

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

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c. 1986

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ELECTRONIC ZEN: The Alternate Video Generation

Unpublished MS.

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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


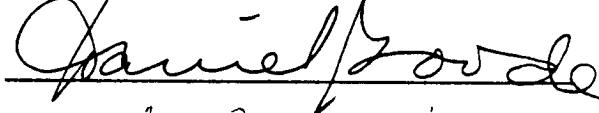
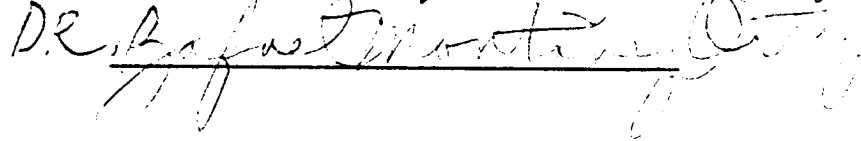
MASTER OF FINE ARTS

Written under the direction of

Joan Semmel

of the VISUAL ARTS PROGRAM

and approved by

New Brunswick, New Jersey

May, 1987

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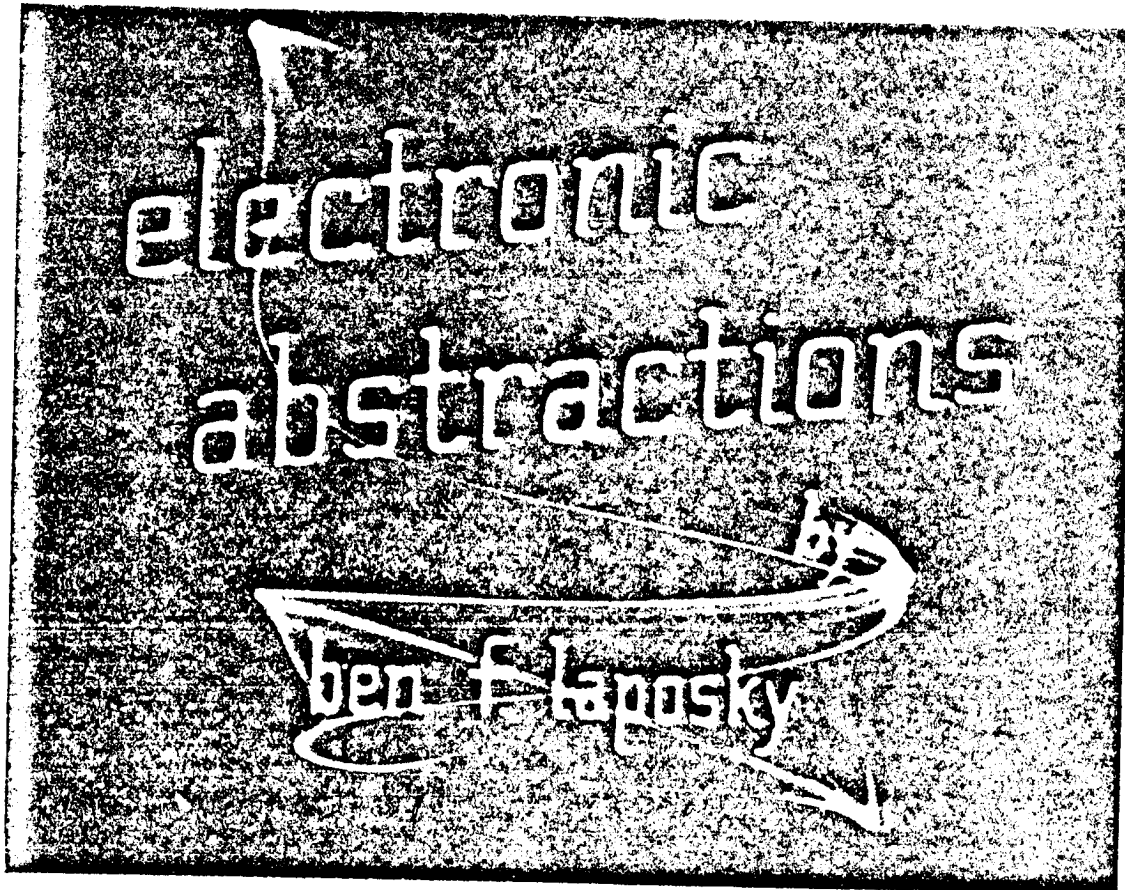
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Raindance Corporation , New York



OSCILLONS

ELECTRONIC ABSTRACTIONS

by Ben F. Laposky



Exhibition Catalogue

A NEW APPROACH TO DESIGN

Chevotsee, Iowa: Ben F. Laposky, ~~1940~~ ¹⁹⁶⁰

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RS 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

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<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. 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. 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. 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. 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. 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)

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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

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