This is the seventh in a series of technical research reports by Harvard Project Zero which study artistic creation and comprehension as means toward better art education. This study summarizes the content and practical procedures of a series of lecture-performances in different arts performed before a target audience. The lecture-performance offers an alternative to the dominant and largely unexamined assumption that the best way to build alert audiences is to produce skilled amateurs. The goal of the series was to expose the artist at work so vividly that the audience would be caught up in the artist's process of exploring and choosing between alternative ideas and means of expression. Artists usually demonstrated alternative approaches to the same object, presented and discussed some unfinished works, and included some successful finished works. Descriptions of the dozen presentations conclude the author's case that to become an 'audience' is a responsible vocation requiring special preparation. (Author/DE)
The projects and research presented or reported herein were performed in part pursuant to the above-mentioned grants from the U.S. Office of Education, Department of Health, Education, and Welfare, and from the National Science Foundation, and in collaboration with the Association of Rice Alumni, Rice University, Houston, Texas.

The opinions expressed herein, however, do not necessarily reflect the position or policy of these agencies and no official endorsement by these agencies should be inferred.
Project Zero is a basic research program at the Harvard Graduate School of Education conducting a theoretical and experimental investigation of creation and comprehension in the arts and of means toward better education for artists and audiences. A brief explanation of the Project's development and current work, along with a list of Project members and of other Technical Reports, can be found at the end of this report.
THE LECTURE-PERFORMANCE:
AN INSTRUMENT FOR AUDIENCE EDUCATION

Abstract

This report summarizes the content and practical procedures of a series of lecture-performances in different arts, produced by Project Zero for a "target audience" of students, faculty, and staff of the Harvard Graduate School of Education. The lecture-performance offers an alternative to the dominant and largely unexamined assumption that the best way to build alert audiences is to produce skilled amateurs. The goal of the series was to expose the artist at work, so vividly that the audience would be caught up in the artist's process of exploring and choosing between alternative ideas and means of expression.

One effect of thus sharing the artist's thinking is new awareness of the discriminations gross and subtle that lie behind any successful art work. Artists usually demonstrated alternative approaches to the same subject, presented and discussed some unfinished works, and included some successful finished works. Four other features common to the three-year series were (1) lecture-performances were specifically commissioned from recognized artists; (2) programs were to be neither exclusively performance and "entertainment" nor instruction and "lecture"; (3) each program involved imaginative use of audio-visual hardware; and (4) the target audience remained the same throughout the series. Descriptions of the dozen presentations conclude the author's case that to become an "audience" is a responsible vocation requiring special preparation. Properly commissioned and managed, lecture-performances can help prepare various publics for a creative role as audience.

Frank Lloyd Dent holds a B.A. in Philosophy and History from Rice University, a B.D. in Church History from the Yale Divinity School, and an M.A. in American History from Harvard University. A continuing interest in managerial and production aspects of theater and dance led to his management of Harvard Project Zero's "Art in the Making" lecture performance series at the Harvard Graduate School of Education for two years. His present position as Executive Director of the Rice University Alumni Association allows him to widen his efforts in the field of public education for special adult audiences, and to continue his work with lecture-performances through the Harvard Summer School, in cooperation with Harvard Project Zero and the Harvard Graduate School of Education.
To couple lecture with illustration is an ancient teaching technique. In educational efforts the practice can enliven presentations of the routines, the history, the future, the implications of a subject. The "case method" of instruction is a further development of this common practice. In that instance teacher and student collaborate in the Socratic tradition to expose problems of a subject by means of class discussion based on close investigation of a complicated legal or business case. Outside the classroom, the interview and the documentary in various news and entertainment media link photography and text to stimulate interest in various subjects.

In arts education particularly, this instruction technique has further expression. Open classes and open rehearsals, workshops of different duration for groups that would use the skills in different ways, and artist-in-residence programs at different institutions have proved effective ways to augment interest in arts enterprises. Even the guided tour can be approached as an effort to enlighten a public through discussion of examples and illustrations of a subject.

These different approaches share in common at least one assumption. A number of illustrations not only offer information about a subject or a skill as supplement to the observer's direct experience. If carefully chosen, they can also capture the imagination of the student or audience and tap new reservoirs of energy and interest even in the willing learner. Apt illustrations and canny examples can draw students into the wonder of
a subject, and coax them to discover more on their own. Even
the uncommitted can be stirred to sympathy for, if not curiosity
about unfamiliar subjects.

The series of public programs sponsored by Harvard Pro-
ject Zero has grown in part from this teaching tradition. All
the varied descriptive sub-titles of the presentations are re-
minders of this genesis. The "lecture-demonstration" and
"lecture-performance" are terms that suggest a mixture of il-
lustration or example and informative discussion by an authority.
Other descriptive names associated with the presentations carry
the same connotation. The "performance-demonstration" stresses
the characteristic inclusion of performance segments in the
event, along with some explanation by the featured artist. The
"arts orientation" series as a title is perhaps less clear. The
term "orientation" would suggest experiences calculated to intro-
duce strangers to new aspects of their environment. In connec-
tion with the arts such a term implies less ambiguous clues for
understanding than this series offered. The main goal of each
event was to raise suggestive questions, to offer new insight
primarily by means of discriminations often overlooked by
audiences for the particular subject. The only result of such
an "orientation" plan common to the entire audience was ex-
posure to the process of completing a work. Through that ex-
perience, each observer gathered different insights. There was
no attempt to direct the audience to one new point of view.

That characteristic, indeed, is the major innovation of
this series. It is a departure from most lecture-performances
which tend to emphasize the completed and successful work, rather than the activities of the artist in producing that work. Even where a lecture-performance divides a completed piece according to stages, the awareness of the final result makes the decisions the artist faced during production appear as foregone conclusions. The result is little feeling for the difficulty of choosing alternative expressions before the final product has been fully shaped. In works yet incomplete, all alternatives look equally plausible and the artist may show an audience his efforts in selecting options.

In short, the goal of this series is to expose the artist's work so vividly that the audience would be to some extent caught up in the process of deliberating. Part of sharing the artist's thinking would be new awareness of the discriminations, gross and subtle, which lie behind any successful art work. The descriptive caption for the lecture-performance series—"Art in the Making"—appropriately titled such an enterprise. Even if that title were understood to suggest a subject which was at some stage of development between a skill or technique and an "art," it would still direct attention to the working process. At a more sophisticated level the title suggests that elements of art are to be found as much in the artist's vocational procedures as in his finished products. In any event the process of creating is the distinctive focus of this continuing series.

There were further departures from the lecture-performance tradition in this series. Unlike most such presentations, these were geared for an audience of secondary school teachers and
administrators. Furthermore the regular patrons of the art form were of less concern than those who were unfamiliar with it. This group was designated a "target audience" because all publicity efforts were designed to draw their interest and attendance. The programs attracted other publics as well, many of whom appear the primary audiences for other lecture-performances. Such entertainment/education events that are part of the tour "packages" of visiting artists usually draw audiences of secondary-school students and the "general public" attracted by a smaller admission fee. Such polyglot gatherings hardly challenge the artist to deviate from tired oversimplifications as strongly as did the awareness that his presentation should stimulate teachers and others who help shape the understanding of the "general public".

Both the special audience of teachers and future teachers for this "arts orientation" series and the emphasis on creative process prompted artists to try to articulate reasonably what is done in preparing works for public presentation. Participating artists commented that the assignment was a rewarding test. It required that they select certain working procedures and certain characteristics of their media that would focus a thoughtful audience's attention on recondite essential features of the art.

In most cases the specific titles of the programs made this emphasis explicit. For example "Dancemaking" featured a well-known Boston choreographer; "The Director Who Chooses" was planned by one of Harvard's Loeb Drama Center directors.
The most elaborate example was the program featuring Professor I. A. Richards: "How Does a Poem Protect Itself? Protect from what? From the author, from the Movement, from Fashions, from Critics, from Biographers, from Teachers...". However much dismay these titles caused the various poster designers, the publics reached in the Cambridge and Boston area were at least warned that the event would be a mixture of entertainment and education. (Incidentally, the long title actually developed into one of the more successful posters from a dramatic point of view.)

Though artists differed in the techniques they chose to unmask the creative processes that lead to successful works, a common result was that the audience was left with a new sense for discriminations which developed out of exposure to the artist's various attempts to achieve his purpose. For example, at "Still Photography" the photographer-teacher in charge enabled the audience to share some of his labor over contact-sheets by means of lantern slides that enlarged sequences of several, very similar shots of the same subject. While the audience studied the slight differences between each photo, the artist pointed out some of the less obvious considerations which affected his selection of only one of any series of shots. He subordinated the importance of the final choice and emphasized the considerations that enter into the selection process. His deliberate refusal to comment until viewers had studied alternatives for several minutes encouraged the audience to share the artist's viewpoint.
As another example, the choreographer of "Dancemaking", Anne Tolbert with Boston's Dance Circle, urged her audience to change seats in order to get new perspectives on the movement in progress around them.

"I am less interested in a particular movement than with that movement in shifting contexts. I am interested in our roles as watchers and doers in everyday life in the theatre. Sometimes the lines are clearly defined, sometimes ambiguous. I want to make clear some of the manipulation we take for granted—even if willingly—as in single-focus events. What happens to concentration on single repetitive events, or in multi-focus ones giving the watcher the role of choosing what to look at and how to structure the situation? What are some of the limits of boredom and of excitement? How does the lighting from houselights to slides affect the way we see the same thing? Gone is the goal of moving people to the artist's foregone conclusion."

Long after both these events concluded, viewers continued to remark—whether they "liked" the works presented or not—that each program raised questions, and offered new insight into the medium as well as other arts. Some of the photographers' remarks were pertinent to abstract art. The dancer's comments were suggestive not only as an approach to theatrical and athletic movement, but to music as well.

These distinctions in the "Art in the Making" series suggest some closer consideration of what it is to be a creative audience. To some extent, an emphasis on the final judgment of the quality of the exhibit or performance draws attention away from the artist's work in developing the subject. A capacity to understand the artist's choices as he builds his work need not presuppose the skills of an amateur in the subject. Rather it assumes some acquaintance with and sensitivity to other possible
approaches or interpretations. Such experience need not be learned exclusively by practicing the form. As the techniques used in this lecture-demonstration series reveal, audiences can be exposed dramatically and visually to such information in a short period.

Because the emphasis in these programs falls on the creative process, a mere description of them implies that the goal of the evening might be to teach some of the skills involved. Even were that the purpose, it would be impossible to cram that much experience into the workshops or seminar sessions which were sometimes coupled with events in the series. Those usually lasted only a total of perhaps eight hours—most of them were much shorter. If the somewhat more specialized and dedicated small audience for these longer, intensive sessions could hardly expect more than either a "refresher course" or introduction to the most elemental considerations, the larger general audience obviously could expect little more than a long look at the artist's techniques. That is certainly inadequate for any naive enough to anticipate a crash-course in "how to do it". In any event, such is not the purpose.

The lecture-performances of this series display two major characteristics both of which cast new light on the role of an audience in an art. First, these presentations are examples of how "process" can be exposed in a fashion dramatic enough to capture the imagination and hold the attention of a mixed audience. In other words these programs basically suggest how to use "how to do it" methods so that the observers experience
a new feeling for the artist's labor in producing successful works. That insight is of course particularly helpful for teachers.

Second, these presentations call attention to a level of response to art works often slighted in preoccupation with assessing the pieces as a finished whole. Namely, it is some sense for the way a work grows. Partly such an awareness may be generated by exposure to alternative expressions. The observer then develops sensitivity for the other paths the artist might have explored. Though such sensitivity takes more than one evening to build, concentration on that aspect of art "appreciation" helps redirect the attention of an audience member to more subtle aspects of a work. To focus on differences of detail within a work or in comparison to other works is another way to take an observer beyond the generalized response to the work as a whole.

These distinctions in the "Art in the Making" series suggest some reappraisal of the subject of audience education. Stress on the education of skilled amateurs in an art is not necessarily the only means to build a receptive audience for the art. Indeed, there is some evidence that emphasis on the practice of an art will deaden rather than kindle interest. A requirement to paint or to perform would certainly cut enrollment in many art courses, but would also considerably narrow the audience for a subject. Many turn to art who have little interest in producing works themselves. Furthermore, primary emphasis on evaluation of certain works as "good" and others as "bad" ignores
certain problems in widening audiences for the arts. Languages of Art: An Approach to a Theory of Symbols by Dr. Nelson Goodman, professor of philosophy at Harvard and director of the project which sponsored 'Art in the Making', makes these difficulties clearer.

To say that a work of art is good or even to say how good it is does not after all provide much information, does not tell us whether the work is evocative, robust, vibrant, or exquisitely designed, and still less what are its salient specific qualities of color, shape, or sound. Moreover, works of art are not race-horses, and picking a winner is not the primary goal. Rather than judgments of particular characteristics being mere means toward an ultimate appraisal, judgments of aesthetic value are often means toward discovering such characteristics. If a connoisseur tells me that one of two Cycladic idols that seem to me almost indistinguishable is much finer than the other, this inspires me to look for and may help me find the significant differences between the two. Estimates of excellence are among the minor aids to insight. Judging the excellence of works of art or the goodness of people is not the best way of understanding them. And a criterion of aesthetic merit is no more the major aim of aesthetics than a criterion of virtue is the major aim of psychology.1

The most effective way to offer further insight into the subject of audience education is to outline briefly the methods which were used in the series.

1. Reputable and recognized artists were engaged for the performance-demonstrations, though they often relied on the skills of their pupils for illustrations. Coverage of such public education programs by local news and entertainment media was considerably easier if the artist were relatively well-known rather than obscure. It was somewhat easier to attract

an audience to a special guest appearance by a renowned artist than to an event too obviously categorized as "another lecture." In publicity, therefore, the dominant aspect of these events as settings for learning was stressed less than the artist's name, field, and a program title that suggested an inquisitive approach to that field through "live" illustrations.

2. Artists were requested to offer a program that was neither exclusively performance and "amusement" nor instruction and "lecture." This challenge directed their attention to creating in the spectators some feeling for the problems and possibilities in the efforts that lead to a finished work. It was stressed that shared trials and successes in the various stages of a work would lead to limited communion in the studio processes. This, reinforced by personal rapport with the artist, could help generate empathy.

3. A nuclear audience was invited by means of special invitations and announcements in professional newsletters or specialty publications with a limited circulation concentrated in the segment of public sought. The selection of a target group was governed by the purposes of the series. In this case, the major concern was to improve arts education especially by illustrating how many more traditional academic disciplines figure in the preparation of works. Hence the "target audience" for this series was the present and future educators and educational administrators who make up the faculty, students and staff of the Harvard Graduate School of Education.
A standard invitation was a single page self-mailer which described the artist and the event, its position in the series of programs, and permitted entry to special seats before the admission of the general public. These were posted first-class and timed to arrive approximately two weeks before the event. Occasionally the mailer incorporated some design element of the posters commissioned for public distribution three weeks before the event. Usually at least one-fifth to one-third of the audience at any event were members of this target group, based on head counts before the doors opened to the general public. Of course, many of that special group did not arrive early enough to be counted separate from the total audiences which ranged from 300 to over 1,000 depending on the capacity of the auditorium.

4. Though each artist was free to choose his own method to illustrate the processes that lead to a finished work, three basic patterns of treatment characterized most of the programs. Nearly every artist demonstrated alternative approaches to the same subject, presented and discussed some unfinished works, and, finally, included some successful works. This is not to say that other techniques were not also used, such as illustration of the historical development of an art. It is to say that most artists dealt in similar ways with the basic and somewhat novel assumption of the series, namely the illustration of processes behind an art work rather than discussion of completed and successful works. Most of them directed their attention and energy to exposing at least some problems each faced on the way to a satisfactory work. In most cases
illustration of the history of an art form was less appropriate for that purpose because such approaches tended to impose on artist and audience an aloofness from the difficulties and decisions that mark an artist's daily work. Presentation of works in progress appeared a better vehicle than lectures on history to illustrate the artist's curiosity and optimism before a challenge, as well as the uncertainty, hesitation, skepticism before tentative commitment to the limitations of one expression.

The most straightforward means to show how an artist shaped a work involved repetition of the same material, interpreted different ways. Contrasts between different treatments of the same element helped expose an audience to the choices an artist faced in building or interpreting. For example, the work of the theatre director was illustrated by the presentation of different versions with the same segment of dialogue from a contemporary play. Each live version with the same cast was built around different assumptions: the female as a bitter, then as a reconciling figure; the scene's "main character" as an absent ineffectual figure, then as the angry, youthful speaker onstage. Or again, a photographer displayed several treatments of the same subject, in which the photos differed only slightly in pose or angle, in balance of light with shadow, or filled with vacant space. After more than an hour of emphasis on distinctions often overlooked or unrecognized, audiences began to ask questions and raise points that indicated a growing ability to make increasingly subtle discriminations.
The presentation and discussion of works still in progress was an equally provocative means to call an audience's attention to the variety of careful and cautious effort that precedes any performance or exhibition. An artist might illustrate the limits assumed in order to begin a particular work. For example, if the production involved a number of artists—such as dancers or musicians—each participant might be given more or less freedom to interpret, improvise, select from various alternatives the artistic director elects. Or the artist might illustrate several different possible conclusions to the work without committing himself to a particular one. In any case, the technique challenged the audience to sensitivity for subtle distinctions as well as new alertness for the implications of an artist's choices.

The addition of a few complete and successful works to any program provided the "performance" element necessary to each presentation. Since most of the evening presentation was a departure from the traditional, with unusual demands for thought from the audience, some performance elements, undissected and unexplained, offered a comforting return to normal procedures. Of course, the inclusion of performance elements drew attention to the fact that the other point of the program was precisely to offer insight into performances. An implication is that the role of the audience involves more activity of thought than often assumed. This practice also graphically illustrated the differences between procedures necessary to develop a work for production and those required to present the work success-
fully to the public. However large the part spontaneous inspiration and unpredictable creative impulse play in the completion of the work, performances and exhibitions gain additional value precisely because of—not in spite of—the artist's thoughtful trials, reconsiderations, and rehearsals.

5. Finally each program involved some imaginative use of audio-visual hardware, though this was hardly a major emphasis. Multiple slide projections were usually used to focus audience attention on certain details or as a record of the production process. Occasionally the slides themselves became part of the artist's working presentation, as when the choreographer used them to light the theatre and call attention to the varied spaces in the hall. Film segments were linked in different sequences to illustrate how the filmmaker can produce a variety of results. Audio tapes were useful in lecture-performances in the subject of music to illustrate how the musician develops his piece. In general, no artist could successfully expose his working processes without recourse to some audio-visual devices.

Many of these materials have become part of a permanent collection of materials which were used as a nucleus for programs "portable" in the sense that the artist's comments were recorded to explain the sequences and repeated for other audiences. Though such repeated programs were a variation on the live lecture-performance, they clearly required careful organization and planning to maintain the level of interest which the live performance provided. For example, the tape of the presentation on poetry required some supplemental slides
of the poet at work in his own study at home to maintain audience interest. Though budget limitations would not permit videotape records of these presentations, many of them could be effectively re-designed for a television audience.

This pattern of activities within every lecture-performance hardly suggests the vitality, the diversity, the suggestive power of the events as experiences for an audience. Regular patrons as well as the novices to an art were coaxed to work with problems and subtle alternatives that left them unsettled, occasionally tired, invariably stimulated, never bored. Through deliberate avoidance of preoccupation with meaning, and through repetition and limited improvisation, through the artist's accumulated comments and trials in dialogue with his medium, an audience might not only glimpse but share the artist's efforts. For one evening artist and audience joined minds in response to the challenges of an art. The way thus opened to empathy, and to a prolonged encounter with questions that persisted after the participants dispersed. In short, what began as a series of experimental evenings in public education mixed with entertainment achieved through careful thought and canny wit a measure of grace and spirit appropriate to an independent medium—the art of opening art.

An account of the program on poetry—at once technically uncomplicated and conceptually sophisticated—can appropriately introduce a brief descriptive record of the dozen presentations in the three-year series. "How Does a Poem Protect Itself? Protect From What? From the Author, the Movement, Fashions,
Critics, Biographers, Teachers. . . . Professor I. A. Richards' title suggests the remarkable strategy with which he approached the task of exposing an audience to the labors of the poet. He concentrated less on the problem of writing poetry than on the difficulties of exposing the problems of writing poetry. Professor Richards, C.H., F.B.A.; Professor Emeritus at Harvard, showed 35 mm. slides of his texts, complete with the author's alterations and inserts. This technique bent the program away from mere performance or "reading" in the direction of an open record of the poet's mind at work. "Poems," he commented at one point, "are like volcanoes. No matter how placid they appear, you can never tell when they are due for a new eruption." His slide-record and comments about word and rhyme changes and about the appearances of new meanings easily supported the analogy.

Instead of the personal anecdotal monologue of "explanation" which might have developed from the coupling of a lecture on poetry with a reading performance, Professor Richards introduced the overflow crowd to some half-dozen of his poem intimates. The same affectionate humor and congenial respect a man tenders friends characterized this poem-poet dialogue. To be sure the presentation offered insights into his meanings, though he treated the passionate critic's search for esoteric meaning with disdain. To be sure he displayed his conscious precision with respect to meter and theme, though he steadfastly disclaimed more than a few hints to the mysteries of the craft. To be sure he confessed circumstances and feelings
that generated the poem, though that left each text the more politely independent, persistently elusive, confidently alive. In short, Professor Richards' presentation unseated alike the notion of the poem as anything less than a lively companion and an immortal soul, and that of the lecture-performance as nothing more than the awkward hyphenate of comment and illustration, stepchild to some aspect of performance.

Programs that required more technical preparation and apparatus were "Eric Martin and Derek Lamb in a discussion on Film-Making," and "Still Photography" by Alfred Guzzetti. The three artists were all teachers in various departments related to photography at Harvard University. Their primary goal was to reveal to the audience some of the decisions that precede a finished film or exhibit. Professors Martin and Lamb discussed the rejected footage for several films in progress. They also showed several film-clips in different sequence to demonstrate the work of an editor in building excitement, suspense, etc.

Professor Guzzetti presented lantern-slide enlargements of portions of his contact sheets, the first prints from a roll of exposed film where the image were the same size as the negatives. He attempted to communicate a feeling for the factors which must be considered in establishing a mood in photographs. The position of the frame, that of the subjects within the frame, the direction of light, the action are all elements of composition of photographs that the uninitiated viewer as well as the amateur and professional photographer might grasp as important. For any given subject, the
viewers saw at least two alternative, slightly different treatments. With each sequence, the artist spoke briefly about the different shots, to make explicit some of the differences. Then he asked the audience to contemplate them without his comments. Gradually members of the audience began to discuss among themselves, and to ask questions, ultimately to point out major considerations which the artist himself overlooked. Whether or not the artist agreed with the viewers as to which shot accomplished best what he sought to express was irrelevant. In fact, the entire issue of what was "good" or "bad" from the point of view of a finished piece was irrelevant. Instead the artist and audience remained in a situation where "better" or "less better" was adequate summary evaluation for one of the alternatives indeed where summary was definitely secondary.

For example, in two sequences involving individuals, in one landscape set, and in one collection around a group of children, the photographer asked the audience to consider which lighting arrangements, which balance of filled and vacant areas, which "sky" or general background in which pictures made one of each set "work" more effectively to convey the bourgeois efficiency of a butchery manager, the congeniality of a grimy farm worker in a pub, the dominating presence of rolling plowed land around the village, the awkward efforts of an adolescent gym class. After exposure to several sets over three-quarters of an hour, the audience began to understand how these elements work together to produce lines of direction and emphasis for the viewer's eye, and how the photographer works
to select an arrangement of those elements that produce the unsettling or soothing, dramatic or static, or whatever other effect he considers important.

Most graphic evidence for the sensitivity the audience built up to the importance of relatively subtle and often overlooked features that distinguish and differentiate photographs was the reaction to the final contrast of the presentation. Different treatments of one widely distributed photograph of a depression mother and children from Margaret Bourke-White's collection were projected. The gasp of recognition and surprise from the audience when the famous final choice completed the sequence was an index to the sudden awareness of how many variables, a few of which they had glimpsed that evening, lay behind that remarkable piece. Though the audiences for these events were the smallest in size for any of the presentation--about 300-500 persons--the programs illustrated clearly the potential for the lecture-performance form as a stimulating teaching technique.

The three programs on the subject of music were: "From Sign to Sound", by Leon Kirchner, "Sculpting Sound," by Robert Ceely, and "Drums, Dances, and Voices of Africa," by Ladjie Camara. Similar challenges were part of all of these. Music notation systems were illustrated by means of audio-visual devices when possible. Repetition of passages revealed how the artist's interpretation can affect a piece of varying music. Unfamiliar instruments and sound sources were discussed in terms of similarity to more familiar elements. For
example, Professor Ceely explained "white sound" by means of reference to radio static. Though each artist varied his approach to the problems behind a performance, all freely halted performers, repeated passages, discussed the more and less successful elements of the work used as illustration. They also, of course, included some works uninterrupted, but only when the audience had been exposed to some important distinctions in interpretation.

Professor Ceely's subject lent itself to a "historical" approach— that is, an illustrated discussion on the development of electronic music in the last decades. Professor Kirchner and Mr. Camara presented more of an illustrative sequence of music segments similar to an "open rehearsal" where musicians stop to work on selected passages. The novelty of Mr. Camara's work was not an unmixed advantage. Unlike the audiences for traditional and contemporary western music programs, his audience had little previous exposure to such instruments. Thus, there was less emphasis on subtlety and variant interpretation than on the virtuoso's skill in producing a range of music. The illustrative material he chose, though exciting and unusual, was calculated more to expose new art than to offer insight into familiar forms. The audience for this event was approximately 1100, more than twice that for the other two programs. "Drums, Dances and Voices of Africa" was taped in its entirety by the Harvard audio visual department and is part of the collection of the Modern Language Center (Boylston Hall, Harvard University, Mrs. Martha Miller, Librarian).
Three programs related more closely to theatre:

1) "The Director Who Chooses" by George Hamlin
2) "How to Make the Proposition" by The Proposition
3) "Anatomy of a Theatrical Production" by James Yannatos, Paul Cooper, Franco Colavecchia, and John Paul Russo

Both "The Director Who Chooses" and "Anatomy of a Theatrical Production" were built around recent or current productions at the Loeb Drama Center at Harvard. Adequate arrangements for even skeletal sound and light equipment in a theatre heavily used were a major concern. In addition, "The Director Who Chooses" required extensive search for film and videotape versions of Death of a Salesman. George Hamlin used two live and two film versions of a scene from that program to show how a director can shift the emphasis from one character to another or alter the relation between characters. For example, a few changes made the mother, Linda, a bitter rather than a reconciling figure. Another treatment presented Biff, rather than his father, Willy, as the central character. One important aspect of this presentation was that audience attention was focused on different interpretations a director can effect rather than on contrasts in acting. The differences in skill between movie and student actors became irrelevant to the purpose of the presentation. "Anatomy" was coupled with a seminar that met for several weeks taught by the four collaborating artists on various aspects of the premier production of The Rockets Red Blare, a pop-opera by Yannatos. For example, topics included the difficulties of stage design and direction as well as the consideration of how the various artists reach agreement in the final show. The evening lecture-demonstration was a concentrated version of the same effort.
"How To Make the Proposition" by the nationally recognized improvisational company of Cambridge required little technical preparation. It was not even performed in a theatre. However, booking procedures and negotiations for particular actors and director Allan Albert, of Boston's longest running show, proved complicated. Since this was a professional rather than a student troupe, it was necessary to explain the educational assumptions of the program series more clearly. Even so, the presentation had a much stronger emphasis on performance than most, though of course in this case "performance" meant improvisations on the basis of audience suggestion. How to improvise, or the basic presuppositions of the actor and director was less clearly exposed than might have been. A number of silent improvisations and exercises did provide insight into the work of actors preparatory to performance. Special emphasis was placed on how they develop ease of interaction. That portion of the audience that had seen the lecture-performance on mime noted connection between this form of theatre and the mute communication of feeling which the international mime teacher, Jacques Lecoq, had discussed. Nonetheless this program made it clear that the more successfully directed lecture-performances were those of teacher-performers, rather than those of exclusively professional performers. It should be noted that the audience for this event was one of the more enthusiastic, measured in terms of applause, laughter, questions and favorable comments. For many, especially in the university student community, it was an opportunity to see without charge a program.
that was normally an expensive nightclub entertainment.

Four lecture-performances on dance and one on the subject of mime completed the three-year series. The dance programs were:

"Dancers and composers of the Ina Hahn Company discussing and illustrating their work in two lecture-performances"

"The Ina Hahn Dance Company in Theatre of Sound and Movement"

"Dancemaking" by Anne Tolbert, Dance Circle

The sequence of programs by the Ina Hahn Company was an attempt to express for an audience the complete process of choreographing and dancing for a particular presentation. Mrs. Hahn herself lectured in the early programs and asked dancers to illustrate various simple movements such as kicking a chair. She then attempted to demonstrate by illustration the way in which dance movements are translations of such gestures of ordinary life. In addition, the rehearsals of the performance on the Loeb Theatre stage were open to the audiences for these lecture-performances. The result was that the final production, Theatre of Sound and Movement, drew upon an audience which had participated in all stages of the works. Certainly by the heavy attendance as well as by the questions and comments directed at the dancers, this sequence demonstrated the potential of the lecture-performance as an audience-building technique.

In "Dancemaking", Miss Tolbert, the choreographer, deliberately stopped the construction of a dance at a point short of completion. The production involved a number of "movers"--
so-called because athletes, actors, and the odd member of the audience, as well as dancers—made up the cast. Each performer exercised freedom to interpret, improvise, and select from various alternatives given by the choreographer. In cavernous Sanders Theater, accompanied by special sound pieces and lighting effects, they explored the aisles, crawled along balustrades and seatbacks, shouted and sang. In Scale For Sanders: An Occupation the movers drifted up from the audience onto the stage which they used for a time in more traditional modern dance patterns. In the course of the work, however, they abandoned the stage to a collaborating electronic musician, Alvin Lucier, whose wife began spinning a web of wires. When touched by passing dancers or wandering spectators, they sounded in various pitches. That gradually building piece was complemented by another of his works, consisting in the sound of his own voice uttering one simple sentence in the theatre. It was so re-recorded and replayed constantly as to break down into a succession of sounds and rhythms that became musical accompaniment. Another artist collaborator, Arthur Hoener, simultaneously began rotation of multiple-slide projections across the audience and amphitheatre vault.

As one critic described the piece:

Sometimes they look like dancers; sometimes they just look like bodies in motion...Certain rules are imposed upon the performers; but within the
context of these rules, they are free to make their
own decisions as to which actions to take...You
are no longer in a theatre; you are in a gallery.
You may choose the material you wish to enjoy rather
than be forced into fixed sequential pattern.

To stimulate curiosity about unusual art forms has been
another of the Project's goals. With this in mind, "Mime,
Mask, and Contra-Mask" by Jacques Lecoq, Director of Ecole
Jacques Lecoq School of Mime and Movement in Paris, proved an
elegant introduction to a less familiar mode of theatrical
expression. M. Lecoq gave three master-classes, open to anyone
in the community with some experience in theater or dance, and
one workshop open to the public. His performance-demonstration
encompassed the relation between sport and theater movement;
the psychological insights an actor can project through stance
and gait; sociological observations on how circumstances and
nationality affect gesticulation; and depictions of animals and
plants. Masks from the Commedia dell'Arte and others of his
own design directed attention to the more subtle language of
movement, which may either be reflected or contradicted in the
fixed expression of a mask. In the words of Kathleen Cannell,
art critic for the Christian Science Monitor:

Mime is a poor term to describe Mr. Lecoq's art. He has liberated it from ancient traditions and
modern stylizations. Like Delsarte, he divides
the body into emotional zones. Using every
possible movement, gesture, and attitude, he has
made of it an expressive hieroglyphic instrument
that can be adapted to theater, ballet, opera,
motion picture, or television.
Mr. Lecoq's conference-spectacle was the most impressive demonstration of mime (for lack of a better word) this reviewer has ever witnessed.... An unassuming figure in a quiet business suit, he evoked a multitude of personages in different situations.

Particularly fascinating was a section on "observations of daily life as the primary reconnaissance of man." In a walk up the Champs Elysées, he impersonated types one might meet on such a promenade.

Mr. Lecoq received the longest standing ovation from the capacity audience I can remember.

To quote M. Lecoq himself:

For me, the mime which one can apprehend at my school is at the base of all expressions of man, whether gestural, constructed, plastic, sonorous, written or spoken,... It lies in the gesture under the gesture, in the gesture under the word, in the movements of materials, sounds, colors and lights....

Such a series of diverse lecture-demonstrations produced more results which appeared more durable than just a lively evening of educational entertainment. Improving publicity generated a loyal audience, not only within the School of Education, but also in the Boston community. The mailing list of those outside faculty, staff and students at HGSE who received notices of the events grew to approximately 150.

Were it possible to discern a common interest within this group, at least one pervasive attitude was curiosity about the creative process and about new art forms. It was the conscious goal of most directing artists to generate more questions about their arts subject than it was to supply answers. Such questions might be resolved in a number of ways: audiences might seek out completed versions of unfinished works; they
might try to practice the art form; they might adopt fresh standards of criticism. One important measure of success for a lecture-performance was the number of questions it left unanswered, perhaps even unanswerable. The real point was to focus audience attention beyond the immediate product at hand. Rather were they called to a sense for the thought, the work, the difficulties, in short, the consciously experimental nature of any work in the arts.

One of the more obvious results was increasing confidence in the lecture-performance as an arts education technique, and increased awareness of the practical ways to generate and administer such programs. Since these have been discussed in detail, it is important here only to note that many other arts education efforts can develop wider appeal by the adoption of such techniques. For example, workshops and master classes for those more interested or more experienced in the subject art form can be made increasingly effective if opened to limited public observation. The open rehearsal, open studio, and artist-in-residence programs would benefit from the inclusion of brief explanations similar to those by artists in lecture-demonstrations. Intensive study programs, whether in arts, humanities or sciences, could make their learning environments more attractive as well as more educational by the addition of such presentations.

All this should lead to audience participation at a more creative level. After all, an artist only shares his tactics and goals, his first-trials and experience with collaborators.
and colleagues he respects and trusts. He avoids questions as superficial excuses for simple answers triggered by his explanations and his habits. He seeks questions to become instruments, guides into persistent problems only temporarily resolved or tackled from new angles in any given piece, in any art. Spectators alert, sympathetic and curious are necessary to the success of this experiment. Between artist and audience, there grows a partnership more thoughtful, discriminating and active as a happy alternative to couplings restricted, callow and sadly unresourceful.

Equipping audiences to recognize manipulation is another way to describe this audience education effort. The lecture-performance implies that audiences are more often directed than they suspect to certain conclusions the artist has anticipated. Artists and audiences disagree about the merits of such subtle direction. Some artists welcome the lecture-performance as a chance to counter the assumption that an artist ought to move an audience exclusively to one conclusion. Reception for the pilot series suggests that increased information about and understanding of the artist's working process add respect for his skill, and dignify rather than disillusion audiences. The artist's frank exposure of his working process links the arts more closely with the activities of others who work with audiences. This promises reassessment of the relationship between "art" and "entertainment".

To be sure there are still unresolved problems. Some means must be developed to survey audience response, both
in terms of insight received and in more commercial terms to measure support for performances and exhibitions. Questionnaires distributed at the events or mailed afterwards are one obvious device. Discount tickets to participants in organizations sponsoring lecture-performances might also provide another index. A simple checking device at all sales windows might work to discover if ticket purchasers had attended lecture-performances on the subject.

As with most arts programs, especially experiments in education, inadequate funds are a major obstacle. Most lecture-demonstrations which are part of the repertory of various performing groups are poor examples of the technique. There is little incentive for professional companies to improve them. They net less revenue. The audiences for them are usually a polyglot mixture of school children and random adult enthusiasts. They are often a requirement imposed by funding agencies that subsidize performances. Especially for a company on tour, such programs most often appear an additional drain on energy that yields few results. The surprising fact is that the form is not dropped entirely in favor of other teaching instruments tailored for the specially trained audiences, such as the master class. With some careful preparation, packaged lecture-performances may have increased effectiveness. For example, if a special audience is invited and the performers forewarned, the presentation may at least be pitched at a particular level. The artist in charge may try to speak primarily to secondary school teachers or to
intelligent laymen who know nothing about the art form. For
the most part, however, it is too much trouble to rethink a
packaged presentation for each group.

The best way to achieve that result is to commission
special presentations under teaching conditions and with a
fee that make the effort attractive. With the introduction of
such programs to an audience it is possible that the experience
might spread to other settings, for example, television or
private recitals, to mention two widely different means of
exposure to the arts. A private teacher's recital might
entertain as well as educate the proud but often bored parents
if the pupils were to illustrate some of their working pro-
cedures as well as to perform. The possibilities for the
television camera to expose the working process are limitless,
given an astute director who concentrates selectively on a
few significant steps in the production of a work of art.

An educational technique more inclusive moves within
the performance-demonstration form. To experience some parti-
cipation in the feelings or ideas of a laboring artist chal-
lenges preconceptions about art as anything less than the
product of hard work and careful choices. Artistic alter-
natives are revealed, which if differently explored, might
have led to other equally good variations. Such insights
into the fertility and diversity of the arts assume the ob-
server as creative colleague. With the help of artists and
public media, educators must re-examine the connections
between teaching and entertaining processes, between class-

00035.
rooms and the "house" for any art, between educating specialists and audiences.

To become "audience" emerges as a responsible vocation requiring special preparation. Performance-demonstrations on creative process are a beginning step in understanding psychological factors significant for audience education: discrimination, comparison, association, perception of time, of space, of movement, memory, sensation, imagination, emotions, reasoning, direction of attention. This is an alternative to the dominant assumption that the best way to build alert audiences is to produce skilled amateurs or sophisticated critics. Performance-demonstrations directly challenge the more or less belligerent indifference, the shallow and exaggerated professionalism, the devotion at least narrow if not blind that often characterize publics unprepared for their creative role as audience.
Harvard Project Zero is a basic research program at the Harvard Graduate School of Education studying creation and comprehension in the arts and means toward better art education. Our prime objective is to provide a sound theoretical and experimental base for effective education of artists and audiences. The Project began in the fall of 1967 in response to the frank admission that, however much is known about how to educate in science and how to evaluate scientific work, practically nothing is known about the underlying principles of how to teach and evaluate in art. From that challenging "zero" the Project took its name and tasks. Our research methods include rigorous conceptual analysis, investigation of relevant literature, design and execution of key experiments in psychology and other fields, visits to arts education institutions, and application of results to proposing and assessing programs in art education.

Project founder and former director Nelson Goodman's book Languages of Art (Bobbs-Merrill, 1968) has provided important direction in our effort to isolate and investigate basic skills. This work sets forth a "theory of symbols," a broad treatment of elements of communication, embracing words, gestures, diagrams, paintings, poems, musical scores, and so on. Almost all the psychological processes under consideration in our studies of the arts involve extensive operation with and upon symbols of various kinds. These symbols are not merely instruments of communication, but also instruments of cognition, tools in terms of which the mind deals with the perceptual world.

Some of our research examines the psychological implications of the theoretical models of symbol systems introduced in Languages of Art. For instance, one question is whether different information processing skills are necessary to produce effective art within linguistic, versus non-linguistic, symbol systems. Another, complementary approach emphasizes problem solving and search strategies in the moment-to-moment perception and production of a work of art. How do subjects search for rhyme words in poetry or explore alternative placements of pieces in collage? A favorite means of developing and testing new models is through the study of errors. By using impoverished or ambiguous stimuli, assigning tasks somewhat too difficult for a subject, or working with brain-damaged subjects, one can elicit patterns of error-making which suggest hypotheses and select between alternative models of a process. These approaches characterize many of the Project's investigations mentioned below in a list of Project members and their particular interests.

Though the development of actual curricula in arts education is not a primary concern, the Project does contribute to the field of practical education. Project members have responded to inquiries and requests to comment on curricula from teachers in the field. Establishment of Harvard Summer School's Institute in Arts Administration resulted from the Project's reply to an inquiry from the director of the Harvard Summer School; and members of the Project staff cooperated in planning the Institute, in preparing material, and
in the actual teaching. The Institute treats problems of relations among artists, trustees, and managers in the functioning of theaters, foundations, arts centers, museums, and the like.

The Project has also sponsored a series of lecture-performances in various media, designed to give the general public and prospective public school teachers and administrators better insight into and attitudes towards artists and the arts. As the series title "Art in the Making" suggests, the purpose of the lecture-demonstrations was to reveal something of the artist's way of working, rather than to display his products. In the presence of an audience free to ask questions, each artist explored alternatives, exposed some constraints of his medium, compared his various efforts, and searched for the right effect, choice by choice.

Programs and research of this sort challenge prevalent educational conceptions which construe art as a matter of immediate experience, emotion, and values in contrast with science as a matter of inference, cognition, and fact. A continuing theme of our research is that such a characterization of the arts is inaccurate and unfruitful. Real progress toward effective arts education is to be sought through better understanding of the symbol systems and media of art, and through better understanding of the perceptual, motor, and other cognitive processes involved in dealing with art.

PROJECT ZERO TECHNICAL REPORTS

1. V. A. Howard, Harvard Project Zero: A Fresh Look at Art Education
3. Howard Gardner, The Development of Sensitivity to Figural and Stylistic Aspects of Paintings
4. Howard Gardner, Three Studies of Perception of Artistic Styles
5. David Perkins, Geometry and the Perception of Pictures: Three Studies
6. V. A. Howard, Types of Musical Reference: Three Philosophical Essays
7. Frank L. Dent, The Lecture-Performance: An Instrument for Audience Education

Requests for copies should be addressed to Project Zero, Harvard Graduate School of Education; Cambridge, Massachusetts, 02138.
PROJECT ZERO MEMBERS AND THEIR INTERESTS

Dr. David Perkins, Director, Project Zero, Graduate School of Education, Harvard University. Problem solving and search processes in perceiving and producing art works; projective geometry in relation to visual perception; children's representational drawing; rhythm perception in music; caricature and pattern recognition.

Prof. Nelson Goodman, Dept. of Philosophy, Harvard University. Founder and former director of Project Zero. Symbol systems and the arts; denotation and exemplification; representation and expression; the contrast between notational and linguistic symbol systems, like musical scores and English, and "dense" symbol systems like paintings.

Mrs. Jeanne Bamberger, MIT Artificial Intelligence Laboratory. Children's understanding of concepts of pitch and melody; children's manipulation of "global" aspects of music, like texture, whole phrases as units, etc.; children's understanding of time relationships in music.


Dr. Howard Gardner, Research Associate, Harvard University. Style perception in literature, music, and the visual arts; the growth of artistic abilities in relation to the psychology of development in general; what studies of brain-damaged persons reveal about various symbol-processing skills.

Prof. Vernon A. Howard, Dept. of Philosophy, University of Western Ontario. Expression, denotation, and representation in music; aesthetics and the philosophy of education; perception of rhythm in music.

Prof. John M. Kennedy, Dept. of Social Relations, Harvard University. The psychology of picturing; exploratory strategies in children's fingerpainting; haptic pictures for the blind; the "et cetera" principle; children's indicating "and so forth" pictorially; how the visual systems deals with ambiguous pictures.

Prof. Paul Kolers, Dept. of Psychology, University of Toronto. Perception and pattern recognition; apparent motion; psychological processes involved in reading; experiments in the reading of inverted, rotated, or otherwise transformed text.

Diana Korzenik, Harvard Graduate School of Education. Children's art; the process of picturing as well as the product; children's becoming aware of picturing as a mode of communication to be interpreted by others.

Prof. Barbara Leondar, Harvard Graduate School of Education. Art teaching in alternative schools; imitation as a learning method; the nature of metaphor; the structure of stories children tell or write.

Graham Roupaas, University of Connecticut. How symbol systems provide information to the "reader"; the meaning of "information"; differentiating symbol systems such as graphs, maps, photographs, circuit diagrams, ordinary representational paintings, etc.; "imitation" in art.