



*Leon C. Snyder, head of the horticulture department, examines the *Weigela vaniceki*, one of the hardiest of the cultured weigelas. This one is being crossed with a Manchurian variety to try to improve its hardiness.*

fruits of warmer climes and thousands of dollars of income

are harvested in Minnesota because of research done at the U's Fruit Farm

IMAGINE JUICY golden apricots harvested in Minnesota orchards . . . and azaleas and dogwood flowering in Minnesota gardens. Imagine Minnesota home gardeners raising these fruits and plants formerly grown only in warmer climates, and

profits of thousands of dollars from these new Minnesota-grown fruits and shrubs. Far fetched? At present, yes. But these impossibilities are envisioned as realities sometime in the future by members of the University's department of horticulture.

In the realization of these dreams, the University Fruit Breeding Farm, southwest of Excelsior, is playing a major role. One of the largest of its kind in America, the farm was started in 1907 as a field laboratory. Its prime function has been to produce varieties of fruits adapted to the severe climate of the upper Midwest. To date, horticulture staff members have developed more than 60 kinds of fruit new to the state.

As a result of University achievements, Minnesotans can now grow in their own gardens big, red Latham raspberries; sparkling North Star pie cherries; early, bright-red Beacon apples; juicy Haralson apples; and plump Red Lake currants. The latest fruits developed and introduced are the Meteor cherry, another delicious pie cherry, and the Lakeland apple, which holds promise of being an important commercial variety.

Commercial growers as well as home gardeners have benefited by this research. The Latham raspberry, developed and introduced to growers in 1920, has brought more than 25 million dollars to Minnesota growers. The Haralson apple, introduced in 1923, has produced more than three and one-half million dollars in income from fruit and trees.

Beyond the borders of the state, the Minnesota-developed fruits have also gained wide acceptance.

And what of apricots that may



Walter Kroening, foreman, sprays apple trees at the Fruit Breeding Farm.

grow someday in Minnesota orchards? According to Leon C. Snyder, head of the horticulture department and superintendent of the Fruit Breeding Farm, progress on the hardy apricot is as auspicious as any of the fruit research now underway. Out of the hundreds of seedlings grown at the farm have come promising selections, some of them winter hardy with fruit the size of commercially grown apricots. The quality of some of these varieties is considered at least equal to Moorpack, the leading commercial variety in the west.

Under the direction of Arthur N. Wilcox, professor of horticulture, who is in charge of fruit breeding work, new varieties of apricots, hybrid plums, pears, apples, crabapples, strawberries, raspberries, grapes, and other fruits are being developed. A

new crabapple and a new gooseberry will be ready for introduction to the public next year.

As any of the fruit breeders will tell you, producing a new variety of fruit, vegetable, or flower requires infinite patience, careful observation of thousands of seedlings, experienced judgment, and a period of testing and culling of selections that usually takes from three to 30 years. It takes at least 30 years to develop a new apple.

Many horticulture faculty members in charge of work done at the farm live there during the spring and summer months so that they may carry on their work more effectively.

Although hardiness in withstanding Minnesota winters is of major importance in developing new varieties, it is not the only problem. With

pears, for example, attempts are being made to produce a variety as good as the Bartlett and one that is blight resistant as well as hardy. Crosses have been made between the best varieties now grown in Oregon and hardy blight-resistant varieties from China.

In hybrid plum studies, the present emphasis is being placed on developing a hardy prune-type superior for canning.

Raspberry seedlings are being grown to develop varieties that excel in winter hardiness, quality, and disease resistance. As for strawberries, the station has 200 selections under test. Bright red color, marketability, good freezing quality, and productivity are characteristics the breeders are trying to develop in strawberries.

Since cultural problems can be a source of worry to the home and commercial fruit grower, solution of many of them is undertaken as part of the work. Cultural experiments include studies on fertilizers, soil management, pest control, chemicals for weed control, and growth regulators, as well as methods of pruning and ways of avoiding winter injury.

(Continued on page 4)

Mrs. Ruth Page, efficient senior clerk typist, samples one of the test strawberries being studied for marketability, bright red color, and productivity, per plant and per acre.



with dignity, understanding, and three years of formal education, the Department of Mortuary Science trains men and women for

The Service Nobody Wants to Buy

"Every once in a while a doubt goes through our minds, and we begin to wonder if we're really training people to offer the service *nobody* wants to buy," muses Robert C. Slater, the director of the mortuary science department. "Yet," he continues, "it is true that there comes a time when everyone must turn to this type of service for assistance."

The department of mortuary science was organized at the University of Minnesota in 1908 and has one of the oldest and best known of the non-commercial mortuary science courses in the country. The department began active operation in 1914, as part of the College of Medical Sciences. By 1921, control had passed to the General Extension division because the curriculum offered in the mortuary science department included at least seven other departments and was an all-University offering.

The department bulletins tell the story of the steady extension of the course and of the qualifications for admittance. Progress was made from a course length of 12 weeks at the outset to a full academic year of instruction by 1933, with high school graduation required for admission. Similarly, great advances were made when the Board of Regents established an extended three-year curriculum leading to the degree of "Associate in Mortuary Science." This prepares the graduate to meet the Minnesota requirements for licensing—i.e., two years of college plus one year of professional training—requirements which, incidentally, place the state in the top rank of those granting licenses.

An indispensable element in any school is, of course, the faculty. The department is under the administrative and academic supervision of Julius M. Nolte, dean of the General Extension division. He makes the staff appointment recommendations which are approved by the Board of Regents.

Robert Slater, the director of the department of mortuary science, joined the department in 1947 and has since done much to contribute to the national recognition



Robert C. Slater, the chairman of the department of mortuary science, is a member of the committee of examiners for the State Board of Health, which is the official licensing agency for the state of Minnesota.

that the University has received in the sphere of mortuary education. Slater is a member of the Joint Committee on Mortuary Education which establishes all the rules and regulations by which colleges are accredited throughout the country. He is also educational adviser and member of the committee of examiners for the State Board of Health, the licensing agency in Minnesota.

One man who has devoted many long years of service to the department is Norville C. Pervier, associate professor of chemistry. Pervier, now in his 27th year on the faculty, is the author of a basic textbook on chemistry for embalmers, and is continually working on new research projects in the use of various chemicals.

Another member of the faculty who had a long record of activity in the department is Wendell White, associate professor of psychology. White joined the University staff in 1930 and has stressed in his courses, "the principles helpful to a prospective funeral director in dealing with his clients, especially those under severe emotional stress." Robert S. Carney, instructor in funeral law and a practicing attorney, teaches classes in Business and Funeral Law.

Turning to the students of the department of mortuary science, one is immediately conscious of the fact that although this department is under the over-all supervision of the General Extension division, its students are full-time day students under the same rules and regulations which apply to all other undergraduate students. For the last few years enrollment has been at a peak level of approximately 100 students. The department maintains a placement service for its graduates and the demand for University-trained personnel is so high that all the students are virtually assured of being placed, once they have fulfilled the license requirements of their state.

The curriculum which the new students in mortuary science face is an extremely varied one since it comprises all of the following areas: anatomy, chemistry, bacteriology, accounting, pathology, embalming, mortuary man-

agement, and public health. The variety of the courses gives some idea of the breadth of knowledge the prospective mortician is expected to have. "Such things as psychology, knowledge of funeral law, of religious observances, and business skills are all indispensable to him, in addition to the fundamental tasks of embalming, and safeguarding the public health," explains Nolte.

There is little doubt that for the layman, all discussions of curriculum and qualifications still do not answer the fundamental questions which interest him: What type of person chooses funeral service as a vocation? What are his motivations for such a choice?

"It is unfortunate that the ideas of some individuals regarding funeral service are colored by thoughts of the gruesome or by an overdeveloped morbid curiosity," Slater points out. "There is nothing unusual or sensational about funeral service," he explains. "Death is a natural event. It marks the end of a life cycle as birth marks the beginning. Embalming and funeral directing are normal and essential services, and should be approached accordingly."

The one fundamental urge which has motivated many men and women to enter the funeral service profession is a sincere desire to help other people at their time of need. "This is a public service field, like teaching and the ministry," Slater explains. "There is tremendous personal satisfaction to be gained from helping others when they are under severe emotional strain."

The demands of the profession are somewhat rigorous, for the funeral director must be willing to adjust his personal life and his private plans and affairs to the irregular hours of the occupation. An important service which the funeral director renders to the bereaved family is to provide advice and suggestions as the family's safeguard against unnecessary or extravagant expenditures.

There can be little doubt that those who are engaging in the practice of the funeral service profession and in the teaching of prospective funeral directors, are dedicated individuals. It is clear that society is benefited by this highly regarded teaching staff whose goal is to produce competent, well-trained people to perform such an essential service.

FRUITS OF SOUTHERN CLIMES

(Continued from page 2)

But research at the Fruit Breeding Farm is not restricted to fruits. Development and study of woody ornamentals are centered there also.

A visit to the ornamental plantings at the Fruit Farm is impressive for there is such a variety of woody shrubs and trees that are being studied for adaptability to Minnesota climate. Some 800 species and varieties including the flowering dogwood, magnolias, redbud, rhododendron, azaleas, and even the mountain laurel are being tested and selected. Horticulturists expect to find trees and shrubs that combine hardiness with desirable ornamental characteristics. These will then be able to meet the demand for low, decorative shrubs brought about by the switch from tall houses to low, ranch-type buildings.

Scientists at the Fruit Breeding Farm are also attempting to answer such laymen's questions as "What is the best winter protection for roses?" and "How shall I establish and maintain a good lawn?"

Cultural experiments in ornamental and turf are under the direction of Richard J. Stadtherr, instructor in horticulture. He is studying fall versus spring planting of woody ornamentals, winter protection for broad-leaved evergreens and roses, weed control in ornamentals, and growing nursery stock in pots.

Most home owners take particular pride in having luxuriant, weed-free lawns. They are constantly asking how to control crabgrass and what mixtures make the best lawns. Occasionally a home owner falls prey to advertisements of a new grass not adapted to this area.

More than 50 grass plots, 20 by 10 feet, have been started at the Fruit Farm to determine the best species, varieties, and combinations of lawn grasses for various soil types and areas in Minnesota. Such highly publicized grasses as Zoysia, Merion Blue, and Mondo are under test.

Minnesota householders and commercial interests are well-served by University horticulturists. Thanks to these scientists, Minnesotans can look forward to fruits new to this area, to better lawns — perhaps crabgrass free — and more attractive ornamental shrubs for gracious living.

REPORTS...

From Your University of Minnesota

Volume 40

Number 1

Published quarterly in the summer, fall, winter, and spring by the Department of University Relations, 213 Administration Building, University of Minnesota, Minneapolis 14, Minnesota.

William L. Nunn, Director of the Department of University Relations; Elisabeth Johnson, Editor. Advisory Committee: Members of the University Public Information Council.

Copies are sent free of charge to parents of University students and members of other groups closely connected with the University. Subscription rates for other persons are \$1.00 a year. REPORTS is entered as second class matter at the Postoffice at Minneapolis, Minnesota, and accepted for mailing at the postal rate of postage provided for in Section 13, Act of October 3, 1917, authorized May 26, 1923.

UNIVERSITY ARCHIVES
ROOM 11. LIBRARY
UNIV. OF MINNESOTA
MINNEAPOLIS 14. MINN.

University Faculty Members Star on Educational TV

FOR FIVE HOURS a week, Studio 4, in the basement of Eddy Hall on the University campus, reverberates with the proverbial "... 3 minutes ... 2 minutes ... 1 minute ... YOU'RE ON THE AIR!" of the entertainment world. Since early fall, the University of Minnesota has been engaged in a whirl of television activity marked by the launching of its series of programs on the new Twin City Educational Television Station, KTCA-TV, Channel 2.

KTCA-TV is a non-profit corporation, licensed by the Federal Communications Commission, and is an entity completely separate from the University. However, through a contractual agreement, the station houses its studio and transmitter on the St. Paul campus. Although the University has previously sponsored and produced various television programs

and series for commercial stations, this is its first sustained venture into the field of educational television.

Between the hours of 9-10 p.m., Monday through Friday, University of Minnesota Television offers viewers an extremely varied diet. The nine half-hour shows are diverse in their subject-matter, personalities involved, and type of format used.

The range of shows includes a telecourse, "Your Government," given by Asher N. Christensen, professor of political science, which can be used as partial fulfillment for extension credit. Preceding this is "At Home With Music," a program of informal concerts and discussions with faculty members of the Music Department, featuring Norman Abelson, assistant professor of music.

A show which has both performance and demonstration aspects to it

is "The Artist At Work" with John Rood, professor of art, as host-commentator. Both the program, "In Search of Science" with Mark A. Graubard, associate professor of interdisciplinary studies, and the series on "Minnesota's Wildlife Resources" with Walter J. Breckenridge, director of the Minnesota Museum of Natural History, are essentially demonstration shows, and in both, extensive use is made of such visual aids as films and models.

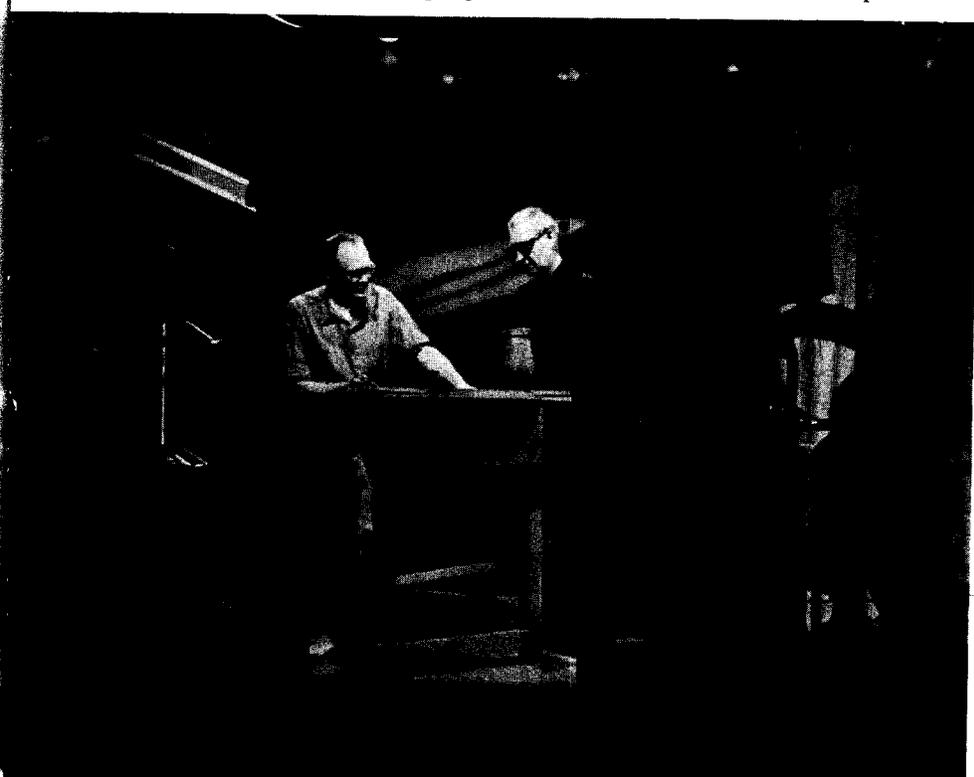
Mary Rice, assistant professor of literature and writing, who conducts the program, "Selecting and Reading Current Books," and Robert Lindsay, instructor in journalism, who moderates "TV Journal," a program on current events, often include panel discussions and interviews as well as the more traditional lecture approach on their shows.

Panel discussions are also widely used on "Our Changing Society" with Roy G. Francis, associate professor of sociology, while interviews are the basic format on "Town and Country", a show concerned with gardening, agriculture, and home-making, which features Raymond S. Wolf, assistant professor and extension specialist.

The programs in the University's hour are under the direction of the Television Production Center of the University of Minnesota, headed by Sheldon Goldstein, television program director. The Production Cen-

(continued on page 3)

Under the watchful glance of television camera men, Warren MacKenzie (left), lecturer in art, demonstrates the technique of pottery-making to John Rood, associate professor of art, on the latter's television show, "The Artist At Work."





Dr. William H. Crawford, dean of the School of Dentistry, Dr. Marion W. McCrea, associate dean, and Dr. Robert J. Gorlin, associate professor of dentistry, demonstrate proper tooth-brushing procedure to a young enthusiast at the "Modern Dentistry and You" exhibit at this year's State Fair.

The Growing Shortage Of Dentists Provides Us With A NAGGING TOOTHACHE

OUR RAPIDLY growing population is making increasingly familiar to us one rather ominous sounding word: shortage. As time goes on, we hear continually of the teacher shortage, the shortage of scientists, the shortage of classrooms. Now we hear of an ever-growing shortage of dentists, a problem for the whole nation as well as for Minnesota.

The present national ratio of dentists to population is 1 to every 1,900 persons. The Minnesota ratio is somewhat more favorable — 1 dentist to every 1,364 persons. However, the fact that new dentists are not being graduated in sufficient numbers, and the fact that nearly one-half of the Minnesota dentists are 56 years old or older, creates an alarming situation for the future. Thus, based on a probable population in Minnesota in 1980

of 4 million people, the new dentist-population ratio will become a startling 1 to every 2,200 persons, unless adequate measures are instituted at an early date to forestall such an unfortunate dental health situation for the state's population.

The School of Dentistry at the University is making vigorous attempts to meet the ever-growing demand for dentists. It has long suffered from overcrowded conditions which have caused some curtailment of clinical and laboratory experiences for the students. Thanks to the appropriation from the past Legislature, an addition to the west end of the dental building will be erected and used in part for teaching dental students. It will relieve the present crowded conditions, but it will not provide space to increase class size, a step which

must be taken to prepare for caring for the dental needs of the state.

One positive step which the faculty of the School of Dentistry is taking to combat the dentist shortage is to teach the undergraduate dental student to make most effective use of auxiliary aids. It has been found that the dentist can increase his productivity substantially through efficient use of dental assistants, dental technicians, and dental hygienists.

At the University, the dental student receives a solid groundwork in basic scientific courses. He then receives training of a more technical nature which prepares him to operate on patients. Included in the training is the process of repairing teeth, the intricacies of crown and bridge and prosthetic work, and the all-important area of dental work for children.

The University is proud of the noted program of research into the causes and prevention of dental disease carried on by its School of Dentistry. Many specific accomplishments have been credited to individuals at the School; for instance, the discovery that fluorine had strong decay preventive abilities.

Because of its outstanding faculty, under the directorship of William H. Crawford, dean of the School of Dentistry, this school was selected last year by the United States Public Health Service as a training center for research workers and dental teachers.

University Exhibits Shine At Minnesota State Fair

THE HARVEST SEASON is traditionally state and county fair season across the nation, as countless numbers of individuals display their handicrafts, produce, and livestock for exhibition and competition.



Milk used by the University Food Services comes from dairy cattle like these exhibited during the State Fair. Pictured with "Minnehaha Brampton Nel" are Arthur Soli, left, dairy herdsman, and Ralph W. Wayne, associate professor and Extension dairyman.

For many years the familiar maroon and gold "University of Minnesota" banners over a number of exhibits have marked displays which instruct, inform, and serve the hundreds of thousands of Minnesota State Fair visitors.

Today's visitor to the State Fair is interested in a wide variety of exhibits. He wants to learn about new developments in farm equipment, household gadgets, vegetable and fruit-raising, and livestock production, as well as modern trends in art, education, medicine, and youth activities.

Prominent University of Minnesota exhibits at the 1957 State Fair were those sponsored by the School of Dentistry and by the Institute of Agriculture. The latter's work on its Fruit Breeding Farm and its numerous 4-H projects aroused considerable interest. In addition, visitors could observe two programs broadcast "live" each day from the KUOM booth.

The time and talents of many staff members continue to contribute substantially to the steady success and popularity of the University's exhibits at the State Fair.

Educational Television

(continued from page 1)

ter is part of the newly established Department of Radio and Television Broadcasting which is under the direction of Burton Paulu.

Since the series is now in its third month of operation, Mr. Goldstein points out, it is possible to begin to appraise the over-all programming. From the audience point of view, there seems little question that the response to the University's programs

has been extremely enthusiastic, as judged by the very large and very favorable mail which the studio has been receiving.

A story of a lawyer who has been stimulated to purchase easel and paints and of an insurance salesman who has taken a second look at his piano exercises, helps to inform those associated with the shows that they are succeeding in arousing latent interests and enthusiasms in the television audience.

University Dads To Be Honored At Nov. 23 Luncheon

FATHERS of University of Minnesota students will be honored at the annual Dads' Day luncheon to be held Saturday, November 23, at 11:30 a.m. in the main ballroom of Coffman Memorial Union. This luncheon will conclude in time to allow students and their dads to attend the Minnesota-Wisconsin football game at 1:30 p.m. in Memorial Stadium.

Edmund G. Williamson, dean of students, will be the guest speaker at the luncheon to which the student's entire family is invited. Isaac J. Armstrong, athletic director, Loane Randall, "M" Club president, and Carlton Cronin, Dads' Association president, will also be on the program.

Luncheon tickets are priced at \$1.50 each, and reservations may be made by calling FEderal 2-8158, extension 6135, in Minneapolis, or by sending in the coupon below. Tickets may also be purchased in advance at 205 Coffman Memorial Union. Tickets will be held at the door for persons making advance reservations.

Football tickets will be available to guests who present luncheon reservations to ticket sellers. Dads can purchase their tickets over the counter in Cooke Hall from Monday, November 18, through Friday, November 22. On Saturday morning, November 23, tickets can be purchased at the North Tower in Memorial Stadium.

UNIVERSITY OF MINNESOTA
DADS' ASSOCIATION
205 Coffman Memorial Union
Minneapolis 14, Minnesota

Please reserve _____ places at
\$1.50 for the Dads' Day Luncheon,
Nov. 23, at 11:30 a.m.

Check enclosed in the amount of

Name _____

Street _____

City _____ State _____

U Gains New Assets At Medical Center And At Cedar Creek

HARD WORK on the part of numerous individuals and groups has brought into at least partial fulfillment three important additions to the resources of the University of Minnesota.

This fall has seen the first steps underway in the construction of two hospitals connected with cancer, which will become part of the Medical Center of the University.

Masonic Memorial Hospital

On October 17 of last month, the cornerstone was laid for the Masonic Memorial Hospital which, when completed, will be the first in Minnesota dedicated to terminal cancer treatment and research.

The colorful dedication ceremonies which honored the many campaign workers who have helped to raise money for the million-dollar structure, included a parade of Masonic units in uniform and regalia.

VFW Research Institute

October also brought an announcement by the Minnesota Veterans of Foreign Wars (VFW) that they have completed their goal of over \$300,000 for a cancer research clinical institute at the University.

Ground-breaking ceremonies for



Participating in the dedication ceremonies which were highlighted by the laying of the corner-stone for the Masonic Memorial Hospital last October 19, are (left to right) President J. L. Morrill, University of Minnesota, Governor Orville Freeman, Judge Leroy E. Matson, chairman of the Masonic Cancer Relief Committee, and Clyde E. Hegman, chairman of the Masonic Committee on Organization.

the \$475,000 institute are scheduled for February or March of 1958, and construction is expected to begin at about that time. The remainder of the funds for the new building, which will adjoin the Masonic Memorial Hospital, is expected to be received as a grant from the federal government, under existing legislation for hospital construction.

Cedar Creek Forest

With the dedication last September 14 of its new laboratory, the Cedar Creek Forest, outdoor classroom of the colleges and schools of

the state, has become a reality after about 30 years of hard work and planning.

Set in an area of over 3,900 acres located in Anoka and Isanti Counties, the Cedar Creek Forest is a natural history area which has been established for joint scientific and educational purposes. The unique locale, which includes forests, lakes, and swamps, is a southern relict outpost of the Canadian type of forest. The Forest is under the joint sponsorship of the Minnesota Academy of Science and the University of Minnesota.

REPORTS...

From Your University of Minnesota

Volume 40

Number 2

Published quarterly in the summer, fall, winter, and spring by the Department of University Relations, 213 Administration Building, University of Minnesota, Minneapolis 14, Minnesota.

William L. Nunn, Director of the Department of University Relations; Ann Tucker, Editor; Lynne Iglitzin, Associate Editor. Advisory Committee: Members of the University Public Information Council.

Copies are sent free of charge to parents of University students and members of other groups closely connected with the University. Subscription rates for other persons are \$1.00 a year. REPORTS is entered as second class matter at the Postoffice at Minneapolis, Minnesota, and accepted for mailing at the postal rate of postage provided for in Section 13, Act of October 3, 1917, authorized May 26, 1923.

UNIVERSITY ARCHIVES
ROOM 11. LIBRARY
UNIV. OF MINNESOTA
MINNEAPOLIS 14. MINN.

REPORTS . . .

AG
M66c

Expansion Plans Call for Move Across River

University Crosses Mississippi to Make Room for Record 1970 Enrollment

BETWEEN September 25 and December 16, 1957, a faculty committee appointed by President J. L. Morrill, and under the chairmanship of Academic Vice President Malcolm M. Willey, developed a proposed plan for University of Minnesota campus expansion which will "stretch" the Minneapolis Campus west of the Mississippi River. No new campus will be created; rather the present campus will be expanded logically and systematically across the Mississippi, with a unique, double-deck bridge spanning the river and unifying the two areas into a single campus.

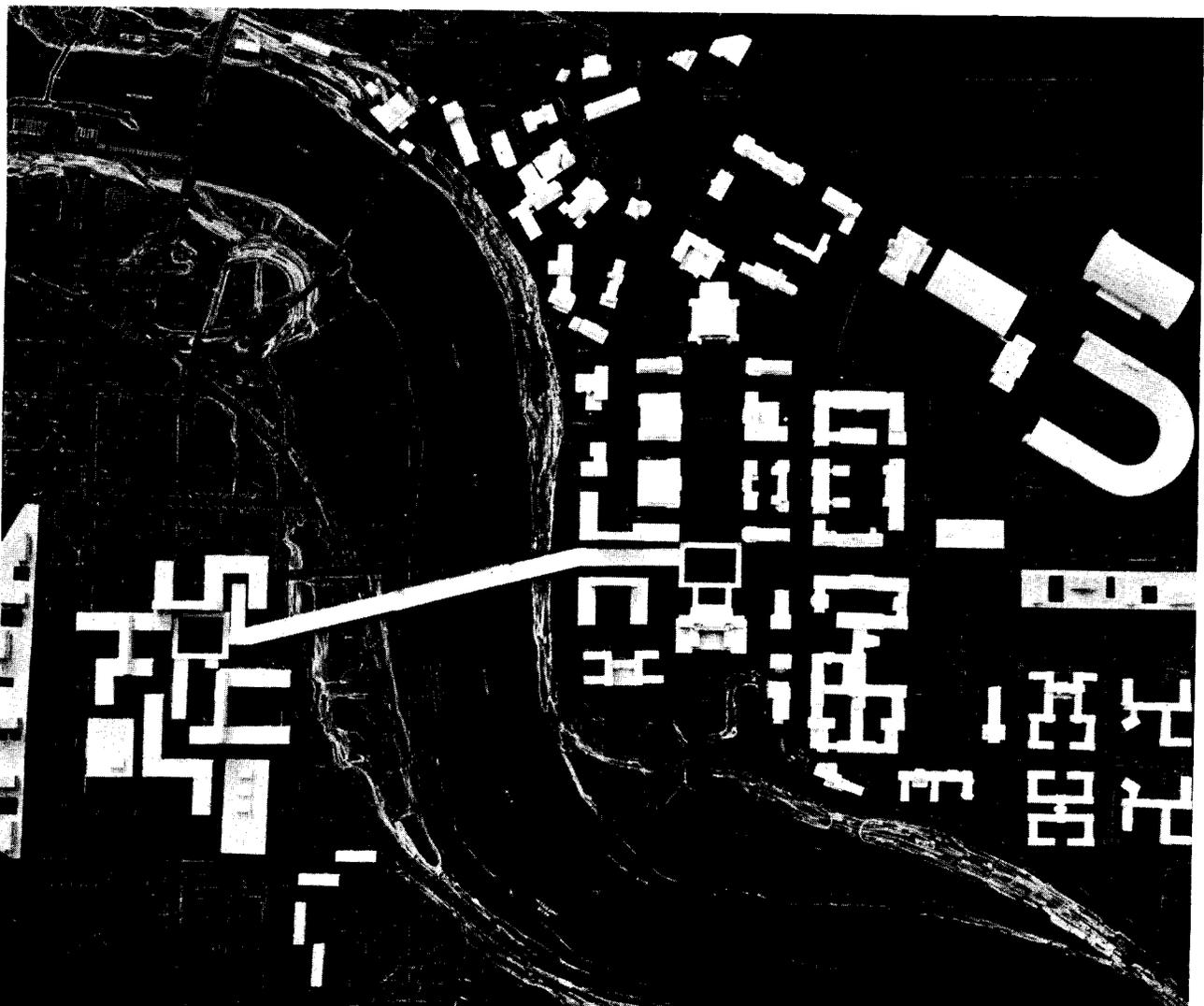
Why Expand?

Why must the campus stretch across the Mississippi? Why is it so necessary to expand at all?

These are questions that have answers in the Land-Grant tradition, for the University is a Land-Grant institution that takes pride in a century of increasing service and leadership to the people of Minnesota — service and leadership from doors that have always been open to all. This is the core of the Land-Grant tradition.

(Continued on Page Two)

This three-dimensional model, placed on a blueprint of the area shows how the Minneapolis Campus may look in 1970.



(Continued from Page One)

The most important reason for future expansion, and for the expansion of past decades as well, can be summed up in one word: GROWTH — growth in (1) the numbers of qualified students who want to attend college; (2) growth in the demands of society for trained, professional personnel of competence and integrity; and (3) growth and expansion of University research and service operations which result from the demands of industry, government, organizations, and individual citizens.

Expected 1970 Enrollment

The University must meet the needs of an unprecedented increase in college enrollment which is expected to total 38,600 on the Minneapolis Campus, 3,587 on the St. Paul Campus, and 4,000 on the Duluth Campus by 1970. It must also meet the steadily increasing needs for research and service in the areas of health, agriculture, technology and engineering, education, and so on.

Why Expand West?

Why must the University expand west? Why not north or east of the present Minneapolis Campus?

These questions find ready answers in the geography and in the economics of the areas in which the University is located.

It is obvious, first of all, that expansion in any direction other than west would make distances too great between the area of expansion and the present center of the campus. The University is now "hemmed in" by industrial developments and railroad tracks to the north and east. Expansion in either direction would mean students would have to travel through these sections to attend classes in the expanded area.

A second vital reason for the move westward is cost. The acquisition of the land across the river will cost only about half as much as that to the east or north.

A third reason for the move west is that the planned "equalizing of the student load" between the two sides of the river will reduce and ease traffic congestion. Also, expansion in any other direction would remove a substantial number of present student housing facilities, primarily in private homes.

The West Minneapolis Campus development would also provide a most welcome opportunity to develop a distinctive and inspiring "University of Minnesota skyline" with an architectural style that would enrich and beautify not only the University and the community, but the entire state as well.

Legislature Recognizes Need

The general need for this West Minneapolis Campus expansion was recognized by an interim commission created by the 1955 Legislature to study the building needs of the entire state.

The 1959 Legislature will be asked for funds to build the first educational buildings across the river.

Certainly there will be changes and modifications in the future. Some of these will be made as a result of the next six legislative sessions, while others will result from further studies.

Building Style

Generally, present plans call for most of the actual class-room space to be located in four-story, walk-up structures with 12-story office towers connecting these units.

There may be some dormitory facilities on the margins of the new west side area as well as restaurant and lounge facilities.

The instructional load between the East and West Campuses will be divided about equally, with space for 25,000 student "stations" (a station being a classroom seat or place at a laboratory table) on each campus. The College of Science, Literature and the Arts (the University's largest unit in numbers of students) will be

concentrated in two fairly compact segments at opposite ends of the proposed new bridge.

The Institute of Technology will be greatly expanded and moved westward to the present mall — into Vincent Hall, Ford Hall, the Administration Building, and buildings now housing various SLA departments.

Professional Area Development

The College of Medical Sciences will continue to develop in its present "growing space" in the blocks east of the Mayo Memorial Building and Millard Hall.

Either the College of Education or the General College will move to the West Campus area. If the College of Education does *not* move, however, it will expand in its present area and into additional space which would become available on the margins of that area as other units move.

The Law School and the College of Pharmacy would make up a "professional area" just west of the Main Library.

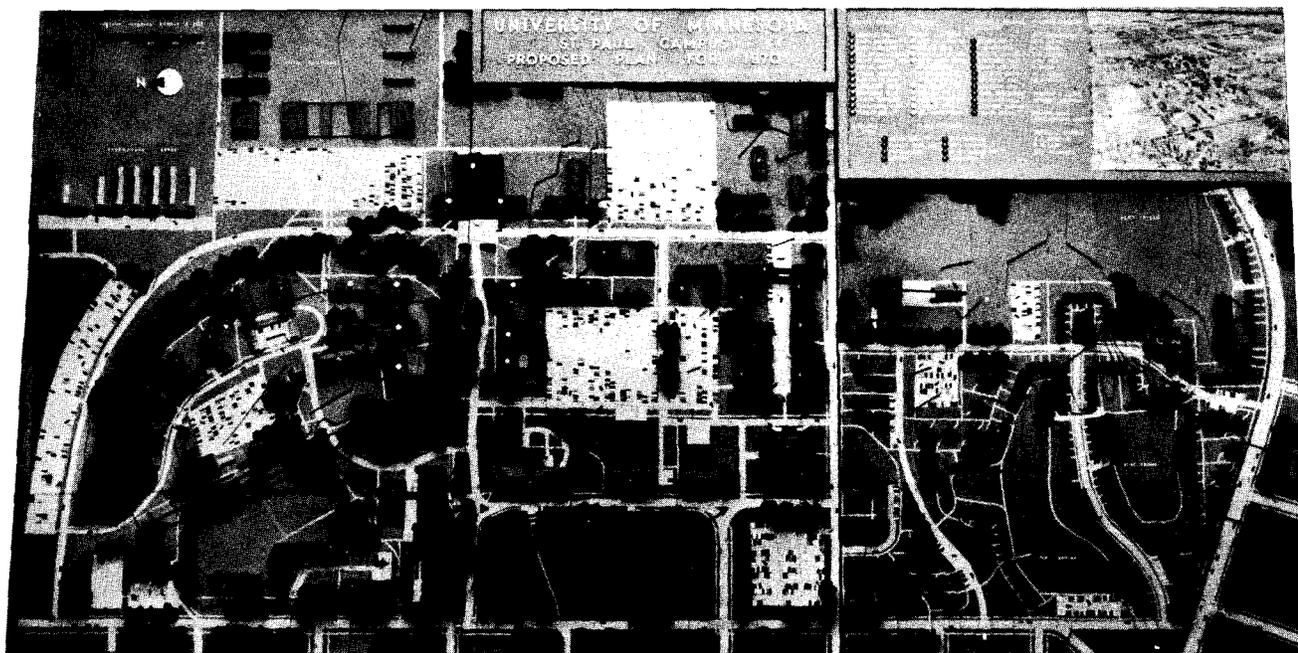
Under the proposed plans, the graduate school would remain in Johnston Hall although graduate students will be attending classes on each side of the river.

The administrative offices, as well as University public service activities, would be located on the north side of the present campus, probably in Folwell, Jones, and Pillsbury Halls.

The Bridge

The double-deck bridge, which would unite the East and West Campuses would, in a sense become the new Mall, with the center of the campus shifting to that area. This bridge would be unique in construction, with provisions for six lanes of traffic on the lower level and walkways for pedestrians on the upper level.

The excellent groundwork prepared for the next 12 years make the 1970 prospect look bright, inspiring, challenging, and will enable the University to meet its obligations to present and future Minnesota citizens.



The total area of the proposed St. Paul Campus in 1970 will be about 700 acres with 300 devoted to experimental plots or "outdoor laboratories."

St. Paul Campus To Have 13 New Buildings by 1970

THIRTEEN new buildings spread over a greater area than the present St. Paul Campus are in store for an expected total of 3,587 students by 1970.

Development is well underway with six new buildings and new heating tunnels already under construction.

Although the problem of a vast increase in enrollment is not as pressing for the St. Paul area as for the Minneapolis Campus, it will be necessary to provide space in new buildings to replace about 20 old and obsolete structures. These have outlived their usefulness, and the cost of rehabilitating or remodeling them would be much too high.

Additional space is also required for an enrollment increase in both the undergraduate and graduate divisions, for research facilities, public service activities, and for necessary service buildings.

Major farm operations gradually

will be moved from the St. Paul Campus to the Rosemount Research Center.

The St. Paul Campus of 1970 has been planned so that buildings and other facilities are arranged in six general groups.

Within these groups, it is likely that the following new facilities will be constructed.

1. *Plant Sciences*: New buildings for Entomology and Economic Zoology, Horticulture, and Plant Science Research, and additional research greenhouses for Agronomy and Plant Genetics, Plant Pathology, Soils, Agricultural Botany, and Horticulture. There will also be an addition to the Forest Products Laboratory.

2. *Animal Sciences*: A Meats Laboratory, a Livestock Pavilion, an Animal Husbandry Nutrition Laboratory, an Animal Husbandry Field Laboratory, a Poultry Research Building, and a Central Feed Handling and Storage Building.

3. *Veterinary Medicine*: Completion of and additions to the permanent basic facilities for teaching, research, and service.

4. *The Central Area*: A classroom and office building for Agricultural Economics, Rural Sociology, Agricultural Education, and possibly Rhetoric; The Earle Brown Short Course Center; rehabilitation of the old section of the building and construction of a second unit of the new section for Home Economics; Home Management Houses, and additions to Agricultural Biochemistry and Physical Training facilities.

5. *Dormitory and Food Services*: Dormitories for single men and women, married student housing, and a third floor addition to the Food Service facility.

6. *Farm and Service Buildings*: A Farm Shop and Garage, Physical Plant Shops and Service Building, additional streets, and parking areas.

Duluth Campus To Accommodate 4,000 in 12 Years

AN EXPANDED DULUTH Campus, which can accommodate 4,000 students by 1970, is being developed on a 196-acre tract of land in the eastern section of the city.

About 160 acres of this total were presented to the University by a group of St. Louis County citizens in 1948, under the leadership of Regent Richard L. Griggs.

The first building constructed on the new or "upper" campus was a \$1,000,000 science structure which includes a 400-seat auditorium. Some \$7,500,000 in additional construction and development of various academic and auxiliary facilities has followed.

Gradually, administrative and educational operations are being shifted to the upper campus from the original 10-acre lower campus which accommodated the Duluth State Teachers College, the predecessor of UMD.

With a Science group, a Library, Dormitories, the Physical Education Building, Air Force ROTC Headquarters, and Kirby Student Center now in use, about 50 per cent of the present Duluth Campus operation is being conducted on the upper campus.

It is estimated that about \$15,000,000 will be needed to complete



An aerial view of the "upper" Duluth Campus, a 196-acre tract that assures ample expansion space.

the following scheduled items:

Administration facilities, Campus landscaping, expansion of the Central Heating Plant, Shops, Dormitories, an Education and Psychology Building, a Field House with ice hockey facilities, the Health Service, Pedestrian

and Utilities Tunnels, a Home Economics Building, an Industrial Education Building, a Laboratory School, Library expansion, an Auditorium, a Science addition, an Observatory and Recreation area development, a Stadium, and a Theater-Recital Hall.

REPORTS...

From Your University of Minnesota

Volume 40

Number 3

Published quarterly in the summer, fall, winter, and spring by the Department of University Relations, 213 Administration Building, University of Minnesota, Minneapolis 14, Minnesota.

William L. Nunn, Director of the Department of University Relations; Ann Tucker, Editor; Lynne Iglitzin, Associate Editor. Advisory Committee: Members of the University Public Information Council.

Copies are sent free of charge to parents of University students and members of other groups closely connected with the University. Subscription rates for other persons are \$1.00 a year. REPORTS is entered as second class matter at the Postoffice at Minneapolis, Minnesota, and accepted for mailing at the postal rate of postage provided for in Section 13, Act of October 3, 1917, authorized May 26, 1923.

UNIVERSITY ARCHIVES
ROOM 11. LIBRARY
UNIV. OF MINNESOTA
MINNEAPOLIS 14. MINN.

UNIVERSITY INCOME, EXPENDITURES
(Continued from Page 3)

buildings, \$884,907.38; new buildings, \$1,772,490.20; permanent improvements, \$37,770.40; planning, \$12,195.35; equipment, \$300,984.56.

St. Paul Campus: Land, \$12,475; housing and food service, \$1,446, 219.31; rehabilitation of buildings, \$16,817.17; new buildings, \$2,341, 543.98.

Duluth Campus: Housing and food service, \$57,608.72; new buildings, \$876,565.37; permanent improvements, \$9,864.73.

Other campuses: Crookston — rehabilitation of buildings, \$43,544.06; new buildings, \$53,042.71; Cloquet — buildings, \$7,599.93; Rosemount Research Center — new buildings, \$44,360.89; permanent improvements, \$10,536.30; Grand Rapids — new buildings, \$457.60; equipment, \$221.34; Excelsior — new buildings, \$946.26; permanent improvements, \$7,179.48; Duluth Experiment Station — new buildings, \$750.85; Waseca — new buildings, \$49,719.02; Morris — new buildings, \$50,161.98; Itasca — new buildings, \$183.49; Cedar Creek Natural History Area — land, \$19,846.51; new buildings, \$4,928.36; general rehabilitation at branch stations, \$3,151.74.

Expenditures for self-supporting University services and revolving funds totaled \$11,386,990.91. Included are expenditures for University services and revolving fund operations such as dormitories, dining halls, married student housing, printing, laundry, the University Press,

Department of Concerts and Lectures, the University Theater, the Health Service, seed distribution fund, towel and locker funds, and private duty nurses' funds.

Trust fund expenditures for the care of the sick, research and teaching, scholarships, fellowships, prizes, and other trust purposes used up \$12,983,516.03 of the University's available funds during the year. Of this total, \$8,213,355 was spent on governmental and privately supported research.

The expenses of maintaining and operating the buildings and of making improvements on the St. Paul and Minneapolis Campuses cost \$4,242, 374.47.

General University expenditures during 1957-58 amounted to \$3,777, 905.80. This item included the expenses of the Library, general bulletins and publications, lectures and convocations, operation of the University storehouses, truck service, operation of the inter-campus bus, the University's share of employees' retirement costs, and other services of an all-University character.

Administration of the University for the year cost \$1,897,790.60. Operating expenses of intercollegiate athletics and that part of physical education expenditures paid out of receipts from intercollegiate athletics amounted to \$1,079,626.57.

Transfers and adjustments between various funds of the University, separately maintained and accounted for, amounted to a credit of \$521, 615.02 during the year.

At the close of the fiscal year, the University total endowment fund, including endowments for general purposes amounting to \$44,886,343.41, totaled \$60,585,413.57.

University Dads To Be Honored

FATHERS OF University students will be honored at the annual Dads' Day luncheon and football game Saturday, November 15. The luncheon is at 11:30 a.m. in Coffman Memorial Union with President J. L. Morrill as guest speaker. The student's entire family is invited to attend.

Reservations for the \$2.00 luncheon may be made by calling FEDERAL 2-8158, Ext. 6878, Minneapolis, or by sending in the coupon below.

Football tickets will be available to guests who present luncheon reservations to ticket sellers; they will also be sold at Cooke Hall through November 14 and at the Stadium North Tower the morning of November 15.

UNIVERSITY OF MINNESOTA
DADS' ASSOCIATION
200 Eddy Hall
Minneapolis 14, Minnesota

Please reserve _____ places at
\$2.00 for the Dads' Day Luncheon,
Nov. 15, at 11:30 a.m.

Check enclosed in the amount of

Name _____

Street _____

City _____ State _____

REPORTS...

From Your University of Minnesota

Volume 41

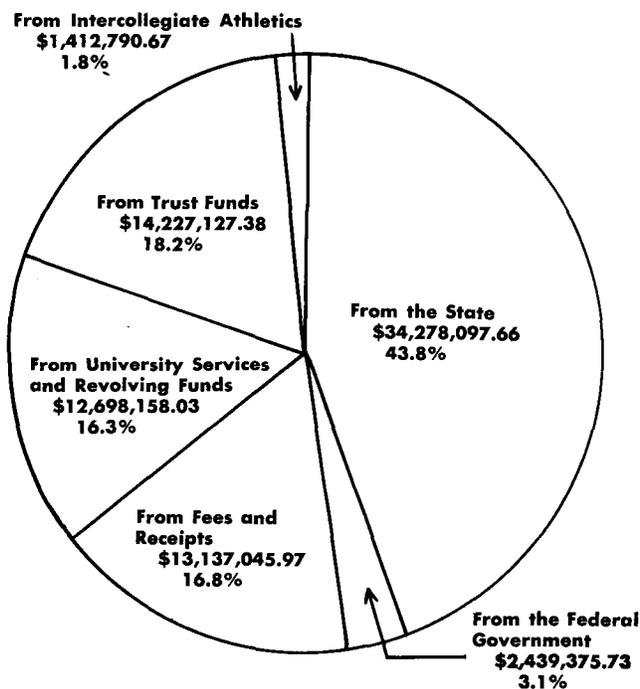
Number 2

Published quarterly in the summer, fall, winter, and spring by the Department of University Relations, 213 Administration Building, University of Minnesota, Minneapolis 14, Minnesota.

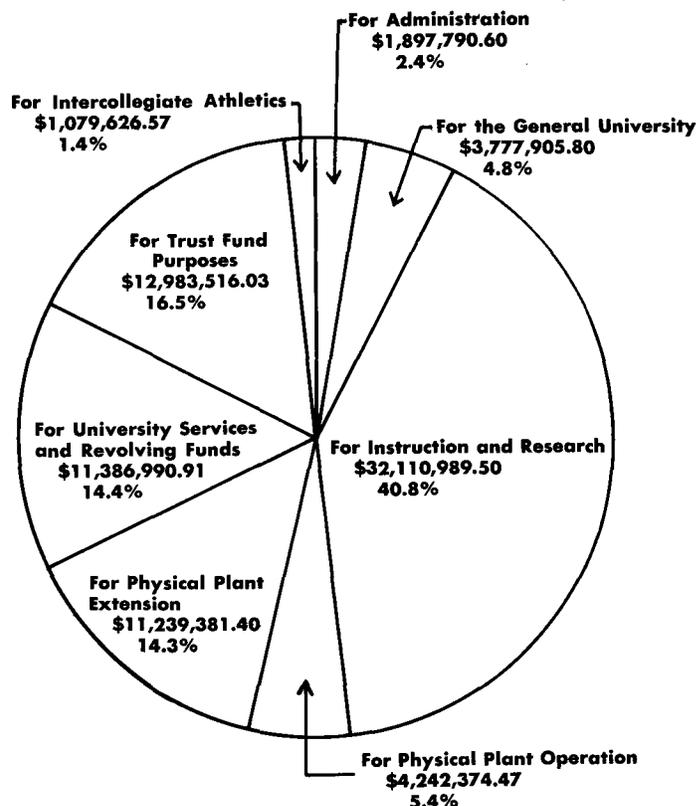
William L. Nunn, Director of the Department of University Relations; Ann Tucker, Editor; Emma Lund, Associate Editor. Advisory Committee: Members of the University Public Information Council.

Copies are sent free of charge to parents of University students and members of other groups closely connected with the University. Subscription rates for other persons are \$1.00 a year. REPORTS is entered as second class matter at the Postoffice at Minneapolis, Minnesota, and accepted for mailing at the postal rate of postage provided for in Section 13, Act of October 3, 1917, authorized May 26, 1923.

The Sources of University Income July 1, 1957, to June 30, 1958



The Expenditures for University Operations July 1, 1957, to June 30, 1958



University Reports Income, Expenditures for 1957-58

UNIVERSITY OF Minnesota expenditures for the fiscal year ending June 30, 1958, totaled \$78,196,960.26, while the school's income for the year amounted to \$78,192,595.44 plus a balance of \$4,364.82 over from the previous year.

Largest source of University income was the State of Minnesota which provided \$34,278,097.66 or approximately 43.8 per cent of the year's total.

The State's contribution to the University's 1957-58 income consisted of: a Legislative maintenance appropriation of \$21,189,291.73; a Legislative appropriation of \$2,898,776 for special projects administered and carried on by the University for the general benefit of the people of the State; a deficiency appropriation totaling \$1,160,127 to cover the University's share of Civil Service re-

tirement costs as required by law; an appropriation to the University Hospitals for the care of indigent patients totaling \$2,567,384.93 of which the counties pay \$1,284,090.20; and \$6,462,518 drawn from Legislative appropriations for construction of buildings.

The State maintenance appropriation includes income from the Permanent University fund, \$1,145,771.02; "swamp land fund" interest, \$127,630.86; and 23/100 Mill Tax receipts, \$359,055.57 which was credited in prior years directly to the University; plus \$5,594,817.71, the University's share of the occupational tax on iron ore which was credited in prior years to a permanent trust fund.

Other sources of University income for the fiscal year were reported as follows: fees and receipts,

\$13,137,045.97 including \$6,006,522.55 in student tuition fees; University services and revolving funds, \$12,698,158.03; from trust funds \$14,227,127.38; intercollegiate athletics, \$1,412,790.67; and from the Federal Government for instruction, agricultural research, agricultural extension work, and physical plant expansion, \$2,439,375.73.

Largest University expenditure for the year 1957-58 was \$32,110,989.50 paid out for instruction and research.

Expansion of the University's physical plant resulted in an expenditure of \$11,239,381.40 during the fiscal year. This amount was applied against construction costs, alterations, and land purchases as follows:

Minneapolis Campus: Land, \$607,637.08; housing and food service, \$2,565,671.63; rehabilitation of

(Continued on Page 4)

UNIVERSITY'S NEW
GAMMA RAY FACILITY

(Continued from Page One)

following firms, each with a particular interest in nuclear research, joined the group soon after:

Crown Iron Works, E. J. Longyear, Northwestern National Bank, Thorshov and Cerny, Pillsbury Mills, Electric Machinery Manufacturing, International Milling, Archer-Daniels-Midland, Cargill, Western Oil and Fuel, Land O'Lakes Creameries, Marsh and McLennan, and Toro Manufacturing, all of Minneapolis; First National Bank, Minnesota Farm Bureau Service, St. Paul Fire and Marine Insurance, Wood Conversion, Remington Rand Univac, and Walter Butler Company, all of St. Paul; Minnesota Power and Light, Duluth; Central Research Laboratories, Red Wing; Green Giant, LeSueur; Northwest Paper, Cloquet, and George A. Hormel, Austin.

University Joins Group

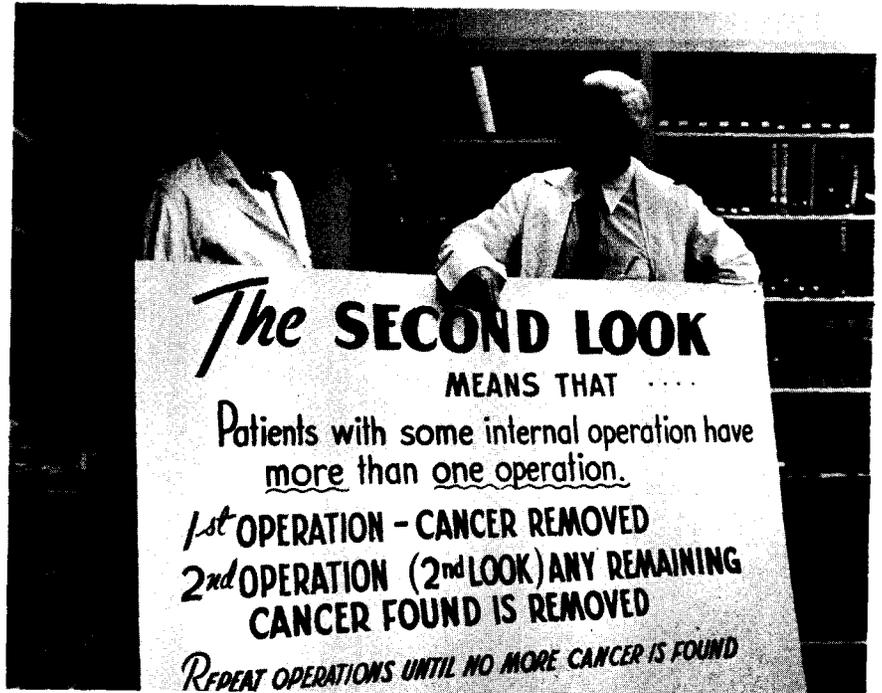
The University became a member of the group when it was realized that it would not be possible to advance rapidly in the field of atomic energy without a supply of men trained in all phases of nuclear technology.

Herbert S. Isbin, associate professor of chemical engineering, was named the University representative and the man responsible for the Facility.

Proposed research projects will involve University staff members from the Institute of Agriculture, Chemical Engineering, Radiation Therapy, Bacteriology, Biochemistry, Physiological Chemistry, Mechanics and Materials, Botany, and Chemistry, to mention only a few.

Most important is the fact that the Facility will become a vital part of the teaching and demonstration programs in the training of nuclear engineers and scientists.

It is a great credit to each of the member companies that this Facility was made financially possible. Surely great developments in the peacetime uses of atomic energy will be the end result of their vision, their scientific curiosity, and their desire to improve living standards of modern man.



Dr. Stuart Arhelger, left, and Dr. Owen Wangenstein pose with a poster which summarizes the "second-look" theory of cancer surgery.

Surgical 'Second-Looks' May Save Cancer Victims

PATIENTS WHO HAVE undergone primary surgery for advanced gastric, colic, or rectal cancer may become the subjects of life-saving, multiple-look operative procedures developed in 1949 by Dr. Owen Wangenstein, head of the University's Department of Surgery.

A second surgical look (six or eight months after the first operation) is taken to remove, if possible, any additional cancer which might be present. If this second operation *does* reveal the presence of residual malignancy, it is removed, if at all possible, and a third operation is performed, perhaps a fourth, and so on until no cancer remains.

As a result of this multiple-look procedure, and through a gradual process, a group of patients with previously undetected fatal residue cancer appears to have been saved.

Although several operations may be necessary to eliminate residual cancer, Dr. Stuart Arhelger, who has directed the multiple-look program since 1953, explains that usually the patients who can be helped by this procedure need undergo only two or three "look" operations.

University surgeons also continue to stress the great importance of early diagnosis for improvement in the ultimate outlook for patients who may have cancer.

Multiple-look surgery, a major cancer program at the University of Minnesota, has been supported by the Damon Runyon funds and by the Minnesota Division of the American Cancer Society. The program has attracted world-wide attention and has been adopted for selected cases by many physicians who have sought the advice and guidance of Doctors Wangenstein and Arhelger.

University Provides Leadership for 48,000 4-H'ers

PROFOUNDLY AFFECTING the course of agriculture in the United States is a youth program which has as its ultimate goal the creating of better farmers, better homemakers, better citizens.

The very founding of the 4-H organization is a credit to the pioneers in the leadership of rural youth. These men and women were eager not only to make rural life more attractive to the young people who were beginning to drift away from the American farm 50 years ago, but to instill in them the highest principles of good character development, good citizenship, and "learning by doing" in the fields of agriculture and homemaking.

One of these outstanding pioneers was the beloved T. A. "Dad" Erickson, University of Minnesota professor emeritus of agricultural education, who served as a state 4-H leader in Minnesota for nearly 30 years. His dream was to transmit the highest possible ideals to these youngsters, as well as to teach them the practical importance of their motto to "make the best better."

University Participation

The same goal is pursued today by the dedicated group of University

staff members all over the state who devote so much of their time and energies to the 4-H program and to the 48,000 members in 2,000 state clubs.

The University and the 4-H movement have a close-working, interwoven relationship. The very machinery of the program is set up so that the University of Minnesota provides its administrative leadership in this state.

On the national level, the 4-H program is one phase of an educational system of cooperative extension work in agriculture and homemaking. Participating in this national system are the United States Department of Agriculture, the state land-grant colleges, and the individual counties. The Federal Extension Service of the USDA gives the national leadership; the State Extension Service gives the state leadership.

Work of County Agents

Agricultural, home, and 4-H club agents administer and direct the Club's programs in Minnesota's 91 extension counties. Each of these agents is a member of the University staff.

All of these individuals strive to maintain the interest of 4-H members

in club work until they reach the age of 21. This means encouraging their activities on into their college years. 4-H members on the University of Minnesota Campuses have an opportunity to get acquainted and work together through such organizations as the Gopher 4-H Club and Clovia, an organization for girls who are present or former Club members.

More than half of the 32 Minnesota 4-H members who were awarded trips to the National 4-H Club Congress in Chicago last year in recognition of their work in particular projects were enrolled in college. Seven of them were University students; two were enrolled in the School of Agriculture. Four of these young people won national awards for their achievements.

Value of Membership

They are a credit to their leaders, sponsoring organizations, and certainly to their families and themselves, for in the final analysis, it is the individual member who is most responsible for the important role his club plays in his life and the lives of his fellow club members. When these youngsters join a 4-H group, they agree to follow the high ideals and standards adopted by the Club, and to learn by doing by carrying specific projects in homemaking, agriculture, and community leadership.

The goals of fine character development and good citizenship are the end results of working together, competing with each other, taking charge of meetings, planning programs, and taking part in community service projects.

The bases for these goals are expressed in the 4-H pledge:

"I pledge my head to clearer thinking; my heart to greater loyalty; my hands to larger service; my health to better living; for my club, my community, and my country."

Members of a St. Paul 4-H group watch a demonstration on lighting presented by a Ramsey County assistant home agent with the assistance of an adult leader.



Admission Policy Study Intensified To Prepare for Enrollment Increase

THE University of Minnesota has developed and is maintained to provide the opportunities a higher education offers the young people of the state.

Because of these opportunities, "well-prepared and ambitious students press for admittance and their parents throughout the state expect the University to accept them."

This quotation from a pamphlet entitled "Needs of the University" which was prepared for the 1957 Minnesota Legislature and for the citizens of the state underlines the enrollment problem of the immediate future.

The forecast of University attendance in 1970 is for 47,000 students, an estimate based on Minnesota children already born—children now filling the schools of the state.

The challenge of a booming enrollment is to anticipate solutions to problems relating to crowded classrooms, a shortage of teachers, and inadequate auxiliary facilities. Institutions of higher learning must prepare carefully to meet the increasing needs, and they must receive adequate support in this endeavor.

The Winter, 1958, issue of REPORTS was devoted to the plans the University has made for expanding

its physical facilities. In addition, the faculties and certain administrative officials are actively concerned with the problem of standards of admission for the influx of students in the near future.

Of course, the degree of difficulty in gaining entrance to a particular college or university depends, to a large degree, on the student's chosen field of endeavor. In many cases, the demands of the various professions for more and more highly-skilled, trained personnel mean a corresponding rise in competition among students eager for careers in these fields.

The University of Minnesota will continue its program of intensive study in the area of admission policies so that quality education will continue to be available to the thousands of upcoming ambitious, well-prepared students. A number of carefully devised studies has been prepared by University officials as aids in planning for the increasing college enrollment.

The University has consistently striven to maintain high standards as evidenced not only by the high caliber of the overall student body, but by the achievements of its alumni in nearly every field and profession.

10 PER CENT OF 'U' ARTS FRESHMEN EARN B AVERAGES

NEARLY 10 per cent of the 1,885 freshmen who entered the University of Minnesota College of Science, Literature and the Arts last fall received grade averages of "B" or better in their fall quarter classes, according to Assistant Dean Roger B. Page.

Of the 181 freshmen with "B" averages for their first quarter of college work, 63 earned honor point ratios of 2.5 or above. (An honor point ratio of 3.0 is an "A" average; 2.0 is a "B," and 1.0 is a "C.")

100 High Schools Represented

One hundred high schools are represented by these University arts freshmen. Minneapolis Washburn and St. Paul Central have the largest representation with eight honor students each; seven are graduates of Minneapolis North, and Robbinsdale and Minneapolis Edison each have five graduates.

Outside the Twin Cities, the following schools have three graduates each among the "B" arts students: Alexandria, Willmar, St. Louis Park, Duluth East, Owatonna, and Fergus Falls. Two are from each of the following high schools: Glencoe, Hopkins, Olivia, Roseville, Spring Grove, Minnetonka, South St. Paul, Rockford, Illinois, and Hyde High School in Chicago.

REPORTS...

From Your University of Minnesota

Volume 40

Number 4

Published quarterly in the summer, fall, winter, and spring by the Department of University Relations, 213 Administration Building, University of Minnesota, Minneapolis 14, Minnesota.

William L. Nunn, Director of the Department of University Relations; Ann Tucker, Editor; Emma Lund, Associate Editor. Advisory Committee: Members of the University Public Information Council.

Copies are sent free of charge to parents of University students and members of other groups closely connected with the University. Subscription rates for other persons are \$1.00 a year. REPORTS is entered as second class matter at the Postoffice at Minneapolis, Minnesota, and accepted for mailing at the postal rate of postage provided for in Section 13, Act of October 3, 1917, authorized May 26, 1923.

UNIVERSITY ARCHIVES
ROOM 11, LIBRARY
UNIV. OF MINNESOTA
MINNEAPOLIS 14, MINN.