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COLLEGE BUILDINGS

BUILDING TYPES STUDY 288

CAMPUS PLANNING

The Unique World of the University

By Eero Saarinen

Over the last ten years there has been a building boom on our campuses. Building by building these plants have almost doubled in capacity, as indeed they had to, for today they serve 3.8 million students as against 1.1 million in 1930, when the last boom stopped. It is now time to evaluate what has been done.

This evaluation must take place on two levels. The first concerns the general matters which underlie all campus architecture: the master plan, the policies of land acquisition, the question of costs, and the intent of college and university architecture. The second evaluation—and it is the most provocative—concerns the aspect with which we are most familiar because it is the most publicized and the closest to us: the individual buildings that have been built in our time.

THE MASTER PLAN

First, there is the matter of the master plan. At certain times universities rise to Olympian heights and decide that an over-all master plan is necessary, which indeed it is. But far too often such a document is treated superficially by the architect, by the administration, and by succeeding architects.

Here is what generally happens. The architect presents the over-all plan to the administration. When and if it is accepted in principle and the immediate buildings under consideration are placed and released, the architect then sometimes forgets all about the master plan and concentrates on the current buildings, disregarding their relation to the master plan. The administration generally treats the master plan with similar superficiality, and in many instances forgets all about or ignores its existence. Frequently the only intent of the master plan was for fund raising purposes. The administration often neglects to show an existing master plan and its intent to each new architect commissioned to do a building, and there is usually very little enthusiasm on the part of new architects to dig up exactly what was intended by earlier studies.

Now, these are situations created when there *is* master plan. In many instances, colleges and universities have no real master plan. A new building looms on the horizon and the Board of Directors try to place it themselves. The result of this investigation is generally that the best and openest lawn is decided upon. Not until this decision is reached is the architect called in. Too often the architect then fails to take any responsibility about placing the building, and simply says "yes" to the job. I have even heard of a case where an architect designed a building and told the college officials, "You decide where it should go."

LAND ACQUISITION

Second, there is the matter of the land acquisition policy of a college or a university. This, of course, has much to do with determining what can or cannot be done and, to a large extent, land acquisition policy becomes the key to many planning problems. Universities tend to create dense cities around them, with the result that land becomes prohibitively expensive when the institution must expand. I have even seen cases where universities, during some financial crisis, have short-sightedly sold land that has ten years later become of top priority for an orderly expansion. A master plan is an absolute necessity, and a policy of orderly land acquisition must be part of the master plan.

THE BUDGET

Third, there is the problem of money. A new building is donated but the amount of money is set. Generally, I believe our universities are making the very grave mistake of building on starvation budgets. A policy of holding out for quality would in the long run be wiser and more successful, and would make possible buildings that would ultimately be lower in maintenance cost. The whole question of how much a university should pay for its buildings is a chapter in itself. The pattern of past generations was that of proud buildings on beautiful campuses. The pattern at that time was also forward-looking expansion plans and considerable land acquisition. Those were the golden days. Since then, universities have gone through many financial crises and the costs of buildings have risen many times. As a result, they tend to neglect every consideration except hardboiled, expedient building programs. Too many universities have acted very much like building committees for schools. The purpose has been to build for the lowest price per sq ft; or in dormitories, the lowest price per student housed. This is, I believe, a very short sighted policy. Because of their unique place in society, universities should look toward the future. A practical, simple argument is, of course, that the lowest price per student today may not prove to be the lowest cost in the long run, when maintenance and obsolescence are considered. The question is, however, much larger than that.

The greatest assets that a university has are beauty and harmonious surroundings. In a sense, universities are the oases of our desert-like civilization. And, as the monasteries of the Middle Ages, they are the only beautiful, respectable pedestrian places left. Their greatest potential financial asset is, of course, the attraction they hold for their alumni bodies—for the largest support of building and academic programs comes from alumni and alumni inspired foundations. The opportunity of becoming forever a part of a permanent, respected, intellectual environment is a primary attraction for the donor. Does it not stand to reason that any university that can maintain a standard of excellence in these memorials will gain? Can we not recognize that what is being done today follows a pattern of living on borrowed time? Universities are living on the proud environmental homogenity of a past generation, but very often today may build isolated buildings out of pure expediency and disregard a controlled and coordinated total environment. It will suddenly become apparent to all that the university campus is not any more the permanent, beautiful environment it has been for so long in our mind's eye.

RECENT CAMPUS BUILDING

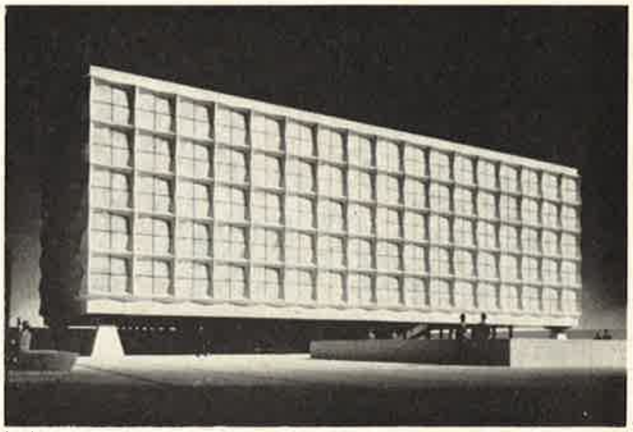
Now, what of the campus buildings themselves that have been constructed in our time? We are familiar with what has been done through the publication of individual buildings, and many such command great respect. Our best architectural talent is working on campuses today. The battle of modern architecture has been won, and these buildings are in general contemporary in design, and have made the break with the past. College buildings have taken the form of additions to existing buildings; new buildings among or adjacent to older structures; and in a few cases consist of entirely new plants built from scratch, such as the Air Force Academy. The overwhelming bulk of building has, however, consisted of buildings adjacent to or among the old campus group. This problem is the most common, the most important, and the most difficult to solve.

The primary characteristic of this period seems to be building buildings—buildings thought of as entities in themselves. Whether they are nonentities or significant buildings, from their conception onwards the *buildings themselves* have been thought of as the unique problem. Very little has been produced recently in the form of over-all campus building concepts. Many plans have been published, but they remain only two dimensional solutions to a problem, not plans with the third dimension in mass brought into the study, and practically never plans in which an over-all architectural discipline has been brought into the study. Other characteristics and problems of campus building today: a rash of comparatively small building units, due primarily to small private donations; the great pressure (as we have said) to stretch the building dollar to the last penny; and the necessity of using limited building locations due to the absence of farsighted land acquisition policies.

If we forget the published presentations of individual buildings and visit the campuses to evaluate them, how do these buildings stand up? We find some remarkable and some alarming things. Paul Rudolph's Art Center at Wellesley stands out as one of the best examples of a building carefully designed to harmonize with a dominant existing pattern. Gordon Bunshaft's Rare Book Library for Yale carries great promise of being a beautiful building, of our time and yet fitting into an existing surrounding. Henry Shepley's Lamont Library at Harvard is a building sensitive to its surroundings.

Joseph W. Molitor

WELLESLEY: Jewett Arts Center; Paul Rudolph, Architect



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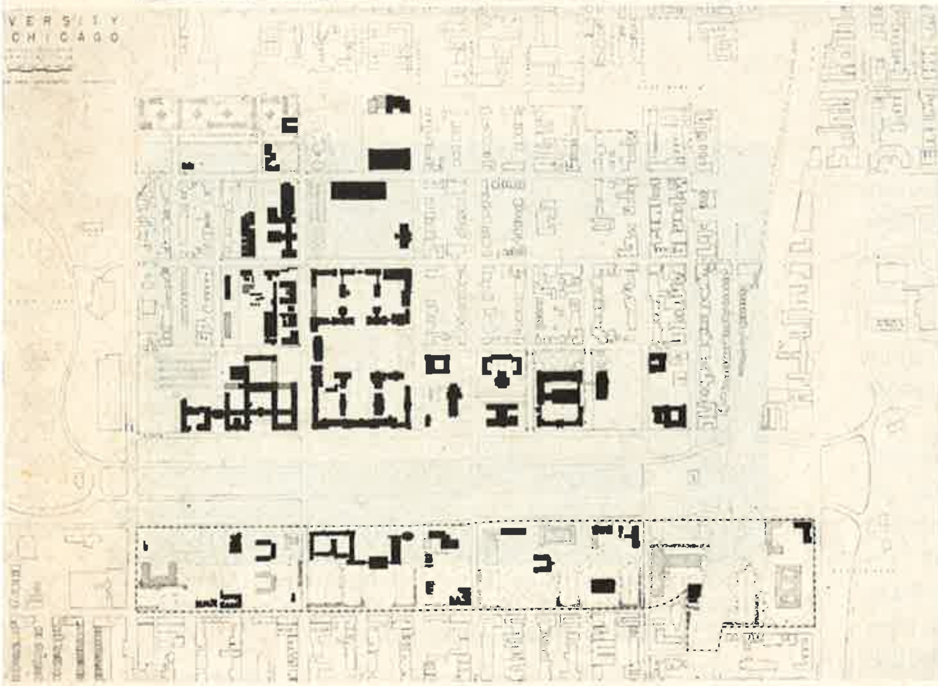
YALE: Proposed Rare Book and Manuscript Library; Skidmore, Owings & Merrill, Architects—Gordon Bunshaft, partner in charge of project

On the other hand, we all know of examples of buildings wrongly placed and of discordant material and scale built by our eminent colleagues which will forever ruin the general harmony beyond their own four corners. Some of these are treated with respect by architectural magazines, with no question of fitness or relationship to their permanent neighbors ever being raised. We find other alarming things.

You gradually begin to question the whole set of values by which we have been building campus buildings today. Is it perhaps true that the building itself is *not* the primary thing, but that the total harmony of the outdoor space which it and other buildings create is the important thing? Is it not perhaps true that the campus as a whole, the old and the new together, is the unit to consider, and not just the new building? While on campus we considered what the last generation did—by wandering around, by looking at plans, and by looking up some of the old writings. Let me tell you about some of the campuses I know best.

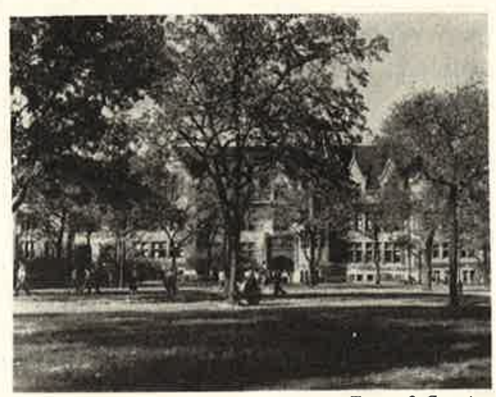
Architectural Record, October, 1894



Town & Count

CHICAGO: Top left, the original scheme for the University, made in 1892 by architect Henry Ives Cobb. Left center, the present master plan, which includes areas more recently acquired—especially the strip to the south of the Midway. The three photographs show the general character of the campus; note the view of Hutchinson Court, above, bounded by buildings designed by three different architects over a period of 36 years —see text

Chicago Aerial Industries, Inc.



Town & Country

SOME OLDER CAMPUSES

The older parts of the University of Chicago or Yale University, the former built mostly in the 20's and the latter in the 20's and 30's, are both dressed in pseudo-Gothic, and both of them were sneered at by us as young students for their eclecticism.

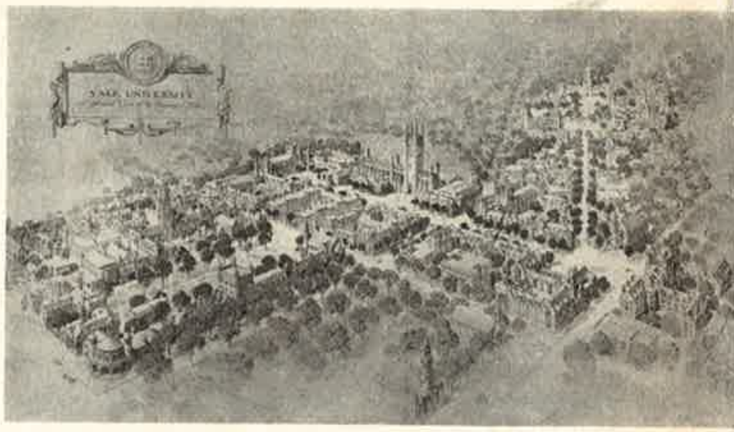
Wandering in the University of Chicago today, one is amazed at the beauty achieved by spaces surrounded by buildings all in one discipline and made out of a uniform material; where each building is being considerate of the next, and each building—through its common material—is aging in the same way. One is now far enough removed from the fight against eclecticism to admire the largeness of vision of the time, and one becomes interested in finding out how all this came about.

It is significant that on a small court on the University of Chicago campus built between 1894 and 1930, three different architects—Henry I. Cobb, Shepley, Rutan & Coolidge, and Charles Klauder—built the four different sides of the court. All are in the Gothic style, and the court gives us today a beautiful, harmonious visual picture (false stage scenery of a bygone era, it is true). Imagine what would have happened if three or four equally eminent architects of our day were asked to do the four sides of a square! (As a matter of fact, we are sweating it out on Lincoln Center and it *is* a problem). One begins to realize the great value an over-all discipline like the Gothic had in making the problem of unity simpler.

But we must look further to see how the total master plan was achieved. At Chicago, Henry I. Cobb made the master plan not a two-dimensional one but a three-dimensional one, and set the pattern of the Gothic. This plan was respected. The strong minded, architecturally enlightened members of the Board of Trustees insisted that the plan be carried out substantially as conceived.

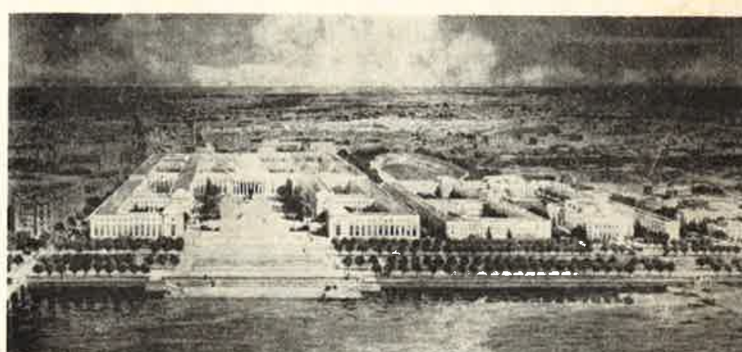
The phenomenen of the unity of the Yale buildings is another one to examine. Charles Haight built several of the early buildings on the old campus, including Vanderbilt Hall and Phillips Tower. A leading architectural critic of the time, Montgomery Schuyler—visually sensitive and aware—praised him for his deliberate manipulations in the interests of harmony through mass and fenestration. This was a period when there was real concern over how buildings actually related to each other, and also a period when critics used their eyes and were not afraid to speak up. Later (1919), John Russell Pope was commissioned for $100,000 to make a master plan for Yale, and it was published in a beautiful document. Some of the existing buildings were classical, but Pope proposed to hide some of these and turn the whole complex into a Gothic Oxford-like university. His plan was abandoned, but in the thirties, James Gamble Rogers took over the job of rebuilding Yale and consolidated a modification of Pope's plan into a new over-all master plan. The thing one sees in this is a great deal of concern by the architects, by the administration, and by the critics for the big concept of a total plan, a total unity of form, and the creation of planned outdoor spaces. (No generation has talked so much about "space" in architecture as our own; and no generation has done so little about it).

We now go to another institution, M.I.T. The oldest part of this group, the buildings designed by Welles Bosworth, stand out among all its buildings as the only homogeneous group. These were the buildings that we all disliked in the thirties and



YALE: Proposed Master Plan (1919) by John Russell Pope, Architect

YALE: The old campus, a focal point in University life



MIT: The original scheme for the Institute, designed by Architect Welles Bosworth forties because of their pseudo-classic sterility. But let us not dismiss them so easily just because we once disliked them. One can now see that they form a unity: they create an environment. They have also proven quite useful. They were built in parts and X-number of units was added. They were built on the principle of continuous space—continuous usage of standard space. Fortunately, Welles Bosworth chose a bay width which has proven very workable despite hundreds of shifts and alterations within. It is possible that had the buildings been done on a complete modular system with movable partitions they would have proven less flexible. Parenthetically, the Bosworth M.I.T. buildings have been called dull and monotonous, but I have come to the point where I would welcome more dullness and more monotony in our cityscapes instead of all the visual clashes typical of our time. Another building of the same type of plan as the Bosworth group is the Chicago Medical Center and Hospital, which has proven its durability. Here also many internal changes and additions have been made but because it is continuous space—not fitted around departments, but in a sense universal space—it has proven modern today.

By these examples, Yale, Chicago and M.I.T.—and by many others that I could name also—we come to find that the last generations did not do badly in many respects. In fact, in many ways they did better than we are doing. They saw the problem in a larger way; they provided for total plans and environment more than we do; and some of their buildings have been proven by the test of time. Of course, they had in many respects an easier time. They relied on disciplines such as Gothic or Georgian for their buildings. They relied on prototypes such as the courts of Oxford and Cambridge for their planning—or as at M.I.T., a Louvre-like plan. All this is true, but the revelation of how much better and more durable their results are makes it necessary for us to pause and think. It is time to re-examine our own aimlessness in many fields, our national purpose, etc. It is likewise time to re-examine and try to re-define our purpose when we build the college campus.

AIMS AND MEANS

What is the real purpose of building at a university? Is it to provide space at the lowest dollar cost? Is it to provide beautiful memorials to donors? Is it to provide distinguished buildings for each department? Is it to provide space? Is it to provide memorials to architects? Is it to provide the lowest maintenance cost possible? Is it to provide space and keep up with the times? Is it to provide space and provide a setting such as Colonial Williamsburg? Or what is it?

It seems clear to me that the primary purpose is to provide space for instruction that in its *long term* aspects proves to be economical. But combined with that purpose must be its esthetic purpose, which is not the esthetics of a single building, but the esthetics of the whole organism—the university as a total. The esthetic purpose of the building must be to enhance the total organism. The practical purpose is not just to provide sq ft that ideally fit a department in 1960—departments may grow and change; instruction methods may change; the technical facilities of lighting and air-conditioning may change as they have in the past. Specialized space (auditoriums, etc.) is different; but it seems to me that for academic instruction, space such as that in the old M.I.T. buildings provides an excellent example of what in the long run proves to be economical space.

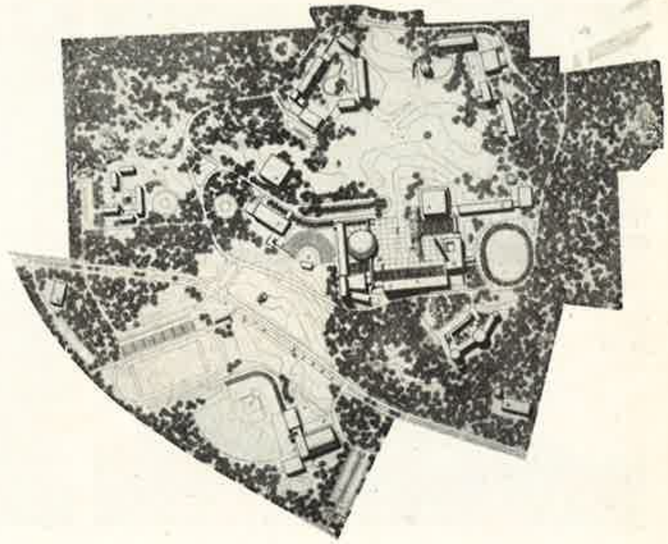
The esthetic purpose to enhance the total university organism. Exactly what does this mean? Are we to continue with eclectic buildings? Are we to find a neo-pseudo-eclecticism to go with the surrounding existence buildings? Must we keep from building the most beautiful buildings just because there are ugly ones around? Should we not build functional buildings any more? These are questions that arise when the problem is to build on an existing campus. I would say that there is no clear formula, but that unselfish wisdom must be exercised by the architect and college officials. We must face each problem as it comes. The range of answers can be very great.

If a building project involves only a small addition to an existing dominant eclectic style, the answer might well be to build in the eclectic style and, in a sense, hide the addition. In another case, where the building is an independent structure more remote, much more freedom can be expressed. If the building is an axial building, such as a library at the end of an axis, then the library might be different as a contrast while the unity of the bordering buildings should be preserved. An architect must be conscientiously responsible towards the master plan and he must be conscientiously responsible towards all the buildings around. If the dominant trait of a university is a certain colored brick (as at Vassar) or limestone (as at Chicago) he must follow this pattern. He must think of his building when it has grown old and how it will become part of the permanent surroundings. Colored curtain walls, for instance, are dangerous in the campus milieu. They do not weather and take on the patina of their neighbors. The architect must make a conscientious effort to develop a mass which is sympathetic and enhancing to the total mass developed by the older buildings. High rise towers, so fashionable today, may spoil a skyline which was beautiful. The scale and dominance of vertical or horizontal in surrounding buildings has a great bearing on what characteristic a new building should have. If the character of the university or of the immediate neighbors is, for instance, a vertical one, then verticality should be stressed. It is in fact very seldom and only in unique situations that a stressed horizontality will work at all with closely placed buildings. Horizontally emphasized buildings closely related remind me of express trains running rampant against each other. It is only in recent years that a vertical dominance has been a part of modern architecture. This is what we wanted to emphasize in our first Brandeis master plan. Matthew Nowicki and I tried to lay down a prototype that could be followed with later buildings having a vertical character.

I said we must think of the campus—old and new—as a total unity. This does not mean that we should not express in our architecture that we are living in a new era which no longer tries to adorn itself in the dress of other times. Nor does it mean that we should proudly proclaim that we are in a new era at the expense of the campus. Nor must we become timid just in order to preserve a unity. There is a way always—not necessarily within the current enthusiasms—or a way must be invented by means of which that of the old that is good does not become obsolete because of its new neighbor or addition. Often the way is a combination of material and mass and vertical or horizontal emphasis.

AN APPRAISAL

I suppose at this point it would appear appropriate for us to try to appraise objectively our own successes and failures in these respects, quite aside from the merits or demerits of the building or buildings. I feel that Noyes Hall, the dormitory we did at Vassar, carries out the general spirit of the campus without compromise. What about the Hockey Rink at Yale? I feel that the open location of this building, removed from the compact campus and the special problem, warranted a special solution—and the freedom to express the structure freely. The Yale Colleges presented quite another problem both by the character of the program and the proximity of the neo-Gothic buildings. For this reason we arrived at the vertically oriented polygonal architecture carrying out the stone walls of surrounding buildings. Concordia Senior College was quite another problem. Here there were no existing buildings and the establishment of a character for the whole was part of the problem. At the Law School and the Women's Dormitories at Chicago we deliberately continued the existing material—limestone—and the vertical scale. The Law School group represents a meticulous effort to create a mass sympathetic to the surrounding buildings. In the Library of the Law School group a change in material seemed warranted—in order to create a central accent sharp enough to hold the whole group together.



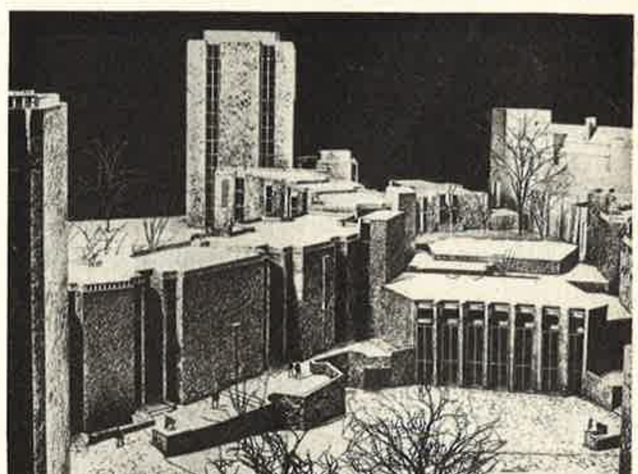
BRANDEIS: Master Plan; Eero Saarinen, Architect—not followed as campus construction developed

Joseph W. Molitor

VASSAR: Emma Hartman Noyes House, Women's Dormitory; Eero Saarinen, Architect

Joseph W. Molitor

YALE: The Hockey Rink; Eero Saarinen, Architect



YALE: Proposed New Colleges; Eero Saarinen, Architect




MIT: top left, aerial view; top right, the Rotunda—Welles Bosworth, architect; bottom left, the Kresge Auditorium—Eero Saarinen, architect; bottom right, the chapel —Eero Saarinen, architect

Two top photos courtesy of MIT; bottom left, Robert D. Harvey; bottom right, Ben Schnall

At M.I.T., the earliest of our campus work, the dome and the chapel can be criticized as being too egocentric. The shapes of these buildings are closed and they do not contribute anything to creating a unity within an area which so sadly needs unity. From the beginning we conceived of these buildings as buildings on a great square but neglected to define and crystallize exactly how this square would be achieved. This we should have done. I am delighted that M.I.T. now has building plans in which I hope to have the opportunity to correct this error. And my hopes are that we will be able to create a large court pulling all surrounding buildings together into one homogeneous whole—in a sense continue the spirit of the Bosworth buildings—not in actual architecture but in largeness of spirit.

THE "NEXT LARGER THING"

In conclusion, it is time for us to realize that the existing patterns, architectural as well as administrative, by which our universities are being built are not the ones by which a worthwhile result can be achieved. Both architects and university officials have to re-examine their ways of doing and seeing, and establish a new method for reaching higher goals. Everybody is at fault but there is no use sitting around waiting for the other fellow to start. It seems to me the start for a new deal should be made by the architectural profession. We should stop thinking of our individual buildings. We should take the advice my father gave me, "Always look at the next larger thing." When the problem is a building, we should look at the spaces and relationships that that building creates with others. When the problem is those spaces we should look at the campus plan as a whole. When the problem is the campus plan as a whole we should look at its relation to the city plan.

If we can carry the "next larger thing" as a crusade and also at the same time stop looking at things in only two dimensions—make models; large models showing whatever it is in the context of the next larger thing—then we can consider our side of the responsibility toward the campus well done.

But to think that we can do it all is living in an ivory tower. Our process of thinking in larger ways must generate action within the universities. They must spend more money and time on master planning (and I mean three-dimensional master planning). They must commit themselves to architects for larger areas of planning and building, so that the architect can have a continuous responsibility. They must take stronger positions (than they often do) against the wishes and whims of donors which are often harmful to the over-all plan. They must organize a method of checks and balances between individual architects working on single buildings in the interests of the total plan. This can be done by the method of planning consultants reviewing all actions, such as at the University of Chicago, or by a Board of Design, or by many other methods. There are many problems for all concerned, but the place to start is, as I said, with the architect. It is up to him to emerge from his self-made cocoon and expand his vision into the next larger thing and then again the next larger thing. In the process he will gradually formulate strong convictions about outdoor space—the beauty of the space between the buildings—and if he does, he will carry his convictions on to his most important challenge—how to build cities. This is the next chapter, the one we have not yet begun to face—esthetically.