Tsukuba Expo'85: Science for All

Sony founder Masaru Ibuka is one of several prominent Japanese opinion leaders who has become deeply and enthusiastically involved in Tsukuba Expo '85. A vice chairman of the Japan Association for the International Exposition, Tsukuba, 1985, Ibuka makes it clear that the Exposition is intended to be thoroughly people-oriented, with a focus not just on high technology but also upon the practical wisdom that has helped shape human civilization. Bringing scientists and laymen together, the Exposition will highlight science and technology's human face and lead to greater popular appreciation of science and how it affects our lives.



Interview with Masaru Ibuka by Akio Etori

Question: Tsukuba Expo '85 is less than half a year away. As one of the vice chairmen, what do you expect of this Exposition? How will you gauge its success?

IBUKA: This is a very difficult question. One way to measure success would be in terms of turnout. We are expecting about 20 million people to come to the fair. but that is just a ball-park figure. There is no way of knowing at this point.

Another way would be in terms of content. Of course this is a science exposition, but it is also much more than that. There are going to be numerous exhibitions on man and his surroundings, the environment, and how scientific advances affect us all. Far from thinking of science as an impersonal outside force, this is a very people-oriented Exposition. That is why, for example, we have participation not only from the industrialized countries but also from the Third World developing countries showing their traditional know-how and indigenous technologies. It is in no way a contest to see who can display the most advanced technology.

Some countries thought they did not have anything to show at a science exposition. But as I pointed out to some of the countries of the South Pacific, a country that has frequent typhoons has developed homes and other architecture able to withstand the typhoons. This is part of their heritage, and it is this sort of native "smarts" that we want to have displayed. There is a lot we can learn from seemingly simple technology.

Q: So this is not so much the latest "big science" breakthroughs as the technology that is part of our everyday lives?

Akio Etori is the director and editor of the Nikkei Science, a scientific journal published by the Nihon Keizai Shimbun.

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Aerial view of Tsukuba Expo '85 site

IBUKA: Right. And the Science Expo does not want esoteric explanations either. We want things that everyone—even children or housewives who think they do not understand science—can look at and learn from.

Q: It sounds more like a fair than a science exposition. IBUKA: We want to make sure everybody enjoys it. But that does not mean that it is going to be watered down. The exposition will also include highly technical meetings and symposiums for experts from all over the world. It is our hope that this will spark a new awareness of science among the general public and a new awareness of the public among scientists.

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Q: There have been a lot of symposiums and other events leading up to the Exposition. Are these already getting people to think about the way science affects our lives?

IBUKA: I think so. This is one of the main points we have been emphasizing, and I think you will find that the various governmental and private-sector pavilions will reflect this concern with science in our lives.

Q: With all of the different exhibitors, holding this science exposition is probably a science in itself. How will all of this fit together?

IBUKA: How people look at the displays is just as important as what is displayed. Everybody will look at things differently. Although we hope—with the mass media's help—to be able to suggest some of the implications of the exhibitions and to give some idea of the diversity of interpretations that are possible, there is no one right answer that we want people to come away with.

Q: You make it sound as though even the people who come to look will play a role in shaping the Exposition.

IBUKA: They will. The feedback and the mood that

people create, both individually and collectively, will be an integral part of the Exposition.

Tsukuba Expo'85 will not only be an excellent chance to see the state of the art as it exists around the world and to get a feel for the future directions of science and technology, but at the same time will be very important from an educational standpoint in helping future generations to look at science as part of their lives.

Q: Since you have been interested in education all your life, I assume this educational function is an important part of how you see the Exposition.

IBUKA: Education is crucial, and we want the Exposition to be an enjoyable educational experience. For example, I expect the Japanese government pavilion to do very well by this theme. No expense has been spared in making it an impressive pavilion showing how science and technology have helped make our lives what they are today. There will be very imaginative displays of past, present, and future technologies, and it is my hope that this pavilion will be able to show how people live and learn all over the world. It should be a very educational experience for everybody.

Q: So the Japanese government pavilion will be important for showing Japan to the rest of the world and the other governments' pavilions will be just as important for showing Japanese visitors to the fair how the rest of the world lives.

IBUKA: Japan has grave responsibilities in the world today, and I also hope that Japanese visitors will be able to come away with a feel for Japan's position in the global community.

Q: Tsukuba Expo '85 is clearly a very international Exposition designed to foster international-mindedness and better understanding among all peoples.

IBUKA: This goal of international friendship and understanding is also being promoted with the various "national days" we have planned. The theme committee has continually stressed that we do not want an excessive concentration on high-tech frontiers. The technology "smarts" born of our natural environment and everyday life are just as important. We want everybody

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—industrialized countries and developing countries alike—to feel at home here. We are all together on this one planet, and everybody has something to contribute to mankind's collective wisdom.

Q: So Tsukuba Expo '85 will show that the impersonal term "science and technology" really means not only high technology but the everyday things that we tend to take for granted.

IBUKA: Hopefully, this will help people understand that science is a very human pursuit, a part of human nature as it were.

This Exposition is also significant in being held at Tsukuba, the heart of Japanese science. Twenty years ago, Japanese education, science, industry, and nearly everything else was concentrated in Tokyo, so the government decided to do something to promote decentralization. They decided to start by moving research out of the city, and to do this they created this whole new Tsukuba Science City. The area is still dominated by governmental research organizations, but there is a lot here that impacts on our everyday lives. This is in a very real sense the intellectual center of the nation.

Q: Yet for most of us it still seems a little distant from everyday life.

IBUKA: This sense of distance is strange, considering how highly Tsukuba is regarded overseas. France's President Mitterrand, Great Britain's Prime Minister Thatcher... All of these people have made a point of visiting Tsukuba to see what is being done here. Yet somehow the ordinary Japanese do not seem to realize how important Tsukuba is to Japanese science.

Part of the problem lies in Tsukuba's inaccessibility. The rail and road connections are still poor, partly because there has not been the demand. This Science Exposition is creating that demand and stimulating a fleshing out of the transportation infrastructure serving Tsukuba.

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Q: Is that one of the purposes of the Exposition? IBUKA: You could put it that way. We want to establish Tsukuba as one of the world's leading research centers. In many countries, researchers have one-year sabbaticals. Tsukuba's various research laboratories would be an ideal place for foreign researchers to spend their sabbaticals. This would give them an insight into what Japanese research is all about and would help Japanese research get a fresh perspective on things.

When the Tsukuba concept was being developed, they wanted to build a "scholars' village," but there was not enough money. Hopefully, this can be done later by con-



High-speed surface transport (HSST)

verting some of the buildings that are left after the exposition. There are always left-over buildings, and they should be used in the spirit of the Exposition.

Q: So what happens here after Tsukuba Expo '85 is just as important as the Exposition itself.

IBUKA: Right. We want to use Tsukuba Expo '85 as a major event to heighten Japanese public awareness of the role being played by the Tsukuba Science City. There are nearly 50 research institutes in Tsukuba already, and they all hope that visitors will stop by on their way to or from the Exposition.

Q: With science and technology playing such an indispensable part in our everyday lives, let me ask you briefly about science education. There has been considerable concern that our children are not getting the science education they need.

IBUKA: I have spent a lot of time going around to schools and urging people to do more in science. Happily, I have the feeling that there is widespread public acceptance now of the need for more science education. The fundamentals are being taught pretty thoroughly. Now perhaps we need to devote a little more attention to the purpose of science. Science has to be used for the good of mankind, and this cannot be done if science is conceived as something separate and apart from people. Science for science's sake is nonsense. We have to have science for people's sake.

Q: What is that going to take?

IBUKA: It is hard to say. Japanese education has done very well in imparting information. Now we need to spend a little more time on personality and character development to reflect the human purpose of science and to nourish the natural curiosity and creativity that makes for good scientists.

Q: So science education has to be education for the total person.

IBUKA: Right. Science does more than make our lives convenient. It has a profound impact upon our personalities as well. That is why we need to be sure that science has mankind's interests at its core. We need to have sensitive people going into science, and this has to start as early as possible if it is to be effective. In science education, both the science and the humanities should be stressed so that we can develop well-trained scientists who are at the same time well-rounded human beings. If Tsukuba Expo '85 can help the general public see how science relates to our lives and help scientists appreciate the human aspects of their work, it will have been well worthwhile.