### The Tar Heel

# Research Triangle Park: N.C. looks to the future

### Editorial

North Carolina is the state which relies for its economic livelihood on tobacco, textiles, and furniture, right? Wrong.

While approximately 50% of manufacturing jobs are still in those low-wage low-skill areas that means 50% are not. Research Triangle Park is one of the projects (probably by far the single most important one) taking the state in the 'right' direction.

Perhaps the phenomenon of the Park is less surprising when one reflects that the state has more institutions of higher education (108) than counties (100), with the three that form the vertices of the triangle long recognized as being outstanding.

Back in November 1983 I decided to attend UNC-CH instead of an institution in my native Britain. I did not know that much about UNC-CH or even about North Carolina but what I did know I liked and fellow countrymen had returned raving about the 'UNC experience'. Reaction amongst those who were less well acquainted with the state and the country was extreme surprise. Why on earth did I want to go to an American university? Why, of all places, North Carolina? Where was North Carolina anyway?

In our Registration Issue, where it is more relevant, I shall explain in more detail why it is such a good idea to come to UNC-CH and then to take full advantage of the considerable opportunities which it offers. In the meantime suffice it to say that the broadness of the education, the ability still to get something of the classic Liberal Arts education here instead of being locked into one subject was reason alone to come.

More relevant to this editorial is my discovery of just what a state North Carolina is. At the end of last semester I visited the state zoo (the origin of Jesse Helms' famous comment about Chapel Hill) and was amazed to find that you are setting out to build the world's most outstanding zoo and are well on the way there. I am already deeply impressed by the quality of the university education system here (see below for other surprising facts about North Carolina).

As I worked on this feature on Research

Triangle Park I was once more amazed at the foresight and preparation for the future shown by this state and by the thoroughness of the planning that has gone into the project.

The Park represents an amazing collaboration of government, community leaders, academia, business, and industry.

### Foresight, Care and Early Planning

As the project was planned officials visited previously established Parks and brought experts to North Carolina. They took great care to find out how the Park's predecessors had been set up and what had made them successful.

### Foresight, Care Today

The strict policies governing the establishment of new institutions within the Park (see below) might at first seem restrictive and discouraging to potential new arrivals. There are many more who would like to come but do not because of those policies. But it's not restrictive - these companies usually end up locating outside the Park's boundary.

These kind of regulations help to safeguard against the kind of uncontrolled growth that has happened at Silicon Valley, California. The Foundation is rightly anxious that

growth should not get out of control and irreparably spoil the area or prove a bubble that quickly bursts. Lasting change must be carefully nurtured.

### What makes the Triangle Attractive?

We see some answers to this in the accompanying article on Dynamit Nobel Grace Silicon: The talent represented by the three universities, the competitive nature of the state (DNGS considered 19 other locations), North Carolina's (surprising) orientation toward high technology industry, the reputation of the state's people for hard work.

One of the attractions of the area is the academic atmosphere already produced by the existence of the universities.

Much credit must go to the state for the extent that it is prepared to go to attract new research centers. The National Humanities Center came to Research Triangle Park in the '70s encouraged by free land, \$3 million for building, and \$225,000 p.a. for the first five years from the three universities.

#### The Knock-On Benefits

There are many benefits of the Park less immediately obvious than the arrival of new

companies. Many students from the universities work in the park and professors work closely with it. It is a major economic stimulant. Psychologically its successes benefit the entire state.

### The Early Bird Catches the Worm

We're lucky that the Park was started when it was. A survey as far back as May 1971 reported that of the 81 research parks that had then been established only around 25% could be said to be doing well. 52 research parks were established between 1960 and 1965 alone, after which the rate has sharply dropped and some have even closed down. Research Triangle Park would be in a very different position if it had been started today.

#### The Park is the Future

In 1962 former Governor Luther Hodges wrote that: "The Research Triangle is an idea that has produced a reality - the idea that the scientific brains and research talents of . . . three institutions . . . could provide the background and stimulation of research for the benefit of the state and nation . . . the Research Triangle is the marriage of North Carolina's ideals for higher education and its hopes for material progress."

## RTP: Background information

### Editorial

The term 'Research Triangle' was first coined Romeo H. Guest, president of a Greensboro building company, in the summer of 1953 to apply to the triangle of the eastern North Carolina Piedmont whose corners are formed by Duke University (Durham), the University of North Carolina at Chapel Hill, and North Carolina State University (Raleigh). The Research Triangle metropolitan area has only the 76th largest population in the country but the highest concentration of Ph.D.s to total population of any comparable area in the United States (there were 3000 in 1978 of whom 600 were working in the park itself).

The Research Triangle Park is 6,200 acres in the center of the Triangle set aside for research and development facilities for industry and government. It is not only the largest planned research park in the United States, it is the largest in the world. The Markham family, who once farmed the land that is now the center of the park, sold that land for \$100 an acre. Now the same land sells for over \$15,000 an acre.

Organizations locating in the park have to have a minimum eight-acre site (no maximum) and be involved in research, development, or scientifically oriented production. Anything more than light manufacturing is prohibited. They cannot occupy more than 15% of their total tract.

### The Idea

The idea for the Park is attributed to Dr. Howard W. Odom, founder of the Institute for Research in Social Science here at UNC-CH (who saw it as an academic center), Romeo Guest (who saw it as a focus for new research and development), and 1953-61 Governor Luther H. Hodges (who took the wider view that it would enhance North Carolina's whole economy and provide jobs for the graduates it produced).

Guest was an MIT graduate and an admirer of the 'Route 128 area' outside Boston who hoped that something similar could be achieved in North Carolina. The Research Triangle, along with areas in California and Texas, now attracts individuals and companies away from that very area (Data General Inc. is one of them) because taxes there have meant that it has lost its competitive advantage (William Haynes specifically cites North Carolina's taxes as

an incentive for moving here in the accompanying story on Dynamit Nobel Grace Silicon).

On January 9, 1959 Governor Hodges, announced that an initial \$1.5 million had been raised to fund the Park and Institute. Investment in buildings constructed or in hand in the Park in 1978 exceeded \$170 million. By 1981 the Institute had earned over \$300 million in contract research revenues.

It was not a new idea. In 1951 Stanford Industrial Park was established in Palo Alto and is regarded as the first.

### The Foundation and the Institue

The Research Triangle Foundation runs the Park. Its chief aim is to promote the region, which (see above) it seems to be doing well.

The Research Triangle Institute, located in the Park, is a nonprofit organization founded and owned by the three universities. In addition to the statistics above, in 1978 alone it was expected to have \$30 million in contracts, following a tripling of volume in the previous five years and a doubling in the most recent two.

### Growth and the IBM Effect

Growth was slow until the IBM Corporation's 1965 decision to purchase 400 acres of the Park and establish a \$15 million research, development, and manufacturing complex - a complex that is now one of the corporation's major facilities worldwide. This was the catalyst to growth that many regard as possibly the most significant single development in the Park's history. Before that restructuring took place to rescue the whole idea and the Foundation took out a \$1.3 million mortgage to stay in business. Perhaps this was why the original idea to prohibit manufacturing altogether was relaxed for IBM.

Today IBM is still by far the Park's largest single employer, although its importance is declining relative to the growth of the environmental sciences.

### The Attraction

The Research Triangle Park has all the facilities it needs to attract government and industry (see map). Interstate 40 runs through the Park and it is linked to several North Carolina highways and US 15-501 and 70.

Raleigh-Durham Airport is 10 minutes from the Park by car. The airport, where

a second major runway is under construction and plans for a second major terminal are in progress, is served by seven major air lines, six commuter air lines, and important freight carriers. Raleigh-Durham is no more than two hours flying time from half the country's population.

The North Carolina Department of Commerce has a Business Assistance Division which aims to assist industry, business, communities, and individuals in creating and maintaining job opportunities and the North Carolina Science and Technology Research Center, located within Research Triangle Park and providing information for industry, business, and individuals for North Carolina. The latter has a contract with NASA under which it provides information for the whole of the South-east excluding Florida.

Under an arrangement called Extended Area Dialing, telephone calls between the Park and the three university cities (Chapel Hill, Durham, and Raleigh) are charged at local rates.

### The Park and the Environment

Mere care that the activities of the tenants in the Park do not adversely effect the environment would be enough, but it has rapidly become a center for environmental research itself. Examples are given below.

### Some Tenants of the Park

Chemicals: The Monsanto company developed Astroturf there.

Pharmacy: Britain's Burroughs Wellcome moved its North American headquarters to the park from Tuckahoe, New York in 1970, creating 900 jobs in the park and 1,200 in Greenville (about 100 miles east) where it moved all its manufacturing operations.

Environment: The Johnson Administration decided to establish the Environmental Research Center there in 1965 and it is now the largest facility of the federal government's Environmental Protection Agency, concentrating on creating a scientific base for air pollution control.

Environment: The Chemical Industry Institute of Toxicology is one of the newer arrivals (late '70s) and is both a reflection on and an addition to the area's reputation in the field. An increasing number of CIIT scientists hold adjunct professorships in the universities. UNC-CH medical school is trying to develop a new curriculum in toxicology.

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