The "Theme" of the Academy's Centennial year is: "Preserving the Past—Planning the Future." Our meetings in Madison and Milwaukee, and our publications during this, our 101st year, will emphasize and amplify the theme, and will illustrate service to the present.

My excursion into the past will be brief, but hopefully significant because it is designed to serve as at least part of the foundation for that to be said about opportunities for the future.

Members and guests of the Academy will receive a reprinted copy of Bulletin No. 1, dated April, 1870, of the Wisconsin Academy of Sciences, Arts and Letters. This valuable publication tells how the Academy was organized, and by whom; presents its Constitution, By-Laws, and its March 16, 1870 Charter from the Wisconsin Legislature; and finally, states its Plan of Operations.

The Plan of Operations starts as follows: "Having thus a legal existence, and being provided by the State with secure and convenient apartments in the Capitol for its office, library and collections, the Academy is ready to commence the work for which it was established." This description of early housing and facilities makes us envious but at the same time serves as a reminder that we should strive more diligently and effectively to recapture that which was provided 100 years ago.

After describing work to be done and studies to be made in the sciences, arts and letters, the Plan, written by the Academy's President, J. W. Hoyt, presents a highly significant point: "The measure of accomplishment, in other words the efficiency and degree of usefulness of the Academy, will, of course, be determined by the competency and zeal of its members, the wisdom, energy, and devotion of its officers, and the cordiality and liberality with which their plans and efforts for the public good are seconded and sustained by the people and the State."

President Hoyt was right; the members and officers of the Academy have served it well. But at some time during the century we failed to accomplish our objectives with sufficient success to justify strong, continuing financial support from "the people and the
State.” Perhaps we can regain the needed recognition and support from the State; we may if we can prove our worthiness.

President Hoyt continues in his “Plan of Operations” to make recommendations that have come to be of special significance today. “No institution of this or any other kind can be efficiently maintained without the means to employ and fairly compensate one or more competent and efficient officers, so that their whole time and energies may be consecrated to its work. . . . For the liberal support of these there must be a permanent fund. . . . Wisconsin may not yet hope to vie with some of the older States in the number and munificence of . . . private benefactions . . . but she may justly boast of men, not a few, who, by favor of the rare opportunities she has given them, have acquired so large a measure of wealth that the donation of an amount sufficient to place this Academy at once upon a sure foundation . . . would advance the public interest by a signal act of noble generosity.” This was a hopeful plea that has turned out to be a prophetic statement. Our gathering this evening is an inadequate but sincere attempt to recognize the generosity of Professor Harry Steenbock who, “by a signal act of noble generosity” bequeathed a large share of the residue of his estate to the Wisconsin Academy of Sciences, Arts and Letters. We are grateful to Professor Steenbock to a degree that makes impossible an adequate expression of our gratitude. At the same time, we wish to honor him because he was a great and accomplished gentleman who contributed so much to the advancement of scientific knowledge as a research worker and teacher, and who appreciated and supported the arts and letters. Professor Steenbock loved Wisconsin and made it his life. All of Wisconsin—its people and its institutions—benefited by his life.

The Academy now has opportunities for the future that were envisaged 100 years ago by its President and his fellow charter members.

It is not my desire to present a detailed, step-by-step plan for the future of the Academy, but rather to emphasize some of the principal opportunities that we, as a truly interdisciplinary organization, can develop. Another way to do this is to speak of opportunities as challenges to the Academy, and this is what I propose to do.

The first opportunity, or challenge, involves communication of facts, concepts, and ideas.

There is an ever increasing number of scientists, technologists, scholars, and artists at work in the world. Their discoveries and proposals must be published or by some other means made known to all who have the intelligence to understand. Specialization of the discoverers and the innovators in any field of endeavor adds to the complexity of communication and the difficulty of comprehension.
Use of different languages and alphabets contributes to the magnitude of the problems of communication faced by even highly trained, competent scientists and scholars. Consider, for example, the difficulties encountered by an accomplished microbial geneticist who must try to translate intelligently a significant article published in Japanese by one of the growing number of microbiologists working in his special field in Japan! Microbial geneticists whose native language is English have enough trouble trying to understand the writings of their English-speaking colleagues who delight in the introduction of new terminology. Communication becomes even more difficult when ideas, interpretations, explanations, concepts, or descriptions must be elucidated and understood.

The question might be asked: Why is communication a challenge to the Academy? The Academy is concerned with support and development of sciences, arts and letters. The Academy, by means of its meetings and publications, is involved in the dissemination of information; in communication of knowledge to those competent to understand. The Academy is committed to stimulation of learning and to the awakening of interests. The Academy is concerned with bridging the gaps that exist between specialists and those who need to know significant facts, concepts, interpretations, and ideas.

What can the Academy do toward improvement of its efforts to achieve its objectives? The diversity of interests and of competence represented by its membership is valuable. It makes it possible for members and guests to gather in meetings and to publish volumes devoted to interdisciplinary communication of facts, concepts, and ideas. The specialists have their own journals and their own meetings that can be devoted entirely to their specialties. The Academy, because of its diversity, provides an opportunity for development of awareness of the accomplishments of others and the possibilities for improvement of communication.

In his book, “Scene of Change,” published by Charles Scribner’s Sons in 1970, Dr. Warren Weaver speaks of diversity and of unity of knowledge and concepts when he says: “... science should have no quarrel with the humane arts or with contemplative fields of thought, nor they with science. They are all, each using its characteristic methods, seeking to perceive order and unity in diversity. They are all based on faith, they are all creations of imaginative minds; they are all alive, growing, changing; they all are limited by what our linguistic apparatus and our cultural concepts permit. ...” Dr. Weaver goes on to quote the late physicist, J. Robert Oppenheimer: “The artist and scientist both live always at the edge of mystery, surrounded by it. Both struggle to make partial order in total chaos. They can, in their work and in their lives, help themselves, help one another, and help all men.”
There is still something missing from that which I've said and quoted about the opportunity—or the challenge—of communication and of diversity, and the missing part concerns communication with young men and young women. This is a special problem and a very special opportunity for the Academy. Dr. Weaver said that the sciences and arts are limited by what our linguistic apparatus and our cultural concepts permit. In his book, he describes the problems of trying to communicate facts, concepts, and ideas to the Hopi Indians, who do not share our grammar, our ideas, or our ways of dealing with experience. He points out that the Hopi Indians, even if they could understand English, could not comprehend our desires to study the sciences, arts and letters because “they have a metaphysics of their own, and deal with experience and reality in ways that are quite unlike ours, but which nevertheless work entirely satisfactorily for them.”

No doubt I've gone a bit far in relating the challenges of communication with the young to those encountered in attempts to communicate with Hopi Indians. Our children and our young men and women have been exposed to English, mathematics, sciences, the humanities, and the arts. They have had the opportunity to grasp the basics of the facts, concepts, and ideas that we consider to be important. The principal opportunity—and the challenge—is to arouse their interests and enthusiasms for learning. Isn't there some way in which we can reach them more effectively, and help them to generate the curiosity, the thirst for knowledge, the practices of thinking, and the skills of doing that can be theirs?

Our Junior Academy of Science, now celebrating its 25th year of accomplishment and service should, I believe, be expanded to become the Junior Academy of Sciences, Arts and Letters. The time to appreciate diversity and unity of thought and endeavor might be earlier in a young person's life than we've thought. A broadened Junior Academy could, hopefully, provide the same opportunities now made available by the Academy only to adults.

Another opportunity for the Academy's development exists, I believe, in working with the young men and women who are undergraduate students in colleges and universities. We have at present a Junior Academy for high school students; we make no provisions for undergraduates who are beginning the serious business of finding themselves and deciding what they really want to do. These students, perhaps even more than those in high school, need the stimulants and the services that the Academy can provide.

My proposals of opportunities—and challenges—for the future of the Academy may be too general; too much concerned with
strategy rather than tactics. But I have attempted to generate some thinking along lines that may lead to the improvement and development of the Academy; to make it achieve more effectively the objectives set forth in its Charter in March of 1870. Professor Steenbock's bequest has given us a chance to make progress. The Academy can become a more significant, dynamic force in the life of the State.