

Communications and Change *

by Robert Theobald

I am making this tape in Phoenix, Arizona and I am going to make it just about a month before you hear it. It is difficult to do it this way but a lot easier than having to go all the way to Papua, New Guinea; it is taking me, with the help of some friends, about three or four hours to make the tape. To come to Papua, New Guinea would have taken me a couple of days for travelling and a couple of days to get over the fact that I had been travelling in each direction, and basically I would have lost a whole week. That is all right if I could have afforded the time to stay and talk with you, but at the moment I am so busy that I would have flown in and out and that really wouldn't have done much for any of us. I wanted to make this tape because I am convinced that the whole concept of flying here and there is done in large part because we haven't yet recognised that we can use communication, that we can send tapes and pictures and that we can indeed talk to somebody on the other side of the world by telephone as easily as we can talk to them in our own living room. But we are still wasting money flying people around. It is very interesting that a Foundation was willing to fly me to Papua, New Guinea, but not willing to provide money for other forms of communication, for example, to produce a film that could have been used again and again, not only in your own part of the world but perhaps in other parts of the world to talk about the issue of development.

So I want to talk this morning about the fundamental issue of how we should see development, to try and help you begin this Waigani seminar in such a way that you can decide what routes are open to a country like yours in trying to get development and what routes are in fact closed. Up to now most Western experts have been telling you that the only way you can hope to get development is to do what the Western world has already done, that is, to industrialise,¹ that you have to pass through all the stages to economic growth and that somehow or other you will eventually catch up to countries like America and England. There are a number of flaws in this thesis, flaws which make it almost impossible for you ever to catch up, if that is the route you take.

The first of the flaws is a very practical one: the average annual income per head in a large number of developing countries is about \$100, while in Europe and America it is somewhere between \$2,000 and \$3,000. The increase in average income per head in the United States each year is now

*This paper was prerecorded on tape. The speech has been corrected but the "spoken" style has been preserved. After it was presented to the seminar, the speaker took part in a discussion by a long-distance telephone connection. This was made possible by the cooperation of the Department of Posts and Telegraphs, Papua, New Guinea.

¹See, for example, Rostow (1966).

equal to the annual income per head in a country like Papua, New Guinea. Therefore not only is the gap widening but there appears to be no conceivable way in which the gap can eventually close; so what we are actually saying, if we talk in these terms, is that it is inevitable that the countries now rich will continue to keep their lead over the rest of the world for an indefinite period.

The second problem with the model and with that way of thinking is that historically countries which have done well have jumped stages of growth rather than gone through the same ones as the countries which have been moving ahead of them. For example, Britain first developed the steel industry, but Germany then used the most advanced technologies that had been developed in England and jumped ahead of England in steel production. You see this same pattern again and again; countries coming along behind can benefit from the mistakes other countries have already made. Unfortunately, we in the West seem determined that you should go through the same set of mistakes that we went through. It is as if we are afraid that maybe you will come up with a better way of living, that will allow you to get there faster than we can.



It is very difficult to overestimate the cost of the industrial era. We destroyed the life of many human beings because we said that the only way that we can industrialise is to force people to live as cogs in a machine, to break down the values and concepts and the patterns which made life worth living and to turn human beings simply into workers. We are now reaching a stage where we are beginning to say: 'But we want to move back' or 'We want to move forward again into a real family life'. We want to recreate community and society. We are therefore moving away from the patterns of the industrial era which we are still trying to teach people in the developing countries. In the same way we are trying to create agricultural patterns derived from industrial-era agricultural patterns: we are not facing up to the fact that there are some very grave dangers in what is called the green revolution.

The green revolution is the process by which very high yielding grains are introduced into developing countries and indeed into developed countries. There are a couple of problems with this revolution. The first is that it is far from certain that these new varieties of grain are hardy enough to cope with the possible diseases. There was a dramatic case in the United States in 1970 when a hybrid corn was attacked so severely by a particular form of blight that there were very real questions about the total yield of corn in the United States last year. It is quite possible that the grains which have been developed in order to feed people in the developing countries may also become extremely vulnerable to pests. One might get higher yields in the short run, but a major natural catastrophe in the long run.

The second problem, of course, is that the green revolution is really misnamed, because the green revolution is actually a fertilizer and pesticide revolution—it is possible to produce a great deal more grain if one greatly increases the amounts of fertilizer and pesticide which are used. Now, although it is possible to overestimate the ecological and environmental dangers to the world, it is also clear that pesticides such as DDT are having very serious, and not yet understood, consequences. Therefore, the whole effort to produce an industrial-style agricultural revolution may be very dangerous, if only because the green revolution, of itself, disrupts family, social and cultural patterns.

The question is are there any alternatives? If there are not, we obviously have to do what we are already doing because it is the only thing that we know. But there is now very clear-cut evidence that there exists an alternative style of development, an alternative pattern by which countries can jump from the agricultural era, bypassing the industrial era, and in some cases from hunting and gathering, and move directly into the communications era. Once the question of development is conceptualised in this way, one can perceive that it may be easier for the developing countries to move directly from agriculture to communications than it is for the developed countries to move from industry to communications.

This tape, with the conversation we are going to have immediately after it by telephone, are small illustrations of the potential of the communications era. They demonstrate that today it is information which really makes for production, that both human beings and machines can simply be seen as mechanisms for using information. A very advanced machine, based on a combination of computers and machinery, makes it possible not only to produce a particular type of good but to produce a very wide range of goods without anybody doing anything to it at all. You can set a machine, for example, and it will turn out clothes which have very different patterns; it will cut through the cloth on a laser principle. It is infinitely more efficient than the old-fashioned cutting machine.

If there are these new technologies, if it is possible to move new ideas to the developing countries, why don't we do it, apart from the fact that we continue to be trapped by old ideas. We seem to believe that we in the developed countries are brighter, smarter, more intelligent than everybody else. We seem to argue that if we still haven't understood how to manage a country in terms of the communications era then nobody else can do so. But this doesn't necessarily follow, because what is so alien to us about this new world we are moving into—this world based on communication satellites, on telephone, on television, on radio—is precisely that it is based on community and family values.

The Western world is still trying to convince the developing countries that the most efficient method of learning is through literacy, in other words, we must first teach people to read and write and then they can read and write what they need to learn. But this is a long way round to come home. Of course we had to do it when all the technology we had was the Guttenberg Press; we could move ideas only through the process of mechanically inking words on paper and then giving them to people so that they could learn them. But suppose we now recognise that tape and film and telephones and other methods are available. It is obviously easier for people to learn in many areas through sound and image than through words; and yet, when I talk about the possibility that literacy is not a necessary skill for training, the degree of anger educational experts show is quite extraordinary. I now believe that people are so afraid that literacy may not be the key value of all that they are determined that we will do everything through literacy.

I am not saying that literacy is not useful. I am saying that if we want to move ideas quickly, which we must if we are to achieve a process of development, it is essential to rethink the whole process of moving ideas and to take advantage of the new technologies. And to do that we have to think about how we can use television and radio and tape and whatever is feasible within the culture and



resources of a particular country. And as most developing countries have oral and not written traditions, they start with an amazing advantage in using these oral techniques.

In a sense we have only put the problem back one step, because if we are not careful we will find ourselves in a situation where the developing countries obtain tapes, television films and radio programmes which have been programmed just as the books were written, by men with Western concepts trying to force people to see the world as the West sees it. The West has for so long believed that all its ideas must be right that it finds it very difficult to understand the very simple anthropological insight that a culture is valid when it works. Ruth Benedict, the anthropologist, called a good society a synergetic society and she argued that the difference between a synergetic, creative, positive society and a negative society was that in the synergetic society what people wished to do and what the culture required them to do was the same. If this is true it is possible for us to imagine many types of culture which could be effective. We have then moved beyond the old anthropological issue that there was no way to evaluate whether a culture is successful or not. In Benedict's theorizing, a culture is successful when people are able to do what seems important to them, and a culture is unsuccessful when people are forced to continue to do things which they do not wish to do.

Now, if we take this model one begins to look at the whole development process very differently because the critical issue is not whether gross national product goes up or not, but whether an index of social welfare goes up or not, and that index is a much more complicated thing to construct than the index of gross national product.

In the West these days we are becoming concerned about how much we are paying to get our annual increases in gross national product. What we have in pollution, both of the air and of the water, high crime rates, frustration of all sorts and the general feeling that despite the fact that we may be getting richer in money terms we are not getting richer in

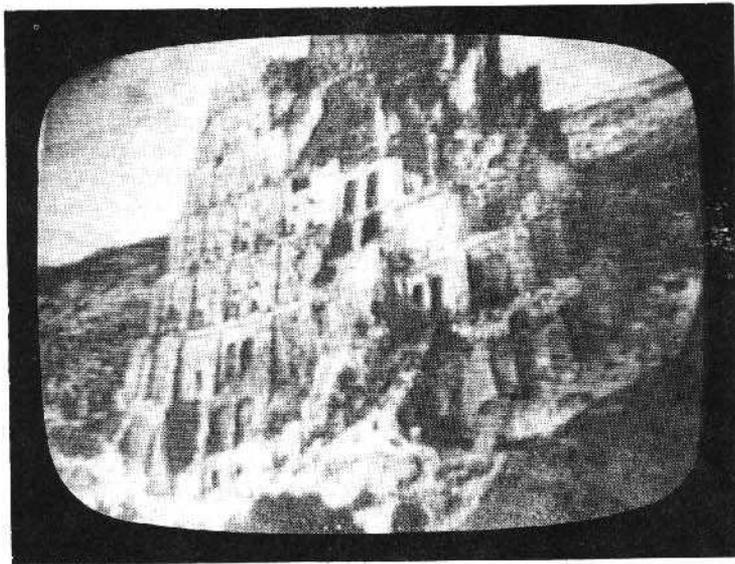


other terms. It would be somewhat ridiculous if you choose to take a route which has led to a condition that satisfies very few people, certainly in the United States and increasingly in the other developed countries. I am not suggesting that an increase in the gross national product, an increase in production, an increase in standards of living, is not crucial for you or for other countries in your position. But if it is achieved at the cost of certain things which are more fundamental, you may not have gained anything. In addition, we must recognize that the way to get increases in welfare, gross national product and income may be extremely different from those which have existed up to the present time.

Most development economists are very negative about the extended family, for example, claiming that the result of the extended family is that people do not work because they are afraid that their relatives may descend upon them. We have therefore been extremely busy breaking down the extended family, because people wouldn't work efficiently because whenever they got enough money they would go home to their extended family. But if you say: 'Well, we want to give people a meaningful life', it may well be that one says we must somehow find a way to operate with the extended family. This is not going to be as difficult as it sounds, because one of the few things that is perfectly clear about every developing country is that "full employment" is an impossibility. The only reason we ever reached full employment in the countries which are now developed is because technology required using all the people who were coming into the cities. Today, on the other hand, technology is so advanced that even if industrialisation takes place it absorbs very few workers. Yet we are still trying to get full employment instead of accepting that today our only hope is to break the links between income and employment, to recognise that we must treat the problems of production and the problems of distribution of resources as separate problems.

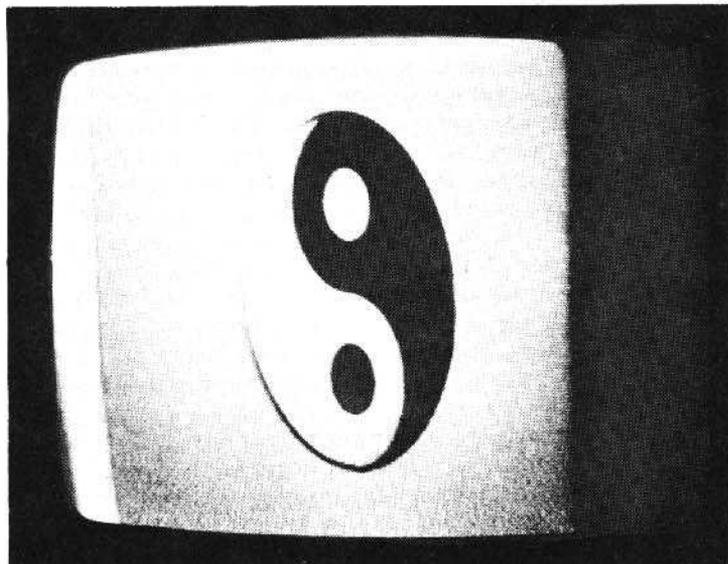
The first thing to do is to find out how to increase production, then we must worry about how to ensure that the fruits of that production are fairly distributed. The economic theory we use to prove that people get what they deserve is based on Western assumptions and even those assumptions are less than useful. This is a very interesting example of self-hypnosis. Our income-distribution theories are based on the assumption that all firms are small, there are no labour unions, there is perfect movement of information and there is no government intervention in the economy. Economics is a branch of politics and that is true internally and internationally.

There is no way that our current problems can be solved so long as you accept the definition of growth and development which the West gives you. However, if you recognise what your strengths and your weaknesses are at this point in time, it is quite possible that the developing countries, that the scarcity regions, may be more successful in



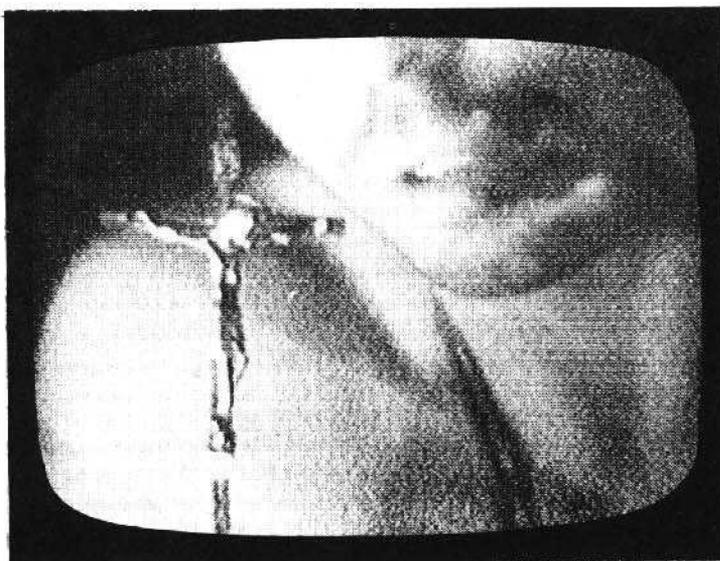
coming years and decades in coping with their problems than many of the developed countries. But to do that you must come to grips with the fact that the only technology really able to help is the most advanced technology; if you are going to feed, clothe and shelter your people it will be done on the basis of skipping stages of growth at the technological level, and allowing people to develop their culture, not under compulsion, but in terms of having the necessary resources to continue to rethink and to discover a viable culture for themselves.

To me the alternative to the green revolution, which I believe to be profoundly dangerous and probably infeasible, is to use very high-level technology involving nuclear reactors, desalination where it is necessary and chemical green houses to create a resource where there is none at the moment, rather than trying to restructure land use which is a process which has inevitably torn cultures apart.



It is not necessary that you see yourselves as backward, behind the abundant countries, fated to pick up the crumbs and pieces that fall from their tables. I believe that in the United States where I am presently working, it is states like Arizona, which have not been successful in the industrial era which can lead the communications era. In much the same way, areas of the world which are not hung up with the present path and are open to rethinking could lead the communications era. This will only be true if they resolve to solve their problems for themselves and to stop believing that outside experts have some magic panacea, that if only they will listen for long enough and closely enough, somehow the answers will be found. The process of meshing your culture with the future culture cannot be done by anyone else but yourselves and I think it is now clear that there is no way that you can deny your previous culture and still create a viable new one. As Conrad Arronsberg has put it:

there is no possible way to create a revolution, the only hope that one has is to undergo an evolutionary process of change, which can lead to a fundamental change in conditions.



****"Communication and Change" was published in the New World Mailing Service. This has since been transmuted into Futures Conditional—a different form of communications. Futures Conditional starts from the assumption that we are engaged in a massive transformation from the industrial era to the communications era and this transformation is forcing us to re-examine our basic assumptions about ourselves and the nature of our society.**

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