best students, without affirmative action for prospective Saudi students; the latter would have to compete with a global pool of applicants. The founders' goal was an inaugural class numbering 250 to 350 students.[148] A 2009 report sponsored by a number of US government agencies observed that KAUST was "perfectly positioned to attract the best and brightest students and researchers from the Middle East, China and India,"[149] and noted that "there is substantial concern that KAUST, with its state-of-the-art facilities and generous graduate scholarships, will be able to attract away the best and brightest Asian students, who have for many years come to the United States for graduate study and remained to become leaders in high-tech industries."[150] KAUST's most exciting prospects, along with their parents, were flown for interviews with Ulaby at major cities globally, such as Mexico City, selected as recruitment hubs.[151] The university received nearly 7,200 applications for its inaugural cohort. Its matriculating class was 374-students strong, of whom 44 were doctoral students.[152] Assuming a conservative yield rate of 50%, KAUST's selectivity at the outset was an impressive 10%.[153] Of this class, 15% were Saudi, while 14% were Chinese and 8% were Mexican. KAUST squarely met its student recruitment target.

Out of this globe-trotting institutional gestation process, a populated academic organization was born.[154] Abdulrahman al-Rabesh, an Aramco engineer, was proud that his employer "was able to cultivate a new idea that did not exist in Saudi universities . . . [that of] a diverse, international university, . . . attract[ing] competent and gifted students and instructors to create a new environment that people are not familiar with; one that brings different learning

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[148] "Introduction to King Abdullah University of Science and Technology." KAUST, 2008: 8.

[149] Glotzer, Sharon, et al. "International Assessment of Simulation-Based Engineering and Science," 2009: 130.

[150] Ibid., xvii.

[151] Ulaby, Fawaz, interview, October 31, 2017.

[152] Durrani, Matin. "Saudi Arabia opens huge new university," 2009. In its first admissions season, the university hit two birds with one stone: it simultaneously accepted 443 students for matriculation the subsequent year. This dual action was reflected in the recruitment scholarship program applying to both juniors and seniors. See Choi, Charles. "Arabian Brainpower," 2008.

[153] Gravois, John. "Controlled Experiment," 2009. Though published acceptance rates in the US generally stem from undergraduate admissions, they may be useful as points of comparison. In 2009, Harvard's rate was 7.1%, Stanford's was 7.6%, and MIT's was 10.2%. See O'Shaughnessy, Lynn. "The Top 10 Colleges Which Reject Nearly Everyone." *CBS*. December 15, 2009. https://www.cbsnews.com/news/the-top-10-colleges-which-reject-nearly-everyone/

[154] The founders stated that KAUST's "initial population of students will be between 250 and 350, growing to no more than 2,000 students at maturity" while "professorial faculty [are] expected to number approximately 600 at the University's maturity." "Introduction to King Abdullah University of Science and Technology." KAUST, 2008: 8–10.

cultures together in the quest for scientific knowledge."[155] With the human capital that comprised this novel Saudi-based institution assembled, there remained the question of physically bringing them together. Building a home for this new body academic, a brand new campus in the kingdom, was the other half of Aramco's charge. Its team had already selected the St. Louis-based multinational firm HOK in 2006 to design the campus, and they did so without knowing what the institution it served was specifically going to look like; the design principal in charge of the project admitted that "KAUST, the organization, was being formed in parallel with the building design. This meant that we had no real client/user."[156] Nonetheless, the design and construction were completed in 28 months.[157] KAUST was to take up a space of its own that lived up to its promise and promises.

3.4 The University as Camp(us)

When I first passed through the security checkpoint serving as the gateway to the KAUST campus, I thought I had finally made it into the walled enclave. I quickly realized that I was merely in a no-man's land, traffic signs pointing me towards a check-in center on the road's rightside. I had assumed that the tablet-wielding security guard at the checkpoint had verified and entered my information into whatever entry management system the university was using, but it now appeared that there was more verification to be done. As I entered the building, I noticed that I was the only visitor there. It surprised me that they asked for no more than the same documents that the checkpoint guard inquired about. When I left the check-in center, my earlier thought came back to mind: I've made it in! Wrong again: the road led to another checkpoint with another tablet-wielding guard asking for the same information. In the meantime, a few cars had buzzed by, unhindered, in the left lane, which was reserved for KAUST community members. I knew I had *finally* made it through when the road became a boulevard,

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[155] Radsch, Courtney, et al. "Saudi looks to the future, opens coed university," 2009.

[156] Odell, William. "HOK's Bill Odell on the Design of Saudi Arabia's KAUST University, the World's Largest LEED Platinum Project." Interview by Diane Pham. *Inhabitat*. November 3, 2014. https://inhabitat.com/interview-hoks-bill-odell-on-the-design-of-saudi-arabias-kaust-university-the-worlds-largest-leed-platinum-project/. To remedy this huge gap, they took an educated-guess approach; Odell explained that during the design process the "people representing KAUST were senior people on loan from ARAMCO, the large Saudi Oil company. Together we assemble[d] a series of 'expert panel' around various topics which served as our surrogate client for various aspects of the project."

[157] Ibid. In the autumn of 2006, the design process started with a day-long, trans-time-zone exquisite corpse exercise that had ten of HOK's offices across the globe "race the sun," each team having two hours to contribute ideas to a common server before handing the prerogative over to the next office. Something from every team ultimately made it into the final campus design. See Basulto, David. "KAUST University, Saudi Arabia." *ArchDaily*. September 20, 2009. https://www.archdaily.com/35800/kaust-university-saudi-arabia

framed by palm trees–the desert was now behind me and the metaphorical oasis before me. That those in the right lane were triple-checked before being let through impressed on me the seriousness with which the campus perimeter's security was upheld (Fig. 3.3).[158]

Figure 3.3 One part of the campus' fenced perimeter. (Source: My photograph)

The contrast between KAUST's inside and outside was sharpened by my middle passage earlier that day. Thuwal, where the campus is located, is about an hours' drive away from the closest city with an international airport, Jeddah, the kingdom's second largest city and most cosmopolitan hub. Along this route, a police checkpoint, under a narrow structure that spanned across both sides of the expressway, marked my exit from the city's immediate hinterland and entrance into a rural desert landscape. Though the university was placed in the general vicinity of Jeddah, the drive to the campus shattered any semblance of a physical or affinitive continuity between city and campus. Before I even laid eyes on KAUST, my commute's character immediately betrayed that the campus was decidedly extraterritorial. Just as the institution was conceived to be of Saudi provenance but not character, the campus enclave was designed as though it were an exclave.

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[158] When I left the campus, at the end of the day of my first visit, I did so using another gate without encountering any obstruction. I received a cordial email that night about me not having checked out of the campus. Surprised, I assured them I had indeed left. Little did I know, as a visitor, I was supposed to exit using the same gate I entered through, checking out with the guards on duty. Though my emailers were cordial about this oversight, I did not make that mistake again.

Within its fenced perimeter, KAUST had to be spatially self-sufficient. Guiding its conception was a maximalist understanding of "the campus as city."[159] The campus was not merely metropolitan in effect, but was so by intent. It is not *like* a city, but *is* a city. Insofar as it was explicitly designed as a city in miniature, no resident would *have* to leave its bounds to fulfill any of his or her daily needs. Schools, retail businesses, markets, clinics, inns, and community centers are all available on campus. Aside from vendors servicing run-of-the-mill socioeconomic needs, in the middle of campus is a dedicated walk-in bureau for Saudi governmental transactions where community members can get their paperwork in order without having to venture out to some ministry or agency—in effect, a consulate that the state has placed in a pampered enclave sanctioned by that very state. An attempt to offer this particular community's members hassle-free access to the country's public agencies bespeaks once again this domain's extraterritoriality.

The campus was also designed so that no resident would *want* to leave.[160] It was envisioned more as a resort than a college town.[161] Just as its professional domain was spared little expense, KAUST campus life would similarly receive pampered treatment. The university was proud to declare that its "award-winning campus has everything you need to live, work, study and play."[162] On a basic level, the campus was characterized as a space of work-life balance. But it was also something more encompassing: "Designed to inspire and motivate our faculty, students, staff and their families to maintain an active lifestyle, KAUST is more than an [sic] university."[163] Here advertised was a total institution, not in the totalitarian sense but in the utopian one. Just as the high-tech research facilities afford scholars and students the opportunity to engage in cutting-edge research, the collection of amenities on campus offer them and their families an attendant life of leisure and recreation: "With state-of-art fitness facilities, a golf course, numerous fine dining and casual fare restaurants, elementary and secondary schools, and of course, the Red Sea just steps away, there is something for

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[159] Carlson, Scott, and Lawrence Biemiller. "The Campus as City: Crucial Strategies to Bolster Town-Gown Relations and Run a Thriving 21st-century Institution." The Chronicle of Higher Education, 2019.

[160] Spending time off-campus was by no means discouraged, though, as evinced by the ease with which a resident could cross the campus gates by car.

[161] On this note, architectural critic Geoff Hanmer distinguishes between the campus as a place of coercive obligation versus that of seductive attraction: he applauds the "idea of campus as a resort (a place where people want to go) rather than campus as a workplace (a place that people have to go)." Hanmer, Geoff. "Unbuilt Australia: UNSW Asia." *Architecture Australia* 97, no. 2 (2008): 32.

[162] "Living, Working and Studying at KAUST." *KAUST*. Accessed October 1, 2021. https://www.kaust.edu.sa/en/live-work/

[163] Ibid.

everyone."[164] As a living space, KAUST was set up as a comfortable place of comforts aplenty. One cannot help but be reminded of Seahaven as the picturesque, fictional precedent that this campus has come to realize.[165]

At the center of family life on campus was one's home. In exchange for a nominal rent, every faculty member gets to live in a house of their own, with yards and parking spots, in one of three "neighborhoods."[166] The vast majority of land area inside the campus enclave is dedicated to these zones of detached homes, constituting suburbs within the walls (Fig. 3.4). As one reporter described it, "Professors live in brand-new neighbourhoods of tract housing, on winding suburban streets with names like 'Transformation Drive', where the spaces between homes are filled with nothing but blue sky. The generous homes are furnished with matching sets of fine hotel furniture, multiple flatscreen televisions and dead brown lawns."[167] Though faculty can drive to work, the distance between these residential areas and the academic core is bikeable, if not walkable. When I toured these neighborhoods, it was as though I were in a resort or abroad, for their character was unlike what I had seen in Jeddah (Fig. 3.5). As the recruitment material impressed, a lovely house was the base from which a KAUST community member can rest assured that they will live a comfortable life on campus: "In addition to a community that offers beautifully designed and appointed homes, recreation facilities, learning and leisure opportunities are just the beginning of what you can attain as a member of the KAUST faculty or staff family."[168]

Faculty also have the option of living in apartments, though most apartment buildings cater to graduate students. In contrast to the suburban character of the "neighborhoods," these student housing "districts" are urbanesque (Fig. 3.6–3.9). The apartment buildings are served by pedestrian streets, with commercial hubs interspersed through the street fabric. To walk amongst apartment buildings without having to deal with car traffic was something I had not experienced before in the country. In fact, the near universal experience is not being able to

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[164] Ibid.

[165] Seahaven is a picturesque fictional coastal town-world in the 1998 film *The Truman Show*. Within the bounds of this televised potemkin village, the titular character lives a supposedly complete, idyllic life while oblivious to the artifice of his hometown and the round-the-clock observation to which he is subject by producers and a mass public viewership. Unable to maintain a sense of contentment with his life in this bubble of a town, he eventually breaks out into the real world. See Weir, Peter, dir. *The Truman Show*. Paramount Pictures, 1998. At least one observer has also made this connection, dubbing KAUST "the Seahaven of Saudi Arabia." See Olds, Kris. "Searching for KAUST," 2008.

[166] "KAUST Faculty Employment Package Fact Sheet," 2008.

[167] Gravois, John. "Controlled Experiment," 2009.

[168] "KAUST Faculty Employment Package Fact Sheet," 2008.

comfortably walk in a residential neighborhood due to the absence of pedestrian infrastructure. My experience in the KAUST "districts" was flipped; the street was fully mine. The only cars I saw were those of construction and maintenance crews. These residential districts were adjacent to the academic zone, suggesting that students ought to simply walk to class or work, let alone any store they might want to patronize (Fig. 3.10).[169]

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[169] On its opening, KAUST stated that it provided a wide range of retail outlets on campus: a grocery store, dry cleaner, theater, cinema, bank, travel agent, post office, beauty salon, daycare centers, cafes, restaurants, and "fine-dining options." The number of retail stores on campus has since increased. "Community Services." *KAUST*. Webpage capture on September 12, 2009. https://web.archive.org/web/20090912142702/http://www.kaust.edu.sa/community/services.html

Figure 3.4 The majority of land inside the campus is dedicated to residences, constituting suburbs within the walls. (Source: My photograph)

Figure 3.5 A view down one of the streets on which faculty live. (Source: My photograph)

Figure 3.6 A map of the "Harbor" district where students live. (Source: My photograph)

Figure 3.7 A seaside view of the "Harbor" district where students live. (Source: My photograph)

Figure 3.8 A pedestrian street in front of the Harbor Library, which is a community space rather than an academic one. (Source: My photograph)

Figure 3.9 Another view of the students' residential district. (Source: My photograph)

Figure 3.10 A commercially-oriented public space in the "Harbor" district, dubbed the "Discovery Square." (Source: My photograph)

The character of this space for a leisurely life is starkly different from that of the campus'
academic core, whose northern side it abuts (Fig. 3.11–3.12). Atop a podium, the collection of
academic buildings exude a subdued corporate monumentality (Fig 3.13–3.14). Once I crossed
the road from the adjacent district, I had to ascend a grand staircase to reach the esplanade
constituting the core's grade level (Fig. 3.15). Without having to enter any of the buildings, I was
nonetheless inside a coherent space, inside the open-air enclosure that is this matrix of
buildings. Designed as "a singular meta-building with all spaces interconnected and served from
a common base,"[170] the campus core recalls campuses like those of the State University of New
York at Albany and the University of Illinois Chicago, both of which were designed in a
monumental, corporate, midcentury modern idiom atop a plinth.[171] But as a masonry-clad
seaside campus dedicated to research, KAUST's is more reminiscent of the Salk Institute's in La
Jolla, California—but at a scale closer to the Getty Center's in Los Angeles.

In its design, the center of KAUST's campus embodies one of the university's main
research foci: sustainability. Indoor and outdoor spaces were designed to minimize solar heat
gain and maximize passive cooling.[172] Almost all interstitial space between academic buildings is
shaded by screened canopies permitting only dappled light (Fig. 3.16). The academic campus'
defining element is "the spine," a central pedestrian thoroughfare cutting through these
buildings and serving as a climate-friendly outdoor space tying them together (Fig. 3.17–3.19).
Cafes, convenience stores, administrative offices, galleries, atria, fountains, and building
entrances lined it. Like a traditional mixed-use street, this was a place to pass through and to
spend time in.

The character of the campus' academic core was inspired by both regional and foreign
precedents. From traditional Arab architecture and planning, the architects learnt to shade all

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[170] "King Abdullah University of Science and Technology." *HOK*. Accessed January 1, 2022.
https://www.hok.com/projects/view/king-abdullah-university-of-science-and-technology-2/

[171] Jon Buono describes SUNY Albany's and UIC's midcentury "instant" campuses as "all-in-one
concepts." See Buono, Jon. "Modern Architecture and the U.S. Campus Heritage Movement." *Planning
for Higher Education* 39, no. 3 (2011): 88-102.

[172] The closer one gets to the place on campus where research is conducted the more seriously
environmental sustainability is embodied by the physical campus. Farthest from the academic core,
KAUST's residential "neighborhoods" ironically reproduce, albeit at a much smaller scale, the American-
style suburban sprawl that many scholars have castigated as the spatial index of a high-carbon-footprint
society. Conversely, closer to the core, the residential "districts" are New Urbanist in sensibility,
characterized by denser urban building types prioritizing pedestrianism. The core itself is a model of
explicit, high-tech sustainable design for a region without many such models.

spaces and provide for naturally-cooling ventilation throughout the complex.[173] An iconic element that was unmissable while I walked the spine was the pair of large, hollow, glass towers constituting a modern rendition of the ancient wind towers native to Arabia (Fig. 3.20–3.23).[174] Compared with the abstracted neo-traditional rendition of Arabian wind towers on Qatar University's campus, which was completed in 1985, KAUST's are decidedly high-tech.[175] Design influence extended to space's socio-intellectual affordances. Inspired by MIT's "infinite corridor," HOK provided in "the spine" a cross-cutting, non-discipline-specific common space for both circulation and congregation.[176] The ambition was to spatially encourage interdisciplinary encounters and a cross-fertilization of ideas like those that led to groundbreaking discoveries at places like MIT.[177] When this complex of interconnected buildings was built, it was not only the first LEED-certified building in the kingdom, but also the largest project in the world to have attained LEED Platinum status,[178] the highest sustainability certification awarded by the US Green Building Council. Upon its establishment, the university effected a paradigm shift in Saudi architectural sustainability.[179]

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[173] "AIA Top Ten Projects 2010 Winners: KAUST." *The American Institute of Architects*. 2010. https://www.aiatopten.org/node/113

[174] Masdar City in the United Arab Emirates, an easterly neighbor to Saudi Arabia, is perhaps the paradigmatic example of a 21st-century attempt to embody environmental sustainability through a modern interpretation of traditional Arab architecture and urbanism. See Günel, Gökçe. *Spaceship in the Desert: Energy, Climate Change, and Urban Design in Abu Dhabi*. Durham, NC: Duke University Press, 2019. In a comparative analysis of 8 campuses in the Arab World in terms of sustainable design, only the campus of the Masdar Institute of Science and Technology surpasses KAUST's in the authors' assessment; see Rezaei, Nazanin, and Hamed Kamelnia. "Investigation of Sustainable University Campus Design Factors in Case of the Middle East Countries." *Proceedings of the 3rd International Congress on New Horizons in Architecture and Planning*, Tehran-Mashhad, January 4–5, 2017.

[175] See Salama, Ashraf. "When Good Design Intentions Do (Not) Meet Users' Expectations: Exploring Qatar University Campus." *Magaz* 104 (2008): 104–111.

[176] Al-Naimi, Ali. *Out of the Desert: My Journey From Nomadic Bedouin to the Heart of Global Oil*. London: Penguin, 2016.

[177] This spatial promotion of socio-intellectual contact and exchange reflects what Paul Temple positively refers to as "the politics of the *couloir*." See Temple, Paul. "The University *Couloir*: Exploring Physical and Intellectual Connectivity." *Higher Education Policy* (2021). https://doi.org/10.1057/s41307-021-00253-x

[178] "Largest LEED Platinum project in the world" *Construction Week*. June 28, 2010. https://www.constructionweekonline.com/business/article-8765-largest-leed-platinum-project-in-the-world

[179] The campus sparked a sustainable design boom in a country where it had no prior presence. See Younis, Jourdan. "Green Building in Saudi Arabia: What the Industry Looks Like in 2022." *Alpin*. December 23, 2019. https://www.alpinme.com/green-building-in-saudi-arabia/

Figure 3.11 The academic core is inscribed within a semicircular stretch of road. (Source: My photograph)

Figure 3.12 A model of the academic core kept on campus. (Source: My photograph)

Figure 3.13 A view from a waterfront restaurant amongst the neighborhoods, showing the monumental academic core across "Safaa Harbor." (Source: My photograph)

Figure 3.14 The academic buildings exude a corporate monumentality. (Source: My photograph)

Figure 3.15 The grand steps leading up from the Harbor district to the northern end of the core's esplanade. (Source: My photograph)

Figure 3.16 Shaded interstitial space between buildings bathed in dappled light. (Source: My photograph)

Figure 3.17 The central section of the Spine, where it becomes more like a square. (Source: My photograph)

Figure 3.18 Another section of the Spine. (Source: My photograph)

Figure 3.19 When entering the buildings from the Spine, one encounters such an atrium inside. (Source: My photograph)
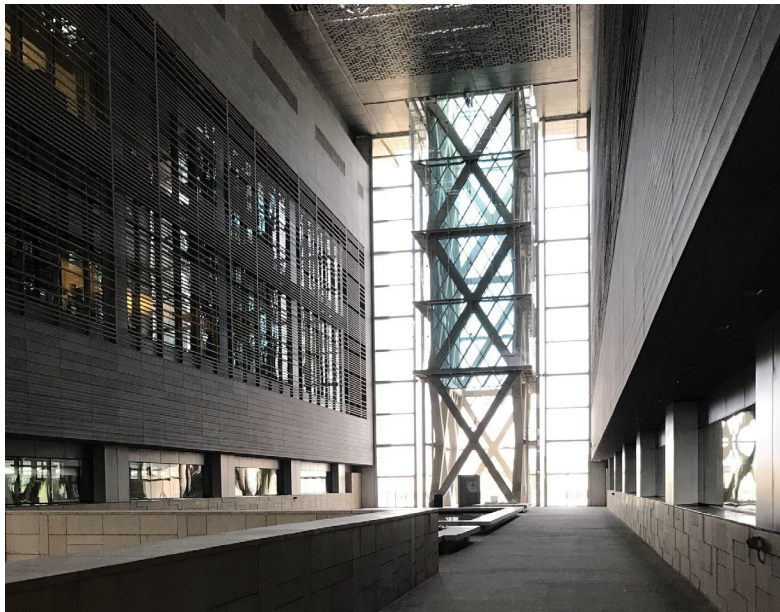
Figure 3.20 A monumental glass wind tower in the cover space between academic buildings. (Source: My photograph)

Figure 3.21 A view from below into one of the wind towers. (Source: My photograph)
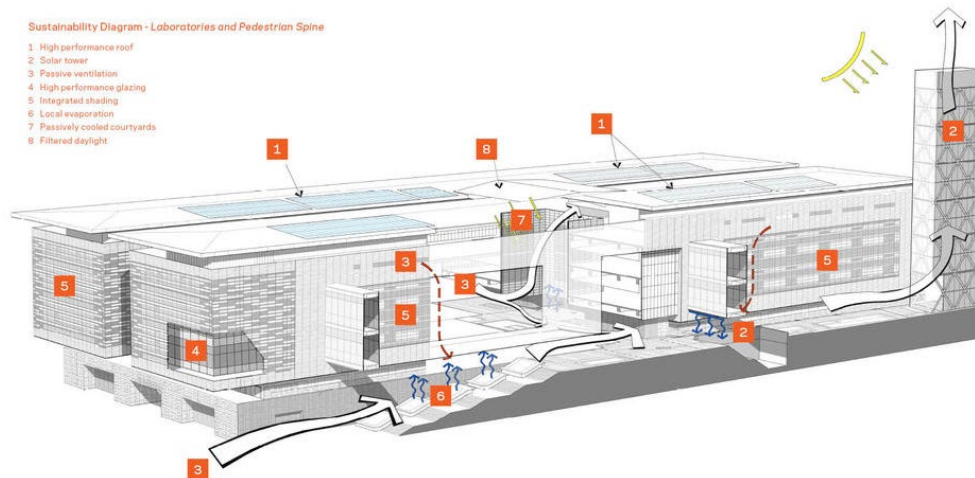
Figure 3.22 A cross-section through the buildings and Spine showing the architectural sustainability strategy. (Source: J. Picoulet/AIA[180])

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[180] "AIA Top Ten Projects 2010 Winners: KAUST." *The American Institute of Architects*. 2010.

Labels on figure:
- highly insulated metal roof
- terracotta rainscreen
- integral screening
- monumental glass
- stone plinth
- ▲ Common material approach

Right-side panel: ▼ Campus interpretation of cultural references
- mashrabiya — solar screening
- the souk — courtyards with dramatic light
- arabesque ornament — diagrid structures
- nocturnal culture — buildings transform at night
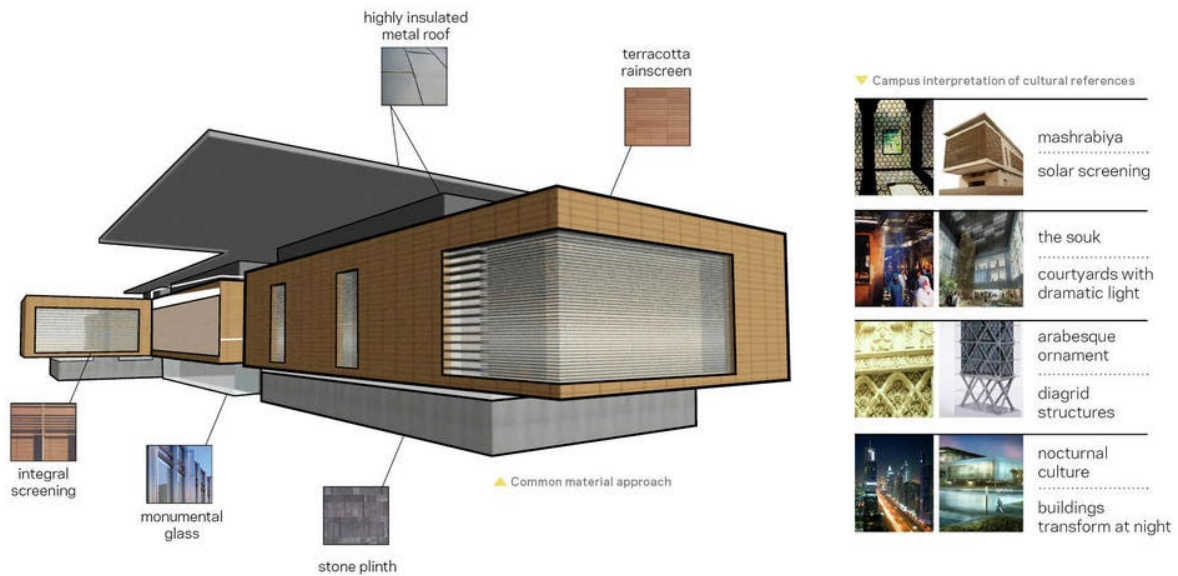
Figure 3.23 Architectural strategies were informed by Arabo-Islamic references. (Source: J. Picoulet/AIA[181])

This architectural certification is public recognition that the design of KAUST's campus applies locally-geared principles of *environmental sustainability*. Here was a college town as sustainability laboratory, a discrete purposive space designed "to marry de-carbonization and economic growth by fostering innovative knowledge production."[182] Yet, the university's approach to the question of sustainability did not end at that; it was polyvalent, seeking to activate all three dimensions of sustainability.[183] Before anything was built, the magnitude of its founding endowment was a means of ensuring its *economic sustainability*. As discussed earlier, this financial war chest was at once the upstart university's key to placing itself on the map and a strategic reserve to ensure it stayed there. When it came to its cultural ambitions, in addition to

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[181] Ibid.

[182] Evans, James, and Andrew Karvonen. "'Give Me a Laboratory and I Will Lower Your Carbon Footprint!' — Urban Laboratories and the Governance of Low-Carbon Futures." *International Journal of Urban and Regional Research* 38, no. 2 (2014): 416. This is an example of an institution practicing what it preaches, which is not an uncommon approach to urban and campus development; as one report on urban campuses put it, the "idea of the 'living laboratory' for grounded research focused on urban sustainability . . . [i.e.] the development of physical facilities themselves as a resource for applied sustainability research" conceptualizes the campus "both as an experimental site for teaching and research and a material representation of what the university stands for in this field." Melhuish, Clare. "Case Studies in University-Led Urban Regeneration." UCL Urban Laboratory. September 2015: 78. https://discovery.ucl.ac.uk/id/eprint/1474554/1/Case%20Studies%20in%20University-Led%20Urban%20Regeneration.pdf

[183] Goodland, Robert. "The Concept of Environmental Sustainability." *Annual Review of Ecology and Systematics* 26 (1995): 1–24. See also: Campbell, Scott. "Green Cities, Growing Cities, Just Cities? Urban Planning and the Contradictions of Sustainable Development." *Journal of the American Planning Association* 62, no.3 (1996): 296–312.

fostering a STEM research culture in the Arabo-Islamic World, its approach to *social sustainability* involved breaking Saudi Arabian norms of gendered social intercourse. If KAUST was to attract the best scholars and students, full stop, social restrictions had to be loosened, if only on campus, so as not to drive away prospects who may be wary of Saudi customs. Insofar as the university was conceived deliberately as a space for these types of exceptions, its campus served as a national "laboratory" for social experimentation.

Life on campus is exempt from constraints like segregation and sartorial modesty. Within the bounds of KAUST, unlike the rest of Saudi Arabia, the two sexes are allowed to publicly intermingle. And as one faculty recruitment factsheet put it, "normal casual dressing practices accepted in international universities will be prevalent in [KAUST] and its community."[184] Walking the spine, I encountered an instance of this firsthand; a Saudi woman dressed in casual Western garb, in the company of an expatriate man and woman, unencumberedly enjoyed strolling, chatting, and cafe-going in the center of campus. Even in the relatively liberal city of Jeddah, I encountered no woman who did not wear long flowing robes, let alone uncloaked shirts and trousers.[185] On campus, sartorial choices did not appear to be something to take notice of. Moreover, women were allowed to drive on campus, something not all Saudi women on campus could immediately take advantage of given that the majority of Saudi women never learnt to drive, having not been allowed to do so in the kingdom. For Saudis, the KAUST campus was a countercultural space. Shedding social strictures within this circumscribed domain in order to attract foreign scholars and students simultaneously constituted an opportunity for Saudis, especially women, to engage in particular public behaviors that had hitherto been off limits. The campus has been such a self-contained space that some Saudis, even in the major city closest to it, have wondered if they would ever get to meet any of those who have moved from abroad to settle there.[186] To use anthropologist Neha Vora's term, the campus constitutes an "expat/expert camp."[187]

A salient precedent to this type of development is the expatriate compound model Aramco has long adopted. Since the 1930s, the company has set up gated residential compounds

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[184] "KAUST Faculty Employment Package Fact Sheet," 2008.

[185] For more on society and space in Jeddah, see Maneval, Stefan. *New Islamic Urbanism: The Architecture of Public and Private Space in Jeddah, Saudi Arabia*. London: UCL Press: 2019.

[186] See Al Jadawi, Mai. "The American Invasion of Science: Jeddah, Saudi Arabia" in *Al Manakh 2: Gulf cont'd*. Edited by Rem Koolhaas, Reinier de Graaf, Iyad Alsaka, Arjen Oosterman, Lilet Breddels, Ole Bouman, Mitra Khoubrou, Daniel Camara, and Todd Reisz. Amsterdam: Stichting Archis, 2010: 418.

[187] Vora, Neha. *Teach for Arabia: American Universities, Liberalism, and Transnational Qatar*. Stanford: Stanford University Press, 2019.

in eastern Saudi Arabia exclusively for expatriates from the West.[188] These were enclosed, self-sufficient exurban developments that the American expert class, on which Aramco's operations depended, and their families could call a home away from home during their tenure in the kingdom. A Western bubble in the Arabian desert, the compound was effectively an American exclave in the form of a Saudi corporate enclave. In these spaces, residents could go about their days without having to encounter Saudis nor abide by their mores. They could live domestic lives as though they were in an American suburb.[189] An anthropologist who visited one of these compounds in the 1950s recounted how it sought to mimic a piece of middle America: "No Westerner would have difficulty in identifying the senior staff 'camp' as a settlement built by Americans in our south-western tradition of town planning. It is an area of single-story dwellings for employees and their families. Each house is surrounded by a small grass yard usually enclosed by a hedge."[190] Free of the gendered customs enforced in land outside the compound walls, men and women socialized, drove, and wore what would have been acceptable in a middle-class American context.

For visitors moving across an inhospitable remote landscape, the Aramco compound struck as a wondrous piece of America with its attendant "main street, P.T.A. meetings and a hamburger joint."[191] In a spatial characterization that couples the geoeconomic and the

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[188] Al Naim, Mashary. "Saudi Arabia's Modernity" in *Al Manakh 2: Gulf cont'd*. Edited by Rem Koolhaas, Mitra Khoubrou, and Ole Bouman. Amsterdam: Stichting Archis: 2010: 420–423.

[189] Robert Vitalis showed that transplanting an American type of space to a new frontier for American hegemony also transplanted and institutionalized this space's vices: racism, extractive labor practices, trenchant managerialism, and unfettered capitalism. See Vitalis, Robert. *America's Kingdom: Mythmaking on the Saudi Oil Frontier*. Stanford: Stanford University Press, 2007.

[190] Kimball, Solon. "American Culture in Saudi Arabia." *Transaction of the New York Academy of Sciences* 18, no. 5 (1956): 471–472. Despite being impressed by this corporate spatial venture, Kimball questioned the social authenticity and durability of a place where "community life [is held to] be a mirror image of bureaucratic structure" and "individuals are subordinated to the requirements and direction of an organization serving technical ends" (484). Moreover, the juxtaposition of this imported Americanesque space with the local architecture was jarring, such that locals did not, at first, readily adopt this model of urbanization. Nonetheless, the Aramco model spurred an enduring, oft-critiqued, change in the kingdom's urban and spatial forms. See Al-Naim, Mashary. "Identity in Transitional Context: Open-Ended Local Architecture in Saudi Arabia." *Archnet–International Journal of Architectural Research* 2, no. 2 (2008): 125–146. Also see Andraos, Amal. "The Arab City in Representation" in *The Arab City: Architecture and Representation*. Edited by Amale Andraos and Nora Akawi. New York: Columbia University Press, 2016: 6–20. On this note, a good part of Abdelrahman Munif's *Cities of Salt*, a novel on the petro-driven urbanization of an unnamed Arabian monarchy, recounts the local population's grappling with the sudden arrival of modernity at the hands of an American petroleum corporation, particularly the laborers who resent, and at times resist, life under the "rule of the expert," to use Timothy Mitchell's term, in a locals' camp parallel (and subservient) to the Americans'.

[191] Hobday, Peter. *Saudi Arabia Today: An Introduction to the Richest Oil Power*. London: Macmillan, 1978: 36.

geographic, architectural historian Dalal AlSayer describes the Aramco company town as a fossil-fueled chunk of Americana, at once "petroleum's suburb" and "Anywhere, USA."[192] A female sonographer who lived there during the 1980s likened the compound to a military base, with all that she needed provided within its bounds. She noted that it was the only place in the kingdom where women could drive, and that they had much free time for socialization and leisure, particularly of the aquatic type.[193] During the Gulf War, a reporter described how safe its inhabitants felt despite the region's descent into armed conflict. War aside, Aramco's compound reminded him of the Panama Canal Zone when it was under US control: "a hybrid enclave in a strange setting – an expatriate slice of English-speaking, baseball-playing, small-town America tucked away in the Saudi desert."[194] This perception has endured even though the composition of the compound population has become increasingly Saudi and more-than-American over time; a Saudi woman who had lived there in the 2000s thought that it was aptly described by its inhabitants as "little America."[195]

The parallels between the compound and the campus are clear, but so are the divergences. The compound was an extranational space in the kingdom, a piece of the outside world catering to expatriates. It was the place where a foreign professional lived but not where he necessarily worked. Aramco's expatriate managers and engineers commuted to nearby oil wells and production facilities outside the compound. KAUST's campus, on the other hand, is

[192] Alsayer, Dalal. "Anywhere, USA: Aramco's Housing in Saudi Arabia's Desert" in *Deserts Are Not Empty*. Edited by Samia Henni. New York: Columbia Books on Architecture and the City, 2022: 269–313. Alsayer, Dalal. "Petroleum's Suburb: Architecture and the Environmental Imaginaries of the Aramco Compound in Dhahran, Saudi Arabia 1933–1976." Paper presentation at the Society for American City and Regional Planning History (SACRPH) conference in New York, October 22, 2022.

[193] Marveen, Craig. "Sonographer in a Strange Land." *Journal of Diagnostic Medical Sonography* 7 (1991): 221–227. In emulating this space, KAUST would become the second place in the kingdom where women could drive.

[194] Gugliotta, Guy. "Aramco's Foreigners Stay Calm in Gulf Crisis." *Washington Post*. December 29, 1990. https://www.washingtonpost.com/archive/politics/1990/12/29/aramcos-foreigners-stay-calm-in-gulf-crisis/a2612116-1491-4ade-a785-633a6313faa6/. In describing life in the compound, the journalist might as well have been presciently describing life on KAUST's campus: "The compound has gardens and lawns, pleasant one- and two-story wood and stucco houses, schools, ballfields, swimming pools, tennis courts, a movie theater, a grocery store and a cafeteria. There is an aviation club, a Little League and golf tournaments every Thursday. There are streets named Acacia, Lilac and Cactus, and a country club called Rolling Hills. . . Most Aramcons – Saudi or foreign – work on company contracts and live on the compound. Junior employees have apartments. Senior people have neat, comfortable houses at nominal rent. . . . Foreign children have free schooling in English on the compound through ninth grade. After that, they must go overseas to boarding school, but Saudi Aramco picks up 80 percent of the tab and pays for three round trips home for each child."

[195] Alina AlHazzaa qtd. in *Voorbij de Grenzen van Saoedi-Arabie [Beyond the Borders of Saudi Arabia] / Inside Saudi Arabia*, episode 2, "Saudi Arabia's Super Rich," 11:44–11:59. Directed by Thomas Blom, featuring Sinan Can. Aired January 13, 2019 on BNNVARA. https://www.youtube.com/watch?v=mwexJsU1gXI

more than a space for domestic life. By internalizing production – now, of knowledge – this modern walled city became a space for total life, supporting the whole range of daily activities its residents were expected to engage in. And the professional class it serves is diversified, no longer composed almost exclusively of American men of European descent. A compound for expats and locals, the campus is an international enclave through which one can experience Saudi Arabia on a provisional, curated basis. It is little surprise that the company that introduced the enclave model to Saudi Arabia was the very institution charged with building KAUST's campus. The corporation's residential camp was a template of sorts for the campus, a heuristic for what the university as a total space would need. This precedent provided a spatial preset to be adaptively reused; in lieu of producing a novel, tightly-fit tailormade space for the academic institution, the campus project adapted this tested model towards new, expanded ends and appended it to the institutional project.

3.5 Conclusion

Just as Aramco brought a new economic and institutional model to the kingdom in the mid-20th century, the new university it built was a base for a new intellectual and social model for the kingdom in the early 21st century. This new (para-)Saudi institution was designed to be countercultural along organizational, intellectual, and social vectors. As a whole, KAUST can be thought of as a counter-national university, that is, a flagship institution that elides the detriments of the national university model. As an institution, instead of big and heavy, it opted to be lean and nimble; in contrast to a comprehensive, bureaucratic organization, it sought to be selective and unburdened by red tape. Yet, while the institutional project was lean, its spatial project was heavy in that it created a whole campus-town; in lieu of being in a city, the university became its own city. Rather than looking to produce a new Saudi spatial model, it adopted and repurposed a long-extant Arabian American oil company model. In many ways, the campus was conceived to be a space to do new things in Saudi Arabia: conduct research of a different type, run a university differently, have different social interactions. Its relationship to the kingdom was that of a state-sanctioned sandbox for the running of a high-stakes academic experiment.

The university's institutional autonomy entailed both extralegal liberties as well as compensatory responsibilities. To sustain a space with lax social restrictions, it had to provide comprehensive social services. Education and academic employment at KAUST meant accepting that daily life was to be largely defined by what the university provided. Saudi Arabia did not simply create a new place to engage in academic activities, but a new place to live within it. On

one hand, the project can be understood as a serious attempt by the government to establish a thoroughly collegiate university – one in which life is temporally and spatially entwined with the academic enterprise, in contrast to the prevailing perception in the kingdom of higher education as a preferably-commutable place to study and work at[196] – as a major step in transforming the way higher education operates in the kingdom. On the other hand, it was an effort to produce a university as a quasi-city-state. The institution was not just set up to employ and educate, it was also granted exclusive territory and prerogatives. The campus was the spatial domain within which the university was free to be its own master, and one where the kingdom could observe a bracketed social experiment with the potential to augur a new Saudi Arabian national culture. Within the college town, the state delegated much of its authority to the college. This autonomy was, in large part, predicated on consigning the university to a circumscribed space of its own.

Lest one get the sense that the campus is an exclusively extraterritorial space – an enclave in the form of an exclave – beholden to Saudi capital but not culture, I should point out that the campus includes a piece of program that highlights the university project's larger cultural goal, which King Abdullah placed front and center during the inauguration. Located in the ceremonial wing separated from "the spine" by the administrative wing, is the Museum of Science and Technology in Islam. This non-research program physically embeds in the university its ostensible conceptual motivation as a return to scientific Islamic excellence, in contrast to its instrumental genesis as a catalyst and spearhead of a Saudi economic transformation.[197] These motivations are not necessarily at odds since the implication of this duality is that a sustained socioeconomic transformation requires radical sociocultural change.[198] Instead of rejecting the Salafist preoccupation with a puritanical revival of the faith of early Islam, the project's raison d'etre can be understood to be of a kindred spirit in its attempt

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[196] See Al-Fouzan, Saleh. "أهم خصائص رحلتي العمل والتعليم لمنسوبي جامعة الملك سعود بمدينة الرياض] Key Characteristics of Work and Education Trips for those Affiliated with King Saud University, Riyadh]." *Geographical Research Papers* 70 (2005): 1–48. And AlQuhtani, Saad. "Commuting Mode Choice of Suburban University Population and Potential Sustainable Transportation Systems: The Case of Najran University." *Journal of Urban Planning and Development* 148, no. 2 (2022). https://doi.org/10.1061/(ASCE)UP.1943-5444.0000805

[197] The museum's website forthrightly states that its "presence on the University campus is intended to expose the University's modern-day researchers to the rich historical foundation on which their University has been built, and the illustrious footsteps in which they follow." See "Museum of Science & Technology in Islam." *KAUST*. Accessed December 1, 2021. https://museum.kaust.edu.sa.

[198] Early European sociologists linked radical social and economic development to religious and cultural change, which they saw as the underlying context through which such development was spurred and sustained. Some of the more famous examples of this type of theoretical articulation are Max Weber's *The Protestant Ethic and the Spirit of Capitalism* (1904) and Werner Sombart's *The Jews and Modern Capitalism* (1911).

to resuscitate the generative and synthetic ethos of "Golden Age" Islamic civilization with its broad worldly interests.[199]

Through KAUST, the king did not abjure revivalism, but essentially reoriented the object of revival from late antiquity to the medieval period, from origins to the "Classical" age, from pure Islam to scientific Islam, from jurisprudential theology to prudential empiricism. KAUST is a declaration that the kingdom, after many decades of attention to maintaining a strict adherence to theological purification, was ready to move on to nurturing non-theological sciences. This radical rupture with the recent past was smoothed over by its presentation as an evolution within – rather than of – an ideologically-informed cultural orientation. Insofar as it involved cultural capital, this new institution for knowledge production was characterized as a means of claiming and growing existing capital, rather than acquiring new, foreign capital.

Notwithstanding the reflexive historicist context within which its founding was framed, KAUST was conceived as an avant-garde 21st-century institution. Linking it to a campus was a means of ensuring the situatedness of its knowledge production. Given that the generosity that characterized university's institutional formation sought to establish it as a worldly actor in the form of academia's transnational corporation par excellence, the campus serves to funnel this world-class ideational activity to Saudi Arabia and ensure that the kingdom becomes a home base for at least some of the knowledge work it seeks to generate. If the global scientific circuit into which KAUST inserted itself were a magnetic field, its campus would be a magnetic pole. The kingdom could have established an institution abroad along the lines of a glorified, expanded center like the ones it already funded, stipulating that it commit to recruiting from Saudi Arabia without adulterating any of its standards. The problem with such an approach, though, is that its research may not necessarily be grounded in Arabian needs and issues; what it produces would not be situated knowledge. If KAUST's centering of sustainability, in terms of both science and political economy, was to be more than an academic exercise, then its research ought to revolve around sustaining Saudi Arabia in its actual context.[200] The university's

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[199] Here, I mean *interest* in two senses: curiosity and stake.

[200] For example, research on water and solar energy can be quite context dependent, such that technology developed in one environment is not readily translatable to a very different one. This is to say, research conducted at KAUST, on pressing topics like those two, is much more likely to be immediately applicable to Saudi Arabia, even as it advances our scientific knowledge as a whole. See Figgis, Benjamin, and Amir Abdallah. "Investigation of PV yield differences in a desert climate." *Solar Energy* 194 (2019): 136–140. And Abu-Rizaiza, Omar. "Modification of the standards of wastewater reuse in Saudi Arabia." *Water Research* 33, no. 11 (1999): 2601–2608. Also see Alawaji, Saleh. "Evaluation of solar energy research and its applications in Saudi Arabia — 20 years of experience." *Renewable and Sustainable Energy Reviews* 5 (2001): 59–77.

conceptual connection to the Islamic Civilization would be rather tenuous were it physically located in the scientific "First World" rather than somewhere in the Muslim World.[201]

For the founders, producing an operational campus in a thousand days was a coup—but this was, effectively, a project distinct from (or parallel to) that of the institution.[202] Availing of a preexisting spatial template, the campus project was a rather straightforward call on Aramco to transpose its east coast model to the west coast, this time for purposes of knowledge production rather than oil extraction.[203] The more daunting, novel challenge they faced was getting a viable research institution in all its dimensions up and running—not one that would build its way to elite status, but one that would hit the ground sprinting. Their energies were focused on building and staffing an institutional structure that would vivify their aspirational vision. The university's physical structure itself was a critical appendage to this ambition, but an appendage nonetheless. Though its design, or parts thereof, constituted an embodiment of the university's ethos – the campus as applied sustainability – the whole process of creating the physical campus was relegated to the realm of technical expertise, undertaken by architects under the supervision of an industrial corporation versed in project management; how the campus was designed mattered less than that the outcome of design, whatever it was, lived up to the hype and promise of the incipient institution. This suggests that higher education scholar Paul Temple's contention that a campus need only satisfice has merit; as long as it meets the threshold of being good enough for its owners and users – for instance, by having state-of-the-art laboratories, or world-class amenities – the particular design of the campus is not much of a concern for them.[204]

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[201] The only place in the Muslim World with an advanced STEM research ecosystem that such an institution could, theoretically, plug into is Israeli Palestine. Yet, it would be ironic if a return to Islamic science meant cosying up to the institutions of the state occupying the land that is home to Islam's third holiest mosque.

[202] Compartmentalizing the execution of a megaproject is a common construction management approach. For example, different international consortia built each of the Petronas Twin Towers, once the world's tallest skyscrapers. Funnily enough, the construction crew for one tower wore blue helmets, while the other wore red! See Sturman, Catherine. "The Petronas Towers, Malaysia: A cultural landmark." *Construction*. May 16, 2020. https://constructiondigital.com/construction-projects/the-petronas-towers-malaysia-a-cultural-landmark. And "The Towers at Twenty: How the Petronas Towers Are Still Reshaping Malaysia." *Samsung C&T*. November 28, 2016. news.samsungcnt.com/the-towers-at-twenty-how-the-petronas-towers-are-still-reshaping-malaysia-2/.

[203] If the Aramco compound can be thought of as a precedent or variant of what Neeraj Bhatia and Mary Casper have referred to as a "petropolis," then KAUST's campus might be thought of as the carbon economy's epistopolis, or, petroleum's city of knowledge. See Bhatia, Neeraj, and Mary Casper, eds. *The Petropolis of Tomorrow*. New York: Actar, 2013.

[204] See Temple, Paul. "Space, Place and University Effectiveness" in *The Physical University: Contours of Space and Place in Higher Education*. Edited by Paul Temple. London: Routledge, 2014: 3–14.

Conceived as a domicile fit for a worldly research institution, the campus was always supposed to be the culmination of a university in the making. This university was a supremely expensive one, but its patrons were able to secure its requisite components. Would it have been reasonable to expect the quality of the campus not to at least approximate the intended quality of the institution? When one diplomat who attended the inauguration admitted that KAUST's is an exquisite campus, he also wondered if minds worthy of it would come to populate it: "There is truly no other university in the world so well-equipped. Anywhere. The issue is, of course, what is to be done with the equipment and that remains to be seen."[205] Yet, he was not pointing out something that the institution and its patrons had overlooked. They were ready to spend endlessly on facilities but that would have been pointless without securing the human capital to put them to use. In fact, KAUST admitted this explicitly in its recruiting material: "For research excellence, the limiting factor is not space or money, but KAUST's ability to recruit world-class scientists and research engineers to the campus."[206] The university's founding denotes that a well-endowed campus is necessary but not sufficient condition for attaining sustained (global) excellence and (local) impact. However, once it recruited a critical mass of excellent researchers and students, brought them to campus, and commenced operations, can KAUST be blamed for being proud of its generically-bespoke home base?

[205] Qtd in Laessing, Ulf, and Asma Alsharif. "Saudi Arabia launches first mixed-gender university." *Reuters*. September 23, 2009. https://www.reuters.com/article/idUSLAE264614

[206] "Introduction to King Abdullah University of Science and Technology." KAUST, 2008: 5–6.

Chapter 4

Design and the Politics of Binity:

A Schismatic Kuwaiti Campus

> When investment in humankind becomes greater than investment in stone: Sabah Al-Salem University City. Since their inception, Kuwaitis have shown eagerness for knowledge and education, and with Kuwait's ascent as a civil state, education came to be considered one of the essential cornerstones of Kuwaiti society. Thus, the state established formal education through institutes, schools, and universities. The passage of Law 30 of 2004 provided Kuwait University with a strategic opportunity to fulfill a dream long held by the homeland's progeny to establish a comprehensive university city.
>
> —Kuwait University[1]

In 2016, the Kuwait University Construction Program released a series of promotional videos publicizing Sabah Al-Salem University City (SSUC), the long-delayed, still-incomplete, brand-new campus set to be the University's future home. Published online, these videos presented an overview of the campus project, starting with an introduction that nostalgically invoked Kuwait's transition from a pre-modern emirate to a modern state. Following this preamble were further videos dedicated to each college building, the designs of which were presented in the form of renderings and animations. The series concluded with videos of construction in progress where overseers, engineers, and workers diligently supervised, directed, and labored on site.[2] Produced nearly twelve years after the awarding of the campus masterplan commission and over a year after the originally-anticipated construction completion date, these videos reinforced the state's commitment to the project's full realization. The series broadcast the message that, despite the setbacks, eager work on this mega-project was proceeding towards a visionary end. The subject of this chapter is the design of the university campus whose construction was the subject of these videos. What exactly was this project whose execution warranted this multimedia treatment? As an interface between the design and politics

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[1] Kuwait University Construction Program. "Introduction - Sabah Al-Salem University City." *YouTube.* December 21, 2016. My translation. https://www.youtube.com/watch?v=8aKy4fMQjhQ

[2] See Kuwait University's "Sabah Al-Salem University City" YouTube page. https://www.youtube.com/user/KUssuc1/videos?view=0&sort=dd&shelf_id=0

of higher education, this envisioned campus became a site through which design agency performed as a creative foil for political agency.

While expert discussions of campus masterplanning tend to cast the masterplan squarely as a means to fulfill institutional goals, I illustrate through this chapter that it need not be bound to the latter. In her guide to strategic planning in higher education, planner and consultant Karen Hinton delineates the many issues that a university's strategic plan ought to address.[3] Since strategic plans are supposed to be comprehensive, her account implied that these issues constitute the totality of the university's concerns and influences. Of the eleven "data elements and informational categories usually associated with a strategic plan" that she lists, only community relations involves issues external to the institution.[4] So, even though Hinton understands campus masterplanning's purview as comprehensively touching all these categories, she essentially limits the masterplan to institutional concerns.

Planner Michael Rudden also sees campus masterplanning as tightly coupled with institutional goals. Of the ten reasons he supplies for engaging in masterplanning, only three involve extra-institutional considerations.[5] Like Hinton, he acknowledges the need to address town-gown pressures, but he also adds municipal and funding concerns. Thus, though Rudden is more cognizant of masterplanning's extra-institutional valences than Hinton, he limits this broader arena to the municipality and funding regime that the campus finds itself in, short of a national or legal-political one. In general, the current understanding of campus masterplanning binds it to institutional purposes.

Instead, I argue that the masterplan can be about much more than the institution that produced or commissioned it—that it is a more-than-institutional document. This chapter makes this case by showing how, in addition to academic institutional purposes, statutory, constitutional, and urban-national desires can be read in the form of the public university

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[3] Hinton, Karen. *A Practical Guide to Strategic Planning in Higher Education*. Ann Arbor, MI: Society for College and University Planning, 2012. She explains that the strategic plan ought to engage the following issues: student population, enrollment projections, new academic programs, changes in pedagogy, initiatives and partnerships, student services, staffing needs, staff training and development, community relations, facilities initiatives, and information technology.

[4] Ibid., 36.

[5] See Rudden, Michael. "Ten Reasons Why Colleges and Universities Undertake Campus Master Planning: (And How to Align Your Campus Planning Effort to Best Address Them)." *Planning for Higher Education* 36, no. 4 (2008): 33–41. His ten reasons to engage in campus planning are: responding to a strategic plan, leadership changes, local (i.e. municipal) regulations, funding requirements, managing space usage, facilities maintenance issues, land management issues, town-gown relations, reacting to space shortages, and identifying campus growth. He also mentions less well-established reasons beyond these ten: security, sustainability, energy needs, adult education, and profit generation.

campus as masterplanned. In this, it builds on work by Carlos Garciavelez Alfonso and Francesco Zuddas – both of whom examined mid-20th-century campuses as urban-national projects – by affirming that campus design's coupling with the national was not a historical episode but is operative in the present.[6]

In the short video that I quote at the opening of this chapter, the rise of the modern state of Kuwait was intimately tied to the process of education as embraced by both people and government. Against images of the old mudbrick city and early Kuwaiti schools, the narrator extolled a history of state-sanctioned, human-centered modernization where investment was not limited to the material.[7] The intellect was presented as a worthwhile domain of modernization and an integral companion of a sustainable "civil state." Concomitantly, the video's background imagery transitioned to larger, more advanced educational institutions and culminated in renderings of SSUC, with a description of its design and construction process taking up the video's latter half.

In its exaltation of the boldest development in Kuwaiti higher education, the video suggested that people, before stone, are the objects of state intervention. In a society whose governmental discourse often revolves around human development, higher education has played a major role in forming the citizen, a notion affirmed by the constitutional provision quoted in the video: "Education is a foundational pillar for society's progress, guaranteed and tended by the State."[8] The video was a testament to the amount of faith that the city-state of Kuwait put in the institutional process of education, a conviction that the video re-emphasized at its very end by quoting the Emir's proclamation that the younger generations, to whose education the state tends, are "the present's material and future's hope."[9] This educational-developmental discourse echoed a theme that has been dominant in a region comprising relatively young nation states, exemplified perhaps by two-time Jordanian prime minister Abdelsalam al-Majali's professed understanding of the university's role in the modern Arab state. Speaking in 1972 as the then-president of the University of Jordan, he saw in the

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[6] See Garciavelez Alfaro, Carlos. *Form and Pedagogy: The Design of the University City in Latin America*. Novato, CA: Applied Research and Design, 2014 and Zuddas, Francesco. *The University as a Settlement Principle: Territorialising Knowledge in Late 1960s Italy*. New York: Routledge, 2020.

[7] Kuwait University Construction Program. "Introduction - Sabah Al-Salem University City." 2016. Video.

[8] My translation of Article 13. "Kuwait Constitution." *National Assembly*. Accessed May 1, 2021. http://www.kna.kw/clt-html5/run.asp?id=2024. Article 40 charges the state with paying particular care to Kuwaiti youths' physical, moral, and intellectual development, affirming that education is a state-guaranteed right, and specifying that primary education is both free and compulsory.

[9] The Emir is the ruler of Kuwait, the head of state within the constitutional monarchy in which the legislative branch is elected and the executive appointed.

university an institutional panacea to the socioeconomic struggles facing ambitious but struggling, newly-formed, postcolonial states and their populations:

> Under the impact of these rising expectations and ambitions, education and educational institutions had to play their decisive roles in the formation of a balanced personality, in the realization of potentialities, in the utilization of resources, and in the enhancement of progress. To bridge the gap between the developed countries and the developing Arab World, systems of state schools were inaugurated, mainly to prepare the nationals of the recently formed political entities for white-collar jobs in the government. As the base of public education expanded tremendously, the need for facilities for higher education became more apparent and acute. . . . If [the college student] becomes a more rational and more productive citizen through our intervention in the formation of his personality, we shall be very encouraged. We shall be happy too when he becomes a more effective agent of prosperity, justice, and peace in our region. [10]

For Majali, the university was a key means of physical and cultural modernization in the service of nation building. He affirmed that the state, by creating spaces for modern institutions, could mold its constituents. Understood to be produced by this process was the educated, professionalized, modern subject—the national citizen.

What was also signified by the video, and the broader discourse into which it tapped, was that social progress as produced by education remains predominantly within the state's purview. SSUC, as the most recent manifestation of the socio-political project of education, is part and parcel of Kuwait's national state-building project. Architecture, and in this case a newly-designed campus, then plays an integral role in concretizing the abstract idea of state-building and societal development. In his preface to *The City as a Project*, architectural and urban theorist Pier Vittorio Aureli explains that if "the essence of political action is the attempt to project a form of coexistence among individuals, it may be said that architectural form – by means of patterning, framing, and representing the space of coexistence – inevitably implies a political vision."[11] In engaging the social and providing space for the collective, architecture and politics, he asserts, are very much entangled. If Colin Rowe and Robert Slutzky have shown that architectural design is an inherently compositional endeavor, then Aureli points out that this composition is an inherently political endeavor, for to compose for the social *is* to compose the

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[10] Majali, Abdelsalam. *The Development of Higher Education in the Arab World*. London: Longman for the University of Essex, 1976: 7–14.

[11] Aureli, Pier Vittorio. *The City as a Project*. Berlin: Ruby, 2013: 14.

social—which is politics, just by another name.[12] Schematically and physically, architecture embodies the high stakes that inhere in any grand socio-political project. In terms of an academic campus, space mediates between the experience of education and the designs of those in positions of political and professional power.

As this mediator, spatial design interprets, prods, tests, and grapples with the wide range of demands placed on it. It does not simply serve the desires of those who think, fund, make, and inhabit it, but also questions and entangles them with others. It hails its putative outside in. Design, as architectural theorist Jonathan Massey describes it, "is a complex practice that involves intuition, aesthetic judgment, and convention along with considerations of technology, construction, law, finance, and many other factors."[13] Though many projects, particularly once complete, cast a clean sheen that obscures the messy politics of project and state that they had to navigate to make it into being, optics is not reality. Close scrutiny reveals that spatial design

> manifests broader forces in political economy and . . . in doing so it realizes, shapes, and conditions those forces—giving them their specific character and quality as it brings them into existence. Architecture is not simply generated by economics and politics. A medium for production and everyday life, it reciprocally conditions economics and politics as design instantiates power.[14]

Design operates as an interlocutor with the regimes to which it is subject. As Aggregate Architectural History Collaborative succinctly puts it, "designs are *contingent* assemblages through which the apparatuses of power take on [an] architectural figure" (added emphasis).[15] In their professionally-oriented accounts, planners like Hinton and Rudden elide just how political and supra-institutional projects like campuses can be. By political, I do not mean as a result of a critical reading of space already designed or built without conscious consideration of politics; I mean the political as a motivating or concomitant design condition.[16] Planned space can be a locus of tall political and institutional tasks alike.

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[12] Rowe, Colin, and Robert Slutzky. *Transparency*. Basel: Birkhäuser, 1997.

[13] Massey, Jonathan. "Risk Design." *Grey Room* 54 (2014): 10.

[14] Ibid. For more on the intersection of governmentality and spatial practice, see Aggregate Architectural History Collaborative. *Governing by Design: Architecture, Economy, and Politics in the Twentieth Century*. Pittsburgh: University of Pittsburgh Press, 2012.

[15] Abramson, Daniel, Arindam Dutta, Timothy Hyde, and Jonathan Massey. "Introduction," *Governing by Design: Architecture, Economy, and Politics in the Twentieth Century*. Pittsburgh: University of Pittsburgh Press, 2012: x.

[16] For example, see Holston, James. *The Modernist City: An Anthropological Critique of Brasília*. Chicago: University of Chicago Press, 1989.

In the form of a double campus, SSUC's planners sought to spatially reconcile the re-domiciled University's envisaged characters as a unitary and binary institution of higher education. Law 30 of 2004, whose passage the video marked as a turning point in Kuwaiti educational history, decreed the establishment of a new university campus in Al-Shadadiya for Kuwait University (KU), the country's only public university.[17] This law set the wheels in motion to develop a campus that would fulfill the state's human development goals, especially since KU, which was established in 1966, was no longer sufficient for the country's growing population.[18] However, in addition to providing a new setting for an aging university, Law 30 of 2004 enabled the realization of an earlier piece of legislation: Law 24 of 1996, which decreed the sex-segregation of classes, laboratories, libraries, dining spaces, and extracurricular activities at the University.[19] Given that KU had been a coeducational institution for most of its three-decade history, the passage of this law was controversial, stoking much debate both within and outside the university.[20] Nonetheless, due to spatio-logistical constraints, KU remained, for the most part, a de facto coeducational institution.[21] Under pressure from members of parliament in 2002, Minister of Higher Education Musaed Al-Haroun committed to the full enforcement of the law by mid-2003.[22] Regardless, the university's public and unprogrammed space, which was disregarded by the segregation law, continued to be a mixed-sex space.

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[17] "Kuwait University." *Sabah Al-Salem University City*. Accessed May 1, 2020. http://ssuc.ku.edu.kw/about-us/. To take Maine (whose population of citizens is comparable in size to Kuwait's) as a point of comparison, the statewide University of Maine System encompasses seven public universities.

[18] Many of Kuwait's mega-projects are cast as responses to visions and projects in the competing Gulf cities of Abu Dhabi, Doha, and Dubai. See Mahgoub, Yasser. "Kuwait: Learning from a Globalized City" in *The Evolving Arab City*. Edited by Yasser Elsheshtawy. New York: Routledge, 2011.

[19] Elias, Diana. "Kuwait University Separates the Sexes, to Vocal Dismay from Some." *Associated Press*. July 15, 2002.

[20] See ibid and Del Castillo, Daniel. "Kuwaiti Universities Return to Separating Men and Women." *The Chronicle of Higher Education*. January 3, 2003. https://www.chronicle.com/article/kuwaiti-universities-return-to-separating-men-and-women/

[21] For example, see "'Segregation Law' Now 80 pct Effective at Kuwait University." *Arab Times*. July 10, 2016. https://www.arabtimesonline.com/news/segregation-law-now-80-pct-effective-kuwait-university/

[22] Ibid. In "Math 212," one of the short stories in his collection focused on contemporary Kuwait, Craig Loomis sarcastically explains this decision: "The Ministry of Education has proclaimed that in the university, in the classroom, men and women should be separated, divided. Not only that, but to ensure division some sort of barrier or barricade is recommended. In the long run, this is the best policy, the safest way to deal with men and women who might confuse learning with something else. So says the Ministry." Loomis, Craig. *The Salmiya Collection: Stories of the Life and Times of Modern Kuwait*. Syracuse, NY: Syracuse University Press, 2013: 69.

Segregating the hitherto coeducational university brought it in line with Kuwait's primary and secondary schools, which have always been sex-segregated.[23] But the university is not a typical educational setting; functionally, it is an overlap of instrumental academic space and public social space, and, aspirationally, a place where the developing student transitions into a mature adult. The law seems to acknowledge the university's character as a space of exception, balancing the segregation of instructional and operational space with the integration of public, unprogrammed space. Allowing the campus' public spaces to remain unconstrained aligns them with the broader public sphere in Kuwait, which is not segregated.

At the time of the segregation law's passage, women constituted over two thirds of KU's student population, and were matriculating at rates higher than men's, many of whom were content with careers in vocational and security sectors.[24] KU remains a majority-female institution. The demographic dominance of women within Kuwaiti higher education reflects their high level of academic achievement, a public demonstration not just of competence but of excellence. When it comes to scholastic endeavors at the tertiary level, scholar of Kuwaiti culture Meshal Al-Sabah states that sex segregation in Kuwait is "actually less apparent [than in Europe], and Kuwaiti women study subjects traditionally seen as a 'male preserve' in Europe."[25] Al-Sabah explains that the prominence of women in Kuwaiti higher education owes to the government's promotion of educational access to all citizens at every level of education. There did not appear to be an equity or inclusion problem at KU.

Yet, Kuwait during the 1990s was also undergoing a recovery from the effects of the Iraqi occupation in 1990 and 1991. The exigencies of national recuperation produced a legislative milieu in which multiple actors and agendas intersected, yielding both compromises and opportunities to capitalize on political lacunae. Sex segregation in education was one of those contested domains over which conservatives and liberals had competed, and this period offered a chance for conservatives to make progress on their agenda.[26] After the 1996 election, conservatives were able to pass the segregation law since the government was in no position to enter into political battles when it had more pressing matters to address. "Unfortunately, as so often is the case with politics," Al-Sabah laments, "those sympathetic to Islamist demands in the

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[23] Jones, Calvert. "Gender Segregation as Social Engineering: Exploring the Civic Costs in Saudi Arabia and Kuwait." Invited presentation at the Comparative Politics Colloquium, UC-Berkeley, March 2, 2017.

[24] Al-Sabah, Meshal. *Gender and Politics in Kuwait*. London: I.B. Tauris, 2013: 91.

[25] Ibid.

[26] Tetreault, Mary Ann, and Haya al-Mughni. "Gender, Citizenship and Nationalism in Kuwait." *British Journal of Middle Eastern Studies* 22, No. 1/2 (1995): 72.

government were not always driven by ideology or misogyny but by money. Kuwait needed money to pay for the war and for infrastructural repairs."[27] Assenting to segregation must have appeared to the government to be a small price to pay for conservative cooperation in its reconstruction agenda. However, this circumstantial alignment of conservatism and postwar economic obligations saw the passage of a segregation law that was both difficult and expensive to implement, costing over $180 million in the estimation of some.[28] Full implementation of this law was not feasible until the passage of the 2004 law that established a new campus.

A new abode of Kuwait's body academic, the campus was slated to be two campuses in one. In addition to addressing KU's spatial fragmentation across a number of campuses and its increasingly insufficient capacity, SSUC established a beguiling form of separation that leverages architectural design and persuasion skills. Keeping in mind the constitutional requirement of equity and non-discrimination, the design of the new mega-campus manifested the major lengths with which the design endeavor attempted to emphasize equality through mirroring. People, not stone, may be the objects of inscription, but stone (and its steel, concrete, and glass counterparts) can be inscription's means and medium. The instrument of the state's operations on the student body is an architecture inscribing a line in the sand, dividing the university into purposive equal and opposite halves. The campus in this manner was made to approximate a yin-yang diagram, a whole that is the sum of two never-mixing, contrastive but complementary parts. A consolidating, integrating, and homogenizing campus designed from scratch would finally, and paradoxically, achieve a truly partitioned university.

In this chapter, I recount Kuwait's experience of urban renewal and contextualize some marquee Kuwaiti architectural endeavors as part of an ongoing modern urban-national project. With this context in mind, I then analyze in detail a set of documents I collected during my fieldwork: the two campus masterplans that were produced in the early stages of the SSUC project—that is, during the 2000s. Utilizing formal analysis, I undertake a close reading of these plans to illustrate their institutional and supra-institutional valences. I conclude by teasing out some of the ways in which the masterplans constituted statist documents.

In as much as it served to define a means of spatially schematizing a segregated university, SSUC's masterplanning was an intrinsically instrumental project. However, it bears noting that much has changed since these schemes were commissioned. As with most projects, designs are revised, altered, and developed as new concerns and actors are introduced into the

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[27] Al-Sabah, Meshal. *Gender and Politics in Kuwait*. 2013: 62.

[28] Elias, Diana. "Kuwait University Separates the Sexes, to Vocal Dismay from Some." 2002.

design process and as construction takes its toll. In our present case, while affirming the constitutionality of the segregation law in 2015, the Constitutional Court reinterpreted its implementation, nullifying the legal need for a variegated campus; it ruled that compliance with the law may be fulfilled by intergroup separation within the classroom, that is, by having men and women simply sit on different sides of the same room.[29] In other words, what the law required was segregation *on* campus, not *of* the campus itself. I should note here that even though the ruling rendered null the requirement for separate spaces for each sex, the campus' ongoing construction still appears to hew to the partitioned design that predated this legal development.

Be that as it may, ostensibly obsolete design artifacts may serve as documents through which dynamics of authority and authorship may be read. "Translated into both an abstract master plan and a visionary drawing for the general public," urban historian and theorist Carola Hein explains, "the image can capture a vision of future life."[30] Accordingly, my following engagement with architecture's "discursive and institutional registers"[31] takes as its objects of analysis the campus masterplan as it was initially designed and the revised masterplan produced half a decade later, prior to the development of much of SSUC's actual architecture. What becomes clear in the end is that these documents were means of articulating new ways to spatialize the desires of both the university and the city-state. In these plans, design decisions enacted a process of translation between a grand institutional-national vision and a physical project, gesturing to a Kuwait of the future by seeding spatial interventions into the city of the present.

4.1 1900s: The Remaking of a City, The Making of a Modern State

In 1977, Andy Warhol visited Kuwait. After touring the National Museum that had opened twenty years earlier, he confided to the privacy of his diary that there was "no history to

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[29] "Case against gender segregation rejected – 'Part of domestic workers law unconstitutional'." *Arab Times*. December 17, 2015. https://www.arabtimesonline.com/news/case-against-gender-segregation-rejected-part-of-domestic-workers-law-unconstitutional/

[30] Hein, Carola. "What's in a cover image? How to depict planning history." *Planning Perspectives* 34, no. 4 (2019): 738.

[31] Scott, Felicity. "Architecture and Nation-Building" in *The Arab City: Architecture and Representation*. Edited by Amale Andraos and Nora Akawi. New York: Columbia University Press, 2016: 137. Calling for a more complex reading of engagements between the state and architecture, one that pays attention to both their interfaces and incongruities, Scott elaborates on Saba Innab's analysis of Amman by highlighting a monumental architecture "not taking the form of representing the state as such but speaking to or embodying those schisms."

this place."[32] In that respect, he was no different than many of the foreigners who preceded him in coming to Kuwait, for the series of British agents who were stationed there since the end of the 19ᵗʰ century must have arrived at what they considered to be a sleepy seaside town in need of proper Western governance.[33] But the status quo was soon to change, a development spurred by their presence. As oil revenue began flowing into Kuwait's coffers during the mid 1940s, the emir became no longer beholden to the merchant families in whose name he ruled, and soon thereafter, nor to the British. The advent of the oil economy essentially liberated the ruler from governing through consultation as custom dictated and allowed him to embark on a city-making project hitherto unimaginable. In this section, I briefly trace this urban history to show how the petrocharged development of Kuwait had profound sociopolitical implications, with architecture playing a major role as a political tool facilitating its transformation from an emirate to a state that tapped into the worldwide corpus of the architectural profession. In Kuwait City's throes of modernization, international architects such as Jørn Utzon, Arne Jacobsen, and the Smithsons did not merely compete to design its civic and institutional architecture but helped shape the city-state's modern identity.

When the British arrived, Kuwait was an emirate in which an elder of the al-Sabah family was chosen to be custodian of the city; the emir was first among equals, the latter comprising mostly traders and seafarers between whom he adjudicated and in whose absence he governed. These merchant families financed the sheikdom, defining the emir's role as that of impartial arbiter between the inhabitants and servant-leader to the community.[34] In other words, the emir, in this sociopolitical ecosystem marked by *shura*[35], was the first civil servant. In diplomatic terms, the British political agent was Britain's liaison to the Kuwaiti people and the emir became their liaison to the British. But in political terms, the emir's position as Kuwait's head of state was formalized when Mubarak al-Sabah signed a treaty in 1899 with Britain rendering Kuwait one of its protectorates.

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[32] Warhol, Andy, and Pat Hackett. *The Andy Warhol Diaries*. New York: Warner Books, 1989. Ironically, two sentences after he dismisses Kuwait as being without history, Warhol mentions Hellenic artifacts he came across in the museum: "Think there was one room that Alexander the Great left some pots in."

[33] To maintain a land-sea route to their prized colony, India, against Ottoman, German, and Russian encroachment, the British ensured that the Gulf was securely within their sphere of influence, and hence took an interest in Kuwait. See Joyce, Miriam. *Kuwait, 1945-1996: An Anglo-American Perspective*. London: Frank Cass, 1998.

[34] See Ismael, Jacqueline. *Kuwait: Social Change in Historical Perspective*. Syracuse, NY: Syracuse University Press, 1982.

[35] By shura, I mean traditional rule by consultation.

For the six decades during which Kuwait was a British protectorate, these two loci of power worked in tandem to shape Kuwait, transforming it from the walled mud brick city it was to the modern state it still attempts to be. In as much time, the position of emir transformed from that of a civil servant responsible *to* the people to a sovereign responsible *for* them. The emir's relationship with the British empowered him financially and hegemonically, especially after the discovery of oil in 1938.[36] While hitherto beholden to the merchants for support and funding, the emir achieved financial independence by securing a personal claim to Kuwait's oil.[37] With oil funds, governance became increasingly controlled by the newly-affluent office of emir. Wealth accumulation and power assertion reinforced one another, eventually giving the government ruling in the emir's name unprecedented powers. This authority did not only encompass the inhabitants but extended to the city itself. By claiming the city under its purview and embarking on a city-(re)making project, the young state leveraged architecture and urban design as a grand political tool with which to reinforce its legitimacy and assert its increasing power. After weaning itself off British dependence, and facing a dearth of local expertise, the government approached many international architects including members of Team 10, The Architecture Collaborative, and the Metabolists for proposals to develop Kuwait City.[38] The state began to utilize institutional architecture, making use of the talents of these architects to erect public buildings in which to house the government. But public works dedicated to governmental architecture served an even more important role; they introduced into public life and space a robust physical presence of the state.

Pre-oil Kuwait was characterized by a dense fabric of courtyard houses and narrow winding streets, along with the occasional thoroughfare and open space. Except for minarets and the city wall, the cityscape was characterized by a low-lying horizontality. Because society was conservative, architecture was intensely private. Residences were inward-looking,

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[36] In memoirs recounting his experiences as the secretary of the abortive Legislative Assembly during the 1930s, Khalid Al-Adsani identifies the turn in Kuwaiti political governance from a participatory, consultative model to an autocratic one during the reign of Sheikh Mubarak ("the Great") with whom the British signed the 1899 Anglo-Kuwaiti Treaty, by which Kuwait became a British protectorate. Al-Adsani saw the emergence of formal governance institutions in the country after Mubarak's reign as a series of attempts by a politically-conscious class of the populace to revert to the status quo ante by institutionalizing democratic checks on the emir's power. See Al-Adsani, Khalid. نصف عام للحكم النيابي في الكويت *[A Half Year of Representative Governance in Kuwait].* Kuwait: Fahad Al-Marzouq Press, [1947] 1978. Also see his unpublished memoirs, مذكرات خالد سليمان العدساني, which are in the public domain (i.e. online).

[37] Smith, Simon. *Kuwait, 1950-1965: Britain, the Al-Sabah, and Oil.* Oxford: Oxford University Press, 1999: 33. Recognizing the emir's personal claim, the British ultimately arranged a concession with a 50/50 profit distribution scheme.

[38] See Fabbri, Roberto, Sara Saracoga, and Ricardo Camacho. *Modern Architecture: 1949 – 1989.* Zurich: Niggli 2015.

comprising interconnected living quarters, courtyards, and cloisters housing multi-generational families. While the morphology of the city seemingly prioritized individual mobility and familial privacy, breathing space existed in the form of the *diwaniyya*, a space of male congregation and socialization, often annexed to a private residence. In a city described as "the most agoraphobic of all cities,"[39] diwaniyyas served as interior public spaces, fostering social interaction and deliberation, which ultimately shaped public opinion. These were the places where men gathered and discussed their affairs and matters of public concern, men who had a say in how the emirate was governed.[40] The social institution of the diwaniyya constituted what Jürgen Habermas terms a "public sphere,"[41] an influential physical and intellectual space of free exchange independent of state authority. This urban environment, With architecture that afforded physical proximity in tandem with privacy, and fostered societal equanimity alongside engagement, reflected the sociopolitical character of pre-oil Kuwait. The homogeneity and compactness of the city echoed the egalitarian, though gendered, nature of public life and the participatory tradition of governance.

With the gushing of oil and the newfound wealth of Kuwait, the desire for modernization emerged. The city-state now had the purchasing power to procure the expertise, material, and compliance required to administer change on an urban scale. British-developed re-urbanization plans that the Kuwaiti government set in motion radically altered the city's urban character. At once collectively-owned and unsystematically parceled through customary and spontaneous use, the old city was a bottom-up enterprise. Before oil, land was a socially-administered public utility that complemented the sea, an accessible natural resource that the vast majority of Kuwaiti livelihoods depended on. The post-oil-discovery modernization project, however, demanded the reclamation of land beyond the city wall and re-envisioning the urban core. The early British proposals entailed turning Kuwait City's back to the sea, eliminating the wall, and conquering the desert. Spacious green suburbs were to be reclaimed for a populace stifled by an aging, underdeveloped city, or so was the assumption. The old city was to become the new city

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[39] Shiber, Saba. *The Kuwait Urbanization*. Kuwait: Kuwait Government Press, 1964.

[40] The diwaniyya remains influential to this day in the Kuwaiti sociopolitical sphere. The social institution demonstrated its formidability during the unconstitutional dissolution of the parliament in the 1980s; Kuwaiti MP's held public sessions in diwaniyyas in a challenge to the emir's authority and an assertion of the right to a public political discourse. For a brief account of diwaniyyas in the mid 1980s, see Miller, Judith. "In Modern Kuwait, Old Ways Still Shape Society." *New York Times*. June 10, 1984. For an in-depth anthropological study see Redman, James. "The *Diwaniyya*: Guestroom Sociability and Bureaucratic Brokerage in Kuwait." Doctoral dissertation, University of Utah, 2014.

[41] See Habermas, Jürgen. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge: MIT Press, 1989.

center. Once the residential suburbs were built, the old city was emptied of its inhabitants, its wall torn down, and much of its mud-brick architecture flattened to the ground. The dense historic fabric, the winding alleyways, the mixture of uses, the uniform height—all were dispensed with. Apart from mosques and palaces, a tabula rasa was created onto which a new center for a zoned city was to be built.

The change effected by this erasure was not limited to the urban but had profound financial and sociopolitical implications. Rather than force the inhabitants out, the government purchased their land and relocated them to newly created suburbs.[42] This buy-out scheme had a dual purpose; in addition to placating any potential discontent, it served as an adequate framework for the redistribution of oil wealth across the populace. But the ultimate guile of the buy and clear strategy lay in its establishment of the state's sovereignty over land and people. By means of urban renewal, the state enforced its claim to the land, effectively monopolizing its administration and appropriation, while simultaneously asserting financial patronage of the populace. In social, political, and urban respects, no longer was Kuwait a bottom-up city. By vacating the city from its inhabitants and razing most of it to the ground, the state conveyed its power over the livelihood of its citizens. Top-down became the paradigm; the state was now the hegemon.

Twice emptied – of people and buildings – this city was scarcely the modern symbol of power that states aspire to possess. With the government's authority established by the oil wealth and land grab thus came the mandate to rebuild and repopulate the emptied city. Doing so produced social and architectural paradigms novel to the country.[43] Focused on erecting large modernist buildings to house newly-established state institutions, urban reconstruction served to construct a modern idea of Kuwait and assert a sense of Kuwaitiness in line with the times.

Losing one city in pursuit of a new one is emblematic of what Marshall Berman terms the modern "tragedy of development."[44] He explains that in order to access modernity and acquire modernism, to become thoroughly and unapologetically modern, one must tirelessly enact

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[42] Al-Ragam, Asseel. "Critical nostalgia: Kuwait urban modernity and Alison and Peter Smithson's Kuwait Urban Study and Mat-Building." *The Journal of Architecture* 20, no. 1 (2015): 1–20.

[43] For a discussion of these social changes including the redefinition of the familial household and the rise of policed space and public order in Kuwait, see Longva, Anh Nga. "Neither Autocracy nor Democracy: Citizens, Expatriates and the Socio-Political System in Kuwait," and Crystal, Jill. "Public Order and Authority: Policing Kuwait," both in Dresch, Paul and James Piscatori, eds. *Monarchies and Nations: Globalisation and Identity in the Arab States of the Gulf*. London: I.B. Tauris, 2005.

[44] Berman, Marshall. *All That Is Solid Melts into Air: The Experience of Modernity*. New York: Penguin Books, 1988: 40.

modernization, whose processes entail the destruction of a present beholden to a past that impedes a sprint towards the future. In a cultural analysis based on a close reading of Goethe's *Faust*, Berman astutely highlights the paradox facing the modern subject:

> he won't be able to create anything unless he's prepared to let everything go, to accept the fact that all that has been created up to now . . . must be destroyed to pave the way for more creation. This is the dialectic that modern men must embrace in order to move and live; and it is the dialectic that will soon envelop and move the modern economy, state, and society as a whole.[45]

To beget a new Kuwait, the old Kuwait must be dispensed with. This disposition became ubiquitous, held not only by the government (and its British consultants) but even by the citizens whose lives and livelihoods were embedded in the city.[46] When Zahra Freeth, daughter of the British political agent Harold Dickson, protested the banning of traditional seafaring dhows from Kuwait's waterfront in 1970, a merchant responded "No; we all agreed that it was a good idea to get rid of them from new Kuwait. Then we can have an elegant promenade along the front, and not the untidy mess that the boats make when they come into harbor."[47] This sentiment that advocated erasing the past in order to make way for the future was so strong that not even the romanticism of some the British could assuage Kuwaiti's from charging heedlessly into modernity.[48] Kuwait as a whole decided to shed its old self in search for a new form of being in the world.[49] New Kuwait would be a radical departure from the past.

The British professionals acting on the Kuwaiti landscape came from a milieu whose relationship to modernism was not uncomplicated, especially in relation to the notion of heritage. The marriage of town and country advocated by Ebenezer Howard implied an inescapable degeneracy of the unplanned city. Yet an exodus from the city towards "garden cities" led to the further affliction of historic urban centers and, ultimately, the metamorphosis of his concept into the now endemic suburban sprawl. While the modernist project of planning

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[45] Ibid., 48.

[46] Al-Nakib, Farah. *Kuwait Transformed: A History of Oil and Urban Life*. Stanford, CA: Stanford University Press, 2016.

[47] Dickson Freeth, Zahra. *A New Look at Kuwait*. London: Allen and Unwin, 1972: 101.

[48] Al-Nakib, Farah. "Kuwait's Modern Spectacle: Oil Wealth and the Making of a New Capital City, 1950–90." *Comparative Studies of South Asia, Africa and the Middle East* 33, no. 1 (2013): 7–25.

[49] Art historian Laura Hindelang posits 20th-century Kuwait as representative of the modernizing (i.e. carbonizing) society's impetuous leap into the amorphous condition that is petro-modernity. See Hindelang, Laura. *Iridescent Kuwait: Petro-Modernity and Urban Visual Culture Since the Mid-Twentieth Century*. Berlin: De Gruyter, 2022.

new cities and reworking old ones was in high gear in the postwar period, the question of what to preserve was prominent. The British awareness of these challenges eventually led to the idea of selective architectural conservation. In 1947, the Town and Country Planning Act extended the purview of historic preservation beyond historic monuments to architecture and the urban environment more broadly.[50] Thereafter, modernity in Britain could only engulf that which was not protected by the state and its agents, and the state thus became the main arbiter of urban material culture. This professionalization of heritage effectuated its "bureaucratization," a development that "effectively severed heritage from the local and redeployed it as a national, state controlled, professionalized practice." [51]

In Kuwait, the British marriage of town and country transformed into the marriage of town and desert. Due to the lack of modern architectural expertise in Kuwait, the state had to resort to the services of the British with whose empire they already had ties.[52] Five British firms were contracted to plan this transformation, and by the time these "Big Five" lost their monopoly over urban planning and development in the mid 1950s, most of the damage to the traditional urban fabric had been done.[53] A Kuwaiti appreciation for urban and architectural heritage arose in the aftermath of this urban erasure, and it was the British, again, who were first contracted to propose a remedial plan in the mid 1960s.[54] It proved difficult to restore that which was completely lost, and subsequent urban development plans were not able to achieve desired levels of urban coherence. Kuwaiti project contracts were thus opened up to professionals from all over the world, tapping into a global cacophony of architectural and urban voices.[55] With the increased frequency and diversity of architectural practitioners arriving in Kuwait in the 1960s and 70s to work on the state's institutional projects, the projects of nostalgic creation and creative restoration of a lost identity became intertwined.

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[50] Harrison, Rodney. *Heritage: Critical Approaches*. London: Routledge, 2013: 52. This notion was expanded into an international paradigm, adopted by UNESCO and propagated the world over, making explicit "the connection between cultural heritage and national identity" and solidifying the "use of heritage in nation-building."

[51] Ibid., 56

[52] Shiber, Saba. *The Kuwait Urbanization*, 1964.

[53] Smith, Simon. *Kuwait, 1950-1965*. 1999. The firms' practices were a source of embarrassment for British political officials and even the American consul.

[54] Al-Ragam, Asseel. "Critical nostalgia." 2015: 5.

[55] At this point, Kuwait as a market for international architectural expertise was not limited to Western professionals, but also those from the Socialist world. See Stanek, Łukasz. *Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War*. Princeton, NJ: Princeton University Press, 2020.

While Berman does acknowledge the scholarly distinction between modernization and modernism – the maelstrom of destabilizing developmental practices, and the intellectual values affirming modern subjectivity, respectively – he nevertheless emphasizes the dialectical processes of modernity, defining modernism as "any attempt by modern men and women to become subjects as well as objects of modernization, to get a grip on the modern world and make themselves at home in it."[56] These two modes and dispositions are intrinsically entangled—pushing and pulling at one another during the throes of development. The modernization of Kuwait emblematized this dialectic. When the old city was lost to modernity's bulldozer, only the idea of Kuwait remained for Kuwaitis to identify with. New Kuwait was thence a blank sheet, a new space for the state to fill. Modern architecture became an opportune form of spatial reconstitution, constituting a set of tangible cultural artifacts imbued with modernism publicly filling the gap left by modernization. Given that "'modernization' in economics and politics" goes hand in hand with "'modernism' in art, culture, . . . sensibility,"[57] architecture plays a boundary-spanning role. It bridges between the cultural and the technical, between modernism and modernization. In Kuwait, it was a means of negotiating the tensions between subjectivity and activity, between being and becoming modern.

Architecture made manifest the intangible but profound transformations in citizen and state subjectivity. If modernity is an abstraction, then the messy, material work of modernization conscripts humans and space into modernity's service, rendering them subjects and objects through which the abstract is concretized. One salient manifestation of this abstraction is the concept of economy. The modern state has an economy qua formal economy, flows of wealth and information that are quantified and documented on a mass scale.[58] This intangible index of state vigor is the prototypical emblem of modernity, a testament to the modern ability to formalize the seemingly ephemeral transactions and collectivities of "man in the ordinary business of life."[59] In its transformation into a modern nation state, Kuwait came to have a formal polity and economy. In order to keep track of, and thus maintain authority over, the proceedings of daily life, a bureaucracy was required to carry out the functions of the state. Much of the populace that vacated Kuwait's old city returned to it not in their private capacities

[56] Berman, Marshall. *All That Is Solid Melts into Air*. 1988: 5

[57] Ibid., 88.

[58] For a discussion of the uniquely modern notion of "economy," see Mitchell, Timothy. "The Stage of Modernity" in *Questions of Modernity*. Edited by Timothy Mitchell. Minneapolis: University of Minnesota Press, 2000. Also see Mitchell, Timothy. "The Work of Economics: How a Discipline Makes its World." *European Journal of Sociology* 46, no. 2 (2005): 297–320.

[59] Marshall, Alfred. *Principles of Political Economy*. London: Macmillan, 1920.

as citizens but as instruments of the state, as civil servants in a vast bureaucracy populating the modern buildings the state erected. If this development can be read as a modernizing turn colored by a process of formalization by which Kuwaiti modernity directly engaged Kuwaiti tradition, then one may say that the informal congregations of the diwaniyya became overshadowed by the institutionalized congregation of bureaucrats under the direct purview of the state. The state bureaucracy effectively replaced the diwaniyya as the premier mode of governance.

Producing institutional architecture to house this bureaucracy coupled questions of identity and power with those of space. The charge to the largely-modernist cadre of foreign professionals Kuwait approached was to fulfill and respond to what the British began in the country. On the question of identity in relation to the notion of the Arab city, these designers had to rely on their own understandings, especially since they arrived in the aftermath of the old city's erasure; there was not much left on the ground for these architects and urban planners to consume as context. Alison and Peter Smithson, for example, resolved to a notion of "Englishness" as a response to the dislocation impelled by postwar reconstruction in Britain, a notion they saw fit to utilize in a Kuwaiti context suffering from a similar sense of loss and crisis of identity.[60]

Iconicity became the substitute by which a national identity could be sustained in the midst of a diluted urban environment. This iconic architecture's context was often located in the designer's mind, produced by his or her conception of what an Arab city is and ought to be.[61] While many architectural proposals referenced a generic sense of Arab identity, by attempting to create spaces that brought together various architectural elements and spatial conditions often inspired by the Arab cities of North Africa and the Levant,[62] a few emblematic buildings were produced that suggested a non-mimetic, synthetic approach to a renewed sense of Kuwaiti identity. This architecture, exemplified by the National Assembly and Central Bank buildings,

[60] Al-Ragam, Asseel. "Critical nostalgia." 2015: 11. On this note, philosopher Thorsten Botz-Bornstein resists the centering of Western modernity as that against which the regional is pitted cum wed—as that which the local resists. He posits what he calls transcultural architecture as superordinate to critical regionalism; we may understand the former concept as a compliment to the latter and not necessarily an alternative to it. By this, he speaks of an architecture engaged in and with hybridity, one not defined by resistance. See Botz-Bornstein, Thorsten. *Transcultural Architecture: The Limits and Opportunities of Critical Regionalism*. Farnham, Surrey: Ashgate, 2015.

[61] For a critique of this orientalist approach, see Androas, Amale, and Nora Akawi. *Arab City: Architecture and Representation*. New York: Columbia Books on Architecture and the City, 2016.

[62] For example, the Smithson's mat building-based Kuwait Urban Study, Marcel Breuer's Mideast Market Proposal, and Arthur Erikson's Sawaber Complex were based as much on an idealized notion of the Arab urban space (i.e. the souq, the bazaar) as on a distinctive response to local context.

embodied urban-national identity in a sort of gestalt manner, constituting a form of iconic substitutionary atonement through which the lamented loss was recapitulated into a projective architecture that was neither wholly modern nor traditional.[63] These buildings were not hybrids, for they did not valorize nor were composed from an idiosyncratic set of culturally-specific particularities. On the contrary, they anchored and concretized an abstract modernity; they were the political economy made manifest and authoritatively inscribed on the cityscape. To use Berman's terms, they were architectural instances of modernism filling roles opened up by the city-state's modernization.

Completed in 1976, Arne Jacobsen's Central Bank building brought together two worlds, the lost old and the welcome new. A gray, tapered, trapezoidal perimeter wall bounded a pristine metal box,[64] as though the load-bearing city wall that was demolished to expand the city were rebooted as the guardian of the new state economy symbolized by the modern aluminum-clad rectilinear volume within which the proceeds of oil are kept safe. Resurrected, the old city wall that protected the city and its inhabitants now protected the state's modern wealth. Neither volume dominated the other, the two forms mutually erect and austere. A gilded dome, however, punctuated this spartan composition, a volumetric punctum against the faceted mass of the building, opulently hinting at that which is kept inside. As the seat of the newfound treasury of the modern state of Kuwait, the Central Bank building was the incarnation in concrete of the state-controlled economy. The composition naturalized, perhaps even ameliorated, the drastic economic transformation and power concentration that took place in the nation over the preceding half century. The design announced that the old and the new needed not be in tension but could gracefully coexist—in a state-arranged marriage, durable as they are.

Even more so, Jørn Utzon's National Assembly building is Kuwait's first truly iconic piece of modern architecture, notwithstanding the exquisite water towers erected in the preceding decade. Built over the course of a decade, the design was the result of a series of studies and schemes in which Utzon explored the idea of an oriental vernacular. His exposure to

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[63] As cultural historian Carol Bardenstein attests, memory can constitute a generative ethos activated by collective loss and preoccupied with embodiment and material production. She calls attention to "the *active* nature of the construction of memory . . . It is at or around points of perceived and experienced breaks, ruptures, and loss that acts of memory proliferate, that active 'memory-work' is done" (original emphasis). The construction of memory is as much, if not more, about construction as it is about memory. It can constitute more a presentist looking forward than a nostalgic looking back. See Bardenstein, Carol. "Trees, Forests, and the Shaping of Palestinian and Israeli Collective Memory" in *Acts of Memory: Cultural Recall in the Present*. Edited by Mieke Bal, Jonathan Crewe, and Leo Spitzer. Hanover, NH: University Press of New England, 1999: 148.

[64] "Kuwait Central Bank, Kuwait; Architects: Dissing and Weitling." *Domus* 595 (June 1979): 46–47.

Moroccan and Persian architecture proved to be influential in his conception of the project.[65] However, when the building was finally completed in 1985, the result was not a building that was immediately recognizable as a transmutation of Arab or Islamic motifs.[66] Rather, the Gulf-facing building created a distinct sense of place, an abstract restoration of a geospatial relationship severed by the city's rapid oil-age re-urbanization; as the parliament's home, it shifted the city's focus back to the sea, signaling that progress built upon treasure extracted from the ground was not so different from the traditional reliance on the treasures of the sea. Standing steadfast on the waterfront, this spatial symbol of modern Kuwait joined the lonely remnants of the city's past.[67] The billowing airy white forms of the exterior hinted at multiple extra-urban connections—sails out at sea, tents out in the desert (Fig. 4.1). But the interior configuration pointed to another inspiration, something much more urban; except for the assembly halls and atrium, the interior layout is a checkerboard of square clusters, each a collection of rooms enclosing a courtyard, the whole being a rationalization of the lost traditional urban fabric.

[65] Utzon, Jørn, and Børge Nisses. *Jørn Utzon Logbook IV: Kuwait National Assembly*. Hellerup: Edition Blondal, 2008.

[66] For an extended discussion of the design considerations and sociopolitical implications of the National Assembly building, see Vale, Lawrence. *Architecture, Power, and National Identity*. London: Routledge, 2008.

[67] A few buildings from Kuwait's pre-oil era remain, most of which were waterfront residences. Many have been restored by the government or the owning families, and serve as museums or diwaniyyas. Most prominent of these houses are Bayt Al-Bader, Sadu House, and the Dickson House.

Figure 4.1 The National Assembly building on Kuwait's waterfront. (Source: Utzon Center/Arquitectura Viva[68])

Incorporating elements of that which was lost into the architecture itself – most exemplified by the reclamation of the extinct courtyard house typology as the basis of the plan – the domicile of Kuwait's legislative body manifested a popular hope that lessons from past governmental errors were well-learnt. But as the formal place of political congregation, the National Assembly building's prominent urban presence also signified a projection of the state's dictation of the rules of governance. No longer was the informal diwaniyya a valid method of governmental consultation; only protocol dictated by the state within the space of governmental legitimization was recognized. The architectural legitimacy of the legislative building reinforced the legitimative practices of the state. The National Assembly building became the state's diwaniyya. An architecture offered up to the populace as a material heir to the past and a harbinger of the future normalized the disjunctive processes of modernization by fixing attention on the political modernism of the developmental enterprise.

These buildings channel modernity's tension with the extant to signal and anchor new forms of being in the city. Rather than participate in a zero-sum match with tradition or acquiesce to it nostalgically, these buildings embodied the urban-national questioning augured by modernization. They did not bring closure to questions of heritage and modernity, but served as capacitors that contained tensions and generated more conversation about the role of subjects and objects in the modern sociopolitical environment. In its mediatory position, such an architecture instantiates what philosopher Slavoj Žižek calls the "parallax gap," a condition in which "an 'epistemological' shift in the subject's point of view always reflects an 'ontological' shift in the object itself."[69] He argues that the gap between variant perceptions, even realities, is irreducible, and that such an unyielding state of difference is not necessarily detrimental for the collective good. In the Kuwaiti case, parliament and bank can mean starkly different things to different people perceiving and experiencing them from different subject-positions at different times. Rather than merely enabling perspectival flexibility, the architectural icon's very receptivity to a diversity of understandings marks it as an incubator of difference.

This architecture frames both the promise and uncertainty of modern life, alternately belying and betraying the friction of forces grappling for hegemony in the modern city. These

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[68] "National Assembly, Kuwait." *Arquitectura Viva*. June 6, 2018. https://arquitecturaviva.com/works/asamblea-nacional-de-kuwait-6

[69] Žižek, Slavoj. *Living in the End Times*. New York: Verso, 2010: 244. See also Žižek, Slavoj. *The Parallax View*. Cambridge, MA: MIT Press, 2006.

20th-century developments in Kuwait demonstrate that cultural memory, particularly of the material, spatial, and urban types, was "constantly and dynamically being reworked and rewoven, by various actors with conflicting agendas, into designed formations that strove to hold the present in symbolic and symbiotic relationships with the past and future."[70] Anxieties about the state of the city-state played out in and through the city itself. As social theorist Henri Lefebvre declared, the public sphere of the city and its urban environment are "the setting of struggle; they are also, however, the stakes of that struggle. How could one aim for power without reaching for the places where power resides, without planning to occupy that space and to create a new political morphology?"[71] Architecture often is how power gets to speak, and how one may get to speak to power. In the National Assembly and Central Bank buildings, Kuwaitis got monumental, material, inhabitable expressions of the modern state of which they have been part and with which they have had to contend.

Figure 4.2 The original design of the Central Bank building and its subsequent restyling and expansion. (Source: SEIER+SEIER[72])

Much urban development remains to be carried out in Kuwait City. In transitioning from a city-state to a nation state, Kuwait became a state without a city. More precisely, in claiming the city, the state simultaneously lost it.[73] The British created an urban canvas for Kuwait and its invitees to engage.[74] The architects who arrived in Kuwait to contribute to its modernization had

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[70] Abramson et al. "Introduction," *Governing by Design*. 2012: xiii.

[71] Lefebvre, Henri. *The Production of Space*. Oxford: Blackwell 1991: 386.

[72] SEIER+SEIER. "arne jacobsen, D+W architects: central bank of kuwait 1966-1976." *Flickr*. May 14, 2014. https://www.flickr.com/photos/seier/14184121161/

[73] For an expanded discussion of the detrimental impact of state-led development, see Scott, James. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, CT: Yale University Press 1998.

[74] For a short account of the different ways that Gulf cities modernized (i.e. transformed) under the dual influences of fossil fuel and the British, see Karimi, Ali, and Frederick Kim. "On Protectorates and Consultanates: The Birth and Demise of Modernization in the Gulf States" in *Unsettling Colonial*

to contend with a modernist tabula rasa that had flattened the old city. Their proposed and built architecture helped produce a new national identity inasmuch as it struggled to revive a dissolved urbanity. The best of the state's new buildings, exemplars of Kuwait's modern architecture, became monuments to a new sociopolitical paradigm, moments of intensity around which a city might coalesce.[75] But as is characteristic of modernity, seldom does anything remain unchanged. The Central Bank building, for example, was refurbished shortly after it was completed to resemble an Islamic palace (Fig. 4.2).[76] And the recently completed extension of the National Assembly building maintains no fealty to Utzon's creation, but is a foreign appendage bearing no resemblance to the existing structure.

Such is the modern city as a site of social, political, and economic flux. To remain static is to be swept away by the forces of change. And this, the state is well aware of. The contemporary resurgence of Emiri architectural patronage, especially with regards to the establishment of cultural institutions, is a revamped attempt at reasserting urban-political power. The Jaber Al-Ahmad Cultural Centre, colloquially known as the Opera House, and Al-Shaheed (Martyr's) Park are two of the most prominent contemporary architectural-urban projects undertaken by the Emiri Diwan.[77] A brand new campus is the national university's parallel to these megaprojects, one that serves to concretize the abstract notion of higher education. As culturally-focused urban interventions, these projects signal that the state is not yet done with its city-making, state-building project—that identity remains a notion that the state seeks to author(ize).

4.2 2005: A Midas Touch and A Mirrored Campus

Sabah Al-Salem University City is located in Shadadiyah, what had been a largely industrial area southwest of Kuwait City (Fig. 4.1). SSUC straddles the Sixth Ring Road, a major arterial highway that runs along the campus' northern edge, and is surrounded on its other sides by residential neighborhoods. While the foundation laying ceremony took place in 2005 and construction was to be completed within a decade, much of the campus remains under

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Modernity in Islamicate Contexts. Edited by Siavash Saffari, Roxana Akhbari, Kara Abdolmaleki, and Evelyn Hamdon. Newcastle: Cambridge Scholars Publishing, 2017: 88–101.

[75] This is an interesting parallel between Kuwait's post-British urban development and O. M. Ungers and Rem Koolhaas' proposal for post-war Berlin, "The Green Archipelago." See Ungers, Oswald Mathias, Rem Koolhaas, Peter Riemann, Hans Kollhoff, and Arthur Ovaska. *The City in the City: Berlin: A Green Archipelago*. Edited by Florian Hertweck and Sébastien Marot. Zurich: Lars Müller, [1977] 2013.

[76] Fabbri et al. *Modern Architecture: 1949 – 1989*. 2015: 146.

[77] Public projects technically fall under the purview of the Ministry of Public Works. Patronization by the Emiri Diwan, the Princely Court, is an increasingly common "exception," though.

construction to this day.[78] SSUC's location on the edge of the city meant that its main contextual limitation was the desert, which it reclaimed and began transforming into a productive parcel of the Kuwaiti cityscape. The masterplan that gave first form to the new campus, turning it from a legal fiction into a design project, proffered a sylvan means of implementing the segregation law while focusing largely on composing the major institutional elements that make up the university. In addition to showing how a segregated campus could be plausible without undermining the overall user experience, the masterplan presented a university expanded – with new colleges and facilities – and reconciled—its medical colleges and teaching hospital made contiguous with the rest of campus, instead of being attached to a distant Ministry of Health hospital as they have long been. Insofar as the institution was ready to change and grow, the campus appeared ready to embody that change and growth, and to append them to the city.

Figure 4.3 The glowing, rhombus-shaped SSUC located in Shadadiyah. (Source: Kuwait University[79])

This appropriation of barren land on the edge of the city for the purposes of large scale institutional development was also taking place in other locations in the region. The 2008 relocation of the American University of Cairo (AUC) from the city center to the suburb of New Cairo is a prominent, parallel example of the centrifugal embrace of the urban periphery (Fig. 4.2). Rather than continuing to make do with a fragmented urban campus adjacent to the iconic Tahrir Square, AUC's establishment of a large new campus was designed to provide the look and feel of American undergraduate education in the spacious expanses of a desert new town.[80] The

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[78] "Kuwait University." *Sabah Al-Salem University City*. Accessed May 1, 2020. http://ssuc.ku.edu.kw/about-us/. The campus started operating partially in Fall 2019.

[79] Screenshot from video (frame at 00:00:46). Kuwait University Construction Program. "Introduction - Sabah Al-Salem University City." *YouTube*. https://www.youtube.com/watch?v=8aKy4fMQjhQ

[80] Redden, Elizabeth. "New Campus, in New Cairo." *Inside Higher Education*. March 13, 2008. https://www.insidehighered.com/news/2008/03/13/new-campus-new-cairo

university community understood the exceptionality of such a shift: "While many universities conduct renovations, build extensions, and establish satellite campuses, AUC's experience of moving to an entirely new campus is unique."[81] Starting anew at a different location, institution, architecture, and landscape could all be conceived together to create a comprehensively designed space where students and faculty might lead more productive, institutionally-conditioned lives.

The declared immediate goals of the move – consolidation, modernization, and community – belied a fourth goal that extended beyond the confines of the masterplanned campus: contributing to society, state, and region.[82] In other words, the import of a new campus designed to increase academic cohesion and productivity was presented as being coextensive with the concern for societal relevance and general welfare. The AUC's administration rhetoric denoted that academic development and human development go hand in hand. Kuwait University's commissioning of a new campus put into motion the planning of a move like AUC's – one laden with similar institutional and extra-institutional concerns – near contemporaneously with that Cairene project.

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[81] "The American University of Cairo Comprehensive Analysis of Move Pre/Post University Shift (Campus) Research Project" *American University of Cairo*. Accessed May 1, 2017. http://schools.aucegypt.edu/huss/sape/Pages/Campus.aspx.

[82] "New Cairo Campus Background." *American University of Cairo*. Accessed May 1, 2018. https://www.aucegypt.edu/about/visitor-information/new-cairo-campus/background. The main goals that AUC outlined for moving to new campus were: 1) eliminating "overcrowding and institutional fragmentation inherent in AUC Tahrir Square, which divide the academic enterprise into multiple locations"; 2) providing "modern classrooms, laboratories, lecture halls and other essential facilities to support current and future teaching methods, curricula and educational technologies"; 3) improving "campus life for students, faculty and staff by creating a campus designed to foster interaction and create community"; 4) enhancing "AUC's contributions to Egypt and the region." For a broader discussion of the socio-historical co-production of the institutional ethos and the spatial form of the university, see Coulson, Jonathan, et al. *University Planning and Architecture*, 2010: 258: "In short, history teaches us that in each generation, societal mores and priorities have determined the 'idea' of the university – its founding philosophies, its practical remit, its sponsors – and that this has determined the physical form that it assumes."

Figure 4.4 The American University of Cairo's campus in New Cairo. (Source: Archidatum[83])

In Kuwait, the SSUC masterplan was designed in the mid-2000s by CCA, a multidisciplinary consortium of three Canadian firms: WZMH Architects, Moriyama & Teshima, and du Toit Allsopp Hillier, specializing in architecture, planning, and landscape architecture, respectively.[84] The new campus is to replace KU's seven preexisting campuses (Fig. 4.5). Though unitary in this respect, the campus is schismatic internally. The masterplan that the consortium produced essentially comprised substantially-similar bi-campuses, replicated and mirrored across a buffer zone; two sub-campuses – one for each sex – were set alongside one another without provision for cross-interaction except for the circulation of faculty. But instead of resigning themselves to the requirement of physically separating the two sexes, the consortium designed a kilometer-long water feature as a central campus attraction. Rather than a solid partition, a void separates the two sides and serves as the organizational datum across which a single university functions. Overtly totalitarian design means were not necessarily needed to enforce total separation.

[83] Seda, Edwin. "The American University in New Cairo / Sasaki Associates." *Archidatum*. March 27, 2016.
http://www.archidatum.com/projects/the-american-university-in-new-cairo-sasaki-associates/
[84] "Canadian consortium awarded master plan commission in Kuwait." *Canadian Architect*. September 20, 2004.
https://www.canadianarchitect.com/architecture/canadian-consortium-awarded-master-plan-commission-in-kuwait/1000021962/

Figure 4.5 The new campus in Shadadiyah consolidates a university spread across seven locations. (Source: CCA's 2005 masterplan vol. 1, p. ii)

The masterplan development process started on 29 November 2004, and ended with the presentation of the final masterplan in December 2005, which anticipated the completion of construction in 2014.[85] From the start, the masterplan described the campus as "a city on the banks of a river of landscape," comprising three components: the Oasis, a "Palm Forest"; Gallerias, place-making pedestrian "streets"; and college clusters bringing a neighborhood feel to the segregated campuses.[86] That the masterplan introduced them in this order implied that within this triumvirate of defining campus elements was a hierarchy of importance (and scale) vis-a-vis the overall design: most influential to the campus scheme was the Oasis, followed by the Gallerias, then the college clusters. Before I get to those elements, let me first describe the overall form and composition of the campus. This design for the 60-million square foot (≈370 hectare ≈ 914 acre) campus was characterized by a rhombus-shaped boundary inside of which an organic beetle-like geometry resided, bounding the clusters of academic buildings at the center and the parking space surrounding them (Fig. 4.3).[87] While this organic inner campus zone nested completely within the abstract boundary of the rhombus, they coexisted in tension; the edge of the beetle-form encroached on the rhombic boundary at the south end of the campus and just about touched it at the north end. Beyond these moments of proximity and contraction, other parts of the zone between the beetle and the rhombus were quite sparse, even loose (Fig. 4.4). This intermediary zone was dedicated mostly to campus services and utilities. Most of the

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[85] Canadian Consortium Architects. "Master Plan for the New University City for Kuwait University Al-Shadadiyah." Masterplan produced by CCA in association with SSH. 2005. Subsequently referred to as CCA Masterplan, 2005.

[86] Ibid., ii.

[87] WZMH Architects. "Kuwait University: Al-Shadadiyah, Kuwait." *WZMH*. Accessed May 1, 2019. https://www.wzmh.com/projects/university-city-master-plan-kuwait-university-al-shadadiyah/

service buildings occupied a single file in the tightest section of the zone, straddling the southernmost boundaries of both beetle and rhombus. While certain areas of the intermediary zone were relatively congested, others were completely empty in contrast, to the extent that they formed bounded areas of desert inside the grounds of the university. The result was that one would not perceive formal or organizational coherence on passage through the rhombic threshold. Only the inner campus inscribed by the beetle maintained the cohesive character conducive of a sense of academic refinement.
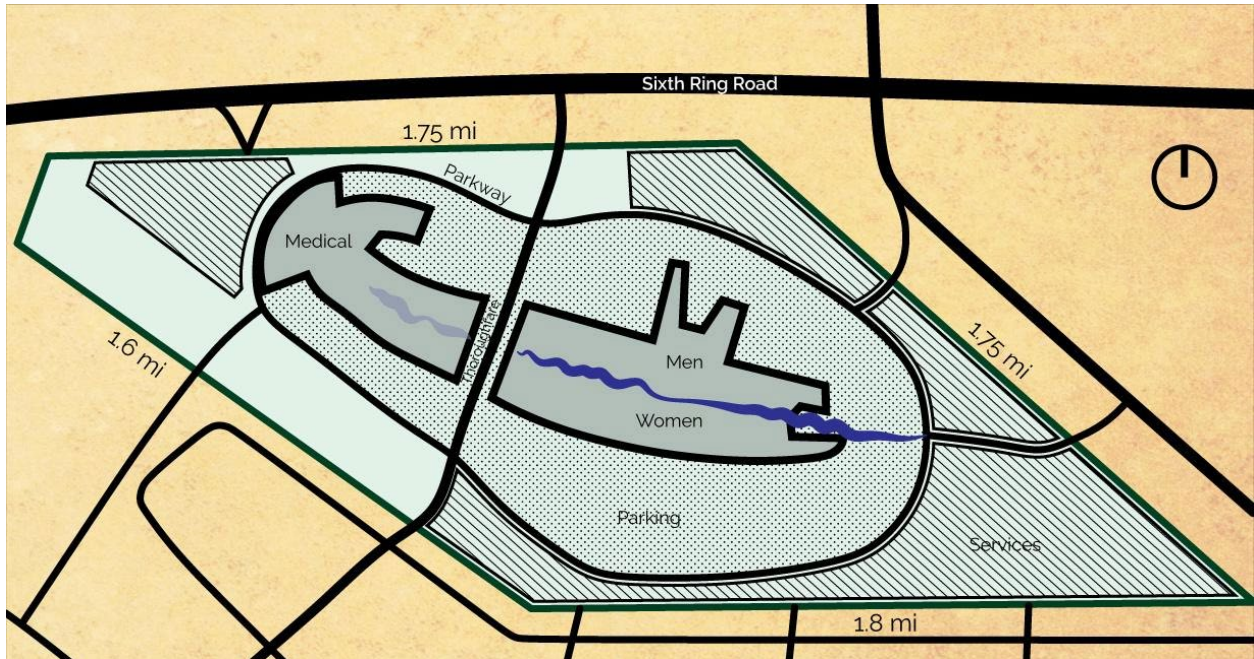

Figure 4.6 The overall zoning of SSUC. (Source: My drawing)

Figure 4.7 SSUC's morphology is akin to a beetle nested within a rhombic crystal. (Source: My collage)

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The inner campus zone was itself divided into two sections: a health sciences campus on the west and the main academic campus double its size on the east. The largest road on campus is a thoroughfare that separates these two zones, crystallizing the beetle-like form of the inner campus zone by rendering the medical campus as its head and the academic campus as its abdomen. This form was bounded by a vehicular parkway feeding cars into the large amount of surface parking surrounding the clusters of buildings in the center of campus. In fact, it seemed as though the beetle was bloated with parking, especially as the abdomen swelled, almost constricting the buildings in the service zone and elongating the boundary parkway. All roads leading out from campus intersected the parkway in the form of roundabouts except in an instance of a crossroads at the thoroughfare's southern intersection. The thoroughfare's northern intersection with the parkway resulted in a monumental roundabout, lending an honorific air to the vehicular infrastructure at the main entrance right off the Sixth Ring Road. As theoretically grand a design decision as the roundabout may be, it is no square. This circulatory feature foregrounded the management of routine traffic flows and stood as the marquee moment in an "autopia" that enveloped the campus' architectural center.[88] Here, an automotive periphery circumscribing a human core became an environmental analogue to the administrative university serving as a vessel for higher education's psychosocial substance.

The envisioned treatment of the circulation roads, which were wooded and greened, prefigured the landscaped care that the inner campus zone was afforded relative to the design of the overall campus. While the interstitial service zone may have been barren and uninteresting, the student and visitor would immediately sense a contrasting level of design on entry into the inner zone. The incorporation of landscaping into the peripheral infrastructure of the inner zone signals to the user that this built environment operationalizes the aesthetic. The parkway announces that one is entering the university proper with all its attendant experiential privileges.

In contrast to the ostensibly integrated medical campus, the main academic campus was further divided by the campus' major east-west axis into a men's campus on the north and a women's campus on the south. Along this axis ran the Oasis, the landscaped water feature over a kilometer long acting as a buffer between the two subcampuses. Every college building along the axis was mirrored, the women's buildings enlarged to accommodate the higher percentage of

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[88] In his ode to Los Angeles' urbanism, Reyner Banham devoted a chapter titled "Autopia" to the adulation of the supposed freedom afforded by a car-centric urban culture and environment. Through his rose-tinted glasses, highway interchange knots become esteemed modern infrastructural monuments. See Banham, Reyner. *Los Angeles: The Architecture of Four Ecologies*. New York: Harper and Row, 1971.

females in the student body (Fig. 4.5). The inclusion of the College for Women further contributed to the increase in the combined length of the women's row of buildings. To compensate for this differential, the women's row was curved such that it did not extend too far beyond the easternmost building on the men's side. Within the rows of academic buildings, colleges were clustered thematically with a STEM-inflected western cluster and an arts-and-letters eastern cluster separated by student centers in the middle. Starting on the west were the so-called New Colleges (such as Computer Science), Engineering, Science, Business Administration, Student Center, Education, Arts, Social Science, Sharia (Islamic Jurisprudence), Law, with a corresponding pair of New Colleges (such as Architecture) terminating the eastern end. The Women's College lies between the College of Business Administration and the student center. These mirrored rows of buildings constituted the central core of the campus.
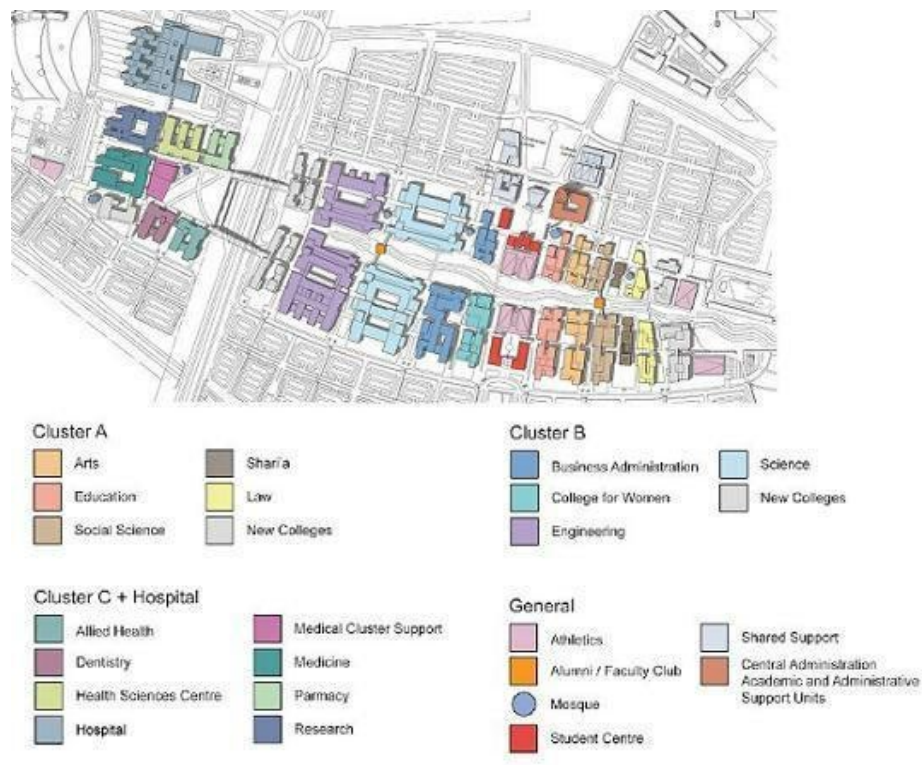
Figure 4.8 Campus zoning: To the east are the segregated rows of academic buildings, mirrored across the Oasis. To the west is the integrated medical campus. (Source: Wikimapia[89])

The masterplan explicitly assigned two distinct formal identities to the two subcampuses: the mens' campus was "rectilinear," while the women's campus was "curvilinear." As a neutral feature, it also spoke of a 10-meter high knoll retained as a distinctive landscape

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[89] "Sabah Al-Salem Al Sabah University City (Under Construction)." *Wikimapia*. Accessed January 1, 2022. http://wikimapia.org/19067084/Sabah-Al-Salem-Al-Sabah-University-City-Under-Construction

feature, and designated as a park, just west of the medical campus. The male, north side of the campus was considered the front side, oriented to face the highway interchange (between the 6th Ring Road and Road 602) next to which SSUC is tucked. In the inner core, the spatial parti is defined by the Oasis and the Gallerias. While the former operated as the major inter-subcampus element, the latter operated as major intra-subcampus elements; the Oasis separated the male and female college clusters from each other, while a Galleria on each side of the campus provided a continuous linear link between the buildings. These campus buildings were described as "a series of fingers that radiate out from the central spine"—referring, and giving conceptual prominence, to the Galleria rather than the singular, central Oasis.

Though admittedly prominent, the Oasis was characterized as lackadaisical-minded. It was described as the "most spectacular feature of the master plan," affording both physical separation and "quiet contemplation." The masterplanners went so far as to characterize it as "a philosopher's walk promoting academic discourse and providing a relief from the day to day [sic] life at the University." No matter that the Oasis was the most decisive determinant of the masterplan parti, the masterplan foregrounded the affordances it provides to users as an amenity in lieu of highlighting what it does as a means of territorialization. By describing the Oasis as a passive space – as well as one to "be viewed from office and research spaces", not unpanoticonically – which would not be out of character for a verdant respite from the bustle of the colleges and Gallerias, the masterplanners shifted the focus away from its active character as a line of division and a soft barrier between the two sides.

Another striking if unspectacular feature of the masterplan is the expanse of parking surrounding the campus buildings, which themselves sandwich the Oasis. The idea was that students would commute to the campus in their cars, park in either shaded surface lots or multi-level decks, and proceed to spend their time on campus as pedestrians. The masterplanners appear to have been aware of the Kuwaiti predilection of relying on movement by car, even to cross short distances. They were almost certainly aware that, because Kuwait University was dispersed across multiple campuses, many students were used to commuting between them in their private cars. Therefore, they did not settle for simply providing a well-articulated series of spaces for pedestrian circulation, but also emphasized that these pathways incorporated climate control features. Students are to be shielded from the sun as they move about the campus, let alone the faculty, for whom subterranean parking was provided under their colleges. By showing how climate-ameliorative their pedestrian-centric circulation design was, the masterplanners here attempted to preempt the prospect of students moving across the new campus by car,

students for whom the size of the campus as an outdoor space in Kuwait would be larger than any other they would traverse on foot. A hierarchy of shaded paths were designed to shield the students in their movement from car to classroom: a student was to park his or her car in a shaded spot and, while in the parking zone, "walk along tree-lined allees" that terminate in "College Squares and Student Commons" that lie along the Galleria, a major shaded linear route perpendicular to the allees which runs through all the college buildings. Ideally, students would leave their automotive bubbles behind and enter the realm of intersubjective academic exchange in a manicured public space. The model here is akin to that of shopping malls, which urban theorist Margaret Crawford has described as "pedestrian islands in an asphalt sea."[90] Despite all the aspirations for the campus core to be a vibrant, landscaped, pedestrian public space unique in the city-state, this swath of parking stuck out like a sore thumb, a visible marker of this contrivance of urbanity in an autocentric city.

This brings up the perennial question of traffic congestion, which has plagued the University's campuses and long been a source of discontent for students and neighbors;[91] though the masterplan took into account the need for ample parking to accommodate tens of thousands of commuters every day, the fact that all those commuters who had hitherto been attending seven different campuses were now to drive to one campus portended a traffic jam of unseen proportions. Though there may indeed be enough parking spots for all those cars, the roads and interchanges leading to the campus await a future in which they are likely to be traffic choke points, given that they were not designed to handle the traffic capacity that an operational campus of this size would generate.[92] The masterplan admitted that the surrounding highway infrastructure needs to be upgraded.

While the redesign of the surrounding roads was beyond the purview of the masterplanners, they did incorporate some elements to mitigate the probable traffic crush. Within the boundaries of the campus, they proposed a shuttle system to move students about without recourse to their own cars should they be unable or unwilling to walk. As part of a larger potential transit network in the city, they proposed a transit station as part of a (thus far

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[90] Crawford, Margaret. "The World in a Shopping Mall" in *Variations on a Theme Park: The New American City and the End of Public Space*. Edited by Michael Sorkin. New York: Hill and Wang, 1992: 21. See also AlBader, Bader. "Return of the Prodigal Suburb." *Prometheus* 1 (2019): 54–63.

[91] See, for example, Al-Rajhi, Fahad. " طلبة كيفان: الشوارع زحمة والمواقف أزمة [Kaifan Students: Roads are Crammed and Parking is Jammed]." *Al-Watan*. February 19, 2013. http://alwatan.kuwait.tt/articledetails.aspx?id=255448&yearquarter=20131

[92] See, for example, " الصايغ: البلدية تسعى لتفادي ازدحام متوقع على الطرق المحيطة بالشدادية [Al-Sayegh: The Municipality is working to avoid the congestion expected on roads surrounding SSUC]." *Al-Rai*. May 19, 2013.

abortive) public endeavor to establish a metro system in Kuwait. Here was an attempt by the masterplan to suggest that the traffic problems in which the campus would be caught were less institutional than national; the masterplan lightly prodded the state to address its mobility issues.

Though admirable, designing around public transit would have been merely aspirational. Kuwait does not have a robust public transit system. There was no escaping the design problem of the private car. The masterplan circumscribed the layered sandwich of oasis, academic buildings, and parking within a vehicular loop, called the "University Ring Road." This was designed to manage the expected heavy traffic volume and ensure that surrounding residential roads are not engulfed by campus traffic, a perennial source of town-gown tension.[93] In designing the traffic network within the campus, the masterplanners had to balance between concerns of urbanism and infrastructure; though the most efficient traffic scheme would have incorporated elements above grade, these would constitute a visually unpleasant presence. The plan therefore limited all but one moment of traffic infrastructure to the grade level. A masterplan element evincing planning for potential future development was the provision of surface parking lots immediately adjacent to the college buildings, whereas parking structures were designated farther away. These surface lots were conceived as land banks, parcels into which college buildings could expand should that be necessary in the future.

The masterplanners also provided building design guidelines in order to "unify the various campus precincts into a cohesive collegiate environment, provide a sense of place and orientation, and create a functional campus that is consistent with the institutional values of Kuwait University."[94] Of these elements, the Galleria appears to have been central. The main element of the Galleria is the "lightweight translucent canopy" strung between facades. The masterplanners specified that it be placed at the level of the spandrel between the third and fourth floors (the 2nd and 3rd floors by their counting), which was about a floor height immediately above any third floor open-air bridges between buildings (Fig. 4.6). But its height did not appear to be simply dictated by the need to clear and shade these intermittent bridges;

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[93] For more on campus-related traffic woes, see Aoun, Alisar, Maya Abou-Zeid, Isam Kaysic, and Cynthia Myntti. "Reducing parking demand and traffic congestion at the American University of Beirut." *Transport Policy* 25 (January 2013): 52–60. And Blumenstyk, Goldie. "Town-Gown Relations Prompt Ideas, Frustration." *The Chronicle of Higher Education* 35, no. 16 (1988): A18. And Spagnolia, Nicole. "Universities and Their Communities: What Fosters Positive Town-Gown Relations?" Master's thesis, Rowan University, 1998.

[94] CCA Masterplan, 2005: vi.

the canopy is high enough so as to incorporate building users into the campus' street life, allowing all but the occupants of the top floors visual access to the ground. By providing shade, articulating a volume, and spanning between buildings, this simple membrane would transform what would have been a secondary, interstitial space between buildings into a central, urbanesque space around which buildings lay. The masterplan envisioned a vibrant public thoroughfare. In addition to the canopy's reflection of sunlight from above, the masterplanners expected the Galleria to be cooled by its adjacency to the buildings' colonnades, which are ambiently cooled by their adjacent air-conditioned ground-floor spaces. The Galleria was to be a comfortable outdoor space in hot Kuwait.
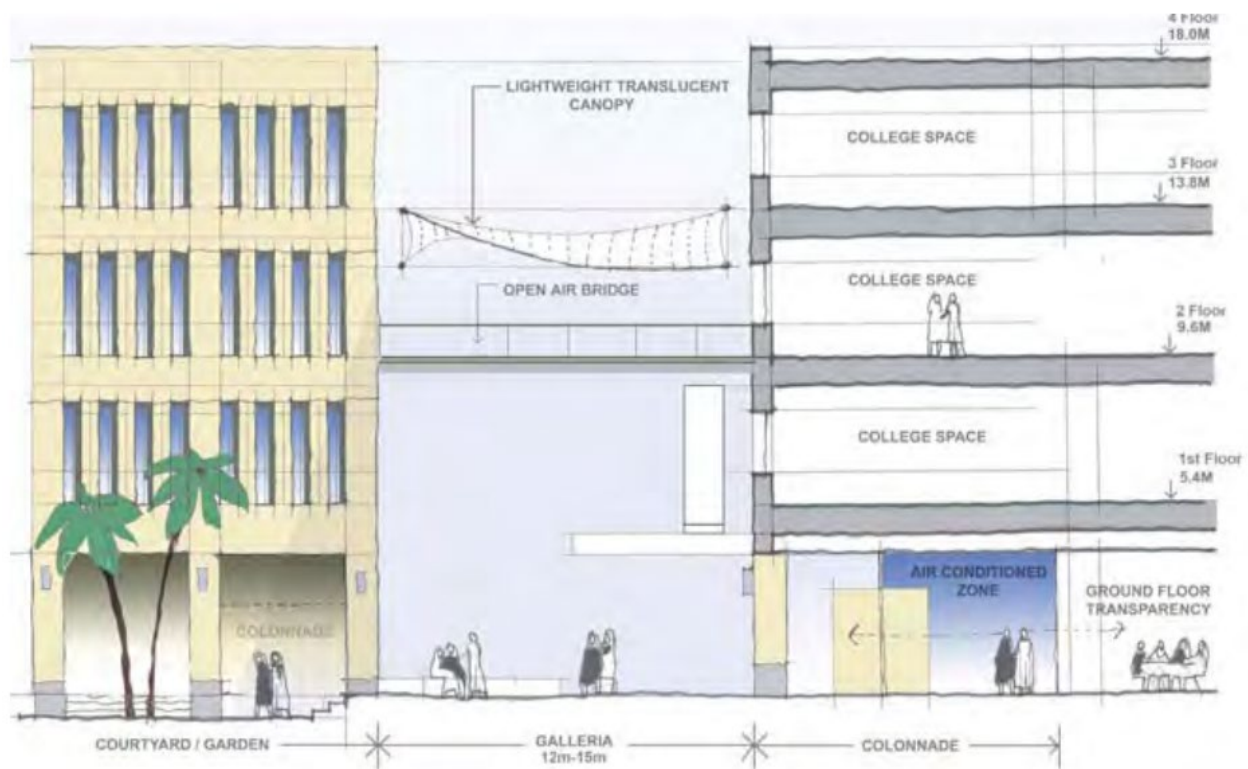
Figure 4.9 A canopy shades the Galleria, a public space that cuts through buildings, in order to create a cooler microclimate for outdoor use. (Source: CCA's 2005 masterplan vol. 1, p. vi)

Even in the masterplan's discussion of landscaping, personal thermal comfort held center stage. The deployment of landscape architecture in order to create microclimates wherever people might be present or walk is second in importance only to the landscaping of the Oasis. The latter is a combination of waterscapes, trees, and berming in the campus' central space, while the former is a constellation of shades, arbors, canopies, and open spaces across campus. The masterplan displayed an understanding that landscaping can activate the senses and provide an experience of nature at the same time that it increases thermal comfort

outdoors. Green would thus be a color orienting one's vision to the natural, as well as an index of a sensory-phenomenological intervention into the interface between human and environment that is the skin. Here, despite their point of view as designers of the whole – as eyes and minds hovering above, presenting a top-down illustration of a campus-to-be – the masterplanners were mindful, if not deliberate, about the influence of vegetation on the spatial experience of the human subject.

Beyond the charge to delineate zones and swatches on a plan, they also designed for the subject who walks through these zones; their landscape architecture was intended as "green scenery beheld vertically," to use landscape architect Gareth Doherty's reappropriation of Charles Waldheim's phrase.[95] As Doherty reminds us, maps and illustrations of greenery belie its experience in the world, something encountered in its fullness only in the act of walking. The University's new campus was to be a walker's paradise, a place to see, smell, feel, and *be*. In fact, the landscape was an opportunity to integrate multiple means and ends at multiple scales. Keenly aware of Kuwait's dry climate, the masterplanners merged their desire to "naturalize" the campus landscape with the impetus to incorporate sustainability in their plan. For example, they proposed landscaping the perimeter using indigeneous flora in a manner that collects rainwater to be used in watering other landscaped elements, particularly the Oasis, which is also watered with grey water. Rather than an afterthought or appendage to the architectural composition, landscape architecture played a central role in CCA's masterplan.

The masterplan addressed sustainability beyond landscape architecture. Though, it surprisingly envisaged the use of potable water not only in the campus' water fixtures but also in its water features, it coordinated with the Ministry of Public Works in order to account for the use of treated wastewater ("Treated Sewage Effluent") for the purposes of cooling and irrigation. The masterplan also called for high standards of architectural design and construction in order to achieve high building performance. Appearing to preempt the possibility that the architecture would not follow through on these ambitions, the masterplanners stated that their utility infrastructure design is not predicated on this particular outcome. They also recommended that solar energy production be pursued. Nonetheless, there was not a singular nor independent system that they dedicated to sustainability. Rather, it was an ethos that permeated their design decisions throughout the plan. A whole spectrum of decisions – ranging from those as intimate as the provision of shade by way of sheets and leaves, as technical as irrigation from below to

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[95] Doherty, Gareth. *Paradoxes of Green: Landscapes of a City-State*. Berkeley, CA: University of California Press, 2017: 36.

reduce evaporation, and as high-level as the provision of a transit hub in anticipation of a possible, though questionable, establishment of a city-wide metro system – act in concert to substantiate the commitment to creating "a campus that will be a world-class exemplar of sustainable development."[96] In its expansive engagement with environmental issues, the masterplan appeared to prod Kuwaiti state, society, and building industry to take sustainability much more seriously as a spatial-infrastructural practice, showing through campus design the socio-experiential promise of such a paradigm shift.

Figure 4.10 CCA's overall scheme, showing SSUC's Men's, Women's, and Medical (sub)campuses. (source: CCA's 2005 masterplan vol. 1, p. iii)

[96] CCA Masterplan, 2005: x.

Medical Campus
1) Academic Facilities   2) University Hospital   3) Hospital Staff
Housing   4) Park on high knoll   5) Sports Fields   6) Indoor Athletic
Facilities   7) Mosque   8) Pedestrian Bridge to Main Campus

Figure 4.11 The only detailed glimpse of the medical (sub)campus scheme in the CCA masterplan. (Source: CCA's 2005 masterplan vol. 1, p. iv)

A project of this scale and ambition came with a commensurate price tag. Though the masterplanners stated that they incorporated takeaways from two value engineering workshops – one for overall planning, the other for technical aspects and cost – they nonetheless ended with a huge cost estimate. They estimated that the campus' total construction cost would be about KD1.07 billion (~$3.5 billion)! If the University was willing to expend such a sum on a campus, it must be an important undertaking for it indeed. The masterplan did not shy away from this, concluding by casting itself as "an historic document for the University."[97] The very last sentence suggested a future for the masterplanning process itself; the masterplan described itself as "a 'living document' that should be re-validated every five years," a directive that would come to be the starting point of an updated masterplan developed half a decade later.[98]

A curious absence from CCA's masterplan is that of a discussion of the planning of the medical campus (Fig. 4.7). This subcampus was not even included in the functional space program allocation summary! Though the hospital, which is one component of the medical campus, was discussed in detail in the masterplan, practically no attention was devoted to the medical campus, except for an image with a legend (Fig. 4.8). The only inkling given of how the planners envisioned that it would look was the overall masterplan's illustration of the medical

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[97] Ibid., xiv.

[98] No revalidation of the masterplan appears to have taken place since the 2010 effort discussed in the subsequent section of the chapter.

campus as a series of rectilinear volumes defining a square open onto the road dividing it from the main campus. It is this omission that is the motivating impetus for HOK's subsequent masterplanning effort.

4.3 2010: A Mirrored Campus Revisited

In 2010 HOK, a large, multinational architecture firm, produced a new, updated masterplan.[99] Right off the bat, the first pull-quote in the masterplan – on the page immediately following the cover page, and preceding any body text whatsoever – declared the main charge for the campus planners: figure out how to best segregate the medical center, the only subcampus area catering to students that was theretofore left integrated. The masterplan did not announce this as its raison d'etre; rather it spoke of this simply as an added requirement: "The Master Plan Update for the Sabah Al-Salem University City includes the requirement to apply the Separation of Student Sexes directive to the Medical Campus."[100] Nonetheless, the location and sole focus of this sentence betrayed the central, motivating role that segregation played, both as a design goal and a factor in the design process.

The original masterplan provided a comprehensive, executable vision for a campus that achieves this goal, yet it left one large, critical part of the campus unsegregated. The new masterplan, undertaken by a different firm, did not shy away from its intent to redress this intentional lacuna. It is a document of a design process initiated to more fully achieve the overarching legislative goal imposed upon the university. Despite all that it sought to do, the masterplan, in the form of a pithy prologue, offered its center stage to the *will to segregate* alone. Yet, beyond centering this goal, it demonstrated how the design of the campus also engaged other concerns and desires relating to the university and the state, as well as matters of profession. While CCA's masterplan sidestepped implementing the state's mandate in the campus space dedicated to health sciences, HOK's masterplan shows that the state's mandate was extendable to that space. In this section of the chapter, I explain HOK's reception of CCA's effort, the different schemes they considered, and then describe in detail the design they settled

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[99] To be specific, the masterplan was produced by the HOK Planning Group, a division of one of the largest design firms in the world. For a little bit more about this division, see Steuteville, Robert. "HOK Planning Group, a division of Hellmuth, [Obata and Kassabaum, Inc.]" *Public Square: A CNU Journal.* January 1, 2001. https://www.cnu.org/publicsquare/hok-planning-group-division-hellmuth

[100] HOK. "Sabah Al-Salem University City Kuwait University: Master Plan Update - Final Report." December 2010. Subsequently referred to as HOK Masterplan, 2010.

on, teasing out how it addressed the charge to segregate and also attempted to transcend this particular institutional purpose by engaging with broader issues.

HOK's commission was dual: review and design. It was to engage in design review and design development—that is, adding definition to an underdeveloped part of architectural design's guiding frame (i.e the masterplan), and determining the degree of a further-developed part's adherence to that original frame. Since the 2005 masterplan left the medical campus ill-defined, this masterplan had to go ahead and give masterplan-level definition to that part of SSUC's design. On the other hand, many parts of the academic campus by then were in design development, with developed architectural drawings already being produced, and this commission had to assess whether they were aligning with the parameters defined by the original masterplan. By doing both these things, this exercise ended up becoming a new masterplan in its own right. What becomes clear here is the dialectical nature of this design development/assessment process. On one hand, the original masterplan did not go far enough and thus required compensation. On the other, the original's scaffolding, its guiding framework, appeared to be so well-defined that it demanded subsequent obeisance. The reconciliation of these two demands produced a synthesis that replaced the scheme that it sought to both protect and mature. That is to say, the assessment/development took the place of its object.

The new masterplan's authors were effusive in appraisal of the original masterplan itself. Here, the new planners described their predecessors as having gone above and beyond what was expected of them:

> "The review of the 2005 Master Plan determined the document to be comprehensive and of high quality, advancing well beyond the standard master plan scope to include an expanded array of technical information and pre-architecture level space programming. The material in the master plan was highly integrated with few conflicts, and was presented in an increasingly detailed fashion that ultimately rested upon the technical studies. It was and is a good plan and serves the purpose of providing the foundation for individual building and area design. The master plan was not intended to finalize design, but 'provide a framework for the physical development of the campus'."[101]

That the authors mentioned, in an almost surprised tone, that the masterplan was free of contradictions and conflicts, and was based on what they referred to as detailed "technical

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[101] Ibid., 3.

studies," implies that they expected the original masterplan to be a sprawling, undisciplined, schematic document that embodies the stereotype of the fanciful but ultimately unactionable grand plan—one that is exclamatory and interrogative, but certainly not sufficiently declarative or imperative. Their encounter with this design document appears to have been a wonderful surprise.

Appraising the masterplan before appraising how close architectural design hewed to its contents likely encouraged them to be stricter in judging whether the subsequent architectural design was adhering to the framework the masterplan provided. And, this, they immediately admitted:

> "In the appraisal of the state of main campus design that had occurred subsequent to the master plan, the direction was not to 'hold back' review comments due to partial or unavailable information, or . . . [due to] the processes and results of design evolution among existing design teams and Kuwait University Planning—and which may have resulted in either explicit or tacit agreement to deviate from the original master plan. Therefore, the appraisal focused on functional issues, and identified any general design deviations and non-conformities that were found."[102]

Their mandate was, thus, characterized by strict scrutiny of design's conformance with the masterplan.

Here, they found something wanting. Though the masterplan was masterfully put together, the development of subcampus-level and building-level designs ran the risk of undercutting the cohesion that original masterplan so effectively developed. They reiterated the need for a global eye to oversee the work taking place at the many localities making up the campus:

> "Our review found that the strategies proposed in the master plan were logical, generally consistent and thoroughly supported by their respective technical studies. Where we saw a concern related to strategies was the process in which they were being developed and implemented. One of the important recommendations is to ensure the consistent design development and application of campus wide service strategies, such that this is not left to individual facility design teams to develop independently and therefore potentially

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[102] Ibid.

inconsistently from each other. Campus-wide specialists will be required to develop the campus-wide detail design and implementation criteria that should then be followed and incorporated by each facility team."[103]

The concern expressed here is a perennial one for any designer whose work is to be fleshed out and completed by other designers; designerly infidelity risks rendering the efforts of predecessors wasted. As a design is bequeathed from one party to another, as it changes hands, the risks of errors of interpretation and translation, and of omission and drift increase. This is part and parcel of architectural endeavors in general: "intention and outcome are separated by accidental confluences, redirected intentions, and unforeseen outcomes. . . . plans, schemes, books, journals, objects, buildings, and technologies often emerge less from pure intentionality as out of negotiation with the radical indeterminacy of a given situation."[104] Original intentions and great expectations are often met with indifference, willful license, or active undermining. At worst, clashes between high-level design and localized design can produce a sum poorer than its parts. As Achyut Kanvinde and James Miller expressed decades ago, a poorly-designed campus is a "disastrous waste of resources."[105] And, SSUC was certainly not a low-budget project.

The masterplan authors here put their finger on the same issue that Mildred Schmertz highlighted over half a century before.[106] Challenging as it is to make, a campus masterplan is easier made than implemented. If a feat of creative foresight is needed to conceive of a campus as a cohesive whole, then she lamented the fact that attempted actualizations of such visions often fall short of these aspirational heights. In a 1967 piece in *Architectural Record*, she argued that the best campus architecture is produced by those who are intimately aware of the university's long-term development plans and have experience engaging with it. In a way, this was a double-sided indictment of architects: of their shortcomings as campus vision definers and, more so, as vision executors. In fact, Schmertz saw in landscape architecture and planning firms the potential to appropriate campus design from the realm of architectural design, proficient as they are in conceiving of the built environment as a larger whole.

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[103] Ibid.

[104] Abramson et al. "Introduction," *Governing by Design*. 2012: x.

[105] Kanvinde, Achyut, and H. James Miller. *Campus Design in India: Experience of a Developing Nation.* Topeka, KS: Jostens/American Yearbook Co, 1969: 14.

[106] Schmertz, Mildred. "College Buildings: Architecture Shaped by Master Plans." *Architectural Record* 141, no. 4 (1967): 185–212. See also Saarinen, Eero. "Campus Planning: The Unique World of the University." *Architectural Record* 128 (1960): 123–130.

The title of her article, "College Buildings: Architecture Shaped by Master Plans," suggested that masterplanning a campus and designing its buildings are best when synthesized. That the article's content was a profile of six campus buildings designed by architects who were also responsible for the campus master plans was an implicit argument for retaining masterplanners as designers, and if not, at least as design overseers. It is worth recalling here that the producers of the original masterplan for SSUC were a consortium of an architecture firm, planning firm, and landscape architecture firm. As the project moved closer to execution, HOK was hired to produce an updated masterplan. Contracting with a single, comprehensive consultancy with execution experience all over the world was another implicit admission, on the part of those involved in campus design, that when it comes to building the campus, visionaries need to be as close to developments on the ground as possible. Given HOK's well-established, multinational profile, it would have appeared to be a more prudent design consultant with which to contract, in contrast to a consortium that had only come together for a one-off commission.

HOK's masterplanning process went through several phases. It first started with appraising what it called "the main campus," that is, the collection of colleges unrelated to the health sciences, also called the academic campus (in contrast to the medical campus). HOK submitted its appraisal to the university on August 28, 2009, and by the end of November 23, 2009, presented its recommendations for updates to the main campus masterplan. When checking the developed plans for the campus against the guidance provided by the original masterplan, HOK found many deviations, some of which were substantial. The domain that saw the most deviation was landscaping. While CCA proposed that everything on the periphery outside the double sandwich of parking and buildings be a natural-looking desertscape endemic to Kuwait, the developed plans introduced hedges and monumental entry gates at the campus perimeter. While HOK was open to having a dedicated consultant sensitively design gates, it enjoined the elimination of any non-naturalesque boundary markers in order to maintain the periphery's desert-likeness as distinct from the manicured, green, oasis-anchored core. Hedges had also replaced the shrubbery and shading along the allees, and the continuous shaded canopy that ran along the parking side of the row of college buildings fell to the wayside. Instead of creating a unified campus-long front, each college building was designed to provide an independent front of its own. For instance, the building designs customized their drop-off zone, sometimes adding more drop-off lanes. HOK enjoined the restoration of continuous shade along the allees and building fronts, as part of the originally-envisioned continuum of shaded circulation from parking spot to building. The developed plans also introduced waterscapes to

areas outside of the Oasis, like the roundabouts. Highlighting the unsustainability of increasing the number of water features on campus, HOK enjoined limiting them to the Oasis, as per the original masterplan.

Another area of concern was the public space immediately adjacent to the college buildings. HOK planners found that the courtyards, at which the allees were to terminate and from which students ought to enter the college buildings, were not present in the developed plans, which simply had building entrances facing the parking zone. The most pressing discrepancy was the rupturing of the masterplan element that CCA described as the "central spine," the Galleria, which serves to cut through all the buildings and connect them together. In the developed plans, parts of this open-air circulation thoroughfare were cut off or enclosed. Severing the Galleria would undermine its role as the major circulatory thoroughfare that tied the campus together as a lively public space. HOK asserted the critical need to ensure that the pathway fulfills the original aspirations for a continuous outdoor pedestrian space traversing the whole campus. Not only was the emerging character of the pedestrian street cutting through the buildings flagged, but also the paths between the buildings. These were axially divided and given over to the architects of their adjacent buildings. HOK asserted the need to limit the architects to their buildings' footprints and assign the interstitial paths to a landscape architect who would ensure the unified character of these spaces.

Beyond the experiential, some logistical elements also fell short of CCA's original intent. HOK found that the spaces allocated to underground parking and athletics were not sufficient for the capacities specified by the masterplan. When it came to parking, a 30% increase in projected students was compounded by the loss of basement parking space to programmed space.[107] The new planners recommended adding more floors to the exterior park structures to compensate for this loss.

Since the medical campus was left under-defined in the original masterplan, HOK also appraised the programming of the medical campus as a prelude to designing that part of the masterplan. It completed this appraisal on October 9, 2009, workshopped it with the university in November, and submitted a revised version on December 12, 2009. At this point, HOK had what it needed to present initial masterplan proposals for a "student-centered" medical campus to the University.

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[107] HOK Masterplan, 2010: 140.

In a workshop at Kuwait University on March 16th, 2010, HOK presented three campus design concepts, which it variably referred to as "design alternatives" and "alternative concepts" (Fig. 4.9). The goal was to settle on "a selected concept that will form the basis of a required submission to the municipal authority and material to be issued in the terms of reference for the Medical Campus Architect."[108] More specifically, the goal of this process was to review and evaluate the presented design alternatives, consider combinations or modifications, and finally arrive at a single "Preferred Concept."
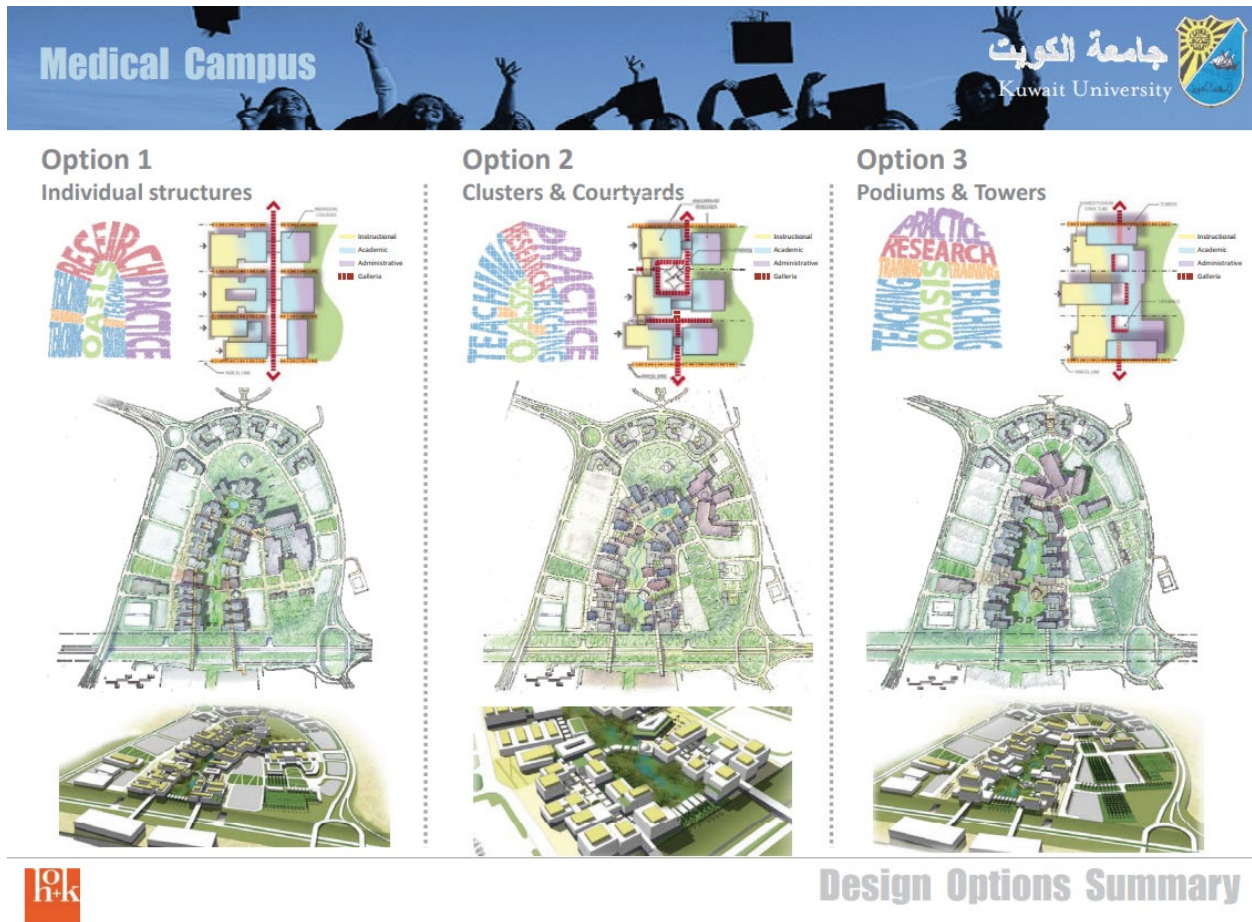
Figure 4.12 The three options for the medical campus's overall design that HOK presented. (Source: HOK's 2010 masterplan, p. 365)

The first option, titled "individual structures" followed the original masterplan's model, extending the linear rhythm of the general academic side into the medical side. Every college was to be designed as a discrete building, each adjacent to the next in a double row of buildings – male on the north side and female on the south side – terminating in the shared Research

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[108] Ibid., 347.

Center. Freestanding as they were, these buildings were expected to be characterized by "unique identities" and "self-contained facilities."[109] (358). The hospital would be on the male side, lying north of and adjacent to the medical school and on the part of University Loop closest to the major highway.

The second option, titled "clusters & courtyards," attempted to create a "village character" by clustering colleges into groups that framed courtyards and shared facilities.[110] Instead of a double row of freestanding buildings, clusters-around-courtyards lined up in a double row, which curved sharply to the north and terminated in the research center adjacent to which was the hospital, both of which lay on the part of University Loop closest to the highway.

The third option, titled "podiums & towers," provided a low-lying set of masses hosting shared programs, on top of which were towers dedicated to each college. While the two-storey podiums provided a unified, horizontal architectural theme on the ground, the tower designs were intended to be unique to their colleges. In other words, the idea was to provide a standard base for potentially different tower designs. As a sort of megastructure, the podiums picked up the direction set up by the procession of academic campus buildings; two straight rows of towers-on-podiums terminated at the research center, behind which lay the hospital, whose wings had 180-degree access to University Loop. In this scheme, the hospital lay neither on the men's side (as it was in the other options) nor on the women's, but on the centerline.

In all three options, the designs picked up the Galleria line and continued it through the medical campus. However, while Option 1 maintained the Galleria's character as a pedestrian street, Option 2 suggested an experience of walking through a series of courtyards, and Option 3 subsumed this walkway within its megastructure. In all three options, the building program was layered in plan such that parking-side instructional spaces and oasis-side administrative spaces sandwiched a layer of academic offices and instructional spaces, an inner layer through which the Galleria was to run.

The relationship between the research center and the hospital, as well as the way that the former mediated between the latter and the colleges, were prominent design decisions that the options explored. While the research center served as a "visual terminus" to the double building row in Option 1, it served as a "hinge" from the college clusters to the hospital in Option 2, and

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[109] Ibid., 358.
[110] Ibid., 361.

as a partition between the college platforms and the hospital in Option 3. While the first two options allowed for the possibility of the research center's independence, particularly since it was to be primarily populated by full-time researchers, Option 3 precluded that possibility. And while the last two options integrated the hospital with the research center, the first option only provided for their adjacency.

Though, at first glance, the three options may have appeared to be substantially similar, proposing a double row of buildings terminating at some version of a research center-hospital dyad, they embodied substantive differences, particularly regarding the nature of campus program interrelationships. In their analysis of their alternatives, HOK planners mentioned that Option 1 suffered from reduced flexibility when it came to future expansion as well as reduced interactions between colleges. Though Option 2 began to ameliorate these limitations, the masterplan presented Option 3 as the most flexible and most fostering of intercollegiate interaction. And while the analysis made no mention of any particular stylistic impression or influence on Option 1, it tied the clustered Option 2 to "traditional Islamic architecture" and associated the towered scheme of Option 3 with a "Modern character."[111]

Option 1, amended to adopt some design decisions from the other two options, was selected as the preferred concept (Fig. 4.10). The main reason for choosing this option appears to have been the placement of the hospital. The report mentioned that, since it "needs to serve the public as its first priority," its location close to the campus ring road would ensure ease of access for the public and emergency vehicles.[112] The hospital location also provided space for an expansion of up to 20% more beds in the future. As for the college buildings, the preference for the "flexibility and connectivity" of Options 2 and 3 prevailed over Option 1's "territoriality." The settled-upon concept adopted the courtyard cluster model of Option 2 as a means of improving Option 1's connectivity. Acting as a terminus to the double row of clusters, the research center in the final scheme was not amended from the Option 1 proposal. The adjacency of the research center to the park "was considered to provide a creative and inspirational setting for new ideas to flourish"[113] In September 2010, HOK presented to the university an updated SSUC masterplan based on the decisions made at this workshop.

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[111] Ibid., 366.

[112] Ibid., 370.

[113] Ibid., 349. The coupling of creativity/productivity in research with landscaped the post-WWII corporate embrace of the verdant estate as the new, ideal setting for knowledge-class laborers. See Mozingo, Louise. *Pastoral Capitalism: A History of Suburban Corporate Landscapes*. Cambridge, MA: MIT Press, 2011.
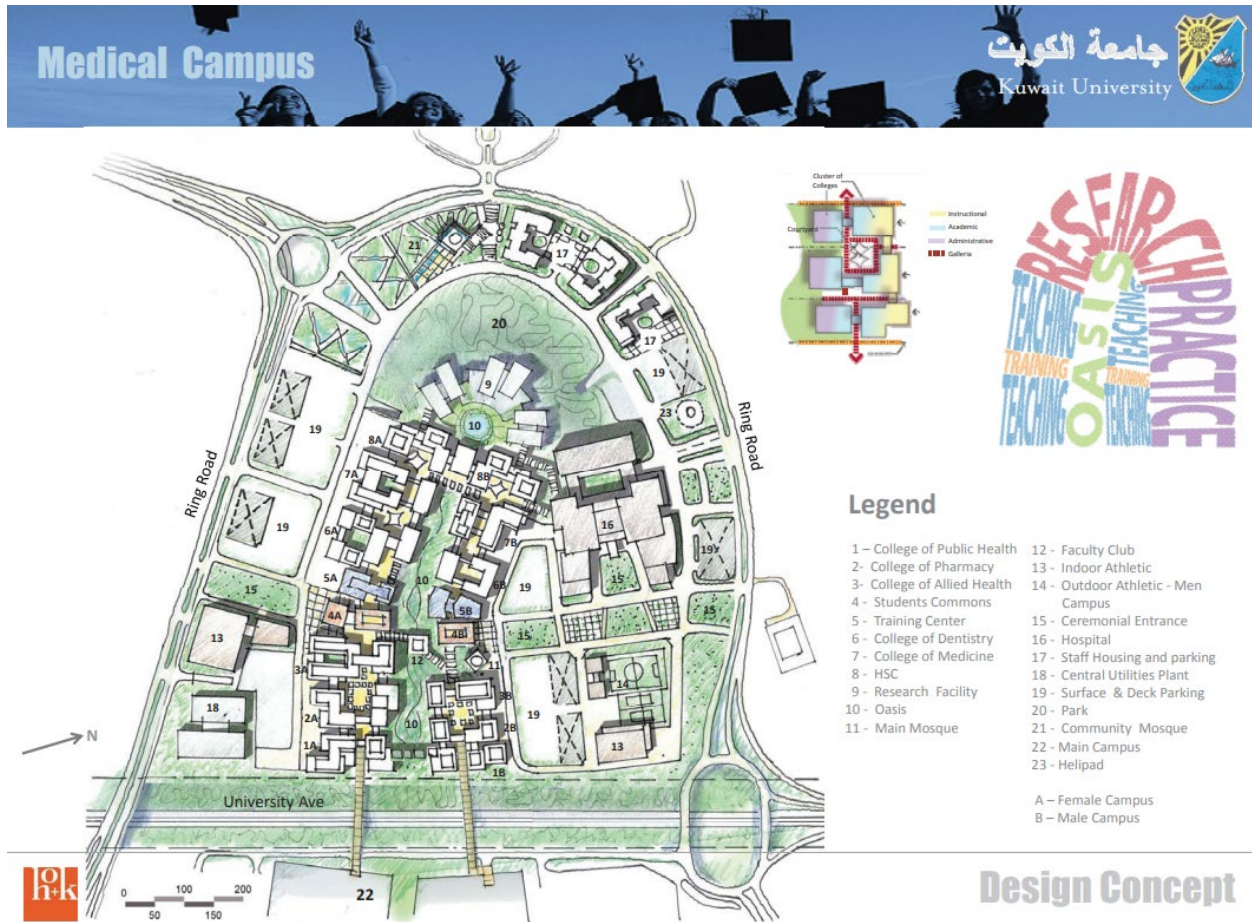
Figure 4.13 The final scheme of the medical campus, as amended from Option 1. (Source: HOK's 2010 masterplan, p. 370)

Two considerations appear to reinforce the suitability, for the purposes of the updated masterplan, of simply expanding or extending the structuring *parti* of the original masterplan. First is the fact that working out the spatial details of segregation was "a central and critical component of the medical campus update."[114] The second was the assessment that the original masterplan had worked this out very well in its design of the academic campus. HOK planners decided to essentially extend the two major linear elements structuring the academic campus into the medical campus, thereby setting up a linear morphology for the medical campus. These two linear elements are the Oasis and the Galleria which, as mentioned earlier, separate the male campus from the female campus and tie together the linear procession of buildings, respectively.

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[114] HOK Masterplan, 2010: 9.

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The inevitably linear architectural organization that would ensue from the need to duplicate buildings across a linear axis is something that the planners attempted to ameliorate. Anticipating the morphological monotony of such a straightforward layout of buildings, they added some complexity to the hierarchy of masterplan elements. They resorted to clustering buildings together such that what line up together along the Galleria are not freestanding buildings, but clusters of buildings (Fig. 4.11). In other words, the medical campus was not simply structured by a cross-campus path of pedestrian circulation ordering a column of independent buildings. Instead, clusters, comprising four to six buildings linked by skywalks coming together around courtyards, defined an intermediate scale. Like rings strung together on a long necklace, these clusters were intersected by the long loop of the Galleria.
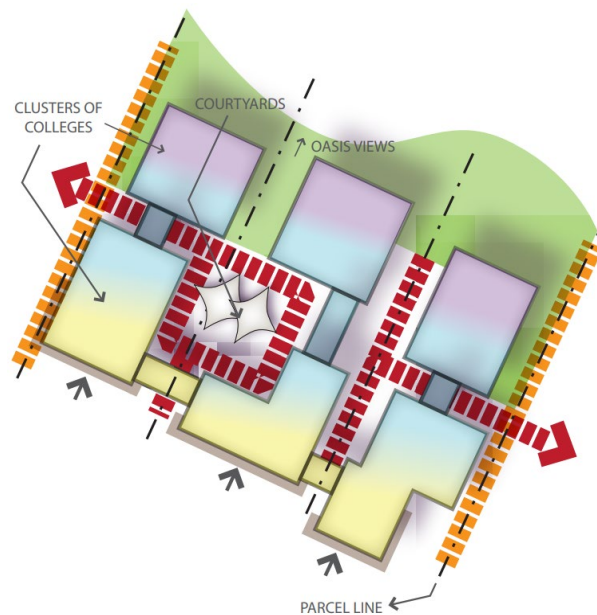
Figure 4.14 In the medical campus, colleges are to be clustered around courtyards, through which the Galleria passes. (Source: HOK's 2010 masterplan, p. 13)

This clustering was also a means of generating what the planners referred to as a "village character." Implied here was that the campus' architecture can help foster and sustain community on a more granular level – by providing space for intra-institutional communities, especially in relation to the interdisciplinary connections already operative in the realm of the health sciences – rather than affirming that the totality of the university was a communal whole, a notion that would have been utopian but certainly not versimilitudinous. The HOK planners thereby improved on the masterplan they so commended at the same time that they reproduced it. The medical campus they designed would be part and parcel of the overall campus, structured by the same parti, yet still distinct in its own way: "The clustering brings faculties with the

highest degree of interaction into somewhat of a grouped setting, rather than a rigidly soldiered linear arrangement. This clustering is a distinctive feature of the concept for the Medical Campus, but builds upon the Master Plan design framework to maintain campus continuity."[115] The planners adopted the overall structure given to the campus by their predecessors while taking the massing design of the buildings on it one step further. If the Galleria delineated by the original masterplan was an attempt to introduce into the campus' row of academic buildings an urban element tying everything together, the new masterplan arranged the medical buildings themselves in a more urbane manner, producing more intricate interrelationships between different buildings than mere linear adjacency (Fig. 4.12). A way to think about this design decision is as a synthesis of old and new design strategies; segregation, its enforcement by means of landscaping, and the consequent mirroring of buildings would all extend into the medical campus, but what is separated by the Oasis would now be miniature communities of colleges. In other words, the new masterplan's design for the medical campus was characterized by both continuity and change.

Figure 4.15 The segregatory Oasis extends into the medical campus, now separating clusters of buildings rather than "rigidly soldiered" ones. (Source: HOK's 2010 masterplan, p. 15)

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[115] Ibid., 14.

Overall, the final masterplan parti divided the medical campus into quadrants; the segregatory oasis constituted the horizontal axis that intersected with the ceremonial vertical axis that were the pedestrian malls. A trio of centers lay at the axial intersection: "The axis of colleges along the Oasis has the student, training and faculty centres at its middle, forming college 'clusters' to either side. The centres are also located on the ceremonial cross axis, with ceremonial entrances on both women's and men's sides. The Research Centre forms the terminus of the Oasis axis."[116] Thus, in addition to its linear division along the line of segregation, the subcampus' sides were also divided by the green malls into western and eastern sets of college clusters. This produced another subtle division, giving yet more articulation to the campus' morphology.

The masterplan's approach to land use sought to incorporate a measure of flexibility. Of the total land area of the medical campus, only about half was taken up by parcels for colleges and their supporting facilities, including the hospital. Surface parking and roads took up about a fifth of the area, while service facility parcels and open space parcels accounted for about a tenth each. At a twentieth of the total subcampus land area, the hospital staff housing parcel had the smallest allocation. This was only an educated estimation of what space allocations the campus required, though; the masterplanners were aware of the possibility that these would need to change. Although the major design moves like the Oasis and the ceremonial malls appear to have been designed as static elements, the masterplan took into account the possible need for future college expansion. It delineated three means of expansion: vertically by building up, horizontally by building into defined parking zones, and leapfrogging by occupying a reserve parcel on the far side of University Loop. Here was another manifestation of the masterplan's conception of the campus as a space of both continuity and change.

Though only a tenth of the subcampus was given over to it, open space was amongst the most important of the campus' design vectors. The masterplan envisioned a hierarchy of open spaces on campus: Oasis, Courtyard, Major Plazas, and Minor Plazas. Nuancing open space design was critical to the goal of fostering the feel of a village that the masterplanners aspired to. The outdoors were considered particularly critical as spaces of encounter and exchange: "As shared spaces between colleges they reduce isolation and promote a campus village perspective among the university medical community as a whole."[117] Circulation through these spaces was expected to enliven them and tie them together in much the same way as blood keeps the body

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[116] Ibid., 16.
[117] Ibid., 44.

alive by circulating particles amongst its organs. Movement across campus and through buildings was a prominent design matter. It was characterized by a hierarchy and interlacing of pedestrian pathways from the parking areas all the way to the Oasis. One example of the campus' spatial layering is the lamination of the Ring Road, parking lots, Frontage Drive, and the Promenade (which is a combination of "treed boulevards" and shaded canopies) around the row of academic buildings (Fig. 4.13). The masterplan listed a whole set of elements it incorporated and fitted together: "addresses, streets and malls, parking, academic greens, quads, courtyards and Gallerias. The campus spatial structure consists of a network of connected open spaces that differ in scale and character, from University Ring Road and Student Allees to the grand Arrival Gardens, College Courtyards, College Squares and Oasis."[118] Fitting this range of elements into a spatial composition amounted to what Richard Dober defined as placema(r)king.[119]

Figure 4.16 Paths of movement through campus were interlaced, and spatial zones were layered. (Source: HOK's 2010 masterplan, p. 37)

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[118] Ibid., 41.

[119] See Dober, Richard. *Campus Design*. New York: Wiley, 1992.

Against this paradigm of a well-networked campus circulation system stood the central greenscape enacting the separation of the sexes. As it was in the CCA masterplan, the Oasis was deployed as a dual element—as both a barrier and an outlet:

> "The oasis theme from the main campus is maintained in the medical campus where it provides separation between male and female campuses. It functions in the same manner, providing space for faculty, graduate students, and non-teaching staff to recreate and relax beneath palms and next to the water; an escape from busy academic life. In form, it is loosely constructed with little formality, thus representing a true oasis which grew incredibly from the desert sand. The oasis is crossed via controlled access at three locations to allow female students to access non-duplicated facilities located in the male colleges."[120]

Just like their predecessors, the HOK masterplanners spoke of the Oasis as an idyllic, pastoral space. Its design in a modern rendition of the romantic, picturesque style appears to have been a means of naturalizing its existence as a dividing line, of marking it as a natural barrier while simultaneously masking its role as a spatial divider (Fig. 4.14). The divider was rendered soft instead of stark, a line ever so delicate yet so hardy.

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[120] Ibid., 45.

Given that redesigning the medical (sub)campus was the impetus for this new SSUC masterplan, the authors clarified early on which spaces in this subcampus were to be segregated—namely undergraduate student spaces. Clinical, research, and special spaces were to remain integrated. The term that the planners used repeatedly in the masterplan was "duplication," referring to the need to double up most spaces. In a metonymic turn of phrase, they referred to the immediate spatial result of segregation rather than to the injunction itself. Duplication – the straightforward, wholesale reproduction of an extant thing – appears to have been a subtle way of pointing out the redundancy and wastefulness that is a by-product of this move to segregate the student body. While it is imaginable that a student on the academic campus could spend his or her whole academic tenure without having to encounter a student of the opposite sex, the fact that medical students will have to regularly encounter patients of either sex renders the idea of comprehensive segregation moot. It is likely that this very fact led the original masterplanners to cease their segregatory design at the gates of the medical campus, which meant that it remained a de facto integrated space. With the HOK masterplan, the approach to segregation and integration in this subcampus area took a more granular turn. Students, insofar as they operated purely as students, were to be segregated. Insofar as they engaged in hands-on experiences as healthcare-workers-in-the-making, they were to be unconstrained by this mandate. Here again was another dialectic rendered visible in the spatial affordances of the masterplan: students of the health sciences toggling between states of impressionable youth and intrepid professionalism.

Minding the professional practice of healthcare as a model, and incorporating it as a purpose to cater to, afforded the masterplan a means to mitigate the reach of segregation and partially recuperate the assumption that the statutory requirement to segregate academia did not extend to the medical colleges, given that they were more a healthcare space than an academic one. It is as though the masterplan were saying that this is a domain for the Ministry of Health inasmuch as it is Kuwait University. Despite the charge to have segregation cover SSUC as a whole, the masterplan reaffirmed that many spaces on campus were not only spaces belonging to the academic institution but more so spaces of medical practice, and thus implicitly immune from the will to segregate.

Moreover, campus securitization, or hardening, was a concern more comprehensive than that of parting the two sides at the axis of segregation. Here, again, layering and gradation made

their showing but as models of risk mitigation—an instance of "design as a risk management practice," to use Massey's words.[121] The masterplan's goal was to provide "a balance of architectural, electronic and operational measures that create a complete [security] system."[122] It described the security concept for the whole campus as "Concentric Circles of Protection;" this framework assigned eight nested zones, starting from the perimeter as a fully-public zone and ending with the innermost zone as the most secure, comprising private spaces that require biometric credentials to keep track of everyone who enters. This most secure Zone 1 coincided considerably with "Non-Duplicated Facilities," unsegregated, shared spaces, which were often marked by "unicity" and/or "highly expensive equipment."[123] This nesting of security zones appears to have echoed the layering of experiential zones that the user would encounter as he or she moved towards the center of campus.

Given that much of the campus is a space open to the public, principles of defensive design were on the masterplanners' minds. They cited Crime Prevention Through Environmental Design as an influence:

> "Employing features of CPTED across the campus to improve safety and security also requires a number of strategies. Mechanical concepts such as locks, gates, access control, emergency telephones . . . and closed circuit television systems not only help secure an environment, they aid in deterring crime by maintaining a constant presence around the campus even if there is no person physically watching all areas. Organizational concepts require that those who occupy an area, simply keep watch over the area and report any incidents. This responsibility falls on everyone from security staff to students. Natural concepts such as the placement of windows such that they overlook a space, or keeping views open for a considerable distance when possible provide comfort and security via increased sight lines and opportunity for engagement among people."[124]

What becomes clear is that campus security was an amalgam of various security paradigms. The collective strategies used demonstrated a disciplining eclecticism, their approaches ranging from Newmanian notions of defensible space to Foucauldian panopticism (through CCTV) and

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[121] Massey, Jonathan. "Risk Design." 2014: 21. In his essay, Massey shows how risk considerations and imaginaries permeated the design of the Gherkin in the City of London, playing a central role in its conception and presentation.

[122] HOK Masterplan, 2010: 32.

[123] Ibid., 166.

[124] Ibid., 32.

Jacobsian eyes on the street (through fenestration and view design).[125] In more ways than one, the campus was a place to see and be seen. The idyllic open landscape at the center of campus was thus sandwiched amongst the innermost layers of a series of layers of escalating security.

Beyond segregation and securitization, the masterplan hinted at the university's aspiration as pertaining to its scholastic standing. While the former design considerations were of a defensive ethos, the latter was projective. In their proposed programmatic gross space area allocations, the planners designated several North American universities as benchmarks: McMaster for medicine, Harvard and Pennsylvania for dentistry, Waterloo and Toronto for pharmacy, Arizona and North Carolina (unclear which specific universities) for public health, and Stanford for "core research facilities." It is curious that the planners chose to compare SSUC with campuses belonging to institutions of quite a different caliber than Kuwait University. While the latter is a public teaching university catering almost exclusively to Kuwaitis, all of the chosen references are research universities, and some are private and world-class. This elective institutional company suggested that the university aspired to be something more than it currently was, and that acquiring a new campus was an opportune moment to acquire more than ample space.[126]

The role and presence of research at the institution appears to have been such a consideration. The last of the North American references above is a clear link to the seminal university-led research park at Stanford University, a novel post-WWII spatial-institutional model that ushered in a new academic-industrial paradigm much copied elsewhere.[127] The Stanford development set up a common space for academic and corporate research(ers), essentially offering up a designated part of campus for corporate and industrial actors to inhabit

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[125] For more on CPTED, see Knoblauch, Joy. "Defensible Space and the Open Society." *Aggregate* 2 (2015). http://we-aggregate.org/piece/defensible-space-and-the-open-society. For more about panopticonism, see Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. Translated by Alan Sheridan. New York: Vintage, 1977. For more about "eyes on the street," see Jacobs, Jane. *The Death and Life of Great American Cities*. New York: Random House, 1961.

[126] To use terms from my earlier chapter "The Discursive Campus," here is a moment in the HOK masterplan when market instrumentalism bobbed its head, as SSUC's design was beheld in relation to a set of other campuses. The otherwise dominant paradigm in this masterplanning effort was intrinsic instrumentalism, with segregation being the major operational purpose that the campus was designed to fulfill. However, there were not precedents of a campus designed to segregate a hitherto coeducational university, so the ecosystem that SSUC was relationally placed in was necessarily unlike it in a fundamental respect.

[127] See O'Mara, Margaret Pugh. *Cities of Knowledge: Cold War Science and the Search for the Next Silicon Valley*. Princeton, NJ: Princeton University Press, 2005. Also see Mozingo, Louise. *Pastoral Capitalism*. 2011.

alongside academics. Through this co-location and adjacency, the university could maintain the momentum of its wartime R&D efforts by redirecting the instrumental uses of its research from the military to industry.[128] Spatializing applied research was a means of luring both academic and corporate prospects and sealing the marriage, so to speak, between the university and industry.

Yet, at SSUC, no such marriage was sought. Rather, since conducting advanced research is the hallmark of world-class universities, the "core research facilities" appeared to be a more inward-looking attempt at fostering a robust research culture within the medical campus by affording research space and equipment not tied to any department or program. The point was not to wed academics to industry, but to wed them to research itself. Though the construction of the new campus means that all departments are to get brand-new, well-equipped facilities for their use in teaching and research, the masterplan appeared to introduce a new subcampus spatial type, the research center, as a university-wide incentive for faculty to undertake advanced research. "Core research facilities," the medical campus' only *research* program to be connected to a North American precedent, was a spatial index of the institutional attempt to transform the faculty from instructors to researchers.

While aspirational company can be an impetus for self-improvement, it can also reveal stark contrasts. The comparison with these generally well-endowed North American universities made clear just how much redundancy at SSUC the duplication, to use the masterplan's euphemism, would entail. The increase in relative space allocation – i.e. the drop in spatial efficiency – was evident in the spike in the gross floor area per student (GFA/S) between the CCA and HOK masterplans. The GFA/S in medicine jumped from 42 m² to 71 m², in dentistry from 51 m² to 94 m², in pharmacy from 31 m² to 79 m²—on average, doubling the built out floor area per student.[129] The new space allocations, many of the originals of which were already greater than their chosen comparables, ranged from being double to almost eight times the GFA/S of their benchmark. Put differently, the medical campus went from being half as efficient as the selected references to nearly one eighth as efficient.

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[128] See Leslie, Stuart. *The Cold War and American Science: The Military-Industrial-Academic Complex at MIT and Stanford*. New York: Columbia University Press, 1993. This dynamic preceded what would subsequently come to be known as "technology transfer." See Mowery, David, Richard Nelson, Bhaven Sampat, and Arvids Ziedonis. *Ivory Tower and Industrial Innovation: University-Industry Technology Transfer before and after the Bayh-Dole Act*. Stanford, CA: Stanford University Press, 2004.
[129] HOK Masterplan, 2010: 6.

While speaking of redundancy casts amplitude in negative light, one can posit multiplicity as a motivating ontological condition for the campus. Scarcely was there a singular element in the masterplan doing singular work. Even the dividing line between the male and female campuses is rendered as a void that does not repel but combines landscaping and waterscaping to become a destination at the heart of the campus. Whether it came down to ease of movement through the large campus or access restrictions to variant parts of it, the masterplan's design paradigm was the provision of a spectrum of possibilities, options, and vectors. In essence, the masterplanners tried to directly tackle the perennial problem of masterplans, namely that they are liable to be (thought of as) rigid and thus ignored, or even discarded.[130] The SSUC design process was not immune to the effects of this uneasy relationship between architects and masterplans. As described earlier, while HOK planners praised the original masterplan and attempted to sustain and emulate it in their update, their review of architectural design's adherence to it showed that architects were taking some liberties in ways that undermined important campus design decisions. One can read HOK's triad of proposed medical campus morphologies as a demonstration for architects that the integrity of the Galleria can be maintained without sacrificing latitude for experimentation in architectural form.

In broader terms, the masterplan update process was an implicit argument that design decisions at various scales and stages did not need to see themselves in conflict with one another, that abrogating preceding design decisions need not be the ultimate vindication of a succeeding designer's ethos. Instead, the new masterplan was a capacious framework emerging out of a collaborative process, which anticipated architects' penchant for architectural license, and preemptively built in capacity in the form of variety. In this oblique way, the masterplan constituted commentary on the profession and the way successive design is often practiced. It was also a demonstration of how to imagine a space for the university without being wholly beholden to an instrumental charge to segregate nor merely reproducing an institutional status quo in a new space. To put it differently, the masterplan was an invitation for architects to take up the worthy challenge of designing the components of a space of both continuity and change.

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[130] See Fischel, William. "Master Plans and Rent Seeking." *Regulation* 38, no. 4 (2016): 2-3. And Mant, John. "Good, versus bad—Plans and pragmatism." *Royal Australian Planning Institute Journal* 18, no. 2 (1980): 44–47. And Dunham, Allison. "City Planning: An Analysis of the Content of the Master Plan." *Journal of Law and Economics* 1 (1958): 170–186. And Haar, Charles. "The Master Plan: An Impermanent Constitution." *Law and Contemporary Problems* 20, no. 3 (1955): 353–418. And Weszkalnys, Gisa. "Infrastructure as Gesture" in *Infrastructures and Social Complexity: A Companion*. Edited by Penelope Harvey, Casper Bruun Jensen, and Atsuro Morita. New York: Routledge, 2017: 284–295.

4.4 Conclusion: The Architecture of Desire (Management)

The two SSUC masterplans were attempts by two sets of consultants to imagine a new spatialization of Kuwait University that vivified its ambitions while complying with a new statutory regime. These plans addressed most of the institutional purposes that Hinton and Rudden mention, but were not limited to these. Even though the campus was designed prima facie to implement the segregation law, it still appeared that planners were aware of a pertinent constitutional interest: that of non-discrimination.[131] Beyond attempting to hedge against the spatial effects of segregation, they incorporated other concerns of the city-state. One such interest was the patent unsustainability of introducing a huge commuter campus into the city without at least proposing that the campus become a node in a future citywide metro system. Another was HOK's ability to maintain some unsegregated spaces on the medical campus by implicitly casting it as a space for the profession of medicine where the modus operandi at Ministry of Health facilities overruled the charge to segregate academia. As more-than-institutional documents, the masterplans were designed to balance between the desires and interests of many parties, only one of which was the university. Allow me in this conclusion to recapitulate and further tease out some ways in which the masterplan served chiefly as a design managing the desires of the legally-bound state.

One may read the masterplannerly endosymbiosis traced in this chapter as design synergy in action. The two masterplans worked in tandem to give form to the schismatic character of a law-abiding university. CCA proffered a bipartite spatial scheme for the institution's academic majority, and HOK extended that logic to the university's medical center, thereby reconstituting the whole campus as a binity. The result was that almost every academic edifice on campus would sit across from its double. Certain elements in the masterplans, however, began to undermine the substantial mirroring displayed by the colleges. Most prominent was the single set of university administration buildings just north of the men's student center. These five buildings added to the center of gravity of the men's side, providing it with extra weight to balance out the increased mass of the women's campus. In CCA's masterplan, four small round buildings occupied some of the interstitial space between the men's buildings; these miniature mosques added a subtle rhythm to the men's predominantly

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[131] Article 30 states that "People are alike in human dignity, and are equal in the eyes of the law in terms of rights and obligations, without discrimination amongst them due to sex, origin, language, or religion." See "Kuwait Constitution." *National Assembly*. http://www.kna.kw/clt-html5/run.asp?id=2024.

linear campus.[132] In HOK's masterplan, only the largest, centrally-located mosque remained. Despite the discrepancies between the subcampuses, as a whole, it is quite evident that the masterplans sought to achieve some sort of parity between them. Whether by ensuring that the two sides occupied similar frontages along the buffer zone by curving the women's campus, or situating every college opposite its counter-equivalent, or even augmenting the smaller men's campus with administrative space, the designers formed a composition that ameliorated the spatial differences between the two subcampuses and their constituents, and thereby approached a measure of equality between the sides.

Though the sexes were to have separate experiences of the campus, the masterplan deployed spatial form to suggest that their respective domains were not so different—that they may be separate, but not necessarily unequal. This formal balance privileged a top-down perspective; it anticipated the statesman's view through which large swaths of the landscape are made legible and gratifying to a higher authority. The masterplans demonstrated a spatial order that political scientist and anthropologist James Scott affirms "is most evident, not at street level, but rather from above and from outside."[133] This approach to design is indicative of a broader paradigm, which Scott calls "seeing like a state," where the modern state resorts to typification, abstraction, and standardization, flattening the lived complexities of its population in order to manage them and the land on which they live. As an example of an imposed organizational regime that spatially structures major aspects of its subjects' lives, the state-driven mega-project is as a grand plan that inherently eclipses the scale of the perceiving subject. Designs of this type are

> either grasped from a representation . . . or from the vantage point of a helicopter hovering far above the ground: in short, a God's-eye view, or the view of an absolute ruler. This spatial fact is perhaps inherent in the process of urban or architectural planning itself, a process that involves miniaturization and scale models upon which patron and planner gaze down, exactly as if they were in a helicopter. There is, after all,

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[132] This design decision connotes that the planners were aware that, though mosques are open to both sexes, men are the predominant users of that spatial type, given the Islamic near-requirement that men conduct obligatory prayers in congregation at a mosque. Thus, what was included on the women's subcampus were only prayer rooms inside the buildings, rather than dedicated freestanding mini-mosques. By offering redundancy in the number of mosquettes on campus, the masterplan appears to have tried to afford the fulfillment of a more-than-institutional purpose of a religious kind.

[133] Scott, James. *Seeing Like a State*. New Haven: Yale University Press 1998: 57.

no other way of visually imagining what a large-scale construction project will look like when it is completed except by a miniaturization of this kind.[134]

For those in power, this way of representing space allows them to visualize the extent of their power, and renders any change they envision much easier to mark out than it would be on the ground, amongst the people. Designed abstraction thus serves to make legible to the state its own ambitions.[135] Under the state's synoptic gaze, the SSUC masterplans catered to the state's abstract concern for compliance with statutory segregation concomitantly with constitutionally-mandated equity.

Figure 4.18 The Oasis as a landscaped buffer zone. (Source: Kuwait News Agency[136])

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[134] Ibid.

[135] Philosopher Michael Crawford suggests that statist designs can become self-fulfilling prophecies through their reductive circumscription of real life's complexity as part of its reinterpretation and rendering as an imagined formation: "The mischief of grand schemes for progress lies in the fact that, even in the absence of totalitarian aspirations, the logic of metrics and rationalization carries with it an imperative to remake the world, in such a way as to make its thin, formal descriptions true. The gap between the model and reality has to be narrowed. This effort may need to reach quite deep, beyond the arrangement of infrastructure to touch on considerations of political anthropology. The model demands, and helps bring into being, a certain kind of subject." Crawford, Matthew. "Algorithmic Governance and Political Legitimacy." *American Affairs* 3, no. 2 (2019): 81.

[136] "The proposed final designe [sic] for Sabah Al-Salem University City." *Kuwait News Agency*. July 15, 2016. http://www.kuna.net.kw/ViewPics.aspx?id=1365829

Even the buffer zone itself was appropriated by design and recast as an oasis (Fig. 4.15). Conceived "as a city on the banks of a river of landscape," SSUC was cast as a "landscaped oasis [that] will be used by faculty and graduate students for quiet contemplation."[137] Leveraging the language of desire, the planners reworked a divisive spatial constraint into a grand escapist amenity bolstering the overall design scheme. What could have been a barrier from which everyone fled was fashioned into a lush green space, a naturalesque destination for students on both sides. While they may not be able to physically meet, students could find themselves sharing in the experience of the very landscaped center that keeps them apart. Reinforcing the sylvan image of the oasis was the field of palm trees through which the river would run, as much a screen obscuring cross views as it is environmentally appropriate foliage (Fig. 4.16).

Figure 4.19 The Oasis as a sylvan waterscape that students might enjoy. (Source: Moriyama & Teshima Planners[138])

As the instrumental element of the masterplan, the so-styled Oasis emblematized a dialectic of attraction and partition couched in architectural rhetoric. As a central campus attraction, it invites congregation at the same time that it effectuates segregation, affording only limited optical connections between the opposite sides. As a verdant repose, this plush manmade landscape masked the space's identity as an instrument of separation. The aesthetics of this space were tasked with diverting attention away from its sheer instrumentality. Instead of standing as an unmistakable potential black mark at the center of campus, the barrier was prudently recast as a seductive zone for all. As architectural theorist Neil Leach describes it, the

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[137] Du Toit Allsopp Hillier. "Kuwait University Master Plan." *DTAH*. Accessed May 1, 2017. http://dtah.com/project/kuwait-university-master-plan/

[138] Moriyama & Teshima Planners. "Kuwait University." *MTP*. Accessed May 1, 2021. http://mtplanners.com/projects/kuwait-university/

logic of seduction "reduces any notion of pain to the level of the seductive image. What is at risk in this process of aestheticization is that political and social content may be subsumed, absorbed, and denied."[139] To use Leach's titular term, architectural aesthetics are its anaesthetics. The Oasis renders the imposition of segregation painless.

As a break from the overbearing institutional space of the university's colleges, the Oasis does not only serve students but also the faculty. The latter are the only members of the academic community allowed access to both subcampuses. Bridges spanning the Oasis afford them the exclusive power to move around campus freely. In the middle of some of these bridges were faculty clubs situated over the water and overlooking the parkscape. In addition to assigning them a privileged space in an exclusive zone, the clubs act as sentry stations enforcing a no-man's land of sorts, regardless of whether or not any actual surveillance takes place. This design decision appears to coopt faculty into the enforcement of segregation; leisure and relaxation on the faculty's elevated platform would be perceived from below as the constant gaze of authority. The bridges that span the buffer therefore simultaneously serve as escapes and as power projectors enforcing the very separation they violate.

While the Oasis was in the center of the SSUC as a whole, the campus planners provided independent centers of gravity for the subcampuses. Acting in concert and contrast with the Oasis is every subcampus' Galleria, "a grand, outdoor, weather protected, pedestrian street."[140] Parallelling the linear oasis, these pedestrian thoroughfares were designed to run all the way through the strings of college buildings. Each shaded walkway comprised the social spine of its respective subcampus. With many amenities, cafes, courtyards opening onto this circulatory space, pedestrians walking along it are meant to experience a constantly varying urbanistic experience within the confines of the campus. Inspired by traditional Arab space – "their form and expression a modern interpretation of a souk" – the Gallerias' ostensible purpose was to create "a truly pedestrian environment at the campus core."[141]

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[139] Leach, Neil. *The Anaesthetics of Architecture*. Cambridge, MA: MIT Press, 1999: 45. Building on Jean Baudrillard, Leach further polemicized this point: "Although 'meaningful discourse' may collude with 'seduction,' whenever it tries to counter the very allure of 'seduction' it threatens to be seduced from its path by the play and aleatory charm of language. . . . Seduction has been caught in a discursive libidinal striptease. In this society of exchange, seduction is now everywhere and nowhere, supporting the circulation of exchanges and oiling social relations."

[140] Du Toit Allsopp Hillier. "Kuwait University Master Plan." http://dtah.com/project/kuwait-university-master-plan/.

[141] WZMH Architects. "Kuwait University: Al-Shadadiyah, Kuwait." *WZMH*. https://www.wzmh.com/projects/university-city-master-plan-kuwait-university-al-shadadiyah/

Figure 4.20 Different characters of the Galleria as it crosses different parts of SSUC. (Source: WZMH Architects[142])

This invocation of traditional space in contemporary place-making has a long lineage in Kuwaiti architecture. To conceptualize their designs and proposals for the modernizing city-state of Kuwait Marcel Breuer, Jørn Utzon, Arthur Erikson, and the Smithsons all found architectural inspiration in the souk or bazaar, a rather idealized notion of Arab urban space.[143] As described earlier, Utzon's Kuwait National Assembly building emblematized this forward-looking atavism, his design being the result of a background of exposure to oriental vernacular, especially in the Moroccan and Persian contexts.[144] Notions of the souk, the tent, and courtyard entered Utzon's lexicon and were recapitulated in the formal logic of his design. The National Assembly building itself, however, was not recognizably, aesthetically or ornamentally, Arab or Islamic. By appropriating the (stereo)type of the vibrant Arab marketplace, these midcentury architects posited a modern architecture that sought to embrace – even revive – tradition rather than dispense with it. By marking their designs with the supposedly familiar language of the vernacular, these foreign experts' rhetoric served to disarm potential local apprehension about that which was novel and unknown, facilitating their engagement in the state-building project.

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[142] Ibid.

[143] Fabbri, Roberto, Sara Saracoga, and Ricardo Camacho. *Modern Architecture: 1949 – 1989.* Zurich: Niggli, 2015.

[144] Utzon, Jørn, and Børge Nisses. *Jørn Utzon Logbook IV.* 2008.

The Galleries of the SSUC masterplan are but a recent manifestation of this tendency, adapted to the mirrored condition.

Though the Gallerias sought to activate public life on each subcampus, they also connected them together. By fomenting vibrant usage of directional public space, the Gallerias were conceived to generate parallel experiences of community that string the subcampuses together. In fact, these parallel pedestrian bands were but components of one continuous band; as the galleria on one side of the academic campus crosses into the medical campus, it makes a 180-degree turn and continues in a parallel fashion, crossing over to the opposite side of the academic campus. This bounded continuity suggested that, despite the overt segregation, the two student communities remain separate but equal, each side an extension of the other.

Within the masterplans, separating and stitching operated on the same form, generating an ambivalence between contiguity and disjuncture, between the collective and the individual. The same morphology that was cleft by a line was tenuously stitched together by another. While few campus users, if any, would experience cross-campus continuity, the design of the campus nevertheless incorporated unitarian gestures outside of the user experience. From the planner's top-down perspective, why not incorporate elements that ameliorate the stark separation that characterized the schismatic ensemble? In his examination of the techno-socio-political project that is the city, Aureli admits that the "project has always been an ambivalent framework. It has always been an act of both emancipation from and domination over a given social and political situation. Within the project, the act of emancipation and the will to domination are impossible to disentangle."[145] By attempting to provide something for everyone, the SSUC masterplan intimated the impossible: everything for everyone.

Nonetheless, the client here was the state. Possessing powers of prescription, proscription, and inscription, it was the central authority in this undertaking. If design here operated as a conduit for social engineering, then it was towards ends dictated by the state. Sociologist Loïc Wacquant has long recognized the state as central to the way the social is spatialized in the form of the city. Though his work is chiefly concerned with the ways in which the American city has been made into a composite of exclusion zones, his attention to spatial agency's critical role in urban, social, and political formations is instructive. Animated by an impulse to explicate the "deployment of space as a product and medium of power," he posits that the way territorialization and spatial exclusion manifest in a given polity reflects its socio-

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[145] Aureli, Pier Vittorio. *The City as a Project*: 14.

political dynamics and structures of authority.[146] In illuminating the state's subjectivity, Wacquant asserts that the state

> is the agency that sets the parameters according to which the distribution of people, resources, and activities is effected . . . Through its various programs, from urban planning, economic regulation, fiscal policy, and infrastructural investment to the spatially differentiated provision of core public goods such as housing, education, health, welfare, and policing, the state determines the extent of the distance between the top and the bottom of the urban order; the vehicles, pathways, and ease with which that distance may be travelled; and what forms of sociospatial seclusion take root and grow.[147]

As contingent and mutable as social and spatial conditions may be, they must often contend with the state's desires and strategies. The state-mediated relationship between the real and the imagined defines much of the structures in which lives and livelihoods intersect. A new campus is a new approach to higher education, a revised space constitutive of revised social relations. In a city-state with one public university, a campus designed in accordance with state stipulations serves as a defined funnel molding generations of young adults passing through it.

In realizing the space of a law's realization, Kuwait's campus makes tangible the dynamics that Wacquant observed. The commissioning state affords design an overt political role, and proffers designers a privileged position in its executive and administrative apparatus. The masterplans they produce are instruments by which the state is able to see what it prefers to see. "This implies that, insofar as they collaborate in shaping the built environment, urban planners and architects partake in the production of the space of sociospatial relegation," Wacquant admonishes. "And they will grow more implicated in the design of urban seclusion as advanced societies increasingly rely on spatial 'solutions' to festering social problems in the dualizing metropolis."[148] But such commissions also offer designers a tactical opportunity to mold and reinterpret, even coopt, the very schemes they are tasked to fulfill. At the very least, the act, rhetoric, and content of design can reconcile alterity with the familiar, such that the once unfathomable becomes reasonably comfortable. In space and material, architects give humane form to the statesman's cerebro-juridical dictums. If, as Thomas Gaines asserts, "it is attractive urban space that the campus must have to succeed as a work of art,"[149] then within its

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[146] Wacquant, Loïc. "Designing Urban Seclusion in the Twenty-First Century." *Perspecta* 43: 165.
[147] Ibid., 174.
[148] Ibid., 175.
[149] Gaines, Thomas. *The Campus as a Work of Art*. New York: Praeger, 1991: 3.

manufactured mise-en-scene collide manifold imaginaries – the designer's, the legislator's, the bureaucrat's, the academic's, the critic's – to say nothing of the parallel and intersecting realities that it engenders.

Chapter 5
Conclusion

The act of envisioning the campus' discursive and spatial form renders this space an active production whose relationship to the academic institution is not necessarily isomorphic nor deferent; campus conceptualization is no less than an interlocutor with the discursive and socio-political regimes to which it is subject. The three core chapters that make up this dissertation all take up questions about the campus as a bona fide spatialization of the academic enterprise bound not by the institutional, each with its particular approach and focus. At this point, let me briefly recap the contributions of my research.

My first core chapter posits the notion of 'the discursive campus' as a product of different epistemic logics. Animating the discourse are variant understandings of the campus' orientation towards its institution, ranging between attunement to institutional specificities and their eschewal. The campus is most commonly understood to cater to the academic institution's intrinsic purpose, which is to host students and scholars and provide for their activities. It has also been understood in more relational terms as a space among spaces, often in an urban environment or globalized world, whose purpose is to distinguish and sustain itself in view of this external milieu. But the campus has also been taken up less as a means to an end than an end in itself, as a thing of patrimony or beauty, worthy of study for its own sake; by this logic, the campus primarily constitutes a disciplinary object rather than an institutional one.[1]

In the second core chapter, the establishment of King Abdullah University of Science and Technology (KAUST) provides a demonstration of the campus' role as *a* – not *the* – funnel of the university's coming-into-being. Beyond substantiating that the exceptional campus is a necessary but not sufficient factor in the genesis of an exceptional university, this project shows that the formation of the institution and the campus were parallel projects, with the latter ultimately serving as an anchor in the kingdom to the former, which is more at home in the

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[1] By disciplinary object I mean the state of being subject to disciplinary scrutiny—historical or aesthetic examination, for example.

global "space of flows." The key concern in this project was establishing a world-class institution and the campus was thus attached to that imperative.

In the third core chapter, the design of Sabah Al-Salem University City (SSUC) is a testament to how laden a campus project can be with obligations and desires limited not to its academic institution. The campus masterplans did not just outline comfortable spatial provisions for a university that needed them, but also inscribed statutory, constitutional, and urban-national concerns into the campus form; these design documents were instruments of desire management that catered to requirements and ambitions more expansive than those of the academic institution—namely those of the state and its institutions. If KAUST's campus is a para-institutional project, SSUC is more than institutional.

Together these chapters give substance to my goal of moving our understanding of the campus from servitude towards autonomy. The campus is not always supposed to be subservient to institutional needs, even at opportune moments where tight coupling between space and institution is most viable—that is, during the well-funded creation of wholecloth campuses. Thus, while the university's purposely-designed space is often thought to be (over)determined by institutional desires and particularities, this dissertation shows that it is not necessarily so. In short, the campus is a spatialization not merely of the institution. The chapters largely speak for themselves but, at this concluding juncture, let me draw some parallels and distinctions between their foci (Table 5.1).

	the discursive campus	the instant campus (KAUST)	the mirrored campus (SSUC)
type of project campus is	a discursive project	a project parallel to the institution	a more-than-institutional project
governmentality	national government is rarely acknowledged as influence on campus planning and development; campus largely understood in discourse as engaged with issues of institution and locale (whether rural or urban)	clear royal prerogative (and name) as the moral and economic underwriting of the visionary project, with Aramco tapped to fulfill it	the university needed to respond to legislative impositions on it (i.e. appease parliament) while living up to constitutional and institutional demands and desires
instrumentality	3 positions on the instrumentality of the campus are evident in the discourse: intrinsic-, market-, and non-instrumentalism	to appropriate terms from my description of the discourse, this was, largely, a market-instrumental project	to appropriate terms from my description of the discourse, this was, largely, an intrinsically-instrumental project
institutional form	campuses belong to and serve all types of institutions	new, small, wealthy, and well-connected: private, non-profit, graduate-only, STEM-focused, research university	the preexisting national (public) university is spread out on multiple campuses, so the new campus spatially consolidates the institution
institutional context	campuses engage a wide range of institutional states and vagaries	institutional invention	institutional reinvention

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founding of campus	incrementality: campus often extant, starting small and growing over time, though post-WWII period saw a spurt of new campuses, often megastructures	singular royal charge to found university (i.e. both institution and campus) wholecloth	diffuse authorship: a political accident whereby the university may not have liked the law but at least it would get a new, spacious campus wholecloth
relationship to the city	a dichotomy between the rural campus and the urban campus	outside (exurban)	edge (suburban)
formal character of campus	evident tension between understanding the campus to primarily be a pastoral space or an urban space	campus as city (or even quasi-city-state): an extraterritorial walled campus where a compact academic core is surrounded by increasingly sparser residential areas for students and faculty	called "University City," a binitarian campus with a dividing line in the center sandwiched between two rows of academic buildings which are surrounded by a sea of parking
central space of campus	due to the Anglo-Amerocentricity of the discourse, a lawn, quad, or square is assumed to be the archetypal center of a campus	linear connector: the Spine is an urban-inspired covered outdoor pedestrian thoroughfare	linear divider: the Oasis is a verdant, landscaped, outdoor space with a water feature separating the subcampuses
gender issues	absent from the discourse, given that this no longer an issue in North American and European higher education	uniquely co-educational space of higher education in the kingdom, envisioned as a bubble in the same way that the national oil corporation's 20th-century residential compounds were	newly segregated campus as per turn-of-the-century law applied to the university; i.e. campus spatializes this law
value(s) driving engagement with campus	functionalism, internationalism, historicism, aestheticism, symbolism, urbanism, nationalism	elective counterculturalism, contrarianism, stridence, institutional mold- and path-breaking, exceptionalism, research-firstism	prescribed counterculturalism, concessionarianism, political appeasement, institutional-spatial renewal
imaginaries involved	sustained reconciliation of tradition and change	an advanced domestic knowledge economy	the city-state's infrastructural and educational future on top of the university's spatial concentration and aggrandizement

Table 5.1 Themes and observations across the dissertation chapters

5.1 Thematic Crosscurrents: Campus as National Project

National government is seldom acknowledged as a major influence on campus planning and development, except in works like Carlos Garcaivelez's and Francesco Zuddas' in which projects are cast in an explicit national light; the campus is largely understood in the discourse as engaged with issues of institution and locale, whether rural or urban. In contrast to this, the chapters on KAUST and SSUC foreground governmentality as a campus correlate. In the Saudi Arabian case, there was a clear royal prerogative at play; the king provided the moral and economic underwriting of the project and served as its eponym. Moreover, its execution was a royal charge to Aramco, the nation's sovereign and exceptional corporate-industrial enterprise. In the Kuwaiti case, the university needed to cater to legislative impositions upon it while living up to constitutional demands and its own institutional desires. The new campus it would acquire must both appease parliament and address its academic community's perceived needs and

desires, all the while occupying the pride of place as the home of the nation's flagship institution of higher learning. In both cases, the national was the arena within which questions of institution and campus played out.

Though these projects both grapple with high national stakes, the institutional and spatial forms they involve are quite different. KAUST was conceived as a new, small, exclusive, ultra-wealthy, globally-connected, private, non-profit, graduate-only, STEM-focused, interdisciplinary research institution located in a new, dedicated, walled campus-town on the western seaboard of the Arabian peninsula. As a grand project of Kuwait's preexisting sole public university, which is spread out on multiple campuses, SSUC is a new campus that spatially consolidates the university in a location away from the inner suburbs close to the city center where most of its campuses have long been situated. Even the ends to which these campuses cater can be understood to be conceptually different. Though the three logics of instrumentality, which I argue underlie the campus discourse, describe the conceptual orientations animating textual accounts rather than actual campus projects, we may here appropriate these logics in application to these two campuses: while KAUST was a largely market-instrumental project in that it centered the attainment of world-class status at its raison d'etre, SSUC was an intrinsically-instrumental project in that it sought to, at once, concentrate the institution and separate the sexes.

Both projects are outliers compared with the common understanding of the campus as a compound space whose development is characterized by incremental growth. Except for the recognition of the spurt of campus building around the period after the Second World War, most discursive accounts of campus planning take as their default condition the extant campus that had started out as a relatively small estate but grown over time and whose present development ought to be rationalized or guided much more effectively. In contrast, SSUC and KAUST's are wholecloth campuses. As the product of a regal charge to create a paradigm-shifting university, founding KAUST included constructing a total campus. While SSUC was masterplanned wholecloth, the project's authorship may be understood to be much more diffuse, almost as though it were a political accident whose spatial repercussions were experienced by an academic institution and worked through by design consultants. In essence, KAUST's campus is a spatialization correlated with institutional invention, while SSUC is one correlated with institutional reinvention.

5.2 Thematic Crosscurrents: Campus as Morphology

In the discourse, the primary morphological and contextual character of the campus is under dispute. The campus is understood archetypically to be either a landscaped condition or an urban one. For example, both Richard Dober and Robert Stern, disparate as their intellectual orientations were, saw in landscape the spatial, material, and symbolic capacity to make a campus out of an assemblage of buildings. On the other hand, Sharon Haar challenged the centrality afforded to landscape in crystallizing the campus type, positing the city as the critical space with and within which the campus has often asserted or eked out its existence. Even understanding the campus as a city in miniature, as many have and are wont to do, is paradoxical with respect to this debate, for while this links the campus most directly to the city, it also erects a wall between them; to cast the campus as a city, no matter how small, is to indicate that it is all but self-sufficient and thereby independent from the city.

My chapter on KAUST proffered an example of what might be an ideal case of the campus as a city. We can even think of it as a quasi-city-state: an extraterritorial walled estate where a compact academic core is surrounded by increasingly sparser residential areas with their attendant commercial services for students and faculty. The focal point of this campus is akin to a city's central business district where professionals spend their working hours during the business week, only to return to their suburbs-within-the-walls every evening and weekend. In contrast, SSUC has a landscape feature at its center, the Oasis. This pastoral void anchors this binitarian campus and performs as a dividing line sandwiched between two segregated rows of academic buildings that are surrounded by a sea of parking. An explicitly suburban space at the edge of the city, SSUC overtly centers a manufactured waterscape, given this landscape's role as the instrumental element effectuating the division of the campus into gendered halves. As a coastal town at a relatively long distance outside the city, KAUST's campus reproduces a semblance of urbanity to compensate for its exurban location, allowing the sea to be its natural backdrop. In this way, it is much more urbane than SSUC, which, though expressly dubbed a "University City" along lines which Garcialvelez would have appreciated, is a commuter campus par excellence that attempts to hedge against the deficiencies of such a campus type. Despite their strong connections to the campus-as-city mode of thought, the two campuses spatialize quite differently, bespeaking the indeterminacy of campus-borne urbanism.

Formally, the central spaces of these two campuses diverge from the discursive archetype. Due to the Anglo-Amerocentricity of the discourse, a focal open space – a lawn, quadrangle, cloister, or square – is assumed to be the archetypal center of a campus. The

preeminent built archetype on which this discursive archetype is premised is Thomas Jefferson's University of Virginia with its classic central lawn. Neither SSUC nor KAUST's campus have such a space at their center. At the former is a linear divider: as mentioned above, the Oasis is a verdant, landscaped, outdoor space with a water feature separating the subcampuses from each other. It is a pastoral space of rest and getting away from academics at the same time that it enacts the division of the campus. At the latter is a linear connector: the Spine is an urban-inspired covered outdoor pedestrian thoroughfare transversally cutting through the megastructural academic core. Unlike the centripetal energy of the classic lawn, these central spaces are activated, instrumental devices forming and dividing different publics. One is a circulatory passage that is a means to publicly tying together a set of adjacent corporate-like masses, while the other is a landscaped void-as-wall casting a series of buildings as mirrors of one another.

5.3 Thematic Crosscurrents: Campus as Gendered and Contrapuntal Space

Let me briefly note, here, the gendered character of these two particular campuses. Given that it is no longer an issue in North American and European higher education, gender is largely absent from the campus discourse, except in histories which touch upon the unisex constitution of collegiate institutions well into the 20th century.[2] For the campuses I examine in two of the chapters in this dissertation, gender is not unimportant. Within their national contexts, both KAUST and SSUC were conceived to be at the forefront of the higher educational scenes, and both are contrarian with regards to the issue of sex segregation. Only four years after Kuwait University unveiled its masterplan for a de novo campus designed to accommodate a newly-segregated student body, KAUST opened its doors to the first coeducational class in Saudi Arabian history.

Though both projects were designed to upend the prevailing conditions of higher education in their countries and were cast by their respective patrons as substantive enterprises through which the state invests in human development, they had obverse architectural vehicles in mind. In fact, one could argue that it is the sanctioning of the intermixing of the sexes on KAUST's campus that lent it to be walled and extraterritorial, in the vein of the Aramco

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[2] In the United States, gender was – and, in some ways, continues to be – a salient concern in designing and managing student housing and residential life. Carla Yanni and Helen Horowitz have engaged this issue in their historical work on American dormitories and women's colleges. See Yanni, Carla. *Living on Campus: An Architectural History of the American Dormitory*. Minneapolis: University of Minnesota Press, 2019. And Horowitz, Helen. *Alma Mater: Design and Experience in the Women's Colleges from Their Nineteenth-Century Beginnings to the 1930s*. New York: Knopf, 1984.

precincts before it. This uniquely co-educational space of higher education in the kingdom was envisioned as a social bubble in the same way that the national oil corporation's 20th-century residential compounds were. Though many Saudi universities had educated both sexes, they always did so in different spaces, even different campuses, dedicated to each sex. KAUST was novel not so much in providing an institution to which both sexes could belong, but in the embodied spatial colocation it afforded the sexes by having only a single campus for them to belong to. An academic enterprise elsewhere segregated into distinct gendered spaces was integrated on KAUST's campus. Conversely, SSUC was designed as a segregated campus as per a turn-of-the-millenium law applied to the university. The campus spatializes this law, rendering the extant university newly segregated. The project both spatially unified and split Kuwait University; it consolidated the university's disparate extant spaces, which were ungendered, into a singular, gendered campus. This space, at once, aggregated and segregated the institution.

Their contrapuntality with regards to local gender relations is just one way that these projects are countercultural within their particular societal contexts. They are more broadly about imagining and pursuing new, divergent futures for their nations and institutions. In Saudi Arabia, KAUST is an ambitious means to jumpstarting an advanced domestic knowledge economy in the face of a laggard status quo in higher education generally and scientific research specifically. It is a social-economic experiment wrapped up in an institutional-spatial amalgam. In Kuwait, SSUC is a campus that would finally do justice to the nation's flagship university, an institution that had spent about half a century inhabiting and making do with a disparate set of campuses. At once an imposition on and a comfort to the institution, the project embodies the city-state's infrastructural and educational future in addition to the university's spatial depressurization and development.[3] Both projects engage urban-national developmental imaginaries, engendering spaces onto which national actors projected their concerns and aspirations. If KAUST as a project can be characterized by elective counterculturalism, then SSUC's counterculturalism is prescribed. The former is overtly contrarian and exceptional, breaking institutional molds and pathways, putting research first and space second. The latter's contrapuntality is a spatial concession cum legislative-political appeasement deployed as institutional-spatial renewal. Of the many values that drive one's understanding of the campus as a type – functionalism, internationalism, historicism, aestheticism, symbolism, urbanism, and nationalism are salient in the discourse – KAUST has a foot on both sides of the national and international boundary, whilst SSUC is decidedly national in disposition. In a way, that

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[3] By depressurization I mean giving the campused institution that is bursting at the seams, so to speak, more classroom and administrative space.

these campuses find ways to deal with extant pressures and concerns while – even by – introducing novelties is hardly surprising.

5.4 Taking Stock: The Campus Beside and Beyond the Institution

If there is one notion that recurs in the discourse it is the campus' critical role as a place that sustains both tradition and change, mediates the tensions between them, and embodies their reconciliation. However, tradition and change here ought not be bound by institutional frame or logic. Having questioned in this dissertation the commensurability of the institution and the campus, and the congruence of their purposes, the campus then must be understood to preserve more than the institution and enact change in a broader realm. Though a good part of the discourse makes clear that the campus can play an active role in sustaining and (re)making the city, there is less of a focus on nation building. This is not to say that national politics is not a present lens in the discourse, but that it is a niche one. This dissertation suggests that a bigger role should be lent to the national in campus planning; it is perhaps a vestige of the discursive Amerocentricity to see the campus' extra-institutionality as being a local and often urban, or at most a state, affair. This resonates with Haar's critique of the discursive fixation on the campus as a world unto itself. "Whether higher education is an exercise in nation building or an economic engine," she asserts, is a "question [that] informs university planning, and its impact on campus design in the twenty-first century is a critical issue that needs to be tackled as both higher education and the spaces it inhabits continue to grow and transform."[4] My research indicates that campuses can be deployed to help sustain and change the nation, even one with its eyes on international prominence.

But even if we lower our expectations, such that the campus is expected to be involved in something less than changing the trajectory of a nation, and limit ourselves to the campus' city or urban locale, we can still begin to think of a role for the campus that is loosely coupled with the academic institution. The coronavirus pandemic provided a real-life opportunity for campuses to lean more actively into their campushood while loosening their connection to the academic enterprise. Many university campuses, more so than hotels, are designed to serve as long-term residences for relatively large populations. Beyond housing, they provide access to dining, recreation, health, and ancillary service facilities, if not actual hospitals. It would not have been remotely unimaginable to see campuses transforming during the lockdown into large-

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[4] Haar, Sharon. Review of *University Planning and Architecture* by Paul Coulson et al., and *On Campus* by Robert Stern. *Journal of Planning Education and Research* 32, no. 3 (2012): 380.

scale quarantine centers or places to house the homeless and other populations at heightened risk.[5] Such a make- or takeover would have demonstrated that the campus is much more than a space that is dedicated to the operations of the university institution. Though this transformation would turn it into a camp of sorts, the campus would be no less a campus despite its disassociation with academics. In a way, some campuses did serve in this extra-academic capacity during the pandemic when their residences stayed partially open for students who could not return home or did not have a home to return to. I wonder how our understanding of the campus would have shifted had it served as a sanctuary for the homeless in the United States or, for example, Indian worker-migrants stranded across the subcontinent during a chaotic lockdown.[6]

Moreover, to think of the campus as an institutional correlate may help us rethink what we consider to be project management failures. As Bent Flyvbjerg has shown, megaprojects almost invariably run over time and budget, and not uncommonly fail to achieve what they set out to achieve.[7] Many campus development and expansion projects, let alone wholecloth campus projects, run these risks. No wonder many grand plans are what Karen Hinton calls "shelf documents."[8] Within a campus-as-institutional-servant frame of thought, unexecuted campus projects and plans are understood to be unfortunate wastes of money, time, and effort. And executed ones that do not live up to their envisioned institutional purposes are seen as more conspicuous failures—or "disastrous waste[s] of resources," as Achyut Kanvinde and

[5] In fact, it is not uncommon for university campuses to be populated during the summer by groups unaffiliated with institutions, often running summer camps. This is a strategy that universities have used to put their space to (good economic) use during what would otherwise be a dormant period. These activities and camps are often of an academic nature, so some connection is maintained to the campus' putative role as a servant to its academic institution.

[6] For more about the lockdown-instigated mass migration of laborers in India, see Jesline, Joshy, John Romate, Eslavath Rajkumar, and Allen Joshua George. "The plight of migrants during COVID-19 and the impact of circular migration in India: A systematic review." *Humanities and Social Sciences Communications* 8 (2021): Article 231. And Nagpal, Sugandha, and Srivastava, Vatsalya. "India's coronavirus mass migration: How we've misunderstood the Indian migrant labourer." *South Asia @ LSE*. April 3, 2020. https://blogs.lse.ac.uk/southasia/2020/04/03/long-read-indias-coronavirus-mass-migration-how-weve-misunderstood-the-indian-migrant-labourer/

[7] Flyvbjerg, Bent. "What You Should Know about Megaprojects and Why: An Overview." *Project Management Journal* 45, no. 2 (2014): 6–19.

[8] Hinton, Karen. *A Practical Guide to Strategic Planning in Higher Education*. Ann Arbor, MI: Society for College and University Planning, 2012. For a contrast to unexecuted grand plans, see this collection of grand projects executed in East Asia and Western Europe: Christiaanse, Kees, Anna Gasco, and Naomi Hanakata, eds. *The Grand Projet: Understanding the Making and Impact of Urban Megaprojects*. Rotterdam: nai010, 2019.

James Miller vividly put it.[9] However, if these projects are understood as being not just *of* and *for* their institutions, but as having purposes beyond the latter, then they could come to constitute less wastes than contingent spatial realms through which different sets of societal actors may come to interface.

Though certainly not ideal for the instrumentally-driven institution, acquiring an unwieldy or even unobliging campus can be thought of as a call to embracing the unanticipated slippages and possibilities of campus projects, to embodying a radical loving of one's monsters, to borrow Bruno Latour's terms.[10] In other words, such a frame of thought allows us to think about the campus beyond utilitarian questions of space utilization and optimization, which so often dictate campus projects.[11] To illustrate such a rethinking with an example from this present work, recall that the Constitutional Court in Kuwait nullified the need to have a mirrored campus after much of the ground was broken but before any part of the campus opened. Though this ruling made lawful the coeducational use of space on campus, its build-out has largely followed the masterplanned mirroring scheme. Now that SSUC no longer needs to be cleft down the middle, what would it mean for the public university campus to host what might be the most interesting linear park in the country?

5.5 Looking Forward: Ideas and Questions

In sum, my work is just a beginning. It may even suggest more questions than answers. Which means that more research is to be done, whether on the broad question of the relationship of the campus to its institution, on the campus design discourse, or the specific campus projects I examined. For example, it would be illuminating to discover which particular texts or broad epistemic logics have had material effects on the practice of campus planning and design, if any. Research of this sort would shed important light on the spatial impacts of discourse, over time and in the present.

My present work might also suggest questions to be taken up by more speculative practices and approaches. To speculate on what decoupling the campus from the institution may

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[9] Kanvinde, Achyut, and H. James Miller. *Campus Design in India: Experience of a Developing Nation.* Topeka, KS: Jostens/American Yearbook Co, 1969: 14.

[10] See Latour, Bruno. "Love Your Monsters: Why We Must Care for Our Technologies As We Do Our Children." *Breakthrough Journal* 2 (2011). https://thebreakthrough.org/journal/issue-2/love-your-monsters

[11] See Temple, Paul, and Ronald Barnett. "Higher Education Space: Future Directions." *Planning for Higher Education* 15, no. 1 (2007): 4–15. And Edwards, Brian. *University Architecture.* London: Spon, 2000.

entail, allow me at this terminal point to be more fanciful. Perhaps a case could be made for building institution-free campuses. For the well-endowed open to taking a spatial and economic risk, I posit that they consider commissioning and building campuses without prescribing an institution to which they would belong and cater.[12] This unconventional approach would pursue the founding of campuses – in the city, but also beyond – as a starting point and then see whether institutions come to inhabit them in the fullness of time. Whether campuses are eventually institutionalized is less the conceptual concern here than whether the campus can be a freer, more extensively-engaged type. To riff on Henri Lefebvre's famous formulation, can there be a right to the campus? Ought there be one? One can ask this about hypothetical campuses as well as extant ones. What would it mean for a campus, like any of the University of Michigan's, to be exactly that but not to "belong" to the University? Would this not mean that we all become students of the campus? Again, this is a fanciful imaginary, but one that opens up questions about potential future states and roles for the campus in a changing world.

On a more grounded note related to the projects that I have examined in this dissertation, further research can certainly be conducted on them to excavate detailed histories, understand both institutional and user experiences of the campuses, and scrutinize their spatial and social dimensions through variant theoretical and methodological approaches. In contrast to the specter of failure touched on above, campus projects beg the question of success. When it comes to KAUST and SSUC, it remains to be seen whether they attain this elusive status. This is complicated by the fact that success itself is difficult to define and assess. In KAUST's case, the goal of breaching the Top 10 within a decade did not pan out, but the institution is humming along and its campus is abuzz with life. Is that success? Or did the university settle and recalibrate its aspirations? In SSUC's case, success may be a meaningless category given that the driving impetus of the design parti was nullified by the Constitutional Court after much of the ground was broken but before any part of the campus opened. One wonders how the institution will make use of the mirrored campus now that the need for mirroring is rendered null. In other words, we will soon have a paradoxical case of the adaptive (re)use of a brand-new campus.

The afterlives of these grand plans beg further research. More work is to be done examining these projects, institutions, and campuses, especially in comparison with others in the Gulf, whether of local or international provenance. On a broader note, my present work suggests a scholarly need to be more attentive to global campus development, particularly that

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[12] A precedent, though unbuilt, comes to mind: Cedric Price's Fun Palace. For more on this project, see Bonet Miró, Ana. "Architecture, Media and Archives: The Fun Palace of Joan Littlewood and Cedric Price as a Cultural Project." Doctoral dissertation, University of Edinburgh, 2020.

which defies conventional wisdom stemming largely from scholarship and discourse centered only on a small part of the world. What might a new global history of the campus look like? What might we learn about our spaces and societies by focusing on this intermediary between architecture and the city? What might this spatial type offer an urbanizing world facing a planetary existential crisis? Let us hope that more people ask, pursue, and speculate on questions of this sort.

Appendix
Six Themes of the Discursive Campus

This discursive survey walks through the different conceptions of the campus that one might get from the books dedicated to the topic.[1] The goal of the following exposition is immersion in the monographic discourse that takes up the campus as an object of physical planning and design. I beg the reader's pardon for this survey's length and the inevitable repetition involved, but I hope to give much more than a succinct sense of how authors discussed the campus in their respective monographs on it.[2]

Modernist Functionalism

The period after the Second World War was a complex time for higher education, especially in the United States. The return of American soldiers to civilian life en masse produced an influx of college students. The baby boom produced by this battle-hardened, college-educated generation reinforced the need for more college seats in the long term. The transition from World War to Cold War sustained the national need for a vigorous system of universities to continue to produce research and highly-educated professionals. With women having entered academic, professional, and industrial workplaces in large numbers during the war, the move towards gender parity in higher education was already in swing. As the conflict in Vietnam became the American war of the moment, the rise of the Civil Rights movement put racial desegregation at the forefront of the nation's education agenda. Amidst all this change and the complex situation that the country and its institutions of higher education found themselves in, the silver lining for the latter was that they were widely recognized as central to American prosperity.

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[1] The books examined in this Appendix are listed on pp. 28–29 of this dissertation.

[2] In this Appendix, I use a hybrid approach to citations: I only use footnotes when I introduce a text, relying otherwise on in-line citations to supply page numbers. Parts of this Appendix were adapted and published in *Divergence in Architectural Research: Proceedings of the ConCave Ph.D. Symposium 202*0 (published by Georgia Institute of Technology in 2021) and in SocietyandSpace.org, the online magazine of *Environment and Planning D* (July 26, 2021).

Campus Planning was first published in 1963 at the height of what Clark Kerr has described as the golden age of American higher education.[3] Dober's acute awareness of this state of affairs, and his concerns about keeping up with higher education's expansion is evident in the book. He may have led with the assertion that "the physical forms which house (and will house) the process of education are self-evidently important," but it is clear that the general import of higher education need not have been belabored.[4] Rather, the book was written as a preemptive response to an anticipated crisis; Dober forecast a doubling in the demand for higher education and hence campuses. Eschewing a discussion of the interconnected complexities of the moment in which he wrote, he chose to focus on successfully tackling the concrete challenge of spatial expansion. He wrote as "a general practitioner of the art of planning" in order to "suggest ways and means by which the development of campuses can be controlled, so that functional goals can be aesthetically expressed with least compromise to the past, the present and the future" (i).

This approach exemplifies the strand of the discursive campus that is intrinsic instrumentalism. Works of this epistemic orientation present the campus as a response to concrete demands, whether imposed by or upon the university to which it belongs. Seemingly abiding by the modernist adage of form follows function, their authors center the functional needs of the university as determinative of the way the campus is reasoned. This is not to say that they deny the place of other considerations when it comes to questions of campus, but that they hold its spatial problem-solving role to be primary; a campus is meant to fulfill spatial goals defined by the university's stakeholders. Often concerned with the professional practice of campus design, these works value a clear and detailed articulation of goals as well as the methodologies for achieving them. Whether they prescribe how campuses ought to be planned or only analyze how they already have been, their measure of success is the extent to which a campus maximizes utility for its institution. From an intrinsic instrumentalist perspective, a campus well done is one that affords utmost operational efficiency for its institution.

Dober's book clearly exhibited this epistemic predilection. At its core, it was a pragmatic guide for campus planning that does not neglect aesthetics. It was conceived as a foundation that university planners and designers could build on and adapt to their particular needs and challenges. The first two words in the body of the book—"*Desperate and unprecedented*" [original emphasis] (3)—underscored at the outset that campus planning is no luxury, that impending was an immense challenge demanding action. At the time, American higher

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[3] Kerr, Clark. *The Uses of the University*. 5th ed. Cambridge, MA: Harvard University Press, 2001.

[4] Dober, Richard. *Campus Planning*. New York: Reinhold, 1963: i.

education was increasingly taking on more students and had pivoted its attention to science and technology, an academic territory then largely uncharted. These developments were not unique to the United States, as many other nations were undergoing their own higher educational transformations. Dober was disconcerted that many institutions gave no long-term consideration to their physical environments. His book was a university planner's guide for the perplexed, an application of systematic reason to a hitherto undefined set of institutional activities. It was the first clear mark of the professionalization of campus planning.

Dober was a modernist whose treatise was underpinned by rational functionalism. Divided into three sections, the book first defined campus planning and traces its history, then analyzed the campus into its programmatic components, and provided guidelines for planning the expansion of extant campuses and developing new ones. He conceived of the professional practice of campus planning to be a departure from a predominantly romanticist past. Tracing the development of campuses in the United States from the colonial period to his present, he highlighted the University of Virginia as a foundational moment, a juncture at which campus planning became a purposive endeavor, a calling. It was not this exemplar's aesthetic character per se that was critical, but its production as a comprehensive, rational, planned project. For Dober, the problem facing campus planning was "the dominance of style over plan;" style embodied the past, while plan gestured towards the future: "Plan here does not mean the physical continuity in contiguous structures . . . it is rather the dominance of site and program over facade" (34–40). Differentiating between types of plans with regards to programmatic and spatial specificity, temporal spans, and scale, he situated planning at the interface between program and design. He admitted that his guidelines were necessarily subject to adaptations demanded by every university's particular circumstances:

> This book is a synthesis of current events which I have selected to weave together as a graphic outline of a flexible approach to campus planning. The synthesis is neither gospel nor cookbook. The techniques described should be selectively applied and adjusted to the changing situations which are unique to the individual institutions. The results that can be expected from the design of structure (planning) are different from those that can be expected from the design of content (architecture). Ideally, of course, one activity melds into the other. (308)

Rich with images that illustrated his various points, Dober's book constituted a detailed and thorough handbook for practitioners, peppered with American examples from across various periods and geographies. Acknowledging the absence of a theory of campus planning, but

settling not for an ad hoc pragmatism, his book struck a middle ground, serving as a reference that was both methodical and flexible.

Dober was not the only author at the time to celebrate practice. Campus planning and design was a subject of common, if niche, interest in architecture circles. In 1972, Mildred Schmertz published a compendium of campus building studies originally published between 1966 and 1970 in *Architectural Record*, where she was a writer and editor.[5] It must be noted that, though campus design work was a subject of keen interest to the professional journals of the period, Schmertz admitted in her later life that the architectural publishing community was much more interested in the spaces of (architectural) pedagogy than in the education that was imparted in them, something that was nonetheless intermittently covered out of obligation rather than passion.[6] *Campus Planning and Design* documented the professional attention to, and appreciation of, the architecture of academia. She prefaced the book with the notion that universities' newfound but established awareness of the importance of campus planning has created an attractive market for architects and planners, going so far as to effusively claim that campus work "comprises some of the[ir] best work" (vii). Schmertz also acknowledged a change in campus project scale and time span from piecemeal accretion over time to rapidly constructed megaprojects. Yet, her book focused more on additions to extant campuses, highlighting mostly new, single buildings added to them, rather than addressing campuses as new or extant wholes. The book surveyed various campus building types, providing specific information about specific buildings, including plans, sections, details, and sometimes even execution sequences.

Schmertz's book was a vehicle for built case studies, a typology of campus architecture. It was not a campus typology, though. Only two chapters addressed the scale of the campus: "The single building or building complex designed as part of the campus master plan" and "Architecture which gives a campus the unity of a single building." In her conception, the campus emerges as an epiphenomenon of architecture: "A building, essentially a group of interrelated solids, will be considered by its architects as a group of interrelated voids as well, because in the hands of a skilled designer these voids become well-scaled open spaces—courts, malls, places, and gardens—adding greatly to the campus environment" (85). As is evident from both the section titles and this passage, the campus as conceived by Schmertz cannot be disentangled from architecture. Campuses are but "large architectural compositions" (165).

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[5] Schmertz, Mildred. *Campus Planning and Design*. New York: McGraw-Hill, 1972.

[6] Schmertz, Mildred. "Response to Gaunt, Conway, Robertson, and Others." *Practices* 5/6 (1996): 149–151. The journalistic lack of interest in the prime instrumental goal of these spaces (i.e. education) renders this professional journalistic attention a non-instrumental aesthetic exercise.

Instead of attempting to articulate what campus design uniquely affords architects, her account suggested that the goals for good campuses are scarcely more than those for good architecture. Despite touching upon the overall order of some campuses, the book's focus is essentially atomistic, profiling ostensibly well-designed academic buildings, in contrast to Dober's comprehensive and methodical analysis of the campus type. Emerging out of *Architectural Record*'s journalism, Schmertz's book is geared towards cursory professional consumption, constituting what Dober had elsewhere described as "a collection of good photographs of good architecture" that would find a happy home on an architect's coffee table.[7]

Within the practice-oriented literature, between Dober's modernist functionalism and Schmertz's effusive journalism lies David Neuman's *Building Type Basics for College and University Facilities*, published in 2003 as part of a series whose name gave the first half of the book's title and whose other publications had up till then addressed schools, museums, laboratories, hotels, hospitals, and office buildings.[8] In his preface, series editor Stephen Kliment mirrored the authorial sentiment Dober affirmed 40 years earlier, stressing that Neuman's is not "a coffee-table book lavish with color photography but meagre in usable content," but a book of "hands-on information" to aid the practice of campus planning, "especially in the crucial early phases of a [building] project, when it really counts" (vi). Written while he was University Architect at Stanford, Neuman's book gathered insight on campus planning and architecture from the realm of professional practice. Aside from his introductory chapter on campus planning in general, each of the nine chapters focused on a specific campus building type and was written by practitioners from different firms who provided case studies, research, and takeaways from their experience. A set of 20 technical concerns cut across the chapters, ranging from programming to operations, finances to building systems, materials to maintenance. As a whole, the book constituted a survey of the state of campus planning and design, a reference whose concern was expressly functional without being rote. Rather than a technocratically-written standards manual, this was a compendium of practical advice by architects for architects.

In his discussion of campus planning, Neuman asserted that the campus is critical to the fortunes of the institution since it composes the latter's setting, creates its identity, and helps sustain its status. At the core of *campus* is "a paradox of freedom and control," a dual tradition of civil debate and military conquest evident to him in an etymological dialectic connecting to

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[7] Dober, Richard. *Campus Planning*. 1963: i.

[8] Neuman, David. *Building Type Basics for College and University Facilities*. Hoboken, NJ: Wiley, 2013.

both the Greek *green* and the Roman *camp* (2). Campus planning has often been utopian in character, seeking the perfection of the university's physical space as well as the humans that inhabit it, with the development of variant versions of this utopia running from colonial times to the Modernist era and beyond. Despite the criticism instigated by the austerity of Modernist campuses, Neuman defended the importance of order in campus design but also asserted the need for agility and adaptability. His book was an attempt to show how this has and could be done.

Since the bulk of the book focused on campus buildings, Neuman's chapter emphasized campus planning, an attention to the whole that ought to transcend the sum of the parts subsequently addressed. Critical to his exposition is a grasp of the interscalar character of campus work. He stated that achieving a "well-functioning and icon-laden campus" requires careful attention to planning, landscaping, architecture, perimeter, and use (2). He divided planning into four tiers: land use [i.e. the urban scale], campus, district/precinct [i.e. the sub-campus scale], individual site [i.e. the architectural scale]. Originally academic and administrative, the core programs of a university have increased over time to include residential, athletic/recreational, student services, medical centers, research parks, as well as infrastructure, which is a key factor that ties everything together and thus requires specialized expertise. Like Dober, he understood planning to be a profession in its own right.

Nonetheless, Neuman was cognizant of some of the pitfalls of professional distance from the both insights of other professions and real world use. For him, planning is not the production of a spatial instruction set so much as the process of making sense of a composite, evolving space. Eschewing grand masterplans and the fixity they imply, he advised the development of a campus plan: "It is the urban design for the campus—*urban* as defined by a community's welfare, and *design* as defined by creative and inspiring results. It is not a 'master' plan, because it must respond to change and be adaptive to new generations" (15). Zooming in on particular areas and building groupings of this plan and working out their interrelationships in more detail constitutes sub-campus neighborhood plans. At the most detailed planning scale, every building requires its own treatment in the form of a site plan that situates it vis-a-vis the whole campus. In all cases, Neuman reminded the reader that plans must be flexible and updated often.

Resorting back to etymology, Neuman explained that *academe* emerged from the ancient Greek word for the grove at Plato's academy to show just how fundamental to campus landscape is. So important is this domain that more "prospective students are seduced by the bucolic

beauty of the campus than by the specific attributes of the campus buildings or even by the quality of the academic programs themselves" (19). For those institutions not fortunate enough to be naturalistically well-endowed by virtue of their location, both planning and planting are required to set the academic scene. Neuman explained that successful campus landscaping considers scale, juxtaposition, sustainability, and permanence. In his discussion, such a purposive fashioning of landscape came to constitute a high form of spatial staging.

Architecture is the other integral component to this production of "a controlled physical setting for utopia" (23). Neuman explained that it occupies the unenviable position of having to straddle a fine line between stability and change, permanence and transformation, tradition and innovation. The campus being "a balance of physical planning, historical evolution, and technological progress," its architecture "*should be a matter of interpretation, not imitation*" [original emphasis] (26). Campus design guidelines, intended for the reference of both architectural designers and their university clients, should not be prescriptive but should define the goals and limits of building on campus. In a process of learning from the campus, the university should take stock of the character of its campus, recognizing what works and what does not, and draw up benchmarks for any changes on or to campus.

Whether working at the scale of the whole campus or one of its buildings, Neuman explained that planners and designers must integrate infrastructure, wayfinding, lighting, outdoor furnishings, historic preservation, information technology, and finances, thinking not simply about how to fund construction but also maintenance. The modern campus here appears as an organizational complex, a multilayered technical challenge. Nonetheless, every project "must contribute to *campus building*—that is, creating or renewing that memorable (utopian) place" [original emphasis] (43). No part ought to be designed without recourse to the whole. In summation, Neuman whittled campus building down to 3 P's: Planning, Programming, and Perseverance; while the first P is described by Neuman's chapter and the last P is a call for administrative commitment to the sustenance of institutional character and planning, the middle P is an assertion of the designed and systemic nature of the campus, challenging the notion of campus as city, because campus interfaces and interactions must be coordinated and anticipated in advance, while urban dynamics cannot escape contingency and circumstance. Highly choreographed as they ought to be, campuses should nonetheless appear to be effortlessly fortuitous. "The best campuses," he concluded, "are organic in the fullest sense of that term" (43).

In a similar vein as Neuman's book, Lewis Roscoe's *Planning the Campus* (2000) provided a synoptic account of the process of campus planning as he saw it.[9] Having spent almost three decades at Cornell University, first as University Architect then as Campus Planner, Roscoe self-published this straightforward distillation of lessons learnt from his experiences during those years. His authorial role was that of an apologist for campus planning, making a case for it and explaining how it might be executed. Appearing to dread the day when campuses become obsolete due to technological and economic developments, he tried to show why the campus itself is valuable to the situated higher educational enterprise. Since "education is the sum of experiences inside and outside the classroom" (2), an attractive campus keeps universities competitive against "non-campus forms of learning" (i). A beautiful, orderly campus is no fortuity, though; it has to be purposively planned. Riffing on Daniel Burnham's famous line, the book's subtitle bespoke the ambitious nature of the enterprise in question: "making no little plans for colleges and universities."

Roscoe described campus planning as, ideally, a participatory process: a continuous activity that involves intra- and extra-institutional actors, including the public. After succinctly describing the planning process from policy to implementation and delineating different organizational structures for planning and physical plant units within universities, particularly as he experienced them at Cornell, he concluded that campus planning should be situated as close as possible to the highest rung of decision makers in the institution if it is to be effectively empowered. While he admitted that no specific structure is best, as that depends on institutional context, he did provide three organizational recommendations: a) campus planning ought to be distinct from individual projects on campus, b) long term goals require freedom from short term concerns, and c) the planning unit's intra- and inter-relationships ought to be conscientiously considered. As a whole, Roscoe's book is an attempt to generalize from personal experience, often aphoristic rather than systematic. It is neither thorough nor erudite, but succinct and direct, talking in plain language to those involved in the practice of campus planning.

A more systematic attempt at explicating the process of campus planning would have to take into account the cross-cutting pedagogical objectives of higher education beyond the circumstances and idiosyncrasies of particular institutions, no matter how pedigreed or representative they purport to be. The mission of universities being first and foremost scholastic, learning itself becomes a driving factor in campus planning. A more recent attempt to

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[9] Roscoe, Lewis. *Planning the Campus: Planning Rationale, Process and Organizational Structures for Colleges and Universities; Some Experiences at Cornell University; Recommendations for All.* Amherst, MA: L & A Publications, 2000.

succinctly make such a case is a book edited by Ian Taylor, sponsored by the Higher Education Design Quality Forum, and published by the Royal Institute of British Architects.[10] Though the book's focus was maximizing the design quality of university buildings, its relatively short introductory section focused on the supra-architectural scale of this design work by examining the context and content of campus masterplanning. While the chapters in all other three sections were written by design practitioners, two of the three authors of the two introductory chapters were academics. In his account of the context in which masterplanning takes place, Tom Kvan divided campuses into two types: the discrete campus with "territories that can be regulated by the university," and the integrated campus "in an urban fabric controlled by other agencies."[11] The former is what campus planning often refers to. Before the professionalization of campus planning, two historical academic spatial types existed: the monastic quadrangle focused on teaching in Britain, and the nondescript research bunker in Germany. The second half of the 20th century saw a paradigm shift in campus building. The campus masterplan was a product of the postwar "managerial planning and industrial delivery" ethos that underpinned town planning (4). Kvan pointed to Dober's and Schmertz's books from the period as exemplars of this functionalist approach.

However, to design the Future Campus, as the book is called, planning must take the process of learning itself into account. Kvan contended that since learning is a collective, deliberative process, space needs to be designed specifically for its purposes. Implied in his description is that learning is relatively unstructured in contrast to teaching, and that campuses are spaces to nurture the sense of discovery implied by the former. The ultimate goal of campus design is to produce a space of an experience that lives up to its recognition as the contemporary right of passage from youth to adulthood.

Success in this endeavor requires distancing campus planning from a Doberian determinism; Kvan defined the process as "now a search for the experiential rather than the delivery of fixed inventory" (7). And as residential education comes under pressure from digital alternatives, he counseled the former to learn from latter, pointing to the concept of stickiness—which refers to the extent to which websites attract websurfers and keep them browsing—as a productive standard for the physical space of the university. This suggested that there is a dialectical relationship between an institution's physical and digital presence, a productive back-

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[10] Taylor, Ian, ed. *Future Campus: Design Quality in University Buildings*. London: RIBA Publishing, 2016.

[11] Kvan, Tom. "Context" in *Future Campus: Design Quality in University Buildings*. Edited by Ian Taylor. London: RIBA Publishing, 2016: 3–9. 3.

and-forth between a university's campus and web presence. Campus planning then must always be on its feet, agile enough to keep up with developments concrete and virtual, on and off campus. For Kvan, masterplanning is an endless process; a plan is not completed, but succeeded by new ones. In contrast to the traditional masterplan which has often been rigid and overly prescriptive and therefore at odds with the evolving character of the university, the purpose of the campus masterplan as Kvan saw it is to guide the campus' evolution rather than set in a linear fashion an agenda for setting it in stone.

Rupert Cook and Philip Ogden's subsequent chapter described what such a process would look like. Campus masterplanning is influenced by a host of considerations including increased competition, increased enrollment (and thus tuition), expanded research, changing pedagogies, professional school interests, public engagement (particularly through cultural offerings), sustainability pressures, financial performance, internationalization, and housing concerns.[12] What was clear here was that the university certainly does not exist in a vacuum; it is imbricated in "a network of interrelated interests, not simply a pyramid from national to local that informs the strategic picture for an individual university" (15). Given the critical and fickle nature of funding streams in academia, masterplanning and financial planning need to be integrated if effective results are to be attained.

Cook and Ogden delineated masterplanning's inputs as academic ambition, historical context, the existing estate, and performance in terms of infrastructure and sustainability; its outputs are a spatial strategy, architectural and site planning, and infrastructure and sustainability targets. However, they cautioned that while the devil is in the details, planners must always be cognizant of high-level goals: "a masterplan is informed by detail, yet must not get bogged down by it" (18). A well-thought out masterplan then is both precise and suggestive, playing many roles at once:

> A completed master planning exercise, which reflects the future ambition of the institution and meets the aims of the vision developed through consultation, is clearly an asset for the institution and should be disseminated widely. . . . Typically there are several audiences for the master plan, some requiring a non-technical guide to the masterplan, which excludes any commercially sensitive and confidential information, and then the full version is available for those who will work to implement the plan. (21)

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[12] Cook, Rupert, and Philip Ogden. "Masterplanning" in *Future Campus: Design Quality in University Buildings*. Edited by Ian Taylor. London: RIBA Publishing, 2016: 3–9.

Effective masterplanning, as described by Cook and Ogden, caters to varying needs and imaginations of stakeholders on and off campus, documenting where the institution is and describing, for all, where it can go.

Despite tying campus design to pedagogy, these short discussions did not clearly explicate how this is to be achieved. Carney Strange and James Banning's *Educating by Design* (2001) is unique in that it explicated spatial design's relationship to student learning, casting the former as a critical but overlooked means to advancing the latter. [13] In somewhat of a contrast to Dober, Neuman, and others who posited that campuses must be designed to serve a whole range of institutional purposes, Strange and Banning centered the focus of campus design on what is arguably academia's intrinsic purpose: education. Noting that between a third and two thirds of tertiary-level students drop out, they explained that this phenomenon ought to be understood in light of both personal and environmental characteristics. The book was a response to the fact that in scholarship on teaching and learning the "physical environment is perhaps the least understood and most neglected" (30–31). Their approach explicitly held that space is both an educational factor and an instrument, that it affects learning and can be made to do so. For the authors, campus design is not a luxury that an institution might decide to invest in: it "is not a matter of choice; a design already exists" (201). In other words, every campus is a design—it is either purposive or it is not. Consequently, universities have the obligation to identify "designs prohibitive of learning" and alter or eliminate them, while supporting and enhancing "facilitative designs."

Given that the authors were professors of higher education and environmental psychology, the book exhibited an eclectic, synthetic approach to the topic of education-furthering environmental design. Strange and Banning reviewed the wide-ranging research on human-environment interaction and applied many of its insights to the campus, discussing this literature's implications for higher education policies and practices. However, they admitted that their discussion was neither exhaustive nor definitive, but a "select sampling" aiming to be "a rich harvest of ideas for educational researchers and practitioners who will further evaluate their validity and their application" (xiv). Even though their approach, which saw spatial design as a means to sustain and enhance education, emblematized intrinsic instrumentalism, they hedged the certainty of this premise by indicating that one of their goals was to encourage others to test and validate the effects of space on learning.

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[13] Strange, C. Carney, and James Banning. *Educating by Design: Creating Campus Environments That Work*. San Francisco: Jossey-Bass, 2001.

The book was split into two parts, the first explaining four different ways of understanding a campus environment, and the second explaining how to produce educative environments. Strange and Banning posited that an environment is a composite of four features: physical, demographic, organizational, and imagined. It were as though they borrowed and expanded David Canter's purposive model of place – which encompassed physical form, human activity, imagined meaning – rendering activity as a demographic aggregate and adding an organizational component.[14] Strange and Banning understood the campus along these dimensions: physical form affects both student behavior and experience; an aggregate of people constitutes campus identity; the campus is an organizational complex; and the campus is a socially-constructed imaginary. To each of these understandings a chapter was dedicated, each of which opening with an effective rhetorical device: a realistic on-campus scenario narratively illustrating the chapters content.

It is clear that the authors' conceptualization of the campus was not limited to the literal physical space, but extended to social and bureaucratic imaginaries. That is to say, despite their assertion of the need to center physical space in examinations of academic effectiveness, they approached the campus more broadly as an index of the academic institution. This meant that their exploration of physical space's educational affordances was concentrated in one chapter. Here, they renounced environmental determinism as an understanding too simplistic to be factual; instead, they explained that environmental "possibilism" and "probabilism" were more likely to reflect reality. Put simply, the campus' relationship to learning is twofold: it encourages or discourages it, and has the capacity to advance its content. In fact, Strange and Banning stated that designing or redesigning campus space can be a valuable hands-on learning experience for students. Moreover, they explained that campuses communicate non-verbally, and that this communication speaks louder than the institution's verbal rhetoric, whether conveyed by signage, marketing, or speeches. Strange and Banning posited that campuses communicated in three overall ways: by serving as behavior settings, presenting physical artifacts, and bearing behavioral traces. They particularly highlighted the critical communicative capacity of proxemics, the spatialization of interpersonal relations. When discussing the importance of intentionally developing physical features to improve the overall campus image, they cited Dober's concepts of placemaking and placemarking, for "evaluating "campus environments for positive improvements would be incomplete without reference to" (29) his 1992 book, *Campus Design*.

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[14] See Canter, David. *The Psychology of Place*. London: Architectural Press, 1977.

As to how their four understandings might be deployed to further education, Strange and Banning explained that educational environments are most effective when they afford three conditions: a sense of security and inclusion, mechanisms encouraging involvement, and an experience of community. Efforts along the lines of all four understandings can contribute to achieving each of these conditions. For example, with respect to a physical understanding, they suggested applying principles of territoriality and defensible space to advance safety and inclusion, and designing at a human-scale to encourage student involvement in and out of the classroom. These conditions are hierarchically-related; conceptualizing them as a pyramid, the authors explained that a lower need needs to be sufficiently met in order to address a higher need. At the base is safety and belonging, that is, physical and psychological security. In the middle is encouraging students' authentic investment in their learning by being engaged and involved in institutional opportunities. At the top is "full membership" in their institutional community, such that "when they leave, they are missed" (110). Given that "elements of community defined here heavily depend on physical proximity for shaping their dynamics," (179) the authors included a chapter-long excursus that open-endedly considered how virtual learning may enact or impede these goals.

In this discussion, Strange and Banning showed how the four lenses through which to understand the campus can each advance every one the three hierarchical purposes of campus design. Towards the end of the book, they provided a good example of how to do this analysis in the form questions to be asked during a campus building's design process—concerning the physical: "Do the plans suggest a facility that is accessible to all"; the demographic: "What student groups might be located in the building, for purposes of increasing campuswide involvement an aggregate component"; the organizational: "What rules will govern the use of this facility"; the imagined: "What images of the facility are conveyed to students as they consider the facility space and layout" ? (205–6). Even though much of the reference to campus in this book was indexical, this set of questions bespoke how these considerations could influence physical space. In conclusion, Strange and Banning tried to synthesize all their book's discussions towards the goal of a "total campus ecology" (111).

> In summary, it appears that environments exert their influence on behavior through an array of natural and synthetic physical features, through the collective characteristics of inhabitants, the manner in which they are organized, and as mediated through their collective social constructions. Our analysis also suggests that the measure of any educational institution's environmental capacity to encourage and sustain learning is the degree to which it provides the conditions (in real and virtual form) for students'

inclusion, safety, involvement, and full membership in the community. In effect, these conditions constitute an "ecology of learning," a state of dynamic balance when student characteristics are synergetic with institutional features (physical, aggregate, organizational, and constructed) in support of the outcomes of learning. Campus environments set conditions that affect student learning and, in turn, students influence the shape of campus environments.

By noting the transactional relationship between students and campuses, the authors admitted the complexity of acting on this relationship. Nonetheless, they reaffirmed that it is a tall task that institutions must take up.[15]

In light of the contemporary challenge to create and maintain "campus environments that attract, satisfy, and sustain students," their book attempted to provide a "comprehensive model of the college environment that describes its features and assists campus participants in understanding how such factors can either encourage student learning, growth, and development" (219). Strange and Banning noted that had those in charge of campuses knew and heeded what they knew as authors, auditorium-style classrooms and dormitory towers would not have become as ubiquitous as they are nowadays. Instead of "exact prescription," their purpose was to offer "broad strategies" to be contextualized and customized to a campus' particular needs. To that end, they cited a particular design process as advantageous to achieving the goals that their book posited:

1. Designers, in conjunction with community members, select educational values.

2. Values are then translated into specific goals.

3. Environments are designed that contain mechanisms to reach the stated goals.

4. Environments are fitted to students.

5. Student perceptions of the environments are measured.

6. Student behavior resulting from environmental perceptions is monitored.

7. Data on the environmental design's successes and failures, as indicated by student perceptions and behavior, are fed back to the designers in order that they may continue to learn about student/environment fit and design better environments. (210)

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[15] In 2015, their book was republished under a revised title, *Designing for Learning: Creating Campus Environments for Student Success*, and applied the insights of newer concerns such as universal design, multiculturalism, social networks, and living-learning communities.

This model of an effective design process exemplified the intrinsic instrumentalist conceptualization of campus to which Strange and Banning subscribed. Their ideal was that the spatialization of the campus be tightly fit to institutional goals. Moreover, whether or not a design effort achieves an effective campus, they affirmed that such an undertaking is liable to empower students not to take the spaces they inhabit for granted, or as is, but to eventually create a better world. In its potential to fashion students into space-conscious agents of change, campus design's enhancement of its users' "environmental competence" was cast as part and parcel of academia's charge to foster critical thinking in its students.

Underpinning all these authored works is the understanding that the campus is a space that affords the operations of an institution of higher education, and should therefore be judged in light of these. Though authors like Kvan may resist attempts to cast the character of a campus as being determined by a set of spatial goals defined by the institution, this understanding has spanned works whose production is separated by over four decades. Even Kvan's valorization of experience as the goal of campus design over more common spatial metrics can still be understood as providing an alternative goal within an intrinsically instrumental epistemic orientation. A defined experience, as opposed to, say, defined programmatic relationships or technological provisions, becomes the prime spatial determinant of campus analysis and design. Either way, the latter is rendered as a measured movement towards a well-determined end. As is clearest in Dober's and Neuman's books, this discursive understanding of campus is tied up with their explication of campus planning as a professional practice; a key point in their discussions is the necessity of delineating clear spatial goals and benchmarks to guide campus work. As campus planning as a discourse came into being in the postwar period, intrinsic instrumentalism became the entrenched epistemic orientation for those involved in campus design, but when shortly thereafter this discourse went global, so to speak, the explicitly international context of this expanding discourse also suggested another form of instrumentalism that would only come to the fore many decades later.

Technocratic Globalism

As campus planning came into its own as a discourse, the ends that its practice was understood to seek were quickly seen to involve much more than parochial considerations. Intrinsic instrumentalism's stage became global. As the postwar moment ushered in a postcolonial period, mass higher education became a critical global need, so designing its spaces was understandable as a technocratic project that was both local and international in character. Through the documentation and dissemination of data from a multitude of

nations, a plethora of spatial and institutional goals alongside their spatial and technical means were made available to a global audience. Increasing the number of 'seats' at the tertiary level was arguably the most pressing goal across different national contexts, but also salient was the need to adapt the technical requirements of the modern research and collegiate enterprises to diverse environmental and social contexts.

The production of publications attending to campus planning's international character was largely correlated with the geopolitical and developmental conditions of the mid-20th Century. Published in 2015, Carlos Garciavelez Alfaro's *Form and Pedagogy*, which will be discussed in more detail later in this Appendix, is a prominent exception to this temporal correlation. Nevertheless, it analyzed campus development in lands south of the American border during that very historical concatenation. As the world became the geographic field subject to such a discursive gaze, the Americanism apparent at the discourse's genesis was blunted to a large degree. The United States became a major point of comparison, rather than the exclusive fount of generalizable information about the campus type.

Dober continued to expand the discourse during this moment, demonstrating the versatility of his epistemic orientation by turning his attention to developments outside the United States. After writing *the* book on the practice of campus planning based largely on his American experiences, his discursive oeuvre, for a short while, became explicitly comparative and international. Keen to learn from the postwar expansion of higher education in the United Kingdom, Educational Facilities Laboratories commissioned him to undertake a study of British campus planning in "anticipation that this ferment might yield ideas pertinent to the American scene" (Dober 1965, 5).[16] The report was published in 1965 as a short, illustrated book titled *The New Campus in Britain: Ideas of Consequence for the United States*. Dober analyzed the campuses of six new postwar universities, as well as two expanding long-established universities, in hopes of applying in his country what was learnt from campus building experiences in Britain. The lessons observed in this "design laboratory" included the flexible adaptation of American and European design trends,

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[16] Commencing operations during a time of pressing demand for accessible and effective educational services in the US, Educational Facilities Laboratories was a granting agency established by the Ford Foundation in 1958 to encourage, fund, and disseminate research on spaces of education and the techniques and technologies associated with them. As Judy Marks put it, EFL's purpose was "to help schools and colleges with their physical problems, stimulate research, and disseminate information useful to those who select sites, plan, design, construct, modernize, equip, and finance educational structures and the tools therein." It ceased to exist in 1986. See Marks, Judy. "A History of Educational Facilities Laboratories (EFL)." Report. National Clearinghouse for Educational Facilities. Washington, DC (2009).

programmatic cross-fertilization producing "continuous teaching environment[s]," and the reduction of anonymity in large institutions (7–9), particularly through layouts of student residential spaces that foster a sense of community. Notwithstanding their acknowledged shortcomings, the kingdom's young modernist academic spaces and (mega)structures were celebrated for their internationalism, functionalism, flexibility, and novelty. A review of Dober's report applauded his advice, since it would nurture in students a sense of belonging to their institutions, thereby helping the latter "tackle the problems of bigness and impersonality and head off student discontent of the type that erupted . . . at the University of California at Berkeley."[17] Spatial design as a means of pacification aside, his guidance's enjoining of mixed-use spaces on campus resonated with the questioning of zoning and its imposed separation of functions burgeoning in urban planning during that period.[18] In this instance, the planning lessons learnt from the campus appeared to be transferable not only across national borders but also bounds of spatial type and discipline.

Even when he was not writing himself, Dober was invested in supporting the production and dissemination of rigorous, data-driven knowledge for the discipline. He edited the Community Development book series, a collection "of over 40 titles including technical and reference books for the planning and design professions," published by the now defunct academic press Dowden, Hutchinson & Ross.[19] The series included the volume *Planning Buildings and Facilities for Higher Education* which was attributed to the United Nations Education, Scientific, and Cultural Organization (UNESCO) but, for the most part, written by the Architects Co-Partnership of Potter's Bar, UK. This 1975 book was based on the same premise as Dober's, but now globalized: expansion in the provision of higher education across the world requires the physical expansion of its spaces. However, this expectation butted against the "new realism" of higher educational planning in the developing world: higher education was much too costly to be a priority in strained economies, and when it was a priority, the vocational was sought over the academic.[20] The book therefore took the position that campus planning cannot be cleft from either

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[17] "British Ideas in College Campus Planning." *Teaching Aids News* 5, no. 11 (1965): 8.

[18] See Hall, Eliza. "Divide and Sprawl, Decline and Fall: A Comparative Critique of Euclidean Zoning." *University of Pittsburgh Law Review* 68, no. 4 (2007): 915–52. Also see Gray, M. Nolan. *Arbitrary Lines: How Zoning Broke the American City and How to Fix It*. Washington, DC: Island Press, 2022.

[19] Dober, Richard. Curriculum Vitae. Belmont, MA: Dober Lidsky Mathey, c. 2012. http://www.dlmplanners.com/pdfs/DLM_RPD_Resume.pdf

[20] UNESCO. *Planning Buildings and Facilities for Higher Education*. Stroudsburg, PA: Dowden, Hutchinson & Ross, 1975: 1.

educational or economic policy, that it is an intermediary between state policy and building construction. The book's purpose was to collect and synthesize the wisdom culled from existing literature and from the experiences of a few states and make it available to all states, especially developing countries, as well as institutions around the world.

Campus planning was understood here as a project management challenge whose critical factors are time and cost effectiveness. To help states and institutions overcome this challenge, the book sought to be a comprehensive guide to the practice of higher educational planning from the macro scale to the micro. It triangulated between three actors—the client (colleges or universities), the design consultant (architects and planners), and the coordinating authority (regulatory and funding bodies) (Fig. A.1)—and advocated network planning because it comprehensively takes into account any project's multiple parallel and intersecting strands. Though it professed that university planning "is not something which can be definitively summarized in the way that a manual gives the procedures for flying a jet aircraft" (7), the book attempted to provide a methodical set of instructions for the practice of planning, which it divided into six stages:

1. Policy, which encompasses socioeconomic strategy at the national and regional levels

2. Planning, which encompasses masterplanning at the institutional level

3. Primary brief, which encompasses delineating preliminary programs, floor areas, and building masses

4. Secondary brief, which encompasses incorporating specific user requirements

5. Primary implementation, which encompasses design development based on the primary brief

6. Secondary implementation, which encompasses full construction drawing sets and construction administration

Sequentially working through the whole process, the authors dedicated a chapter to each procedure, which was further broken down into smaller steps. The book also provided a series of ready-to-use flow charts, templates, checklists, and forms. Key amongst these were the "area analysis data sheets" which, if well utilized, should have ensured that project costs were controlled and kept to a minimum (16).
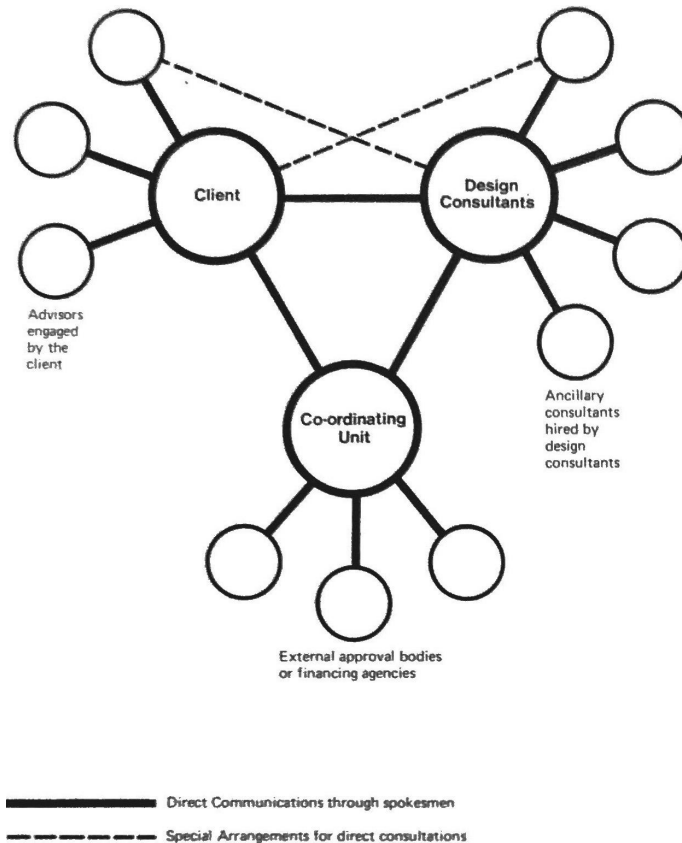
Figure A.1 The triangle of actors involved in campus planning as per UNESCO's guide. (Source: UNESCO 1975, p. 4)

Despite its emphasis on numerical data and calculability, the book did not claim to set international standards since that would have been futile in the face of sweeping institutional and cultural variability internationally. Rather, it sought "to provide Unesco Member States with a working tool that enables them to develop their own 'norms' and practices in response to their own needs and within the range of resources available to them" (22). Understanding higher education to be a dynamic enterprise, it eschewed determinism of both the technical and aesthetic sorts, eliding the binary of the functional versus the beautiful for the flexible. Building flexibility into the design is especially important during the primary brief phase, the work of which is to be limited to design technocrats who were thought to be better at balancing everyone's needs than academics, no matter how vocal. In contrast to the latter's perceived myopia of vested interests, the former were held to be professionals likely to think of a building's long life beyond a single set of users. Only later, during the secondary brief stage, should users be brought into the planning and design process, a position the book admitted was controversial (73). Here, the publication suggested a diversion from an intrinsically-instrumental orientation; by advising against

centering faculty input, it depicted the planning process as less about catering to the spatial wants of a class of stakeholders than producing a space good enough as benchmarked against extant best practices. Implied was an instrumentalism oriented towards a global market of spatial ideas and precedents, an analytical relativism by which one makes sense of campuses chiefly in relation to counterparts and proven trends.

UNESCO's guide was polyvalent—at once a textbook, a handbook, and a resource book to be copied, printed, and marked up. And because it did not seek to be a unitary source of information, it was accompanied by a supplementary volume that offered planners data from around the world with which they could compare their own projects. Titled *Planning Standards for Higher Education Facilities*, it was published four years after the guide. While the earlier book was about "planning procedures and the effective interaction of architects, administrators, academic personnel and others," the supplement focused on data dissemination by "reproducing a considerable quantity of technical information" from a handful of member states.[21] Notwithstanding its title, the volume's purpose was to provide planners with "yardsticks," not standards. It was not a precis of UNESCO's views on the subject, but a standardized compendium of various national practices; the data was culled from 12 countries across six continents. The global scope of the volume was a reflection of the international composition of its team of authors, who hailed from Iran, Peru, and the Netherlands.

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[21] UNESCO. *Planning Standards for Higher Education Facilities: Examples from National Practice*. Paris: UNESCO, 1979: 5.

Figure A.2 UNESCO's template for recording and publicizing spatial, institutional, and geographic data about campuses across the world. (Source: UNESCO 1979, p. 13)

One major challenge the book tackled was the experience of higher educational planning as a "lonesome adventure," particularly in developing countries establishing their first universities (9). Though the book presented technical information from various countries in standardized, comparable, machine-readable "data sheets" (Fig. A.2)—albeit difficult for humans to readily read—the authors accepted that differences in planning practice abounded within and between countries and sought to document that diversity in the form of rote, descriptive rather than prescriptive specifications. Dober's visually

illustrated exegesis of functional spatial composition reads as lyrical prose in juxtaposition to this supplement's singular accounting of spatial metrics. With but a single drawing, the latter was composed exclusively of charts, tables, graphs, and numbers collected using standard templates—functionalism on steroids. The volume was envisioned as an intermediary between abstract, high-level guidance and developments on the ground around the world. This higher educational planning almanac was to serve as a distilled, international technical library that closed the feedback loop between UNESCO's guide and local practices; as countries built more campuses and accrued more campus building experience, new data was to be added to the compendium, which was to feed into the formulation of more precise and effective generalizations about planning best practices to be published in future UNESCO guides.[22] Starting off as a synchronic, cross-sectional study, this endeavor was envisioned to become diachronic, longitudinal over time. This was an ambitious scheme, but no further guides were produced.

One study that UNESCO's guide may have culled from is *Campus Design in India*. Published in 1969 and sponsored by the United States Agency for International Development, the book sought to generalize from the "experience of a developing nation." Its authors, Achyut Kanvinde of India and H. James Miller of the American Midwest, were international collaborators who had studied at different universities in the US and crossed paths while practicing campus planning in India.[23] The volume, well-illustrated with monochrome photographs and diagrams, is a distillation of the lessons they learnt while working on campus projects there. Though their premise in writing this book was identical to the one that motivated both Dober's earlier book and UNESCO's later guide—"keenly aware of the urgency of the hour and fully comprehend[ing] the manifold problems of the nation of India in trying to wisely utilize scarce resources in university campus development"—they set out not to simply survey the state of campus planning in the subcontinent, but to write "an authoritative guide for administrators and professionals who are charged with the responsibility of campus design in India."[24] The authors did not present this focus on higher education simply as a modern fixation, but tied it to Indian history and culture, often citing Vedic traditions. The assertion of cultural continuity, however, did not

[22] UNESCO. *Planning Buildings and Facilities for Higher Education.* 1975: 23.

[23] Kanvinde has been described as "the father of campus planning in India." See Kanvinde, Tanuja and Sanjay Kanvinde, eds. *Achyut Kanvinde: Ākār.* New Delhi: Niyogi Books, 2017.

[24] Kanvinde, Achyut, and H. James Miller. *Campus Design in India: Experience of a Developing Nation.* Topeka, KS: Jostens/American Yearbook Co, 1969: 161.

negate that India's postcolonial moment was pregnant with revolutionary potential. National independence brought about the nation's self-responsibility for rapid socioeconomic development, including developing and expanding higher education across the country. Economic pressures notwithstanding, the understanding was that new universities would inevitably be built, and existing ones expanded, so the resources of developing countries would be better put to inspiring use. The authors' intent was to spell out a planning and design process that results in spaces of higher education that live up to national aspirations, especially because the construction of new campuses could become "a disastrous waste of resources, unless properly directed, due to the costly specialized and permanent nature of a college or university campus" (14).

Environmental determinism was the basis of Kanvinde and Miller's enjoinders. Higher education's physical environment is critical because it is the foundation of a series of links to progress at the macro scale: India needed a socioeconomic revolution; mass higher education was the means to that revolution; campuses are where the process of higher education takes place. The authors asserted the interdependence of the quality of the campus environment, the educational experience, and the graduate: "quality of academic content is most important, but it depends on the quality of the social-living-work-study environment of a college or university campus" (15). Yet despite their importance for citizen development, such spaces were not readily available. There was a huge gap between the number of university seats in the country and its college-age population; while that ratio in the US was 40% in 1965 and projected to be 18% in the UK by 1980, India was at a meager 2% (18). The many spaces built to address this gap must be well-designed because "*intensive mass education requires good architecture to provide an environment that will enhance the efficiency and well-being of those involved*" [original emphasis] (20). The fact that rapid massification of higher education was needed in one of the world's most populous countries superscaled the urgency of the spatial emergency.

The paucity of space was compounded by wanting expertise. Kanvinde and Miller were critical of the campus planning and design status quo in India, particularly the fact that this process was generally undertaken by university engineers and governmental public works departments, parties they deemed inadequate to the grand task at hand. These actors tended not to take seriously architectural qualities and environmental comfort, heedless to the supposition that the "campus environment can spell the difference between a fine university and a mediocre one" (20). They would also eschew precision and preemptively exaggerate their space requests in case reductions became necessary later in the process, an

imprudent practice given the reality that a "nation with scarce resources cannot afford such wastefulness" (20). Here, environmental determinism was coupled with economic exigency. Poor architecture, especially at the scale of a campus, is an economic drain in the long run. Professional campus planning and architectural design undertaken by specialized experts was the authors' remedy. The book thus triangulates between professionals (architects and planners) and two classes of decision makers, government officials and institutional administrators. To emphasize the dependence of spatial outcomes on enlightened institutional leadership, campus design was defined as being "dependent upon a correct *process* for a successful *product"* [original emphasis] (6).

The successful product here sought was an "island of excellence" that maintains "an ambivalent position, balancing itself carefully between commitment and detachment," between being a "regional service station" and an ivory tower (24). The authors compared the campus to a miniature city, seeing similarity in both models' provision of comprehensive services to their inhabitants, but seeing divergence in the former's eschewal of the commerce motive that undergirds life in the latter. The single-minded pursuit of learning critically differentiates campus living from the cacophony of city life. They even went so far as to assert that the campus "should ideally be a quiet, comfortable oasis apart from the normally busy, noisy, congested world. In this sense a campus should be more like a residential suburb or park than a city" (25). Here, the authors valorized a pastoral model reminiscent of the Jeffersonian ideal. However, they qualified this with the assertion that a campus must not be disconnected from its context, but actively engaged in solving its community's problems. To reiterate the sociality of this spatial actor, the authors referred to the "*campus* university" as a distinct, ideal type of institution, one with a space of its own wherein students encounter real life by learning to live alongside countless others (25). To ensure that the campus supports such social interaction and avoids mediocrity, Kanvinde and Miller explained that its design must account for the prospects of growth and change over time, avoid being too big so as not to be walkable, and be sensitive to human comfort and environmental psychology. By designing the campus holistically and integrating both its natural setting and landscaped elements, elusive beauty may be attained.

In order to be able to achieve this ideal, the planning and design process must engage and attain the support of stakeholders at multiple organizational levels. The authors devoted a considerable amount of the book to walking through this process and its organizational interfaces, starting with institutional structures, through site planning and building design, to construction administration, all with a specific focus on the Indian context and the actors,

regulators, and agencies one would encounter there. Dober's two aforementioned books were cited frequently here. Working off his insights, Kanvide and Miller emphasized that campus design is a process that requires diligent institutional effort as well as trust in expertise; administrators must choose a competent and conscientious architect who they must empower to shepherd the process towards a "creative synthesis" (60). To substantiate that attaining a fine campus is feasible, the book ended with a series of brief case studies, first of Indian campuses, then international ones: first four cases from ancient Indian history, then one case from the Delhi Sultanate, followed by fourteen Indian campuses established during the 20th century, culminating with six overseas examples, all of which were located in England and North America, except for Walter Gropius' design for the University of Baghdad. The common thread across almost all these highlighted cases was that they were products of collective efforts to enact living-learning environments envisioned as unified wholes. As successful products of campus design processes, they each embodied quality and contextuality. On the application of these lessons to the national juncture during which they were writing, Kanvinde and Miller averred that the successful Indian campus is one that is grounded in its history but attuned to the moment, reconciling Vedic personal discipleship with modern mass education (158).

This attempt to directly tie modern campus development to a set of ancient spaces, so as to show how professionalized campus planning was but an evolution within a longstanding lineage of distinct spatial production, marked a clear nod to history as a major discursive concern, especially in comparison to UNESCO's presentist project. Rather than seeing campus planning as a venture whose genesis was in the recent past and whose present required new knowledge and expertise like Dober did, Kanvinde and Miller saw it as a new stage of an established age-old practice. Insofar as there were lessons to be learnt from these historical cases that could be applied to present and future projects, one can read this discursive emphasis as an attempt to instrumentalize historical knowledge. But their account also suggested the importance of compiling a history of campus development for its own sake. Though theirs was much too short and selective to be considered a comprehensive history, it was an early demonstration of a historiographical approach, free of a clear instrumental end, to the study of the campus type. It took the passage of the 1970s for systematic, academic histories of the campus to be undertaken. Yet, with this shift to a non-instrumental focus, a discursive Amerocentrism would become re-entrenched.

Academic Historicism: The Humanistic Turn

In 1986, PBS aired an eight-part documentary series titled *Pride of Place: Building the American Dream*. Hosted by Robert Stern during the height of architectural postmodernism, it surveyed what he considered to be distinctly American architecture.[25] Despite Paul Goldberger's qualms with the limitations of conveying the architectural experience through photography and video, the architectural critic applauded the series' ambition, describing it as "an attempt to convey the American experience through architecture, to use our buildings as a way of drawing conclusions about our culture. It is conceived and produced out of love for both architecture and the American place."[26] So enduring is the presence of the campus in the American psyche that Stern dedicated one of the hour-long episodes to exploring the type's genesis as an American invention.[27] Bespeaking its preeminence as a quintessential American architectural type, the campus as an episodic subject preceded other types like the skyscraper, the mansion, and the suburb. The titles of the series and the episode indicated two things: that the campus is distinguished by a pride-inducing sense of place, and that this pride is part and parcel of a national pride. In tracing the incarnations of campus, the episode began with more recent scientific research campuses such as Salk Institute and Cold Spring Harbor Laboratory, then turned its focus back in time to the college campus. Principally featuring the University of Virginia, Stern declared that "the idea of lining a landscaped mall, or a lawn, with individual temple-houses is uniquely American." Beyond form and aesthetics, he asserted that the campus is a purposive space, an ideal village of learning set apart from the city.

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[25] Emblematic of Stern's repudiation of Modernism was his quip castigating the Modernist-designed campus of the University of Illinois at Chicago Circle: "Perhaps the bureaucrats who named the campus after a traffic circle got the architecture they deserved." Qtd in Knight III, Carleton. "PBS series follows path of American architecture." *Christian Science Monitor*. March 24, 1986. https://www.csmonitor.com/1986/0324/larchi.html

[26] Goldberger, Paul. "Architecture View; A Grand Tour of Spaces and Places Just Misses the Mark." *New York Times*. March 30, 1986. Also see Kimball, Roger. "Making a spectacle of architecture on PBS." *New Criterion* (May 1986). https://newcriterion.com/issues/1986/5/making-a-spectacle-of-architecture-on-pbs. Kimball was much less charitable in his assessment of Stern's foray into television. The series was eventually adapted into a book. See Stern, Robert. *Pride of Place: Building the American Dream*. Boston: Houghton Mifflin, 1986.

[27] Following the series' broad introductory episode, the second installment, which was devoted to the campus, was titled "Academical Villages: A Place Apart." Stern, Robert. "Academical Villages: A Place Apart." *Pride of Place*. Teleseries. Directed by Murray Grigor. Aired on PBS in the spring of 1986.

Figure A.3 The poster advertising PBS' 1986 televising of Robert Stern's "personal view" of American architecture. (Source: geissbühler:design[28])

This Stern-starring audiovisual piece of public scholarship was produced just as the campus started to become a subject of academic interest. The attunement to history in the study of the campus type marks a turning point in the burgeoning discourse. Paul Turner's 1984 book, *Campus: An American Planning American Tradition*, is the most cited book on the subject. Just about every author who has since written about campuses in the United States has referenced his canonical tome. Until the publication of Turner's volume, no book covering the subject of campuses was more comprehensive than Dober's debut monograph. More momentous than *Campus*'s scope was the new epistemic lens it brought to bear on the subject: a non-instrumental, humanistic approach.

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[28] Geissbühler, Steff. "Pride of Place." *geissbühler:design*. Accessed May 1, 2022. https://geissbuhler.com/pride-of-place

Works of this sort primarily take up the campus as a historical presence rather than a large-scale instrument; they are preoccupied more with the fact that it exists than with what it does, affords, or is supposed to do and afford. If an instrumentalist approach is concerned with making sense of how the campus might be a means to a set of ends, the non-instrumentalist approach is preoccupied with making sense of its emergence, differentiation, proliferation over time as a spatial document of the human condition. To borrow a concept posed by renowned architectural historian Sigfried Giedion, non-instrumentalism analyzes the campus type with the understanding that architecture is a "space-time" condition.[29] Authors of this orientation produce works historicizing this spatial condition, often offering a periodized typology of the campus.

This was Turner's avowed objective. While working on an exhibition of Stanford University's architecture in 1976, he discovered that no history of the American campus had been written.[30] Eight years later, he published his seminal text to fill this historiographical gap. Prefacing the book with a discussion of Jefferson's "academical village," Turner explained that American higher education's recognition of colleges as "cities in microcosm" resulted in a uniquely American institutional type: the campus. The US acquired the British collegiate model, a living-learning arrangement in which the college hosted the breadth of a community's activities, unlike the solely academic concerns to which continental European universities catered. However, the early American college differed from the British model in three ways: first, its autonomy versus the congregation of colleges into universities in the UK; second, the marriage of college and country versus the urban character of British universities; and third, the spaciousness of freestanding buildings in a landscape versus Britain's cloisters. Having distanced itself from the city, the American college had to reconstitute it. "The romantic notion of a college in nature, removed from the corrupting forces of the city, became an American idea," Turner explained, "But in the process, the college had to become even more fully a kind of miniature city. And its design became an experiment in urbanism" (4). The word *campus* evolved from its original Latin meaning of field at Princeton to denote the entire university property and finally became a nationwide index of an academic *genius loci*. Evolving from a reference to pristine green land into a

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[29] See Sigfried Giedion. *Space, Time and Architecture: The Growth of a New Tradition*. Cambridge, MA: Harvard University Press, 1941.

[30] Turner, Paul. *Campus: An American Planning Tradition*. New York: Architectural History Foundation, 1984: ix.

pairing of architecture and landscape, campus came to denote a synthesis that produced a veritable academic sense of *place*.

In his survey, Turner emphasized the interrelationship of ideal and design, focusing on historical examples as idealistic proposals rather than as compromised realizations. This approach foregrounded the projective nature of the architectural plan. Challenging the idea that campus planning was rare (and that the University of Virginia was an exception) and that campuses tended to grow haphazardly (and were thus worthy of scholarly neglect), he asserted that campuses have always been subject to design and projection, setting out "to examine the English collegiate tradition in America as a relatively isolated subject" (6). Despite English and, later, German influences on American higher education, the planning of universities was not a slave to European inclinations and trajectories as most architecture and design trends in the US were. The campus was subject to distinctly American social, cultural, and economic conditions. "In some ways," Turner stated, "architectural developments can be seen as expressions of the educational ones" (15). American campuses manifest the evolving American understanding of higher learning.

The history of campus planning and architecture that he traced followed a trajectory that paralleled the evolution of the American nation-state, from the colonial period to the post-Second World War period. The turning points in American history find their architectural and planning reflections in the institutions of higher education. Every age of the American socio-political experiment produced its corresponding campus. In both city and country, the early colonial colleges gave way to universities for a new, vast, expanding nation. The institution of the land grant model and the rise of the City Beautiful movement produced new campuses, just as revivalist impulses took inspiration from colonial and Gothic precedents. The end of campus historicism augured by Modernism was soon challenged by Postmodernism. This historical evolution reflected the American campus' "peculiar state of equilibrium between change and continuity" (304). The campus has been at once conservatively historicist and experimentally projective, growing out of a European tradition but producing a tradition of its own. Turner summed up its meandering development aptly:

> The history of the American campus reveals the varied and innovative forms this expression can take. These have included the open quadrangles of colonial Harvard or the College of William and Mary, forthrightly part of the towns they were in and of the society whose values they represented; the nineteenth-century college in nature,

often poised on a hill, surveying the "New Zion," as Union's President Nott called his vision of America; the informal, park-like campus plans of the early land-grant schools, reflecting populist values in reaction against the elitist formality of the classical college; the Beaux Arts organization of the new American university, with its complex and orderly system of parts; the revival of the English medieval enclosed quadrangle, expressing the resurgence of conservative collegiate values; and the recent campus plans generated by circulation patterns, reflecting the fluid and unpredictable nature of contemporary education. (304)

The inevitability of growth and change notwithstanding, Turner affirmed that the American campus maintains its sense of place, physically embodying academic spirit, institutional character, and communal ideals. The idea of the campus in Turner's work is entangled with American exceptionalism. His study was concerned only with the American campus, taking a chronological historiographical approach coupled with morphological analyses and aesthetic criticism. In contrast to the earlier books which were oriented towards practice, Turner's was a work of pure scholarship. A testament to this publication's significance as a discursive turning point is the fact that Dober, the scholar-practitioner who sparked the monographic discourse on an instrumental note, would dedicate his last monograph to a purely historical survey of one American campus building type, a publication that this Appendix will turn to later in due time.[31]

A quarter of a century after Turner and Stern first brought campus into architecture's academic and public conversations, respectively, Stern returned to the examination of the campus in a more dedicated fashion. In a beautiful monograph titled *On Campus: Architecture, Identity, and Community* (2010), he affirmed that the campus is remarkable because it emblematizes community, a place where abstract humanity is made real and present. Through its perceptual image, the campus as a whole indexes the interpersonal dimension of community. "While the campus plan provides the diagram of social and cultural intentions," Stern stated, "its buildings and landscapes gives them their visual identity."[32] What makes the campus unique for Stern is its character as a whole, a symbiosis of building and estate, of micro and macro, that is rarely encountered in our discipline.

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[31] Dober's final monograph, *Old Main*, is actually his penultimate book—his last one essentially being a photo-book.

[32] Stern, Robert. *On Campus: Architecture, Identity, and Community*. Edited by Peter Morris Dixon, Alexander Newman-Wise, and Jonathan Grzywacz. New York: Monacelli Press, 2010: 12.

Primarily a morphological study, Stern's account distinguished between four campus forms: the academic village, a secluded scholarly estate, established by Jefferson and endlessly emulated; the embedded campus, wholeheartedly part of the city; the campus as citadel, overlooking the city; and the garden campus, within, but distinct from, the city. The campus' relationship to the city is fundamental to Stern's discussion, for there is an interdependency between the two even when they attempt to distance themselves from one another. The academic village could not exist as a hermetic retreat in the woods if the hustle and bustle of the urban environment were not its constitutive outside, and nor would it attract as many students and scholars had cities not repelled them with their perceived vices.

Both of Stern's projects were professional research undertakings, but they nonetheless evinced his personal predilection for tradition in spatial design. They vivified how the campus, Jefferson's architectural heritage, is a distinctly American construct. Yet, he also understood that living in the past is unsustainable and that the campus must evolve, accepting change while maintaining its character. America is all about reinventing itself, he asserted—not dispensing with the past, but claiming it and making it new. For Stern, historically-rooted innovation is the American way, and the campus is the archetypical arena for such an ethic of renewal. Both Turner and Stern saw in the history of the American campus a broad and fertile domain for critical spatio-temporal analysis and appreciation, suggesting that one need not look beyond the United States to intimately understand the type.

Nonetheless, by the time that *On Campus* came out, an international perspective had arisen within the academic study of campus, even if its focus was still largely limited to the West. At the turn of the century Stefan Muthesius challenged the exclusive (Anglo-)Amerocentricity of the campus' historiographical discourse. He put into practice one type of study that Dalton, Hajrasouliha, and Riggs would come to call for, that is, he engaged in a comparative and more expansive, synthetic study. Moreover, Muthesius' *The Postwar University* countered the antiquarian impulse evident in earlier histories like Turner's and Stern's by focusing on relatively recent campuses, that is, ones established after the Second World War. Unlike the spatial traditions they highlighted, the one that he foregrounded in his book is a transnational midcentury modernism.

Published in 2000, its focus was specifically on campuses established between the late 1950s and early 70s, a period "when educational reform united with a new social and

architectural impetus"[33] amidst, as mentioned earlier, a massive expansion of higher educational opportunity. Muthesius differentiated between the *college* and *campus*; the former is concentrated and exclusive like the Ivies, while the latter is comprehensive and spread-out like land grant universities (15). This is a critical distinction insofar as he sought to show how spaces of higher education were subject to competing socio-institutional imperatives; the spatialization of the American university has essentially been a dialectic between the two. Muthesius' focus was broader than the US, though; his book examined campuses in the UK, US, Germany, Canada, and France.

The university, and the postwar university in particular, became a fulcrum for three abstract concepts: institution, education, and community. Muthesius employed the descriptor "utopianist" because the adjective ties together the many meanings that are embodied by the postwar campus: it is "a term which unites most of the values enunciated here – newness, experiment, the striving for the ideal, community feeling and firm, newly created, totalised institutionality" (6). The *-ist* alludes to the actualization of the idealist impulse, rather than the fantasy suggested in the suffix's absence. Moreover, "utopianism" challenges the conception of the university as a mere instrument of "reductive instrumental rationality," giving agency to design even though postwar architects themselves "mostly operated with a clear and simple theory which largely kept them free from any substantial fear of a conflict or clash between ideals/ideologies and instrumentality."[34] More specifically, the university is a consensual utopia "where some users more or less voluntarily conform to the new ideals of an institution, and often only for a limited time" (6). While prefaced with a discussion of the abstractions that universities and campuses engage, the meat of Muthesius' analyses descended "from the plane of 'pure' sociological and political debate to a narrower definition of the institution as the concretely, the [sic] individually planned and built institution" (7). His was an architecturally-informed study of a temporally-circumscribed, clearly-marked aspirational ideology—a study of attempts to spatialize higher educational utopianism.

The bulk of the book was a series of case studies, each examined through three analytical lenses: a historical lens tracing whether the campus fulfilled its stated purpose, a sociological lens explicating the concurrent social and professional contexts, subtexts, and power relations, and concluding with a rhetorical lens formally analyzing the discourse of the time. Eschewing a

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[33] Muthesius, Stefan. *The Postwar University: Utopianist Campus and College.* New Haven: Yale University Press, 2000: 1.
[34] Muthesius continued: "To put it bluntly, the busy generation of postwar architects had little time for theory." Ibid., 8.

thorough analysis of the conceptual, social, cultural, economic, and political dynamics, Muthesius' book was "about the built, or the intended permanent frame of the institution" (10). Modernism featured heavily in the book as one would expect:

> The book began with the proposition that only the USA had a really strong, live tradition of specific, yet varied types of university building. The strength, or impact of Modernism within, or as a development of, that tradition inside the USA was open to question. For the world outside the USA and England, we might state the opposite: there was no tradition to speak of as regards a specific university type of building – it simply looked like any other major public building – and it was Modernist architecture which helped to create a specific university type of building. Campus planning in the American and then in the Modernist, utopianist sense coincided largely with the advent of Modernist town planning. (247)

Campuses became influential early playgrounds for modernist architecture and planning, Muthesius noted, to the extent that campus design became coextensive with modernism. We have already seen in Dober's first book a discursive naturalization of a modernist understanding of this "new" peri- and para-urban problem.[35] We can see in Muthesius's account a demonstration that the epistemic paradigm that conditioned spatial production on campus during that period mirrored that which undergirded the burgeoning discursive production. The postwar boom in campus building was an ideal boost for modernism. At the same time that campuses became models of modernist space, they became its testing grounds. The eventual disillusionment with the viability of a campus-borne social utopianism went hand in hand with an indictment of the spatial utopia dedicated to those ends.

Despite his declared focus on North America and Western Europe, Muthesius' short penultimate chapter, "Campus Planning Worldwide" did expand his analysis beyond the Anglo-Saxon countries but only touched on some campuses in the Global South. In highlighting the utopianism of postwar universities in particular geographies, Muthesius admitted his partiality: "At the end of the story, the historian has to acknowledge that it was this conception which guided the selection of quotes" (281). He even challenged the neat dichotomy of utopianism/instrumentalism on which he based his broad study: "Utopia was nothing but disguised instrumentalism; the contrast between the mundane and the sphere of heightened aspirations which underpinned our whole story was a construct, too" (290–91). Suffice it to say

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[35] In *Campus Architecture*, Dober subsequently articulated an explicit periodization of modern architecture as higher education's spatial paradigm par excellence. More on this later in this Appendix.

that the postwar universities in which Muthesius was interested embodied a unique combination of "starkness and complexity" (291). His tracing of a historical, international alignment of utopian-instrumentalist campus projects seemed to suggest that taking up the campus as a means to an end, no matter how graspable or open-ended, might ultimately be a vain exercise.[36]

But a history of the campus type does not necessarily have to valorize its freedom from any instrumental value. Building on both the historiographical and internationalist inclinations present in the discourse, Jonathan Coulson, Paul Roberts, and Isabelle Taylor wrote a pair of books that attempt to connect the two. Their 2010 book, *University Planning and Architecture: The Search for Perfection*, is the latest historical survey to chart this utopian intellectual-architectural quest. In it, they made clear that campus architecture is significant because "the calibre of practitioners who have shaped the physical realm of academia is superlative."[37] By tracing the campus' global evolution, they contributed to an understanding of what makes a successful university environment, thereby generating models for emulation. This was architectural history made actionable, instrumentalized and primed to inform the planning and design of future campuses.

The authors considered the campus to be amongst the most valuable of any university's assets precisely because it embodies a corporeal identity for a scholarly community that would otherwise be dispersed. This contention was supported by the fact that the earliest European universities were estates that entrenched shifting communities of learning that had predated them. This study's gaze went further back in history than many campus studies to trace the American tradition of campus to what is considered to be the first Western university in medieval Bologna. The authors stated, at the outset, that theirs was an "evolving chronology" focused primarily on the West, with select non-Western examples complementing the Western case studies. Their second edition did, however, augment and expand the exploration of non-Western campuses, utilizing examples mostly from the modern era. In essence, this book broadened the history of the campus such that it spans nearly a millennium.

The authors explained that the development of the European campus stemmed from the need to anchor intellectual communities inspired by early Renaissance ideals, an evolution "from a loose association of scholars and masters into an institution" (7). University became

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[36] Fransesco Zuddas traces a similar trajectory in his book, which will be discussed later.

[37] Coulson, Jonathan, Paul Roberts, and Isabelle Taylor. *University Planning and Architecture: The Search for Perfection*. Abingdon, Oxon: Routledge, 2010: viii.

intertwined with city as the prototypical campus secured physical footing in it. The university became bound with the ownership of property and, to an extent, an endowment with the proceeds of which the institution could be maintained. These early developments were considered campuses only in the sense that they provided a permanent physical presence for an otherwise abstract community. They tended to be single buildings or sets of buildings rather than coherent ensembles of spaces and places, and certainly not wholes transcending their parts. The authors, hence, emphasized the importance of the campus plan, enjoining long-term strategic thinking and master-planning, the success of which their representative case studies sought to demonstrate.

As important as tracing a history of the university campus is, pressing exigencies impinge upon the contemporary campus. Many are the challenges facing modern universities, especially ones with conservative historical roots. Building upon the historical context established in their first book, Coulson, Roberts, and Taylor went on to explore current practice in *University Trends: Contemporary Campus Design* (2014). But here the epistemic inclination is much more instrumental than their earlier work, presenting less a campus design status quo than a sense of its constantly evolving practice, especially as universities expand and undertake ambitious, and sometimes risky, projects, transforming themselves in the process. Since "the idea of a university education is inviolably associated with the idea of place," they saw campus design as part and parcel of global trends in all spatial spheres, especially masterplanning and architecture.[38] For the authors, the evolving forces of design practice drive the search for the essence of the 21st-century university.

Although this book is similar in style, format, and organization to their earlier book, two important features distinguished it: the first was its global focus, incorporating examples from across the world—which is especially interesting given that many of the model Western universities surveyed in the earlier book have expanded their campuses internationally, often eastward; the second was the thorough discussion of the impact of technology on higher education generally, and campus design specifically—a harbinger of, at once, exciting transformations and anxiety-inducing uncertainty. The contemporary state of campus design being the subject of the book, the study shifted from its descriptive character to end on a somewhat prescriptive note. The authors affirmed that, for campuses to not merely survive but thrive, "flexibility will be an essential quality inherent within the next era of revitalizing master

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[38] Coulson, Jonathan, Paul Roberts, and Isabelle Taylor. *University Trends: Contemporary Campus Design*. Abingdon, Oxon: Routledge, 2015: 10.

plans . . . [and] will, of course, be equally important in the case of new campus planning and large-scale expansions" (63). Change is coming, they averred, and the university cannot escape its drive.

Unlike Muthesius' account, which was admittedly more circumscribed in time and scope than theirs, Coulson, Roberts, and Taylor largely emptied campus design from ideological content or theoretical imperative. Rather they saw in the history of campus design a succession of creative architectural attempts to deal with the recursively inadequate spatial provisions for a class of institutions accepted primarily as educational. Theirs was a history of the campus as an executed design project, an account that eschewed non-instrumentalism for a presentation of successive historical campus designs as different ways to overcome universities' myriad spatial problems. Tugging away from histories of the campus content with analyzing instances of ideational and spatial existence as forms of the human experience, their history was of the campus as compiled evidence of universities getting targeted and grand things done. But there were also other ways to tug on the early and influential non-instrumental understandings of the campus without turning to instrumentalism. Compared to the expressly erudite, academic character of those early works, subsequent non-instrumental ones were more phenomenologically and aesthetically oriented.

Aesthetic Systematism: An Aestheticology

An understanding of the university campus as both an embodiment and experience of beauty existed long before the spark of the discourse on its instrumentalist note. In 1919, Carl Abell published a book-length photo essay titled *The Campus*. This ode to the University of California Berkeley's campus was produced at a time when photography was expensive, laborious, and time-consuming.[39] Likely the first true monograph on the campus as a physical space, its choice of object was a statement in itself of the importance of said object. Abell's images ranged from depictions of thresholds such as gates and entryways, to freestanding buildings, to naturalesque landscapes, and to ensembles thereof. "There is a spirit that dwells in the campus that fills the place with friendliness, and helpfulness, and welcome, even as the morning mists, and the soft sunshine, fill the place with a delicate, cheerful light," he professed. "I have tried throughout the making of the book to put these things into the spirit of the pictures

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[39] See Davenport, Alma. *The History of Photography: An Overview*. Boston: Focal, 1991. And Silverman, Kaja. *The Miracle of Analogy: Or The History of Photography, Part 1*. Stanford, CA: Stanford University Press, 2015.

and apparently not without some measure of success."[40] Through photography, the image of the campus was, here, eloquently expressed. The volume was a witness to the powerful mental image that a campus can generate and the potency of the photographic image as its representation.

In a way, this book can be seen as a *preemptive* rebuke of the instrumentalist disavowal of an approach to the campus as a site of phenomenological experience, a disavowal clear in the work of modern functionalists that became entrenched much later. In other words, that a campus was eminently suitable as a subject of a coffee table book was neither an aspersion on the campus designer nor the author of such a book. No matter what modernists like Dober may have come to hold, aesthetics needed not be trivial nor secondary when it came to studies of the campus. While the subsequent academic turn in the discourse introduced and institutionalized a humanistic conceptualization of the campus as a space imbued with meaning and occupying a place of pride, this epistemic rethinking also augured a formal aesthetic and experiential appreciation of the campus, like Abell's, beyond the purview of scholarly interest.

Focusing on what looks good may preclude methodological rigor but not necessarily so. On the subject of campus aesthetics, Thomas Gaines applied a method to the subjective, attempting to objectively measure the beauty of American campuses. His 1991 book, *The Campus as a Work of Art*, characterized the campus as "an uncelebrated art form" suffering from a double neglect: neither designed seriously as an art, nor taken seriously as an art.[41] If painting is two-dimensional, sculpture three-dimensional, and architecture four-dimensional (function being fourth), then Gaines proffered campus as a five-dimensional art, the fifth dimension of which is planning. Lamenting the absence of artistic refinement and taste in both academia and American culture at large, and deriding the latter as "artistically brain dead," he wrote the book in order to enjoin the appreciation of campuses as artworks and to appraise the artistic quality of campuses in the US (x). Though he does not explicitly state how campuses ought to be designed so as to be striking, his authorial effort implied that cultivating a non-instrumental taste for campus spaces can become instrumental insofar as this aesthetic discernment influences and effectuates good campus design.

Gaines started off with a clear, if mechanical, definition of campus as artwork: "A good campus consists of a group of harmonious buildings related by various means (such as arches and landscaping) that create well-proportioned and diverse urban spaces containing appropriate

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[40] Abell, Carl. *The Campus: University of California*. Oakland, CA: Press of Bray & Mulgrew, 1919.

[41] Gaines, Thomas. *The Campus as a Work of Art*. New York: Praeger, 1991: ix.

furnishings—benches, pools, fountains, gazebos, and walkways" (1–2). In this sentence, he encapsulated much of what Dober later spent much of the decade articulating. Gaines blamed the democratic character of the American college for its aesthetic modesty; built in relative haste in disparate locations, aesthetics did not feature as a major concern for college founders. To remedy the American campus' aesthetic shortcomings, Gaines suggested thinking of more than just the buildings: "it is attractive urban space that the campus must have to succeed as a work of art. If this is accomplished with less than first rate structures, the campus may still work. . . . The reverse, however, will not work. Poorly designed spaces bounded by good buildings do not a campus make" (3). The key to producing a beautiful campus is to design the space around the architecture. To assist in the elevation of campus design, Gaines' book served "to establish objective criteria for good campus design—ideals to measure against" (2).

After discussing the building types that comprise campus architecture at length, Gaines turned to campuses as wholes. He delineated three campus types that seem to correlate with context and, less so, period, even though he did not explicitly state that these were his criteria: the "urban campus" is the earliest American campus type, located in a town or city; the "whole-cloth campus" is his term for most contemporary development, but it broadly applied to post-WWII campus development that accompanied the expansion of higher education and the emergence of new pressing technical needs; "regionalism" generally applied to those older, rural colleges, but not exclusively so. These types are distinct but not necessarily mutually exclusive; that is to say, a good campus would fit into all three categories—designed comprehensively as a total work of art, taking context into account and interfacing with its town or city, and acknowledging local and regional culture. The bulk of his book examined successful examples of these types as they existed in the US. But to "understand why some campuses do succeed, it is instructive to determine why others do not;" Gaines also supplied a short chapter on disappointments and missed opportunities in campus design.[42] He concluded the book with a discussion of the thirteen best campuses in the United States, focusing on those which have been able to maintain their beauty despite historical development and expansion. "Which, then, of the 2,000 four-year campuses in the United States comes closest to approaching the aesthetic ideal? Which has handled its building design, its urban organization, and its outdoor work in such a

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[42] Ibid., 115. Among these missed opportunities is the University of Michigan campus!

way that there is a sustained visual achievement," he asked. Stanford was his answer, topping his ranking of "the top fifty campuses."[43]

Less than a decade after the emergence of college rankings with US News' "America's Best Colleges" rating of the perceived educational quality of universities, Gaines produced a new type of ranking that rated the quality of the tangible spatial artifacts of higher education—campuses.[44] Fully inaugurating a market-instrumentalist conception, his work understood and presented the campus as a participant, willingly or not, in a competitive national landscape of campuses—a "campusdom." While the campus may not have been primarily understood to be an active competitor in this endless spatial contest, the reality he portrayed was that of spatial haves and have-nots.

Most of the universities in Gaines' ranking were over a century old when he compiled the list. This reinforced a distinct affinity in the American sphere, on the part of those like Stern, for the old-fashioned in higher educational environments, a historicist affinity with its connections to the verdant. To take a famous metonymy as an example, "Ivy League" deploys a type of foliage as an index evoking pedigree and projecting prestige for an exclusive class of longstanding institutions. Old age, or the appearance thereof (i.e. the worn-in look), appeared to be an accurate heuristic for academic quality in the United States. But, as demonstrated by Coulson, Roberts, and Taylor's books,[45] the pedigreed campus begotten in the latter part of the last millennium is scarcely content with aging gracefully, but is already leading the way in materializing an evolving spatial form that is at home in the 21st century; the well-aged of this campus' architecture and landscape has been welcoming the cutting-edge. In a continuous feedback loop, the beautiful, historic campuses of great universities are liable to become more beautiful in newer ways.

Lest one thinks that the connection between aesthetics and academics is contrived or spurious, it is worth highlighting some scholarship that took this connection seriously. It would not be a digression to take stock of some work that indicated that the consequences of failing to consider campus planning and design can be grave. For example, Peter Murphy saw a dissonance between "Beautiful Minds and Ugly Buildings," even going so far as to correlate the general decline of research universities with the deterioration of the aesthetic qualities of

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[43] Ibid., 121. He asserted that "'Sustained' is the operative word here: loss of direction is often the downfall of an otherwise good start." See the book's appendix for Gaines' list of best campuses.

[44] Morse, Robert. "The Birth of the College Rankings." *US News & World Report*. https://www.usnews.com/news/national/articles/2008/05/16/the-birth-of-college-rankings

[45] And as will be seen later with Perry Chapman.

campuses.[46] A more specific kind of environmental determinism, this aesthetic determinism is nowhere more critical than it is in academia. He drew a direct causal relation between campus beauty and institutional excellence, the former not being a mere reflection of the latter, but also its catalyst:

> "Beauty is a recurring characteristic of the campuses of the world's best universities. Beauty is a function in part of resources to spend. But equally having the resources to spend is a reflection of performance, and performance, being intellectual in nature, is a function of an aesthetic ecology. The specifics of aesthetic ecology will vary from country to country. The Japanese aesthetic is very different from the American. But in each case it is an important component in the causal circle of performance-resources-beauty that attracts the talent that completes the circle. Elegant economy in performance, efficient economies of resourcing, and the proportionate economy of beauty all amount to the same thing in the end. Each translates into the other, and each is mirrored in the aesthetic ecology that houses them."[47]

By focusing on spatial beautification as a causal mechanism, Murphy suggested that when it comes to aesthetically enhancing campus spaces one should think in instrumental terms. The critical implication here is that effective aesthetic design, to which many are indifferent, is fundamental to academic quality in all its dimensions. Amir Hajrasouliha even attempted to quantitatively substantiate this relationship. Rather than rendering the campus experience qualitatively, Hajrasouliha proposed a numerical index – a "Campus Score" – that reflects the combined physical and phenomenal qualities of university campuses. Synthesizing campus urbanism, "greenness," and student life, he quantified the university experience to produce comparable figures that stand for phenomenological qualities.[48] Compared with the highly-respected Academic Ranking of World Universities (otherwise known as the Shanghai Ranking), Hajrasouliha's assessment metric exhibited a stronger correlation with student retention and graduation rates. He essentially constructed a "theoretical framework for describing and analyzing campus form, and identifying campus form qualities that have significant associations with university objectives," thereby offering a measure by which to judge how well-designed a

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[46] Murphy, Peter. "Beautiful Minds and Ugly Buildings: Object Creation, Digital Production, and the Research University—Reflections on the Aesthetic Ecology of the Mind" in *The Creative University*. Edited by Michael Peters and Tina Besley. Rotterdam: Sense Publishers, 2013: 33–47.

[47] Ibid., 43–4.

[48] Hajrasouliha, Amir. "Campus Score: Measuring University Campus Qualities," *Landscape and Urban Planning* 158 (2017): 167.

university campus is.[49] As an evidence-based initiative seeking to effect a qualitative-to-quantitative translation of campus properties that are of much practical, yet rarely academic, concern, Hajrasouliha's study indicated that "compared with its overall reputation, an institution's physical campus qualities may have a stronger impact on student satisfaction and academic performance."[50] Here was evidence that beautiful, coherent, livable campuses are better able to retain the human capital that is the lifeblood of academia. Or, more bluntly, that spatially-minded rankings like Hajrasouliha's and Gaines' are more reliable in gauging academic effectiveness than institutionally-minded ones like US News' and the Shanghai Ranking.

We can read the latter part of Dober's long career as a serious attempt to systematically integrate these dimensions, taking the broad question of campus aesthetics just as seriously as functionality and turning his analytical attention to their synthesis. With the non-instrumental appreciation of the campus having taken hold of the discourse, he began to reconcile his conception of the campus in intrinsically instrumental terms with the non-instrumental, finding concrete ways to instrumentalize aesthetics. During the last decade of the 20th century, he published three books that engaged with the campus as a functional aesthetic space.

The first, published in 1993, reiterated that campus planning as an art sublimates into design. As higher education had by then become ubiquitous in the US and around the world, *Campus Design* was a plea for universities to provide physical environments that combine "the visionary and the pragmatic," ones that "will resonate with reality, without compromising ingenuity or idealism," eschewing neither "art or function."[51] Because higher education is both complex and diverse, Dober brought together insights culled from traditional town planning, urban design, participatory planning, and landscape architecture. He divided the objects of campus design into buildings, landscapes, and circulation systems, and termed the process of designing with them placemaking and placemarking. He cited as a foundational influence Kevin Lynch's seminal work on environmental cognition,[52] applying his insights on urban imageability to university campuses. No longer ascribing prime value in campus planning solely to functional precision, Dober came to terms with the bounded omniscience of the designer, highlighting as positive the field's naturalization of open-

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[49] Ibid. An interesting peculiarity is that the only eligible research university excluded from the study was the University of Michigan Ann Arbor, due to the stark formal heterogeneity of its campuses.

[50] Ibid., 176.

[51] Dober, Richard. *Campus Design*. New York: Wiley, 1992: 4.

[52] Lynch, Kevin. *The Image of the City*. Cambridge, MA: MIT Press, 1960.

endedness: "The master plan (fixed and static) gave way to the campus plan (flexible and dynamic). Process and plan became interdependent" (5). The adaptable had come to replace the rigid, the iterative taking the place of the linear.

Effusively citing Turner's tome, Dober asserted that campus planning is "not an arcane art" but is alive and well (5). He still considered planning a campus to be a rigorous form of design, but in his monographic oeuvre, with this book, aesthetics became one of its critical considerations. Campus design sculpts both the spatial and the material to produce place on site. It goes beyond the *parti* and the diagrammatic masterplan to tangible, material design decisions on the ground. He conceived of campus design as a dialectic of "placemarking" and "placemaking"—of architecture, landscaping, and sitework on one hand, and planning on the other. The two were not conceived as independent activities, but as analogous to a "mobius strip" (229). Placemaking is the process of schematic design that takes context and program into account to produce an overall campus plan. Placemarking is finer grained, comprising the combination of physical elements – landmarks, styles, materials, and landscapes – to give a campus a coherent image. This critically involves utilizing design artifacts as cultural currencies and mediums of interpersonal and transhistorical exchange. Placemaking addresses overarching physical form and organization, while placemarking engages the meanings and experiences afforded by design decisions (Fig. A.4).
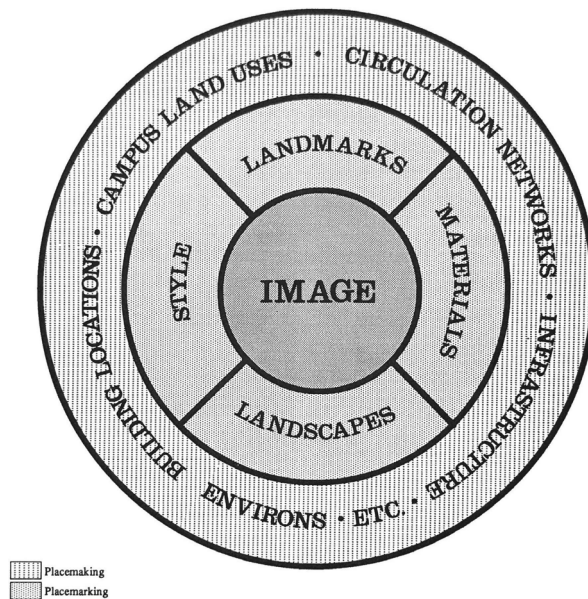

Figure A.4 Dober's diagram suggesting that the synthesis of largely-functional placemaking decisions and largely-phenomenal placemarking ones produces the image of the campus. (Source: Dober 1992, p. 12)

Discerning a gap in the campus literature on the subject placemarking, *Campus Design* was explicitly concerned with it. Since campus planning, or here placemaking, has been much studied and widely accepted – his first book, *Campus Planning*, exemplifies this – Dober affirmed the need for a dedicated and detailed treatment of "placemarking aspects of campus design without subordinating the importance of the broader plan as a matrix that co-ordinates the individual design actions into a unified scheme" (6). Paying attention to placemarking is important because it produces contextual authenticity, which balances continuity and change, helps attract students and patrons to the institution, and remedies what Dober considered to be the regrettable physical state of universities. In advocating campus beauty and vitality, he spoke of an "ecological ethics" by which architecture and landscape are integrated into an evocative place. Terming his book a "professional reference work," he started with a survey of exemplars, which he had visited, as models from which to learn. The bulk of the book was dedicated to examining each of his four elements of placemarking, accompanied by historical and contemporary examples. He concluded with a chapter on placemaking, explaining how to make the most of these elements: "Placemaking binds the individual campus design actions into a coherent entity or, at least, makes known the context into which individual actions can be best fitted for optimum effect" (8). The campus must amount to something more than the sum of its aforementioned parts. In effect, the campus is an embodiment of an integrated plurality – a community – and its design "in this respect is the collective stewardship of a communal art form" (8). In short, a campus designer's prime objective is to give it a coherent and impressive image.

Campus Design was published after the passing of the golden age, at a time when university development was a more sobering prospect. Despite its applicability to campus design generally, the book was geared towards the revitalization and renewal of extant campuses, not their expansion nor the establishment of new ones. Dober provided adaptable methods applicable to diverse contexts and situations, albeit, centered on the West. This is attested by the lineage in which he situated the campus: done well, campus design ascends to the status of "civic art," becoming a worthy successor to the great European public spatial types: agora, forum, cathedral, town square, palace, and "centers of commerce, transportation, and government" (280). His underscoring of the campus type's public and aesthetic significance followed in Gaines' footsteps. With aesthetics having taken center stage alongside other considerations like functionality, efficiency, and economy, *Campus Design* was an effort to apply a more rigorous method to the subjective, a synthesis Dober spent much of the rest of his life articulating.

On the heels of this dialectical approach, came a book focused on major elements not explicitly encompassed in either of Dober's dual categories, but is unmistakably present in his grand analogy: architecture. Campus buildings mediate between the overarching campus plan and the details of open space design and landscaping. Dober's *Campus Architecture: Building in the Groves of Academe* (1996) served to instrumentalize historical knowledge towards the development of new campus architecture. Building off the assertion that campuses have succeeded the great public spaces of the past—"three-dimensional record[s] of aesthetic achievement . . . indicative of their period and its aspirations"—he posited the campus as a planned and designed space, a marked and made place, melding the old and new—"nouveaux et anciens ensemble."[53] American architecture had assumed the mantle of great public space, Dober asserted, and the campus became America's earliest contribution to the discipline of architecture.

Campus planning and development is an environmental art in its most expansive sense, an aesthetic, social, and cultural phenomenon worthy of study and practice. The design of a campus landscape is just as significant as the design of its buildings. When it comes to campuses, Dober pronounced landscape architecture "the consummate companion of admirable buildings" (ix). Architecture and landscape, together, make a campus. Dober defined campus as "an ensemble of buildings, landscapes, and infrastructure used for higher education, as it exists and as it is planned . . . a cachet implying an ordered design, special and coherent" (166). The plural is integral to the idea of the campus; a group of buildings standing alone together on a single plot of land do not constitute a campus. An integrated plurality, a cogent set of interrelationships, is necessary to produce a whole that transcends its parts. For Dober, therein lies the importance of Architecture; it brings all the parts into a harmonious spatial symphony ready for use. He also provided another, prescriptive definition of campus architecture: "buildings and landscapes synergistically engaged and integrated as projects which are situated in paradigms planned and designed for higher education" (175). As supra-architectural compositions, these paradigms run the gamut between the "Apollonian" and the "Dionysian," that is the formal and the organic (197). In this definition, the campus is an intentional construct and its guiding hand is the architect's, through whose abilities a dignified place is fashioned out of given space, land, and material.

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[53] Dober, Richard. *Campus Architecture: Building in the Groves of Academe*. New York: McGraw-Hill, 1996: x.

A major focus of Dober's in this book is the adoption of Modernist architecture as a spatial vehicle for higher education. He asserted that the visionary drive of Modernism aligned with higher education's civilizing mission. Modernism's ascent as the wellspring of collegiate architecture during the 20th century reflected its agility in affording a "machine for learning" just as it claimed to provide a machine for living (8). Modernist architecture's economy did not sacrifice aesthetics; it was both relatively cheap and arguably beautiful. On a cultural register, Modernist rational functionalism mirrored rugged American pragmatism. Modernism's liberating aesthetic fit perfectly with the American ethic of liberty. Dober traced the development of Modernist campus architecture along three stages: early Modern campus architecture was typified by austere, sanitized boxes, which gave way to mid-Modern mannerism with its textured and sculptural effects applied to the box, while late Modern architecture was more elaborate, often segmenting and deconstructing the building form and differentiating its masses, an approach that had then become the foundation of much contemporary campus architecture. As Modernism took root in American campuses, it became the quotidian architecture of higher education. We can discern here an attempt by Dober to make a contextualist case for this style in the aftermath of its widespread repudiation as an ill-considered, acontextual aesthetic-spatial development; though Modernism failed to take hold and endure as a universal architectural paradigm, its ubiquitous presence on campuses meant that it constituted an academical architectural tradition worthy of sustenance.

Modernism, however, did not erase the extant architecture of American campuses. It simply populated them with a new generation of buildings, standing in contrast, and sometimes in tension, with the old guard. Dober explained that the competition between traditional and modern architecture reflected broader, conflicting cultural attitudes: conservative sentimentality and progressive honesty. Campus architecture continues to be an actor in this dialectic with history. Dober contended that the only universal attribute of American campuses is their diversity. That he prescribed a transparent campus planning and design process applicable to any and all campuses did not mean that they were to be homogenous. Nor should this approach be limited to higher education; though he defined the campus primarily as an educational type, he presciently admitted that the concept "may have useful application for any large group of buildings and landscapes constructed over time and intended to be mutable environments responding to social and cultural needs" (166–7). He saw in this functional flexibility, contextual adaptability, and aesthetic coherence that which makes the campus as potent a spatial model as it was.

Dober's subsequent book, published in 2000, focused on that consummate companion of architecture: landscape. In line with Dober's Modernist functionalist predilections, *Campus Landscape: Function, Forms, Features* applied a systematized treatment to the subject, unpacking campus landscape into what he considered to be its constituent parts. Like most of his previous books, this one constituted a response to the lack of books on the topic of campus landscapes. It was a comprehensive, illustrated survey and guide for the design of "the green environment that situates, serves, and symbolizes higher education."[54] He acknowledged, however, that not all landscapes are green nor outdoors. Illustrating his expansive definition of the subject, Dober considered hardscapes and interior gardens to be important elements of campus landscapes. The book's purpose was to enjoin an "amplitude and appreciation" of campus landscape, because "a campus with minimal landscape is incomplete, inchoate, and incapacitated" (xviii). In his campus landscape design taxonomy, Dober delineated thirteen determinants informing thirty components. The former are contextual factors that are to be considered in the design of the spatial, graphic, and landscape types encompassed by the latter (Fig. A.5). Being the functionalist designer that he was, Dober affirmed that the taxonomy is "pragmatic, not theoretical" (xxi). The monograph examined each one of these elements. Having dedicated a previous book to it, placemarking was very briefly discussed at the end of the taxonomy, introducing a discussion of wayfinding, lighting, and site furniture.

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[54] Dober, Richard. *Campus Landscape: Functions, Forms, Features*. New York: Wiley, 2000: xv.

CAMPUS LANDSCAPE DESIGN DETERMINANTS | CAMPUS LANDSCAPE DESIGN TAXONOMY

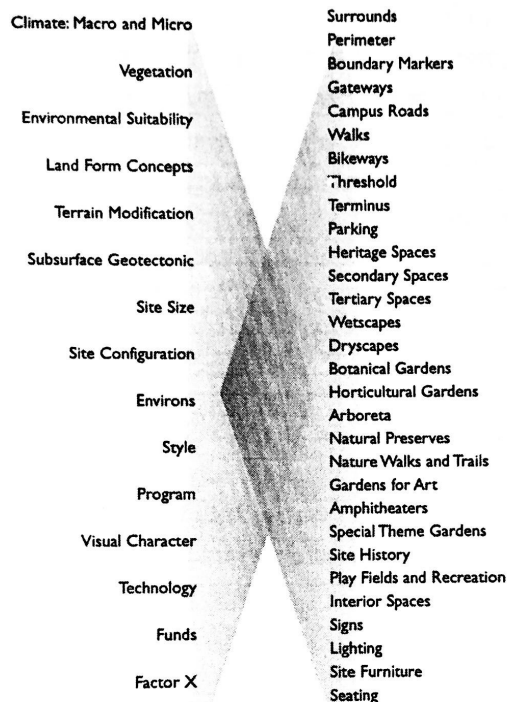| CAMPUS LANDSCAPE DESIGN DETERMINANTS	CAMPUS LANDSCAPE DESIGN TAXONOMY
Climate: Macro and Micro	Surrounds
	Perimeter
Vegetation	Boundary Markers
	Gateways
Environmental Suitability	Campus Roads
	Walks
Land Form Concepts	Bikeways
	Threshold
Terrain Modification	Terminus
	Parking
Subsurface Geotectonic	Heritage Spaces
	Secondary Spaces
Site Size	Tertiary Spaces
	Wetscapes
Site Configuration	Dryscapes
	Botanical Gardens
Environs	Horticultural Gardens
	Arboreta
Style	Natural Preserves
	Nature Walks and Trails
Program	Gardens for Art
	Amphitheaters
Visual Character	Special Theme Gardens
	Site History
Technology	Play Fields and Recreation
	Interior Spaces
Funds	Signs
	Lighting
Factor X	Site Furniture
	Seating

Figure A.5 Dober's conceptualization of campus landscape design as connecting multifarious considerations to spatial outcomes—that is, connecting sets of factors understood as independent and dependent. (Source: Dober 2000, p. xxi)

So central is the landscaped character of the university estate that the word *campus* had by the turn of the century come to be widely applied to non-academic settings characterized by the marriage of architecture and landscape.[55] Having established in his previous book, like Turner and Stern before him, that the campus is academia's architectural contribution to the world beyond the ivory tower – a complement to the knowledge and praxis that the academy supplies the economy – Dober was cautious in his celebration of the real-world state of this spatial synthesis. Despite the increasing popularity and diffusion of

[55] For more on campuses beyond academia, see Mozingo, Louise. *Pastoral Capitalism: A History of Suburban Corporate Landscapes*. Cambridge, MA: MIT Press, 2011. Mozingo, Louise. "Campus, Estate, and Park: Lawn Culture Comes to the Corporation" in *Everyday America: Cultural Landscape Studies after J. B. Jackson*. Edited by Chris Wilson and Paul Groth. Berkeley, CA: University of California Press, 2003: 255–274. Kerr, Ron, Sarah Robinson, and Carole Elliott. "Modernism, Postmodernism, and Corporate Power: Historicizing the Architectural Typology of the Corporate Campus." *Management & Organizational History* 11, no. 2 (2016): 123–146. Collins, Huntly. "Corporate Campus: Learning Your Way to a Better Job." *Change: The Magazine of Higher Learning* 11, no. 5 (1979): 67–68. Haresign, David. "Is a Corporate Campus Right for Your Business?" *Site Selection* 44, no. 1 (1999): 1118–20. Leonard, Sharon "Is a Corporate Campus in Your Future?" *HRMagazine* 44, no. 10 (1999): 215. Rice, A. Franklin. "Creating a Corporate Campus: A Site Feasibility Study." Master's thesis, Massachusetts Institute of Technology, 1988. https://dspace.mit.edu/handle/1721.1/14618

the model, he described campus landscape "as an endangered art form deserving care, conservation, and curatorial interpretation and assistance" (xxv). Even if campus landscape architecture is a worthy artistic enterprise that has not been given its academic due, this neglect provides an opportunity for intervention. Landscape is "nature's equivalent of a great painting," and "what nature cannot provide, occasionally designers can invent" (xxv–23). Let not campus planners despair of the prospect of a phenomenal campus experience when handed an estate characterized by insipidity, he heartened, but let creative license be their prerogative just as methodical ordering is; landscape now rendered intrinsic to campus instrumentality, viridescent comeliness is less a welcome epiphenomenon of good planning than one of its concrete goals.

With Dober's attention squarely on landscape, deep in the book was his most succinct definition of campus: "Campus spaces are essentially determined landscape designs" (155). For him, as for Stern, the campus is a purposive landscaped endeavor. It is imperative that every campus planning and design project give landscape its due consideration—and, critically, funding. Dober's book was intended to ensure that these efforts and funds are put to good use; it was another of his self-described practitioner's handbooks, a "call for action and a demonstration" of the subject's importance and relevance (xxvi). As Dober conceptualized it, campus landscape architecture demands the diligence of the fabricator coupled with the finesse of the painter.

A common thread through these monographs from the last decade of the 20th Century is their understanding of the campus as a space of phenomenological experience. While works like Gaines' centered the subjective notion of beauty as the interpretive frame through which to appraise campuses, as though they were literal artworks made chiefly to be admired or ignored, Dober persisted in formulating an epistemic synthesis that demonstrated an instrumental engagement with some of the campus' putatively non-instrumental dimensions. Though campus design was much more explicitly presented as an aesthetic art in his fin-de-siecle books, it was nevertheless presented as a technical art to be methodically approached, reasoned, and practiced. Instrumentalism's return to the fore of the discourse can be discerned beyond Dober's synthetic attempts, though. In a period marked by the prevalence of "academic capitalism,"[56] one of the chief roles of the university

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[56] Slaughter, Shiela, and Larry Leslie. *Academic Capitalism: Politics, Policies and the Entrepreneurial University*. Baltimore: Johns Hopkins University Press, 1997. Slaughter, Sheila, and Larry Leslie. "Expanding and Elaborating the Concept of Academic Capitalism." *Organization* 8, no. 2 (2001): 154–

came to be understood as competing in a higher education market – understood locally or globally – and the campus became a prime means of doing so.

Institutional Symbolism

With universities increasingly seeing themselves as active participants in an economic market during the closing decades of the last century, the notion of direct competition between these actors became more discursively salient. Gaines' elegance-based ranking of campuses was one indication of this conceptualization of higher education as a space of competition. The political, cultural, and economic environments during this period pressured higher education institutions to be simultaneously mission-driven and market-driven—to "sell" their services, and "sell" themselves, by "broadcast[ing] who they are, what they do, and what makes them valuable," in hopes of capturing a sustainable market share.[57] As the late anthropologist David Graeber put it, academic neoliberalization means that "marketing overwhelms university life."[58] No longer is it acceptable for institutions to be self-contented nor satisfied that they be operationally effective in insulation from the ecosystem that comprises them.

Competition in such an ecosystem does not only involve pecuniary interests but also cultural stakes; the market of economic imperatives is also one of competing institutional purposes and meanings. In a commercial sense, universities came to have brands to manage. Communicating these non-tangible attributes to other market actors, especially those who can potentially spend money at or on the institution, became critical to competitiveness. As a conspicuous, material presence, the campus came to be seen as both an opportune and enduring means of this type of communication. The significance of the campus visit in the eyes of both institutions and their prospective members bespeaks the campus' critical marketing role. "Every university president," geographer Blake Gumprecht declared, "knows that a handsome campus, lively cultural programs, and top-ranked athletic teams can be as important as a first-rate faculty for drawing students, pleasing alumni, and attracting donations."[59] When it comes to college choice, the quality of the campus exerts a "profound effect on the draw to the

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161. Slaughter, Sheila, and Gary Rhoades. *Academic Capitalism and the New Economy: Markets, State, and Higher Education*. Baltimore: Johns Hopkins University Press, 2004.

[57] Anctil, Eric. "Selling Higher Education: Marketing and Advertising America's Colleges and Universities." *ASHE Higher Education Report* 35, no. 2 (2008): 5.

[58] Graeber, David. "Of Flying Cars and the Declining Rate of Profit." *The Baffler* 19 (2012): 78.

[59] Gumprecht, Blake. "The campus as a public space in the American college town." *Journal of Historical Geography* 33, no. 1 (2007): 98–99.

university."[60] Several works in the campus discourse exhibited an awareness of the type's hefty responsibility as the prime marker of university identity—a space at once real and symbolic, to and through which users may be attracted and with which they most often engage. Within this conceptual framework, an effective campus embodies a university's values and communicates them such that it may ultimately thrive. Insofar as this is an instrumental understanding of the campus, it is an instrumentalism oriented towards the university's market. Conceptualizing the campus' role this way instrumentalizes its spatialization in relationship to the context in which it competes. If the campus is a means to anything, it is less a means of attaining uniquely-set programmatic, spatial, and operational goals than of successfully competing with its peers on terms often set at the ecosystemic level.

In their account of the genesis and history of the university campus, Coulson, Roberts, and Taylor identified an ongoing dialectic of university and society. "In short," they concluded, "history teaches us that in each generation, societal mores and priorities have determined the 'idea' of a university – its founding philosophies, its practical remit, its sponsors – and that this has determined the physical form that it assumes."[61] That is to say, academic form and ideology co-produce one another. The university's legacy is that of place, one that is constantly seen, inhabited, used, altered, and contested, within and without academia. A university can leverage the fact that its campus is often the most expressive and visible constituent of the civic space it finds itself in: "The potency of the campus's ability to communicate institutional attributes, values, and objectives is such that it has become intertwined with thinking about 'brand.' . . . Physical identity is a powerful tool in doing so."[62] Conceptualized this way, the campus conveys and grapples with meaning at the levels of the institution and the larger milieus in which it is embedded, and campus design operates as a prime form of meaning-making through which an institution individuates (i.e. becomes recognizable), forming an identity for itself and sustaining a legacy in physical form. Within this conceptual stream of the discourse, the campus comes closest to operating as a concrete abstraction. Through its campus, the university can most tangibly concretize, even instrumentalize, its fundamental being as a mission-driven institution.

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[60] Stephenson, Amber, Alex Heckert, and David Yerger. "College choice and the university brand: exploring the consumer decision framework." *Higher Education* 71 (2016): 498. See also Price, If, Fides Matzdorf, Louise Smith, and Helen Agahi. "The impact of facilities on student choice of university." *Facilities* 21 no. 10 (2003): 212–222. And Dao, Mai Thi Ngoc, and Anthony Thorpe. "What factors influence Vietnamese students' choice of university?" *International Journal of Educational Management* 29, no. 5 (2015): 666–681.

[61] Coulson et al. *University Planning and Architecture.* 2010: 258.

[62] Ibid., 260.

For Brian Edwards, the university campus embodies the institutionalization of society's aspiration to intellectual fluorescence and reasoned wisdom in its sanctioning of communal places dedicated to the life of the mind. His 2000 book, *University Architecture*, explored the "building of collegiate spirit via campus architecture."[63] For this architect, planner, and scholar, it is critical that the university be acknowledged as a *spatial* (and aspirational) institution: "A university is first and foremost an *ensemble of buildings* dedicated to *something more* than the functional delivery of education" [emphasis added] (36). In his account, the campus is both a space hosting various building types and a type of its own. More concretely, he understood the campus to be a purposive combination of buildings, landscapes, people, and activity. The central challenge of campus planning, whether in the city center or on an "arcadian site," is creating a "unity of place out of largely institutional land uses" (vii).

Though its title centers architecture, the book discussed the supra-architectural scale at relative length. It was divided into two parts, first discussing the campus and then its building types, with a third part serving as a conclusion. Part One focused on planning the campus as an integrated whole. The ultimate goal of this design endeavor is to *visibly* further the university's academic mission, for "one of the best measures of a university is whether it *looks* like a centre of higher education" [emphasis added] (3). Beyond vivifying the experience of higher learning for its users, an attractive campus serves as a "selling point" for its institution. "The marketing of universities through design provides a further justification for the pursuit of architectural quality," Edwards explained, "As universities become increasingly business orientated, marketing through architectural image helps raise awareness of the economic value of good design" (5). What the university campus attracts are not solely students but also conferences and businesses; the campus is embedded in the workings of modern society as a whole. In this regard, campuses have been a boon to the design professions, giving architects many opportunities to innovate, experiment, and invent "beyond the utilitarian" (2).

For Edwards, campus buildings serve both functional and spiritual purposes. The campus needs to balance between rapid change and permanence, between "flexibility and order" (4). Its buildings, therefore, are "less forms which follow function than those which struggle to contain dynamic uses" (3). Laboratories and teaching spaces are examples of spaces that require flexibility, while residence halls and ceremonial spaces are examples of spaces that are more

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[63] Edwards, Brian. *University Architecture*. London: Spon, 2000: 36.

permanent in character. For the sake of flexibility, Edwards asserted that "the logic of maintenance" should inform campus design.

Broader still, he defined the university community which the campus serves along three vectors: the academic, the social, and the cultural; a well-designed campus does not only cater perfectly to the workings of a collective of scholarly and scholastic actors but also pays due homage to the national culture within which it is situated. Though uninvoked, a good campus in Edwards' view embodies what Kenneth Frampton would call critical regionalism. Concerned with the challenge of integrating mission and place into campus form to create an aspirational space for learning, *University Architecture* referenced cases from all over the world to illustrate the different ways that campuses can spatialize institutional and national cultures; in other words, his account did well in highlighting exemplars from the Global South (e.g. Cyprus, Qatar, Saudi Arabia, Singapore, South Africa, Thailand) alongside those from the West.

Critical to successful campus planning in Edwards account is the presence of formal masterplans. He identified nine morphologies – formal paradigms of campus planning – that characterize different campuses across the world (Table A.1). Since the university's functional polyvalence and incremental growth can afflict it with an "inharmonious character," the challenge of campus planning "is one of giving order to disordered campuses" (vii). He referred to this drift as the "effect of time," rendering it "rare for a single approach to survive for much longer than a century" (13). Though they attempt to guide the spatialization of institutions over time, campus masterplans are often inadequate since "the pressure of change frequently distorts the continuity of intent" expressed by any masterplan to which a university might have subscribed (vii). Despite the reality that "masterplan intentions have a short life" (13), he proposed three masterplanning principles: 1) having a plan is better than not; 2) plans must be flexible and ready for the unpredictable; 3) "design codes" ought to complement plans. These principles concretized the notion that effective growth over time requires the sustenance of the campus' identity even when altering and augmenting it.

Campus Type	Example	Advantage
Building-centered placemaking	U of Birmingham U of London	Strong identity
Landscape-centered placemaking	U of Virginia UC Berkeley TU Helsinki	Strong sense of place, tranquil
Collegiate	U of Cambridge	Privacy with local identity

	Stanford U	
Linear	U of Sussex Simon Fraser U	Extendible, good internal communication
Grid	Illinois Tech U of North Carolina	Efficient in land utilization
Modular	U of York UCL	Economic with visual consistency
Molecular	U of Sunderland U of Lincoln	Ordered yet with diversity
Radial	Temasek Polytechnic	Clear circulation, landscape integration
Ad hoc	U of Strathclyde MIT	Opportunistic but disordered

Table A.1 Edwards' taxonomy of campus planning paradigms (adapted from Edwards 2000, Table 1.1, p. 6)

Rather than merely creating masterplans, Edwards enjoined producing "development frameworks." The former are more representational, focusing on the spatial, visual, and three-dimensional; they are invested in a sense of aesthetic attraction and architectural order, and are more concrete, thus requiring periodic review. The latter are much more diagrammatic, tending towards the abstract and two-dimensional; focusing on issues like building codes, standards, and heights, they are flexible documents outlining flexible guidelines for campus design. He did not offer these as mutually exclusive planning approaches, but encouraged thinking in terms of a "hierarchy of plans," whereby the masterplan is an "inset" in the development framework (24). Despite his prioritization of frameworks, Edwards reiterated the importance of masterplanning because a clear academic and spatial identity attracts financial investment. Moreover, a well-developed masterplan allows university and municipal planning to better interface and sync with each other.

Though campus planning is a sublime endeavor, whose ultimate purpose is to materialize institutional instances of the enterprise that is higher learning, physically expressing society's intellectual ideals, it has nonetheless been marked with endemic tensions. For Edwards, the story of the 20th-century campus is that of "a battle between picturesque place making and the provision of rationally designed buildings" (34). As much as design is wedded to the humanistic realms of symbolism, it must nevertheless engage the technical realms of functionalism. He thus delineated a range of "practical problems" that campus planning must

address: defining circulation, a skyline, and building footprints; defining both the center and the edge; landscaping; issues of computing and sustainability on campus; town-gown challenges; funding and implementing plans. Given the importance of campus sustainability and security, he dedicated two short chapters to each issue, with the latter focusing on both crime and political activism on campus.

Part Two of the book zooms down to the scale of architecture, focusing on common campus building types. Six chapters each explore a different set of these types: libraries and learning resource centers; laboratories and research buildings; special functions and forms, like athletic and medical facilities; artistic departments; general teaching spaces; and student housing. Each chapter identifies salient issues associated with each type as well as built exemplars.

By focusing on both university buildings and the campus they make up, the book asserted that design decisions at every scale ought to be guided by a holistic sense of institutional identity and mission. Edwards' account ultimately tried to detail the ways in which campuses might constitute "not ordinary places" but "estates of buildings dedicated to higher learning" (150). As such, the campus is central to the definition of the university as a modern construct; the university is

> a place of history, a microcosm in buildings and urban spaces which reflects the changing ideals of the world. Whereas it is frequently argued that this is true of the city at large, on the university campus ambition is higher, experiment more likely to be encouraged, and ideals more readily expressed. History teaches us so, and the present needs to keep this quality alive. (151)

More so than the city, no place concretizes the new and innovative as the university campus does. It is a "work of art and a place for experiment" (152). For Edwards, the campus serves as a disciplinary bulwark; he believed that "to understand architecture in all its complexity and invention, there is no better concentration of built examples than on the typical university campus" (152). As a catalyst and repository of spatial imagination, it tangibly and publicly archives the architectural profession's ferment and output. The campus is, therefore, an ideal place to encounter and examine building types and sustainable designs as they have developed over time. With its role as a spatial document of architectural history being clear, how should campus design be taken up with the future in mind? Edwards had four pieces of advice:

- Link project development to the institution's intellectual ideals and ambitions, as opposed to value engineering and utility maximization
- Emphasize the whole over the parts, by moderating architectural "opportunism" with a sense of the urban and landscaped "long term"
- Express excellence through architectural innovation and experimentation
- "[U]se buildings to change the world," by focusing on realizing and showcasing sustainable design

The last point about sustainability was critical – albeit, not novel – for environmentally-conscious design has "tentacles throughout history in the university campus" (154). In his account, sustainable design has been prominent as a linchpin for producing good campuses. It is also a means to attaining a well-contextualized campus, one that lives up to the promise of critical regionalism. For Edwards, sustainability "bridges the two worlds of abstracted placeless high tech and place related vernacular design" (157). On a related note, Edwards appeared to be enamored with design that embraces computers as higher education's future; in fact, he recommended "high-tech" design as "most appropriate to a progressive university" (154).

In essence, his book examined how university buildings might create a whole that is more than their sum. Understood this way, campuses and their buildings can serve as temporal, placed-based spatial and reputational differentiators for their institutions. They have the potential to do much heavy lifting beyond providing functional space: "image, whether high-tech, multi-cultural or green matters to a university . . . At one level architecture, urban and landscape design are the packaging of a service, at another they are the vehicle whereby intergenerational values are conveyed" (157). Despite this potential, Edwards observed that most institutions are unfortunately content with "low-risk repetition . . . over high-risk design complexity" (158). His book was a call to action, a call on universities to invest in ambitious architecture, not mere building, for their campuses—for themselves.

Like Edwards, Daniel Kenney, Ricardo Dumont, and Ginger Kenney affirmed the campus' importance to the sustenance of higher education's purpose. Explicitly linking institutional *Mission and Place* (2005) unambiguously signified that the true purpose of a university's campus is to advance its avowed mission. They explained that socio-institutional university challenges have spatial indexes and, since the campus is a *place*, placemaking is an opportunity to tackle these challenges. The campus planning process then serves to facilitate institutional change and spur more of it. The authors enjoined the use of the university's entire physical environment to promote lofty institutional goals, such that it becomes a meaningful

place that reflects "the geography of the heart."[64] Or, in its negative formulation, campus planning is the process of ensuring that physical decisions do not counter the university's mission. In contrast to the stock metrics like retention and graduation rates that Hajrasouliha would come to correlate with campus character, the ambitions that the campus helps fulfill were understood here to be much more idiosyncratic and particular to each institution.

Within this framework, the campus is the most conspicuous reflection of a university's values and the seriousness with which it takes these responsibilities: "An institution teaches social responsibility by its actions on campus, and the results of these actions are emblazoned in the campus landscape for all to see" (7). The authors understood mission to encompass, in addition to academics, responsibility to both internal and external communities. The campus is a university's means of modeling for its internal community, especially impressionable students, a purposive response to the exigencies of collective life and a thoughtful interface with its external community, society at large. Simply put, the campus is critical to student learning and engagement.

The campus also has a pre-scholastic role: turning visitors into students. Citing Gaines, the authors explained that most prospective students prioritize the look of the college in deciding where to matriculate. The campus visit is an American rite of passage; love at first sight with a campus is not uncommon. Universities understand this, increasingly seeking to offer amenities, perks, and luxuries that are attractive to would-be students, something that the authors referred to as the "country club factor" (17). In addition to attracting and keeping students, elegant campuses impress donors. The authors cautioned, though, that physically expressing the vision of a new institution is easier than maintaining it over time. Only "mission-driven planning and design" (31) can ensure that universities are able to continue to attract the best students, faculty, employees, and patrons.

Like many before and after them, the authors compared campuses to cities, suggesting that the insights of urban planning apply. They explained that campus planning ought to be considered hierarchically: as a) a parti, held together by b) landscapes and hardscapes, dotted with c) architecture. They provided nine principles for campus planning: attending to the whole as per the aforementioned scalar hierarchy, fostering density and mixed use, landscaping expressively and contextually, embracing sustainability, forgoing autopia, placemaking architecturally, taking community engagement seriously, and attending to beauty on campus.

[64] Kenney, Daniel, Ricardo Dumont, and Ginger Kenney. *Mission and Place: Strengthening Learning and Community Through Campus Design*. Westport, CT: Praeger Publishers, 2005: 5.

The result of a well-considered planning process is a well-integrated campus. Understanding that change is incessant and avoidable, the authors embraced it, declaring that the campus should drive change rather than be driven by it.

This prescriptive approach is reminiscent of fin-de-siecle Dober in that it attempted to methodically demonstrate how a campus can be a means of achieving both concrete and open-ended goals like experiential coherence and, ultimately, mission fulfillment. But this approach also exhibited a market-instrumental understanding of campus as something that either lives up to or fails the aspirations of the locale's particular political economy. For students to choose to study in cafes off-campus is a damning heuristic that the campus is failing the university's mission.[65] The popular urban coffeeshop is a salient instance of the ways in which the city can be understood as a challenge to the campus *and* a benchmark against which to assess its effectiveness. The campus should, at the very least, be as good as the spatial milieu within which it is located. Ideally, it should be much better, a spatial means of uplifting the built and social environment of which it is a part.

The campus ideal is countered by a common reality on many campuses: an unholy trinity of buildings, parking lots, and roads. The authors were especially critical of this, casting it as a product of designing for an autocentric culture and devoting a whole chapter to tackling the overbearing vehicular presence on campus. Automotive ease stifles productive, communal lingering: "A plan that provides 'front-door' access to automobiles can encourage students and faculty to leave campus quickly when their formal work is done, limiting opportunities for collegial exchange" (29). No one ought to be surprised that a campus designed to make commuting by car easy becomes a lifeless commuter campus; a campus attempting to provide any semblance of the collegiate experience then must foster pedestrianism. The authors lamented that campuses are increasingly suburban in character at a time when urban lifestyles are back in vogue. If universities are to stay true to their espoused goals and values, they must resist over-accommodating car traffic and parking on campus.

Over the course of 17 chapters illustrated with images, quotes, and anecdotes from across the US and UK, the authors discussed their premises and injunctions in detail. The creation of a meaningful academic place entails planning with institutional values in mind for a beautifully landscaped, sustainable campus that prioritizes pedestrian life, work, and play. The book was not a manual but a call to action; it provided major principles, rather than instructions, to keep

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[65] Unless, that is, the university says that part of its mission is to help locally-owned businesses by minimizing study spaces (and other services) on campus.

in mind during efforts to make an effective whole out of a university's physical space, even if it was not initially designed and built coherently. The book ended with a call to leadership at all institutional levels, especially at the top; those who occupy this rung bear the ultimate responsibility to ensure that a university's *place* lives up to its *mission*—by staying abreast of both. As Roscoe did earlier, the authors recommended the development of organizational structures in which those involved in campus planning have the ears of presidents and boards of trustees, and thus a means to keep the institution accountable. Flipped around, their formulation may be understood to say that campus placemaking is at the core of the institution's mission, that bureaucracy exists to afford the actualization of designerly license—that of scholar-educators and planner-architects alike.

As with most endeavors in life, this is easier said than done. Richard Freeland, former president of Northeastern University and Massachusetts Commissioner of Higher Education, admitted in his foreword to M. Perry Chapman's *American Places* (2006) that administering change in the context of the university is exceedingly difficult, but that, nevertheless "getting it right in architectural terms is an important part of getting it right in educational terms."[66] Here, he echoed Strange and Banning's premise, but Chapman's book differs from theirs in anticipating in more detail the campus' future, identifying the larger forces and developments that will likely change higher education in this century and exploring their architectural implications.

At the outset, Chapman affirmed the power of the setting that is the university, an environment in which profound personal growth takes place.[67] College is an American rite of passage thick with meaning, and the space in which this rite takes place is characterized by a pathos that he terms its *sense of place*, a "personal phenomenon, having as much to do with our own experiences as with the physicality of the environment."[68] The image of the campus and its experience are conditioned as much by its aura as by the expectations built up over the course of an American life. Even if striking superficial, formal, or organizational similarities exist between campuses, landscape and location make all the difference. Just like Turner and Stern before

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[66] Freeman, Robert, Foreword to Chapman, M. Perry. *American Places: In Search of the Twenty-First Century Campus*. Greenport, CT: Praeger, 2006: xii.

[67] From 2012 to 2016, the Society for College and University Planning awarded a prize, in the form of a $10,000 research grant, named after Chapman, who was himself awarded the organization's Founders' Award for Distinguished Achievement in Higher Education Planning in 2008.

[68] Chapman, M. Perry. *American Places*. 2006: xxii.

him, Chapman understood the university campus to be an archetypical American place—not merely a spatial type but a spatio-cultural archetype.

Unconvinced by the standard definitions of campus, Chapman described it as a series of five overlapping "metaphors": as *narrative*, the campus performs as the vehicle of a university's history and values; as *experience*, the campus constitutes a setting for the activation of all the senses and the engagement of all the perceptions, leading ultimately to novel transformational experiences; as an *intentional community*, the campus is an inclusive arena that fosters collaboration and debate; as a *work of art*, the campus embodies the marriage of all the high arts, especially of architecture and landscape, a totalizing aesthetic enterprise; as *pilgrimage*, the campus is a magnet of ineffable gravitas, a sacrosanct setting cultivating a dialectic of inward reflection and illumination with outward production and reciprocation. These definitions are necessarily broad, for he stressed that no two universities are alike.

With the last metaphor, Chapman marked the spatial type's symbolic role rendering the institution a societal place for a wide swath of people to choose to come to. Given the university's critical position as a knowledge-driven civic agent, the social and academic are entangled, and the campus is the interface between them. "The American campus," Chapman explained, "is a cultural landscape imbued with deep social purpose, more so because it is a landscape in which what is done and experienced ultimately affects society as a whole."[69] And because society changes and evolves, so must the university if it is to continue to foster an "ethic of place" apt for the time and place it inhabits.

The bulk of Chapman's book explored the ways contemporary universities grapple with tradition and transformation. The "seismic forces" of technology, cyberspace, globalization, and economic and ecological sustainability have all been changing the face of the academy. But, it is sustainability that Chapman considered to be the decisive challenge. To succeed in this respect is to create an authentic, durable place, for sustainability ensures that what is enduring about the university campus remains so. As an avowed Olmstedian subscribing to the notion that "place and the academic enterprise together would nurture an informed, practical, thoughtful citizenry," Chapman embraced the challenge of "designing a world for a restless, changing population," and accepted that "to serve that population, the campus would have to change and

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[69] Chapman, M. Perry. *American Places: In Search of the Twenty-First Century Campus*. Greenport, CT: Praeger, 2006: xxxiv.

adapt" (199). As diverse and as evolving as campuses are, he saw in their gritty but lofty purpose a marker of their place as members of a global community.

Notwithstanding the admitted particularity of every campus, Chapman centered what he saw as their collective constitution of a transnational spatial ecosystem, understanding their roles, actions, and potentials to be niche-seeking responses to these systemic challenges. Each campus must facilitate its institution's survival in this competitive, dynamic milieu, considering what it knows how to do and what it knows others to be doing. The future he envisioned is characterized by three types of campuses: the *clicks and mortar campus* is a vibrant center, a "mother campus" whose reach extends globally via cyberspace, forming a "virtual campus"; the *intellectual agora* is a total enmeshment in the urban fabric and a symbiosis with diverse socio-economic institutions, a development that could be read as a campus-scale form of megalopolis; the *legacy reaffirmed* campus is essentially the recapitulation of the enduring non-hermetic retreat from the world the campus already is (202–205). No matter how transformative change eventually is, Chapman held that the campus will remain the bastion of an institution without which a progressive society cannot sustain itself. Even if the character of campuses changes entirely as predicted or otherwise, the type will not cease to bear profound meaning for a society and world that hold knowledge in high esteem.

Dober also wrote books highlighting the campus as a bearer of meaning, but he did not venture as far as Chapman to imagine what forms the campus of the future may take, seeking rather to show how it has already and continually served in this role. While many of his earlier books were forward-looking in that they sought to help professionals and institutions plan and design campuses, his last three books took stock of the lyricism of the campus building enterprise as it had hitherto played out in the world. *Campus Heritage*, *Old Main*, and *Campus Image and Identity* focused squarely on campus character, feel, and legacy. They were published by the Society for College and University Planning, a professional association Dober helped found in 1965. Foregrounding the campus as a purposive human creation at the intersection of art and history, these books constituted his oeuvre's peroratory denouement, crystallizing in printed form Dober's love for the campus.

Published in 2005 and 2006 respectively, the first two books were companion publications that explored the campus as a repository of history and memory, as a living museum. In *Campus Heritage*, Dober defined the titular concept as "the three-dimensional commemoration, celebration, and memorializing of people, activities, and events through and with physical objects that are consciously created or identified to serve and symbolize a

college or university's purpose, presence, and patrimony."[70] Seeking to convey the different means through which universities can make their settings more humane and relatable to people in and around them, Dober structured the book as a "descriptive taxonomy of opportunit[ies for inscribing heritage on campus]: architecture, landscapes, memorials, and naming protocols—the self-evident as well as the idiosyncratic" (7). Illustrated with material from his personal collection—archival images acquired and photographs taken over the span of half a century—the book is a document of the extent of Dober's travels, interests, and expertise.

Old Main expanded an eponymous section from *Campus Heritage*'s discussion of historic architecture on campus into an "architectural biography" of a ubiquitous American campus building type.[71] Based on extensive research, the book strung together brief histories of Main buildings on over 200 campuses, presented alongside archival imagery composed exclusively of historical postcards, to paint a picture of an enduring architectural-academic presence across space and time. This "visually delightful collection of historic picture post cards," Dober explained, "help[s] support the premise that a rounded view of America's collegiate enterprises would be incomplete without understanding and acknowledging the contributions these magnificent masterworks have made to campus development" (1). Taken together, "Old Main" buildings constitute the patrimonial connective tissue that spans across the nationwide mosaic of campuses, a class of common yet symbolic campus buildings to stand in for the many instantiations of academia's spatial type.

These two books eschewed analytical density for narrative breadth and disquisitive text for expressive imagery. This focus on the image and experience of campus was at home with the 21st-century understanding of campuses as brandscapes, which many authors have touched upon.[72] The attention here is less on environmental design's causal relationship with institutional and human behavior than it is on the correlation between campus imageability and complexity on one hand and senses of attraction and belonging on the other. Dober appears to have taken this centering of evocation over substance to heart; his

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[70] Dober, Richard. *Campus Heritage: An Appreciation of the History & Traditions of College and University Architecture*. Ann Arbor, MI: Society for College and University Planning, 2005: 5.

[71] Dober, Richard. *Old Main: Fame, Fate and Contributions to Campus Planning and Design*. Ann Arbor, MI: Society for College and University Planning, 2006: 15.

[72] See Mitchell, William. *Imagining MIT: Designing a Campus for the Twenty-First Century*. Cambridge, MA: MIT Press, 2007. Also see Chapman, M. Perry. *American Places*. 2006. And Coulson et al. *University Planning and Architecture*. 2010. And Silverman, Jonathan, and Meghan Sweeney, eds. *Remaking the American College Campus*. 2016.

two penultimate books gave almost equal weight to text and image, but the latter reigned supreme in his final book.

Published two years before his death, *Campus Identity and Image* was less a scholarly exposition than a brimming coffee table book. It explored the ways in which the material composition that produces the campus sense of place, campus *identity*, can live up to the imaginaries that people construct around specific academic institutions, campus *image*.[73] The book commenced with a brief introduction that led into over 400 color photographs, most of which were from Dober's personal collection. The book was a leisurely photographic survey of campus architecture, art, artifacts, landscaping, and open space design—a travelogue documenting countless instances of what he had two decades earlier termed campus placemaking and placemarking. As a whole, this photographic survey suggested less a set of individual spatial successes to learn from than a sense of a campusdom to be inspired by, a patrimonial spatial ecosystem transcending any individual campus' spatialization. With this ode to the campus' pride of place, Dober bade the discourse a fond adieu.

In this thematic cluster of works, the campus is understood foremost as the university's unique identifier. The institution's individuality is largely a product of this purposive space. As a university ages, its campus serves as a public embodiment of its symbolic, social, and spatial legacy. In a higher education ecosystem understood as a competitive market, it is a means of standing out in a crowded field. The campus essentially musters symbolic capital; its spatial character and evocatory appeal serve as institutional differentiators. In the face of pressures to prove their efficacy and distinction in order to attract enrollment and patronage, universities would do well to conscientiously shape their physical estate towards those ends. Discursively implied is the instrumental contrast between the visibility-cum-immediacy of physical space and the intangibility of institutional effectiveness; leveraging a campus is apt to be an easier path to market competitiveness than building robust research and teaching cultures and conveying that to the public.

What is also clear in this line of thought is that the university and its campus are part of larger physical environments and social ecosystems. No campus is but an island. The campus has most often been compared to the city, and the latter is the space that the former is often recognized to be part of. Regardless of whether it is like the city, the campus is liable

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[73] Dober, Richard. *Campus Image and Identity*. Ann Arbor, MI: Society for College and University Planning, 2012: 7.

to be in one. At the same time that it constitutes the spatialization of an institution, such a campus is an urban condition. Broader still, modern universities educate citizens; these institutions are prominent participants in the metabolism of the nation state.[74] The campus' context can be thought to extend beyond its neighborhood or city to the region, nation, and world within which it operates. In short, a salient theme that extends from the discursive recognition of the campus' publicness and relationality is its engagement with the urban and the national.

National Urbanism: An Urban Project, A National Project

Whether a campus is urban or rural, the city has often served as the mirror against which its discursive conceptualization is reflected. Academia's particular spatial type has often been understood through the lens of this more general type. As a space that itself inhabits a space, the urban university can be understood as a fractal and endosymbiotic condition. In the former guise, the campus reproduces at a smaller scale the dynamics and interrelationships exhibited by the city—a guise available to it whether its setting is urban or not. In the latter guise, the campus operates as part and parcel of the city in which its existence happens to be imbricated. The campus' putative relationship to the city is more than singular and is not reducible to either of these guises.[75]

One discursive understanding of the mimetic and nested duality of the urban campus is mechanistic. In 2019, the Chronicle of Higher Education published a special report, sponsored by Sodexo, a student life services vendor, examining "the tension and challenges of running a

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[74] See King, Patricia, Marie Kendall Brown, Nathan Lindsay, and Jones Vanhecke, "Liberal Arts Student Learning Outcomes: An Integrated Approach." *About Campus* 12 no. 4 (2007): 2–9. See Biesta, Gert. "What Kind of Citizenship for European Higher Education? Beyond the Competent Active Citizen." *European Educational Research Journal* 8, no. 2 (2009): 146–158. Also see Faine, Miriam, Sue Plowright, and Terri Seddon. "Higher Education and Social Cohesion: Universities, Citizenship, and Spaces of Orientation" in *Creating Social Cohesion in an Interdependent World: Experiences of Australia and Japan*. Edited by Ernest Healy, Dharma Arunachalam, and Tetsuo Mizukami. New York: Palgrave Macmillan, 2016: 205–219. Also see AlBader, Bader. "The Space of Bad Faith." *Agora* 14 (2020): 84–91.

[75] Campuses in the 21st century have come to embrace the city; what we might refer to as a campused return to the city, which planner Michael Hebbert has observed, is akin to the centripetal human migration that urban historian Robert Fishman has spoken of. This is to say, the mass return to the urban center comprises not only people but also universities. As a counterpoint to this anticipation for the coupling of campus and city, architectural critic Geoff Hanmer is critical of the "obsession with CBD campuses." See Hebbert, Michael. "The Campus and the City: A Design Revolution Explained." *Journal of Urban Design* 23, no. 6 (2018): 883–97. And Fishman, Robert. "The Fifth Migration." *Journal of the American Planning Association* 71, no. 4 (2005): 357–66. And Hanmer, Geoff. "Think big. Why the future of uni campuses lies beyond the CBD." *The Conversation*. February 25, 2021. https://theconversation.com/think-big-why-the-future-of-uni-campuses-lies-beyond-the-cbd-151766

city within a city."[76] Titled *The Campus as City*, it is the most direct declaration of the interdependence of the two, of the urbanity of the university's material existence. Its authors understood campuses to be both "cities unto themselves" and "contiguous, physically and operationally, with the towns and cities beyond" (5). Their description of the university as akin to a municipality and its president as akin to a mayor may have been an analogy, but Kvan had already demonstrated that, at least in one case, this association is less a resemblance than a reality: he recounted that the University of Sao Paulo actually elects a mayor for its campus.[77] Distinguishing between the original missions of rural colleges – escaping the city – and urban universities – "educating the children of working-class and immigrant families" (7) – the report marked the latter as institutions historically involved in community engagement and service.

Bringing together an eclectic set of stories, insights, and recommendations from a handful of experts, the report sacrifices depth for some measure of breadth. It was divided into three sections: the first was inward-looking, addressing the provision of better services to university inhabitants; the second was outward-facing, addressing the university's role as a "responsible anchor institution" (9); and the third comprised four brief case studies. Though the university's internal and external responsibilities appeared to be clear-cut by virtue of this division, those roles bleed and feed into one another. A university is city-like in that it must "house, feed, transport, engage, and protect" both its inhabitants and neighbors (11). By extending this service objective to neighbors, the authors denote that it cannot simply be a city unto itself.

They insisted that universities can no longer afford to insulate themselves from their surroundings nor be on antagonist terms with the communities in the midst of which they operate. Beyond the typical issues that kindle community resentment towards the campuses in their midst – rowdy students, institutional haughtiness, local economic dominance, and the perennial issue of traffic – universities need to recognize the impact of their decisions on these communities. The authors pointed out the double jeopardy that urban universities must contend with: the specter of gentrification that their presence casts over their neighbors, and the real risk of exacerbating blight when they acquire cheap and vacant surrounding properties to sit on for future development in the absence of concrete plans to develop them without delay. Citing

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[76] Carlson, Scott, and Lawrence Biemiller. "The Campus as City: Crucial Strategies to Bolster Town-Gown Relations and Run a Thriving 21st-century Institution." The Chronicle of Higher Education, 2019.
[77] Kvan, Tom. "Context" in *Future Campus*. 2016: 3.

Davarian Baldwin's concept of "UniverCities," the authors cautioned growing campuses from falling into the trap of becoming a "friendly face of urban-renewal" (29).[78]

Since universities are not traditionally expected to have expertise in real estate development,[79] the report recommended that they seek out public-private partnerships (P3s) to help undertake complex projects, especially those of an ancillary character to the institution's core mission, like infrastructure, parking, and housing. Though P3 projects come with the hazards of mission creep and bad optics, this model of campus development serves to "transfer some of the risk of construction timelines and costs to a private company" (12). Campuses can also tackle traffic issues head-on by embracing their role as "natural transit hubs" and embedding themselves in their cities' patterns of circulation. In all cases, institutions ought to undertake projects with community buy-in and must avoid acting "richer and smarter" than locals in order to make space for "design solutions" that enrich both the institution and its locale.

Unfortunately, universities have rarely lived up to their urban potential. Despite observing that universities are well-positioned to help communities overcome three main challenges – urban sustainability (by fostering density and spearheading new technologies), the "hollowing out" of rural communities (by slowing the brain drain and attracting businesses), and inequality, especially in housing (by providing low-cost housing options and economic benefits to their blue-collar employees) – the report showed the planning that universities undertake to be roundly perceived as mediocre, even as appraised by their own leaders. Nonetheless, the report emphasized the outsize role of this very class of actors; its many anecdotes and cases imparted that leadership transitions possess the potential to transform campuses, as new leaders can become boons to their campuses, arriving with new visions and much political capital to execute grand projects.

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[78] For more on his skepticism of the benignity of the urban university and his account of its parasiticality, see Baldwin, Davarian. *In the Shadow of the Ivory Tower: How Universities are Plundering Our Cities*. New York: Bold Type, 2021. Baldwin appears to be recapitulating and building on a longstanding critique of ostensible anchor institutions by commentators like William Worthy; see Worthy, William. *The Rape of Our Neighborhoods: And How Communities are Resisting Takeovers by Colleges, Hospitals, Churches, Businesses, and Public Agencies*. New York: William Morrow, 1977.

[79] Many universities do engage explicitly in real estate development activity, though. For example, see Winling, LaDale. *Building the Ivory Tower: Universities and Metropolitan Development in the Twentieth Century*. Philadelphia: University of Pennsylvania Press, 2017. Also see Wiewel, Wim, and David Perry. *Global Universities and Urban Development: Case Studies and Analysis*. New York, Routledge, 2015.

Good campus-cum-urban planning is not an automatic outcome of development but a choice institutions resolve to pursue. "To its neighbors," the authors remarked, "a college may be an anchor, a tyrant, a savior, a villain" (27). To help them make the right decisions to live up to their ostensible roles as anchor institutions, the report included advice for universities from a host of experts, both practitioners and academics, across three broad categories: demonstrate the economic value they add to their communities, develop robust partnerships with other community actors in real estate efforts, and take local communities' needs and concerns seriously when engaging in campus development. It is not pure altruism that the report prescribed as the campus planning ideal, but a pragmatic yet good faith search for win-wins: universities must have "a sense of responsibility and enlightened self-interest" (52).

Done well, campus planning can serve to develop and sustain what urban sociologist Alan Mallach described as a mutually-salubrious "symbiotic relationship" between campus and city. Reiterating its generalist scope, the report summarized its recommendations in a short list that gestured to campus development's practical, social, and cultural dimensions:

- Cultivate community-oriented leadership [i.e. overcome the academic tendency to be insular and patronizing]

- Use your leverage [i.e. punch up for the community, not down on it]

- Communicate broadly and strategically [i.e. be transparent with constituencies without infantilizing any]

- Stay focused on mission [i.e. avoid mission creep]

- Be a test bed [i.e. innovate alongside the community; do not experiment on it]

- Build on a human scale [i.e. foster walkability] (53)

None of these recommendations are simple, or cheap, for urban institutions to fulfill. Together, they constitute a more daunting challenge. In the absence of more detailed guidance on how to go about achieving this synergy, this compound charge to universities is liable to appear somewhat fanciful. Despite its explicit focus on the campus as a designed mini-city, the report was much more invested in discussing the campus' interfaces with its neighbors and neighborhoods than it was in the details of campus design.

An earlier publication, with almost as explicit a title, struck a better balance. The notion of the university campus as an urban actor is at the core of *Campus and the City*, the published proceedings of a 2006 symposium on campus design, academic and corporate, held at ETH Zurich. The symposium did not limit itself to university campuses, yet academic campuses

comprised the majority of the cases discussed. Its premise was that the campus and the city are, to use corporate language, a "joint venture," that the campus is an urban condition even when existing outside the city.[80] Long before the Chronicle's report, these proceedings acknowledged the spatial type's urbanistic duality: campuses engage the cities they are in and recreate urban environments outside them. While the symposium's focus was squarely on campus design, the presenters were a diverse group of professionals, bureaucrats, politicians, and businesspeople, constituting "a discourse in which architects and planners may constructively exchange hard-won insights with representatives from political, economic and social sectors" (19). The book documented these shared insights in the form of essays followed by a "campus collection," a survey of thirty campuses around the world that were discussed in a concurrent seminar.

The campus collection was divided into four non-commensurate, overlapping categories: "inner-city campus" and "greenfield campus" take context as their criterion, while "high-tech campus" and "corporate campus" take program as theirs. The editors were aware of these classification challenges and difficulties: "no sooner have we classified individual campuses than we found we could equally well classify them quite differently" (188). The first two categories were exclusively academic, while the last one understandably had no academic representation. Whilst the urban campus was understood to be in a reciprocal relationship with the city, the exurban campus can either vitalize suburbia or exacerbate exclusion; it "has the potential to transform outlying areas into booming urban conglomerations that can crucially affect the development of an entire region," or it may "paradoxically reinforce rather than eliminate the sense of separation from the city . . . develop[ing] into [a] more or less self-contained autakartic district" (18). The greenfield campus, "the prototypical model for university development in the 1960s and 70s," has been derided for being monofunctional and isolated (13). But this has only been the typical Western response: "While the validity of the introverted and elitist campus is being questioned in the Western world, since this 'ivory tower' typology lacks the architectural qualities necessary to reintegrate the university into the public urban realm, it is the prevailing model in emerging Asian economies" (14). High-tech campuses are often sites of academic-industrial collaboration, where corporate "technology parks choose to settle in and around universities in order to profit from the close proximity to scientific research and resources."[81]

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[80] See Hoeger, Kerstin. "Campus and the City – A Joint Venture?" in *Campus and the City: Urban Design for the Knowledge Society*. Edited by Kerstin Hoeger, and Kees Christiaanse. Zürich: GTA Verlag, 2007: 13-22.

[81] Ibid., 15. For more on the spatialization of the academic-industrial complex, see O'Mara, Margaret. *Cities of Knowledge: Cold War Science and the Search for the Next Silicon Valley*. Princeton, NJ: Princeton University Press, 2005.

Academic proximity aside, non-academic actors have appropriated the campus for their own uses. The "campus typology is increasingly emerging as a motor for innovation and synergies outside the academic context in high-tech clusters and corporate centres" (13). These categories were broadly defined, trading inclusivity for precision.

Beyond taxonomy, the symposium proceedings suggested that the contemporary campus is an attempt to integrate institutional ideology and physical form. Physical configuration has become integral to institutional success. The urban academic campus is a porous environment allowing many interfaces and mutual development with its urban context, in contrast to the hermeticism of the corporate campus. As a contextual institution, "the inner-city campus, which seems to optimally fulfill the demands of the knowledge society, could be a suitable model for the contemporary university" (17). The symposium made clear that the campus is subject to two conflicting identities: assimilation into the city, and autonomy from it. As encountered, for example, in Turner's work on the United States and as will be seen in Carlos Garciavelez's work on Latin America, this is a universal tension that has persisted since the advent of the type. Its urbanophilic prescription aside, the symposium's main takeaway was that the campus type was "alive and well," and that much future development awaited it.

These books focused less on the campus as a singular unit of analysis – as a city unto itself – than on the campus as an integral component of the city itself. They manifested a distinct shift from the approach of earlier authors. As is evident from the books written throughout the latter half of the past century, the term *campus* has often come to imply two characteristics of university grounds: a love of landscape so as to be pastoral, and a self-demarcation so as to be exurban. Sharon Haar challenged both of these presumptions. Like the *Campus and the City* symposium, she affirmed the centrality of the urban to the academic. For Haar, the campus is certainly not "a place apart"; the university's ideal form is not necessarily sylvan and "separate from the structure of a surrounding city," as Barbara Stanton has claimed.[82] "Where my definition of campus differs from that of Stern, Stanton, or Turner is that," Haar explained, "the landscape does not have to be the campus's initiating physical principle. A campus may contain landscape, but it is not inherently pastoral."[83] In her book on the intersection of urbanism and higher education in Chicago, she argued that "urban universities cannot be understood as entities separate from their host cities" (xvi).

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[82] Stanton, Barbara. "Cognitive Standards and the Sense of Campus." *Places* 17, no. 1 (2005): 38.

[83] Haar, Sharon. *The City as Campus: Urbanism and Higher Education in Chicago*. Minneapolis: University of Minnesota Press, 2011: xxv.

The city (of Chicago) here was conceived as a campus of campuses. For Haar, the relationship of the university to the city is neither coincidental nor perfunctory; the American university emerged as a bona fide urban actor, and the American campus developed alongside the urban milieu that incubated it. Though large, pastoral campuses became common with the conception of the land grant model in the latter part of the 19th century, she maintained that the urban university continued to be an influential actor. Post-WWII campus building in the Midwest's preeminent metropolis provided an ideal historical case to attest to the enduring, active spatio-social presence of the university in the urban environment.

During this period, city and state became as invested in campus building as academic administrators. Projects for three major universities in the city – University of Chicago, Illinois Institute of Technology, and University of Illinois at Chicago – were the subjects of Haar's analysis, in addition to the collection of smaller downtown institutions collectively dubbed "Loop U." Her account demonstrated that the stakes of university campus design were as high as urban pressures and aspirations pushed them. She examined not only architecture and planning but also the discursive and procedural means through which urban agents and institutions made sense of city and institution building:

> *The City as Campus* sketches an image of the campus that contains not only the buildings in which an institution's functions are housed and the grounds on which they sit—be they city blocks or greenswards—but also the methodology, explicit or implicit, each school uses to tie itself to place and, in this case, to the urban milieu. . . . The intersection of place and placement in the creation of a productive environment is at the core of this book's analysis of Chicago's campuses. (xvii)

By highlighting rhetoric and process alongside design and planning, Haar spotlighted the subjectivity inherent in establishing, expanding, and intervening in campuses—an emphasis on architecture's adjacencies recapitulated in her foreword to *Remaking the American College Campus* in which she described the campus as a contested space of contestation. The campus has been, at once, contestation's site and object. With a marquee late 19th-century progressive city project – Jane Addams' Hull House – and a set of fraught 21st-century campus expansion projects – those of Columbia and Cornell Universities – as bookmarks to the 20th century developments she traced, Chicago's major campuses served as evidence in the flesh of the university's critical historical role as a complex social infrastructure, of the institutional taking up of the mantle of progressive urbanism.

By positing Chicago as a meta-campus, as a coherent space that can be designed and developed proactively, Haar showed how the development of university campuses in the city exemplified such a city-building project. As the place that gave rise to the influential City Beautiful movement that enjoined purposive urban design, it makes sense as a case site for such a study. If Hull House as a metonym of the Progressive City movement suggested that the urban environment itself was reformable, then campus development was a potential and overt means of such a reformative urbanism. This account also suggested that the significance of what we might call *campused* city making, while vivified by particular urban histories, was not limited to the metropolitan realm.

The urban is scarcely disconnected from the national. In the American context where political power is in many ways decentralized, interior affairs being largely devolved to the individual states, urban projects can play out independently from the nation as whole. In this respect, the United States is more an exception than the rule. In many countries, local affairs are not outside the purview of national-level actors.[84] Urban development can even be a marquee national affair.[85] If cities are indeed playgrounds of the national state, and if campus development is critical to urban development, as Haar argued, then campus development constitutes a critical national practice. The morphology of the nation is a product of processes channeled by what we may refer to as the campus-city-country triad.

Noting the increasing global homogenizing commodification of higher education and the university's metamorphosis into something akin to a transnational corporation, Franscesco Zuddas reminded readers that the modern university emerged in 19th-century Prussia as a decidedly national project. Against the contemporary narrative of international convergence in the sphere of higher education, Zuddas' *The University as a Settlement Principle* highlighted a historical instance of national intransigence; though the namesake of the process of European

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[84] Molotch, Harvey, and Serena Vicari. "Three Ways to Build: The Development Process in the United States, Japan, and Italy." *Urban Affairs Quarterly* 24, no. 2 (1988): 188–214. And Sellers, Jefferey. "The Nation-State and Urban Governance: Toward Multilevel Analysis." *Urban Affairs Review* 37, no. 5 (2002): 611–41. Also, see Bray, Mark. "Control of Education: Issues and Tensions in Centralization and Decentralization" in *Comparative Education: The Dialectic of the Global and the Local*. Edited by Robert Arnove, Carlos Alberto Torres, Stephen Franz. Plymouth, UK: Rowman & Littlefield, 2012: 201–222.

[85] See Holston, James. *The Modernist City: An Anthropological Critique of Brasilia*. Chicago: University of Chicago Press, 1989. See Aly, Hend. 2019. "Royal Dream: City Branding and Saudi Arabia's NEOM". *Middle East - Topics & Arguments* 12, no. 1: 99–109. See Bunnell, Tim. "Cities for Nations? Examining the City–Nation–State Relation in Information Age Malaysia." *International Journal of Urban and Regional Research* 26 (2002): 284–298. See Dym, Jordana. *From Sovereign Villages to National States: City, State, and Federation in Central America, 1759-1839*. Albuquerque: University of New Mexico Press, 2006. See Scobie, James. *Argentina: A City and a Nation*. New York: Oxford University Press, 1964.

standardization in the American mould is the Italian city of Bologna, Italy's recent past holds a disquietistic architectural episode during which university development shied away from American and European models and refused to conform to their paradigms. Here was a monograph, though still Eurocentric, that escaped the discursive fixation on North America and Western Europe.

The book's focus was the post-1968 moment and the attempts of Italian architects to intervene in the higher education landscape of their booming postwar nation. By focusing on four Italian university campus design competitions in the half decade after the tumultuous year, Zuddas sought to show how campus design mediated between architecture, politics, and pedagogy. Triangulating between university, architectural, and urban design as "objects connected by the shared property of designability," he contended that studying universities gives us insight into architectural and urban theory.[86] Challenging the adage of the university being a city in miniature (and thereby autonomous from the city), Zuddas' formulation of the university as a "settlement principle," which he borrowed from one of the architects who were the subjects of his book, sees it in "constant dialectical relation" with urban and regional formations. In this regard, his premise was similar to Haar's. It is not surprising then to see that both Zuddas and Haar began their books with Bill Readings' lamentation of the cooption of the university by capitalist logics.[87] If university development cannot be extricated from urban development, then the former is hardly immune from capitalist appropriation, a process that Christine Boyer showed took place with city planning during the first half of the last century.[88] Taken together, Haar's and Zuddas' accounts were essentially mid-20th century architectural stories of universities grappling with their presence and potential roles in Chicago and several Italian cities.

Though the postwar university development fervor was not unique to Italy, Zuddas pointed out that the projects he focuses on have the distinction of taking place after 1968. Unlike the new institutions and campuses in Western Europe and North America that had to adapt to a novel sociopolitical milieu in the aftermath of the student uprisings, the Italian projects were designs attuned to such a milieu.[89] Here was an opportunity to build universities post-crisis as

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[86] Zuddas, Francesco. *The University as a Settlement Principle: Territorialising Knowledge in Late 1960s Italy*. New York: Routledge, 2020: 8–9.

[87] Readings, Bill. *The University in Ruins*. Cambridge: Harvard University Press, 1996.

[88] M. Christine Boyer. *Dreaming the Rational City: The Myth of American City Planning*. Cambridge: MIT Press, 1983.

[89] For more on the pre-crisis campuses, see Muthesius, Stefan. *The Postwar University*. 2000.

opposed to repurposing pre-crisis designs. Furthermore, the Italian government did not have a concrete agenda for higher education reform and expansion, thereby freeing architects to propose their own visions for the future of higher education in Italy. Zuddas showed how campus designers reacted to the efflorescence of anti-establishment sentiments and the national uncertainty around higher educational reform.

Early in Zuddas' book was a brief but somewhat revisionist history of campus planning, one that was explicitly *not* a "history of enclosures," for though the campus may be commonly understood as a closed and self-contained space, it originated as "an open-ended spatial diagram." Moving from Thomas Jefferson's design for the University of Virginia through the "British season of university building in the 1960s" to Cedric Price's radical piece of paper architecture *Potteries Thinkbelt*, Zuddas saw a long lineage of architecture engaging higher education as an apt proxy for broader concerns; architects had long leveraged universities as testing grounds for urban planning ideas. This came to a head in the mid-20th century, a period in which university design embodied the architectural zeitgeist. Campuses became "the spatial products through which the architecture community could prove a thesis" (41). In the particular context of postwar Italy, architects saw an opportunity to revolutionize urbanism, especially since they considered "multi-scalar thinking an imperative to cope with the ultimate exhaustion of the significance of the very word 'city'" (41). University design became a charge to tackle Italy's pressing urban and higher educational questions.

A string of four "international" competitions in the early 1970s, proffering complex and, at times, nebulous briefs, sought architectural solutions to open-ended questions around institutions in four Italian cities. Rather than simply respond to the briefs (in the cases when such a thing was even possible), Italian architects – and it was Italians who constituted the bulk of the respondents – jumped at them as opportunities to pursue their territorial development agendas. Zuddas argued that they were more comfortable operating in terms of urbanism, which they did extensively in their submissions, as the vast majority were unprepared to design universities. The competitions became a "confrontation between ideas on the city – with university design, once again, acting as just a pretext" (84). It was only a disciplinary takeover by "technologist-productivist reasoning," exemplified by a brief won by an engineer that put an end to the Italian architects' urban fixation. They became too preoccupied with defending their formal, humanist understanding of the discipline against the encroachment of a techno-scientific ethos to care about asserting the need for urbanism over mere campus building.

Despite Zuddas' assertion that architects of the period were more wrapped up in issues of the city than of the university, his work showed how keenly interested many key architects were in the question of education and its reform—and in the spatial dimension of such a prospect, alongside the "urban dimension" which he reiterated was at the forefront of the Italian architectural discourse of the period. In fact, it is not clear whether the architects truly lacked the requisite expertise to design campuses – which was the claim that Kanvinde and Miller made in the 1960s about the Indian architects of the period – or were simply more interested in urban design.

Disparate as they appear at first glance, works in this strand of the discourse constitute a critique of the insular university, a push back against an institutional and spatial complex understood as "a place apart," to use Stern's expression. Rather, the university, as much as the city, is a domain of sociopolitical ferment; in its design and operation, it cannot but engage with the city. If Haar's conceptualization of the campus can be thought of as 'of the city, the campus,' Zuddas' may thus be encapsulated: 'through campus, the city.' To riff on Pier Vittorio Aureli's view of "the city as a project," we may think of the campus as a project by, of, and for the city. These accounts reiterate that the space and spatialization of the university are necessarily political.

But such accounts can be quite sobering for the disciplines of spatial design. Zuddas' book was essentially about a postwar disciplinary community that "tried to reflect upon itself by looking at their own images – of themselves as men and as architects – in a renewed mirror of higher education" (205). Concerned chiefly with urbanism and its discontents, the Italian architects of the period eschewed the discrete campus; their projects were about the "city-as-university" as opposed to the university-as-city, especially in its archetypal (American) "pavilions-in-the-park" form. In his study of campus design at a particular moment in modern Italian history, Zuddas came to a sober conclusion about architecture's societal agency: "Within the general striving for homogenisation of European higher education, the prospect of an 'original' Italian 'take' dissipated together with a steep fall into the abyss of the architect as a figure trusted with the best social responsibility" (109).[90] The conclusion he reached in his

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[90] As Reyner Banham put it in his chapter on "Megastructure in Academe," a part of his monograph on architectural megastructures, the Italian schemes of this period appeared more indulgently fanciful than indelibly feasible: "Without knowing of this background of radical quasi-political intentions, one might easily suspect that projects such as these were merely expressions of a desire to impose a regular formal order, above all a monumental order of heroic scale, on the unruly countryside and the sprawling town. Even allowing that these political ambitions are there, however, the dominance of formal interests seems overwhelmingly strong, arousing the suspicion (aroused by many other radical proposals in the arts at that time) that for these Italian megastructuralists the main function of social revolution would be to

account of architecture's midcentury engagement with pedagogy resonates with Joy Knoblauch's in her account of architecture's midcentury engagement with psychology.[91] His book traced a euphoric architectural moment leading to the discipline's coming to terms with the limits of its agency in reshaping the urban environment. Here, campus design served as a spatial lens through which to read the postwar growing pains of a nation amongst nations.

Another recent but more expansive study of postwar campus design, particularly as a cognate of the nation-state's developmental imperative, is Carlos Garciavelez Alfaro's *Form and Pedagogy*. Here, understanding the-campus-in-the-city-in-the-nation constituted an analytical starting point in an account presenting a continent conceptualized as a meta-campus. The book comprised cases exclusively in non-Western contexts, or to be more specific, in the non-Anglophone regions of the Western hemisphere, where campus building and nation building went hand in hand. It focused on key Latin American campuses built as countries in the region were modernizing during the mid-20th century.

In this part of the world, Garciavelez explained, the campus dissolved the tension between integration with the city and autonomy from it; the concept of "university-campus" was entangled with the concept of "university-city." In the guise of the former, universities performed as symbols of progress, and in the latter guise they functioned as epicenters and catalysts of urban and architectural development. These "university-cities," as he called them, were products of nations seizing on "education as an emblem of progress and civility."[92] Dober observed over two decades before Garciavelez that for "developing countries, the founding of a new campus is a rite of passage, a three-dimensional indication of aspiration, status and achievement."[93] Garciavelez went further, contending that the "Latin American campus became a unique architectural laboratory, generating dialogue across borders and continents" (16). Instead of examining the campuses as national projects, he conceived of them collectively as a

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enable them to realize purely aesthetic ambitions that were thwarted under existing régimes. Of course, they themselves always expressed the matter the other way about: these gigantic aesthetic and urbanistic innovations would revolutionize society, or at least help to do so." See Banham, Reyner. *Megastructure: Urban Futures of the Recent Past*. London: Thames and Hudson, 1976: 148.

[91] For more on this historical psycho-spatial account, see Knoblauch, Joy. *The Architecture of Good Behavior: Psychology and Modern Institutional Design in Postwar America*. Pittsburgh: University of Pittsburgh Press, 2020. Quoting Stephen Wilson's review of her book in the Times Literary Supplement, Knoblauch tweeted that "But should one be looking to architects to solve social problems?" is a fair one-sentence summary of the book (@OMGknoblauch, July 13, 2020).

[92] Garciavelez Alfaro, Carlos. *Form and Pedagogy: The Design of the University City in Latin America*. Novato, CA: Applied Research and Design Publishing, 2014: 15.

[93] Dober, Richard. *Campus Design*. 1992: 4.

"continental enterprise." In other words, this monograph effected an aggregation of urban-national projects into a transnational project.

Beyond elaborating on the urbanity of national campuses, Garciavelez showed how they could be understood to knit cities together into larger regional formations. He described his book as a "campus atlas" of university-cities, linking them into and comparing them as members of a "Pan-American Project," while attempting to balance continental universals with institutional particulars: "Because of the constant dialogue that occurred during their development, the subject of university-cities became a dominant one throughout Latin America," he explained. "As a result, countries' discussions about investment in education and in the future have crossed national boundaries and become a Pan-American Project, yet each campus has been able to maintain a unique national and architectural identity" (22). He found that the Latin American university-city was influenced primarily by the American campus. Making a distinction analogous to Muthesius', Garciavelez stated that the European university (the *college* in Muthesian terms) became, in America, a campus (autonomous, embedded in landscape, and part of the democratic vision) which became the basis of the Latin American university-city. The Modernist influence was central to the development of these campuses, particularly as designers and consultants, both citizens and foreigners, partook in an international network through which ideas and expertise were exchanged. Searching for new national identities, Latin American governments tapped into a global web of influences in order to "revolutionize education through form and pedagogy" (19). Here was an account of campus development born of what Mark Wigley has called "network fever."[94]

Garciavelez examined eight Latin American campuses, calling them out as "exceptional laboratories of Modernist experimentation" and also as sites "in disrepair and in urgent need of conservation" (23). The book was beautifully illustrated, documenting the contemporary state of each campus, its genesis and historical development, and highlighting its key buildings. Garciavelez explained that the scale of these campuses "made them poles of new growth for the cities in which they were established" (415). They were characterized by a core, whether void or mass, and they were unabashedly Modernist. And they begat more Modernism: "The architects and urban designers who were trained pedagogically and experientially in the Modernist

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[94] Wigley, Mark. "Network Fever." *Grey Room* 4 (2001): 82–122.

university-city spaces went on to cultivate a new generation of architects and urban designers"
(415).[95] Garciavelez affirmed the continued importance of these campuses as urban actors:

> The university-cities surveyed in this book and many others that have not been
> documented here serve as critical precedents for the future of the university campus type
> in the region. It is through these projects that we can be better informed in order to
> project the future of the university-city. As cities grow and become more poly-nucleated,
> a constellation of campuses is becoming a more prominent model. Therefore, the role of
> architecture as an identity builder must be rescaled in order to address the proliferation
> of the campus across multiple nodal points. (416–17)

He asserted that the urban role of Latin American campuses has grown in importance as the
metropolis has morphed into the megalopolis. His conclusion was that campuses, as national
urban projects, still have a purpose to serve; they must act as robust but flexible anchors of their
sprawling urban environments and communities. The campus here does not only shoulder the
responsibility of exalting its users, but also of guiding its city and its nation forward.

In its engagement with questions of the city and the nation, the discursive campus
demonstrates analytical interscalarity. Put another way, one's conceptualization of the campus is
conditioned by one's conceptualization of its context. Understanding its environment
monadically (as a physical neighborhood, for example) is liable to render the campus'
contextuality a straightforward interface with its immediate surroundings, while understanding
its environment ecosystemically (as a metropolitan region in its totality, for example) suggests
broader and more complex relations and enmeshments with which it has to grapple. By
emphasizing the significance of the academic campus as a transregional urban phenomenon,
Garciavelez recapitulated its internationalism – a characterization whose primetime at the
discursive fore was during the 1970s – at no expense to its urbanity and nationalism. Within this
frame of thought, nation building is enacted through city building which is enacted through
campus building. This suggests that the more campuses are conceptualized as urban projects,
the more amenable they become to being collectively understood as a broader national project.
And the more campuses are conceptualized as national projects, the more clearly they may come
to intimate supranational schemas.

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[95] On this note, Fernando Lara has argued that modernism was the cultural zeitgeist in Brazil during the
mid-20th century, influential across the spectrum of high and popular culture. See Lara, Fernando. *The
Rise of Popular Modernist Architecture in Brazil*. Gainesville, FL: University of Florida Press, 2008.

The strand of the discourse that sees the campus primarily as an urban-national project exhibits all three epistemic inclinations underlying the discourse as a whole, though market instrumentalism and non-instrumentalism dominate. The latter is sustained by the existence of a vast number of campuses ripe to be included as artifacts in broader histories of campuses, cities, nations, and continents. Yet, this notion of the campus being part and parcel of broader networks and constellations comprising campuses, cities, nations, and continents animates many of these works' market instrumentalist underpinnings. For example, to be an integral part of a city is to be privy to and involved in its manifold flows, desires, activities, and conflicts—that is, to be about much more than one's internal pressures and proclivities.

That said, there is not a singular way to be in and of the city. Accounts like the Chronicle's report and the *Campus and the City* symposium proceedings affirm the campus' ability to shape and improve cities, whilst historical accounts like Zuddas' appear to question the viability of that ambition. To think of the campus as being a *civic* actor is to lean towards a non-instrumental conception by foregrounding the type's entanglement with the idea of the city, its civitas. Conversely, to think of the campus as an *urban* actor is much more of a market instrumental conception in that this foregrounds the city's messy materiality and metabolism along with their myriad influences. To further think of the campus as a national, international, or global phenomenon is to scale up this imbrication in the civic-urban. Though this thematic conceptualization of the discursive campus tends to focus on the scale of what I have characterized as the campus-city-country triad, it more generally affirms that the campus is necessarily part of a scalar continuum ranging from the educational structure, through the city, and the nation, to the world.

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