Vespers (1968)

for any number of players who would like to pay their respects to all living creatures who inhabit dark places and who, over the years, have developed acuity in the art of echolocation, i.e., sounds used as messengers which, when sent out into the environment, return as echoes carrying information as to the shape, size and substance of that environment and the objects in it.

Play in dark places indoors, outdoors or underwater; in dimly-lit spaces wear dark glasses and in lighted spaces wear blindfolds. In empty spaces objects such as stacked chairs, large plants or human beings may be deployed.

Equip yourselves with Sondols (sonar-dolphin), hand-held echolocation devices which emit fast, sharp, narrow-beamed clicks whose repetition rate can be varied manually.

Accept and perform the task of acoustic orientation by scanning the environment and monitoring the changing relationships between the outgoing and returning clicks. By changing the repetition rate of the outgoing clicks, using as a reference point a speed at which the returning clicks are halfway between the outgoing clicks, distances can be measured, surfaces can be made to sound and clear signatures of the environment can be made. By changing the angle of reflection of the outgoing clicks against surfaces, multiple echoes of different pitches can be produced and moved to different geographical locations in the space. Scanning patterns should be slow, continuous and non-repetitive.

Move as non-human migrators, artificial gatherers of information or slow ceremonial dancers. Discover routes to goals, find clear pathways to center points or outer limits and avoid obstacles.

Decisions as to speed and direction of outgoing clicks must be made only on the basis of usefulness in the process of echolocating. Any situations that arise from personal preferences based on ideas of texture, density, improvisation or composition that do not directly serve to articulate the sound personality of the environment should be considered deviations from the task of echolocation.

Silences may occur when echolocation is made impossible by the masking effect on the players' returning echoes due to the saturation of the space by both the outgoing and returning clicks, by interferences due to audience participation or by unexpected ambient sound events. Players should stop and wait for clear situations or stop to make clear situations for other players.

Endings may occur when goals are reached, patterns traced or further movement made impossible.

For performances in which Sondols are not available, develop natural means of echolocation such as tongue-clicks, finger-snaps or footsteps or obtain other man-made devices such as hand-held foghorns, toy crickets, portable generators of pulsed sounds, thermal noise or 10,000 cps pure tones.

Dive with whales, fly with certain nocturnal birds or bats (particularly the common bat of Europe and North America of the family Vespertilionidae) or seek the help of other experts in the art of echolocation.

Activities such as billiards, squash and water-skimming may be considered kindred performances of this work.

Note: a kit of four Sondols is available on rental from either CPE or the composer.

Thanks to Donald R. Griffin.

Alvin Lucier

Spring Break Hours

UCSD University Libraries

Monday, March 26 - Sunday , April 1, 1984

Central University Library

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 6 pm
Sat-Sun (3/31-4/1)	Closed

Biomedical Library

Mon (3/26)	9 am - 5 pm
Tues-Thurs (3/27-29)	8 am - 12 Mdnt
Fri (3/30)	8 am - 6 pm
Sat (3/31)	9 am - 5 pm
Sun (4/1)	1 pm - 12 Mdnt

Cluster Undergraduate Library and Playback Center

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 5 pm
Sat-Sun (3/31-4/1)	Closed

Medical Center Library

Mon (3/26)	9 am - 5 pm
Tues-Fri (3/27-30)	8 am - 12 Mdnt
Sat (3/31)	9 am - 5 pm
Sun (4/1)	1 pm - 8 pm

Science & Engineering Library

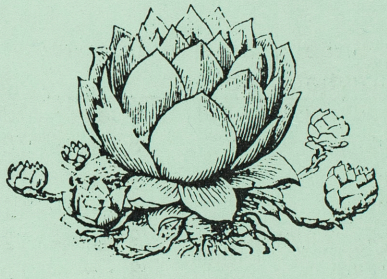
Mon-Thurs (3/26-29)	8 am - 6 pm
Fri (3/30)	8 am - 5 pm
Sat (3/31)	Closed
Sun (4/1)	1 pm - 6 pm

Scripps Institution of Oceanography

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 6 pm
Sat (3/31)	9 am - 5 pm
Sun (4/1)	Closed

Slide & Photograph Collection

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 12:30 pm
	1:30 pm - 4:30 pm
Sat-Sun (3/31-4/1)	Closed



Call 452-3837 for up-to-date hours.

Departmental hours may vary within a Library.

PS653/3-84

Extended Finals Hours

UCSD University Libraries

Monday, March 12 - Sunday, March 25, 1984

Central University Library

Mon-Fri (3/12-16)	8 am - 11 pm
Sat (3/17)	9 am - 11 pm
Sun (3/18)	10 am - 11 pm
Mon-Fri (3/19-23)	8 am - 11 pm
Sat (3/24)	9 am - 5 pm
Sun (3/25)	Closed

Biomedical Library

Mon-Fri (3/12-16)	8 am - 12 Mdnt
Sat (3/17)	9 am - 5 pm
Sun (3/18)	1 pm - 12 Mdnt
Mon-Thurs (3/19-22)	8 am - 12 Mdnt
Fri (3/23)	8 am - 9 pm
Sat (3/24)	9 am - 5 pm
Sun (3/25)	Closed

Cluster Undergraduate Library and Playback Center

Mon-Thurs (3/12-15)	8 am - 12 Mdnt
Fri (3/16)	8 am - 10 pm
Sat (3/17)	9 am - 10 pm
Sun (3/18)	11 am - 12 Mdnt
Mon-Thurs (3/19-22)	8 am - 12 Mdnt
Fri (3/23)	8 am - 10 pm
Sat (3/24)	9 am - 7 pm
Sun (3/25)	Closed

Medical Center Library

Mon-Fri (3/12-16)	8 am - 12 Mdnt
Sat (3/17)	9 am - 5 pm
Sun (3/18)	1 pm - 8 pm
Mon-Fri (3/19-23)	8 am - 12 Mdnt
Sat (3/24)	9 am - 5 pm
Sun (3/25)	1 pm - 8 pm

Science & Engineering Library

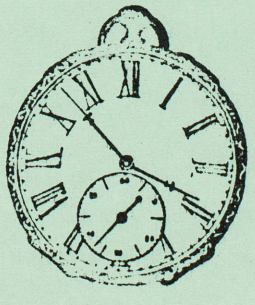
Mon-Thurs (3/12-15)	8 am - 10 pm
Fri (3/16)	8 am - 6 pm
Sat (3/17)	9 am - 6 pm
Sun (3/18)	1 pm - 10 pm
Mon-Thurs (3/19-22)	8 am - 10 pm
Fri (3/23)	9 am - 6 pm
Sat (3/24)	1 pm - 10 pm
Sun (3/25)	Closed

Scripps Institution of Oceanography

Mon-Thurs (3/12-15)	8 am - 11 pm
Fri (3/16)	8 am - 6 pm
Sat (3/17)	9 am - 5 pm
Sun (3/18)	1 pm - 9 pm
Mon-Thurs (3/19-22)	8 am - 11 pm
Fri (3/23)	8 am - 6 pm
Sat (3/24)	9 am - 5 pm
Sun (3/25)	Closed

Slide & Photograph Collection

Mon-Fri (3/12-16)	8 am - 12:30 pm
	1:30 pm - 4:30 pm
Sat-Sun (3/17-18)	Closed
Mon-Fri (3/19-23)	8 am - 12:30 pm
	1:30 pm - 4:30 pm
Sat & Sun (3/24-25)	Closed



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VESPERS Interview

D.S. When was Vespers written?

A.L. Let's see, I think I got the idea for it in 1967 or 1968...and like a lot of pieces I've done, I thought about it for quite a long time before I actually made the final realization that I did finally do. But the funny thing is that I thought it was final; but the other day in the gym--like I told you about--when I was so tired and I sat in the middle of the gym and paid attention to this one runner who was running around...and I started paying attention to the echoes that his footsteps were making as he ran around the indoor place there. At one point you'ld hear just a single echo, but then as he circled around and got in a different place, the echo would sort of begin to multiply...not really multiply but add...so that I think at one point you'ld hear three echoes for every step...which gave me the idea that maybe I should keep the idea of the piece open...so that conceivably we could make a tape of like a track team running around the same place and having them go at different speeds... so that the echo situation would become very much more interesting or very much more, very much more complicated. That's a funny thing for me to say because in the original piece--you know, the one with the Sondols--I don't care about the speed at which the players play the Sondols--I mean, I don't, I don't want to pay any attention to what goes out--

but I'm more interested in what comes back...in that version of the piece, but if I ever made a tape using the people who, using the runners...I would want--I don't know, I think I would want to program them to run at different speeds... like I'd use a long distance runner who would probably run at a slower speed than a sprinter. But the reason I'd do that is because I would decide to use runners...and of course you have different style of, style--you have different, you have runners of different styles--you have runners who run long distances and you have runners who run short distances. Whereas the players I tend to use in the Sondol version of the piece are people who I find and instruct them how to use the Sondols--I mean, in other words, they don't have any specialty. And, I'm--even though the piece is a piece that anybody can play, when I do think about people with specialties, I'm beginning to feel that I ought to, I ought to utilize the specialties that people have.

D.S. I know your only instruction in playing the Sondols was...the instruction was not to play a certain way, but just not to change the way you play too quickly.

A.L. Right--well the reason I do that is so that the players are not self-concious about trying to make the outgoing pulses interesting. Usually I have problems with good performers or good instrumental players who do the piece--who think that they have to somehow improvise or to make interes-

ting rhythmic figures. Often I find that people who have never played a musical instrument before--people I just get off the street, so to speak, before the concert do the best job on it because they don't have any pre-conceived ideas about how to make something interesting. You see I want to make the space be the interesting thing and not the personalities of either myself or the people who play the piece. I always tell the players that if I wanted to make interesting rhythmic figures, I'm certainly prepared to bring that about--since I have written a lot of music that I did control the rhythmic aspects of...but it's the space itself that I want to show...to be interesting. Therefore what goes out into the space has to be very neutral. You see what I mean?

D.S. It's a curious performance piece though because the point of the piece, it seems to me, is the way the environment responds to the ticks from the sound guns...and yet the sound guns themselves are such an unusual product. The idea is as general as you could get--playing your environment--and yet the way...the instrument that you use to play the environment is such an unusual instrument.

A.L. Yes...I think I should...as I, as we started off--I think I should try to leave...I've never been able to make a score for the piece--or I meant to say I never had the inkling to make a score because I wouldn't enjoy saying in the score that one has to buy four Sondols...for instance--be-

cause...I'd like to leave that open--they're very expensive anyway--I don't mind sending the Sondols around either... but I only have four of them--and that would mean that... well, I've always done the piece with only four...with four people because I have four Sondols. But I, if I had to make a score, I would certainly enjoy thinking up a way to make accessible to people a means of thinking about using other sound sources...for the piece--the only good thing about the Sondols is that they were made by a very...a very expert electronic firm--and they worked very hard to find out what the optimum sound source would be for a piece like--so that the pulses that get generated are very sharp and very fast--so that they do the optimum job. Several times I've...you know those little toys...those little toy tin devices that you buy for five cents they're called "crickets".

D.S. Oh, "clickers".

A.L. Yes--well they're called after the insect...you know, "crickets". I did a performance of this at a girls' school and I bought a hundred and seventy-five of these things... and I instructed four girls to play the Sondols...after which, well, before they played them I passed out to the hundred and seventy-five girls with instructions about the piece... and at a certain point I allowed, I said it was all right for the girls themselves to start joining in the performance--and they all played these little tin devices...so that the...

so that there was a transformation which took place in the piece from the very...sharp...optimum pulses of the Sondols... changed into a general toy sound of these "crickets"...which of course changed the whole texture of the piece--from one where you could hear isolated echoes to one where you just heard the whole room begin to...begin to ring...or to sing. I did the piece in Helsinki too--where I passed out these... I had, I bought about a thousand of these things to take on the European trip and while my four players were doing the Sondols, I passed out these little "crickets" to the members of the audience who began to play them. And it was rather beautiful--well, the performance wasn't very beautiful because...while so many people understood the piece--that it was a piece about echo lo-...echoes...and echo location--some students from the conservatory were there and they started to make banal rhythmic figures...with their, with the devices that I gave them--instead of trying to hear the room, they reiterated banal rhythmic figures that we already... we already know and understand...which is a rather sad thing because...if that's the most interesting thing they could do with them...that's not a very interesting state of events. But what was very beautiful was that after the program was over and we packed up all our electronic equipment we went out into the town--it was early spring in Helsinki and... it was that period of time when the sun starts to come out after a long period of being without sun...and it was two

or three hours after the concert and I could hear isolated individuals in the city playing...I mean, they must have been people that were at the program...because you'ld walk down the street in Helsinki and you could listen to...alone, or in groups of two or three playing these little devices so, perhaps they got the point of the piece more after the concert than they did during the concert.

D.S. The piece brings to mind all sorts of animal features... like bats...and it's whimsical to have "crickets", to use cricket toys because the things sound like crickets but how... how formed were the ideas?...did you have the animal ideas before you found out about the sound guns or vice-versa?

A.L. I don't remember. All I remember is that I did... oh, I remember how it all happened--my wife was trying to find a studio where she could work on her sculpture. And she put an ad in one of the local underground newspapers... and she said something, she wanted a, she wanted to form a communal studio. And she got an answer from a guy who had a job at this electronics company that I, where finally I found these Sondols...and we both went over to see this guy because he had a garage where he was making a studio...and I started to talk with him, and we got to talking and he mentioned that this company did do this kind of sound exploration...they were under like government contract to do underwater sounds and things like that. Actually speech, actually

they were doing work deciphering dolphin speech...and he told me about these devices that they were developing, which were for echo-location...and that they were going to develop underwater Sondols also. Actually the word means "sonar-dolphin". And so from there I found out about these devices and started thinking about a piece. And close to that time I began to read a very excellent book by Professor Donald R. Griffin who was once at Cornell but who's now in Cambridge... who did the real fine work on how...on echo-location, and how animals employ it for acoustic orientation. And I read that whole book...and while the book did give me pretty much the technical end of the situation; for instance, how an animal is able to judge how far away an obstacle is by count-, by figuring out how long it takes a pulse to bounce off an object and return...in that way he can tell how far away an object is. And also about the quality of sounds that animals employ...that is, like, if you have a very high-frequency sound, the wave-length is very small; therefore you can identify small objects--if you send out a pulse, a sound that has like a low frequency, you can identify big objects because you need, the wavelength is bigger. Actually, animals that have perfected this acumen, this fantastic audio sending and receiving apparatus, can also identify what kind of object it is by the information that they hear which is taken, which comes back from the environment. What I'm trying to say is they can discriminate between the sounds that go out and

those that come back and the ones that come back carry information about the environment that they're in. Actually the piece, the title of the piece Vespers comes from the family of the long, if I'm not mistaken, the North-American bat called vespertilionide, which means of course, the "vesper" means "evening" and I was, this piece is, in a sense a--I would like to pay my respects to these creatures of the evening...I mean, who live in the evening...and who over a tremendously long period of...well, I wanted to get in on a facility, a technique, an apparatus that an animal had developed over a tremendously long period of time...a period of time that's longer than any period of time that's in the musical past...that's in my musical past...because I have some feeling that I want to get in on something that's taken so much time. Also...also the facility that they've developed has been one of the only things that they developed... I mean, they haven't learned to think in the way that human beings have...they haven't gotten into the alleyways, or the; they haven't developed down avenues that we have--but they developed an extraordinary audio facility...and as a composer, I felt I should take part in that; I would feel very honored to somehow take part in this kind of thing.

D.S. If your purpose is sound; if you're a composer that's mostly concerned with sound, a bat is a useful creature to imitate because his...

A.L. Right.

D.S. ...his purpose is entirely useful--he wants to play his environment so that he can move around in it.

A.L. Yes, I was thinking about bionics...there was a book I got on bionics which I never really got into...but I got the idea that, for instance, bionics is a, as far as I can see, a science where you take a natural system and you apply it to an artificial system. For instance, they learned that by imitating the skin of certain fish, which for instance have great speed swimming, they could develop the outside of sub-, they could imitate the skin of fish and apply it to the outside layre of a submarine...thereby enabling the submarine to go through the water at a greater speed. I've been thinking about the fact that our environment is changing...and that it's not out of our, of the, of our environment now to go under the ocean, for example...or to go out into outer space where it could be that we could find ourselves without information coming into our eyes...we might be in a situation where our eyes don't do us any...where we are unable to see: therefore, we might have to rely on our ears...and that we haven't done very well in as far as I can see. And the piece, I suppose, is, in part, an educational piece where I want to open up the players' and the audience's ears. You'ld be surprised how many people don't know that the piece is about echoes...some very fine musicians

and composers have been at performances of this piece and they think it's a piece about phase relationships...they just don't hear the echoes...and I want people to hear those echoes.

D.S. The echoes themselves don't sound like what you usually think of as echoes...I mean, it's the timbre, the timbre of the click from the gun that seems to change. You don't... I know when I was performing the piece I, you're not especially aware of a return click for every click because it's much too complex...but what you do hear is that what seems to be coming out of the gun changes as you move it to different areas in the room.

A.L. Yes, well, I suppose...I don't know about that--I, what I do know is if you have four people playing these devices in the same space, the echo situation is so complex that each player cannot, is unable to be, to read his own echo; therefore, built into the performance is the idea that... I mean that, in other words, I force the players into a task... which, if they perform the task correctly, then the piece will be played to my satisfaction. What I'm saying is that if they're all playing at the same time they're not able to hear their own echo; therefore, they have to stop. I blindfold players...I don't generally because I've never had a situation where they could practice with the Sondols so that they became expert at it...but, in order to orient themselves

in the space, they have to stop their playing because the sound situation is too...there's too many sounds going on. So that...that task I set them...that is, to orient themselves in space and to move from one place to another place regulates the texture of the particular piece...you see, I don't have to compose that; I can say they have to go from one place to another, and the only way they can do that is to rely on their own echo...and if they can't hear their own echo they have to stop...so the performance of the piece is regulated in that particular way.

D.S. On several levels it imitates the usefulness of a bat's equipment...you perform the piece in the most useful manner--when you can't do what you're trying to do, you don't do it.

A.L. Right, right...I can just imagine that when other people get the idea of this piece there'll be pieces that use echo-location devices...but where the players will be programmed--in other words, the piece will be really (quote) "composed" (unquote). Whereas I am satisfied not to compose terribly...to do ter-...to do a lot...to do too much--but to let the space and the situation take over. In that way, I'm always surprised and I'm always taught something about, about spaces. In other words, I don't intrude my personality on a space...say for instance we play this at the gym--I don't bring an idea of mine about composition...into that

space and superimpose it on the space; I just bring a very simple idea about a task that players can do, and let the space push the players around. In that way, I always find something out...and I don't ever forget a space that I've been in and done that piece in. It's as if we take very slow audio photographs of that space.

D.S. What I want to ask is...the Sondols have a task to perform--and they do it...now in doing it they, they make...

A.L. You mean the people who play the Sondols.

D.S. ...the people who play the Sondols...

A.L. Right.

D.S. ...they make clicks that sound like insects. Now, in the versions of the piece where you handed out the little toy clickers...

A.L. Right.

D.S. ...what relationship do the clickers have...to the people playing. Are they sort of a responsorial chorus from the environment?...or how do the people who have the clickers, how do they, how are they supposed to respond to the mix in the air?

A.L. To the what?

D.S. To the mix of ticks in the air.

A.L. Well I just wanted...I just wanted to re-, well in the case of the girls' school, I went there to give a lecture, and I wanted them to play...I mean, I wanted them to participate. And while these little toys weren't optimum... I mean, they do make a very sharp particular sound...but the sound isn't terribly directional...beamed...I mean, in order to use echo-location to its optimum, the sounds have to be beamed rather strictly...so that the sound doesn't get dispersed. But I thought...this would, I mean I couldn't afford to pass out a hundred and seventy-five Sondols...you know?... so I thought that in this way...if they all played...well, my, I remember last September, my wife and I drove down from Ann Arbor, and we went, we were going through the state of Kentucky...and we stopped at a gas station...and there was a whole field filled with cicadas...I think they were cicadas anyway. And they were just producing a lot of noise... and I don't know what intent they had, or what intent these insects have for producing sounds like that...whether it's social or whether it's sexual...and also I remember at Brandeis there was a particular bush that I passed by, and there was some insect in it--maybe a, it was Aughst, maybe it was a cicada or maybe it was some other insect--but anyway, he was alone, and he was producing a tremendous amount of sound which echoed...within the bush and off a cement, like, wall...

and I couldn't help but superimpose my idea that he must have heard the echo...that came back. Now maybe he didn't--maybe his sound was for, like, another use; but I, with my understanding of echo-location I thought that well he, I'm sure he...probably heard that echo.. So even so I enjoyed the situation that an insect or a whole bunch of, I mean thousands of them...were producing these sharp sounds at the same time...and I thought that if I had these hundred and seventy-five people...doing that, in other words playing with these things, I would do two things; one is, relieve the anxiety or the tension that is built up during the performance when I only use four Sondol performers...and that the audience could then get in on the act and relieve their anxiety...and play...and while they wouldn't actually... have individual experiences in echo-locating, the particular room did begin really to buzz...and ring, in the same way that that field in Kentucky seemed to ring. And I enjoyed transform-, going from the four individual Sondol players to the whole audience who could do something anyway.

D.S. Would you agree that the bias of most people who feel themselves familiar with music toward expecting instruments probably hides the point of the piece--because they expect the sound guns themselves to be of interest--when what you're trying to do is just take advantage of the place where all the people are?

A.L. Right. Well the first, like after performances people come up and play with these Sondols--a situation that I like very much. But one of the first things they do is like... put their hands over the speaker and sort of go like they're playing a trombone or something...they make a "wah-wah" sound... or they try to speed up the pulses and slow down in like a rhythmic effect. But what they always do is a very--they do banal things...I mean, they'll do things in groups of twos or groups of threes or groups of fours...which is, to me, not a very interesting thing to do now, nowadays. So, yes they do--they distort...they try to make old, they try to do old things with like contemporary, with sort of newer means...which is of course not what i'm trying to do. Of course, in a very strange--it's very strange that with an electronic device, I'm tuning in to a very prehistoric--well, I don't know how, when bats...or animals who live in the evening, I don't know when they began but...it seems to me I'm tuning in on a very old thing. So in a very strange way, I'm more old-fashioned than anybody.

D.S. It seems a very social idea...to have the audience be able to...do something too...and a friendly idea at that.

A.L. Yes.

D.S. Do you think there'll ever be a time when you can give a concert and the audience won't be anxious when the

point of the concert is taking advantage of the social situation of being together? Like the audience won't feel left out when you give a performance?

A.L. Well I think so...I mean, it seems to work pretty well when I explain the piece before the performance...that is, when I tell the audience what is going to happen and how it's going to happen. But in the situation where we have four blindfolded performers, there's always anxiety about is some girl, I mean if it's a girl performing the piece, bumps into something. Or I had one performance where one of the players got completely disoriented and ended up in like a corner...and so, even if the audience understands that, they should feel concern about whether the player is going to fall down or bump into something or not. I'd like to keep that in the piece because...well, I'd like to keep it in.

D.S. I know when we performed the piece we used, we wore sunglasses...and it was a very dark room anysay...and it became a very theatrical picture...having four people using those guns. And then our motions were...might have appeared artistic...even though the point was not to make changes to swiftly so that your arms would move very slowly. And, you also mentioned at the time that you shouldn't make concious choices about the movement of your body--that you should choose a path...for your arms to follow and then follow it...

without making any changes.

A.L. Yes, I did that to keep your personality out of it. Because, for one thing, in this piece I'm really not interested in the players' personalities...nor am I interested in my own personality...I'm interested in the space's personality...which every time the piece is played it's in a different space so that, as far as I'm concerned, the piece is always new...and interesting...so that I tell the players to be sort of stupid, or dumb in what they choose; I mean, in other words, don't make a fast choice that human beings make.

D.S. Also...the social fact of the piece is that you're there, with an audience...and, the metaphor for being together is that the room is what responds to the performance.

A.L. Right.

D.S. Do you think the audience...well, audiences that do get uncomfortable...is that because they're not getting, they feel they're not getting any information from the music? That all they're getting is the fact that they're there together? That might be confusing...

A.L. Well they don't hear the echoes terribly much...they think it's a piece that involves rhythmic...out-of-phaseness...and, if it were that, I'd certainly do a more interesting phase-relationship piece. It was interesting, when

I've played it before audiences get like annoyed and get sort, and get...sort of rowdy, often, as I said before, they do make references to banal rhythmic figures--but...I just did the piece up in Cambridge...for a Harvard School of Education program...and they did get annoyed...well, I don't know whether they got annoyed; but they started to disturb the performance...but, for the first time, an audience didn't make--an audience who felt like participating didn't make... banal rhythmic patterns...but individuals in the audience made single vocal sounds. So that, I almost feel as if they did realize that echoes were being produced. I mean, they made single "clucks"...so that they did imitate the Sondols pretty well...and, it didn't disturb me.

D.S. You mentioned that you wanted as neutral a sound as possible...

A.L. Right.

D.S. ...from the clicking guns...which would seem to--and then of course the patterns that the guns make when they're playing together are...not determined...are indeterminate... so...it seems as if--from the guns themselves--you're not getting any information. Yet, on the other hand, because you're not getting much information from the guns, you can form the clearest picture of the environment--because, because they're not doing things that are trying to tell you stories,

you can find out about where you are...so...

A.L. Right.

D.S. ...so I was wondering what you think about the idea of music as sending messages...because in this case, it doesn't seem to be sending a message--and yet on the other hand--it's paradoxical in a way--you get maximum knowledge about your environment.

A.L. Well you know the old story about art as communication...(laugh).

D.S. What do you think about that...that story?

A.L. Well...(laugh)...we always, we composers always denied it. But, I don't know, if you're able to make available a picture...in sound...about the space you're in...you're telling people something--I mean, even the four performers--when they start they're spread out in the space, and...each of them can sort of tell the others where he is...and what the echo situation is in that geographical position...so that the players can often send information to one another... and secondly, the audience receives the same information. So that I suppose you'ld have to say that this piece is a communication piece.

D.S. It's mystical, in a way...

A.L. Is that what you mean?

D.S. That is what I mean...it's a curious thing that by giving up your perogatives as a composer...of sending information, you've allowed the environment to...reveal itself.

A.L. Exactly.

D.S. By having minimal content in your end of the thing you've performed a service for the audience.

A.L. Right, right...that's what I try to do.

D.S. And what's also strange is that the audience, audiences who aren't satisfied with that state of affairs feel cheated because you're not giving them information.

A.L. Yes...they would say I'm not communicating.

D.S. When, in point of fact, there's all the communication you could ever hope for right there.

A.L. I mean, maybe I'm not communicating but...the particular room that they're in is. And I think people should find out about that...don't you?...Maybe that's a good place to end.

D.S. I think so.

Extended Finals Hours

UCSD University Libraries

Monday, March 12 - Sunday, March 25, 1984

Central University Library

Mon-Fri (3/12-16)	8 am - 11 pm
Sat (3/17)	9 am - 11 pm
Sun (3/18)	10 am - 11 pm
Mon-Fri (3/19-23)	8 am - 11 pm
Sat (3/24)	9 am - 5 pm
Sun (3/25)	Closed

Biomedical Library

Mon-Fri (3/12-16)	8 am - 12 Mdnt
Sat (3/17)	9 am - 5 pm
Sun (3/18)	1 pm - 12 Mdnt
Mon-Thurs (3/19-22)	8 am - 12 Mdnt
Fri (3/23)	8 am - 9 pm
Sat (3/24)	9 am - 5 pm
Sun (3/25)	Closed

Cluster Undergraduate Library and Playback Center

Mon-Thurs (3/12-15)	8 am - 12 Mdnt
Fri (3/16)	8 am - 10 pm
Sat (3/17)	9 am - 10 pm
Sun (3/18)	11 am - 12 Mdnt
Mon-Thurs (3/19-22)	8 am - 12 Mdnt
Fri (3/23)	8 am - 10 pm
Sat (3/24)	9 am - 7 pm
Sun (3/25)	Closed

Medical Center Library

Mon-Fri (3/12-16)	8 am - 12 Mdnt
Sat (3/17)	9 am - 5 pm
Sun (3/18)	1 pm - 8 pm
Mon-Fri (3/19-23)	8 am - 12 Mdnt
Sat (3/24)	9 am - 5 pm
Sun (3/25)	1 pm - 8 pm

Science & Engineering Library

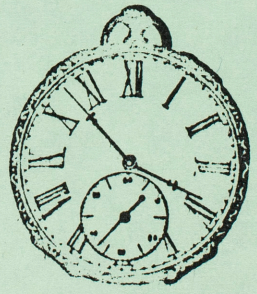
Mon-Thurs (3/12-15)	8 am - 10 pm
Fri (3/16)	8 am - 6 pm
Sat (3/17)	9 am - 6 pm
Sun (3/18)	1 pm - 10 pm
Mon-Thurs (3/19-22)	8 am - 10 pm
Fri (3/23)	9 am - 6 pm
Sat (3/24)	1 pm - 10 pm
Sun (3/25)	Closed

Scripps Institution of Oceanography

Mon-Thurs (3/12-15)	8 am - 11 pm
Fri (3/16)	8 am - 6 pm
Sat (3/17)	9 am - 5 pm
Sun (3/18)	1 pm - 9 pm
Mon-Thurs (3/19-22)	8 am - 11 pm
Fri (3/23)	8 am - 6 pm
Sat (3/24)	9 am - 5 pm
Sun (3/25)	Closed

Slide & Photograph Collection

Mon-Fri (3/12-16)	8 am - 12:30 pm
	1:30 pm - 4:30 pm
Sat-Sun (3/17-18)	Closed
Mon-Fri (3/19-23)	8 am - 12:30 pm
	1:30 pm - 4:30 pm
Sat & Sun (3/24-25)	Closed



Call 452-3837 for up-to-date hours.

Departmental hours may vary within a Library.

Spring Break Hours

UCSD University Libraries

Monday, March 26 - Sunday , April 1, 1984

Central University Library

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 6 pm
Sat-Sun (3/31-4/1)	Closed

Biomedical Library

Mon (3/26)	9 am - 5 pm
Tues-Thurs (3/27-29)	8 am - 12 Mdnt
Fri (3/30)	8 am - 6 pm
Sat (3/31)	9 am - 5 pm
Sun (4/1)	1 pm - 12 Mdnt

Cluster Undergraduate Library and Playback Center

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 5 pm
Sat-Sun (3/31-4/1)	Closed

Medical Center Library

Mon (3/26)	9 am - 5 pm
Tues-Fri (3/27-30)	8 am - 12 Mdnt
Sat (3/31)	9 am - 5 pm
Sun (4/1)	1 pm - 8 pm

Science & Engineering Library

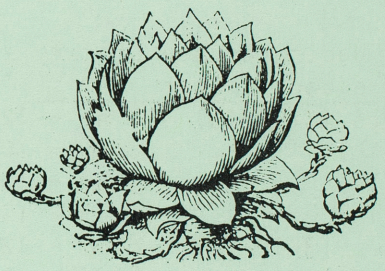
Mon-Thurs (3/26-29)	8 am - 6 pm
Fri (3/30)	8 am - 5 pm
Sat (3/31)	Closed
Sun (4/1)	1 pm - 6 pm

Scripps Institution of Oceanography

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 6 pm
Sat (3/31)	9 am - 5 pm
Sun (4/1)	Closed

Slide & Photograph Collection

Mon (3/26)	Closed
Tues-Fri (3/27-30)	8 am - 12:30 pm
	1:30 pm - 4:30 pm
Sat-Sun (3/31-4/1)	Closed



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Departmental hours may vary within a Library.

PS653/3-84

A.L. How did I happen to write the piece? Well, it happened in various stages...let me see...I remember a film of a Jules Verne book...I think it was a Jules Verne book...something like Twenty Thousand Leagues Under the Sea, or one of those books. And there's this wonderful scene where these men have built an underwater machine, you see...and to get from the shore to the boat, which is moored under the water, there's one scene where these four men are walking along the floor of the ocean, with these huge conch shells over them; as if air...filled with air, you see...and they were like, this was like a Nineteenth Century science-fiction film...and the image struck me as something wonderful, you know, walking on the botton, on the floor with these conch shells...and I thought of making a piece with instruments...tubas or French horns where the players would be doing that...something like that, just an idea. And then I thought of actually getting conches, conch shells themselves...I was thinking in terms of big ones, big huge ones, which I could make into bass instruments...bowed even, like conch shells three or four feet high...bass shells; and the openings could be bowed. And then Pauline Oliveros invited me to San Diego, about a year ago, April, to do some, what we call "environmental sound" things...and I was going to do this piece I did where you get ionospheric sounds, and so forth. But anyway, when I found out, I don't know, there's something about California, being from the East, you know, I had never been to California...something about, I was thinking about California and being able to find conch shells--huge, big conch shells...palm trees and all that. So I said to Pauline "Can you get any conch shells?" and she said "Well, we'll see". So, from her house to San Diego University, every day we drove along the ocean

front. And there was this funny little store...it had a sign that said "sea shells". So I told her to stop the car, and the man had all these conch shells of various kinds. And the man that owned the store was a very eccentric man--wonderful, funny American type...and, well, we got talking about it, and he said, of course in the Islands, you know, people who live in the Islands---Indians---have blown conch shells for a long time. Where did I just see in a film?...a guy blowing a conch shell?

D.S. Lord of the Flies?

A.L. Tibet! In Tibet...I have a recording of Tibetan chant...and they have these long trumpets; but they also have a particular conch shell...now where, how do they get a conch shell up in Tibet? But that's one of their instruments, anyway. So, anyway, I thought it would be wonderful to make a piece where found objects, you see, found objects could be used as instruments. And in order to be used as instruments, they'd have to have sounds, somehow, I mean they'd have to be able to be blown, or bowed, or struck. But my first idea was just blowing conch shells. It struck me very beautifully that these stupid animals, they're not animals are they?, but the things that produce, make the shells are just, like, somewhere down on the bottom of the ocean floor, and they produce these gorgeous things--objects, which are instruments also. I was thinking then what a wonderful origin of an instrument, to have it be made as a functional thing, for some animal, it protects...and then when the animal dies, when it dies, this thing is a remainder...I mean, there it is, it's left in the world...and it's such a beautiful thing, it should be put to some kind of, you know, we should do something with it. So that's how I got that idea; then, I performed the piece just...

my first idea about performing it was just to have people blowing them...in a space...and several things would occur. First of all, you wouldn't compose it very much, but you would let the natural pitches of each horn, of each shell, be their, I mean, don't change those...as much as you can. Although for the sake of some changes you could have the players change the pitch imperceptably, by putting something in it, like a French horn player...he lowers and raises the pitch, but just slightly. And I was perfectly delighted to let the pitches of each shell, as I found them, or as I procured them...when they are all played at the same time, very interesting interferences got set up. Because, like, two shells are almost an octave apart, but they weren't quite, so they were out of tune, so they produced interesting beats...you know about beats, when you play two notes...so that the chord, or the simultaneousness of these shells, when played together, could be, could depend on just the pitches of the shells themselves, and it wouldn't depend on anything I did. Then I wanted the players to slightly change the direction of the shells, so that the sounds would be beamed in various spatial areas...inside a room, for example. Now you get that idea, I think, well of course it's an old idea--you've always had polyphonic, stereo, you know, you have brass playing from diferent places; but I think I got that idea from doing electronic, composing electronic, you know, my other pieces electronically, where you spatially deploy the loud speakers, and you begin to think of that. I don't think if I hadn't done electronic pieces I wouldn't have got that idea so easily. So, the idea to have the players, as they blow their shells to just turn, very slightly, so that these interferences that you would get with all the notes being played together would

then change a little bit, as the sounds were beamed out. Then I expanded that idea to have the players actually disperse...and when it was first played in San Diego, we did it outside, without any announcement of the piece, but in an environment with people going here and there. And I had the players play in a circle, change the pitches very slightly, turn their horns very slightly, and then, at a given time, they would all disperse outward immediately from the central point into the outer environment, the outer points of the environment; and to move as far as they could from one another... until they could barely hear one other guy...so that they would, like, describe the space...in terms of how far the shells are, you know, able to go. Like if it's an outside situation you can go almost, I think, a mile apart. And you can still hear one conch shell, you see; then when each player gets to the outer point, and all that area, that semi, well, circle has been described by the sounds of the conch shells. So I like that idea. Then when we did it in Steinway Hall, of course you don't have that wide open situation, but we started inside and then moved downstairs and went outside onto Fifty-seventh Street. And that was interesting because then what I found out was...which is not a new idea, at all...that, by concentrating on the pitches of the conch shells, and the timbre of the conch shells, the environmental sounds, such as buses, trucks, people talking, you know, all the urban sounds...get perceived in terms of the pitches and timbre of the conch shells. In other words, you're trying to hear one guy, who you're, who's aiming at you, or who you're keeping in contact with by sound; and then you hear trucks pass, and the tires, the sound of the tires can often take on the pitch of the conch shell that you're concentrating on. It's the

old idea of the percussion instruments in the orchestra...you play the bass drum and the chord that the orchestra's playing, the bass drum often takes on the pitch of the fundamental of the chord. So it's the idea of an indeterminate pitch becoming determined by something else...if you make a noise, it takes on the pitch of a determined pitch that's in the environment...it's like the orchestra, you know, the bass drum, you think you hear that bass drum as the fundamental of the chord. So that led me into some interesting things, because I, and then I started thinking how can you control the sounds in an environment...say you have a downtown, and there's a lot of noise, or people are, you know; I mean I've been thinking of that problem--the urban problem--there's just too much going on, your ears are getting injured, I mean, people's ears are getting injured...could you perhaps broadcast determinate sounds--nice sounds, and then people would begin to block out; I don't know...people, if they don't block out the environmental sounds, but begin to relate them to the nice sounds that you...in this case it was the sounds of the shells, and I'm not so sure that would really...would really do any good. But I discovered then that the environmental sounds did me a lot of good in the, I mean, they became a part of the particular piece. I was also struck by how the sounds changed from going inside a space and then going out into the hall...down the stairs, and outside...how the space that you're in intrudes its personality on the sounds that you produce, I mean, we're all aware of that... if not obviously, subconciously...then when we talk here, in this space, that we're talking in, our voices aren't the same...I mean, they just aren't, because the space does all kinds of things--the architecture. Of course I became very aware of that with this echo

piece, that I did with those echo guns...where the sense of that piece is to make the audience hear the room...hear the physical characteristics of the particular room. Now, performers have always known that, I mean, a violinist is always surprised when he plays in a different place, I mean, he's struck by it because he's got to change a lot of things--if the reverberation time's such-and-such, he, sometimes it affects the speed at which he plays... the tempo...because you have to hear.... So I got into that kind of situation from that composition, so I applied what I found out to this other one. Now, I was asked to write a score of this piece, to publish...and I hadn't had a score--I just sent the conch shells to people and said blow them, you know, I just gave them very simple stage directions; but when I went to write the score, I thought, well now, I just felt like expanding the piece, and not saying you have to use conch shells...because I like to make pieces that can do a lot of different things--not just be one thing--I like to make them as big as I can, so that they imply a lot...implications--like John's things, like his pieces are so non...precise--well they're precise in a certain way, but they're so imprecise...no, I don't want to use imprecise...they're so...big in concept, that they almost take in every other piece that you do. I mean, like, a piece of a composer, who makes a piece with audio oscillators, or sine tones...often, his piece could be thought of as a particular version of one of John's...you see, he beats you at his game, because he makes his pieces so...big isn't the word, I don't know if big is the word, but so...they imply so many different things, like Variations II has in it everything you could conceive about overtones, for instance, because if you make determinations with those

transparencies, you will get, if you did it infinitely, you will get every possibility of overtone, in a particular sound...so that if you ever try to make a piece with complex overtones, in it, it would in part be, you would be doing a version of his particular piece. So I wanted my piece not to be just a conch shell piece, right?...but any, I wanted to make it big, in the sense that it would imply a lot...therefore, I extended it to any, to tell the player, or the performer, to find, or to build any...well, any environment, large or small, that he could use, either to produce a sound, or to alter a sound, in the same way that this particular room we're in alters our sound, you see. It's like taking a big space...if a big room changes, intrudes its personality on whatever sound is produced, then any other kind of an environment can do that...so for the sake of performing I thought they, that we should collect a lot of...objects, into which you could put a particular sound...and the object itself, like a shell, or a pot, or a pan, or anything like that--if you put a sound in it, the characteristics of that pot, pan, shell, or whatever object you have would alter the sound you put in it, with the characteristics of its own self...so I was making a lot of rooms, but bringing them down to the particular size that you could perform, you see? I also didn't say that you'd have to use objects that you could bring in a performance, but you could use big environments, that you'd find outdoors, like oceans, caves, subway stations, football stadia; because, you know, if you go to a football game, you're always impressed by the sound. I used to play in the band, when I went to college, and we used to, the band used to form in like, inside this entrance to the football stadium, and everyone would be playing in the...and, of course the

reverberation of this place!...and then when you started playing and marched out onto the playing field, how the sound situation changed so completely; that that's a possibility. So my idea was that you can do almost anything in a performance of this piece, just so long as you think of it in terms of physical environments, that alter sounds, because of what they are. So, when we did it at the Museum, which was the first performance of the total piece, we used, as you remember, little pots, and suit--or whatever, bags, suitcases, ash cans, all kinds of little objects...and then we, the problem was to find portable, find sounds that you'd be able to put in them. So we had to, because there's like portable equipment, we had to use portable, small little portable tape machines, transistor radios, and things that would operate on their own, you see, you don't have to plug them in. They don't have to be electronic sounds either, but it's hard to get sounds that go by themselves if they're not either mechanical or electronic. So, from the idea of conch shells came the idea of any found object that you want. Because I'd like to--one of my dreams, and it's probably impossible, because I think things up without knowing whether they'll be able to be done or not...but I'd like to take a tape machine in a car and go across the United States--everywhere--go across all the United States, and find sounds, you know, that the United States has that no one else, I thought of like, maybe, Arizona...tape record hours of the wind, in Arizona, blowing across a very flat, dry place... or going up into...some other places, to find sounds that are all around us, but that we aren't aware of...oh, we are aware of, but we don't pay much attention to. So, having done this piece will probably bring me to do something like that.

D.S. Did you ever feel that there was one...when you expanded the piece did you feel that you were changing a concept that you once had?

A.L. No, I thought the first concept was just one particular way the piece could be done. Actually, when I first got the conch shells, I sketched out one page, and I did say that this piece should also be any found object, but I, but it was just an idea. So that the conch shells are just one particular version of the piece, that I like very much, because it's very poetic...kind of corny almost...objects from the ocean, you know, centuries old, maybe, hundreds of years old, the whole myth of the ocean, the sea, you know all that business.

D.S. Did you feel as if you wanted to tell the audience about resonant environments? Was that a reason for doing the piece?

A.L. Yes!...well, yes...I want them to open their ears up to their own environments, I mean I certainly do now more than I did before since I've done that piece...I hear a lot of like reverbs now...when I listen to TV, or listen to the radio, or listen to someone walking on the street, I'm very much--I perceive more than I ever did...their sound coming from another wall--the echo from it; or when you walk down from, say, Brandeis, from the administration building here...how the change of sound in your footsteps change when you pass, or when there's a tree, or there's a wall...and then you pass the wall and go out into an open space...and how your footsteps change, because of the architecture all around.

D.S. Would you feel better about using...like we used a teapot with a radio in it...

A.L. What? a teapot?

D.S. We used a teapot in the performance.

A.L. Oh yes...yes...

D.S. Do you feel better about using something...a found environment, like a teapot, as opposed to something you could build, perhaps, with specific characteristics?

A.L. Yes, I like the found objects slightly more, I don't know why...it's convenient, you know, I mean, no, it's convenient because you can find teapots all over the place, right?...and you can go to a town and you don't have to bring all your resonant environments. You see, I'm struck by John's ideas that you; if you build a resonant environment, you'd probably, or you could conceivably build it in order to do something specific to the sound; and I don't want to do something specific to the sound...and I'm not interested in that; I want to find out--I don't want to change anything, I want to find out what these little environments, or big environments do to sounds--therefore, it's to my advantage not, you see, to make them, but to take what I can find...and in that way I'll always--each performance will always teach me something. If I build something, of course I'll find something out, but if I always use that object I'll only keep repeating the same thing.

D.S. Do you feel any different toward the objects being used... do to the fact that it's in--all this is happening in a concert situation?

A.L. Oh yes, I mean your idea about a pot--a little teapot now becomes an instrument, or, yes, it doesn't become an instrument, but it becomes part of an instrument...like a part of an oboe, I mean the length of the oboe determines certain things...you now think of a teapot as something else.

D.S. How do you feel toward the audience in a piece using found

objects; do you expect the audience to feel different toward the objects too?

A.L. Yes...yes...it's odd, you know, I like pieces that are odd... that do something that you don't expect them to do...like, for instance, the way the piece was made...it's extremely odd to hear a Beethoven symphony coming out of a little pot...you don't perceive it all because the pot is so small that the low frequencies don't get played, but the situation I like very much--that you're putting... well, first of all, to play Beethoven through a transistor radio is very odd...because the Beethoven symphony implies a space, a big space, and like, the orchestra has a hundred men...and it's tape recorded in a big hall, but then it comes out of the little two-inch instrument...which is very strange, you know, when you really think about it...but then, on the other hand, to try to recreate the environment and put it into another one, I mean, it's like taking something that belongs somewhere and putting it somewhere else...so you make connections between things that you wouldn't ordinarily make...does that make sense? Doesn't an artist do that anyway?...I mean, he makes connections--well, some artists do, I don't know about all, I mean...some of art is you make connections between things that no one else would ever make.

D.S. But are you interested in making connections that only Lucier would make between objects?...or are you taking advantage of connections between found objects...like radios happen to fit into teapots.

A.L. Right!...that's the reason I used the radio, because it goes into the teapot.

D.S. But you probably wouldn't be tempted to reduce a Beethoven symphony to a little transistorized device unless it had been done

before, or unless people carried around transistor radios.

A.L. I would never have thought of it, no.

D.S. Are you trying to tell the audience something beyond what they hear?

A.L. Yes, I'm trying to make them...I think it's just an extension of what you do when you're a little child, at the beach, and you put the shell up to your ear...and you hear the ocean. And then you stop--you don't do that as you grow older, well you do, but you don't...your ear stops doing that because you've got to think about other things, like how to make a living and how to speak to people...how to communicate, you know, verbally; so that these environmental situations, you think, don't have any kind of a meaning for you, but I think they're very important for you. I hope that buildings get built that the sound situations are very, very important, I mean, that the architect takes that in to account and makes people who go into the building enjoy themselves...because of the way the sound is, I mean, you know, when you go into a place and you talk, some places you feel you want to talk, because your, because the way the space is...your speech sounds good to you. I know when I teach in a particular room--I've been in that room now for a long time, I always talk, I always lean to one part of the room and talk under that, because there's a funny echo effect, and the way--I don't know, I can't explain it architecturally, but my voice seems to sound good at that point...so you want to talk--you feel like talking--your voice is very low, and it's very resonant. I think socially, now, since the population's getting so big, we have to talk about those things, I mean, architects have to start to do that, you see, because they make, like, a mall.... It's very

funny; they built a mall in downtown here--the Prudential Center--and they forgot about the wind--they just didn't think about it; and they had these long alleyways--just beautiful--but the wind came through and people got pushed over. So they couldn't sell the space, you see, they had all these store fronts, and people wouldn't want to put their particular store there, because the wind was so bad...well, they had to change that, right?...so that they could.... Well, they should do the same thing with sound, so that cars would go to certain places, so that they wouldn't interfere with--I don't know, I mean, I'm interested in that kind of thing, and I think by having a piece like this, where you play with it, I mean, it's not serious, in the sense that you're using little objects with sounds in them; but you make people aware, I hope, you know, if they're--if they perceive right--that these environments do alter these sounds, and I hope people go out into the world outside and begin to experience things like that.

D.S. Is there any relation...do you feel any abstract relation between the first version of Chambers and the last version...and the ones in between...is there one thing that's carried forward--one thing that's the same in all of them?...or do you even think about something like that?

A.L. I didn't think about it--except I thought that the first version was just a "practice" version--or just one version of the piece, I mean, I think I say at the end of the piece that you could conceivably make it with just one particular environment...like you could go into the ocean and bring sounds into things and see how they sound...I mean, that could be a whole other piece. Actually, a person suggested to me that that piece could be--could teach a

whole semester--that you could take that piece and have students exploring sounds--environmental sounds--with that particular piece, the whole term. Like they could use, I've used things like parks, and houses, and tunnels, and caves, and stills, and bottles, and beds, and, I mean, it's so big I just let my imagination wander as big--as large as I could...so that I keep doing the piece and change it all the time.

D.S. I guess that's about all.

A.L. Is that all?

D.S. That's really fine.

A.L. Okay...I think we got a lot in--I got a lot of it in.

ALVIN LUCIER
MUSIC DEPT.
7 MILES AVENUE
347-2866

I AM SITTING IN A ROOM Interview

D.S. What's your attitude toward playing tape in performance...making a performance out of playing tape?

A.L. I was always against that, well I wasn't always against it because...all of us who made pieces in the electronic, with electronic, with electronics--started with tape...because tape enables you to play with sounds in a particular way that I don't think any other medium enables you to do. And...we all started in tape studios because that's what there... when electronics was in the air that's what was going on. But you soon get very tired of that because people are more interesting than tapes. And...outside is more interesting than inside, if you know what I mean--I mean I would prefer to spend a day outside in environments with people, or in auditoriums, or in schools, than to spend it cooped up in a studio...in some small studio space. And...being an old performer...I feel as, I feel that live performances are more interesting than dead performances. So tape was, tape enabled us to discover things about sound that we had hitherto been unable to discover...but that prepared us to go on and do more interesting things in the live performing situation... which is a more, which isn't as safe a situation as making the tape because in a live performing situation electronic devices break, break down, and things don't work--the wiring doesn't work--but we always kept tape as a way to store sounds...

which we could bring into a live performance situation, I mean if you had to store live sounds to bring in. Now...this piece we're talking about now, I am sitting in a room, it wasn't, I didn't choose to use tape, I had to, I was forced to...because in order to recycle the sounds back into the space again and again, I had to have them--and the only way to have them in this situation, was to have tapes. I mean, in other words, record my speech or whatever sound I felt like on a tape, rewind it, play it back in--so that tape wasn't just a place to...compose the sounds, but...tape was a tool, tape was...the conveyor of the sound so that I could send them back into the space again and again--without tape I wouldn't have been able to do this version of the piece.

D.S. In other words, the piece never reaches performance until its, until its...until all the generations of the original, of the original statement "I am sitting in a room" and what follows are played back all together.

A.L. Right.

D.S. There was never...when you worked on materials for the piece, there was never a moment until all those generations had been spliced together that the piece was complete...it's only complete in per-, in, when you play the whole thing.

A.L. Well...yes, that's a funny thing because...if I had consulted an engineer about this he would probably have found

a way that I could get the end result in one process, one fast process, or one generation. Like there are ways to talk in a tape machine and by-pass certain erase heads...or things like that...or making a particular loop, a big loop, which could very fast get the end result that I did get--but what I was interested in was the process, the step-by-step slow process of the disintegration of the speech...and the reinforcement of the resonant frequencies. We went over to Polaroid because my wife, as you know, did a visual analogue to this with a Polaroid snapshot which she then subjected to reproductive, a reproductive situation where she would make, where she would reproduce the original, reproduce the reproduction of that and so on; and the director of the art department at Poloroid said well, when he saw the end results said: "Well, I could do that in like one step". He didn't, he just didn't understand that what was what we thought was particularly interesting about this process, this particular process was showing the gradual process itself...that takes a long time...and takes a sort of mechanical process to bring about.

D.S. You've also discarded one of the values of accurate tape recording...

A.L. What?

D.S. ...namely that by, that by reproducing the thing so many times, all the parameters that manufacturers strive to

achieve in their tape recorders like accuracy and fine frequency response are destroyed by playing back in the room--you're not using the machine in exactly the way it could best be used according to the manufacturer.

A.L. Well, I don't agree with that...because the machines, you see...people sometimes don't understand the process that I've employed--they think that I re-record the same paragraph, or speech, that is, I record it from one tape machine to another, and each time a recording is made the quality of the copy degenerates a little bit. But it's not that at all, it's playing the speech back into the space, in other words, the air, the signal goes through the air again...it doesn't go through an electronic cir-, I mean, it's not reproduced electronically, it's reproduced acoustically. So that we did use very excellent tape machines...and, on this particular version that I made at the present time I made fifteen generations, of the same speech, and you don't hear much...distortion... or you know, disintegration of the tape matter--in fact, the machines did do a very good job of maintaining it...it's that the space does the...destroys the speech...the air, the air destroys the speech.

D.S. What I meant to say was an engineer...would probably say you've done a really poor job of reproducing the thing, when of course, what you had in mind was to get out of the machines...was to get the material into a new area on its way

to being regenerated.

A.L. Yes, I think I understand what you mean.

D.S. How did you...how did you get the idea in the first place?

A.L. Well, I got the idea from a friend of mine, Edmund Dewan...who is a very interesting physicist, who collaborated with me on my brainwave piece in 1965. And he had gone to a talk on speakers...given by I think a man named Bose, who designed a particular loudspeaker which takes into account... just exactly situations like the one I'm trying to work in. And he heard examples of...instruments being played in the space, again and again and what happened to them, and he told me that it might be interesting if I experimented along those particular lines which I did and...I tried to find the most direct simple way of bringing this about...when I say that, I mean I didn't try to program a wide variety of speech sounds for example, like you might find another composer doing... who would like invent a lot of interesting sounds to make a piece out of which if you recycled them, in the space, you see the space acts as a filter...and it filters out all of the frequencies except the resonant frequencies...

D.S. And it reinforces those.

A.L. ...yes, right, now I considered composing a wide variety

of sounds to put into the space, to get a very interesting wide variety of resonant frequencies--or to see what would come from that but...I didn't, I tossed that idea out because it was so similar to so many other ideas that composers have when they make pieces on tape with speech...and, since I've been acting in those Dr. Chicago films...and have started paying attention to my particular peculiar speech...the things about my speech which are original to my speech and...don't sound like anybody else's speech, I mean, you know I'm a stutterer...I thought that I could use the electronic situation... along with this phenomenon of resonant frequencies in a room to iron out...or to smooth out the complex speech sounds that I get because I do have a speech impediment...and that, instead of trying to invent interesting speech sounds, I discovered that I have interesting speech sounds anyway, and I don't have to invent them. But of course I have invented them when you think about it...a person who stutters or who has a lisp, or who has an accent, well no, well let's say a person who stutters or has a lisp, he invents that, I mean, he makes that... it's not put on him from an external source. So that...I thought to myself I already have built in, to my speech, interesting enough characteristics so that I didn't feel the need to artificially invent some. And I always like, when I deal with electronics, the situation as personal as I possibly can--in the brainwave piece...I really wasn't interested in what the frequency of the brainwaves were, what the formant

structure was...or anything like that--I was interested in the fact, in the performance...fact of one man, sitting alone, producing sounds without having to move...and employing high-gain amplifiers to bring this about, to bring a very personal thing about. Of course everyone in the audience is in touch' with that because they have brainwaves too. Now in the speech piece, while not everybody stutters, I think everyone has a certain amount of anxiety about speech--and I've met a lot of people who I don't think stutter but they think they do. Bob Ashley, for instance, thinks he's a stut-, thinks he has a speech imped-, a speech problem...which I've never been in on, I mean, I don't--I wouldn't have thought that he did... but, if he thinks he does, that's an interesting situation... and if he thinks he does, than I think a lot of people perhaps think they do...and, in that case, I would feel that I'm...I'm in touch with people on that particular plane. It's like if you write a song and you talk about death, birth, or romance, you touch people because they think about that all the time...and in most electronic compositions that I hear, or experience, I often feel that composers are out of touch with that personal contact...and I want to use the electronic part...simply as a particular means to touch the people, in the audience. I don't care particularly much about circuitry or things of that kind--I care about what electronics can do for me to help me touch people, like that. That's why I want to write a piece for the phone...because people call on the

phone all the time...people have terrific anxiety about calling and answering the phone...on the other hand, they find the phone very very valuable to call people that they want to speak to. On Eastertime the phone lines are jammed because you want to call your family...and, I'd like to make a piece for the phone. So that, I'm not as interested in these resonant frequencies of spaces in a scientific way as much as I am in opening a secret door...to...the sound situation that you experience when you're in a particular room...I want to evoke the ideas of a particular room. If you sit in a room, and you talk in a room, to friends, and you drink in a room, and play recordings in a room, the size and shape of the room has all, has a tremendous amount to do with how you hear the sounds...and...it's like, I feel as though I'm in the same situation as composers felt when they first started perceiving overtones...I mean, overtones are always in pitch, if you sing a pitch there are always a whole series of overtones...but musicians didn't, weren't--musicians were always aware of them... I think, but they didn't have, they weren't as, weren't defined until someone really discovered that overtones were in fact a physical phenomenon. And then the whole question of western polyphony was explained by the fact that, for instance, the simple triads are the replica of the most simplest overtones as they occur--the octave, the fifth, the fourth, the third, and on up. I feel almost as if we're in the same situation but we're just beginning to perceive that in spaces,

a pitch very...very definable, and observable, very perceivable pitches...are in spaces, that we never believed...that we were, we always have been aware of...but we couldn't define...but now, it's because we have these electronic devices that enable us to discover, overtly, this thing...and, I'm very pleased to be in on these first experiments. But, I'm primarily interested in evoking the reminiscence of a particular room...that i've been in...and I have a secret feeling, well like I did a version of this piece in the Brandeis electronic studio...which is a very small room, filled with electronic equipment which I didn't ever feel very pleased to be in...and the resonant frequencies got reinforced after like the fifth or sixth generation because they're, the room was very bright, and the walls, one wall was a complete plate glass window. This version that I just did here in my apartment I enjoy a lot...because it took a longer time to achieve the resonant frequencies--I think due to the wall-to-wall, the wall-to-wall carpeting...which is very strange, because when we came into this apartment we didn't think we wanted this wall-to-wall car-, stuff...because for us it was always a sign of being bourgeois...but we've learned two things--one is if you do have it, people enjoy sitting on the floor, and after some evenings we've had here, people have even gone to sleep on the floor, which they wouldn't feel like doing in a place like the Brandeis electronic studio...and two, the carpeting and the drapes on the wall which we didn't enjoy

much either, it cut down on the production of the resonant frequencies, and it took a longer time to achieve them, but it made us, it gave us a more interesting result. So you see how doing processes like this can change your mind about things.

D.S. It's interesting that the personality of the room is what irons out the personality, you know, the peculiarities of your speech.

A.L. Right.

D.S. You thought about that beforehand?

A.L. Well, yes...I thought about it...what I'm doing at the present time is experimenting in other spaces, in other rooms... like, for instance, I'm not quite sure but...didn't we get a different set of intervals, pitch intervals, in the Brandeis studio than we did here in this room--do you remember what... they were?

D.S. It seems to me that we got two sets of fifths...in both of them; but they were much more complex in this version.

A.L. Yes...you know, tunes start too.

D.S. Yes.

A.L. Did you notice that tunes seemed to st-, you know, to come in. What interests me also is that while the speech

gets destroyed, you don't ever destroy the rhythmic aspect--I mean, you can always hear...the rhythmic as-, the articulation...of the room, by speech, and...I'm just dying to try it with other people...people speaking different languages for example...where the, you know, where the speed and the articulation and the accent, accentual qualities change. What I would want to do sometime is send a set of instructions to friends of mine in other parts of, you know like in Stockholm or in Japan and so forth and have them do the same thing. Also what I would like to do is to carry the process further and further. When my wife did the visual thing, she took a picture of the same chair that I sat in when I made the tape, here, and she subjected it to, you know, the Polaroid process fifty-two times. And it was very interesting because we put into the reproduction process an error...a slight error, so that every time she made a copy, it would en-, it made the image slightly enlarged--but of course the picture stayed the same, so the image began to move off the particular picture. And there was a dark shadow behind the lamp...which stayed on the photo-, which stayed on the reproductions...and finally the fifty-second reproduction is simply black, which is the whole--the shadow behind the lamp grew until it took up the whole image...and of course a lot of dirt started to get on the images, on the reproductions, so that at the end, what you think you see is the star map, it looks like the star map...and indeed, a friend of mine who was at one of the

performances who I hadn't talked about this to came up and said towards the end it looked just like Job's Coffin...which is apparently a part of the stars.

D.S. Is it an extension of the idea of personal...personal relevance, that you chose the particular text that you chose to use?

A.L. I wanted to choose a text that wouldn't be "arty"... that wouldn't, I mean, I, one of your first impulses is to find an interesting text--Joyce, for instance, I've been looking into Joyce like everyone is nowadays...and to use a text from Joyce or from somebody like that...but, I didn't want to--it's like the bat piece...I didn't want the input to have... much of interest about it...semantically...I wanted the interest to come in the speech peculairities, which I have--and of course I want other people to do it too because everyone has interesting speech...I, there isn't anyone you meet who doesn't have interesting speech...and secondly, I wanted the process to do the work...and the space, the room space, to finish the job. So, I wanted the input to be as plain as possible...so, what I did was explain it--explain what I was trying to do--so that it wouldn't be...so that...the people who were in the audience could hear, could understand what I was trying to do...and so that the explanation would be really built into the piece. But you'ld be surprised how many people come up to you afterwards and don't know what you've done...

they don't pay attention to what you've told them. The paragraphs were repeated fifteen times, twelve of which are pretty understandable--and still people come up to you and say: "How did you do this? Did you use electronic distorting devices?"... and so forth.

D.S. Do you consider that statement a score of the piece?

A.L. I'd kind of like it to be, but I don't think it's complete enough. I think it's a score only to people who are very very bright...or who have done some work in this kind of thing...I mean, if I sent this piece to a composer who worked in electronics I think he would understand...but it's not publishable, I mean to the general...general audience--so I have to think up a way to make it so.

D.S. Do you think a score of an electronic piece is a different...a different animal from a score of conventional notation?

A.L. I don't know, all I do know is that I would like--the only reason I would want to make a score is so that other people could do the process...so that other people could have the experience of doing this in spaces of their own.

D.S. Yes, so you'ld include information as to how you used two tape recorders?

A.L. Right, right...yes.

D.S. I guess what I'm interested in is how far your idea... about the piece extends into the mechanics of...achieving it...in other words, if someone else uses one of the other things you mentioned like a loop...is that doing, do you think that's doing this piece or is it a new...

A.L. Well, I think it's an idea...and I think it's, the piece is subject to a lot of versions. Actually, I'm supposed to do this in Japan, at the Pepsi pavilion...which is a big pavilion, and it's got a big dome in it...and, it has a lot of tape machines and a lot of speakers and a lot of microphones... so I'm going to try to figure out a way to do the piece in like live performance version...where I would have people talking--and this continuous replaying of tapes and recycling of the speech into the Pepsi pavilion would constitute a live performance...so that I've by no means decided fully on how it should be done. I also, I must admit I enjoyed making a tape, and Mary made a set of fifty-two slides, so that we have a portable piece, a very easy to perform piece that's twenty-two minutes long, that's tape and slides...and I rather enjoy that because now most composers are going against tape... they're jumping on the live performance bandwagon...and I enjoyed going back and making a tape piece.

HARTFORD MEMORY SPACE Interview

D.S. Perhaps a good way to start would be to ask what "memory space" means in the title.

A.L. Well, it's an awkward title...because it's just putting together three words...three ideas that I was interested in... one was the idea of space...which, in which case I was interested in...not so much articulating space in the way that I did in other pieces like Vespers...and Chambers; but in going to a space, outside or inside, and observing it, as completely as possible, and imitating it...in much the same way that certain insects and animals ape or imitate the environment that they're in...in order to survive, in that environment. The word "memory" was used because I was interested in having the players go to the space and try to remember it...in other words go out into the space and then when they come in to play it, they would have to remember it. And I was interested in the time delay...the lag between when they actually observe the sounds in the space and when they came into the performance...to perform these sounds; what would happen in the meanwhile?...what events or what experiences the players could have had or did have, that would change or influence or alter...their perception of the original sounds in the space. And the first word, first word "Hartford" was... well it wasn't actually the place that the piece was played, but it was the town--of course the piece was played in the town of West Hartford; but I decided to use the word Hartford

because...I don't know, it just sounded better--and I remembered having...an experience in Hartford when...Takahiko Iimura and I did a performance at the Fine Arts Foundation a few...some time ago...and we had parked our car on one of the main streets and...and it was broad daylight, it was the middle of the day, and we went in a little hamburger joint to eat. And while we were eating, I took a look outside through the plate glass window at my car which was parked on the other side of the street, which had an amplifier in the back seat. And I saw a guy leaning up against the car... sort of trying to be inconspicuous--and I saw another guy down the street a little ways who, it seemed to me, was trying to keep an eye out. And I observed this guy, and he was trying to break into my car, to steal the amplifier...and it struck me that even in broad daylight in an urban environment, how...it's not benign anymore in the United States, in America--probably other places too...a situation like that could develop where...in broad daylight in view of your car, some people tried to steal something in your car. So,, I thought about survival...and how insects in order to survive...imitate...the physical characteristics of their surroundings--some of them can change their...change stripes or change their...become spotted, or change from green to brown or something like that. And...I just got an image that perhaps in order--I regarded that experience as almost being in a hostile environment...and that, somehow...the

image came to me that we might someday have to disguise ourselves...when we go into an unbenign environment, and, seeing I'm a musician, the idea was that...I would send players into environments either benign or unbenign...outside or inside...far away or rather close by; and by aping or imitating the sounds around them, they could somehow deal with...deal with a possible problem like that. Also the idea would be that to cut art out of it...to cut art out of the situation. You know, you think about all the pieces that have been composed...in the past that are...resemblances of things that happen in the natural world--you think of Beethoven symphonies where the rhythmic figures are bucolic or something like that...and how, for instance, we could think of Beethoven as taking sounds from the natural world and employing them in his own art; but of course he transforms them...he transforms them. But I was interested in asking the players to go and take the sounds out of an urban environment--well it didn't necessarily have to be urban it could have been anything else...but I wanted to cut the art out and suggest to them that they don't transform them in any way...that they don't take them as source material for improvisation for example; but that when they come back into the performance area, they as faithfully as possible, imitate as much of the spectrum of sound that they hear within a given time. And the other stipulation that I put into the piece was that they do it on their conventional instruments...which seems,

seemed to me to be a funny way of displacing things: since I decided I wasn't going to use art, or to leave the art in, that I would in place of that use a displacement factor... and that they would try to remember...as faithfully as they could the whole sound situation of whichever, of whatever place they decided to go to.

D.S. How does the artistic recreation of the urban environment...how do they relate to one another?

A.L. You mean how do the players relate to one another?

D.S. No, how does the recreated environment relate to the original environment?

A.L. Well it's supposed to be the, it's supposed to be as faithful as possible to the original...except that that's impossible because they're trying to recreate it on conventional instruments. But it's like taking something in one particular medium and just putting it in another. But I hoped that there would be certain "spin-off"...to this procedure--what I mean by that is I hoped the players would extend their technical resources...that is, extend what they knew about, or what they were able to play on their instruments...I mean, if a 'cellist was trying to imitate a tire wheel, the sound of the tires of an automobile, she would have to, for instance if she thought there was a predominance of high harmonics, she might decide to play sul ponticello

or in some strange...some other strange way, than she was acc-, than she ever played before--then...she would have found something out...both about what the sound of tire wheels sound like, and also what she can do with a bow and a string. And I thought that was a...you see, I was asked to provide a piece to a conservatory, to students at a conservatory, which pleased me very, which pleased me a lot because it had been a long time since I had written anything for instruments...and I thought it's too bad, you know, to be a composer and to have all these young people that want to play their instruments, and that I would not have anything for them to play. So I thought to compose a score in the traditional sense, for me was out of...I mean, it wasn't an interesting project for me...but this was...and...I was thinking of all those, I was thinking that players, good players, like to play difficult things...if you're a good player, you enjoy having a difficult task and that this would be an impossible task; but the tendancy to approach fulfillment, you know complete fulfillment, even if you only did partially, was an interesting thing, and a hard thing that I thought these young players might find interesting.

D.S. If they were...they don't play in the urban environment do they?

A.L. Well, now that was another version of the piece that I had thought of. The town of Hartford...for some reason

that experience I had with the guy trying to steal my amplifier...every time I read about a riot in Hartford...for some reason a riot in Hartford to me is more...is more scary, in a certain way, than having a riot in Cambridge, or having a riot in Philadelphia, or Chicago even--don't ask me why. It's like on Sunday morning when you go to Hartford, the downtown is empty...and...because of the buildings that the state, it's the state, it's the center of the state...and there's something about the downtown in Hartford...that twice as much as any other city that you read about that...people are trying, you know, to get out of the center of town and going to the suburbs... and the center of towns are beginning to get rundown. And for some reason, it strikes me that the city of Hartford shows that more than any other city that I've ever been in--but I'm sure it's not true--I'm just, I don't care whether it's true or not, it's my remembrance of it. And the image also reminds me of that scene in <u>On the Beach</u>, the scene, that film about the atomic holocaust, where...the end of the movie you, it shows...I think still pictures of downtowns of the major cities of the world and they're empty...and that Hartford downtown, somehow to me is the emptiest of a lot of the cities I've ever been in. But I don't mean to in any way to disparage the city of...that particular city, it's...it's just my image of it--an artist's idea of what he thinks about. So anyway, my idea was to somehow...by sending players downtown...to somehow...deal with that downtown that I,,that disturbs me,

disturbs me a little bit. And the first thing I did was to have the players come back and play the piece in a performance situation--but I have another idea which, if I ever publish a score of it...would be to send players downtown and to have them play...downtown, I mean, have them play actually...in the environment, but to try to make themselves...to provide themselves with some kind of camouflage...so that they wouldn't be...conspicuous, in the environment. For instance, if you went down the street and you had an instrument, if you tried to make your sounds blend in, with the conversation that was going by, the business activity, the automobiles, all that kind of thing--if you could make yourself blend in sonically, so that people would pass you by--that was an idea that I had. I also had an idea that, for players that were rather brave, to go into an antagonistic part of town, for instance white people going to the black part of town...where Blacks would be known to be antagonistic to Whites, for instance--or Puerto Ricans--or vice-versa--having black musicians go into like white suburban areas, where...I remember I went to visit some... a rich friend of mine in Palm Beach...and when the sun went down, a friend and I were going along the street and a police-car would stop us...and ask us who we were...because it was a very rich part of town, and if they didn't know who you were they were afraid you were going to steal something. So it's not just white and black, or...it's just like...property--people with property and people without property, and how you're

afraid of people that you don't understand. So the piece has a sort of a social idea, but not a very well-formed one--I mean, I don't think it's going to cure anything--but it could... I mean, just imagine if you sent, into a very bad area that might have an uprising, supposing you sent in one hundred young musicians...and they went in the streets and just played, and tried to be inconspicuous...a certain something might happen--it might be a very...beautiful social situation--supposing if the police were patrolling that area and a whole lot of musicians went in and began to play...I would hardly think the police would want to injure them, or even the people that would resent them might not resent them. Because everybody... everybody, I think--well not everybody, but I think, almost all people...don't feel...uptight...or impinged upon about... against...don't feel threatened by somebody that's playing a musical instrument--I mean, you can't injure anybody with a musical instrument--well you could, if you were to get angry--but, I mean, it's benign, it's a benign instrument, it's a benign object, and I don't think people would feel badly about you coming into their territory.

D.S. If they felt it were a compliment that you were imitating them--but some people...a way to annoy a person is to... imitate what he's doing...what about that possibility--especially if you were trying to imitate someone's conversation on a clarinet or violin...what would they think about that?

A.L. Yes, I suppose that could be annoying, but...

D.S. But that's the thing about being inconspicuous right?... you don't want to let somebody know that you're imitating them, you're trying to fit into...

A.L. Yes, I remember, I spent some time in Italy, in the city of Rome...which is a city that I never felt, for one minute I never felt afraid of going out into an evening, or even the middle of the night. One can walk anywhere in the city of Rome, anytime, without being...at least that's the way it was when I was there...without being the slightest bit afraid about being attacked. And it's also interesting that the city of Rome has a lot of street musicians...now, I don't know whether the two situations have anything to do with one another...I do know that in the restaurants, in Rome, street musicians are almost always free to come in and out, except if a particular restaurant has its own set of musicians, then they can be rather mean to incoming musicians; but generally speaking, street musicians are very welcome...and, I rather like that situation.

D.S. There's an odd correspondance between the artistic event and the urban environment--if you think of the urban environment as the threatening place...

A.L. Right...

D.S. ...the artistic recreation of the environment is gone... when they perform the piece.

A.L. Right...

D.S. So the artistic situation must be...

A.L. Yes, but you don't have to have the, you don't need the camouflage anymore...

D.S. Right, because it's a friendly place...

A.L. ...because you're in a concert hall...or you don't have to be in a concert hall, you can be in any other place, yes.

D.S. How does the composer fit into this whole thing?

A.L. Well, I told the players that I didn't compose terribly... I mean, I didn't compose it a lot...I just suggested things for them to do; and--because I didn't want to interfere with-- I mean, my ideas about composition don't have anything to do with the environments that they went into...and if I had composed anything it would just get in the way...and also, I had to warn the players against improvising because if they started to improvise, that would get in the way, and I didn't want anything to get in the way.

D.S. How accurately did you...are the other players supposed to recreate what they heard?

A.L. Well now, that was the biggest problem, but that's what interested me the most--well no, it didn't interest me the most, but it was a big part of the performance...I envisioned the piece for some future date...or I could imagine the piece being played in some time to come, when people's brains would be more developed than they are now and they could remember...all the audio events that happened. For instance, the player goes out and sits on a street, on a particular corner for an hour, and he tries to remember every sound event that occurs, in order...and if he had a perfect brain, he could--of course we can't now, some people have better memories than others, but it would be inconceivable to expect a player now to remember an hour's worth of sound phenomena...because there's just too much going on...but I give them two alternatives--one was to try that...you see...and to sketch it down on a piece of paper, or to make some kind of visual sketch... or to go several times to the same place and get a general idea...or to...concentrate on a...on just a few events, in other words to try to focus on just a few events...of course, I really would have been pleased if they could recreate the whole thing. Or the other alternative was that they could record these events with a tape machine...then come back to the concert hall, and with earphones on, use the tape as a score, as an audio score...in other words, the player would play his instrument by imitating to the tape which he hears through the earphones. Because it struck me that tape is now

memory...I mean, we use tape in place of remembering things--like books, books are ways to remember, things too. A tape is like...you can store information on a tape just like you can store it in your brain, only it's always accessible... it's more accessible. So the tape...thing, for me, was a substitute for using your brain to remember something.

D.S. It seems as though the arbitrariness of recreating--well, in the urban environment, to remain inconspicuous, you'ld have to recreate the sonic situation as accurately as possible.

A.L. Right.

D.S. Now if you strip away the urban environment, and you... and you're suddenly performing this in the concert hall...

A.L. Right...

D.S. ...it's actually a visual thing too--you take away the buildings and everything and what you have is a clean white concert hall.

A.L. Right.

D.S. Is that an example of the arbitrariness you...of letting the process work itself out? I mean, to be completely accurate, it once had a real purpose, in its original environment, and now, to be true to the piece, you remain true to that purpose--of trying to recreate everything exactly. Does

that ring a bell? Does that sound like...

A.L. Well...

D.S. ...because you talk about letting processes work themselves out.

A.L. Yes...I don't know. Actually, we didn't play the piece in a concert hall, we played it in an art gallery... where an artist and his students made an environment...which was, the objects of which were taken from the urban environment--although he wasn't doing what I was trying to do. I guess I sort of wanted the players to learn something; and I thought that if they all played--it would be like taking a look at a map; the map isn't the real thing, but if you take a look at a town, you see streets and how they move--how they go, and corner--street corners--and so forth...and each of my players had gone to a certain, a different geographical place in the town, so that, when they came into the performance and played everything simultaneously, it was as if you had a composite--as if you had a map--a sound map--of that environment...and that...the sounds that the players were playing should evoke, for the audience, a displaced remembrance of what the downtown is.

D.S. Do you expect the audience to feel differently about the downtown after hearing the piece?

A.L. Yes...yes.

D.S. Are they experiencing the downtown in some way when they hear the piece? Do you think that happens?

A.L. They're hearing it once removed...somewhat like a copy--somewhat like a photograph is a...an image of something--a more or less faithful image of a real thing--although the photograph is a real thing too. The performance was a real thing too--it was a piece...I mean, it was a musical event.

D.S. In what way do the performers and the audience share the experience? Are they sharing the same experience, or is the, or are the performers telling something to the audience?

A.L. I don't know about that...I was concerned that the performers didn't share anything between them--I mean among themselves--since they weren't supposed to improvise and since they weren't supposed to...when you improvise you can respond to things in the performance; but, I asked them to just stick as closely as possible to their...remembrance of the environment. So I, in a sense, isolated the players from one another... it's as if each of them were on an island...but that the audience could see all those islands--or the islands could be parts of the town, like street, like places in the streets... and that the audience would see that as a composite thing of which the players were only a part. Although I'm sure that even though they tried to play it as faithfully as they could,

I'm sure what the other players did influenced them in what they did...because nobody's absolutely perfect...and players are influenced by things...and that situation I find all right too.

D.S. Then how social is the idea of a performance...of Hartford Memory Space...in what way is it a social event... if the players are separate from one another in what they do?

A.L. Well, they do come, they do get together...and they each have a part...in a big thing...and people come and witness what these performers are trying to do...and the audience can go from one performer to another, so that it would be like walking down the street...you go from one street to the other and you hear different things at each street. And if I ever made a recording of this piece, I would take the microphones and I would have handlers of microphones walk around from one player to another so you...you would be able to visit one player who represents one part of town.

D.S. Did Ives' music have anything...did you ever think about Ives?

A.L. Well, I always, I often think about Ives--the only... it was, it's somewhat like Ives' piece with the bands, you know...

D.S. Yes...

A.L. ...in which both bands march down the street and pass one another. And of course, pieces like Central Park in the Dark, and The Housitonic at Stockbridge...but they are programmatic pieces...they are...the art is in those...the idea is to, not exactly imitate but to give, to give the imp... to give an artistic impression of a particular place; my idea is to cut that art out, and to just have the direct imitation.

D.S. Well, that's probably true in the...in his impressions of the place, but the two bands are really bands.

A.L. Right.

D.S. So that's...

A.L. I see...

D.S. ...if you had bands marching in Hartford...

A.L. ...right...

D.S. ...then they'ld have to--that's an idea--suppose they hear music in the environment, do they try to recreate the music? What kind of music do they make out of music?

A.L. Well, we had the problem with speech, with conversation...the players said: "Well if we hear people talking, can we talk?"...but my idea was to have the conventional instruments do the work...so that it...so that that would be a problem. I, the idea of what is conventional on an instrument

came into play too, because what is conventional on an instrument changes all the time. Players now use electronic aids... in performance--but I didn't want them to do that because so much of the environment is electronic...I didn't want them to use the same particular, the same, I didn't want them to employ the same medium to give the results, I wanted them to use--I think what I wanted was to use--I wanted them to use an obs--what I think is almost an obsolete...state of affairs...and that is the instruments of the nineteenth century orchestra. I wanted to find a way to put those in my art... because I regard them as passé...and so many electronic composers that I don't particularly admire...imitate instruments--imitate more or less conventional instruments with electronic devices, that I think I was thinking of reversing the situation... and having players imitate an environment which is pretty much electronic, or at least mech, electronic and mechanical... by playing that on their own, old-fashioned instruments.

D.S. You're not trying to imply that people...can't survive in the urban situation with their powers of speech...because you've taken away their powers of speech.

A.L. Well, if they imitated speech by speech then there wouldn't be any displacement of any particular medium...and... I wanted to be, to have to do with that...with imitating one set of sounds with another set of sounds. And the fact that I'm imitating a contemporary, present set of sounds, with a

group of instruments that are old...was sort of a parallel to having the players go to a place and then having a time, a lag in time also, between their observation of the sounds and their performance of them. In both cases, it was a question of time delay...and a delay in, but the delay in...the... materials that they had to use, was time delay, but reversed.

D.S. As an environmental piece this...you mentioned at the beginning that you weren't trying to articulate the environment with performers...in this case, it seems as if the original purpose of the players, in the urban situation...and that translated to the concert hall, or the muşeum...the players try to become that environment.

A.L. Right...right. I think it's the old story that John Cage used to tell, about the prehistoric man, who when he was afraid of an animal...drew pictures of the animal on the wall...thereby in some way controlling--if not controlling the animal, controlling his fear of the animal. And if you can have players who, almost every player says he doesn't find enjoyable...the sounds of downtown, if he...I think by the end of this experiment that we tried, the players all enjoyed more environmental sounds because they had to take them seriously, and they had to deal with them by playing them.

D.S. It's a very, it's a brave way to deal with sounds...

A.L. Right...

D.S. ...it's an active way to deal with the environment...

A.L. Right...

D.S. ...you get to do something, you get to be a part of it.

A.L. Right...instead of saying: "Oh, the streetcars make such a lot of noise." Because, I think, so often musicians who do play old instruments like that, like the violin or the 'cello, are so precious about their ears...they think their ears are made for the special events, such as symphonies and string quartets...which were composed in a time...which we look back on with a certain amount of sentimentality. They were easier times, we think, and they probably were; but we have to help one another...today...and I wanted to force these players into doing something more...doing something with their instruments to aid the situation, to aid the horrible urban situation we have.

D.S. Is that a reason for the non-threatening atmosphere of the artistic environment...as if the players had gone through an ordeal in the urban environment, and then are helping the listeners by telling them about it?

A.L. Yes, I suppose so; but when, I guess when I think about it that's sort of awkward, that's sort of...not a very

brave thing...

D.S. That's what I was going to ask about.

A.L. ...to do, to go and observe an environment and then come back to your school...

D.S. But it's a way of helping people.

A.L. ...and play. It's a way of helping people, but I think ultimately the most potent and interesting way the piece could be played would be to play it right in the environment itself...even...even at the risk of one's...personal safety.

D.S. Perhaps this version of the piece implies that other version.

A.L. Yes...I don't know, I mean, I did this for a school and...it was supposed to be played at a festival at a certain' time...but, it can't go on anymore, that we isolate ourselves from people...and we can't go into a certain part of town-- I mean, there are certain parts of town that I'm afraid to go into...and that's an absolutely...impossible state of affairs...and it can't go on.

D.S. In what ways do you think composition relates to music...using any definition of those terms that you'd like?

A.L. Well, when you think of the word "compose", or "composition", it, you know it really means putting things toget-, together...and it can mean putting any things, you know, together. And...if you put sounds together, or even if you put one sound...all alone--I mean it doesn't have to go with anything else...then you, sort of make audible... something...that wasn't audible before you tried to make it audible; and it could have come from an idea about what you want to make audible or it can come from, it could come from just a sound, or a set of sounds that you are, that you know about that you want to make audible...for your own self or for others...and even if you don't have to make it, make anything audible, but if there are already audible events, and you are perceiving them, or you could think of perceiving them, then you could call that music.

D.S. What would happen if the ideas that were the basis of a composition...what would happen if they didn't seem

to correspond to, if they didn't lend themselves to audible exposition? What would you as a composer, say, do in that situation? Or what would happen if you couldn't think of a way to make, to use your ideas in audible terms?

A.L. Well, then you, then you'd do something else. You could print them, or you could talk about them--or you could imagine a kind of a...you could describe an...what's the word?--an imaginatory?...no, is that the word?...situation where this, where this, these events or ideas could be audible. I mean the only, the only reason that they, that you could consider something inaudible is if it's outside of the audible spectrum...of whichever being is perceiving it. In that case, I suppose that scientifically speaking, then it's something that's not available to us physically. However, it could be the case that we could by-pass our ears, and send signals to the brain that might be understood as...for instance this device that we're going to buy from Listening called a Neurophone, is a device that can send audio signals by-passing the ears, and it does so by sending the signals through the nerves, and I suppose if it sends signals through the nerves, and by-passes the ear, then you could send signals into the brain that go beyond the normal range of audibility.

D.S. Could you ever conceive of yourself, as a composer, not liking the audible form of your ideas?

A.L. I can conceive of that because the reason I wouldn't enjoy the audible--that which occurs in the audible part of the spectrum--is that it occupies such a, like, it occupies such a like, it's an, let's see, it's below... it's the last range or the lowest range of wavelengths; therefore, because the wavelengths are so big, it...and compressed within such a skinny range, it doesn't, it can't provide as much information for us as those wavelengths which occur up in, beyond that. For instance, any animal that employs sound for orienting itself--you know, echo-lo--you know, the business of echolocation--we've discovered that they have to operate in a spectrum way beyond ours, because, in order to sense small obstacles or small objects, you need small, you need very small wavelengths; so that I could conceive a kind of an information-collecting... piece or idea...or...I might think of a...an imagined set of situations that would require high frequencies which would mean smaller wavelenghts. I'm thinking about a piece which would use a, maybe a computer, which, in which I would simulate an environment, o.k.?, like a room; and I would describe the space and the length and the breadth and the width of the room, and then I would...I don't know quite how I would, how I would go about it, but I would want to...put into that room a simulated frequency situation or a set of frequencies that, by the, by, that... would...which would activate the resonant frequency or,

well, in the room. Then I could program into the room infinite, infinitesimal objects or not objects that are not, that don't correspond to any objects that we do, that we know, for instance, or, for example, on a wall I could put four paintings which, depending on their size, would of course, in a very small teeny way influence the resonant frequencies in the room or the sound situation in the room, and then by changing a single variable, I could continuously or not continuously but either way, continuously or discretely...change the size of those pictures, or even change the amount of paint that would be on them, thereby, in a very small subtle sort of a way, change the whole situation as to the sound in the room. Or, for example, I could drop an object into the room that would be so small that the eye would be unable to see it, but, using a, using the terrific, the mathematical ability of a computer, the computer could take that into account and thereby change the...the sound situation... now all of this would be inaudible...because it wouldn't register, at all--but I'm still imagining that piece, and I'm also imagining that the ears in the room or the ear that would be, the simulated ear that would be in the room...would have to be able to hear very very high frequencies; and also I could, by changing variables, I could send the ear flying...into, up in various parts of the room, for example, up into a corner, where it would, it

could it go to a, so almost an infinitesimal part of the angle up in, say, the upper corner of the room and would hear whatever little teeny frequencies are bouncing around there; so that, you see, all of this is, would be completely inaudible and I have no idea how to make this...accessible.

D.S. Would you use whatever is, whatever you found useful? Do you have any compunctions about using something if it's useful to you, using an idea, using other people's works, whatever inspirations occur to you, or materials?

A.L. Yes, I like to use anything I can find except I do have some pride and I try to...if somebody's done something... that seems to me his own or that seems done, I mean, if somebody finds something out and in turn makes that accessible to everybody then I don't see the need that I should do it. Also I, also even though I really deep down believe that ideas don't belong to anybody, but an idea is...belongs to everybody, because you find out that, when somebody has an idea, almost simultaneously, you can find that ten other people have had that same idea. It's amazing. Bob Ashley, Giuseppe Chiari...the composer from Italy, and I all wrote almost the same composition inside of, in, within a couple of months of each other, and we hadn't, we didn't know the existence of each other at that point. We all wrote piano music that was very

similar in that it described the physical gestures of the performer, the sounds which would occur would be as residue of that, and we all wrote these piano pieces and they came out almost the same. Now if I had thought about writing that piano piece and I had discovered that Bob Ashley had already done that, I probably wouldn't have done that.

D.S. Does conversation with your friends and the people you work with, does that complicate matters in that regard?

A.L. It does very much because when you have parties and when you stay up together at night and drink and talk about what you're going to do and ideas that you have, pretty soon you don't know whose ideas...who originated the ideas. I know that the Once, you see, the Once Group in Ann Arbor... had that expeirence. They used to live, well, not communally, but pretty...they didn't live communally in that they all had their own private places to live, but they spent a good deal of every day together, and they would talk about compositions that they were going to do or just talk generally, and then the idea for the composition would begin to make sense and you couldn't really tell whose ideas it, you know, emanated from. I've had the experience of...talking to, of being in a conversation with somebody, and i'm just about to tell them about a piece I'm going to do, and they tell me about a piece that

they're going to do that's so similar that I just have to...forget about the piece--or I'm so scared to tell them about it because they will think that I am imitating them...and that's a funny situation.

D.S. Have you ever had the experience that someone's telling you about their ideas, perhaps if it doesn't relate specifically to ideas you have, can perhaps offer explanations about a piece that you are thinking of, like someone else's ideas in a different, perhaps in a different field or a different catagory can suggest new ways for you to look at your own ideas?

A.L. Yes, I guess so. I...off-hand, I can't say that I've really had that...experience except, you find analogues to your own thinking. For instance, I've just started to read about...alchemy and I don't know too much, I don't know much about it but it seems to me that the way the alchemists tried to work seems to me very similar to the way I am, I'm trying to work.

D.S. In what way?

A.L. Well, it seems as though...they, well everyone thinks that alchemists were trying to find how to turn ordinary kinds of materials into very special kind, into the philosopher's stone, I mean, you know, to the, you know...and they were like...phony...scientists; but, I

think we are beginning to find out that they were really psychically interested in things and that they were employing these materials as physical symbols with which to discover themselves.

D.S. Isn't it true that alchemists had a method of code writing and considered the group of alchemists that were searching for the same thing a very close group?

A.L. Well, as I said, I don't know terribly much about them so far, but it could be that they didn't have any other way to write their ideas down. I mean, when you think about it, what could they say? And that this code might have been the only way they could possibly try to put down their ideas...and that instead of making a group that kept other people out...maybe this was a, a very... a very interesting way to...to even approach the ideas that they were involved in. I just started to read the Aurora Consurgens, which is attributed maybe to Saint Thomas Aquinas, where, in the first part of...the particular book he strings together, well throughout the whole thing he strings together excerpts from the, oh, from the Bible, and one of the important statements that he takes from the Bible is that this kind of wisdom is found in the streets... and that it isn't anything that's kept secret, but that in fact it's found in the streets but you have to find it. And it just strikes me--maybe I'm being very superficial--

but it strikes me that most, a lot of the pieces that we're doing now, take very ordinary materials, very banal kind of stuff and by working at it and shaping it in certain other ways we can turn it into that philosopher's... stuff, do you know what I mean?

D.S. Yes. Do you think it is possible for a group of people to have, or to experience a communal idea that's more complex than any one of them could have alone?

A.L. I...

D.S. Like a performance, do you think if a composer and a group of people perform a piece, do you think that that performance could have, could be a more eloquent exposition of the idea behind it than it was in the composer's own head?

A.L. You mean the, you mean...oh, I don't quite understand...do you mean they're performing a piece written by some, by one particular person or you mean a group collaboration?

D.S. Well, it would have to be that, if the composer has an idea, unless he were to explain the idea in all possible ways that those people could deal with it--which he can't do--he has to make a small, a sort of a framework for the idea; so do you think it's possible, like a,

suppose a, if a composer is very good he could make a framework that is so fertile and so complete that when it was given to the performers they could do, they could know almost all possible ways of dealing with it.

A.L. Right, right...

D.S. So do you think that that performance could be a complete, you know, an exhaustive examination of the idea in ways that the, I mean truly in ways that the composer wouldn't consider?

A.L. I think, well I don't think it, I don't think anything can be exhaustive, but it can reach the points of that. Yes, I do.

D.S. Do you think the composer has a, I don't know how to say this exactly, do you think the true composer considers enjoyment...or do you think, a composer that does consider the enjoyment--his own enjoyment and his audience's enjoyment--is not a true composer, or do you think those are silly ways to look at the question? What way does enjoyment relate to art? Or what way could enjoyment and pain relate to art?

A.L. Well, I, it's very hard to answer. I think a lot of composers, well it's hard to really know what you mean by enjoyment. On a superficial plane there are pieces

that are entertaining and make for enjoyment--the music of Vivaldi for example. On the other hand, Bach, you certainly say you enjoy Bach, but you, really that's not the end of it; there's something much more deep and profound in the music of Bach, so that you couldn't describe it by saying, by using the word "enjoyment". I like the kind of art that tells you something that you didn't... that either you were aware of but weren't thinking of very much, or that you weren't aware of...which is why I like to keep...making compositions...and because I am interested in certain aspects of, you know...performance, or I try to find certain sound situations that people, just because they are doing other things, don't have time to explore and I try to make these sound situations accessible to them...if they want. In that sense I want them to enjoy what I've found out. It's something, I find something out and then I tell people about it.

D.S. Would you draw a distinction between, or does the distinction suggest itself between learning and education, that is compulsory education and learning on your own terns? Do you want to teach people something?--I don't think so--you want to provide a situation where they can learn.

A.L. No, I think now we have to think, I mean I, one has hardly anything to teach anybody else except it's just the, until tools are so accessible to everybody, one has

to...or one, if one, I mean I feel obliged, since I do have some experience that other people don't have, because they're not as old as I am or because they haven't spent the time on it, then I think it's still valuable that I, sort of make these ideas available to them. If we ever get to a point where these things will be instantly accessible, then there's no need for anybody to teach...anymore.

D.S. When you're dealing with, or trying to deal with materials, information--say you're learning Fortran, which you are...

A.L. Right...

D.S. ...which is a difficult undertaking, very complex thing--do you consider that sort of work painful?

A.L. No, I don't. I have, I'm a...I probably would have, if I started on it like five, like sometime ago. I remember when I first started to get interested in Fortran and it was just, I didn't have any ideas about what to do with it, and it was just a matter of I felt I ought to learn it because composers were starting to use computers in their art, and also everyone's starting to use them...and I thought I should find out about it, you know. I mean after all, it's a big thing that's occurring. It's changing the world, and I felt that I should understand what this thing was all about--but I didn't have any inspiration

about it and I find it, I found it very painful. But about, a couple of months ago, when I was, began to think about this idea that I just told you about, about simulating an environment, that sort of broke the ice...I mean, it means that I have to find out about the Fortran, otherwise I can't realize my idea, so that...it's like when you want to learn another language, it's really, you don't do it as well...in an isolated situation, but if you knew you were going to go to Paris you would be more inspired to learn it.

D.S. Of course, an audience could be in a slightly different situation if they didn't...if you had an idea...say you're using a very rigorous technique such as Fortran...

A.L. Right.

D.S. ...to present an idea, you have the idea which is what provides the energy for you to...

A.L. Right.

D.S. ...to present the piece, but an audience might not have the same energy because, because they don't have the idea at the beginning of the piece. What ways...where does that energy come from? And, as I am suggesting, if it is painful without that energy, do you think the composer has a responsibility to make the idea as available as possible, or what should he do about that? Should he regard the pain

of his audience or possible pain of his audience as a troublesome thing or should he not worry about it?

A.L. Well, when we talk about energy, the thing that does happen between a piece or a composer and his piece and the audience is this, the transfer of the energy...

D.S. Which is the ideal thing...

A.L. ...it's the transfer of the energy, it's a, it's almost the same as playing chamber music or, improvising al-, in a way, I mean you're...just pushing the energy into the environment, into the concert hall by sound, and people are in there because they have some particular need or they feel like being there...and the ideal thing is that you transfer the energy...from yourself to them.

D.S. Would you value the concert situation because it is a...essentially a high-energy situation since people have to get out of their homes and go somewhere and...

A.L. Yes, I was, you know, I was all set to go against the concert situation...for a lot of reasons, and but then these Indian programs I've been going to and these ethnic programs that we've had so many here--I enjoyed going to those concerts. I enjoy going and sitting on the floor... and I enjoy hearing people that have spent a lot of devotion and time on perfecting their art and I enjoy seeing them and

hearing them do something that they really love to do, and it's changed my idea about going to concerts.

D.S. Has it ever suggested to you that you'd like to build up in your audience, if that is a different audience, which might not be, a repository of information such as an audience familiar with Indian music has?

A.L. Yes, yes. I, yes. And also I, it would be very wonderful if more people could...make their own things. I was talking to Frederic Rzewski the other day about, he was talking about how he wanted to get back and really play piano and he was talking...in a derogatory manner about my electronic...stuff, my tape machine and my preamp and it struck me that the piano, being such a difficult instrument to play, and you've got to spend a lot of time on it and you've got to study it for many, many years, you've got to own one- is really an elitist kind of a situation although, don't get me wrong, I do want to hear people play piano; but I, it struck me that the students that I have in my elementary electronic group, my...dream is that they can all make some, make compositions of their own using tape and using electronic devices which they'll be able to learn much faster than they could all learn piano.

D.S. As a means of personal expression or...

A.L. As a means of personal expression, we could collaborate

on...I mean, the idea that I...for instance, you know, I don't really play an instrument. I don't really play a musical instrument. I always balked at studying, for other reasons though, I know the personal reasons. The reason I didn't really study piano is because my father was always such an excellent violinist and my grandfather was supposedly a self-taught, excellent organist and my own mother was a pianist and I'm quite sure I didn't study piano because I didn't want to compete with all that. So I really never completely learned to play an instrument and it's done me good because I'm not stuck like some people are in the cliches of...that you get when you play these older instruments; but I'm forced to find other new instruments such as Sondols... tape config-...tape machine configurations, things of that sort; and I find that a very good situation to be in because theoretically anybody can do that.

D.S. Yes.

A.L. And I think it's a contemporary idea, and I think it would probably mean that anybody and everybody can be an artist...and I think that's a wonderful situation.

D.S. Do you want to do what you do best?

A.L. You mean do I want to be the best at it or...

D.S. Yes, would you like to be the best composer of your

talents?

A.L. Of my talents? I guess I think of it, I guess I have a drive in that direction...except when I'm envious of another composer it generally isn't because I think he's superior to me, but I think that he's not very interesting but the way that the society is set up, he gets rewards that I don't think he deserves. But I'm quite sure I have a very strong drive to do what I do as well as I can.

D.S. Is that a, would you consider that your sense of integrity, or would you consider it something else?

A.L. Well, I would answer that it would be my sense of integrity, but I'm sure that...there's a lot of ego involved...

D.S. What about money?

A.L. ...also. I've never thought about it as anything to spur me to action.

D.S. What if you didn't have it? Would that spur you...

A.L. Well, I remember when I went into music I was, I understood that since I didn't play an instrument and I couldn't go and teach piano or something, and I, and those days I had no conception of ever getting a job in the university because I just didn't feel adaquate. I was per-

fectly prepared to live a very poor kind of an existence... and as, and it's interesting because you know comp-...what the dreams that composers have to make a living, you know, you dream, you have all these like crazy ideas about how you could have a part-time job in a library--which in fact I did do...I did all that stuff...and getting an academic job offered to me was a big surprise, but nowhere did I ever have the idea to go into music to make any money at all...that was the farthest idea from me, my brain.

D.S. Do you think money relates to social responsibility? Do you think money, if money is given to you for a job that that gives you a social responsibility?

A.L. I believe that. It's probably an old-fashioned idea, but I'm very job-oriented. I've always, if I'm paid to do a job I always try to do it very well...and I try to go with whatever job it is, do you know what I mean? I try to make it, even if I don't agree with the institution, I try to make it as good as I can as far as I'm concerned.

D.S. What other responsibilities would a composer have?

A.L. Well, I think he's one of the most responsible, he should be one of the most responsible human beings on earth. I think a composer should make, if he's composing, if he's making pieces, or even if he isn't, if he's pro-

viding free performance situations, I think he's obligated to think of them as ideal utopian situations which, if performers involve themselves in them, they will then have an idea about how society could be...and would take that idea out into everyday life. For instance if you, I would like to make compositions where players rely on other players...and don't interfere with other players, don't take over from other players. If you, that's just a very small part of what I would think about a certain situation but, the idea would be that then they could go out into other parts of being alive, you know, other domains, and act in that particular way--use it as, use a piece as a particular like a symbol or a model, of the way society could be.

D.S. What about the way society is? Say, what about aggression? Perhaps The Wolfman by Robert Ashley would, what about the aggressive nature of that work?

A.L. Well, I couldn't have composed a piece li-...quite like that. He might say that it's not aggressive but that he's dealing with amplification. I don't know, in that, of course his piece, it's a joy to do in some ways because the loud, the just the sheer volume of it does something very wonderful to your, to people's ears. It like opens them up and sort of cleans them out on a very basic kind of a level, but it also has something to do with political demagoguery, and political figures talking through amplifi-

cation devices. I think that piece tells people something about society.

D.S. Do you think it tells people about aggression rather than being aggressive itself?

A.L. Both, I think. I think it's, well, it's funny because people who have never heard the piece or people who are non-, well, non-sympathetic to that kind of thing think it's an aggressive piece, whereas I could be in the middle of a performance of that, and I wouldn't think of it as being aggressive at all. I would enjoy the sounds. I would think of it as being in an all-over...like some people don't like the sounds of planes, jet airplanes, and when I go to an airport I just, I can stand it, I mean, I don't regard it as, it doesn't hurt my ears. Everyone, people who don't like the piece say that it really physically injures their ears and I don't think that's really what they mean because Ashley is such a good soundman that he isn't going to injure anybody's ears, I mean, obviously...and that, he used to say that it's like if you want to dance with somebody--a girl wants to dance with a boy and she likes the boy and the boy has his arms around her rather tightly, she's not going to mind it; whereas if a boy she doesn't really like asks her to dance and he has his arms around her very strongly, she'd probably say: "You're squeezing me!"...so that the person that doesn't enjoy the sounds

says to Ashley: "You're squeezing my ears!"...whereas I wouldn't think of that at all. Also, he's really physic-, he's like, if you've ever had experience with academic composers, people who--well, I shouldn't use the word "academic" but--bad composers whose ideas don't get through to the physical sounds, I mean, whose pieces physically just don't sound, just don't come off...you know what I mean?...you listen to like a symphony like Beethoven's sym-, or like a classical symphony and the physical fact of that orchestra playing is just extraordinary, because the composer's mind just pushes from his idea right to the sound, to the physical sound situation, and most bad composers don't ever really get to that physical...point, if you know what I mean, it's really where it's all at, and I think Ashley was really making lops-, making it very obvious that he really was using electronics to do something which it can do physically, which is what the Boston Symphony can do, but it's not what composers who synthesize electron-, do you know what I mean?--the composers that take electronics to imitate old-fashioned things, they're not thinking of the physical qualities of sound... they're thinking of some kind of a synthetic idea about relationships and so forth. I think Ashley was really trying to say: "This is what electronic amplification can do"...and it's really a terrific physical experience to experience that particular piece.

D.S. What about composers who do adopt a system, say serial music, where they've made a conscious choice to adopt a very rigorous system? And their first, well it's a very complex question obviously because they do expect the music to be played, I suppose.

A.L. Well, it's not a question of adopting a rigorous system or not. Composers like John...you know, John Cage or Morton Feldman, for example, are very rigorous about what they do. It's not a question of not adopting or adopting a rigorous system; it's as if you're, the question is whether you're any good at it...and Webern...you know what it is?--it's taking something seriously!...it's really taking something seriously...for instance, the music of Morton Feldman. You could hear a concert of a, of his particu-, of his works and the whole concert is pianissimo, and somebody is always going to say: "Well, I could have done that, hell, anybody could do that...pianissimo, you know, that's a stupid idea." But the fact is that nobody took pianissimo seriously enough, and they didn't take it as seriously as Feldman did. For Feldman, pianissimo is a whole other environment...for him. It's like, amplifying in a funny way. It's like making everything so quiet, it's going to another planet--its really taking it very seriously--it's not a gimmick. When Stockhausen, for example, says: "Oh, Morton Feldman has pianissimo, therefore

I'm going to take pianissmo and I'm going to put it in a piece of mine", he's not taking it seriously, he's taking, taking it as a gimmick or as one little item to stick in a piece...and composers who have imitated Schoenberg and Webern, by using serial techniques, only a very few really took it seriously enough...and it's like Andy making pop art using the beer can. People are outraged about that, but when you think about the beer can, I mean, anyone that drinks beer enjoys to hold that can...I mean they, people adore to hold the beer can. It's a symbol for them of relaxation, of enjoyment, of having a beer...and Andy took it very seriously, that thing, and he put it into art and people say: "Well, that's junk and anybody could do it", but nobody took it as seriously enough. It's like my echo piece...people say: "Well, echoes, you hear them all the time", but, I take those echoes very seriously...I mean, I want to live in those echoes, do you know what I mean? I, it's like the al-, it's like getting back to the al-, the discussion we had about the alchemists. They take stone, they take a piece of stone and they see their psychies or they see the development of their whole unconscious life or their spiritual life...coming from that stone, and the transformations that they try to do are transformations of their own...things, their own, you know, psychies... and, in art you have to take things seriously. Does that make sense?

D.S. Do you ever feel...do you experience a discontinuity between what you want to do and what you can do?

A.L. Not a discontinuity but, it's hard sometimes to... like getting equipment, I mean, I'm sorry to bring it down to such a banal plane, but like, I want to do an underwater piece, and I'm dying to do it and I want to do, what the fish do, you know, I want to use...sounds to, two different sound signals, which a porpoise can do to make combination tones to describe a resonant environment like a pool, underwater...and it's just where do you, who do you call to try to find out whether devices have been made? Or, who do I call to ask to make them?--devices that I can take underwater, that will have speakers and that will, you know. I find also just getting through the technical...stuff is very hard, but I think that's good because I think re-, the old-fashioned idea of resistance isn't such a bad one. It means if you have this resistance it means again that you have to take it seriously, and you have to have a lot of anxiety about it...and if you can get through that anxiety, then it means that you really take what you're doing seriously.

D.S. This is almost the same question, but do you experience discontinuity between what you can do and what you really want to do?--limitations on your actions because of job or position or...

A.L. No, I don't think of it as discontinuous; I think of it as continuous but...but blockings here and there.

D.S. Yes, that's what I mean...

A.L. Yes, yes...

D.S. Are you frustrated in any way?

A.L. I'm frustrated, yes, I'm frustrated, not, my job doesn't frustrate me at all. I have no, there's no discontinuity between what I have to do and what I want to do in my own composition. On the con-, actually, I would say it's the other way around...I mean, it's completely opposite that. My ideas get inspiration because of the work I have to do. On the other hand, I wish I were more intell-... you know...smarter, and that I had already learned about, for instance, technology, computers, electronics; because I, if I were the master of more of those things, I think I'd be able to realize my ideas easier...but that's a problem of, that's, everyone has that problem. Also time, you know, I wish there were more hours in the day so that I could do many more things.

D.S. Do you ever find yourself thinking in a way that would be like, considering what you have to do to do what you want to do; is there ever a bargain in your time or in your interests so that you're willing to put up with discomfort

in one place so that you can do something in another place? Or is it really all the same action for you?

A.L. It's really pretty nearly the same action.

D.S. And that is being a composer the reason for that?... because you do have a way of bringing your ideas to, you have a reason for bringing your ideas into concrete form.

A.L. Well, it's--I have a good job, let's put it that way. If I were teaching in a school that had a character other than this one here, where I would have to stay alive, or if I were in a situation where I had to teach courses that I really wasn't interested in anymore, then it, I might make a bargain with my time...you know, I might say: "Well, I, in order to do what I want, I have to spend so many hours doing this which I don't want to do." That would be that situation but here, where the whole music department is built around...the idea that you should do what you want so that there's no conflict between that, between what you want to do and what you think students should get, or what you can do for students...since that's the idea, and it's a very enlightened one, I have no problems like that.

D.S. We've talked about conversation, and conversation implies that there are people that you're talking with, and you mentioned a circle of composers, I think. What happens when you, do you think talking about music and doing music

are incompatible...in any way?

A.L. I don't think of it like that, I mean I wouldn't think of it like that. When composers get together that's all they talk about.

D.S. Yes.

A.L. It's interesting. It's what interests us all, and now when anything can be a part of music really, I mean... almost any exper-, I mean anything you can think of could be considered a part of music, then there's no problem about that, I mean...some of the pieces we've been doing now, I mean, Ashley and I, for example, are speech, are just simple speech, which is not very, which isn't hardly processed at all, in some instances, but is just, only processed by being tape-recorded or being amplified and therefore you could, I mean I don't see, there's not much of a distinction...I mean I just don't see distinctions any-, almost anywhere anymore.

D.S. What about an audience that feels compelled to understand your pieces by talking about them? Do you think that's correct, do you think that's a useful way of understanding your pieces--talk?

A.L. I like talk, yes...I like talk. I mean I suppose I ought to say the music should speak for itself, that old statement...but...talking is one thing, and...it's, ideas,

if you have ideas you talk, you talk, and one thing you can do with them is speak about them, and...if a piece, if anybody's piece or any improvisation or if any free kind of situation is interesting you want to talk about it.

D.S. But you don't produce program notes.

A.L. I don't, or...

D.S. Do you?--you don't.

A.L. I don't, you know, but it's funny because the whale piece, when we did it remember? People don't know what the piece is all about but after the performance they say: "Well, what was that all about?" and I say: "Well, you know, I studied the whales and I was doing, I was sending sounds over long lengths of space which is what whales do when they communicate within an ocean," and when you tell them that, that you want to be a whale, or that you, you know, you really do want to be a whale, I mean, essentially you'd like, you want to get into those, into things--alchemy again, right?... get into the stone, get into the transference, dive, I mean, wouldn't it be wonderful to dive two thousand feet into the ocean?...with the wh-...when you tell people that, then they become very sympathetic and they s-, they enjoy the piece. Now, maybe it's time to tell people what you're doing, I mean, there's only so much time and you can't expect them to go to concerts all the time. Maybe I should tell the people

that in fact that piece is about the communica-...about the sound-producing abilities of underwater creatures.

D.S. So you enjoy a sympathetic audience?

A.L. Oh yes, sure. Yes...I enjoy eympathetic human beings. I mean feedback is very powerful. You know, I mean, it's an important thing...and you want the audience to vi-...you see, to vibrate sympathetically with what you love.

D.S. Would you like to expand the audience, is that the idea? Suppose, since...it's fairly certain that in a public concert some of the people won't be sympathetic, or won't have the possibility of resonating at the beginning with your ideas... is your aim to increase...

A.L. Oh, yes, yes, absolutely...yes. I mean, I'm disappointed whenever anybody doesn't enjoy a piece of mine. You know, one's disappointed because, if it's a beautiful piece or if one thinks it is a beautiful piece, then you have to say that the person didn't enjoy it because of some block in his thinking. You know, he expects something else or he thinks you're putting him on. Maybe we should tell audiences now that we're not putting them on. I mean, so many years have gone by and still you meet audiences that think that you're putting them on, and they ought to know that at the age that you are at, that you're not interested in putting them on, you know?

D.S. What gives you the energy to compose?

A.L. I drink Ovaltine!...Well, I like to perform. I like public performances and I like to go deep into things, I mean, I like to, like, I want to fly...into spaces. You know, Buckminster Fuller's been talking about, I really can't explain it but, the fact that there aren't any events that occur simultaneously, that everything is a little, every little vibrating atom or event or star, or anything on any level--big level, amall level--doesn't occur simultaneously, but is a little bit out of sync and overlaps; therefore, the idea of having solid objects really isn't true anymore, that because the way things are vibrating there are empty spaces in everything and sound, for instance, can go through things that we previously thought were solid. My imagination, my, like, dream is to, like, miniaturize myself so that I can go into those situations and even if you can't do it physically, you can imagine that you can and you can make pieces that symbolize that, and...digging--I like to dig and I like to... scuba dive, and that's diving into places and environments and spiritual realms that I find I can only do the best by being a composer.

D.S. If simultaneity, in the ultimate sense, is impossible, it would seem, then that repetition is impossible also.

A.L. Well, it's not impossible but what, that's why I,

it's so interesting. See, we found that repetition is interesting after all. The idea of a Baroque sequence, that you don't re-, make a sequence that has more than three similar events, right?, you have to break the sequence. Well, that's true when you're dealing with other situations such as tonality rhythm, form, you know, things of that sort; but if you're dealing, if you toss all that away and really take seriously again--now it gets back to the question of taking things seriously--if you take the repetition seriously, then you don't stop at three, but you go on to thirty or to three hundred...and then what you find out is that repetitions are not the same, but are very, very different, and the differences that occur become interesting because you've taken them so seriously. It's like the music of Morton Feldman. Well now, he doesn't use repetitions, but, he, every attack is similar in that the music is pianissimo and he, on many of the pieces, specifies trying not to make an attack. Well, if you do that two hundred times in a piece, try to make that soft, pianissimo attack, it's not the same thing but every one is very different...because every one has a different configuration of instruments, and the ranges change and the weights change, so that you really, by, you really get into the minute differences in all those, you see?

D.S. Yes.

A.L. So that repetition, exact repetition is an impossibility,

but then you find that...

D.S. That's what I said.

A.L. ...yes, but you find out that by trying to make it exact, you see, there's a contradiction there.

D.S. Yes, there's a change of scale too...

A.L. It's interesting, yes.

D.S. ...because then just the minute differences become your whole field of...

A.L. Right, it's like amplifying, isn't it? It's like amplifica-...amplifying.

D.S. Do you think that's what the composer tries to do anyway in his audience--is to change their scale, change their perceptual scale? Isn't that really what coming to a performance is?...they've already made a change in plans of some sort; instead of staying where they were, they've come to a performance...and does a composer try to watch that, that committment, by changing their...

A.L. It's a, sure, it's a change in scale because it's another world...I mean, the Morton Feldman piece that you get into is a completely different panorama. It's another landscape, and it's got it's own dimensions. I don't know whether it's smaller or bigger or the time scale is changed...

and...that's, yes, a, yes, what else can I say? Yes... -It's like the electronic environment is so interesting because you pick up a phone and you're changing your environment. You said when we first started the interview that just pushing the "record" button on the tape-machine puts us in a different environment, and that's one of, that's, I think what we're doing more than what more conventional electronic composers are doing. We are really exploring and taking seriously how the electronic environment affects us... right? I mean, Bob's piece Orange Dessert where you give verbal commands to a couple of girls, over a loudspeaker system, is really exploring, you know, it's like...how you pay attention to amplified commands--even if they're not amplified in volume--but the fact they're amplified--they might be pianissimo--but the fact that they've gone through an electronic configuration, you deal with them differently than you would verbal commands in a room. He does the same thing with The Wolfman. My brainwave piece is, doesn't have anything at all to do with the formant structure of brainwaves or feed-, bio-feedback situations...it's exploring that touching situation that we're now in where we're, like, plugged-in, and it's as touching a situation as the medieval man who's, like, plugged into the Church, for example, and I don't see any need to put it down like so many people do. They feel the evil, although I don't think it's any more evil than the Church was for that poor man, right?...I mean,

the Church controlled his, gave him an environment and the pieces that we're doing, by we I mean the composers such as Bob Ashley, Gordon Mumma, David Behrman, Pauline Oliveros, we're really exploring the...people, the personal environment of people in this electronic environment, we're not just synthesizing or trying to make a music that sounds as if it could be played by a string quartet. I think we have a radical, we're the radical--and I don't mean it in revolutionary terms--I mean we're digging into the ground and pulling, you know, we're digging into the medium...and pulling it out, you know, really examining it...and we're, I think we're taking it very seriously--and we have to take it seriously, because if we don't, engineers will--or the Army does, for instance, right?...the Army takes technology very seriously because it realizes that it can make an automated battle field, for example...they're talking about an automated battle field... they're talking about a space-station which could control, with bombs, right?, the world. Well, they're taking it very seriously and we have to take it seriously because this, what's ha-, do you want me to go on?

D.S. Yes, sure.

A.L. ...What's happening, I think what's happening in schools now is that students want to go into music, whereas if, I wouldn't have said this ten years ago. I would have said stud-, now I might be wrong, but I would have said

students want to go into science or they want to go into psych...but I think they want to go into music. One of the reasons is that they...people that they really want to be like are musicians with millions of dollars, the Beatles for example, went into music and did beauti-, made beautiful music and became famous. The other reason is nobody wants, I don't think--to go into science means to go to war, almost. Going into science means almost going to war...whereas if you go into music--for instance, in this department here, students want to go into music who in-, if I were at another school, I would say: "No, don't go into music because you're not prepared, you don't play or you're not talented in the old-fashioned musical way", but I think we're interpreting what the field is and we're making it so large that now I would urge students, even if they don't have that old-fashioned talent--do you know what I mean...?

D.S. Yes.

A.L. ...to go into music and since electronics, like, enables anybody, practically, to go in and make sounds...I think everyone should be a musician, and, if everyone has a part in music as part of their particular life, then the music will resume the role that it had in the ancient world as being the thing to give oneness to a person's life, put you into a harmonious relationship with other people...and I think electronics can do that...and, if we take it seriously

enough.

D.S. It occurs to me that electronics, besides being a useful means of allowing people to compose because it's always present now...it's a good thing to learn about it because it's also a means by which you can be manipulated by other people, isn't that true? It's wise to learn about...

A.L. To stop the manipulation.

D.S. Right, right...

A.L. Yes, I, you know, when you get into an environment like the one we're in which has all the other musics of the world, or a good deal of the musics of the world, one of your ideas is to get them together, get the musics together, which is a dangerous thing maybe in a way, because you might dilute or destroy that which is good in the particular music, for instance the Indian; but nevertheless, I was thinking one of the ways you could start getting the musics together, for example, is by connecting them electronically. If an Indian musician won't play in a room with a Javanese musician because he feels that his art is being interfered with, I have the idea that you could put all the musics in separate rooms and then connect them with electronics where one would control certain parameters of the other, and while that's not the most beautiful situation to be in, it might be a way to start, to

start getting them together.

D.S. It's already happening of course, sure, because the radio station plays tapes of the Indian performers... and you could listen to those while listening to the gamelan.

A.L. Sure.

D.S. It's already happening.

A.L. Sure, sure, but I think it's like connecting, it's like the power, it's like the electric power which cannot stop at a border...I mean, say, between Canada and the United States you can't stop the electric power from going over, you see, the border...

D.S. Already...

A.L. ...because it's not efficient...

D.S. Yes.

A.L. ...you see, to have, you see what I mean?

D.S. Yes.

A.L. So that if you could connect Kalyanakrishna with Prawotosaputro, that would be a way to get them together, a preliminary way.

D.S. So this really, these concerns are really, are real

life, in quotes; they aren't just art, they're ways of dealing with life.

A.L. Yes.

D.S. Because these things do happen.

A.L. Well, that's what art should do, I mean, isn't it? I mean, I remember seeing a beautiful painting by one of the American abstract expressionists that had extraordinary orange in it, and I won't ever forget that orange, and the orange, like carries over into every other bit of orange that I've ever seen; I mean, it told me something about orange. It's not just a deluxe, luxury to see a painting, it's a, you have to see paintings now if you want to survive...and I think...the Once Group, for instance, or MEV or AMM, you know, those groups, that free-playing; I think that's very important because of the population situation; I mean, if you can't make s-, I mean, sounds intrude on you so much from so many other places that you've got to learn to make your own sounds to be in harmonious, I mean, relationship with other sounds; and...I think we have to become musicians to survive. It's not a luxury anymore. My dream is to go dive down to Tektite II--do you know about that?--it's an underwater place to live that they've built sixty feet down in the Virgin Islands, where they're trying to put people down there to live, see how they live for

periods of, like, a couple of weeks underwater, under... a situation, and I was saying to Winslow the other day that I want to go do that, but that I thought that maybe they would think it's tri-...unimportant to have a composer go down there and he said no, that he thought that now or in sometime in the near future, it's going to be very important for artists to go down because if you consider that we're going to make liveable environments under the ocean and in space, you certainly have to have artists have a part of that because engineers are just not up to it, you know, they only go so far...and that, artists have to have a part of that.