

EUGENE MILLRACE: A HISTORY

IN HONOR OF NATIONAL HISTORIC PRESERVATION WEEK MAY 6-12, 1979

INTRODUCTION:

Water is an intrinsic part of our environment and lives. Yet in today's industrialized society, we seem to have forgotten its importance. The first great civilizations grew up along rivers and navigable bodies of water. The rivers served as sources of power, transportation, irrigation, waste disposal, and water for drinking and bathing. These life functions and uses of water became embellished and part of the life blood of communities in fountains and baths. However, in our more technological age, water is seen as a liability, and something that must be controlled. The visible evidence of this control is most striking in hydroelectric dams and channelized rivers.

"The portions of the river that run through the city are usually controlled by converting it into concrete channels, or by containing it in underground pipes, in which case the river completely disappears from the city. Where the river has not been buried, the city turns it into a channel for waste disposal, turns its back against the river, or barricades it by traffic arterials or behind backyards. As a result, rivers are often visually and physically inaccessible, and encountered by the city dweller only as a result of their being overcome--as in a bridge crossing over a concrete channel. Rivers in many cities are dead or decaying not only in the biological sense, but in their roles in the life of the city." (Ma, "The River in the City," 1971)

Eugene's Millrace has followed just such a course through the life of the city. In the beginning it was one of the factors in the development of Eugene into a major city in the Willamette Valley. During its height, it continued to function as a vital arterial for power and, in addition, for recreation. In more recent years, it has fallen the victim of neglect and an indifferent technology.

The following history of the Millrace is presented by Eugene's Historic Review Board to the citizens of Eugene in honor of National Historic Preservation Week, 1979. It is the Board's hope that this history will help to make apparent that the Millrace is a unique resource and that potentialities exist for its revitalization.

HISTORIC REVIEW BOARD:

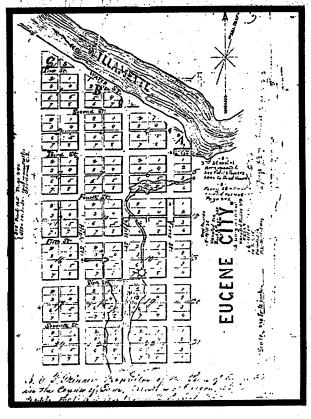
Jan Muller, Chairperson Glenn Mason, V.Chairperson Dorothy Gilmore Ken Helphand Joan Rich Jim Farah, Ex Officio Mick Nolte, Ex Officio The Millrace, or what was to become the Millrace, was originally composed of two sloughs, old river bed scars that had been abandoned by the river as it changed its course. In some places, the sloughs were filled with sluggish backwaters, and others, merely low spots in the topography, were filled with brush undergrowth. The riverbanks and old river scars in the Eugene area were vegetated by lush riparian growth, typified by poplar, maple, willow, alder, and oak. In one of the few places on the Millrace that has remained relatively undisturbed between the railroad headgates and the Black Angus Motel. the native vegetation can be seen as it existed before the white man inhabited the valley.

In contrast, most of the valley, including the land that has since become the city of Eugene, was vegetated solely with grasses and occasional open-grown woods. "Prairies dominated the valley landscape at the end of Indian control. Trees grew in galeria forests along the streams, and in woodlands on the steeper slopes. Isolated oaks, pines, and firs on the prairie were related to special conditions such as former dwelling places of Indians, thin soil, rock outcrops, slight rises (oak) or depressions (ash), trails, and the infrequent accident of being missed by annual fires when young." (Johannessen, "The Vegetation of the Willamette Valley," A.A.A.G., 1961).

EARLY YEARS:

Although occasional explorers and trappers had traversed the valley in the early 1800's, a white man did not settle in the vicinity of Eugene until 1846, when Eugene Skinner staked his claim at the foot of what has become known as Skinner's Butte. Soon, other men followed Skinner's lead and were settling up and down the Willamette Valley, eager for the 320 free acres the government promised each man who would settle in the Oregon country. One of those who came and settled near Skinner was His donation land Hilyard Shaw. claim included the area which is now defined by University Street on the east, 17th Avenue on the south, the alley between Mill and High streets on the west, and an area toward the river on the north; his claim also included two sloughs.

It is said that looking down on the two sloughs from under the Condon oaks or Judkin's Point, Shaw saw the possibility of developing the sloughs into a millrace which would produce power for mills. At that time, the closest flour mill was at Oregon City, and the trip was an arduous one. Shaw, with the help of Avery A. Smith, decided to link the two sloughs. Taking advantage of the natural low places, they excavated a ditch approximately five blocks long, from Ferry Street to Kincaid Street, connecting the sloughs. It is assumed that the ditch was dug with teams of oxen pulling a scraper device, and that the excess dirt was thrown up on the banks of the channel. In 1851, the ditch was finally completed and the two sloughs were connected.



2. ORIGINAL PLAT OF EUGENE CITY, 1852: Showing location of first water wheel near Sixth and Mill Streets.

INDUSTRIAL YEARS:

The completion of the Millrace brought the dawn of industrial enterprise to Eugene. By 1852, Shaw had built a sawmill on the banks of the lower Millrace near 6th and Mill Street, and by 1856 a grist (flour) mill was also completed. The upper parts of the Millrace were contained in the donation land claims of Zara Sweet, William Smith, and Fielding McMurray, and its banks continued to be used for grazing and farming.

In 1856, Joseph Brumley and M. W. Mitchell bought 23 acres of Shaw's donation land claim through which the lower Millrace passed, and on which the grist and saw mills were The sale included "the located. water power upon said premises with the right-of-way over said Shaw's claim to bring all the water that may be required." (Lane County Deeds and Records, 3/1/1856, A:60) Ownership of the mills, and the right to water power, was transferred back and forth between Shaw, Smith, Mitchell, and Brumley until Brumley sold the property to W. T. Osborn, J. B. Underwood, and A. W. Patterson in 1870.

During these early years, the population of the Eugene area continued to grow because of the promise of free government land; by 1870, the population had burgeoned to 850. A small town was beginning to form on the 80 acres that Skinner and Mulligan had donated so that Eugene would be chosen the seat of Lane But Eugene was still very much a pioneer community, for during these early years, it was only tenuously linked to other valley towns to the east and west by the territorial roads, and to the south by a central military road.



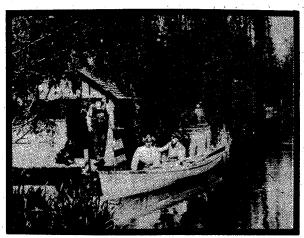
3. PASTORAL SCENE, 1898: Shows rural character of Millrace and agricultural activity along its edge.

However, in 1871, the Oregon and California Railroad reached Eugene, effectively linking it with other valley towns and with cities outside the valley. The population of Eugene increased dramatically with the influx of new settlers which the trains brought. The rapid expansion of Eugene was further accelerated by the selection of Eugene as the location for the State University. The University of Oregon first opened its doors in 1876 with the completion of the first University building, Deady Hall. The University also grew rapidly, and by 1885, a second building, Villard Hall, was opened, financed by, and named after, Henry Villard, owner of the Northern Pacific Railroad. Within one year (1885) 80 new houses were built to accommodate the increasing population. Hotels such as the Baker (Smeede) were built to accommodate the influx of visitors the railroad also carried. New industries began to grow up on the banks of the lower race: Day & Henderson Furniture Factory, Haines Tannery, Abram Cider Factory & Fruit Dryer, Campbell Sash and Door Factory, and Eugene Woolen Mill.



1. GENERAL LAND OFFICE MAP, 1853: First federal survey of Eugene, showing the location of the sloughs which were connected to form the Millrace.

At this point, the Millrace was thought of primarily as a power source for the many mills located on its banks, and secondarily, as a highway by which farmers could bring their produce to market in the city center. However, in the winter of 1884, heavy snows and cold weather caused the race to freeze over, and the townspeople and the University students conceived of another use for the Millrace, ice skating. From the time this first recreational use was conceived, it was not long until other recreational uses were envisioned.



4. McCLANAHAN'S BOATHOUSE, 1899: Located near Ferry Street, the first Millrace boat rental.

In 1890, Edward J. McClanahan opened a boathouse at Ferry Street which rented skiffs to students and others who would "row stoutly upstream against the current, and picnic by a campfire in the shady woods at the head gates of the race. In the evening, tired, happy, sunburned, and mosquito-bitten, they could glide back downstream in the gathering twilight." (Wentz, "The Anchorage," 0.0., 1974)

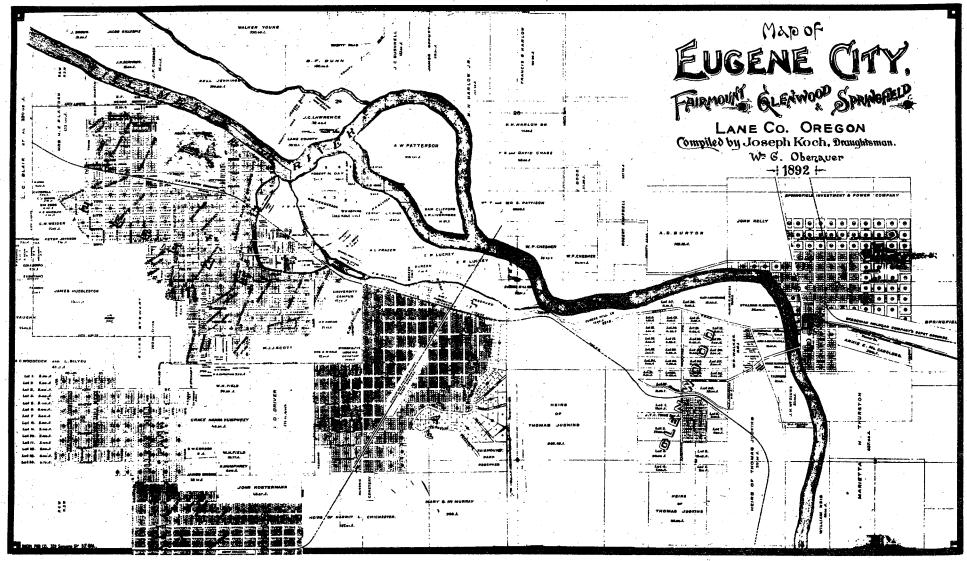
In the intervening years, the mill property and the easement for power had changed hands again; William Edris, A. S. Patterson, J. G. Gray, and Samuel Swift were now the proprietors of the mill property. It was during the years of their ownership, 1877-1898, that the Millrace attained its height as the industrial heart of Eugene. New industries were located by the race, such as the Eugene Electric Light Company and the Eugene Canning and Packing Company, forerunner of the Eugene Fruit Growers Association. At this time, the Millrace was the center of industrial enterprise, supplying power to the Willamette Valley Woolen Mill, Excelsior Co. Works, Eugene City Flouring Mill, Day & Henderson Furniture Factory, and Geo. Midgley Planing Mill. Additional tail races were built to accommodate the increasing industrial demand. were setbacks for some of the industries, such as the destruction of the grist mill by fire, and for the Millrace itself, such as the flood of 1890, which tore out the rock walls of the intake canal and changed the river's course. However. these setbacks seemed only transitory in nature; the mill and intake channel were soon rebuilt.

In 1891, William Edris sold the mill property, what was left of it, and the easement for power, to George Midgley and F. L. Chambers. The 23-acre tract had been broken up in 1886, when Edris sold a parcel to the Upper Willamette Lumber Manufacturing Company. In the subsequent years, he sold other parcels to the Eugene Canning and Packing Company and the Eugene Mill and Elevator This fracturing of the Company. relationship between the mill property and the Millrace, and the diversity of industry, instigated Midgley's and Chamber's visions of the Millrace as a self-supporting power company, independent of the mills. To increase the flow of the Millrace, they built a wing dam into This diverted the the river. river's flow into the Millrace, for the 1890 flood had not only changed

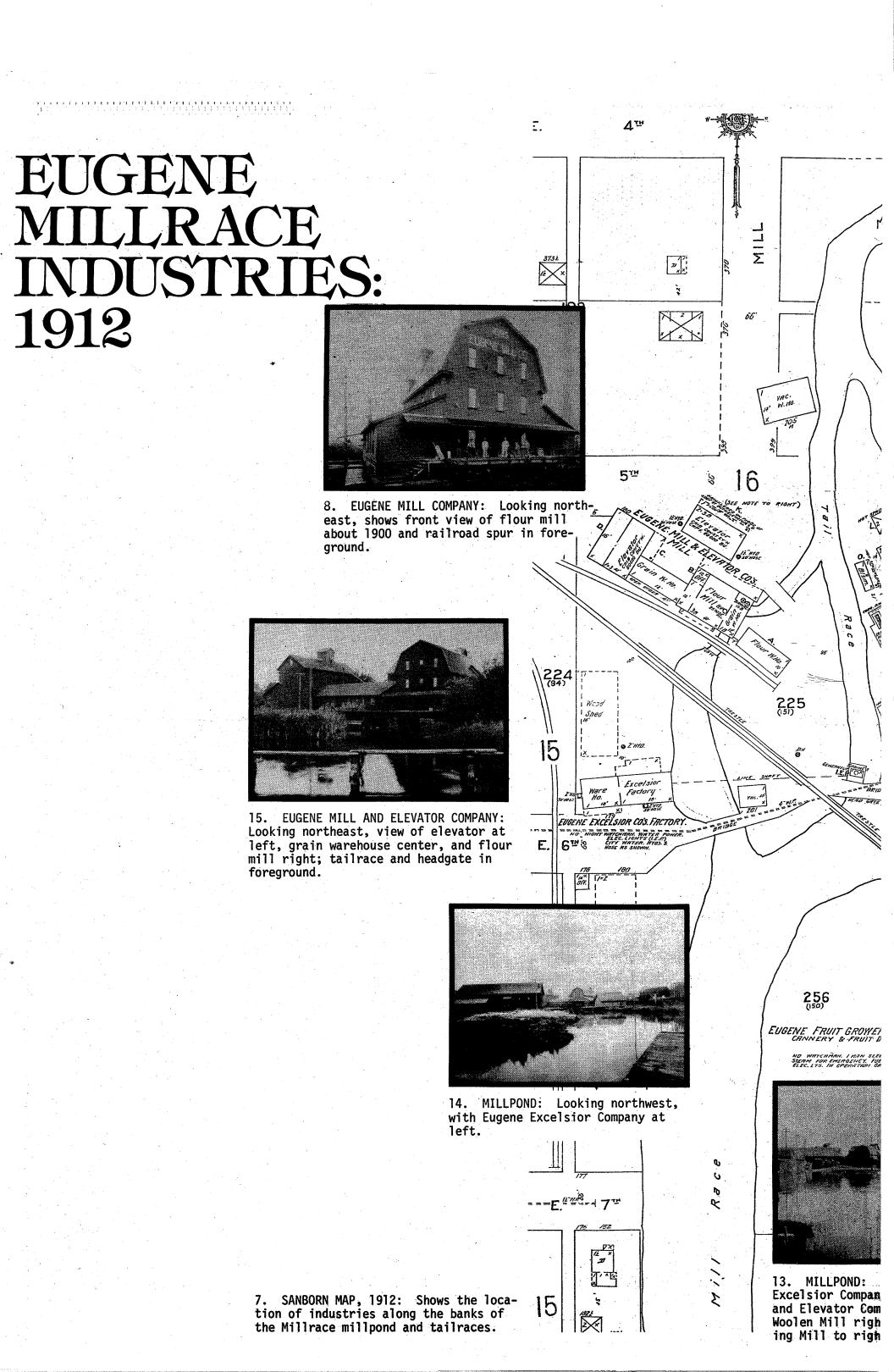


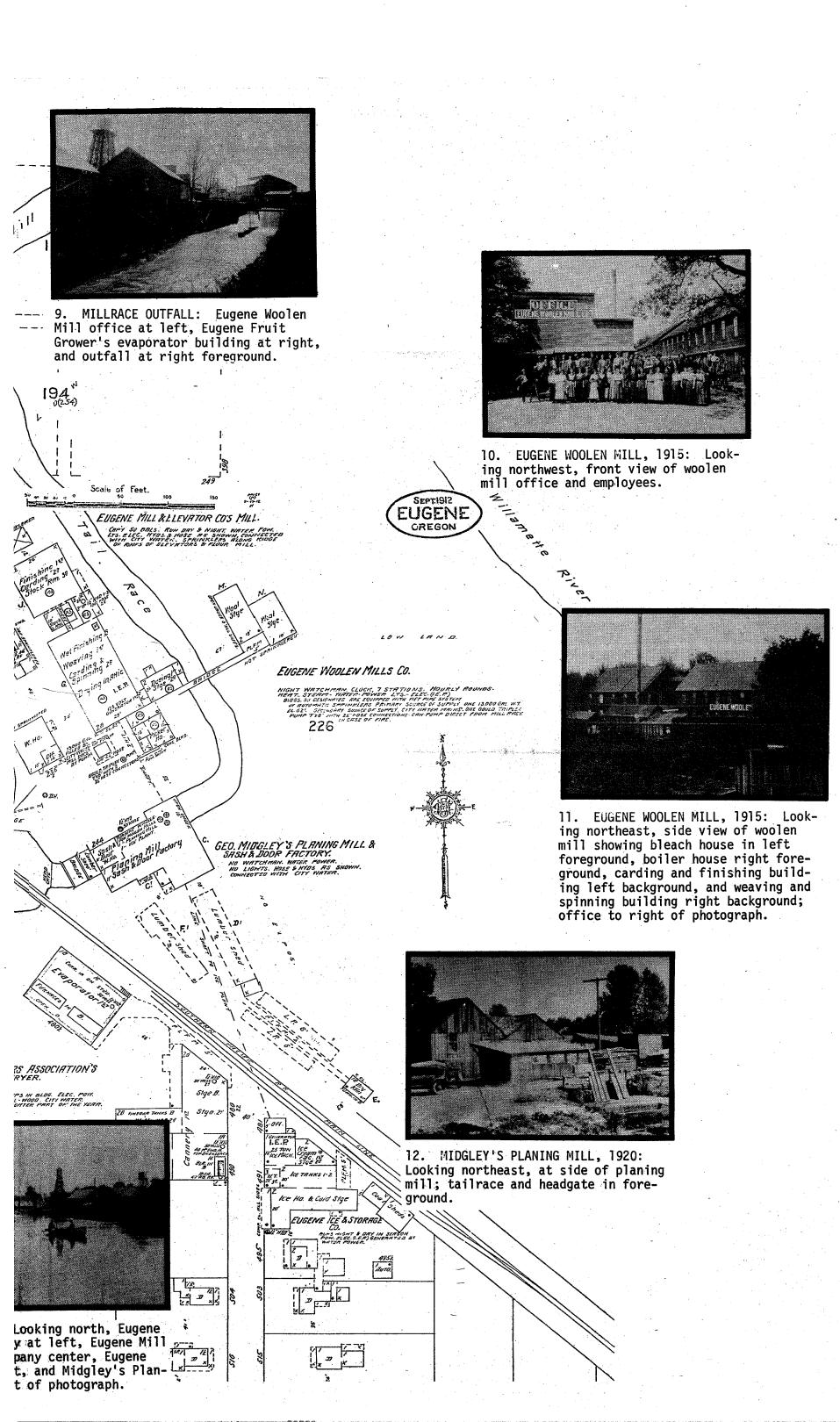
6. PATTERSON HOUSE: Built in 1903, at 751 East Eleventh Avenue, representative of fashionable homes built along the banks of the Millrace.

the course of the river, but had scoured its bed so that it had fallen five to six feet. They also began to deepen and widen the Millrace channel extensively. There had not been any controversy about such actions in previous years because most of the property owners along the race had been farmers; the soil thrown onto their land from periodic clearing and dredging of the race had either been used to enrich the alluvial soils of their fields, or left in place as a protective berm against the frequent winter floods. However, in the early 1900's, 11th Avenue between Mill and Kincaid streets became a fashionable place to live. Many fine homes, such as the Calkins House and the Patterson House, were built. Many of the back yards of these residences ran down to the race. And, as recreational use of the race increased, the residents of these fine homes looked upon the race as a pleasant amenity and oriented their back yards toward it. Consequently, as Midgley and Chambers began their Millrace improvements for the industries, the residents along the race became incensed. They petitioned the US Engineering Department to destroy the wing dam, as they believed it had raised the water table and was causing flooding in



5. MAP OF EUGENE CITY, 1892: Showing the Millrace channel and tailraces during its industrial height, and previous river channels.



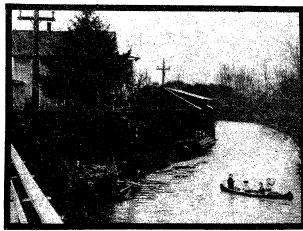


their basements. The dispute finally reached the Oregon Supreme Court. Although the court found in favor of the defendents, Midgley and Chambers, it set definitive limits to the easement that had been handed down from Shaw, "The defendents will be permitted to widen their ditch so as to bring it up to 50 feet in width, and will be enjoined from further widening it, and from throwing mud and silt from the bottom upon adjacent property." (Patterson vs. Chambers Power Company, 81 OR. 328, 1916).

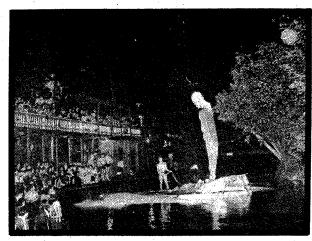
During the years of conflict between the Millrace property owners and the Chambers Power Company, the existing industries along the race continued to grow and expand, using the race as a power source; however, no new industries settled on its banks because of its uncertain future. Although the 1916 decision was outwardly favorable for the power company, the lengthy debate had effectively stalled the development of the race as a self-supporting power source, and technological advances had made the use of water power obsolete and supplanted the Millrace as an efficient and inexpensive source of power. Subsequent to the court decision, Chambers decided that attempting to make the Millrace a basic power supply would be unprofitable and sold the mill property and the easement for power to the Eugene Woolen Mill and the Eugene Excelsior Company. Both companies were located by the race and continued to use it as the source of power until 1928, when a flood breached the intake channel and all waterwheels were finally stopped. Although the breach was repaired, the industries converted to electricity as a more reliable energy source.

RECREATION YEARS:

However, as the Millrace lessened in industrial importance, it gained in recreational importance. From 1906, when Chambers opened a boathouse at the northwest side of the intersection of 8th Avenue and the Millrace, recreational use expanded rapidly. Paul Bond opened another boathouse north of Alder in 1911, and in 1913 moved to an old house at 997 Franklin Boulevard, across from Villard In years to come, the house Hall. became known as the "Anchorage", a well-loved University tradition. With the opening of these new boathouses came the advent of the canoe and the demise of McClanahan skiffs.



16. THE ANCHORAGE, 1922: Looking west, side view of restaurant prior to development of outdoor restaurant and bleachers.



17. JUNIOR WEEKEND CANOE FETE, 1941: Float of Aladdin's Lamp, Anchorage Restaurant at left.

Along with the seasonal enterprise of canoeing came an annual embellishment, the canoe fete. It was developed as part of the University's Junior Weekend, and originally consisted of swimming races in the daytime, and, in 1915, the addition of a nighttime parade featuring decorated canoes. From the very first, the canoe fete was a tremendous success, and "began a tradition of increasingly spectacular and sumptuous parades." (Wentz, "Floating Fantasy," 0.0., 1975) With each passing year, the canoe fete became more elaborate. In 1937, news reels and coast-to-coast radio broadcasts were made. In order to further enhance the annual event, the University began to develop elaborate plans for an outdoor amphitheater, extended park lands, and the relocation of the railroad tracks and Franklin Boulevard; in 1938, the University bought the property north of the Millrace and east of the Anchorage, with the intention of implementing these plans. However, the plans were abandoned with the advent of World The traditional canoe War II. fete ceased when a series of floods in the early 1940's destroyed the intake channel and the diversion dam, and left the Millrace dry. In 1945, at the War's end, the plans for relocation of the highway and the railroad tracks were resumed, but plans for the Millrace were left hanging because it was still dry. The canoe fete was revived, but as a float parade on wheels down the city streets.

POST-WAR YEARS:

In 1947, the City of Eugene bought the Millrace, including the remaining parcels of the 23-acre tract and the easement for power generation, so that the new Ferry Street Bridge could be built in its lower bed, and so that the rest of the race could be used for recreational purposes by city residents. The City finally repaired the intake channel in 1949, and refilled the Millrace; but within a short time it was described as "little more than a half-filled muddy slough clogged with debris." (Eugene Register-Guard, 9/17/52) However, it was not until the Millrace was refilled that it was discovered that both the pipe in the intake channel and, more disastrously, the pipe under Highway 99, installed by the State Highway Department, were too small to accommodate an adequate flow and could only handle 25 cfs. of the original flow of 250 cfs. The pipe in the intake channel was

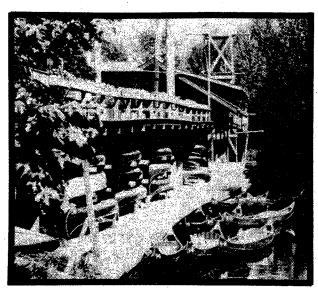
exposed and could easily be modified; however, the pipe under Franklin Boulevard seemed to preclude any modification. However, one angry citizen stated that:

"It seems to me the highway engineers were responsible to design a culvert which would provide the flow. Sure a mistake was made, but they made it. The people should decide how bad they want a decent Millrace. If it's worth it, they should demand help from the Highway Department whose blunder ruined the restoration plans in the first place. If Eugene wants a Millrace, it can have it if the people have enough guts to go after it. If Eugene doesn't want the Millrace, or doesn't feel the people of the state as a whole should pay the cost of correcting the blunder, then let's forget it. But let's not say, 'the highway can't be ripped up.' Men put it there, not God." (Eugene Register-Guard, 10/2/52)

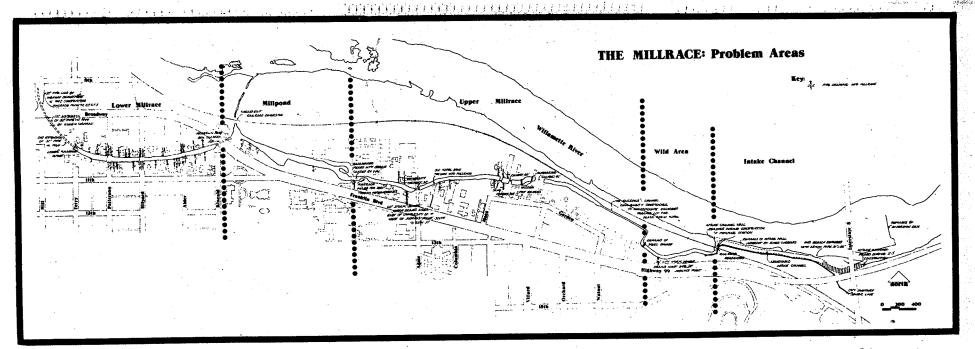
The next five years found the water level of the Millrace down as often as it was up. It was lowered for the construction of the University of Oregon physical plant, footings for the Ferry Street Bridge, and so that a private citizen, Julio Silva, could put in a culvert to reach his property on the north side of the Millrace. In 1954, the City lowered the Millrace again to install a sanitary sewer line in the upper bed to service the Riverview District. east of Judkin's Point; "The Millrace route was termed the easiest and least expensive for the City." (Eugene Register-Guard,



18. THE ANCHORAGE, 1928: View of Anchorage Restaurant from Villard Hall.



19. ANCHORAGE CANOE STORAGE, 1928: Looking west, view of outdoor restaurant deck, canoe storage and rental, and diving platform.



20. THE MILLRACE: PROBLEM AREAS, 1975: Map showing current conditions including culverts, channel realignments, storm sewer outlets, and previous inflow and outflow channels.



21. EUGENE MILL AND ELEVATOR COMPANY 1979: Only remaining Millrace industrial building located northeast of Fifth and High.

By the time the race was refilled in 1949, the last of the industries that had used the race for power had closed their doors; the only remnant of the industrial days was a lone grain elevator that had been part of the Eugene Mill and Elevator Company. The other industries had been demolished for construction of the highway, or had burned down.

Another casualty of this time was the "Anchorage." "The end of the war brought in a host of soldier students and young newcomers to whom the Anchorage was nothing but a ramshackle old restaurant with a dry ditch behind it. When the race was finally refilled with water in 1949, it was too late for the old Anchorage to make a comeback. The huge new student union building was being completed, and the University built its own canoe house, which still operates today." (Wentz, "The Anchorage,"0.0., 1974) The University bought the Anchorage property in 1950, and proceeded to develop its Millrace property by building the University heating plant on the north shore of the race, realigning the course of the race, demolishing the Anchorage, and transforming the entire south bank of the Millrace into rolling green lawns.

Another setback for the Millrace in the early 1950's was a circuit court decision which stated that the bed of the race was owned by the adjacent property owners and that they were free to culvert the race as long as they did not limit the flow to any greater extent than the City already had. This decision, in conjunction with the deplorable condition of the Millrace and rising property values,

resulted in a number of culvertings and fillings of the race. At the lower end, the Millrace has been filled in to Ferry Street; on the upper race, in the vicinity of Garden Avenue, an additional 90 feet have been culverted to provide parking lots for apartment houses; 800 feet have been narrowed and realigned to accommodate a parking lot for the Black Angus Motel; other miscellaneous culvertings have occurred to provide inexpensive bridging to the north side of the race. Another setback was the City's zoning of the land between the Millrace and the river for industrial uses.

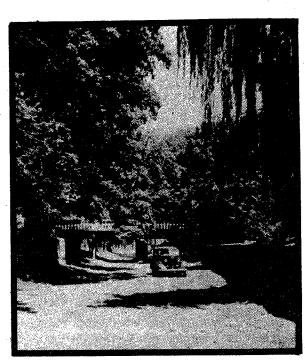
RENEWED INTEREST:

The late '50's brought renewed interest in the Millrace; in 1955, the canoe fete was revived, the first to be held in 14 years since the advent of World War II. Student concern about the polluted condition of the race resulted in the hiring of an engineering firm to investigate the possibility of increasing the flow of the race. Upon the advice of the report, students pursuaded the University and the City to install pumps to increase the race's flow. They also helped convince the City Council to install a bridge instead of a culvert at Alder Street so that the lower Millrace would remain open to canoeists.

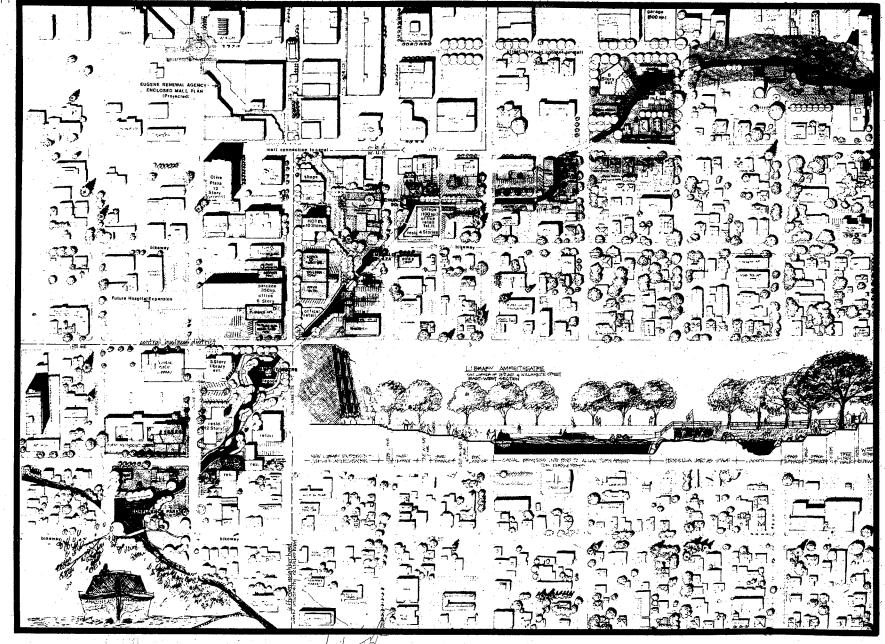
Mayor Cone had urged the Council to reconsider its action: you'll hear from the taxpayers on this one--and I hope you do. This is a luxury for a handful of people who aren't even taxpayers of the city.' He also called attention to the fact that the Patterson and Hilyard Street bridges would have to be replaced in the near future as well. Cone stated that "the lower Millrace should either be abandoned and filled in. or else only culverts provided at the The portion of the crossings. Millrace on the north side of the highway would still be adequate for canoeing." (Eugene Register-Guard, 10/6/61)

In the early 1960's, student enthusiasm for the Millrace raised the interest of others, and comprehensive proposals for what could and should be done were made by Unthank, Seder, Poticha, Architects, the

Metropolitan Civic Club, and the Mayor's Millrace Commission. response to the increasing interest, the City agreed to connect the Millrace to the storm sewer at 10th and Mill Street, contingent upon the granting of recreational easements to the City from all Millrace property owners. The 1950's Circuit Court decision had made the City hesitant about using any funds for restoration of the Millrace until easements were gathered. The easements had been gathered once before, in 1951, but had been mislaid before they were recorded; the City's request for the gathering of easements proved to be a larger hurdle than originally imagined. Property owners, skeptical about the City's willingness to rehabilitate the race, and sensitive to rising property values, realized that a polluted Millrace is worth less than the land created by culverting. Another reason gathering easements was more difficult the second time was that student interest in the race had diminished. In the late 1960's, the campus became radicalized in response to the Vietnam war, and frivolous pleasures, such as the canoe fetes, were abandoned. The fraternities and sororities, the greatest source of student support for the Millrace, wained in popularity; many disbanding. Finally, the student population changed as the purpose of the University shifted from being an undergraduate school to a graduate school and research center.



22. MILLRACE AND CAR: Lower Mill-race during a dry spell in the 1940's.



23. EMERALD CANAL: One possible route for Emerald Canal connection of Millrace to Amazon Creek, proposed by Michael Nihan, Landscape Architecture Student, 1978.

EMERALD CANAL:

A PROPOSAL FOR REVITALIZATION

Recent concern about environmental quality has stimulated renewed interest in the Millrace. In the early 1970's, a student group, the Millrace Volunteers, initiated a program for yearly cleaning of the race and prepared a preliminary study on ways to improve water quality. The latest effort to revitalize the Millrace, as well as the Amazon Creek, has come from a group called the Emerald Waterways Citizens' Committee, Inc. They are proposing an open channel system linking the Millrace to the Amazon Creek.

There is a distance of approximately ten blocks, and a change in water elevation during the summer months of approximately nine feet between the Millrace's 419.0 feet at 10th and Ferry Street and the Amazon's 410.0 feet at 17th between Pearl and High streets. One of the benefits of this connection would be that summer flow of the Amazon would be increased, eliminating summer stagnation. The water from such a connection would also provide a back-up system for Fern Ridge Reservoir and increase the reservoir's irrigation capabilities for farming uses.

In addition, it appears this connection could provide flood control for the Amazon by backing up the Millrace. Although a closed underground system could be more easily achieved, an open system has the advantages of allowing a greater rate of flow and providing additional urban water Lane County Commissioners who, by frontage, which could be developed resolution, have supported the residentially or commercially. A Committee's proposal and appointed providing additional urban water

similar project has been successfully accomplished on the San Antonio River in San Antonio, Texas. If such a connection were made, it would be possible to canoe from the Millrace to the Amazon Creek, and down the Amazon to Fern Ridge Reservoir, a distance of almost 25 miles, all within, or in close proximity to, the city of Eugene. The connection of the Millrace and the Amazon could also function as a greenway connection between parks in the Eugene metropolitan area, as well as a connection to the downtown mall, Lane County Fairgrounds, and other waterways.

In addition to increasing the outflow, it will be necessary to increase the inflow. This could be accomplished by either enlarging the existing pumping system, or returning to a gravity flow system. Cornell, Howland, Hayes, and Merryfield's most recent report (1974) outlines a number of ways a gravity flow system might be accomplished. The most promising of their proposals entails restoring the intake channel and diversion dam. Complete restoration of the intake channel and the diversion dam has two major benefits not created by the other alternatives: a range of flow rates in an open channel system that is greater than that in a pipe system; and the possibility of a direct connection to the river and, thereby, to other waterways for canoes.

The Emerald Waterways. Citizens' Committee, Inc., has received support from the Eugene City Council and the

staff to work with the Committee. In addition, the United States Congress allocated \$60,000 to the Army Corps of Engineers to study urban storm runoff in the Amazon Creek Basin. The study is to reevaluate the Amazon's flood control system, examine the potential of the proposed Emerald Canal for flood relief, evaluate the availability of water in the upper Willamette Basin for the Emerald Canal connection, and evaluate the potential of Fern Ridge for recreational use (it is currently classified only as a flood control resource). The Army Corps' preliminary study is scheduled to be completed by early summer. If the study finds the concept of an Emerald Canal feasible and desirable, it may be that the Millrace will again become a vital artery through the heart of our city.

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