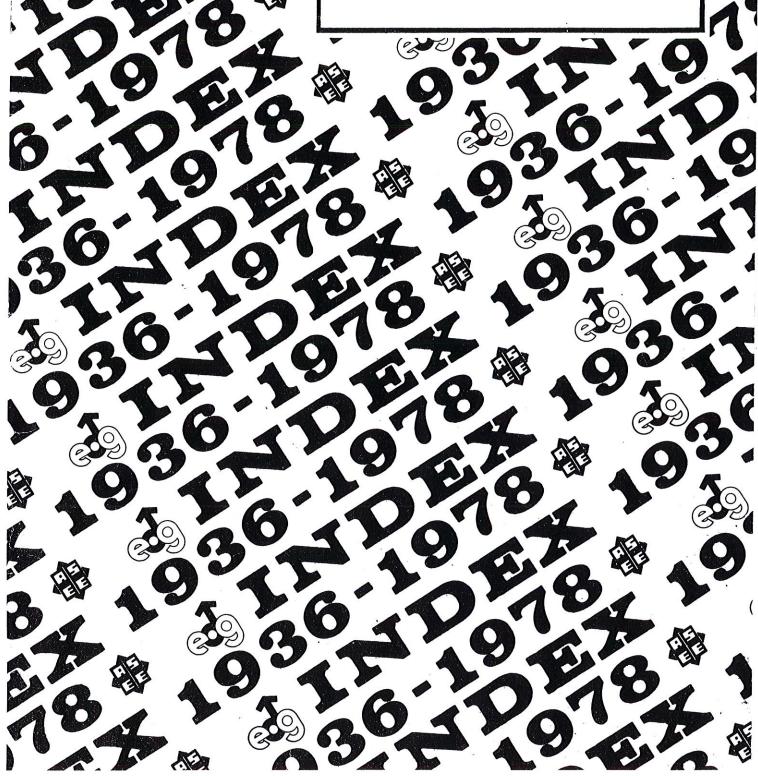
# ENGINEERING DESIGN GRAPHICS JOURNAL

SPECIAL VOLUME 42

NUMBER 4



## ENGINEERING DESIGN GRAPHICS JOURNAL

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ENGINEERING DESIGN GRAPHICS JOURNAL ENGINEERING DESIGN GRAPHICS JOURNAL is published - one volume per year, three numbers per volume, in Winter, Spring, and Fall - by the Engineering Design Graphics Division of the Am-erican Society for Engineering Edu-cation, for teachers and industrial practioners of Engineering Graphics, Computer Graphics, and Design Graph-ics, and Creative Design.

The views and opinions expressed by the individual authors do not nec-essarily reflect the editorial policy of the ENGINEERING DESIGN GRAPHICS JOURNAL or of the Engineering De-sign Graphics Division of ASEE. The editors make a reasonable effort to verify the technical content of the material published; however, final responsibility for opinions and tech-nical accuracy rests entirely upon the author.

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ENGINEERING DESIGN GRAPHICS JOURNAL

OBJECTIVES: The objectives of the JOURNAL are: The objectives of the JOURNAL after
 To publish articles of interest to teachers and practioners of Engin-eering Graphics, Computer Graphics and subjects allied to fundamentals of engineering.
 To stimulate the preparation of orticles and process on tesics of in-To stimulate the preparation of articles and papers on topics of in-terest to its membership.
 To encourage teachers of Graphics to innovate on, experiment with, and test appropriate techniques and topics to further improve quality of and modernize instruction and courses.
 To encourage research, develop-ment, and refinement of theory and applications of engineering graphics for understanding and practice.

#### STYLE GUIDE FOR JOURNAL AUTHORS

The Editor welcomes articles submitted The Editor welcomes articles submitted for publication in the JOURNAL. The following is an author style guide for the benefit of anyone wishing to contri-bute material to Engineering Design Graphics Journal. In order to save time, expedite the mechanics of public-ation, and avoid confusion, please adhere to these guidelines.

All copy is to be typed, double-spaced, on one side only, on white paper, using a <u>black</u> ribbon.

2. All pages of the manuscript are to be consecutively numbered.

3. <u>Two</u> copies of each manuscript are required.

4. Refer to all graphs, diagrams, photographs, or illustrations in your text as Figure 1, Figure 2, etc. Be sure to identify all such material accordingly, either on the front or back of each. Illustrations cannot be redrawn; they are reproduced directly from submitted material and will be reduced to fit the columnar page.

Accordingly, be sure all lines are sharply drawn, all notations are leg-ible, reproduction black is used throu-ghout, and that everything is clean and unfolded. Do not submit illustra-tions larger than 198 x 280 mm. If necessary, make 198 x 280 or smaller photo copies for submission.

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Enclose all material unfolded in large size envelope. Use heavy cardboard to prevent bending.

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#### REVIEW OF ARTICLES

All articles submitted will be re-viewed by several authorities in the field associated with the content of each paper before acceptance. Cur-rent newsworthy items will not be reviewed in this manner, but will be accepted at the discretion of the editors.

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The following deadlines for the sub-mission of articles, announcements, or advertising for the three issues of the JOURNAL: Fall--September 15 Winter--December 1 Spring--February 15

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## GUIDE TO USE

This Index is divided into two parts: a Subject Index beginning on page 5, and an Author Index beginning on page 33. Each entry is located by a four-number notation giving the volume, number, year of issue, and page number of the article. For example, under Advanced Drawing, the article

Research in Engineering Graphics

Just below this entry, a dotted line is seen across the column. Entries preceding this line appeared in one of the several partial indexes previously assembled (see INDEXES). Entries following the dotted line normally begin with Vol. 30, 1966 unless an omission was detected. Such omissions will appear below the dotted line.

The late W.E. Street \* performed an extremely valuable service by documenting the Journal's early history and irregularities therein. Since few libraries have complete sets of the JOURNAL, this information will be helpful if copies of articles are requested by mail.

Volume	Date	Number	Series
Vol. 1 Vol. 1 Vol. 1	Dec. 193 May 193 Oct. 193	87 No. 1	

The May, 1937 issue should, of course, be No. 2, to avoid conflict. This issue is identified as May 1937 in this Index instead of using its incorrect Volume and Number. The issues continue:

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Vol.	2	May	1938	No.	2		
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Vol.	3	Nov.	1939	No. 4	Series No. 9	

Volume 3 contained four issues and made up for the two-issue Volume 2. Volume 3, No. 1 should have been Volume 2, No. 3, in view of its date of issue.

Then, until the Special issue, Proceedings of the 1967 Summer School on Creative Design (Vol. 31, No. 4), each volume consists of a February or Winter issue (No. 1), a May or Spring issue (No. 2) and a November or Fall issue (No. 3). The series numbers are correct from:

Vol. 5 Feb. 1941 No. 1 Series No. 13 to:

Vol. 31 Special 1967 No. 4 Series No. 94

the next issue,

Vol. 32 Winter 1968 No. 1 Series No. 94

was erroneously given the same series number, but the next issue,

Vol. 32 Spring 1968 No. 2 Series No. 96

corrected that error, except that there simply is no "95th" issue in the series.

The use of the "series" designation was discontinued by the present editor since it seemed redundant:

Vol.	41	Spring	1977	No.	2	Series	123
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Since this Index includes all articles published through Vol. 42, No. 3, it is given the designation Vol. 42, No. 4. We recognize that this is irregular in that parts of Vol. 43 are in process, but the correct location for an index is generally considered to be the next immediate issue. Thus, by assigning it as the last issue of Volume 42, it will be bound at its appropriate position by libraries.

\* See Vol. 27, No. 3, 1968, p 11.

## FOREWORD

This special Index issue of the JOURNAL represents a great deal of work on the part of many people - the authors and editors - but especially on the part of Irwin Wladaver, who single-handedly catalogued it. The Division owes Wlad a LARGE debt of gratitude for his efforts. Some time ago Wlad agreed to do the job at then-editor Jim Earle's request, but a vision problem made him give it up temporarily. He took it up again recently and this issue is the result of what can only be called his heroic efforts.

As editor, I have often felt the urgent need for a Journal Index, but it was not until I was proof-reading and assembling the camera copy that I realized just <u>how</u> badly-needed this Index really is. If the Division is to honestly progress, the mass of past efforts must be built upon, not repeated, and careful examination of the entries will show that many people have made significant contributions in almost any area you can mention.

No doubt there are a few categorizing and cross-referencing problems. We have interspersed blank pages frequently for your use in highlighting and updating your areas of interest in the future. In general, the Index is quite complete and should be a veritable gold mine to the interested graphician. I could dwell on that point at great length, but couldn't say it any better than Wlad did in his article "Index to the Past and to the Future" (V17, n2, 1953, pl4). You'd do well to read that one along with his commentary "Design for Barkin' Up the Wrong Tree". You'll find them both quite thought-provoking ....

failling

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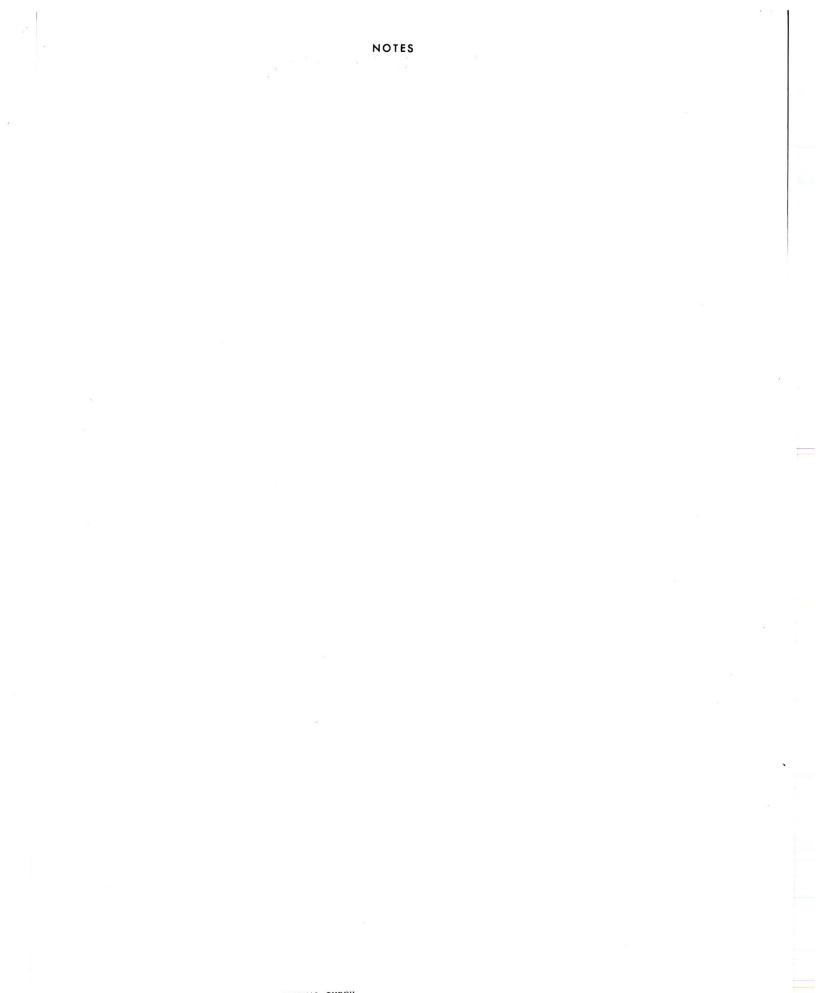
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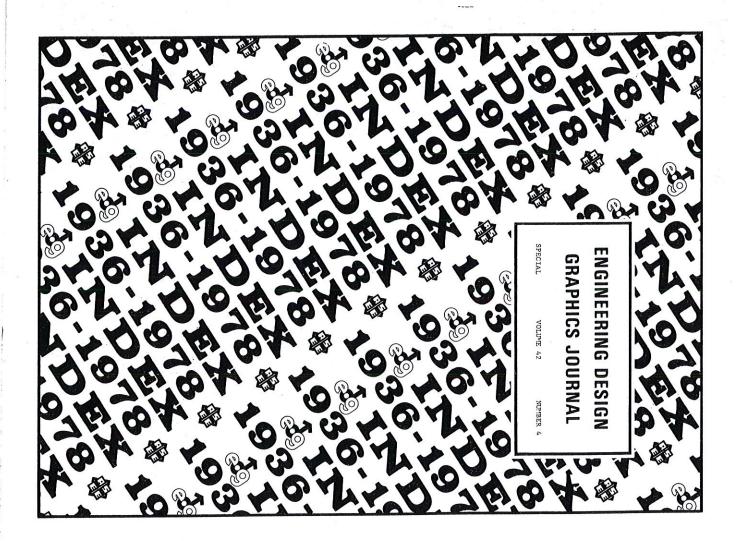
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1928 - University of North Carolina 1929 - Ohio State University 1930 - Ecole Polytechnique, Montreal 1931 - Purdue University 1931 - Turute University 1932 - Oregon State College 1933 - Stevens Hotel, Chicago 1934 - Cornell University 1934 - Cornell University
1935 - Georgia School of Technology
1936 - University of Wisconsin
1937 - M.I.T. and Harvard University
1938 - Texas A&M College
1939 - Penn State College
1940 - University of California, Berkeley
1941 - University of Michigan
1942 - New York University
1943 - I.I.T. and Northwestern University
1944 - University of Cincinnati
1945 - Cancelled (because of WWII)
1946 - Washington University
1947 - University of Minnesota 1940 - Washington University 1947 - University of Minnesota 1948 - University of Texas 1949 - Rensselaer Polytechnic Institute 1949 - Kensselaer Polytechnic Institut
1950 - University of Washington
1951 - Michigan State College
1952 - Dartmouth College
1953 - University of Florida
1954 - University of Illinois, Urbana
1955 - Pennsylvania State University
1956 - University 1955 - Feminylvania State University
1956 - Iowa State College
1957 - Cornell University
1958 - University of California, Berkeley
1959 - Carnegie Institute &
Wainersity & Distribute & University of Pittsburgh 1960 - Purdue University 1960 - Furdue University
1961 - University of Kentucky
1962 - U.S. Air Force Academy
1963 - University of Pennsylvania
1964 - University of Maine
1965 - Illinois Institute of Technology
1966 - University Crate University 1966 - Washington State University 1967 - Michigan State University 1968 - U.C.L.A. 1969 - Pennsylvania State University 1970 - Ohio State University 1971 - U.S. Naval Academy 1972 - Texas Tech University 1973 - Jowa State University 1974 - Rensselaer Polytechnic Institute 1975 - Colorado State University 1975 - University of Tennessee, Knoxville 1977 - University of North Dakota 1978 - University of British Columbia

### SUMMER SCHOOLS

1927 - Cornell University (Before the
establishment of the Division)
1930 - Carnegie Institute
1936 - University of Wisconsin
1946 - Washington University
1951 - Michigan State College
1956 - Iowa State College
1961 - Carnegie Institute
1967 - Michigan State University
1972 - Texas Tech University
1978 - University of British Columbia
MIDYEAR MEETINGS
1947 - Brooklyn Polytechnic, Feb.
1947 - Rackham Foundation, Detroit, Dec.
1949 - Ohio State University, Jan.
1950 - University of Illinois & I.I.T., Jan.
1951 - Texas A&M College, Jan.
1952 - Cooper Union, Columbia University
and U.S.M.A., Jan. 1953 - University of Nebraska, Jan.
1953 - University of Nebraska, Jan.
1954 - University of Pennsylvania, Jan. 1955 - University of Tennessee, Jan.
1955 - University of Tennessee, Jan.
1956 - Illinois Institute of Technology Jan
1957 - Rice Institute, Jan.
1958 - General Motors Institute, Jan.
1959 - Wayne State, Jan.
1960 - Missouri School of Mines, Jan
1961 - University of Wichita, Jan
1962 - University of Wisconsin, Jan
1963 - Kansas State University, Jan.
1964 - Texas A&M, Jan.
1965 - Tampa (Florida, Florida State and
Southern Florida), Jan
1965 – Michigan State, Oct.
1967 - Northeastern University, March
1968 - Tampa, Jan.
1969 - Louisiana State, Jan.
1970 - California State Polytechnic, Jan.
1970 - University of Massachusetts, Nov.
1971 - Houston (University of Houston, Rice
Institute and Texas A&M), Nov.
1973 - Colorado University, Jan.
1974 - New Orleans, (Louisiana State
University), Jan.
1974 - Williamsburgh, Va., (University of

- Virginia and V.P.I and S.U.), Dec.
- 1976 Arizona State, Jan.
- 1977 Ecole Polytechnique, Jan.
- 1978 University of Alabama, Jan.



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