

PROJECT:

A Center of Experimental Music at  
Mills College

MEMBERSHIP:

6 to 8 musicians.

Cage, Copley

PURPOSE:

Research in the field of sounds and  
rhythms formerly considered not musical.

ULTIMATE PURPOSE:

The use of electrical instruments capable  
of producing any desired frequency in any  
desired duration, amplitude and timbre.

FUNCTION OF GROUP:

The research above mentioned.  
Composition.

Performance in concert form of the  
compositions which use the results of the  
research.

(a) Performances at Mills College.  
(b) Performances on tour.

Performance of examples of the general  
and allied field of contemporary  
experimental music.

ADDITIONAL FUNCTIONS  
OF THE GROUP:

Instruction in the field of

(a) Experimental music.

(b) Rhythm.

(c) Appreciation and history of  
contemporary music.

The production of useful music for

(a) Dance classes.

(b) Dance concerts.

(c) Theatrical productions.

SUSTAINING OF PROJECT:

The College to offer

(a) A salary to the director.

(b) Rehearsal space for the group.

(c) Board and room for the group.

(d) Scholarships to those in the group  
wishing to pursue at the same time  
an academic career.

Additional support for the erection and  
maintenance of a laboratory to be obtained  
through grants from individuals and  
corporations.

SUGGESTED MEMBERSHIP:

John Cage, director.

Xenia Cage.

Doris Dennison, former member, Cornish  
faculty.

Margaret Jensen, former member, Cornish  
faculty.

Renata Garve, student.

Marion Constable, student.

THIS PROJECT WOULD CONSTITUTE THE ONLY CENTER OF EXPERIMENTAL MUSIC  
IN THE COUNTRY, WOULD CONSTANTLY ENRICH AND ENLIVEN THE FIELD OF MUSIC

APPLICANT'S SIGNATURE  
Henry Allen Moe  
Secretary General

## PLANS FOR WORK

- (A) STATEMENT OF ITS SIGNIFICANCE
- (B) BRIEF HISTORY OF ITS SIGNIFICANCE
- (C) DESCRIPTION
- (D) PLACES WHERE IT IS KNOWN
- (E) OUTLINE OF PROCEDURE
- (F) EXPECTATION AS TO PUBLICATION OF SCORES AND PERFORMANCE OF SCORES
- (G) MY ULTIMATE PURPOSE

## (A) STATEMENT OF BELIEF

*W.M. 10/10*  
 I believe that the use of noise to make music will continue and increase until we reach a music produced through the aid of electrical instruments and film means which will make available to composers any and all sounds that can be heard. Whereas, in the past, the point of disagreement has been between dissonance and consonance, it will be, in the immediate future between noise and so-called musical sound.

The present methods of writing music, principally those which employ harmony and its reference to a particular field of sound, will be inadequate for the composer who will be faced by the entire field of sound. New methods will be discovered, bearing a definite relation to Schoenberg's 12 tone system and present methods of writing percussion music and other methods which are free from the concept of a fundamental tone.

The principle of form will be our only constant connection with the past. Although the great form of the future will not be as it was in the past, at one time a fugue and at another the sonata, it will be related to these as they are to each other: through the principle of organization or man's common ability to think.

I also believe that music is intended for the ear and not for the eye, and that one of the most urgent responsibilities of a worker in this field is to bring about the performance of music.

## (B) BRIEF HISTORY OF THIS FIELD OF MUSIC, STATEMENT CONCERNING ITS SIGNIFICANCE, EXPECTATION AS TO ITS COMPLETION

Between 1912 and 1925, Luigi Russolo, Italian Futurist

Receipt is acknowledged of your application for a Fellowship. Grants for 1941-42 will be made in March, 1941, and you will then be notified by letter of the action taken on your application.

Oct. 10, 1940

JOHN SIMON GUGGENHEIM MEMORIAL FOUNDATION  
551 Fifth Avenue  
New York City

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was active in the construction of 'noise-tuners' and the giving of concerts in Italy, France and England which demonstrated his belief in an 'Art of Noise'. The 'noise-tuners' were mechanical instruments. Russolo came to the conclusion that the exploration of noise would be best continued with electrical means. These means he was unable to obtain because of lack of funds. Reference to his work may be found in Nicolas Slonimsky's book, 'Music Since 1900'.

In America, following his unconventional use of conventional instruments, Henry Cowell became interested in the possibilities of electrical musical instruments. With Leon Theremin, who had meanwhile invented and constructed many electrical instruments, Henry Cowell developed his Rhythmicon, which, according to reports, is capable of evolving over 65,000 different rhythmic patterns with their correlated intonations. Joseph Schillinger has also worked in collaboration with Leon Theremin.

Edgar Varese in 1931 composed his 'Ionization' which uses only percussion and friction instruments with sirens. This is the only composition by Varese for percussion alone. He has for the past 20 years had the desire to investigate the possibilities of electrical musical instruments, but, as was the case with Russolo, has not found support for his work.

About 1935, Carlos Chavez published his book, 'Toward a New Music', in which there is much mention made of the possibilities of electrical music. About the same time, John Mills, physicist, published his book, 'A Fugue in Cycles and Beats' which also prophesies an electrical future for music. Similar prophecies have been made by physicists such as Dr. Vern O. Knudsen and musicians such as Dr. Leopold Stokowski in the Journal of the Acoustical Society of America.

Before I began the presentation of complete percussion concerts, there had been sporadic performances of Varese's 'Ionization' and of William Russell's 'Fugue' for 8 percussion instruments and his 'Three Dance Movements'. However, at the time (December 1938) that I gave my first percussion concert, I advised many composers throughout the United States of the presence at the Cornish School in Seattle of players, instruments and interest in this new musical field. The response was very encouraging and the number of scores for percussion has grown from about 3 in 1934 to about 50 in 1940. I have at present 30 scores from which to choose for performances. This number is naturally increasing continually. I also make a practice of sending the scores to be copied for inclusion in the Edwin Fleischer Collection of Orchestral Music in Philadelphia. This insures their being available for reference purposes.

However, in continuing my work, I have become, as Russolo

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and Varese did before me, convinced that percussion and the use of mechanical instruments are a transition to the electrical music of the future. With electrical and film means composers will have the entire field of sound available for musical purposes. There are many obstacles in the path of the realization of this future. There are other difficulties than the technical ones. Support is required, and in seeking it, I and others have become familiar with commercially minded companies and classically minded music patrons. The commercial point of view has recently produced the remarkably cheap novelty, the Solovox, which will please some of the public but provide no real musical advance or value. These companies, without vision, do not realize that new possibilities, to be valid, mean new instruments, new playing means, new music. For the Novachord and the Solovox, one can only write piano music or music as we have had it, giving it, through performance on these instruments a novel and cheap effect. Similarly with film means, the use of film-sound libraries confined to the production of sound effects in the film and radio industries has precluded the use of these means for serious musical purposes. Some inventors have made compromises with the musical past in their inventions of electrical 'violins' and 'cellos'. From my point of view, this does not constitute a basic advance.

On the other hand, certain electric instruments intended not for musical purposes but for testing or other purposes prove the existence of the electrical musical future which has been prophesied. I refer to a square-wave generator used to test amplifiers which I had the pleasure of hearing demonstrated recently in Los Angeles. Outstanding among the sound engineers who understand, from an uncommercial point of view, the practical possibilities of the future is Burton Perry, president of Recording Equipment, Inc., Hollywood. He has been connected with Edgar Varese and I enjoy his close cooperation at present.

In concluding this brief history of the field of my project, I state my belief that this work constitutes the laying of a foundation for a new musical culture. That is its significance.

In estimating the duration of my work in this field, I can only say that it will last the length of my life-time and the lives of many other workers not yet born. However, in the space of a year, much can be accomplished in the way of the development of new instruments, use of means which already exist, composition of music for these instruments and means and performance thereof. Further work may be done in the way of lectures and articles.

## (C) DESCRIPTION OF PROJECT

The project may be described as a center of experimental music for the continuation of exploration of sound and rhythm with emphasis placed on those sounds and rhythms not generally considered musical or not accepted in the present symphony orchestra, together

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with composition using results of such exploration and performance thereof. The project includes related activities such as lectures and articles concerning the work done, and application of the musical means for dance accompaniment or other theatrical purposes.

(D) PLACES WHERE THE WORK COULD BE CARRIED ON

Although it is possible to continue my work in composition by myself, I require for research purposes, the collaboration of a sound engineer, and the collaboration of musicians for performance purposes. I also require the cooperation of a college or like institution in order that there may be a place for performance.

The project could be carried on in Los Angeles, at Mills College, at the School of Design in Chicago or at the University of Iowa. In conducting the work in Los Angeles, I would be limited to composition by myself and research with Burton Perry, sound engineer. Dr. Aurelia Henry Reinhardt, president of Mills College, has assured me that the college is ready to cooperate with me providing I am able to find the necessary support. L. Moholy-Nagy, director of the School of Design has given me similar assurance on the part of the School of Design in Chicago. Dr. Carl E. Seashore, department of psychology, State University of Iowa, has written that he is glad to say that I could probably find equipment, administration to sponsor my project and technical assistant at Iowa as favorably as anywhere. I am attracted to Mills College because of the presence there of Marian Van Tuyl, choreographer, because I am interested in making application, from time to time, of my work to the modern dance. I am attracted to the School of Design because my concern with new materials and electrical means makes my work a counterpart in music of the work in visual arts conducted at the School of Design, which is the American Bauhaus. I am attracted to the University of Iowa because of its well-equipped acoustical laboratory and the presence there of Dr. Carl E. Seashore.

Three musicians will work with me, in any event, and act as a nucleus for a sound ensemble. They are Xenia Cage, Doris Dennison and Margaret Jansen. Miss Dennison and Miss Jansen are former members of the faculty of the Cornish School of Music in Seattle, and have worked with me since the presentation in Seattle of the first percussion concert.

Besides my connection with Burton Perry, sound engineer, I am in particular closely associated with Mr. Jack Waring of the Federal Radio Company, Los Angeles. With my father, who is an inventor, Mr. Waring is at present constructing an instrument, of my father's design, which should give interesting results in the variation of the overtone structure of a tone.

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## (E) OUTLINE OF PROCEDURE

## 1. Assembling of Instruments.

## a. My collection of percussion instruments and additions thereto:

1. snare drums, bass drums, tom toms, Noh drum, wood blocks, dragon's mouths, tortoise shells, bones, bongos, quijadas, guiros, marimbula, claves, maracas, rattles, sistrum, tambourine, finger cymbals, Turkish cymbals, Chinese cymbals, jazz cymbals, gongs, tam tam, temple gongs, cup gongs, rice bowls, wind bell, oxen bells, orchestral bells, cowbells, dinner bells, clay bells, trolling bells, turkey bells, chinese bells, sleigh bells, slide whistles, conch shells, police whistles, xylophone, bottles, toy instruments, triangles, brake drums, strap irons, metal pipes, metal disks, sheet metal, wash tub, lion's roar, piano, records of constant and variable frequency, beaters.

## b. Borrowing of instruments, or buying thereof:

1. Percussion instruments such as tympani.
2. Electric sirens.
3. The Rhythmicon (through the generosity of Henry Cowell).
4. Instruments invented by Leon Theremin.

## c. Renting and construction of instruments:

1. Electrical instruments such as the square-wave generator, audio frequency oscillators, thunderscreens, etc.
  2. Amplifiers, loudspeakers, making available the amplification of small sounds.
  3. Film-sound library, machines for its use.
- d. Invention and construction of new instruments in collaboration with sound engineers.

## 2. Composition.

- a. By myself.
- b. By other composers who will be informed regularly of the new instruments available for musical purposes.

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## 3. Training of Players, Rehearsals.

- a. Nucleus of players: Doris Dennison, Margaret Jansen, John and Xenia Cage.
- b. Other musicians interested in playing showing the necessary ability.

## 4. Performances at the center and on tour.

## 5. Articles, lectures, teaching.

## (F) EXPECTATION AS TO PUBLICATION OF SCORES AND PERFORMANCE OF SCORES

It is highly possible that many of the scores used for the projected performances will be published. I believe that the New Music Society will be particularly interested in such publication. That society is at present considering the publication of scores presented on the first percussion programs. I shall continue to send scores for inclusion in the Edwin Fleischer Collection of Orchestral Music in Philadelphia.

I would expect, in the period of a year, to present at least two concerts of new music. These concerts could be repeated on tour. The University of Arizona and Stanford University have signified their desire for concerts.

## (G) MY ULTIMATE PURPOSE

My ultimate purpose as a worker in the field of music is to make available and use sounds and rhythms which are either not yet available or not yet used; that is, I intend to push forward the frontiers of music.

a. The recording of two complete concerts of percussion music (The Night and Day Concert given at the Cornish School in Seattle, Wash.)

c. Two completed experiments in the technique of incorporating of electrical sounds in combination with percussion. (Moving Landscapes I and II by John Cage.)

d. The partial translation of "The Art of Noise" by Luigi Russolo, Italian Futurist. (Edizioni Futuriste Di "Forme" Corso Venezia, 67, Milan, 1916). This translation is now possible through the collaboration of Bonnie Davis and Xenia Cage.

e. Laboratory work designed and electrically powered designed by John Cage and being constructed at the Tech Museum, Federal Building, Los Angeles.

## 2. Compositions

f. Various (but not exact) compositions for piano and voice, chamber music, duos and trios.

APPLICANT'S SIGNATURE:

1. GENERAL ATTAINMENTS (CONTINUED)

- a. The presentation of nine percussion concerts (continued)

- { 3) At the University of Montana  
{ 4) At Whitman College, Walla Walla, Washington  
{ 5) At Reed College, Portland Oregon  
{ 6) At Mills College, California (2 concerts)  
(7) At the California Club (S.F.)

- b. The collection of approximately 150 instruments through the generosity of:

Mr. Albert Bender, San Francisco  
Mr. John Steinbeck, Los Gatos, California  
Nancy Wilson Ross, Poulsbo, Washington  
Dr. Richard Fuller, Seattle, Washington  
Mrs. Margaret E. Fuller, Seattle, Washington  
Mrs. H. F. Ostrander, Seattle, Washington  
Mrs. Thomas Mesdag, Seattle, Washington  
Mrs. Thomas D. Stimson, Seattle, Washington  
Mr. Harold C. Black, Seattle, Washington

- c. The inclusion of the majority of the scores used for the above performances (compositions by Jose Ardevol, Johanna Beyer, Franziska Boas, Henry Cowell, John Cage, Mildred Couper, Ray Green, Lou Harrison, William Russell, Amadeo Roldan) in the Edwin Fleischer Collection of Orchestral Music in the Free Library of Philadelphia.

- d. The recording of two complete concerts of percussion music. (The second and third concerts given at the Cornish School.)

- e. Two completed experiments in the technique of re-recording of electrical sounds in combination with percussion. (Imaginary Landscapes 1 and 2 by John Cage.)

- f. The partial translation of the 'Art of Noise' by Luigi Russolo, Italian Futurist. (Edizioni Futuriste Di 'Poesia' Corso Venezia, 61, Milano, 1916). This translation is made possible through the collaboration of Renata Garve and Xenia Cage.

- g. Laboratory work begun on a new electrical musical instrument designed by John M. Cage and being constructed by Mr. Jack Waring, Federal Radio Co., Los Angeles.

2. Compositions

- a. Numerous (but not extant) compositions for piano, piano and voice, chamber solos, duos and trios.

June 1930-Dec. 1936

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5. REVIEWS

- a. Alfred Frankenstein  
San Francisco Chronicle  
July 28, 1939
- b. Louis Horst  
Dance Observer  
Sept. 1939
- c. Gilbert Brown  
Seattle Star  
Dec. 11, 1939
- d. Jack Avshalomoff  
Reed College Quest  
February 16, 1940
- f. Alfred Frankenstein  
San Francisco Chronicle  
July 19, 1940
- g. Time magazine  
July 27, 1940
- h. Isabel Morse Jones  
Los Angeles Times  
August 4, 1940  
Sept. 1, 1940  
Sept. 8, 1940
- i. Esther Rosenblatt  
Dance Observer  
September 1940

6. CONDUCTING

A. F. S.P. (unwile)

I have conducted performances of the following compositions:

- a. Jose Ardevol  
Suite \*  
b. J. M. Beyer  
3 Movements \*\*  
c. John Cage  
Construction in Metal \*  
2nd Construction \*  
Imaginary Landscapes  
1 and 2 \*\*\*  
Pulse \*  
Return \*
- d. Henry Cowell  
Changing Tensions
- e. Franziska Boas  
3 Inventories of Casey Jones
- f. Ray Green  
5th Simfony \*
- g. Lou Harrison  
Ritmnics V and VI \*
- h. Amadeo Roldan  
Fugue
- i. William Russell

Those marked with an asterisk are first performances. The percussion concerts have included other works for small groups of players; in such cases, I have been one of the players.

(Un) willing to come

References:

- ✓ L. Moly-Nagy 247 E. Ontario, Chicago  
Director, School of Design in Chicago
- ✓ Hattie C. Cornish 1378½ Kelton Ave. W.L.A.  
Former Director, Cornish School, Seattle
- ✓ Dr. Anselm H. Reinhardt Mills College, Calif.  
President, Mills College
- ✓ Margaret Fraenkel S.F. Chronicle, S.F.  
Music Critic
- ✓ Dr. Hans Rosenthal Chicago Musical College  
Musicologist
- ✓ Dr. Leopold Stokowski  
Conductor
- ✓ John Steinbeck - Pacific Grove, Calif.  
Author