

JOHN CAGE

## Choosing Abundance

*Being the first of a two-part feature which provides the gist of a three-hour conversation with Mr. Cage, tape-recorded in April at Champaign-Urbana while he was in residence at the University of Illinois. The interviewers—Don Finegan, Ralph Koppel, and Ralph Haskell—are members of the Northern Iowa art department; their ostensible mission: to collect ideas for the department's future growth. Central to the composer's responses are the principles of flexibility and abundance—expressed n o t*

### *On the use of space in the University:*

You should know Buckminster Fuller's book, *Education Automation*, in which he suggests a space that is without partitions, in which a variety of activities is going on and the attention of the student could be at one place or another—rather than being forced to focus on a single thing that often isn't even of his choice. I think this is a good principle which can be stated in many ways. One is: where you see a boundary, remove it (or partition, to remove it). And if you *must* have them, then have them movable; and where you have—as Fuller says—a choice between fixity and flexibility, choose flexibility. This is a very good rule.

### *On technology in the University:*

I've often felt it was unnecessary when I didn't have the means to *have* any technology, but if I can have the technology, I'm perfectly willing to use it. I don't think one should adopt an attitude against it. On the other hand, I don't think one should feel that he was dependent upon it and couldn't do anything without it. I think that it is the technology that has had—at least in art—to do with the changing of our knowledge, and that as McLuhan has pointed out—I think truthfully—whether we look at television, for instance, or whether we have access to computers is of little consequence. The fact that these things do exist is implanted in our consciousness, and the result is that we think of things to do, if we're simply drawing on paper—or if we're whistling, even—that are affected by the fact that television and computers, *et cetera*, exist. If the means exist for having them at hand for student and faculty use, then I think by all means they should be there. The only thing that would keep them from being there now would be something that would be of no interest to anyone anyway—namely, the economic structure. But as long as we have it, we have in some way to determine what we do *through* it.

### *On the possibility that some technologies are faddish, and that machines will not be used:*

So what really is indicated by this is non-ownership—access to things, but not owning them, and then coupling that, as Fuller has often suggested, with reuse.

*only in physical terms which admit the existence of current technology and the desirability of having access to it, but in philosophical and*

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That is to say—he's always giving the illustration of copper—finding ways to accomplish more with less copper, so that the copper instead of being thrown away goes back into the system and appears again, less of it doing more. So that if you could arrange—and already society is moving this way . . . . The computers, for instance, are not *owned*, are they?

*On the "compartmentalization" of academic departments:*

There's a very interesting book by Edgar Anderson, who's an economic botanist. It's called *Plants, Man, and Life*, I think, and in it he shows . . . . Well, as we know, our ways of growing plants are to grow only one plant; the result is that each plant is separate from the others. But when one mixes the plants up, and it looks almost as though it were not agriculture but was wild, then everything regenerates everything else and it becomes a healthy situation for the plant. I would say in life, too. The only kinds of ideas that really interest me in any of the arts are ideas that also work in lives, or with plants—where, after all, our problem is that we're individuals, that we're members of society, and that society inhabits an environment—and that's Nature. And these things have to work together. This business of organization which is so inherent in education has many, many dangers—and it has also many usefulnesses, as we know. For instance, if someone telephoned a number, dialed a number and got just *anybody* each time, and the person *changed* each time, the telephone system would be of little use to us. It's there that we need some kind of order. And if I turned on the water, and not water but dust came out, or wine, or something else—there might be times when it would be pleasant, but other times it would be useless. We need to place organization where it is useful, and we need to place disorganization or unpredictability of interpenetrations elsewhere. And more and more, whether we place it or not, this is happening because of communications. You know what I mean.

*political terms which draw distinctions between what's necessary and what's not. The questions raised by the*

*On reasons for using the computer:*

The computer is in the society; I am in the society. If I have access to it, I must use it in order to see whether it's lively or not. You must have read *Walden*; near the beginning of the book Thoreau said: "I am going out to the woods to live in order to face life at its barest essential point, to discover whether it's something grand or something trivial, and then publicize that fact." This was his intention, and I think it's a perfectly good intention, paraphraseable for almost every circumstance. As far as how things happen to us, they happen either by our instigating them ourselves—or thinking we instigate them—or by being invited by someone in the society to do something that we're not right then doing. So we're in no danger of not having something to do since we can start the ball rolling, or someone else can suggest that we roll it. I think that two of the most important things to steer us in what is obviously a changing and complex situation are—one I've already mentioned: to choose flexibility when one can, as opposed to "fixity;" that's extremely relevant with regard to anything you can think of—it's like a basic principle. Another basic principle, I think, is: choose abundance rather than scarcity. Be wasteful, rather than pinch-penny. Get as much as you can out of all that there is to be had. Have it even if you don't use it, or even if you use it badly as a gadget.

*interviewers are necessarily condensed into one-line provocations of sorts; all else is verbatim. Consistent with*

*On working with what one has:*

That's all right; one can, but one must also be aware of why one doesn't have the other—and that the reason is simply an economic one. We have a very funny society now; we have—I don't know what the exact figures are, but we're all aware that the nature of the situation is this: in this century more new ideas have come into existence, more awarenesses and technological developments, than in all of history put together, and we expect in the next ten years to have more ideas than we've already had in this century. In other words, we're in the situation Fuller grasped, and we're at the critical point—and as we start going up, *it* will go up very quickly and easily. That the society should have functioned, as long as it has, divisively, one

part of it against another part and doing its finest efforts in time of war rather than in time of life, is a curious thing—in that this element of competition should have been idealized as necessary for what one calls “motivation,” “impetus,” and so on, and has been imbedded in our educational system and in much of everything else. So we know that we *have* these machines, we know that we have these ideas, but we also know that we don’t have access to them for economic reasons—and those economic reasons are part of that competitive business. And yet all it was to begin with was the human race on earth, and somehow it must be brought to that again, making use of the things it has been able to think of, rather than dividing the usefulness of those things within society so that you have a division of haves and have-nots. What we need is to have a whole world of haves. Now one way to move or to checkmate—or to fool’s-mate—the economic structures that now exist is to break down the boundaries between *your* University and other universities increasingly—to throw a stone, so to speak, into the economic structure as into a lake and to let its effects spread out—so that your usefulness is put together with the usefulness of other like institutions. So that if one of you had such-and-such a machine, another of you might have the other one which at the present time you can’t get, and in that way you might make the effect of throwing this stone so great that there wouldn’t be anything that you didn’t have access to.

*On the directions of art:*

I think we had thought in the past that art was going in one direction, and I think that that is no longer the case. I think it’s going in many directions, and that these directions are not to be evaluated but rather to be experienced; and the fact that they are abundant is an example of what I just said about choosing abundance, and even waste, instead of choosing economy and pinch-penny—or you could say choose multiplicity and disorder instead of choosing unity. And give up first of all a sense of values; yet this is so dear to academic discussions—the notion of value. But how can we speak of value in this day and age when we are now, for the first time, really aware of people who—if they do have values—have values quite other than ours? So can we not see from that, that any clinging to *our* values will only continue the divisiveness of the world which has made it so good at killing and so poor at living? All you have to do is pick up an English book of 100 years ago to see a cultivated musician’s attitude toward Indian music—to see that the world attitude toward Indian music has changed utterly in a hundred years. The beauties of that music are now available to people in the teen age, where a cultivated musician was absolutely deaf to Indian music in the 19th Century. He thought it was of no complexity whatsoever, and therefore of no interest in relation to 19th century European music. Now, if we are, you know, connoisseurs and so on, we find Indian music preferable, actually, to the 19th century music—although we do discover new beauties in the 19th Century that we’d somehow overlooked. I would include the sciences, too, and I think there are scientists here, scientists at the University of Illinois, for instance, inviting teachers from other departments to teach subjects which they don’t know. The plan is to bring about a fructifying in a situation that has been stultified. And it can break across boundaries—but we’ve said this already. Every boundary you see, I think, you should try to see if it can be removed. Is it something that is really necessary in the sense that the telephone is or that the water faucet is, or is it something that simply satisfies a bureaucracy? I mean, was it a necessary boundary or wasn’t it? And if it wasn’t necessary, then I think you can expect that the good it did in the past when it was separating things can be kept when it isn’t separating things. I had a curious experience yesterday. I had an appointment and I wasn’t clear as to where the Coordinated Sciences building was, so I dropped first into the one which has that name on it, which is an old building. And looking for the room number I practically went through the whole building—because no one in the building knew where the room numbers were, and they were poorly organized. But in the course of that I saw all kinds of things that I wouldn’t see in a music school, or at home, or in a supermarket. All kinds of machinery and things that were strange—almost like going to a foreign country; and then I finally got into the new building that the room is actually in, and it, too,

*the idea of flexibility appears the idea of free intellectual curiosity, unimpeded by rigid notions of “value.” So much is new—technologically—that one is obliged to*

*call into question the old reasons for doing some things, and the old excuses for not doing others. Music once scorned is now prized; disciplines once narrow are*

has many different kinds of things in it that aren't ever connected with music—or painting, or sculpture—which could be refreshing.

*On whether a teacher should be a catalyst:*

You mean that he inspires? I think that's marvelous. Don't you? Because you see we are going to have more people. We now have three-and-a-half billion, and by the year 2000 we'll have seven billion, and by the year 2060 we'll have 20 billion. So again, that opening up and interpenetrating of directions is going to be perfectly feasible in a society that has furthermore probably solved the problem of work, and has plenty of time to do anything.

*On recognizing a crisis:*

I think we should be very careful to know what a crisis is and what a crisis *isn't*. One speaks now, for instance, of privacy as a problem, or leisure as a problem. I don't think either one of those is a problem. I think we should recognize that our technology is bringing us together, and that privacy, after all, is not desirable. That togetherness is much more desirable. And this will be emphasized by taking down a partition wherever you can. To have things together that don't seem to belong together will be of really—I may be using the wrong term—*humanistic* value. Not by saying that it is a value, but by living it—by living together, rather than thinking we have to be separate from one another and that what we really desired in life was to be alone. Just having that view, we will not be so alarmed by what we now call overpopulation. We don't want, of course, to have a population which exceeds the balance between what there is to have and all the people who are living—though we now suffer from having many people not having what they need. But we would like to solve this, so that everybody in the world will have what he needs to live. They say we can support 20 billion, and we might be able to support up to 35 billion—but beyond that it's dangerous, so naturally we have to think of what to do. And then we could have a crisis; that *would* be a crisis. But it will not be a crisis that people are obliged to be together, rather than alone. It will not be a crisis that people have nothing to do. I have faith that when people sleep and rest, they wake up in the morning—just through metabolism—with energy, and that they will think of something to do. Now, if they think of something to do that seems to us to be of no value, we must then question our values—and perhaps broaden them to include the values of the person who thought of doing what he was doing. Don't you think?

*Might doing nothing be a crisis?*

But you see, Zen Buddhism struggles in that direction; it turns out to be very difficult to do *nothing*—and it can have the most *spiritual* consequences.

*On the wider options available to modern man:*

There are so many things now, and one's more and more aware of things to do. This, of course, is a problem, I think, that should be solved by each individual, don't you? What is it he is willing to devote his time to? It's as simple as that. Then Margaret Mead suggests that since we live longer now we might change, and there's no reason—again this is flexibility as opposed to fixity—no reason to think that it's virtuous to remain one thing throughout one's life; that the dedication could take some other form, as moving from music to botany—or maybe finding a connection between the two. *Et cetera*. That we used to live long enough to devote ourselves to one thing, but now we live longer so we could be devoted to many, or—giving up this notion of “mainstream” in history, and seeing that we're going in many directions—we ourselves could explore. And I think then a reasonable thing to do—if one also gave up competition—would be to do those things that no one else was doing, and being informed, of course, at the same time about what *was* being done; improving our communications so that we would know what was going on, and then do something that was not being done. I asked Fuller, for instance, once when I became extremely interested in his notion of a house that was unattached to the earth for its utilities—I said: “Are you working on that?”

*now broadening. Since not only knowledge, but population, is exploding, is there any reason to go on longing for the old privacy? Since*

*men are living longer, is there any reason to stick to a single career? Since there is so much to do, is there*

He said: "I don't need to," and I said, "Well, what do you mean by that?" And he said: "Well, they're doing it in the space program." In the space program. From his point of view, one of the major values of the exploration in space is that it is necessary to produce a contained house for long trips whereby one can live comfortably without attachment to the earth. That would mean that we can live in wilderness, or on tops of mountains, or in the Arctic regions, or on the oceans—so that the whole perspective with regard to the problem of overpopulation disappears. Because even in Japan the mountains are relatively uninhabited. Then, in a paper I had from Fuller just recently, he indicated—as I indicate in the field of music—that the *goal*—going toward the rainbow, so to speak—is not to have any. That is to say, an architecture which doesn't appear to be an architecture will be a marvelous place to live; and a music which isn't music, and yet satisfies one's musical inclinations, is what I have now: namely, the ambient sounds. I find the sounds around me more to my enjoyment than any music I know of; and I have that all the time, and it's constantly changing. And that can be had—it's harder for us to envision it in the case of shelter, but apparently Bucky Fuller envisions it: I've seen it—in his terms. That is to say, two transparent geodesic domes one within the other with plants placed between the two so that you would be living, so to speak, in a garden and have both—as though you were "sheltered" and as though you were not.

*On the indivisibility of consciousness, and whether it might be called "reverence":*

Yes, and I think it's coming to us now particularly, perhaps, through the Orient—because of their continuing in history to have a regard for the environment which we really for the most part ignored. We considered it to greater advantage, you know, to dig it up and to make something than to just sit still doing nothing. Whereas they had that other idea; and now these ideas are interpenetrating, and our technology is moving in the direction of making it more and more evident to us that the environment has beauties. For instance, two students came by quite excited the other day, offering to show me laser projections of three-dimensional images—Have you seen them?—which I have seen at Bell Labs in Murray Hill, New Jersey. So I said "We can talk—especially because I have seen them." But having seen them, well, we can speak of them also as reflections, you know, of things that are already here without any technology. And furthermore, in our windows and so forth, the things that we see are in colors, which is going to be very difficult for technology to produce. But it's *got* to, and when it does it will be as though there were no technology, because we already have it anyway. But the *technology* makes us excited, you see; whereas we could look at reflections in windows without "seeing" them, with the technology they won't be disregarded any longer.

*On symbols:*

In Buddhism there is the term *Yatha butham*, which means "just as it is"—and this is what appeals to me, though I see every now and then that some people are interested in symbols. But what they mean by symbols seems to be different from what I thought they meant. There's a very fine fellow I'm working with on HPSCHD here in May, and his name is Calvin Sumsion—he's in the design department, and he used the word "symbol" enthusiastically the other day; it dawned on me that what he meant was a representation of visual things, rather than abstraction, and that all he meant by "symbols" was that. He didn't mean, for instance, that a dove means "peace." He meant that a picture of the dove was a symbol of the dove. And that's very different from what I would have meant, so I'm getting more interested in symbols.

*On whether a department within the university can choose flexibility without asking that the whole university also make the same choice:*

You mean everybody changing at once. In a sense it's happening, and in another sense it seems *not* to be happening; that's what makes this present period so

*any point to doing what someone else is already doing? What's suggested here seems to be an innocent concern for things-as-they-are,*

*and a peculiar kind of expansion of consciousness*

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*which consists in recreating Nature—not remaking it, altering it, destroying it, but*

interesting and complex and stimulating—that very contradictory things coexist everywhere. We have to see, for instance, that what we call “student revolution” is not confined to one school, or one country, but is all over the world. And then the “Free University”: I imagine it’s cropping up in all universities as a facility for study and teaching which doesn’t fit into the curriculum at all, which doesn’t give any degrees at all. I was at a meeting of a number of the music faculty the other evening in which it was proposed—by a man who may very well be in the administration here—that there be a third program set up in which a student could elect all of his studies. This would free him of any curriculum responsibility whatsoever, and he would be given, instead of a degree, a certificate when he left—if he left—saying what in fact he did while he was here. Which I think would be more interesting to read than a degree.

*On whether “education” should be primarily experiential, rather than productive:*

People complained who knew Thoreau; he was a controversial figure and he was averse to schools, you know—he was a teacher for a little bit, but he left the educational system quickly. His neighbors complained that he did nothing, and even Emerson complains that all he was worth was as captain of the Huckleberry Party, but history has proved otherwise. Three instances: India—through Gandhi, through Thoreau—changed a whole political structure; the Danes—through the Essay on Civil Disobedience—successfully fooled Hitler’s occupation; and Martin Luther King. There you see: all that’s needed is re-examination, really, of our value system with regard to what people do. Poets down through the ages, and saints and so forth, have *advised* inactivity. And we haven’t listened—at least the universities haven’t listened. Yet they’re willing to teach the poetry. It’s a very strange situation.

*On whether familiar “structures” must vanish:*

We don’t need to give up the past as we go into the future. As we make changes, we don’t have to lose. If we keep the notion of becoming abundant rather than scarce. To stay rich rather than poor. There is no reason to say we won’t have any more harmony or counterpoint or orchestration or bassoon-playing, etc. We can keep those things. Perhaps some of the rigor with which they have been taught in the past will have to continue for *those* things into the future or *could*. One wouldn’t have to wipe the slate clean, so to speak, in order to start. One can add or multiply the possibilities. Wesleyan University, in Connecticut, which is quite wealthy, had the obvious need for new auditoriums—places for theatre, for music, and so forth. In the meantime they had developed a private school of music which taught oriental music, and with that school of oriental music the students, not only at that university but ones around about could come each Friday to what is called a “Curry Concert” which consists of music and then food—Indian food, beautifully prepared—and then more music and then oriental dancing, and all of that activity goes on. Well, with the money and so forth in the plans to make more halls, instead of doing what they’re doing here, huge ones, they’re making a village of small ones, so that of an evening you could have a choice between hearing European string quartets, Indian music, Japanese music, rock and roll, etc. And it’s very very beautiful, and this kind of richness is what we actually have now with our television. Being able to change from one station to another. Now as laser beams affect television, I understand there will be the possibility of multiplying the broadcasting stations, since the bands needed will be much thinner—*isn’t that true?* The result is that the future of television is great. You could have a television station that was relatively specialized, so that when you tuned to it you would know what it was you were doing. Rather than now, not knowing more or less what you were going to get except a potpourri of something or other. But you would be able to do as the Japanese do in Tokyo now when they go to a coffee house. They choose whether they go to the coffee house that plays Debussy or the one that plays Beethoven, or the one that plays Mozart or the one that plays Japanese music, or whichever one they choose. They have a great variety.

*abandoning old habits of abstraction to deal with the concrete. Let university students be free, Cage suggests;*

*On finding an audience for art:*

I think an important development in the future of communicating together will be the adding of the screen to the telephone. And then accompanying it with—oh, each person would have, say, a thousand sheets of material upon which anything could be recorded and subsequently erased, so that at any instant everyone in the world would have access to one thousand sheets of *something*. It could be reproductions of paintings, or books, or music, or whatever, and he could easily give it up at any moment by erasing it—and have it again the very next moment if he felt “Well, I didn’t mean to erase it.” It would just be dialed, and he could get what it was he needed whenever he needed it. Then we could drop out from the society all the purveyors of things; all the middlemen. The publishers—we wouldn’t have any need for them; and if we improved our transportation means as we do this, having *seen* through reproductions, we might get the curiosity to see the original and we could go quickly to it and see it, and return home, or move to another house. This is an application of that notion of flexibility.

*let us all have wider and wider choices to fool around with, and let’s use technology to exercise those choices*

*Does the computer alter the concept of “audience?”*

I think that not the computer itself, but the ideas which I and others have in the field of music have done this already, so that we think of the concert more and more not as something that begins and ends, but a process that continues and sometimes very long so that people could come and go; again, flexibility. And one of the things that’s so annoying about concerts to people who are themselves, let us say, not music lovers, is this business of sitting in rows in a theatre situation, and our tendency now is to remove that by having a space in which people can move or sit, go out, come in . . . in the course of the performance of music. What the computer seems to me to be helping with is several things; one, it’s helping us to know how we think, because if we don’t make our thinking very clear to the machine it doesn’t understand us, so we begin to know more about thought processes through the computer than we knew before. It’s also allowing us to do larger projects than we would even have set out upon previously because we would have foreseen that we wouldn’t have had time to do them, but once the programming is accomplished, the computer works very quickly and enables one to think in physically larger, quantitative terms. And then the difficulty involved in preparing a program is so great, not only in my experience but in that of others I talked to, that one thinks that something has been accomplished by a program—and, indeed, something *has* been accomplished. But it seems to be worth more than to use it for one’s own purposes. The notion of ownership is, and possessiveness, is undercut in the same way that it is undercut by much of our technology—tape recorders, radios, television, and so forth, that enable people to have material for which they haven’t paid.

*—with none of our former dependence on the economics of ownership, or even on the necessity of scheduling ourselves. Technology, it turns*

*Will there be any future need for concert halls and museums?*

No, but this notion of having what we need—it seems to me to be laid at the door of the Germans; I think it’s a false idea that they’ve buffaloed us into—I think we can perfectly well do things that are not necessary, and that it will seem pleasurable to us to get together and have an unnecessary concert.

*On whether concerts are more pleasurable experienced by groups of people:*

Well, I think there is a great difference between an original painting and a reproduction, and between a live performance of music and a recording, and the general experience as numbers increase will be of recordings as things develop in technology, and people may even learn to prefer them to the original, but others will want to see the original and will realize that there is a difference.

*Can one have so much music that he no longer needs it?*

Well, I already have that situation, but it doesn’t do me any good because I have a great deal of music. You know, I go, through circumstances, to a number of concerts,

but I certainly don't search them out, I only go through circumstances and I don't keep any records, I don't have any radio or any TV. So that I don't have any reliance on having music because I have always sounds around me. Nevertheless, I'm a musician and I make music and I am able to listen to other people's music.

*Will it suffice us to read the manuscript of a piece of music?*

That's not my point. My point is the reverse. It has been thought in the past that music was something that existed in a person's mind and feelings and that he wrote it down and that he had heard it before it was audible. My point has been that we don't hear anything until it is audible. At least I don't. And if I did hear something before it was audible, I would have had to take solfege, which would have trained me to accept certain pitches and not others. I would then have found the environmental sounds off tune, lacking tonality. Therefore I pay no attention to solfege. I don't have perfect pitch; I simply keep my ears open, my mind empty but alert. Period. And the result is that I can hear things that are off tune, on tune—I suppose it makes a difference, but not one that I approach in terms of value. I try to approach each sound as *itself*. Now I find I can do that better with sounds that *aren't* music than sounds that *are* music; but I try to make my own music, and I notice that more and more people are making music that is *like* the environment.

*Is this a kind of ultimate abstractness?*

No, I would say rather an ultimate reality. Wouldn't you?

We had an argument after playing two tapes made by a composer here named Wolf Rosenberg, and he was defended by Herbert Bruhn, who's done some beautiful work here with computer music. Herbert Bruhn was insisting that anything we do is artificial, and I disagreed and said that I knew perfectly well that in my experience they are not artificial. Now what would make sounds artificial would be that one wasn't really interested in them or paying attention to them, and that what was of concern to one was the relationship to the sound. This notion of relationship actually makes the sound unimportant. You could have a musical idea and express it, let us say, in lights or something. Or some other relationships—maybe apples. I have become interested not in relationships—though I see that things interpenetrate—but I think they interpenetrate more richly, more abundantly, when I don't establish any relationship. So one of the first things I've done, which it seems to me is what nature has done, too, is not to make a fixed score. When I have three sounds, I don't think that one must come first, and then the next, and then the other, but that they can go together in any way, and that's exactly what happens to the birds and the automobiles and so on—At any rate that freedom from a fixed relation introduces me to the sounds of my environment.

*On the interplay between art and music:*

I think that this is a realization in music which is different than what music was at the turn of the century. It was then that music so greatly influenced the visual arts as to be the excuse for the turn toward abstraction; you recall cubism and so on. All the manifestos spoke of music as having already accomplished this that was now being done in painting. I think that much of what is being done since 1950 in music is a response to this openness you spoke of in the visual arts which was the response to music, and that the dialogue continues because the physical circumstances are different to bring about changes. So that music's response now to the visual arts of the first half of the century produces a situation to which the visual arts must now reply, or may reply. I think it's already involved film, for instance, in the use of a plurality of screens rather than one. That *that* is like music without a fixed score.

You see this can proceed in many directions. Not just, dogmatically, one. It can proceed—there is one film I saw at Montreal; it was called "Labyrinth." Now there was a case of several screens being used quite dramatically in what I would say

*out, is offering us such independence; it isn't an artificial invitation unless we refuse to make it a part of our*

*lives. We can hang on to "value" if we want, but the abundance of technology is*



corresponded to a 19th century orchestration. So that one film related to another dramatically at special moments. And that if the films were not synchronized, fixed together, that the dramatic effect intended would not be gained.

*On whether films must necessarily be "linear:"*

It isn't necessary. We see in the work of Stan Vanderbeek and others that it's perfectly reasonable to have things going on at the same time that aren't related, or as with the Watts group in Ann Arbor, Michigan, during their 16 mm festival. There something else appeared. It appears in my experience more and more. They discovered with that film festival, that the films could be poor but that the combination of them was not poor. Now this is very much like what Bucky Fuller says when he says "synergy", or what happens when we make an alloy of metals so that a strength comes about from things that don't have that strength simply because they come together. So that the whole question of quality which has been of such concern to the university—or to the whole question of education—to teach the good rather than the bad, is put in question because the bad if it enters into an abundant enough situation is no longer bad. In fact, it's a little spicy. I discovered that also with the computer piece. There are 52 tapes, and we have to make a recording for the Nonesuch Company which the university contracted us to do, so we had to go to Chicago to put the tapes together in a special studio where they could do eight at a time so we would have few generations and so not lose the signals. And when we had seventeen together it sounded like chamber music; when we had thirty-four together it sounded orchestral; and when we had fifty-two together it didn't sound like anything we had ever heard before. It rather suggested dimensions—dimensions of sound that were so thick that it was like a frieze on one of those Indian temples, you know, where it seems to be sculptured but it's actually bas-relief. It was just marvelous. So I got the notion to do the same thing with typography, and I've been asked to make a text for *Art in America* dealing with Marcel Duchamp whom I knew quite closely in recent years, particularly in Germany; before he died we were two weeks together. So I agreed, naturally, to do something but said I would like to do what I've been wanting to do: to make a text which had no syntax. And so I subjected the dictionary to chance operations—the *I Ching*. All the words, so that I could divide all the pages of this dictionary—1428, including the boys' and girls' names at the end—I could divide that by 64, producing groups of pages of 22 or 23. That comes out to 64. Then I subject 22 and 23 to 64, to get groups of 2 and 3, so that when I get another hexagram I know precisely which page I'm on. Then I count the words on the page and relate *that* to 64 and know immediately what word I'm dealing with. Then I ask how many forms does the word have—if it's a noun, if it's a verb; is it singular or is it plural. If there's an illustration, is it the word or the illustration, etc. So that I finally pinpoint what it is I have to do in the text. Then *where* on the page does it go?—The page likewise submitted to the *I Ching*. And I did it very finely so as to avoid a module. Again, by means of abundance; quantity not quality.

You see from Corbusier's point of view, which is quality, a module becomes of great importance. From a quantitative point of view, which I'm trying to work with, a module becomes, if *necessary*, then something too obscure. Anyway, the place, the direction of the word, and then submitting each letter to the chance operation—is it present? is it in process of disappearing, as Duchamp himself had disappeared, you see. Is it disappearing structurally? If it's an E it has four parts, the three horizontals and the vertical; which one of them is missing, if one is missing? Or is it being eaten by some disease—as the poor man, too, was. Then you have in the end when you superimpose many realizations of this process with that instant lettering business, you know, when you have 261 type faces, you then work into a very rich situation. And some of the type faces are—from a value point of view, qualitative point of view—clearly poor type faces, but from an abundant point of view, they are *Yatha butham*—just as they are. And when they are just as they are in this rich configuration of things, they are beautiful. And the Lord must have had a similar idea in mind.

*teaching us that even if you put together a lot of "poor" things, the total result may emerge as "excellent." An*

*alloy combining weak metals may be strong; there may even be a virtue in novelty.*

*Perhaps the argument, in the end, is simply that everything is possible and everything is good.*