

Image Processing Manual

|                               |       |
|-------------------------------|-------|
| I. Theory of Signals          | 1-8   |
| II. Theory of Sync            | 1-8   |
| III. Introduction             |       |
| A. System Architecture        | 1-2   |
| B. Sync and Distribution      | 3-5   |
| C. Routing Systems            | 5-7   |
| D. Output Amplifier           | 7     |
| E. Monitoring:                |       |
| 1. Waveform Monitor           | 8     |
| 2. Vectorscope                | 9     |
| 3. Output Signal Routing      | 9-10  |
| IV. Setting Up the System     |       |
| A. Adjusting Monitors         | 1     |
| B. Image Sources              |       |
| 1. Pre-recorded Tapes         | 1     |
| 2. Cameras                    | 2     |
| 3. Video Line Converters      | 2-3   |
| V. Processing Modules         |       |
| A. Voltage Control Amplifiers | 1-3   |
| B. Sequencers                 |       |
| 1. Jones 8 Input              | 3-6   |
| 2. Four Channel               | 7-8   |
| C. Keyers                     |       |
| 1. Theory                     | 8     |
| 2. Jones Keyers               | 9-10  |
| D. Colorizers                 |       |
| 1. Jones Six Channel          | 11-14 |
| 2. Paik/Abe                   | 15    |
| E. Special Effects Generator  | 15-16 |
| F. Jones Frame Buffer         | 17    |
| G. Character Generator        | 18-20 |
| VI. Analog Control Systems    |       |
| A. Analog Synthesizer         | 1-17  |
| B. Jones Oscillators          | 1-5   |

K78, rev'd

c. 1986

Yallcut, Jud

ELECTRONIC ZEN: The Alternate Video Generation

Unpublished MS.

BIBLIOGRAPHY

PART ONE: VIDEO

- Battcock, Gregory, Editor, NEW ARTISTS VIDEO: A Critical Anthology (1978), E.P. Dutton, N.Y.
- Battcock, Gregory, Editor, THE NEW AMERICAN CINEMA: A Critical Anthology (1967), E.P. Dutton, N.Y. (see Van Der Beek, Stan: "CULTURE: INTERCOM" AND EXPANDED CINEMA)
- Bourtourline, Serge, THE CONCEPT OF ENVIRONMENTAL MANAGEMENT (1967), in the Sept. 1967 issue of DOT ZERO IV. N.Y.
- Bourtourline, Serge, THE CONCEPT OF ENVIRONMENTAL MANAGEMENT (1968), an address delivered to the Conference on Computers and Their Potential Applications in Museums at the Metropolitan Museum of Art, N.Y.C., April 17, 1968.
- Clarke, Shirley, NOTES FOR A VIDEO EXPERIENCE WITH SHIRLEY CLARKE (1971), The Museum of Modern Art Department of Film program May 6, 1971, N.Y.
- Conrad, Tony, DR. DRONE IN CONCERT: PROGRAM NOTES (1972), The Kitchen, N.Y. (notes for a Rhys Chatham & Associates premier).
- Davis, Douglas, EVENTSDRAWINGSOBJECTS VIDEOTAPES, DOUGLAS DAVIS: (1971) AN EXHIBITION: INSIDE AND OUTSIDE THE MUSEUM, catalog, with essays by James Harithas, Nam June Paik and David Ross, The Everson Museum of Art, Syracuse, N.Y.
- Davis, Douglas, ART AND THE FUTURE: A History/Prophecy Of The Collaboration Between Science, Technology And Art (1973), Praeger Publishers, N.Y.
- Gill, Johanna, VIDEO: STATE OF THE ART (1976), Working Papers, The Rockefeller Foundation, N.Y.
- Gillette, Frank, BETWEEN PARADIGMS (1973), An Interface Book, Gordon and Breach, N.Y.
- Gillette, Frank, VIDEO: PROCESS AND META-PROCESS, edited by Judson Rosebush, a catalog, with essays by James Harithas, David Ross, and excerpts from A VIDEOVIEW OF FRANK GILLETTE by WILLOUGHBY SHARP, Everson Museum of Art, Syracuse, N.Y.
- Global Village, THE INDEPENDENT PRODUCER, PUBLIC TELEVISION AND THE NEW VIDEO TECHNOLOGIES, prepared by Karen Mooney and Julie

BIBLIOGRAPHY

Page Two

- Gustafson, Introduction by John Reilly, edited by Karen Mooney, Global Village, N.Y.
- Gruber, Bettina and Vedder, Maria, KUNST UND VIDEO: Internationale Entwicklung Und Kunstler (1983), DuMont Buchverlag Koln, Cologne, Germany.
- Kelly, Joanne, Editor, VIDEO FREE AMERICA PRESENTS (1979), Video Free America, San Francisco, California.
- The Kitchen, OFFICIAL PROGRAM: THE 1973 INTERNATIONAL COMPUTER ARTS FESTIVAL (April 1973), General Co-ordinator: Dmitri Devyatkin, The Kitchen, N.Y.
- Mattingly, Grayson and Smith, Welby, INTRODUCING THE SINGLE CAMERA VTR SYSTEM (1971), Smith-Mattingly Productions Ltd., Washington, D.C.
- Paik, Nam June, ELECTRONIC ART I, II AND III, catalogs, with essays by John Cage, Allan Kaprow, and Russell Connor, Galeria Bonino, N.Y.
- Paik, Nam June, ELECTRONIC TV & COLOR TV EXPERIMENT, program notes, The New School Presents Nam June Paik (January 1965), N.Y. (See also DECOLLAGE NO. 4 and FLUXUS NEWSPAPER NO. 3).
- Paik, Nam June, NAM JUNE PAIK: VIDEA 'N' VIDEOLOGY 1959-1973 (1973), a catalog, edited by Judson Rosebush, Everson Museum of Art, Syracuse, N.Y.
- Paik, Nam June, NAM JUNE PAIK by John G. Hanhardt, with essays by John G. Hanhardt, Michael Nyman, Dieter Ronte and David Ross, The Whitney Museum of American Art and W.W. Norton, N.
- Pontus Hulten, K.G., THE MACHINE: As Seen At The End Of The Mechanical Age (1968), The Museum of Modern Art and the New York Graphic Society Ltd., N.Y. and Greenwich, Connecticut.
- Price, Jonathan, VIDEO-VISIONS: A Medium Discovers Itself (1977), A Plume Book, New American Library, N.Y.
- Reichardt, Jasia, CYBERNETIC SERENDIPITY: The Computer And The Arts (1969), Studio International special issue and Frederick A. Praeger, Publishers, N.Y.
- Reichardt, Jasia, CYBERNETICS, ART AND IDEAS, editor (1971), New York Graphic Society Ltd., Greenwich, Connecticut.
- Ryan, Paul, BIRTH AND DEATH AND CYBERNATION: Cybernetics Of The Sacred (1973), An Interface Book, Gordon and Breach, N.Y.

BIBLIOGRAPHY

Page Three

- Ryan, Paul, CYBERNETICS OF THE SACRED (formerly titled BIRTH AND DEATH AND CYBERNATION, with the addition of EARTHSCORE) (1974), Anchor Books, Doubleday, Garden City, N.Y.
- Schneider, Ira and Korot, Beryl, VIDEO ART: An Anthology, editors, (1976), Harcourt Brace Jovanovich, N.Y.
- Shamberg, Michael and Raindance Corporation, GUERILLA TELEVISION (1971), Holy, Rinehart and Winston, N.Y.
- Stern, Gerd, SUPPORT OF TELEVISION ARTS BY PUBLIC FUNDING IN THE UNITED STATES: An Example, The New York State Council On The Arts Assistance Program (1974), presented at OPEN CIRCUITS- The Future of Television, A Study Conference at the Museum of Modern Art, N.Y.
- The Television Laboratory At WNET/13 News, edited by Diane English and Danny Goldberg, Director: David Loxton, particularly Vol 1, No. 1 (August 1973) and Vol. 1, No. 3 (May 1974), The Television Laboratory, N.Y.
- TVTV (Top Value Television), PRIME TIME (1973), San Francisco, Ca.
- TVTV (Top Value Television), The Prime Time Survey: TV OF THE FUTURE (1974), TVTV, San Francisco, Ca.
- The Videofreex, COOPERSTOWN TV IS A MUSEUM (1973), documentation, Maple Tree Farm, Lanesville, N.Y.
- The Videofreex, SPAGHETTI CITY VIDEO MANUAL (1973), Media Bus and Praeger Publishers, N.Y.
- VISION AND TELEVISION, catalog of a show curated by Russel Conner, (1970), Poses Institute of Fine Arts, Rose Art Museum, Brandeis University, Waltham, Massachusetts.
- WGBH Educational Foundation Annual Report, (1968), Boston, Massachusetts.
- Whitney Museum of American Art, VIDEOTAPE PROGRAM I AND II, curated by David Bienstock (1971), New American Filmmakers series, Whitney Museum of American Art, N.Y.
- Wise, Howard, TV AS A CREATIVE MEDIUM, exhibition catalog curated by Howard Wise (1969), Howard Wise Gallery, N.Y.
- Wright, Walter, VIDEOTAPE KITCHEN NOTES (1972), Program notes for a videotape show by Walter Wright, The Kitchen, N.Y.
- Yalkut, Jud, LUMINOUS REALITIES: Video And Projected Art, (1975), editor and curator: Jud Yalkut, a catalog for an exhibition, University Galleries, Wright State University, Dayton, Ohio.

BIBLIOGRAPHY

Page Four

Youngblood, Gene, EXPANDED CINEMA (1970), introduction by R. Buckminster Fuller, E.P. Dutton, N.Y.

Further references: all issues of RADICAL SOFTWARE magazine, Numbers One to Four (1970-1972) published by Radical Software, Raindance Corporation, N.Y., and Numbers 5 through Vol. II, Number 5 (1972-1973) published by Raindance Foundation and Gordon and Breach Science Publishers, N.Y.

Also all published articles by Jud Yalkut listed in the acknowledgements section of ELECTRONIC ZEN: The Alternate Video Generation.

BIBLIOGRAPHY: PART TWO: General Background

Bateson, Gregory, STEPS TO AN ECOLOGY OF MIND (1972), Chandler Publishing Company and Ballantine Books, N.Y.

Bateson, Gregory, MIND AND NATURE: A Necessary Unity (1979-1980), E.P. Dutton and Bantam Books, N.Y.

Brand, Stewart, II CYBERNETIC FRONTIERS (1974), Bookworks, San Francisco, California, and Random House, N.Y.

Brown, G. Spencer, LAWS OF FORM (1972), Julian Press, N.Y.

Buchler, Justin, PHILOSOPHICAL WRITINGS OF PEIRCE, selected and edited from the works of Charles Sanders Pierce by Justin Buchlet, (1955), Dover Publications, N.Y.

Carpenter, Edmund, OH, WHAT A BLOW THAT PHANTOM GAVE ME! (1974), Bantam Books, Toronto and N.Y.

Cage, John, A YEAR FROM MONDAY (1967), Wesleyan University Press, Middletwon, Connecticut.

Goscia, Victor, TIME FORMS (1972), Gordon and Breach, N.Y.

Gregory, R.L., EYE AND BRAIN: The Psychology of Seeing (1966), World University Library, McGraw-Hill Book Company, N.Y.

Gregory, R.L., THE INTELLIGENT EYE (1970), McGraw-Hill, N.Y.

Herrigel, Eugen, ZEN IN THE ART OF ARCHERY (1953), Pantheon Books, N.

Lilly, John, PROGRAMMING AND METAPROGRAMMING IN THE HUMAN BIOCOMPUTER (1967, 1972), Julian Press, N.Y.

Lilly, John, THE CENTER OF THE CYCLONE: An Autobiography of Inner Space (1972), Julian Press, N.Y.

BIBLIOGRAPHY

Page Five

- McCullough, Warren, EMBODIMENTS OF MIND (1965), MIT Press, Cambridge, Massachusetts.
- McLuhan, Marshall, UNDERSTANDING MEDIA (1964), McGraw-Hill, N.Y.
- McLuhan, Marshall, WAR AND PEACE IN THE GLOBAL VILLAGE, with Quentin Fiore and Jerome Agel (1968), Bantam Books, N.Y.
- McLuhan, Marshall, CULTURE IS OUR BUSINESS(1972), Ballantine Books, N.Y.
- Ornstein, Robert E., THE PSYCHOLOGY OF CONSCIOUSNESS (1972), The Viking Press, N.Y.
- Ornstein, Robert E., editor, THE NATURE OF HUMAN CONSCIOUSNESS (1973), W.H. Freeman and Company, San Francisco, Ca.
- Pierce, Charles S., ESSAYS IN THE PHILOSOPHY OF SCIENCE (1957), The Liberal Arts Press and Bobbs-Merrill Company, Indianapolis, Indiana and N.Y.
- Pierce, John R., SCIENCE, ART, AND COMMUNICATION (1968), Clarkson N. Potter, Inc./Publisher, N.Y.
- Puharich, Andrija, BEYOND TELEPATHY (1962, 1973), Anchor Press, Doubleday, Garden City, N.Y.
- Ruesch, Jurgen and Bateson, Gregory, COMMUNICATION: The Social Matrix of Psychiatry (1968), W.W. Norton & Company, N.Y.
- Teilhard de Chardin, Pierre, THE PHENOMENON OF MAN (1961), Harper & Row, N.Y. (Revised translation, 1965).
- Teilhard de Chardin, Pierre, THE FUTURE OF MAN (1964), Harper & Row, N.Y.
- Tart, Charles T., ALTERED STATES OF CONSCIOUSNESS: A Book Of Readings, editor (1969), John Wiley & Sons, N.Y.
- Thom, Rene, STRUCTURAL STABILITY AND MORPHOGENESIS (1975), W.A. Benjamin, Inc., Reading, Massachusetts.
- Waley, Arthur, THE WAY AND ITS POWER: A Study Of The Tao Te Ching And Its Place In Chinese Thought (1958), Grove Press, N.Y.
- Wiener, Norbert, THE HUMAN USE OF HUMAN BEINGS (1954, 1967), Avon Books, N.Y.
- Wilhelm, Richard, THE SECRET OF THE GOLDEN FLOWER: A Chinese Book of Life, translator and explainer, (1931, 1962), Routledge & Kegan Paul, London, England.
- Wilhelm, Richard, THE I CHING or BOOK OF CHANGES (1950 and other editions), Bollingen Foundation, Pantheon Books, N.Y.
- Woodcock, Alexander and Davis, Monte, CATASTROPHE THEORY (1980), Avon Books, N.Y.

## Selected Bibliography

1. Aaron, Chloe, "The Video Underground", Art in America, Brian O'Doherty ed. May-June 1971, Vol.59, No.3, pp.74 - 79.
2. Boyle, Deirdre, Video Classics, Phoenix, Arizona: Oryx Press, 1986.
3. Burman, Jack, "Art and Technology: The Panacea That Failed", Video Culture A Critical Investigation, edited by John Handhardt, Rochester, New York: Visual Studies Workshop Press, 1986, pp. 232 - 270.
4. D'Agostino, Peter ed., Transmission, New York: Tanam Press, 1985.
5. Furlong, Lucinda, "Notes Towards a History Of Image-Processed Video, Woody and Steina Vasulka", Afterimage, Vol 11, No.5 December, 1983, pp. 12 - 17.
6. Furlong, Lucinda, "Notes Towards a History Of Image-Processed Video", Afterimage, Vol. 11 No. 1&2 Summer 1983, pp. 35 -38.
7. Hagen, Charles, "A Syntax of Binary Images: An Interview with Woody Vasulka" Afterimage Vol.6, Nos. 1&2 Summer 1978, pp. 20- 24.
8. Hanhardt, John, "The Medium Viewed: The American Avant Garde Film", A History of American Avant-Garde Cinema, New York: The American Federation of Arts, 1976, pp.19 - 68.
9. Horak, Jan-Christopher, "The Films of Moholy-Nagy", Afterimage Vol. 13, No. 1&2, Summer 1985, pp. 20 - 23.
10. Liebman, Stuart "1949 - 1958", A History of American Avant-Garde Cinema, New York: The American Federation of Arts, 1976"pp. 85 -98.
11. McLuhan, Marshall and Fiore, Quentin, The Medium is the Massage, New York: Bantam Books, 1967.
12. McLuhan, Marshall, Understanding Media, New York: Signet Books, 1964.
13. Moholy-Nagy, L., "Problems of the Modern Film" reprinted in English in Kostelanetz, as cited by Jan-Christopher Horak, "The Films of Moholy-Nagy" Afterimage Vol. 13, No. 1 & 2, Summer 1985, pp. 20 - 23.

14. Rosebush, Judson ed., Frank Gillette Video: Process and Metaprocess, Syracuse, New York: Everson Museum of Art, 1973.
15. Sargent-Wooster, Ann, "Why Don'T They tell Stories Like They Used To?", College Art Journal, Fall, 1985, pp. 204 - 212.
16. Schneider, Ira and Korot, Beryl, Video Art, New York and London: Harcourt Brace Jovanovich, 1976.
17. Shamberg, Michael, Guerrilla Television, New York: Holt Rinehart and Winston, 1971.
18. Sitney, P. Adams, ed., Film Culture reader, New York: Praeger Publishers, 1970.
19. Sturken, Marita "Private Money and Personal Influence", Afterimage, Vol. 14, No. 6, January, 1987, pp. 8 - 15.
20. Youngblood, Gene, Expanded Cinema, New York: E.P.Dutton, 1970.



COLLABORATION IN ELECTRONIC IMAGE PROCESSING

By ALAN WAYNE POWELL

A thesis submitted to

THE MASON GROSS SCHOOL OF THE ARTS

of

Rutgers University

in partial fulfillment of the requirements

for the degree of


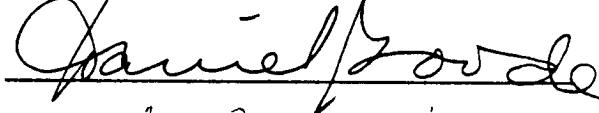
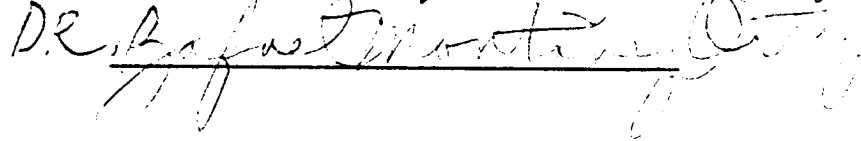
MASTER OF FINE ARTS

Written under the direction of

Joan Semmel

of the VISUAL ARTS PROGRAM

and approved by

New Brunswick, New Jersey

May, 1987

Boyer, Jean-Pierre. L'Image Electronique.  
Catalog for conference. Cite du Havre, Canada:  
Studio du Musée d'art contemporain,  
November 15-17, 1974.

BIBLIOGRAPHIE SOMMAIRE

VIDEO IS BEING INVENTED : Bruce Kurtz  
Arts Magazine , Décembre 1973

EXPANDED CINEMA : Gene Youngblood  
Television as a creative medium (p. 257 à 344)  
E.P. Dutton & Co. , New York

THE ISSUE OF VIDEO ART : en collaboration  
The form and sense of video: Robert Arn - Arts Canada Oct. 1973

REPORTS FROM THE NATIONAL CENTER FOR EXPERIMENTS IN TELEVISION  
No. 1 et 3 - KQED , San Francisco, California

THE PERCEPTION OF TELEVISION DISPLAYS : J. Hockberg & V. Brooks  
Columbia University Dec. 1973 - Publié par Television Laboratory, N.Y.

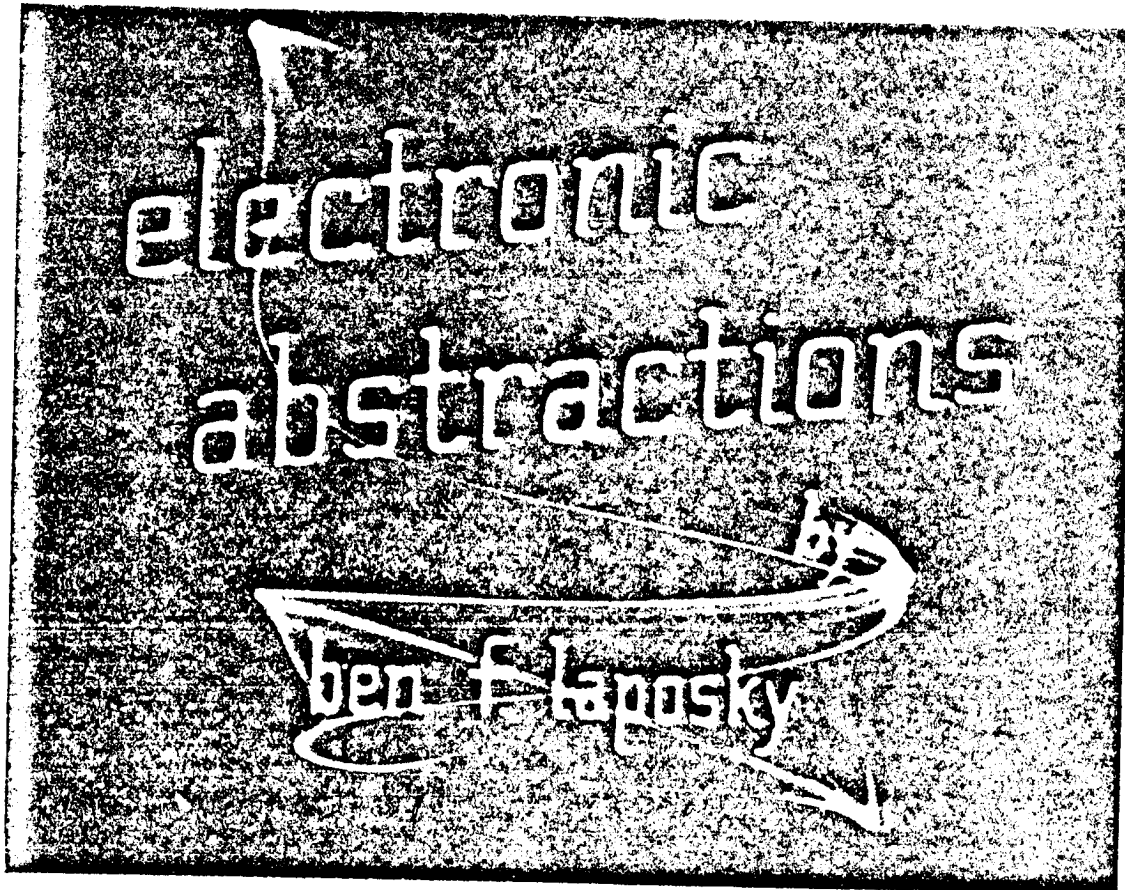
← ?

CYBERNETICS OF THE SACRED : Paul Ryan  
Anchor Press / Doubleday - New York 1974

CYBERNETIQUE ET SOCIETE : Norbert Weiner  
Coll. 10/18 no. 569-70

MEDIUM MEDIA : Société Nouvelle - Magnétoscopie et Videosphère  
Société Nouvelle - ONF, Montréal

RADICAL SOFTWARE - Vol. I & II  
Raindance Corporation , New York



# OSCILLONS

ELECTRONIC ABSTRACTIONS

by Ben F. Laposky



Exhibition Catalogue

**A NEW APPROACH TO DESIGN**

Chester, Iowa: Ben F. Laposky, ~~1940~~ <sup>1960</sup>

Dept of D & I

NS 11/20/74

---

THE ELECTRONIC GALLERY

*Exhibition' Catalog*

Published in conjunction with an exhibition at the University Art Gallery, State University of New York at Binghamton, March 2-March 25, 1983

This exhibition was made possible through a grant from the Media Bureau of the New York State Council on the Arts.

*unnumbered pages.*

cover: HENRY LINHART Impersonations 1980

---

# ELECTRONIC MUSIC

## ELECTRONIC

based on the principles of the human interference of radio waves in space, first for electronic security systems, then applied to musical purposes.

There was a big electronics conference in Moscow, and I showed my instruments there. The conference was a

great success; it was written up in the literature and the newspapers, of which we had many at the time, and many doors were opened for me in the Soviet Union. And so Vladimir Ilyich Lenin, the leader of our state, learned that I had shown an interesting thing at this conference, and he wanted to get acquainted with it himself. They asked me to come with my apparatus, with my musical instrument, to his office, to show him. And I did so.

*What did Lenin think of it?*

He was very gracious, and I was very pleased to meet him. I showed him and his colleagues the control system of my instrument, which I played by moving my hands in the air, and which at that time was called the Thereminvox. I played a piece of music, after which they applauded, including Vladimir Ilyich, who had been watching very attentively. I played Glinka's *The Lark*, which he loved very much. After all this applause, Vladimir Ilyich said that I should show him, and he would try to play it himself.

He stood up, moved to the instrument, stretched his hands out, right hand to the pitch antenna and left to the volume antenna. I took his hands from behind and helped him. He

started to play *The Lark*. He had a very good ear, and he felt where to move his hands to get the sound — to lower or raise the pitch. In the middle of this piece I thought that he could, independently, move his hands. So I took my hands off his and he completed the



**While at Stanford, Theremin was reintroduced to renowned musician/music-encyclopedia author Nicolas Slonimsky, who also hails from St. Petersburg. He also took time to read Slonimsky's suspenders, which say "perestroika" in the Cyrillic alphabet.**

whole thing independently, by himself, with great success and with great applause following. He was very happy that he could play on this instrument all by himself.

*Incredible! In what year did you arrive in New York?*

At the end of 1929, approximately. [In fact, the exact date was December 22, 1927.]

*What brought you to New York?*

When I was working in Leningrad in the Ioffe Institute for Physics and Technology, I

had a lab. I was the inventor of this instrument, the first instrument. I was also the first in the world to invent a television device; that was in 1926.

Then I was sent abroad. I was sent to an international conference in Frankfurt. My wife, Katia, joined me in Paris, where I went next and we stayed with my relatives. After that we went to America.

Katia was interested in medicine, and she wanted to enter a medical institute that was about 35 kilometers from New York. So she entered this medical school, and she slept there in the dormitory, but she visited me once or twice a week in New York.

I'll tell you what happened afterwards. One fine day a young man came to me and said, "You know," (he gave me his calling card), "I have a request to make of you and of your wife too. We love each other. Let us marry each other." It was not quite pleasant for me, but I said, "Of course I cannot forbid — well, in the Soviet Union we have freedom. Divorce is legal." But I told him that things could not happen in this way. He left, and I felt terrible.

I tried to reach my wife, but the phones weren't working well. After a while, maybe three days later, I received from my embassy — because at the time I was working under the leadership of our consulate — a magazine that was published by German representatives of a fascist organization in America. In this article it was written that, "The wife of Theremin is sympathetic to our work, and we accepted her into our society, but Theremin doesn't want to pay money, because he's probably a Jew, and he is afraid to give money. That's why he won't become a member of our society." Well, there was such a magazine.

At the embassy, the people said, "We cannot allow this." Then in a few days, they said something more definite. The embassy called me and demanded that I get a divorce from her. They gave us a divorce without her presence or consent. I talked to her on the telephone about it. She said, "It's my friends, but I was never a member of any such society," and that was it. This was my first divorce. She continued to live there and to study at that institute.

*Are you Jewish?*

No.

*Do you remember meeting Edgard Varèse in New York?*

No, I couldn't tell you. I met so many people. It was long ago, decades ago. I met a lot of people. I remember well a lot of my good students. I had a wonderful student Clara Rockmore, and also Lucie Rosen. These were the better ones whom I remember who worked in my studio.

## I N F O R M A T I O N

### F O R M O R E

Glinksy, Albert, "The Theremin and the Emergence of Electronic Music." Ph.D. dissertation, Department of Music, New York University, 1992.

Mattis, Olivia, "Entretiens inédit avec Lev Termen." *La Revue Musicale*, February, 1991.

Montague, Stephen, "Rediscovering Leon Theremin." *Tempo*, June 1991.

Rhea, Tom, "The Unkeyboards of Professor Theremin." Electronic Perspectives column, *Keyboard*, September, 1978.

Rockmore, Clara, *The Art of the Theremin*. Compact Disc, distributed by Delos International.

CREATIVE SOUND  
SELECTED BIBLIOGRAPHY

|  | H. REF. | S. REF. | AWARE. | THEORY | PRACT. | HISTORY | TEXT | GUIDE |
|--|---------|---------|--------|--------|--------|---------|------|-------|
| Alkin, Glyn: <u>TV Sound Operations</u> . Hasting House Publishers, N.Y., N.Y., 1975.<br>A comprehensive and accurate treatment of the subject by a professional in the field (BBC).   |         |         |        | X      | X      |         | X    | X     |
| Appleton, Jon H., and Perera, Ronald C., ed.'s: <u>The Development And Practice Of Electronic Music</u> . Prentice-Hall, Inc., Englewood Cliffs, N.J., 1975.<br>An up-to-date collection of historical/critical essays principally of interest to the musician or listener with an interest in electronic music. Good bibliography and discography.  |         |         | X      |        |        | X       | X    | X     |
| Athey, S.W.: <u>Magnetic Tape Recording</u> . N.A.S.A., Washington, D.C., 1966. (NASA SP-5038)<br>A comprehensive survey of tape recording procedures and hardware, including analog, digital, FM, and instrumentation recording.  | X       |         |        | X      |        |         |      | X     |
| Benade, A.H.: <u>Horns, Strings, and Harmony</u> . Doubleday Anchor Books, Garden City, N.J., 1960.<br>Readable and accurate, this text is a recommended reference in acoustics.   |         | X       |        | X      |        |         | X    | X     |
| Deutsch, Herbert A.: <u>Synthesis: An Introduction To The History, Theory, And Practice Of Electronic Music</u> . Alfred Publishing Co., Inc., 1976.<br>Includes a basic discussion of the history and theory, good coverage of the tape recorder and synthesizer by a man who participated in the development of the Moog Synthesizer. Exercises are given, and a record of sample techniques (33 1/3 rpm) is included. | X       | X       | X      | X      | X      | X       | X    | X     |

|   | H. REF. | S. REF. | AWARE. | THEORY | PRACT. | HISTORY | TEXT | GUIDE |
|---|---------|---------|--------|--------|--------|---------|------|-------|
| Dolan, Robert E.: <u>Music In Modern Media</u> .<br>G. Schirmer, Inc., N.Y., N.Y., 1967.<br>A classic, dealing with recording setups and techniques, studio control-room procedures, film sound track composing and recording, TV production, even electronic music. Slightly dated, but a standard reference nonetheless.  | X       | X       |        | X      | X      |         | X    | X     |
| Dwyer, Terence: <u>Making Electronic Music</u> . Oxford University Press, London, England, 1975.<br>An excellent, recommended text for a First Studio, suitable for a wide range of ages (although illustrations appear to show Jr. H.S.-age students). Many ingenious, creative techniques are explained clearly and simply, and all require an absolute minimum of equipment. Cleverly lays the groundwork for later use of more sophisticated studios. | X       |         | X      | X      | X      |         | X    | X     |
| Eargle, John: <u>Sound Recording</u> . R-e/p Books, Hollywood, Ca.<br>"The best book on the technical side of recording... thoroughly recommended." (Studio Sound) Highly technical, for the advanced student of the art or the working pro. Deals with sophisticated equipment and theory.   | X       | X       |        | X      | X      |         | X    | X     |
| Everest, F. Alton: <u>Handbook of Multichannel Recording</u> . R-e/p Books, Hollywood, Ca.<br>A Classic, comprehensive reference. The comments re Eargle apply to this text as well. Also available from High Fidelity Music Listeners' Book Service.   | X       | X       |        | X      | X      |         | X    | X     |
| Everest, F. Alton: <u>Setting Up And Using A Multichannel Recording Studio</u> . TAB Books, Blue Ridge Summit, Pa., 1975.<br>A practical reference described by its title. Useful when you get to the semi-pro level (recommended by TEAC in manuals supplied with their multichannel mixers).  | X       |         |        | X      | X      |         | X    | X     |

|   | H. REF. | S. REF. | AWARE. | THEORY | PRACT. | HISTORY | TEXT | GUIDE |
|---|---------|---------|--------|--------|--------|---------|------|-------|
| <p>Friend, David, et. al.: <u>Learning Music With Synthesizers</u>. Hal Leonard Publishing Corp., 1974.</p> <p>Clearly of use primarily in music education. Written specifically for use with ARP synthesizers; basics are nonetheless accurate, and the book will be very useful if you have an ARP or can tolerate "translating" for the synthesizer you do have. Extensive technical details.</p>                                    | X       |         |        | X      | X      |         | X    | X     |
| <p>Goudket, Michael: <u>An Audiovisual Primer</u>. Teachers College Press, Columbia University, N.Y., N.Y., 1974.</p> <p>A good, readable introduction to the making and presentation of AV materials for instructional use. Includes valuable practical information on the care and feeding of equipment, and on presentation.</p>   | X       |         | X      | X      |        |         |      | X     |
| <p>Jenkins, John, and Smith, Jon: <u>Electric Music: A Practical Manual</u>. Indiana University Press, Bloomington, Ind., 1976.</p> <p>A well written, clear manual specifically dealing with the many problems of electric music performance. Useful to Creative Sound programs in terms of presentation, and in its introduction to some of the many inexpensive modifier boxes made for the Pop musician. Foreword by R.A. Moog.</p> | X       |         | X      | X      |        |         |      | X     |
| <p>Kock, W.E.: <u>Sound Waves And Light Waves</u>. Anchor Books, Garden City, N.J., 1965.</p> <p>This accessible text integrates acoustics and optics, and includes unusual information on acoustic lenses, illustrated photographically with a method which gives the reader a rare opportunity to see sound as it undergoes reflection and focusing.</p>  | X       | X       | X      |        |        | X       |      | X     |
| <p>Lipton, L.: <u>Independent Filmmaking</u>. Straight Arrow Books, San Francisco, Ca., 1973.</p> <p>A most important text on the subject, containing an excellent chapter on recording.</p>  | X       | X       | X      | X      |        | X       |      | X     |



|   | H. REF. | S. REF. | AWARE. | THEORY | PRACT. | HISTORY | TEXT | GUIDE |
|---|---------|---------|--------|--------|--------|---------|------|-------|
| Murray, Don: <u>The World Of Sound Recording</u> . J.B. Lippincott Co., N.Y., N.Y., 1965.<br>This is a very readable, anecdotal history of sound recording technology and applications, containing many ideas for creative uses in a broader range of areas than is covered by most other texts in this bibliography. While a bit dated, it is well written, and the author is clearly an enthusiast. A recommended source/textbook for Creative Sound. |         |         | X      | X      | X      | X       | X    | X     |
| Pincus, E.: <u>Guide To Filmmaking</u> . Signet Books, N.A.L., N.Y., 1969.<br>Comments re Lipton, above, apply.   | X       |         |        | X      | X      |         | X    | X     |
| Runstein, Robert E.: <u>Modern Recording Techniques</u> . Howard W. Sams Co., Inc., Indianapolis, Ind.<br>Recommended by a number of sources, this volume is in use as a text in the seminars offered by the Recording Institute of America. Again, more useful at the semi-pro level.  | X       | X       |        | X      | X      |         | X    | X     |
| Schafer, R. Murray: <u>The New Soundscape</u> . Clark and Cruickshank, Toronto, Canada, 1969.<br>A "handbook for the modern music teacher," this readable and interesting volume offers some ear- and consciousness-expanding material useful to the teacher and student of Creative Sound, as well. Written by a recognized artist in electronic music, in response to his teaching experiences.   |         |         | X      |        |        | X       | X    | X     |
| Sear, Walter: <u>The New World Of Electronic Music</u> . Alfred Publishing Co., Inc., Port Washington, N.Y., 1972.<br>Good basic discussions of acoustics, electricity, magnetism, recording, synthesizer principles. No unnecessary detail is given, and writing is suitable for H.S. level.   |         |         | X      | X      | X      |         | X    |       |

|   | H. REF. | S. REF. | AWARE. | THEORY | PRACT. | HISTORY | TEXT | GUIDE |
|---|---------|---------|--------|--------|--------|---------|------|-------|
| <p>Strange, A.: <u>Electronic Music Systems, Techniques, And Controls</u>. W.C. Brown Co., Dubuque, Ia., 1972.</p> <p>This oft-cited, classic text is relatively approachable and useful, despite several technical errors. Again, slanted toward musical applications.</p>   | X       |         | X      | X      | X      | X       | X    |       |
| <p>TEAC Corp.: <u>The White Paper</u>. TEAC Corp. Of America, Montebello, Ca., available through hifi dealers.</p> <p>A 24-page booklet about tape recorder technology. Critical performance parameters are explained for the novice, making this a handy little reference.</p>   | X       |         | X      | X      |        |         |      | X     |
| <p>Tremaine, Howard M.: <u>The Audio Cyclopedia</u>. Howard W. Sams and Co., Indianapolis, Ind., 1969.</p> <p>The classic, standard reference. A must for comprehension of the more technical of the sources here listed, and always handy.</p>   | X       |         | X      |        |        |         |      | X     |
| <p>William, Fred: <u>Electronic Music For Young People</u>. Center For Applied Research In Education, Inc., N.Y., N.Y., 1974.</p> <p>Best suited for elementary school use, this "awareness" text offers the student comparisons between electronic music compositions and contemporary art, and includes some exercises that can be interest-generating and use equipment found in most schools.</p> |         | X       |        |        | X      | X       |      |       |
| <p>Woram, John M.: <u>The Recording Studio Handbook</u>. Available through Modern Recording Magazine, Port Washington, N.Y.</p> <p>An up-to-date, high level reference for the more sophisticated studio, written by a pro (former Eastern V.P. of the Audio Engineering Society, engineer for RCA and Vanguard). Hefty and expensive.</p>  | X       | X       | X      | X      |        |         |      |       |

PERIODICALS:

The technical aspects of sound recording advance quite rapidly, and the contact with the field that is necessary if one is to stay abreast of new developments can only be maintained through periodical literature. Following is a selected list:

Audio (high fidelity orientation)

Audio Engineering Society Journal (excellent, right at the forefront, but highly technical; good occasional library reading)

The Audio Amateur (approachable, some do-it-yourself)

db, The Sound Engineering Magazine (studio procedures, high tech)

High Fidelity (orientation obvious from the name; often good articles)

Popular Electronics (broad range of information, do-it-yourself, theoretical articles)

Radio-Electronics (same comments as above, preferred by this author)

Recording Engineer/Producer (studio procedures, high tech)

Modern Recording Magazine (this author's current favorite; studio procedures, live recording and sound reinforcement, semi-pro as well as pro coverage)

Studio Sound (from London, some do-it-yourself, sometimes highly technical)

\* \* \*

Categorization Abbreviations:

H. REF. denotes "handbook" references.

S. REF. denotes "standard" references (i.e. to be referred to for definitions and clarification of questions).

AWARE. denotes those texts promoting expansion of sound awareness.

PRACT. denotes those texts suitable for use in practicum.

TEXT denotes those suitable as textbooks.

GUIDE denotes those suitable as reference guides for instructors.

## MISCELLANEOUS INSPIRATIONS

Following is an incomplete and thoroughly personal listing of a few books and recordings found by the author to have been helpful in the understanding and development of a creative approach to sound:

### Books

Cage, John: Notations. Something Else Press, N.Y., N.Y., 1969.  
Silence. Wesleyan University Press, Middletown, Conn., 1961.

A Year From Monday. Wesleyan University Press, 1969.

Malina, Frank J., ed.: Kinetic Art: Theory And Practice. Dover Publications, N.Y., N.Y., 1974.

Tomkins, Calvin: The Bride And The Bachelors. Viking Press, N.Y., N.Y., 1965.

Reck, David: Music Of The Whole Earth. Charles Scribner's Sons, N.Y., N.Y., 1977.

Various authors: On The Future Of Art. Viking Press, N.Y., N.Y., 1970.

### Recordings

#### Columbia:

MS 7207 "The World Of Harry Partch"

MS 7051 "New Electronic Music..." (Music of Our Time series)

MS 6146 "Music of Edgar Varese"

MS 7222 "Conlon Nancarrow: Studies For Player Piano"

#### Deutsche Grammophon Gesellschaft:

139421/22 "Hymnen" (K. Stockhausen)

138811 "Stockhausen: Electronic Music"

#### Nonesuch:

H-71246 "Iannis Xenakis: Electroacoustic Music"

#### Limelight:

LS-86049 "Pierre Henry: Le Voyage"

#### Earthquack:

EQ0001 "Mother Mallard's Portable Masterpiece Company"

EQ 0002 "Like A Duck To Water"

REFERENCES FOR CREATIVE SOUND

Prepared by:

Ralph Jones  
Creative Sound Artist/Teacher  
New York State Summer School of the Arts  
School of Film/Media  
The Division of Humanities and Arts Education  
State Education Department  
Albany, New York 12234

