Plans for the Rice Institute - Wm. Ward Watkin.

Upon the opening of the Rice Institute and its formal dedication on the tenth to the thirteenth of October (1912) it becomes possible to gain an adequate idea of the lines along which the University has been planned and of the development which will continue as it gradually grows to fill its place among great institutions of learning in this country. This development is certain in its promise and it has been with this certainty in view that the plans of the Institute have been made and have been arranged to provide in each phase of university work for buildings properly located and designed to meet the needs which the growth of the Institute will envision.

In point of view of the architect the planning of the Institute has been an absorbing and delightful problem in that it provided without limitation of the tradition or historic relics a new and untouched site, ample and spacious in its area upon which to design a university which should be complete in the view of all our present day knowledge of arrangement and equipment. In this respect the problem was extraordinary. With a possibility of a single exception it is doubtful if ever before a university of such importance and magnitude has had the study and arrangement of its lines of architectural development as clearly prearranged and predetermined as was the case in the Rice Institute prior to the beginning of actual construction. Recent years have shown a constant and increasing acceptance among universities and colleges throughout this country of a determined architectural plan along which the university should expand and grow. In nearly every one of these cases the architect was called upon to develop to the best of his ability a campus upon which the avenues of circulation and approach have long been established by the early existing buildings and especially without any adequate idea of the growth which the institution later made and which gradually was encumbered and disfigured that the architect was called upon the remedy if possible the existing conditions. In a few fortunate cases it is impossible in recent plans for the development of the older universities to secure the removal of buildings especially those built between the years of 1870 and 1890 in an unfortunate Victorian style, and one in which nearly every American university still has some existing buildings. It has only been by the removal of the more grotesque features from the campus and by their being supplanted with buildings more in conformity with
the Georgian for collegiate gothic buildings, which fortunately usually mark the earliest buildings of the institution, that some feeling of unity and some sense of quiet and refinement has been secured. Quite different has been the problem in the case of the Rice Institute in that here it was possible to carefully determine the style in the various phases of which it would be possible to express academic requirement of a great Southern university and to erect a memorial which would bear the marks of study, or dignity, and of artistic taste. It will require from a student of art some considerable study and research to place with assurance the style in which the Rice Institute has been planned. Convincingly Italian, without doubt, in all respects, and yet without an Italian prototype and certainly free from a trace of archaology. This has been secured by the study of the early sites of Italy and Dalmatia and from the Etruscan and Dalmation ruins. It has, however, been secured not by the study of these alone but in the imaginative and constructive style which it is delightful to think would have resulted in Italian and Dalmatian had the influence of gothic architecture of northern Italy and France and the absence of eastern architecture and of the Greek work failed to have subdued and dominated the architecture of Italy. Here and there motifs of pleasing uniformity of early Mediterranean work have been allowed their place especially in the Administration Building and in the Residential Hall, inasmuch as these motifs were found to be distinctly southern in their development. The details throughout, while being in conformity in richness and carving to the early Italian work has been entirely free from any archeological restraint and has incorporated the symbols of the state and the symbols and traditions and sports of American collegiate customs.

The Rice Institute has a main frontage of three-quarters of a mile and has an acreage to the amount of three hundred acres. The extreme western portion of the tract including some forty or fifty acres is separated by the small Harris Bayou from the remainder of the Institute grounds, and the plan of the Institute has been laid out with a view to securing the most complete use of the large usable area on the tract lying to the east of this bayou. The main axis of the Institute is laid out at an angle of some thirty degrees with Main Street and secures the maximum length of vistas upon
the tract itself, being parallel and adjacent to the longest diagonal of the tract. This angle was chosen in order to secure the greatest amount of usable area, and also affording the placing of the buildings more completely at right angles to the prevailing winds. Some fourteen acres lying in front of the Administration Building and between the main entrance gateways and this building have been arranged to remain permanently open and to afford the approach which will be absolutely necessary as soon as greater growth of the University has occasioned a number of buildings to be built. In front of the Administration Building and in the tract to the north will be the college and dormitory halls for men, and to the south will be the school of fine arts. These two buildings form a forecourt and are the only buildings lying to the east of the Administration Building. Upon the west or cluster side of the Administration Building will be the real development of academic and scientific schools. It is for this reason that this building has been given particular prominence upon its west facade inasmuch as future lines of buildings forming first the academic court with its Italian gardens and still farther the museum and research courts with the university hall or auditorium still farther to the west will make the center of university activity entirely upon the west side of the Administration Building and afford, the opportunity to emphasize the splendor of the west facade which now looks out to the west upon these courts the buildings of which are yet unbuilt. The laboratories of chemistry and physics which are next to be built will be to the north and west of the Administration Building and between it and the Power House developing a quadrangle of pure science which will be augmented later by a second quadrangle enclosing the court in front of the Mechanical Laboratory and consisting of laboratories devoted to branches of engineering practice and applied science. Still later and farther to the west will be built the buildings necessary for graduate work in other than the applied sciences and being devoted to the other professional activities of university work. Still farther to the west and completing the one mile of vista along the main axis will be the immense Persian gardens which will afford the great openness needed to emphasize the development in its complete form and affording an opportunity to cultivate in beautiful attractiveness every form of vegetation indigenous to the great state of Texas.
Quite separate and of a distinctly domestic type of Italian architecture will be the residential group formed of four large halls and having the gymnasium and athletic fields adjacent to them and arranged and placed upon the plan so as to be most easily accessible to and from the city by means of Main Street or by electrical service. The extreme western portion of the tract has been utilized for the large exhibition field and stadium, and it is here that the public games of the Institute will be held.

It has been necessary in building the Institute to provide every form of public convenience and service for it because of the fact that it lay outside of the limits of the city, and this has required the complete installation of service in light, water, drainage and sanitation. In addition to this the buildings have all been provided from a central plan with heat, ice-water, refrigeration and ice making plants, with intercommunicating telephone system and cloak room service and watchman's service, and fire alarms. The progress of the work while not so rapid as was first contemplated met with the unusual difficulties of transportation and delays due to the particularly abundant rain fall which made hauling and all exterior work unusually difficult and hampered it to a large extent.

ADMINISTRATION BUILDING

The Administration Building is, as the name implies, intended to provide the offices for the administrative and executive work of the institution and will take this function in part from the beginning and gradually more and more completely as the buildings are erected for the academic purposes. For this year its rooms will serve for lecture halls and class rooms in academic subjects. It contains in addition to the college office and office of the registrar the office of the trustees, the office of the President, and the library, two lecture halls seating seventy students, nine class rooms seating fifty students, six seminar rooms and seven professors' offices. In addition to this the major portion of second and third floors are taken up by the faculty chamber which chamber is seated in accordance with academic custom and will be the meeting place of the faculty of the University. For several years it will serve in addition as a hall for special public lectures and for the exercises for the undergraduate body.
The Administration Building has been given its due architectural importance, being as it will be the center of the academic life of the Institute and occupying this central position in the architectural plan. It has been given in its exterior the abundance of study in design which would render it in form and color duly important. Its cloister on the west side has been given this same degree of splendor which would render it of more importance than the cloisters which will adjoin it and lead into the other buildings of the academic court. In it the marble columns and arches have been intricately carved from models representing the richness and lacelikeness of earlier Italian work yet incorporating entirely modern decorative motifs. It has been necessary in order to secure the blending of color which must be part of all successful work in a southern country particularly, to use many marbles, some of them from foreign quarries; and many exquisite tiles to secure this color in a permanent form, and one which the action of time and weathering only can soften and make more delightful. In this respect, as in all its structural respects, the building has been built with a view to very lasting permanence and to this end its exterior has been kept simple and substantial in all respects and of such style and nature as will afford in the future ample opportunity of enduring decoration of the best character, should such be desired when the building is given its full administrative use. Upon the exterior, however, the decorative effect is yet a matter which could be of future development or application and here it has been carried to a conservative but necessary degree in conformity with the style. The panels of marble bear the inscriptions to the divisions of the Institute's foundation in letters, science and art, and especially the large panels in relief upon the west facade of the tower bearing the dedication to science and the dedication to art. The delightful Italian study and design in brick work has been given full play and it is quite interesting to note the structural and decorative arches and panels as they have been executed in brick work. However, nearly all the effects in the Administration Building have been secured by an economic disposition of the material to obtain the most artistic effect and by use of materials which in themselves were simple and were executed at a conservative expense.

The building conforms fully with the structural charms which
are the beauties of great foreign universities in the sense of structural massiveness and prominence. Undoubtedly one of the most delightful feelings of academic work has always been its sense of enduring expressed in terms of long succession of classes that have passed through its halls, but here expressed in the hope of the succession which is yet to come. The halls of the Administration Building, particularly the faculty chamber, will be used for inaugural lectures which will be held during the formal opening of the Institute, and the academic services of dedication will be held to the west of the Administration Building. This court has already been planted with hedges of privet and crape jasmine, and the planting will be extended and made in complete uniformity to the general plan for this academic court.

MECHANICAL LABORATORY

It is first of the engineering buildings and includes the hydraulic laboratory, the electrical engineering laboratory and the machine shop together with lecture rooms and draughting rooms. In this building for this year the laboratory of chemistry and the laboratory of physics are being installed and the draughting rooms for engineering and architecture with machine shop for engineering practice. The Power House contains the central station for the entire university, and in its boiler room makes the steam horse power necessary for all service of the various buildings. The installation has been made complete in all its details and has the endorsement of the best engineering practice for economy in steam. The heating mains and returns, the high pressure steam lines, the service water, and fire lines, the ice water and brine lines and all electric service are carried from the central station by means of a concrete tunnel to the present buildings and are provided at all connections for serving the future buildings.
THE GROUNDS

The treatment of the grounds has gained considerable headway and is carried out entirely in accord with the general plans of the Institute. The first three gateways at the three entrances have been directed, the hedges have been planted along Main Street, and the surfacing of roads and walks has been started, the Electric Street Lighting Service has been installed throughout the grounds, and the necessary grading in the academic court and along the roadways has been completed. The final preparation of the roads and walks was not possible until all drainage, sewerage, and electric systems had been installed. The planning of the roads will be one of the most important factors in securing the clear interpretation of the general plan. Immediately within the brick gateways at the entrance will be planted clumps of magnolias which will form a rich green setting for the brickwork and the drives will be planted either in single or double rows of oak trees; the courts will be planted with Italian cypress; the large court of the west side of the Administration Building will be planted with groves of live oaks and the numerous walks of grass plats at the intersection of roads and in front of the buildings will be planted with a variety of southern foliage and flowers. This treatment will give the attraction and charm which the fullest development of the plan dictates. It will become quite evident to those who follow with studied interest the growth of the Institute, how extensive and important this growth shows possibilities of becoming, and it will be equally evident to them that the beginnings have been entirely along this line and with a view to being ready for this development and to securing its fullest artistic possibilities when it does arise.

RESIDENTIAL HALL FOR MEN

is the first of four similar halls to be erected for the accommodation of that portion of the student population of the Institute which desires to live upon the campus. The present Residential Hall will accommodate one hundred and twenty men and provides for them in either single or double rooms as they desire. The students' rooms are all on the south half of the building known as the South Wing, and in the north wing are the dining hall, the commons room, and the kitchen, while in the tower are suites for the graduate scholars or professors. The kitchen service has been arranged with a view to serving from three to four hundred students.
and installation includes all necessary refrigeration and ice making plants as well as separate rooms for pastry kitchen, butcher shop, etc.

WM. WARD WATKIN

Supervising architect with
Cram, Goodhue, and Ferguson, (Boston)

Houston, Texas