## Convocation dedicating the <br> GRADY GAMMAGE MEMORIAL AUDITORIUM <br> September 16, 1964 <br> 

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ARIZONA STATE UNIVERSITY TEMPE, ARIZONA

## Goreword

The Grady Gammage Memorial Auditorium, designed by Frank Lloyd Wright, was dedicated September 16, 1964. This magnificent showcase of the performing arts was envisioned by Dr. Grady Gammage, president of Arizona State University, for nearly a decade before his death in 1959. It was the last major structure designed by Mr. Wright, who died a short time before Dr. Gammage.

Construction of the 3000 -seat auditorium was begun on the Arizona State University campus in June, 1962, and the building was completed 25 months later. Designed in two overlapping circles, the structure stands 80 feet high and measures 300 feet long by 250 feet wide. From each side of the building, like welcoming arms, extend 200 -foot pedestrian bridges leading down to the parking areas. In addition to the auditorium, which incorporates the best features of a concert hall, theater, and lecture hall, the building includes a four-story facility for the Department of Music.

William Wesley Peters of Taliesin Associated Architects served as chief architect, and Robert E. McKee General Contractor was the builder.

The addresses delivered on the occasion of the dedicatory convocation are recorded in this publication.

DEAN E. SMITH, DIRECTOR
bureau of publications

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Chief Architect, Frank Lloyd Wright
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## Weloome

## G. HOMER DURHAM

PRESIDENT, ARIZONA STATE UNIVERSITY

Governor Fannin, Mrs. Wright, Mrs. Gammage, other distinguished guests, ladies and gentlemen:

To date, the history of this building has been the history of an idea. Today begins its official life in the history of an institution. By means of the program that follows, each of us present today has the privilege of listening to some of those participating in the development of the entire complicated enterprise as an idea and in its fulfillment. Two of the major participants are not present to speak. But I can suggest that the ideas of Frank Lloyd Wright, expressed in durable material, will always be seen and felt, if not here heard; and that the dream of Grady Gammage to have such a structure, expressive of Mr. Wright's genius, as an instrumentality of the University, is now a reality.

We are honored to have Mrs. Wright, Iovanna Lloyd Wright, Mrs. Gammage, and Grady Gammage, Jr., with us today as honored guests, and to have the opportunity of hearing from Mrs. Wright and Mrs. Gammage, in the company of officials of the State, of the Board of Regents, the architects, building contractor, and consultants listed in the program of the day.

I should also like to acknowledge with appreciation the presence of a distinguished platform guest, under whose administration the first legislative appropriation of funds for this structure was enacted, and his role in this project has been continuous: Dr. Harold D. Richardson, Acting President, December 29, 1960 to September 30, 1961.
(Dr. Richardson rose and acknowledged the warm applause of the convocation.)

There are many others who have contributed greatly to the fulfillment of this dream. The contribution of some will never be fully known, nor even recognized. But they share with those who are gone, and those who are here today, the grand vision of what such a structure can come to mean. May we, therefore, pay our deepest tribute of appreciation and respect to all who have contributed toward the completion of this building in any way. As a University, we pledge to both past and present that the future will see this dream extended, extended, and extended again if possible, toward the always distant view of what may be more true, better and more beautiful.

May I repeat a thought expressed nearly four years ago, as inal funding and drawings were being anticipated: "No matter now complicated modern society becomes, how jaded or sated its peoples, how distraught with tension, we should never overlook the fact that great art, great music, great literature, great drama have sense of purity, dignity, simplicity of line, thought, and feeling oward which, like the ocean, all streams finally return, no matter ihrough what deserts or obscure wilderness they have previously lowed." As we embark today on a future stream of great promise, the architecture of this building will stand as a constant eloquent eminder of this high order of thought, and we may well exclaim with Oliver Wendell Holmes, each individual to himself or herself, "Build ;hee more stately mansions, O My Soul!"

# Invocation and $\mathfrak{P}_{\text {rayer of }} D_{\text {rdication }}$ 

REVEREND DAVID DESHLER

FIRST METHODIST CHURCH, TEMPE

Let us pray. Lord of Creation, architect of nature's infinite variety of sight and sound, we stand with humble hearts before thee. Eternal mystery of creation itself, we express our joy that it has been given to us, as humans, to participate in life as co-creators with nature in this unfolding universe. We have gathered as a community to celebrate in a spirit of determined vision and fulfilled imagination, symbolized in this great structure, which invites us to enter the place of art's celebration.

Yet, while we find ourselves joyful over this experience of creativity, we must remember other moments and confess that we have voted for the trite and mediocre when we have prejudged too quickly, criticized without imagination, and ridiculed out of thoughtlessness the finest artistic efforts of others. Forgive us for our stereotyped tradition-bound folly.

Accept this, our act of gratitude, for the persistent planning of Dr. Grady Gammage, for the distinctive design of Frank Lloyd Wright, for the infinite detail of the architects and draftsmen, for the careful calculations of engineers, for the constant craftsmanship of laborers. Accept this, our act of dedication of this place, to the end that teachers may inspire appreciation for the cultural heritage and excellence of achievement, that speakers may challenge the curiosity and conscience of free minds, that composers and authors may be honored and respected by society, that performing artists may be afforded a responsive hearing, that players may bring the perspective of humor and the insights of human relatedness.

This we pray, in high hope that dialogue between national and racial cultures in the universal language of the arts will contribute to sensibility and sanity in an atomic age. May we be ushered into the heart of reality time and time again as we celebrate here, giving applause, not only to one another, but to the designer and creator of life itself. Amen.

## Grestings

## HON. PAUL J. FANNIN

GOVERNOR OF ARIZONA

President Durham, President Babbitt, members of the Board of Regents, Mrs. Gammage and Grady, Jr., Mrs. Wright, distinguished guests, faculty, staff, students, alumni, and friends of Arizona State University:

Two years ago last May, it was my pleasure to participate in the groundbreaking ceremony for this great hall. As we turned the first spadeful of soil on that day, the occasion lifted our eyes to beauty, our hearts to the memory of greatness, and our expectations to the joy of coming events.

This cultural center for the entire Southwest unites the genius of an architect who towered over his contemporaries, and the name of an educational statesman who served for thirty-four years as a college president.

Nothing could be more fitting than for this magnificent building to be named in the memory of Grady Gammage. He came to this campus in 1933, at the depth of the depression, and his steady hand guided a small undernourished teachers college and developed it into the university which has been called "his monument."

Dr. Gammage's last working hours were spent in his office on that December day in 1959, as he talked on the telephone, sharing his ideas and plans for this great auditorium. He had many hopes and dreams for the future of this university, but this hall was what excited him most.

This building has already become well-known throughout the nation, and throughout the world. It will be one of Arizona's greatest tourist attractions. It is said that visitors will most want to see two things when they visit our state - the Grand Canyon, and the Gammage Auditorium. It is a tribute to Grady Gammage, and a lasting monument to him and to its great architect, Frank Lloyd Wright, a master who was decades ahead of his time

Mr. Wright was a fortress of artistic integrity and individualism who fought the forces of mediocrity throughout the seventy years of his professional career. When asked what building he considered his greatest, Mr. Wright always answered, "my next one." By that standard, we are in his debt for this, his last great architectural work.

The Gammage Auditorium, with its outstretched arms welcoming the people of Arizona to this campus, combines the memory of the man who built Arizona State University and the genius of a master architect.

For the people of Arizona, and for the thousands who will come to enjoy this auditorium, I congratulate Mr. Wesley Peters, the Taliesin Associated Architects, and the Robert E. McKee Company for their masterful work. And I congratulate Arizona State University on its good fortune.

## Dr. Durham:

The Honorable John G. Babbitt, President of the Board of Regents, who is unavoidably absent today, appointed Regent O. D. Miller to represent the Board. Mr. Miller had prepared a statement for this occasion, but a sudden illness has made it impossible for him to be present. Regent Arthur B. Schellenberg is here today representing the Board and will read Regent Miller's statement. Regent Schellenberg:

## ARTHUR B. SCHELLENBERG

BOARD OF REGENTS OF THE UNIVERSITIES AND STATE COLLEGE OF ARIZONA

Dr. Durham, honored guests, ladies and gentlemen:
I wish that circumstances had not placed me here before you at this moment. Mr. O. D. Miller, a member of the Board of Regents for the past six years, who championed and worked for this building and for its unique architectural design and its acoustical excellence, was to address you at this triumphant moment of the fruition of his labors. Unfortunately, O. D. had a heart attack a little over a week ago, but, because of his great interest, it didn't keep him from writing a speech for this occasion.

At his request, I have the honor of delivering O. D. Miller's speech exactly as he wrote it.
"As most of you know, the Board of Regents of Arizona's Universities and State College is the official body representing the people of this State in all matters having to do with the providing of publicsupported higher education for its citizens. The Board's many duties include the authorizing of the construction of necessary and appropriate buildings for campus use. With respect to such capital items, when the Board has reviewed and considered the periodic recommendations by the heads of the respective institutions, it formulates its own recommendations and incorporates them into the annual budgets
which are presented for the consideration of the Legislature. Once the necessary funds have been provided for any specific building or buildings (from either appropriation or bonds), plans and specifications are completed, bids are invited, contracts are awarded, and the construction takes place. Upon a building's completion, a formal ceremony is held, at which time the Board of Regents accepts it from the architect and contractor on behalf of the State. That's the point at which we have now arrived, in the case of this Grady Gammage Memorial Auditorium, designed with characteristic flair by the late great Frank Lloyd Wright, detailed with meticulous care by the Taliesin Associated Architects (working closely with the ASU plant management), and built with great skill by R. E. McKee Company.
"I count it a high privilege to speak for the Regents at this ceremony today, and to bring you greetings from the whole Board on this occasion. During my six years of membership in this official body I have rejoiced at the completion of every one of the buildings added to the different campuses; but this particular building has been especially close to my heart throughout its long and intricate planning and construction. The old auditorium built for Tempe Normal School in 1906 had to suffice for this institution's needs until it went down in dust, in 1956. Subsequently, large assemblies and the presentation of important cultural events have had to be held in the ballroom of the Student Memorial Building, with its tiny, plain platform for a stage and only folding chairs for seats. The need for a new and adequate auditorium was recognized long ago, but auditorium plans were repeatedly shunted aside because of this institution's pyramiding registrations, beginning in the mid-40s, which imposed a more crucial need for additional classrooms and dormitories - and even a new stadium.
"It is really amazing that, lacking an adequate auditorium facility, it has been possible to maintain anything like a proper level of interest in the cultural program of this institution. It is remarkable that under the circumstances, ASU has been able to continue booking the type of artists and cultural events which should be provided in a representative college atmosphere.
"I say 'should be provided' because, in spite of all the very proper emphasis on technologies and sciences in a modern university curriculum, the field of Liberal Arts still is the vital core of a college or university education. We are bound to recognize the importance of specialized training, nowadays, if we are to be prepared even to earn a livelihood - to say nothing of equipping ourselves for creative work; but we must recognize also the importance of developing appreciation and expression of the finer things. We have always needed such appreciation and expression in order to realize the greater satisfactions in life; but now it may be added that, as our technologies and sciences provide us increasing time for leisure, the cultural arts become even more important to us, so that we may, through them, experience the most rewarding employment of this new-found leisure!
"So it is with real gratitude that the Board of Regents, acting on behalf of all the people of Arizona, now accepts this fine structure from the architects (represented here today by Mrs. Frank Lloyd Wright and Mr. Wesley Peters) and from the builders (represented by Mr. Robert E. McKee). We have here a multi-purpose building providing not only the great auditorium and stage (with their beautiful appointments, and engineered for excellent acoustics), but also five stories of classrooms and rehearsal halls for music and drama. This building, and the activities it houses, will impress students and visitors alike as an eminently fitting focal point for the campus of Arizona State University, and as an appropriate memorial to its namesake, our beloved Dr. Grady Gammage, who led the dreaming and planning for this burgeoning institution for more than 27 years.
"This completion and acceptance marks, for a great many earnest people, the culmination of enduring patience, persistent hope and confident planning. Our reward is an elegant and efficient edifice for education, expression and edification in the performing arts, second to no other anywhere else on earth.
"Certainly, we can all now say, 'It has been well worth waiting for!'"

Dr. Durham, ladies and gentlemen: Having completed Regent Miller's excellent and sincere speech, which stemmed from his hard work and enthusiastic dedication to the creation of this building, I cannot resist this opportunity to make a few personal remarks.

William Caudill observed that "a campus is more than a collection of buildings - that a university is more than the sum of its parts," and I agree. But there are parts and parts. Today Arizona State University is receiving one of the most important physical parts any university has been blessed with for many years.

This, the Grady Gammage Auditorium, with its functional and esthetic dignity, will reflect the excitement of learning and the power and joy in the spoken word, music and the performing arts.

The daring, the imagination, the freedom of thought, the new knowledge and the skills that created this building will all find their way into faculty and student attitudes for decades to come.

Arizona State University this day has also acquired something more than an unusually fine new building.

# $I_{r i f u t s}$ to $\mathcal{P}_{\text {residsnt }}$ Grady $^{\text {Gammage }}$ 

## GILBERT L. CADY

VICE PRESIDENT FOR BUSINESS AFFAIRS, ARIZONA STATE UNIVERSITY

My scholarly associates should not be surprised that this honor that is mine this morning brings to mind a Shakespearean observation - "What the great ones do, the lesser ones will prattle of."

I am privileged today to be among "the lesser ones" who speak, if not prattle, of the great ones and what they have done. And, coming from the very least of the lesser ones, my words, even with your generous indulgence, will not be equal to the auspicious occasion, nor will they measure up to the great man and his deeds of which I speak.

The first words President Grady Gammage addressed to me in the summer of 1933, when I was a student assistant in the business office, were - "I'm Grady Gammage, would you please show me the building?" It was Matthews Library, where the administrative offices were housed. It was my honor then to "show him the building." It was my great privilege for the next 25 years to work and plan with him for the many structures required of a growing institution.

Well, the building of buildings is done - and fortune has deprived us of the great joy of showing it to him.

But I can assure you, my friends, he knows this magnificent building, and he knows it well - for he was a visionary, a man of many dreams, but with an acute perception as well.

He had a dream about a complex, metropolitan university, serving a variety of purposes, with a university name worthy of the institution, and we saw it come to pass.

He envisioned on this campus a vast engineering complex to serve the growing needs of business and industry, and we saw it become a reality.

This auditorium is, of course, the realization of another dream, but he has seen it and seen it well - this is a commonplace for men of uncommon vision and perception.

And now, if you don't mind, permit me to comment briefly on how it came about. The "goldpiece" story is not an unfamiliar one, but it is the twice-told tales that we cherish most.

It was back in 1912 that a doctor told a young man in Prescott, Arkansas, that he must move to a climate where the air was warm and dry. The young man had spent a year as a court clerk and a year as a public school teacher since graduating from high school, dreaming of an opportunity to get a university education. This bad news seemed to shatter all his hopes . . . his dream.

But, with the brashness of youth, he wrote to Governor George Hunt of Arizona, to ask if the new state had a university, and, if so, how he could enroll. The governor replied with a personal note, inviting this young man to visit him, and sent him the University of Arizona catalog. That left just one obstacle to hold this determined boy from answering his health problem, and, if I may say so, from his dream. It was the usual obstacle . . . money.

But this was no average boy. He had demonstrated his willingness to work, and he had also shown a curiosity about the things around him. Fortunately, there was a man in this town who looked at the poor Arkansas high school graduate and saw the promise more than the apparent. Mr. H. E. Bemis, the local lumber mill operator, gave young Grady Gammage a $\$ 50$ gold piece to "stake" him for the trip out to that university in Arizona.

The rest is history, a chronicle of achievement and inspiration recorded in the annals of this state and of this great university, and so fresh in memory that it requires no repetition here - but so incandescently written that it will forever serve as a lodestar - a guiding light - for the future development of Arizona State University and those who inhabit it.

But, to return to the goldpiece narrative . . . What a success story! How typically American! And so inevitable that it should find its eloquent expression in this "land of opportunity" in Arizona! Of the many-splendored ways in which to view this great auditorium, I respectfully submit that among them we include the regard of it as an eternally priceless return on a $\$ 50$ investment . . . a $\$ 50$ investment in an Arkansas high school graduate . . . poor in health but rich in dreams, and with the determination to transform those dreams into enduring realities.

Naturally we regret these two great master builders - the great architect of this university and the great achitect of our age cannot share this exciting hour with us, in this great home of many mansions, of art and music, of poetry and song, of dance and drama, of thought and expression - but we glory in the certainty that Grady Gammage foresaw it all.

# The Grady Gammage Auditorium: $I_{t s}$ © $M_{\text {eaning and Significance }}$ 

MRS. FRANK LLOYD WRIGHT<br>PRESIDENT, FRANK LLOYD WRIGHT FOUNDATION

I would like to begin with a sentence of Mr. Wright's which I have heard throughout my life with him, and that was, believe it or not, a quotation from the great Chinese philosopher Lao-tse. He read from Lao-tse that the reality of a building does not consist in its walls or in its roof, but in the space enclosed within. Lao-tse demands that for a human being. Lao-tse demands that the form which each one of us has does not determine really what we are within. But that which we are within determines our form, visible. Mr. Wright took this very closely to his heart, and he said he was a bit embarrassed because he thought that he had invented this idea of the space within. But, after that, he said his pride got the better of him and he said, "He, Lao-tse, taught it, but I built it."

And I feel that this building is a tremendous expression of that thought. In this space in which we all are now, we seem to be contented even if nothing were happening in it. This space seems to have intelligence of its own, integrity of its own, a soul of its own. This kind of building that can project such a thought to everyone here renders a great meaning to life. And all of us, no matter how strong in spirit, always need regeneration of the ideas that are immortal. All of us, no matter how strong, sometimes fail to perceive the beauty due to great encumbrances and disappointments that life gives us.

But, if we can find a meaning here, and if we can feel what this building represents, if we can understand the genius of a man who gave of himself, all of himself, in the buildings that he built, then, it will give us courage to move on. Because life without mean-
ing has nothing to offer, and we search meaning everywhere. We search it in works of art, in literature. We search it in architecture . . . to find it rather rarely. Because that, as my husband repeated so many times, is the blind spot of the nation. A new country had to do so much to establish itself and its individuality it simply did not reach far enough to have architecture as a great form of art. But Mr. Wright did it here . . . right here in Arizona which he loved, attached to these mountains from which he always drew inspiration. It is here that he deposited a jewel on the head of Arizona, like a crown. He was enamored of the rarified air. He believed that all great religions had come from climates like this and all those great religions, notwithstanding science, we still live by.

It was such an inspiration for me to hear the speakers here today, each one speaking rather from the heart, not from the mind, and that does not happen very often. And I wondered . . . perhaps it was the influence of this building that put something in their voices that sounded real. Even that little academic touch which we always connect as somewhat cut and dried, had completely disappeared out of their voices. I was very happy listening to hear the truth spoken from them. And I know that all of you have the same feeling. All of you are moved some different way, perhaps because the two great men are not here with us. And, yet, they are here. When speaking of Grady Gammage, I saw him so vividly. I saw him coming to Taliesin the first time to ask my husband to build the building. My husband came to me and said, "Olgivanna, there is a very nice fellow, the President of a University, Grady Gammage, who asked me to design a building. But he has no money."
"Well," I said, "but how are you going to do anything about it?"
"I don't know, I don't know. It is very tempting . . . such a nice fellow."

And over and over again he said, "I have faith in that man. I think he'll do it. I don't usually do this. I don't break my ethics by designing without any guarantee whatsoever, but I am going to do it."

And he did it. And I'm so happy that Grady Gammage fulfilled, as we were told here today, his dream. He fulfilled it because he knew that this University needed a lift. You remember at that time, especially when he began, he had all those shabby buildings around; or buildings, more or less, that completely bowed their heads to utility . . . to uniformity. There is always the complaint that to build a building with individuality takes much more money. But you'll see that this building didn't take much more money . . . perhaps even less money than some of the uniform buildings do today. He knew that this University needed some significant building; a building which would render significance to a University which was still young, and not as well known as it is now. It really developed very rapidly, as you all know. So Mr. Wright said, "Grady Gammage, I'll build you a building that will be a gateway to your University. It will be a gateway to your intellectual level. It will introduce what you stand for." This University will become a famous, great University, because there is a necessity to contribute culturally to the country by way of the building as well as by way of literature, art, painting, music. So he said, "I'll build you that building and you'll see . . . it will make your University." Of course, it was made much before that. But Grady Gammage saw the significance of a building that truly represents genuine American culture. And that is what it does represent. And that is where our pride lies. That whoever comes from the world will see this building completely as American architecture. And, being American architecture, being the genus belonging, having integrity, that architecture will be understood by America . . . and by the world. Because whatever is genuine, whatever is pure, whatever is consistent with the idea is understood by the world.

Perhaps I would correct a little bit O. D. Miller's words when he said that this building will be significant in decades to come. I would say centuries to come. If this building is maintained, it will remain forever young . . . as my husband was forever young; and as Grady Gammage was forever young. Because they had the spirit of adventure in them. This building was an adventure. This building was a complete deviation from uniformity to the degree that it almost drew criticism which might have prevented it from being built. But, you see, the great idea, a human heart, a will to receive some-
thing of beauty, of significance, of meaning to life, won over it. And I, for one, am humbly grateful that I can stand here this morning and tell you "thank you all for having contributed your share to this fulfillment."

## -Rsmarks

## WILLIAM WESLEY PETERS

CHIEF ARCHITECT, FRANK LLOYD WRIGHT FOUNDATION and taliesin associated architects

We are here to dedicate a great building that exists because of the outstanding qualities of two men: the wisdom of President Grady Gammage who recognized and sought the genius and vision of Frank Lloyd Wright to shape a new and finer auditorium for Arizona State University.

Now, several years after the deaths of these two men whose mutual efforts were here directed toward a common end, and as the result of the devoted and dedicated work of numerous others inspired by the lofty concepts initially promulgated by them, the Grady Gammage Auditorium stands as a significant legacy to the State of Arizona; a heritage partaking of the same original and genuine quality as the woods and lakes, the mountains and canyons, with which this state is so richly endowed.

This relationship of the building to the environment is no accidental phenomenon; the philosophy of Frank Lloyd Wright, manifested in more than a thousand individual buildings throughout our land, proclaims that the same principles work to produce a noble building as function at a slower and grander pace to produce the beauties of nature which surround and enrich the life of man.

The Grady Gammage Auditorium stands as a living testimony to the validity of that thought which holds the purpose and being of architecture to be the creation of a complete and organically related environment for a richer and nobler human life.

It is possible that I might here enumerate for you the many
different ideas and expressions of these principles that have operated to produce the building as it is and by way of which it achieves the manifold purposes and ends originally programmed. I might tell you of the various unique and original features, literally hundreds of "firsts," which enable the building to accomplish its specific purposes in a simpler and more direct fashion than has been done before. But, after all, the building itself is around you; it is here now and in the future for the enjoyment, instruction and satisfaction of you and of generations to come; its functional operation and organic beauty may well be evidenced, tested and proved for years and centuries. The proof of a pudding is in the eating and the effectiveness of a great theater or auditorium grows with its satisfactory use and in the hearts of those persons whose lives it enriches.

I will, however, point out at least a few of the many innovations, ideas and features that have been at work in developing the shape and structure or are evidenced in the countenance of the building which surrounds us.

The first object in designing the Grady Gammage Auditorium was to provide a maximum number of comfortable seats with excellent visual and acoustical conditions at a minimum distance from the proscenium and stage. Although the auditorium was to be first of all a music hall designed for orchestral and chamber music, the original program stipulated that it was also to be capable of effective use as a theater, as an assembly hall, as an opera house and as a recital room.

By use of the so-called "Continental Seating" system which places the rows of seats farther apart and eliminates radial aisles in the central portion of the house, a greater sense of unity and intimacy was achieved and a steeper floor slope was permitted which provides better visual sight lines and much better acoustic conditions than have been possible with previous systems. We believe that this building is the first one in which this wide spacing of seat rows leading to spacious and conveniently located side exits, has been employed not only on the main floor but in the two balconies as well. As a direct result, there is a much larger proportion of excel-
lent seats in this hall than in any other of comparable size and purpose of which I know.

The advantages of this seating system have been made feasible and economically practicable by the arch bridges which form a prominent feature of the exterior design and which provide emergency exits from all upper levels and which act as marquees or canopies at both entrances.

The visual unity and acoustic intimacy of the interior is further accomplished by means of the "flying" balconies which spring across the house with vertical space behind and around them to allow the free circulation of sound and air. This arrangement is designed to enable the entire volume of the house to act as an acoustic unity and to save the seats under the balcony from separate or distorted sound.

The orchestra shell, automatically telescopic, becomes, when, as you see it now, extended, an organic part of the main auditorium, virtually extending the walls, ceiling and volumetric space of the house to the stage itself and making one great room.

A wall, highly resistant to sound transmission, separates the stage from the music school, theater workshop, orchestra and choral rehearsal rooms beyond.

Time forbids the mention of the very many other interesting and unusual features of the building but I trust that they will make themselves felt over the years in the efficient and unobtrusive functioning of the auditorium.

When Frank Lloyd Wright died in 1959, he left a well-knit, highly-trained group of men and women to carry on the educational and architectural work which he and Mrs. Wright had established at Taliesin West. Under the leadership of Mrs. Frank Lloyd Wright, the educational aspects of this program have expanded and flowered.

I am proud, as Chief Architect of the Taliesin Associated Architects, to have been privileged to carry into execution this last
large design of Frank Lloyd Wright. It has been a rich experience to see this building grow from the initial sketches left by Mr. Wright to the simple, although complex structure you see around you. The effectiveness of this process would only have been possible through the efforts of the highly skilled members of the Taliesin Associated Architects, trained for years under the direction of Frank Lloyd Wright and inculcated with his principles, philosophy and ideals. I have appreciated the help, direction, and guidance of Mrs. Frank Lloyd Wright who has been actively interested in the development of this design from its inception and who has been personally responsible for shaping the pattern of colors, textures and interior materials throughout the building.

The Taliesin Associated Architects have greatly enjoyed working with the officers and staff of Arizona State University; particularly with President Durham and Vice President Gilbert Cady without whose faith and diligence this building might never have come to exist. The care and attention given to this project by Mr. John Ellingson, his efficient staff, and the many interested and helpful members of the Arizona State faculty, are highly appreciated.

To such courageous civic leaders as Mr. Lewis Ruskin and Mr. Walter Bimson, who supported this project in its early stages; to Mr. O. D. Miller, Mr. Lynn Laney and the other Regents who have defended and forwarded the building-those who will gain from its use owe a genuine debt of gratitude.

To Dr. Vern Knudsen and Dr. George Izenour, consultants respectively for acoustics and stage lighting and mechanization, as well as to Messrs. Biddle and Young, mechanical and electrical engineers, go the thanks and appreciation of the architects; and to the general contractors, Robert E. McKee Company, and to all the various subcontractors a vote of approval for efficient and painstaking work in constructing an unusual and exacting building.

Finally, I believe that it is in order to congratulate the people of the State of Arizona for securing a magnificent building at very moderate cost. A careful study indicates that the Grady Gammage

Auditorium, with all its unusual features and exceptional facilities, has cost only a fraction of similar structures elsewhere, and, in fact, has been built at the lowest unit cost of any comparable structure of corresponding size, quality, and facilities built anywhere in this country within the last ten years.

I feel that this is an achievement of which we may all be proud and which has provided a building which Arizona and the United States of America may well enjoy, cherish, and revere.

## R. E. McKEE, JR.

PRESIDENT, R. E. MCKEE GENERAL CONTRACTOR, INC.

We are extremely happy and proud to have had a part in the development of this beautiful and interesting structure. We have constructed many expensive buildings in the past half century, but very few buildings will remain modern, attractive, useful, and practical for many years to come.

The employees who were directly involved in the construction of the auditorium are to be complimented for the magnificent job they did. Mr. John Rattenbury, the resident architect, was always available to help solve the daily problems which arose, and we are grateful for his patience with those in our organization with whom he worked. The Taliesin Architects did an extraordinary job in planning this unusual and magnificent structure. Those persons who are responsible for bringing this distinctive auditorium into reality would be equally proud of the accomplishment if they could have been here with us.

We have enjoyed every day working for the University and the architects. I would like to ask my brother, C. D. McKee, to stand. He had an important part in the building of this building, as did Eugene Carlier, the engineer in charge.

The solutions of the acoustical design problems of this monumental auditorium have been for me a challenging and rewarding experience, and I have greatly enjoyed my association with your University officials and the Taliesin Architects.

The required conditions for the hearing of speech in auditoriums are relatively simple, but they are not easy to attain in large auditoriums. Briefly, these conditions are:
(1) The speaker must speak loudly enough, or his speech must be amplified, which is necessary in all auditoriums such as this one - and you are dependent on the quality and operation of the sound system.
(2) The room must be free from noise and from excessive reverberation.
(3) The shape and dimensions of the room must be designed so that it is free from echoes, interfering reflections, and so that it provides a favorable distribution of reflected sound to all listeners.

These conditions can and must be controlled and evaluated, and then we can predict how well speech will be heard in any planned or existing auditorium, and we can design the auditorium and its sound amplification system so as to provide satisfactory conditions for the hearing of speech. Of course we must know how much acoustical power a typical speaker generates. We also must know that a very loud speaker generates about 37 times as much speech power as does a very weak-voiced speaker - the power range is from about 4 to 150 microwatts. A four "microwatter," unless his speech is amplified, cannot be heard satisfactorily beyond the third or fourth row in an auditorium as large as this one. You would hear his vowels but most of his consonants would be inaudible. We assume that the speaker will speak plainly - a risky but necessary assump-
tion. These variable conditions must be treated statistically, but when this is done we can predict the probable outcome, and design the auditorium for the optimal hearing of speech.

The designing of an auditorium for music is an extremely complex problem, and is not fully understood even by the most competent experts.

The following diverse attributes of man and music complicate the problem: musical taste; experience with other music rooms; the wide range of musical compositions - slow or fast, classical or modern, symphonic or choral; for one, a few, or many instruments. All these diverse elements, and many others, complicate the problem, the complete solution of which must await further knowledge, research and technical innovations.

But much can be, and has been, realized in the acoustical design of this auditorium:

1. It is not impaired with echoes.
2. It is not afflicted with disturbing noise.
3. It is not marred by the focusing effects of malfunctioning concave surfaces.
4. Its shape and dimensions are designed to perform as a grand musical instrument.
5. The interior materials are designed to give the optimal reverberation to all audible frequencies - not too live, not too dead.

And the large convex surfaces are designed to provide proper diffusion so that the sound will flow smoothly to all listeners from all directions, giving them the feeling that they are immersed in the music, and not that the music comes from a "motion picture screen" or from loudspeakers at the front of the room.

These and other desirable conditions have been attained, within certain limits. Please note that I emphasized within certain limits. You know, for example, that organ and choral music sound best is a large reverberant room, and that a string quartet and most
chamber music are heard best in a small non-reverberant room. The optimal reverberation time for Mozart and Haydn symphonies is shorter than it is for most of the compositions of Bach, Beethoven, Tschaikowsky, Richard Strauss, and many modern composers.

Obviously, compromises must be made to meet these varied conditions, and the compromises are even more severe for an auditorium that must be used for speech as well as music, because the optimal reverberation for speech is much less that it is for music.

The proper shape of a music room is a requirement of the highest priority. Many architects, but not William Wesley Peters, believe that faulty shapes can be corrected by covering the offending surfaces with highly absorptive materials. A bad shape is a permanent liability; a good shape is a valuable asset and a creation of beauty.

It is conspicuously seen that in designing the interior shape of Gammage Auditorium we not only avoided the use of concave surfaces, but, in contrast, we used prominent convex surfaces, which also harmonize with the graceful exterior convex surfaces. The interior convex surfaces in this auditorium are more prominent than in any other auditorium I know, and the acoustical measurements and observations I have made in it assure me that you have one of the best auditoriums in America. I believe Frank Lloyd Wright and Grady Gammage would approve of this monument to them, and I fervently hope and pray you will.

Thus far, I have only one complaint about this auditorium; it is not at U.C.L.A.

## GEORGE IZENOUR

YALE SCHOOL OF DRAMA

President Durham, Governor Fannin, Mrs. Wright, my fellow collaborators, distinguished guests, and ladies and gentlemen:

There is an old saying that the theater is two planks and passion. The symbolic reference is obvious. The audience sits on one plank, the performer performs on another one. What passes between them is passion. This has been so ever since a large dedication was held some time in 300 B.C. on a hillside somewhere in Athens, as we are holding a dedication today in Tempe, Arizona. As a scientist would measure time, it is nothing but an instant between that event which took place on a hillside in Athens and this event which is taking place today. As the artist, however, recognizes experience, much has happened.

The performing arts are the most ephemeral of the arts. They take place only in time. A performance only exists as long as is required for the performance to take place. The only real thing about it after it is over is what you remember about it.

This is at once the problem and the excitement of designing buildings for the performing arts. There is no problem in architecture as complex as this one, because here architecture is to provide a vehicle for other arts which exist only in the mind. How much has happened since the legendary "pipes of Pan" and the lengendary "harp of Orpheus" were invented? The modern pipe organ, physically, is no different, but some engineering had to be done in the meantime. The same thing can be said of the modern piano. In fact, concert-going is less than 100 years old. The first musician to ever hire a hall was Franz Liszt. He did so not quite a hundred years ago. These things, most of them up until that time, were only for the privileged. Not only did the Lord of the Manor own the theater, the opera house, or the concert hall, he also owned the instruments.

It is the problem of designing this kind of building in a democracy such as ours which was the central problem faced by the designers of this structure. Due to the economic realities of 20th century USA volume, structures such as this cannot be provided for the individual arts of the drama, concert going, the opera, musical comedy, and the dance. The problem, therefore, is somehow, in one structure with this volume, where we can seat 3,000 people, to provide a stage that will do for all of the performing arts. This is a difficult order. The Europeans say it is impossible.

However, the American way of looking at this type of building is one of pragmatism. It is, first of all, one of analysis. What do the separate art forms require in terms of seating ability, in terms of acoustics, in terms of stage machinery, etc.? Dr. Knudsen told you that the requirements, acoustically, of a room for speech and a room for music are diametrically opposite to each other.

The problems of such a structure as this, in terms of the stage facilities, since we must provide for music, since we must provide rigging to suit the modern theater, are also just as diverse; and we have the great room for music.

Musicians must physically and psychologically be in the same room as you, the audience. When a room becomes a theater or opera house we can remove one wall of the large space, and provide another operating space for the artists, in which the performance takes place. This is diametrically opposite to the conditions for music. This is the first building of its kind where a modern stage, for music, theater, dance and drama, have become an organic one.

This, I am sure, is the way Mr. Wright would have put it. Thank you.

## MRS. GRADY GAMMAGE

Thank you, President Durham, for those very wonderful, warm words; and thank you for all that you and Mrs. Durham do with a very special kind of understanding and thoughtfulness for Grady Jr. and for me.

This is one of the times when I hope you will remember what I said to you on the very first note I wrote you, a note I was prompted to write on the day when I read of your appointment in the press. I said then that I hoped that you and Mrs. Durham would always understand, and would always remember, that my tears were never for the fact that you could come to us. They were only for the fact that I was not standing at Grady's side to welcome you here.

There are moments in the lives of all of us which are almost more than we can bear, and this is that kind of moment for me. But, of course, I would not be denied a second of it because it is one of the proudest moments of my life. I know there will be many others given to me by Grady Jr.; and there were many of them in those years that I shared with the man I loved, living the life I loved; and those magic years were spent, as are the years of any truly happy marriage, not in looking at each other, but in looking ahead together in the same direction.

In those years this building was just a dream, and today we have exquisite evidence that dreams come true if you believe enough and you have enough faith. And secondly, I'm humbly grateful today. Grady Jr. and I are grateful, first of all, for the vision, for the creative genius, and for the skilled workmanship which have built this building. We are grateful to those of you who gave special en-
couragement and understanding to Dr. Gammage in very discouraging moments when a lesser man would have abandoned his dream. And we are grateful, I think, above all, for the gratifying, joyful way in which all of you have anticipated and have accepted what will be a living memorial; and it will be living because the prospect of what's going to happen in this tremendous structure is exciting indeed to anticipate. And we are grateful for the warm way in which you have indicated to us that you think this is an honor well deserved, an honor well earned; and for this we are grateful above everything else.

Engraved on my heart are those lovely lines of Robert Frost's:
The woods are lovely, dark and deep,
And I have promises to keep,
And miles to go before I sleep,
And miles to go before I sleep.
And I am keeping a promise this morning in saying thank you. Thank you for the part you have played in making today a reality; and thank you for all you will do to keep this building a shining dream come true.

It is here and it is ours because two wonderful men were big enough to meet the challenge of their day and I hope that this occasion will inspire us to try to do the same. Thank you.

## Bensdiction

## HOWARD PYLE

## PRESIDENT, NATIONAL SAFETY COUNCIL

To the God and Father of all, we pray. May the silence of this moment of benediction enshrine the full significance of this occasion for always.

Although this is a building made of the substance of this world, we are deeply indebted for the lives of those who conceived it, built it, and now share in its dedication for the use of those who must follow. It came into being out of the goodness and creative wisdom of the Master Builder; thus it is altogether appropriate that our gratitude should reach outward and upward to the eternal source of our strength, and, in a very personal way, to those whose physical presence we miss, but whose spirits are as imperishable as our Heavenly Father planned them to be.

We leave this convocation enriched; we leave this building to our posterity with the confident conviction that all we want it to be will be brought into being by an eternally kind God. In the blessed name of His only begotten Son we pray. Amen.

