ABSTRACT:

In 1950 the Research Triangle Park (RTP) was a poor tract of rural land straddling two unremarkable counties; in the course of 50 years it has become a world-renowned center for research and innovation. At its roots the Research Triangle was an idea to incite change through a regional identity of intellectual capital very much grounded in a particular place. This paper questions how that process altered the socio-cultural character of the region and transformed how people identify with the very landscape that was promoted as the guiding force of change.

At mid-century North Carolina was a typical southern state “still on a colonial, branch-plant footing,” yet Tar Heels had built a regional banking center, made advances in tobacco, textiles, and furniture production, and established a reputation for progressive politics. The concept for a Research Triangle sought to exploit the intellectual capital among three adjacent universities through collaborative research programs, to attract industrial research operations, and build a regional identity as a hotbed for innovation. It was a progressive idea inextricably founded in a unique regional geography. George Simpson, founding director of RTP, put it succinctly: “There is great value in having something concrete, something that can be mapped and walked over, to place before people. Something tangible stimulates the imagination.”

In her book Pastoral Capitalism: A History of Suburban Corporate Landscapes (2011) Louis Mozingo correlates the relocation of business offices to the suburbs with the development of managerial capitalism by situating the segregation of white-collar management to suburban office parks as part of the larger white-flight narrative. This paper extends many of Mozingo’s concepts to a case study of RTP as a model of separatist geography and considers the ensuing regional change. It will explore the historical evolution of the Research Triangle idea to gain insight on how landscape functioned as a medium for a particular ideology of development and progress. Simpson himself said, “What we are attempting here is really the stimulation of a general movement, the development of a new state of mind, among the people of the state.” This paper will look at park planning, site design, and buildings to investigate how landscape functioned to incite change in the culture of a region and questions the resultant globalization that distanced people from the very landscape whose main asset was its unique regional geography.
INTRODUCTION

[Slide] Chemstrand Corp., was the first independent organization to locate in the Research Triangle Park. On 100 acres they constructed a research campus designed entirely to glorify the experience of their building. The approach is from a long entrance drive giving only hidden glances from afar until arriving at a corner of the front lawn. From here the drive splits off in a one way, elongated loop road that parallels the façade as it circumnavigates the front lawn such that guests destined for the front door have to drive the length of the building, ensuring ample opportunity to survey the full extent of this magnificent edifice, before looping up to the entrance.

[Slide] The building itself is a modernist horizontal complex of three balanced forms. Every morning hundreds of white-collar scientists and office workers file into the long, 2-story segment on the left, the brise-soleil reinforcing the reference to a double-drawer, metal filing cabinet. A triple story center cube houses administrative offices and meeting rooms, its importance reflected through the rich marble veneer. The glass pavilion to the right is the real pièce de résistance. Massive sheets of glass afford an unobstructed view of the surrounding pastoral scenery that gently drops off in all directions from the grassy knoll on which it sits.

Frank Harmon, one of North Carolina’s most celebrated home-grown architects, thinks RTP is essentially a collection of English Country houses. The reference is not entirely out of context; Simon Schaffer likens the late 19th century trend of building physics laboratories in pastoral settings outside the city part of the “bucolic epistemology” of social withdrawal “a precondition of access to universal truths.” It may seem odd, then, when William Perkins recalls 57 years ago, “when we got to the park, there was nothing here but pine trees and possums” or as another account has it there was “all but empty acres...useful mostly for holding two counties together.”1
Growing up in the suburbs just north of town, I used to think the “R” in RTP stood for Raleigh. This seems plausible enough; the “R” in RDU—Raleigh Durham Airport—was so arranged, and it made sense the region would be known for its city, for its people, and not primarily as a haven for corporate research operations. The Raleigh-Durham Research Triangle region has an identity complex, and that I—as a native—did not fully understand these roots is in itself quite telling. This is the beginning of a contemporary landscape history for the region.

**History of the Research Triangle Park**

The story of RTP begins as many in the south so often do, with a group of old white men. [SLIDE] In 1939 Romeo Guest, a Greensboro developer, tried to get Merck and Company to locate their research operations in North Carolina. The company ultimately built in the piedmont of Virginia near UVA because they thought proximity to the university would reduce turnover among their scientists and other highly paid employees. His motives were not entirely altruistic; he was a businessman seeking to increase business opportunities, but he learned two important points in this experience with Merck: 1) research could be an industry unto itself and 2) proximity to major universities could be a marketing strategy.²

The immediate post-War economy was not kind to North Carolina: it suffered from declining industrial investment, was overly dependent on agriculture, and college graduates were leaving in droves for jobs in other states. The “brain drain” was of particular concern, for if ever there was a soft spot in this region it is collegiate pride. [SLIDE] However the Tar Heel state had since built a regional banking center, the first public university, and a reputation for advances in tobacco, textiles, and furniture.³ The problem facing North Carolina was to harness these assets and grow its intellectual, technical, and financial capital within its borders.
The story is that Guest used the phrase “Research Triangle” as a marketing ploy in reference to the geographic region and intellectual ambiance between North Carolina’s three most esteemed universities: UNC, Duke, and NC State University. The idea was to create a place where companies could establish their research and development operations, being attracted to the proximity to universities and highly educated workforce. Companies would benefit from the intellectual energy, share laboratory resources, collaborate on projects, and hire student interns and graduates. North Carolina would benefit from the obvious influx of capital, keep its most educated citizens, and increase its high-earning tax base.

George Simpson started as director of the Research Triangle Committee and recruited a team of professors to market the Research Triangle. They was received with much enthusiasm by the companies, but perpetually ran into one problem: Up until now there was nothing but an idea, but to get commitments they needed physical land to market. Simpson puts it most succinctly, “There is great value in having something concrete, something that can be mapped and walked over, to place before people. Something tangible stimulates the imagination.” At the time this seemed obvious, but in retrospect it is crucial. This was a pivotal moment where an idea to reinvent the image of a region finds resolution in the very landscape it was trying to reform.

RTP seemed to be good policy, but faculties at the universities were less than convinced. At a presentation Guest was giving to the faculty at Chapel Hill, William Carmichael illustrates the situation: “let me see Romeo, if I really understand what it is we’re talking about here, you want the professors here and all of us to be the prostitutes and you’re going to be the pimp?” To be sure, this was never the intention. It soon became clear, however, that for the Research Triangle to be a success would require active involvement of the universities. Without them, there was no reason for companies to locate in North Carolina initially. Thus the Research
Triangle Institute (RTI) was established as a contract research agency: “to encourage the use of the research in the State and regional industry; and to extend the Research Triangle’s position as a research center.”

**Pastoral Capitalism**

In her book *Pastoral Capitalism: A History of Suburban Corporate Landscapes* (2011) Louise Mozingo links the suburban corporate campuses to the rise of managerial capitalism, a story that RTP parallels. She shows how the suburban corporate campus emerged as a response to the need for office space while replacing the tall office tower as the sign of corporate status. On sites upwards of 200 acres sat opulent complexes akin to the Villa Medicis of our time; grand entry drives led to modernist buildings wrapped in glass curtain walls that demanded views of pastoral scenery. It was a careful orchestration of corporate image to impress investors, attract skilled professionals, and provide an identity.

The expanse of industrial research growing in response to market competition and the increasing complexity of product and manufacturing technologies is key. Research and development departments began to command more importance and autonomy within the corporate structure and vied for the limited number of scientists that universities graduated each year. The suburban corporate campus provided the opportunity for a marketing strategy by modeling the Olmstedian pastoral park or collegiate quadrangle, both traditions that conveyed the ascendancy requisite of white-collar professionals. Just as Olmstead believed contact with nature was psychologically therapeutic for urban dwellers, corporations harnessed the power of landscape to attract the most talented employees, keep them happy, and increase productivity. It was functional, but more importantly it was familiar. Mozingo eloquently explains the suburban
corporate campus “bolstered the class identity of management workers, reinforced their self-conceptions, and created a more complacent, selective workforce in the process” \textsuperscript{10}

Building off the early success of individual corporate campuses, speculative developers constructed suburban office parks for collections of smaller companies. Often these operated on a subdivision strategy modeled after Planned Urban Developments, complete with zoning requirements and restrictive covenants. \textsuperscript{11} This extended the standardization and efficiency of managerial capitalism to broad swaths of the national landscape; it “corporatized not just office space but the peripheral expansion of American metropolitan zones” \textsuperscript{12}

**Research Triangle Park Architecture**

The Research Triangle Institute was first to build in RTP. Its task was crucial: they had to create an architecture that impressed upon others the value of locating in the Park. In 1959 Odell Associates designed the campus in what can only be described as academic. [SLIDE] At the heart of the Park on 288 acres the site is structured around a hierarchy of circulation separating pedestrian and vehicular traffic. A massive green at the center organizes buildings connected by a ring road on the outside with parking at the edges.

[SLIDE] The Hanes building, RTI’s administrative headquarters, sits back a generous distance with a large meadow in front and a processional driveway for an oblique approach. It is a 2-story modernist neoclassical revival structure with a flat roof, clad in painted brick. Ten steps lead up to a two-story entrance portico recessed into the façade, square columns guarding the threshold and defining the space leading up to the double-height glass curtain entrance wall. It is a modernist take on decidedly classical language, it creates a particular image of modernity while supported by the authority of classicism, reflective of the innovation of research reinforced through the certainty of science.
[SLIDE] The Hanes building is an image, but it also mediates a transition experience from public face to private campus space. The building sits at the end of a slight rise such that the finished floor elevation is twice as high through the front entrance as it is on its opposite façade. Here a second double-height glass curtain entrance wall looks out to the expansive green around which the other campus buildings were to be organized. Thus visitors approach a main entrance which looks down upon then and the more public entry sequence, travel a wide flight of stairs into the grand portico wherein they can see straight through the two vitreous entrance walls and out onto the campus beyond.

[SLIDE] To the southwest along the quad are the Dreyfus Labs. It was the first building specifically and entirely for research operations, and it was therefore critical to convey the modernity of scientific work. From the outside it is essentially a rectangular white box, versatility being key so that the interior could adapt as labs evolve and respond to innovations in science and technology. Yet here again a modern formal language is present in the simple glass entrance wall and raised, eyebrow-like projections that reflex at the roofline. In this way the building exuded modernism, both through efficient programming also through architectural order.

[SLIDE] The Dreyfus labs certainly conform to the simplicity and functionality of an International Style modernism, but at the center, literally at the center of the building, is a round auditorium that again borrows from the authority of classical architecture. Like a little Tempietto or tholos for thought, it was in the interior courtyard surrounded on four side by the research labs but not physically connected to any of them. The courtyard was flooded with water to create a further material separation from the main building, a solitary bridge leading to its entrance as one literally walks on water in a transition experience. The auditorium was a monument of
knowledge, where the intellectuals would gather for lectures and meetings to confer over ideas being worked out in the surrounding labs.

**The Research Triangle Landscape**

Inside Park borders the Foundation maintained control of development, and took the park concept quite seriously, using the corporate subdivision as a guiding image much in the manner Mozingo describes following the model of Planned Urban Developments. Herein lay the footings of anonymity now characteristic of the Park. Not only did it use deed restrictions and covenants to homogenize its constituency, they established an Owners and Tenants Association and Design Review Board to oversee all development including approval of tenancy, buildings design, and landscape plans. The Foundation established a set of rules including:

1. Parking off street, preferably out of view
2. minimum six acre Lots
3. No “odors, noise, radiation, vibration, fumes, dust, gases, smoke, etc., [were] to be permitted to cross property lines.”
4. No manufacturing or processing except as adjuncts of research.
5. No products manufactured primarily for sale.

In 1960 the Foundation furthered this restrictive environment by setting zoning limits: building footprints were to cover no more than 5% of the area and total square footage was limited to 10% of the lot, later increased to 15% and 30% respectively. To this day fully 70% of the park remains in some form of landscaped or wild nature, “to preserve a park-like atmosphere”.

In a very immediate sense, the development restrictions at RTP have created a park-like atmosphere that is ambiguous at best, and exclusive in reality. Spencer Wolfe rejects the notion of RTP as a park entirely, “we have only been removing the forest and siting buildings as isolates…an enclave of “clean factories””. Hidden behind large stands of pine trees are sprawling research complexes, thousands of square feet housing thousands of employees. Each morning lines of cars file into precariously labeled driveways that disappear into the countryside.
If a building is visible from the road in some sort of monumental display, its entrance likely is not. It all adds up to a sense of secrecy.

Pearson Stewart is very direct about the culture of secrecy. “No question. That was not hidden at all. [Companies] didn’t want their people talking to other workers.” Again, today there is irony in his words, for despite the Research Triangle being advertised as an atmosphere of collective intellectual curiosity, within a park-like setting, in actuality that environment has perpetuated a culture of closely guarded secrets. In creating this enclave of clean factories, the “forest itself was [conceived] as a passive, “forgiving” element that could be used to conceal what was constructed.” William Rohe agrees that the landscape is a passive agent in the construction of corporate space, “protecting corporate secrets by sequestering employees on large self-contained campuses…providing their employees with a bucolic setting.”

**Conclusion**

For Mozingo, this is the crux of the matter. The separatist geography that started with corporate campuses and evolved to the ubiquitous suburban office park reinforces a particular civic dis-objective, “reflecting and reinforcing an autonomous identity where engagement beyond the corporate office is an optional effort.” George Simpson, first director of rtp said “For what we are attempting here is really the stimulation of a general movement, the development of a new state of mind, among the people of the state.”
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APPENDIX 1: DR. ODUM’S INVOLVEMENT

Howard Washington Odum (1884-1954) was a distinguished professor and founding department head of Sociology and School of Public Welfare (later School of Social Work) at the University of North Carolina at Chapel Hill. Louis Wilson starts the history of RTP with Odum, who he tells as having taken note of the expansion of sponsored research in universities for industry and government in the post-war period. Odum did not necessarily see this as a bad thing, though many faculty were greatly troubled by this, rather Odum wanted to make sure this type of research was distinct from the pure research that universities had built their reputation on.

Dr. Odum proposed something akin to the Research Triangle on several occasion to different people. He approached the Ford foundation, individuals particular individuals, and university administration in general on various types of foci. First he proposed establishing a series of regional university centers throughout the United States. Then he proposed a collection of three institutes to focus on pure research in science, social sciences, and humanities between the three branches of the Consolidated University of North Carolina, this is perhaps something akin to the Institute for Advanced Study in Princeton, N.J. Then he proposed a coordinate unit of the greater University System for research on institutional administration and human relations integrating the work of several institutions, to be located centrally somewhere near the airport. Then he proposed a regional resource center for the southeast; and finally a Regional Resources Center for the Consolidated University. The last proposal was a memorandum to President Gray “Appraisal of the prospects for a Regional Resources Center” on the regional importance of such a center and that it could focus on research on “agriculture and food production, industrial development and commodity production, population and ecological balance, regional-subregional and urban area planning, and regional balance in national perspective.”
This was also to include the HBCU included the Agricultural and Technical College in Greensboro (now NC Agricultural and Technical University) and the North Carolina College at Durham (now North Carolina Central University, directly to the universities. This is a coordinate unit of the Consolidated University primarily for research in human relations but). Mozingo make a point to note that the black colleges were booted off list, but that not so different from exclusionary interests of suburban corporate campuses in general. If you cannot drive there, you cannot work there.

University administration apparently give Odum’s proposal consideration, but decided against it, however Wilson goes to great lengths in explaining Odum’s proposal precisely because other authors had not given Dr. Odum due credit, namely Professor W. B. Hamilton of Duke University. Years later, the Research Triangle Foundation asked Albert Link to write a history of the Park and gave him access to their archives. Writing in 1995, Dr. Link also does not find Dr. Odum’s contribution relevant. But Wilson finds reason to credit Odum because although he was not alive when Hodges was approached, and although he never went outside the consolidated university with his proposals (except to the ford foundation), the similarities between his Odum’s proposals and what was ultimately implemented are more than possible for coincidence. Firstly, all of Odums proposals were about collaboration. Odum proposed this collaborative venture to be its own entity as coordinate unit of the consolidated university. Odum had cited a central location near the airport. Odum’s associate Simpson was nominated by President Friday who worked with President Gray when Governor Hodges approached them. Friday later recalls “he was clearly identified in the academic community as a protégé of Howard Odum.” Simpson would go on later to say that “To the extent that I was important to the enterprise, the Dr. Odum was directly and palpably involved.”
To add fuel to this fire, a committee of experts visiting the physics department at UNC submitted a report to President Gordon Gray “the opportunity should be seized to…build a strong center of pure physics” as “Chapel Hill-Raleigh-Durham triangle has the potentiality to grow into a great physics center of the southeast.”\textsuperscript{31} This does not have any direct connection, but considering Odum had just approached the University about regional research systems that and the year before, it certainly could have made the administration more amenable to the idea.
**APPENDIX 2: RTP TIMELINE**

March 3, 1954: Brandon Hodges, Romeo Guest, and Robert M. Hanes meet at the Robert E. Lee hotel in Winston Salem; Guest presents his idea of the Research Triangle to Hanes

December 1, 1954: Bostian, Campbell, Lampe and Hodges met with Governor Hodges to inform of Research Triangle Idea

December 1954: Romeo Guest circulates drafts of “Conditioned for Research

December 31, 1954: Guest meets with Governor Hodges

January 4, 1955: Romeo Guest meet with Duke University officials; Dr. Paul Gross notes it crucial for there to be a research institute associated with the Park.

January 27, 1955: Chancellor Bostian submits Campbell Newell report “A Proposal for the Development of an Industrial Research Center in North Carolina” to Governor Hodges

May 27, 1955: first formal meeting of the Research Triangle Development Council

September 25, 1956: Research Triangle Committee, Inc., was incorporated with three directors in Luther Hodges (chairman), Brandon Hodges, and Robert Hanes. Formally announced at luncheon hosted by Hanes at the Carolina Hotel in Raleigh of prominent business leaders Governor Hodges invited

October 1, 1956: George Simpson starts as Director of Research Triangle Committee

March 5, 1957: Research triangle Institute Committee meets to investigate concept of research institute.

April 12, 1957: Karl Robbins commits to fund land purchase in a meeting with Governor Hodges.

September 10, 1957: Governor Hodges holds a press conference announcing plans for a research center in the Research Triangle.

September 30, 1957: Pinelands, Inc., was incorporated.


January 18, 1958: Pearson Stewart is hired as Assistant Director to Simpson of the Research Triangle Committee, he takes the lead on physical planning

September 1958: Robert Hanes and Governor Hodges bring on Archie Davis to raise money for the organization.
Dec. 29 1958: The Research Triangle Institute is incorporated as non-profit

January 2, 1959: The Research Triangle Committee changes to the Research Triangle Foundation

Jan 9, 1959: The Research Triangle Foundation elected Robert Hanes as chairman, Archie Davis as president, The Research Triangle Institute board meets to elect George Watts Hill chairman, George Herbert president, Governor Hodges holds a luncheon at the Sir Walter Raleigh hotel to announce that Davis raised $1.425 million to fund RTI, build the Hanes building, and buy out Pinelands, Inc.

March 14 1959: Policies for

Sept 1 1959: Covenants and restrictions for the Park established.

Jan 4 1960: Zoning policies for the Park established.

Nov. 19 1960: Governor Hodges announce the US Forest Service is to locate a Biology Laboratory in the Park

Dec 16 1960: Hanes building dedicated

January 6, 1965: Governor terry Sanford announced us department health, edu, and welfare to build 70 million Environmental Health Sciences Center

August 26, 1965: The Research Triangle Park receives its own zip code
The exact origin of the phrase or who used it first is debated, but in actuality of little importance to the grand scheme of ideas.


It is important to note the Olmsted pastoral is distinct from the picturesque, which builds off the cultural capital of American democracy and individualism.

Original the auditorium was surrounded only on three sides but labs with the fourth walled off from the outside, signifying the designers very much intended it to be an interior courtyard. As the labs were expanded the fourth side was also closed in by building space.


Policies first set on 14 March 1959; Zoning provisions established 4 January 1960; See Hamilton, 272; See also Link, 80

Wolfe, 9

Pearson Stewart quoted in Rohe, 78

Wolfe, 6

Rohe, 83.

Ibid, 220


24 Wilson, 4-6
27 In the 1980s Linda Sellars tried to get access to the Research Triangle Foundation Archives as a graduate student in history at the University of North Carolina at Chapel Hill but encountered difficulty. Presumably the foundation was looking for a more seasoned scholar to write the history and was hesitant to grant access until this was finished. This account is unconfirmed.
28 Link writes “based on discussions with some of those directly involved in the planning at the time…I question the hypothesis that there was a direct relationship between Odum’s ideas and the original Triangle concept. There certainly was an important indirect relationship: Simpson was a student of Odum’s.” See note #5 of the Introduction in Albert N. Link, A Generosity of Spirit: the Early History of the Research Triangle Park, (Research Triangle Park, NC: Research Triangle Foundation, 1995).
29 Friday quoted in Link, Generosity of Spirit, 31.
30 Simpson quoted in Wilson, 7