Oak Ridge: 20 Years After, Diversification IS the Goal

Main street in Oak Ridge, Tennessee, is still the four-lane Oak Ridge Turnpike, regarded as one of the marvels of the place back when the government built it. The road runs straight down the valley dividing the wartime warehouses and administration buildings on the valley floor from the community on the rising ground to the north. Where the valley narrows, the turnpike branches into roads leading to the three main installations out of sight behind low hills southwest of the city.

Many of the original buildings, in the army-camp style of the early 1940's, still stand, and the basic plan of Oak Ridge is unchanged, so the visitor can easily imagine how it looked in the beginning. But now the trees have grown to middling size, schools and churches of brick and stone and a big shopping center flank the turnpike, and Oak Ridge has taken on the look of a comfortable suburb cut adrift from a city.

Twenty years ago Oak Ridge had just exchanged its top-secret status for a notoriety arising from its part in the production of the bombs dropped that August on Hiroshima and Nagasaki. Oak Ridge was then a single-industry town with its future indefinite. Today, despite the air of permanence, Oak Ridge's main business and its reason for being continue to be the nation's nuclear energy program, and uncertainties about the future persist.

The history of what is now Oak Ridge goes back to 1942, when the Manhattan Engineer District settled on a site on the Clinch River, about 20 miles west of Knoxville, for the big production plants needed to turn out materials for a fission bomb.

There was enough water of acceptable quality, and low-cost power was available from the TVA. A rail link was near at hand. The land was relatively cheap and thinly populated (about 1000 families, mostly poor dirt farmers, had to be moved from the 90 square miles chosen). The relative isolation of the area reduced security problems, and the low ridges provided natural protection against the sort of accident which seems to have been at the back of some people's minds.

In June 1942 a decision was made to build the Clinton Engineering Works, named for the nearby city of Clinton. The project soon came to be called Oak Ridge after the new community, which had been staked out on Black Oak Ridge.

A surprising number of people still in Oak Ridge remember the purposeful chaos of the early days. There were shortages and inconveniences of almost every kind, and housewives fought an unceasing battle with dust in the summer and mud the rest of the year. There was the compensation of common involvement in a top-priority project, although an amazingly small number of people at Oak Ridge—some estimates put it at half a dozen—knew the full story of what was going on.

Walled City

Oak Ridge itself was, of course, quite literally a closed community. Employees and their families needed badges to enter and leave, and relatives and friends could not be admitted without prior arrangements and passes.

In 1949 the gates to the town came down. The new Atomic Energy Commission had by this time taken charge of the national nuclear energy program, and the AEC looked to the time when such places as Oak Ridge and Richland, Washington, would cease to be government towns in the most complete sense of the term.

Private ownership of land in the community and a transition to self-government were the goals, but these were not speedily attained. In the early 1950's the government continued to own all land and buildings in Oak Ridge. The role of landlord was filled by a management company under contract to the AEC. Everyone was a tenant, and if a roof leaked or a sink got stopped up one called the management company. There were separate contractors for schools, the hospital, buses, and the telephone system.

Housing was a sore point. To qualify for housing in Oak Ridge one had to be employed either by the AEC or one of its contractors. Each major contractor worked out a housing policy which had to conform with general AEC standards. By and large, the employee's salary and number of dependents were the chief determinants of what sort of quarters he would be offered. The AEC allocated to each contractor batches of houses and apartments varying in rental, model, size, and general desirability. But often the right sort of quarters simply weren't available. There were charges of favoritism and politics, and the AEC was inevitably drawn into the squabbles. S. R. Sapirie, manager of the AEC's Oak Ridge Operations, recalls that the AEC was "spending too much time on the community," and a way to get the agency out of the business of being lord of the manor was actively sought.

In 1953 the AEC had begun to lease land, and this led ultimately to some of the outlying and unneeded land's being sold back to the original owners.

In 1955 Congress passed the Atomic Energy Community Act, which permitted the AEC to dispose of land and buildings within the city. Preference in the sales was given to occupants. Sales began in late 1956. Prices were reasonable and in a year or so Oak Ridge began to claim a national record for percentage of owner occupancy. Before disposal, federal regulations had prevented occupants from making alterations or additions, and some of the houses and apartments, all with "cemesto" (a kind of durable wall board) siding, were showing marked symptoms of decline. The sales were followed by a boom in reconstruction, in which new homeowners added new roof lines, brick walls or new siding, carports, and bedrooms for the children born during the no-expansion era.

The residential pattern in Oak Ridge tends to resemble that of a company town or a military base. The bosses and senior professionals live either in privately built larger houses in a new development on the west side of the city or up the hill along the Outer Drive, where the bigger houses were built originally, and where many of the residents on the curving roads have

a fine view of the Cumberlands to the north. More of the hourly employees live in smaller houses at the eastern end of the town. Extremes, however, are far less conspicuous than in most towns.

In many ways Oak Ridge seems to have been a prototype of postwar suburbia. "Downtown" is a big new shopping center, and there is no equivalent of the courthouse square, ubiquitous in other towns of comparable size in the region. There is no bus service, and everybody drives everywhere. And despite the ingenuity of the owners, it is evident that the houses in the main residential area are variations on the eight or nine basic models mass-produced at the beginning.

Not surprisingly, the sociology of Oak Ridge has some unusual twists. This goes back, of course, to the wartime importation of thousands of scientists and engineers and their families into a rural corner of Appalachia to work on a top-secret, top-priority project. As one of the old hands says, "we were all used to the northeast, big cities, campus life." Conditions at Oak Ridge produced vigorous efforts to create substitutes for what had been left behind. Before long, every sort of organization, from a little-theater group and symphony orchestra to an African-violet society, was going strong. This sort of amateur, volunteer activity continues at a level perhaps unrivaled in any other city of Oak Ridge's size. The symphony, for example, now has a paid fulltime conductor. A new art center provides a home for exhibitions, lectures, and classes.

New Avocations

Many old inhabitants seem to feel that, while there may still be something for everybody, some of that early effervescence is gone. For one thing, more conventional community activities have come along. Civic clubs and a golf club beckon, and churches, in what seems to be a full range of denominations, absorb the energies of many Oak Ridgers. And, of course, the people who started things and are still in Oak Ridge are getting older.

Some residents complain that because the Union Carbide Corporation is the contractor for the three main installations, Oak Ridge is organized on the lines of a corporation's pecking order. It is, by circumstance, a city where, until recently, there have been comparatively few businessmen and lawyers. Oak Ridge scientists, engineers, and administrators still dominate the scene, as a reading of the local daily paper, *The Oak Ridger*, reveals. But, beyond the city limits, the top men in Oak Ridge remain outsiders, and Oak Ridge remains an enclave in a region on which 30 years of the TVA and 20 years of the AEC have had limited effect.

With its roughly 30,000 inhabitants Oak Ridge is the largest city in Anderson County and has roughly half the county's population. Oak Ridge votes Democratic. But there are enough Republican votes in Clinton, the county seat (which has a population of something over 5000), and in the other parts of the county, including the Oak Ridge area, to send the county Republican in most elections.

It is probably in its schools that Oak Ridge differs most from other towns in its region. Oak Ridge parents seem to have the same educational aspirations for their children that parents have in the commuting suburbs around New York, Boston, and Chicago. Oak Ridge schools in general are newer, better equipped, and better staffed than schools in nearby school districts. The schools, incidentally, are a legacy from the AEC, which built them before the advent of home rule.

Better schools help explain why the percentage of Oak Ridge employees living in the city varies in direct proportion to educational level.

Of a total of more than 13,000 persons employed by the AEC and its contractors in Oak Ridge, 43 percent live in the city. Some 58 percent of the 2370 with bachelor's degrees, 67 percent of the 617 with master's degrees, and 83 percent of 633 with doctor's degrees live in Oak Ridge.

Many of the "operators" who work in the plants and now live in Oak Ridge come from east Tennessee. Between them and the professionals and bosses from "outside" there is a feeling which can be compared with town-and-gown sentiment. This is not surprising since dominant local attitudes in the area on obvious issues can be summed up as fundamentalist, segregationist, and dry. The immigrants' attitudes are generally the reverse.

Despite the Civil War Republicanism indigenous to eastern Tennessee, segregationist sentiment has been strong in the region. One of the more publicized in the early round of school desegregation incidents occurred at Clinton, although people around Anderson County seem genuinely anxious to forget it.

The government in wartime went along with local Jim Crow custom and put up housing for Negroes in an area away from the rest of the community. The housing and most of Oak Ridge's Negroes are still there.

Relatively few Negroes work in production jobs in the plants. A small but increasing number of Negroes are winning jobs as technicians in the laboratory. Negro professionals apparently still do not find Oak Ridge a congenial place to live and work. As one scientist-administrator put it, "We would gladly hire them, but they are not attracted to the city."

It would be misleading to suggest that Oak Ridge is the scene of a running feud between backwoodsmen and a scientific and managerial elite. The lines are blurred and getting more so. The reputation of the schools has drawn many younger families to the city. And defederalization has brought a whole new class of business and professional people with careers outside the AEC plants and laboratories.

The Good Life

If there is a standoffishness between the two major groups in Oak Ridge, the same thing exists between salaried employees and those who work for wages in almost any company town. And a lot of the "annuals" as well as those who punch a time clock share an enjoyment of an easy-going, outdoor style of life built around two cars and a boat (state parks and TVA lakes are nearby for camping, fishing, and water-skiing). Per capita income is high for the area, housing is reasonable, and a version of the good (if quiet) life is within reach of most people.

Because of its size, youth, and long period of government guardianship, Oak Ridge suffers from no acute urban problems. The crime rate is low. The tax rate is higher than elsewhere in the immediate area but still modest compared to most urban areas. Neither smog nor traffic is a major problem. And Oak Ridgers think this fortunate state of affairs should be increasingly attractive to people and industry fleeing the beleaguered big cities.

The picture cannot, however, be said to be totally idyllic. Oak Ridge has been managing its own affairs since 1959, when the city was incorporated, but the silver cord to the federal government—in this case to the Treasury—has not been completely severed. The municipal budget, including school ex-

penditures, runs to about $5 million a year, and $1.3 million of that comes in the form of a federal subsidy.

Under the arrangement made when the city was given home rule (after a referendum), the federal contribution is to continue until 1969. Because the AEC plants are federal property and not subject to taxation, the city has a narrow tax base. Negotiations are already in progress, and Oak Ridgers hope that some form of federal contribution in lieu of taxes will continue after the cutoff date in 1969.

Failure of the city to attract more and diversified industry is a fairly common complaint among residents. A popular view is that "Carbide doesn't want competition." Some businessmen grumble that scientists are not actively interested in economic development but are content with things as they are.

Perhaps surprisingly, there has been little "spinoff" activity. One new enterprise housed in an attractive building was founded by men employed at one of the AEC plants. This and a branch of a Midwest instruments firm are cited as the principal examples of spinoff enterprises.

Land for industrial building has been a problem. Critics say the AEC has been slow to make it available. Other observers say that sufficient land for industrial sites is now in private hands, but the owners of one big tract, a group of Oak Ridge residents, have their capital tied up in the land and have not been able to have the necessary work done to put the property into condition to attract new industry.

Oak Ridge would appear to be an ideal location for small nuclear industry enterprises. Some local observers say nuclear industry in the United States is not yet at the takeoff point, but that Oak Ridge's development prospects will improve as time goes on. Land for an industrial park has been set aside, and a local effort to attract industry has been organized.

The city has recently shown that it can think big by bidding, with the support of the University of Tennessee and state authorities, for the widely coveted 200-Bev accelerator.

So long, however, as Oak Ridge remains primarily a one-industry town, the troika relationship between the AEC, the contractor, and the Oak Ridge community will remain the essential one for the city.

Carbide has figured large in Oak Ridge affairs from the start. It was Union Carbide which designed and put into operation the vast gaseous diffusion plant for the separation of fissionable uranium-235. Later the company took over as contractor for the Y-12 plant, a chemical and metallurgical processing plant which, among other things, turns enriched uranium into reactor-fuel elements and nuclear-weapons parts. Carbide is also the contractor for the third major AEC facility, the Oak Ridge National Laboratory, long a center of basic and applied research in nuclear science and of education and training in the nuclear field.

In the two production plants, both executives and workers are Carbide employees. The contract between the AEC identifies the work in general terms. Day-to-day contact is maintained through the Oak Ridge Operations office of the AEC, but details of the operation are left largely to the contractor. Fiscal records are incorporated with the AEC's, and the AEC exercises controls on salaries and other matters. It is a somewhat exotic form of private enterprise, but the contractor system, based on a cost-plus-fee contract, was continued by AEC when the agency took over the war-born operations, and has been maintained because it has worked.

A Tradition of Autonomy

Relations with the ORNL are handled somewhat differently. Laboratory staff members are Carbide employees too, but ORNL apparently has developed a tradition of greater autonomy, with Carbide providing an administrative framework and services. Program responsibility is exercised much more directly by AEC divisions in Washington.

Time has altered emphases at Oak Ridge. The major concern in the beginning was meeting production schedules. The plants now concentrate on increasing efficiency and cutting costs.

From time to time Oak Ridge operations have been closely scrutinized—right after the war the laboratory was nearly shut down—but there seems never to have been serious consideration of mothballing the plants or returning the land to the farmers.

Early postwar predictions that civilian markets for nuclear fuels and isotopes would soon create demand on Oak Ridge proved to be products of overheated imaginations. But the Cold War, and particularly the development of hydrogen weapons and missile warfare, did keep the plants heavily occupied.

There have, however, been fluctuations in employment. The latest—and the biggest for a number of years—has been caused by full shelves in the nuclear arsenal; a consequent AEC decision last year to reduce production of enriched uranium and plutonium affected Oak Ridge.

Production at other plants—at Paducah, Kentucky, and Portsmouth, Ohio—directed by the Oak Ridge Operations office, was also cut. At Oak Ridge, power use, in rate of consumption of electricity, will drop from 1510 megawatts, in stages, by about two-thirds over the 5 years ending in 1969.

Employment in the gaseous diffusion plant will not be reduced proportionately, but there have been some layoffs and there will be more. The Y-12 plant is scheduled for a cut in its work force totaling 1000 by the beginning of the next fiscal year.

Layoffs of both operating and professional people are involved. These have been painful, although some of the displaced workers have been transferred to other activities in the AEC complex.

Other sorts of pressures on personnel, peculiar to Oak Ridge, have also developed. The men who came to help build the bomb were mostly bright young men who took highly responsible and very demanding jobs, and a fair number of them stayed. As they grew older and moved into the upper brackets in salary and position, a situation developed similar to the "bulge" in the military services caused by the numbers of officers commissioned during World War II who are now competing for the jobs at the top of the military pyramid. Many top jobs at Oak Ridge are held by men who will not retire for 10 or 15 years, and ambitious men now turning 40 face a long wait. Carbide, which is a very large and highly ramified corporation, has provided an escape hatch for many of the professionals.

The status quo at Oak Ridge, however, is not what it was a few years ago. As production activity has gone down, research has gone up. Sapiri notes that this year for the first time more than half of all employees were engaged in research and development work.

Hopes that this trend will continue are centered around the Oak Ridge National Laboratory. The crisis which ORNL survived after the war, the laboratory's development, and its present prospects will be discussed in a later story in this space.—JOHN WALSH