



## NEWS LETTER

U. S. INSTITUTE FOR THEATRE TECHNOLOGY, INC.  
245 WEST 52nd STREET NEW YORK, N. Y. 10019 (212) 757-7138

VOLUME VIII NUMBER 5

SEPTEMBER - OCTOBER 1969

### COUNCIL FUNDS USITT STUDY

Executive Director of the New York State Council of the Arts, John B. Hightower, has announced a Technical Assistance Grant to USITT for consultation to improve Institute management. The grant-in-kind will enable Arts Consultant George Alan Smith to examine the administration and management practices of the Institute and to make specific recommendations to both the Institute and to the Arts Council. Prior to opening his consulting firm in 1966 specializing in the arts, education, and publication, Mr. Smith was Research and Administrative Associate of the Special Studies Project of the Rockefeller Brothers Fund during its pioneering study of the performing arts in America. In that study he had broad responsibility for theatre and dance, worked closely on development of the findings on box office and corporate support of the arts and did the national promotion of the report, **THE PERFORMING ARTS: PROBLEMS AND PROSPECTS**. Mr. Smith's firm has handled such accounts as Associated Councils of the Arts; Studies of the Modern Corporation, Cultural League of New York, World of the Arts, and the New York State Council on the Arts. It is hoped that Mr. Smith's report may be ready for presentation at the November meeting of the Institute's Executive Committee.

### CRS EDITS TC TOO!

The first issue of **THEATRE CRAFTS** magazine under the editorship of Institute President C. Ray Smith was distributed in October. Mr. Smith assumed this post only after consultation with the USITT Executive Committee established clearly that there was no conflict between this post and that of his ex officio obligation to the Institute Journal, **THEATRE DESIGN AND TECHNOLOGY**. In addition to these responsibilities, Mr. Smith, recently elected a Corporate Member of **A.I.A.**, will continue as Associate Senior Editor of **PROGRESSIVE ARCHITECTURE** and his turn of phrase will doubtless continue to characterize other publications on theatre and architecture. Trade rumors have it that Mr. Smith is being considered for an award as Commuter-of-the-Year!

### PANEL TO SCAN B'WAY ZONING

"Broadway: Remodeled!" is the title of a special program to be presented by the Architecture Committee at the New Theatre Workshop, 154 East 54th Street, at 8:00 P.M. on Monday, December 1. Mrs. Leslie Cortesi, Vice-Chairman of the Committee and Program Chairman, is now forming a panel representative of theatre owners, producers, critics, and designers to explore the virtues and vices of "Special Theatre District" legislation. The discussion will focus on "An Amendment to the Zoning Resolution of New York City (C-P:2000, Calendar #12)" which relates to provisions for insertion of theatre volume within the commercial or office structure. The far reaching impact of this amendment should insure a vigorous and informative debate.

### KOOK PLAYS THE ABBOTT

The Committee on Theatre Engineering, under the direction of Chairman Edward F. Kook, presented a working demonstration of Hydraulic Rigging Control and a Laser Projection System at the George Abbott Theatre on September 25th. The rigging system employed a long horizontally mounted cylinder enclosing a piston to which was attached a cable passing through the full length of the cylinder. The system permitted full grid-to-floor batten travel and may be adapted to both preset and group control. The laser "pattern projector" demonstrated produced images on a projection surface in response to an audio signal. Deflection of the laser beam, it was shown, could result in one's being enabled simultaneously to hear and "see" a musical score. Both demonstrations were followed by vigorous question and answer periods and by the opportunity for full inspection of each system. A full report of the meeting is in preparation for winter publication.

● **SPECIAL REPORT on p. 7.**

**next issue - 10th anniversary plans!**

# CHICAGO: ARNOLD SETS FULL SEASON

Dr. Richard Arnold, Chairman of the USITT Midwest Section has provided reports of two meetings held in the hall of the Chicago Lighting Institute, 140 South Dearborn Street, Chicago. In addition to his work on an Engineering Bibliography, Dick Arnold has scheduled seven more Midwest meetings scheduled through June in and about the Chicago area. Detailed announcements of each meeting are available to all Institute members who plan to be in the state from any member of the Executive Board.

The first meeting was on September 12 with over 53 attending. The topic was "Scenic Build-ups and Texturing," with emphasis on materials which have come to replace architectural build-ups of wood and canvas, paper-mache sculpture, and the sawdust and size texturing of previous years. The uses of styrofoam, ground rubber, and fiberglass were presented. ROBERT DAHLSTROM of the University of Illinois reported on his use of styrofoam for a recent production of *LA PERICHOLE*. After presenting several kinds of styrofoam that can be used, Mr. Dahlstrom discussed ways of shaping and fabricating and carving elaborate pilasters, capitals, pediments, and other architectural moldings. Tooling and machining styrofoam is one workable way of shaping the material if one is not disturbed by the fine dust produced. Fluting on pilasters was carved by a router with a specially made steel bit. Heat shaping devices were found most useful but could be used only if the shop is well ventilated because of the fumes created. A soldering iron is one of these devices but even more effective are special tools containing a length of nichrome heating wire which is supplied with a current of variable voltage. These may be designed in the shape of "cheese cutters" and "charcoal starters" and are very useful in sculpting the styrofoam planks. Paint removers and other solvents are also useful in shaping operations. The recommended adhesive to hold pieces of styrofoam together or to bond them to flat frames is 3-M's Aerosol Scotch Spra-Ment multi-purpose adhesive. This material is most effective because it will bond foam securely and quickly. Other glues required holding the surfaces together until the glue dried. Water based paints must be used to cover styrofoam to prevent the destruction of the foam itself. MR. TOM POTENZA of Glenbard North High School demonstrated and discussed the use of ground rubber for surface texturing and build-ups. Ground rubber is obtainable from local recappers and, because it is a waste product, can normally be obtained free of cost. Mr. Potenza has experimented with several kinds of binders to hold the material to various surfaces. The most effective were poly-acrylic resin, sometimes sold under the trade name, HYPLAR medium and varnish, for use with acrylic polymer paints, or poly-vinyl resin which is the

usual commercial white glue under such trade names as EIMERS. These glues could be used full strength or mixed with 50% water. He found that the rubber is held very tightly to the surface and can easily be painted over with standard scene paints. It is low in cost, easy to prepare, and easy to work with. When dry, the ground rubber surface can be walked on without damage, can receive rough treatment, and can be bent and flexed without removing the material. He found that such materials as dry scene paint could be added to the mixture without substantially affecting the bonding of the ground rubber to the scenic surface. In fact the resultant thickening of the mixture seemed to assist the molding and drying of the shapes created. The material seemed to have great use as a durable floor build-up material. Professor GENE A. WILSON of Wisconsin State university at Whitewater gave an excellent demonstration-talk on working with fiberglass. Mr. Wilson has used fiberglass for 15 years and is a leading authority on its application to the stage. He demonstrated the use of fiberglass resin on fiberglass cloth (glass reinforced plastic) as well as on loose-weave fabric (burlap). Two percent of hardener is added to the resin before it is applied to the cloth. He explained that a shop must be ventilated before use of fiberglass is advised. His demonstration was proof that fiberglass techniques far exceed other materials use in speed and strength. Furthermore when material is purchased in large quantities, the cost of fiberglass is greatly reduced. He showed the use of matte fiberglass rolled up to form structural ribs in the construction of rocks, platforms, and other weight-bearing structures. Slides were presented to show tremendous permanent outdoor stage settings constructed of fiberglass which have endured many years of weather exposure. Even the paint covering the fiberglass was protected outdoors by the thin layer of the transparent fiberglass resin. Fiberglass must be covered with oil paints before water-base paints can be applied. Grease or tin foil is used as the parting agent. Usually fiberglass requires a temperature of 70 degrees for it to harden properly. Even cold weather "promoters" will not effectively permit working in really cold temperatures. Mr. Wilson did, however, point to the practice of working with fiberglass at cold temperature and then moving the object to a warm area for drying. Fiberglass resin can be sprayed through an ordinary sprayer in a cold room and the spray gun need not be cleaned because the resin will not dry at cold temperatures. Acetone is the solvent for cleaning brushes and other applicators and most chemical supply houses stock polyester resin (fiberglass resin).

FULL MID-WEST SCHEDULE ON PAGE 12.

A second Section meeting on October 3 dealt with changes and refinements in make-up techniques and products prompted by requirements of motion pictures and television.

MR. ED MEEKIN, Chicago professional make-up artist for stage, film, and television (He has worked for many top stars and has served as "personal make-up artist" to Richard Nixon), spoke of "Make-up techniques and Products," first reviewing several new make-up materials on the market and offering general advice on techniques. He emphasized thorough knowledge of the actual lighting to be used before deciding on the actual selection of colors and kinds of materials and effects to be achieved. He showed several colored sketches in discussing the need to plan carefully for make-up design. Emphasizing careful eye make-up, he described ways to "learn" the facial structure so as to achieve proper measurement and balance in shaping eye brows and facial structure. Using many slides and photographs, he stressed careful determination of the boldness or subtlety of the final effect.

MR. PATRICK BARNES, a licensed cosmetologist and hair stylist on the staff of the New York Costume Company in Chicago, offered "What You Should Know About Wigs." Mr. Barnes gave considerable advice on proper wig care and pointed out the methods of determining proper wig materials, their estimated life, and appropriate usage. Speaking of natural hair, he emphasized avoidance of strong chemicals which break down the protein structure leaving the hair dull and difficult to style. Best ways to handle and store wigs were described. Furnishing several sources for period hair styles, he stressed the need for professional hair and wig styling. Several desirable and undesirable materials for setting hair and wigs were listed. In a question and answer period both Mr. Meekin and Mr. Barnes discussed such topics as creating make-up with vegetable dyes and pancake, the use of yak hair, tissue paper make-up for old age, blood stains, types of hair sprays, and methods for securing the wig or hair-piece firmly to the head. Fifty-three members and guests attended the meeting.

#### OFFICERS AND EXECUTIVE BOARD: MIDWEST.

Chairman	Richard Arnold
Vice-Chairman	George Petterson
Sec'y - Treasurer	Paul Brady
Corr. Secretary	Ann Brownlee
Executive Board	John Green
	Albert Koga
	Glenn Naselius
	James Campbell

A new experiment in combining theatre and television is now under way in St. Paul, Minnesota. The project, called simply "Area Theatre" will extend for 26 weeks, is open to public registration, and is sponsored jointly by the Twin City Area Educational Television Corporation and the Arts and Sciences Center. The combined resources of each association will be fused in non-professional productions of a varied theatre program under the direction of Joseph T. McDermott.

#### THE USITT NEWSLETTER

Editor	Joe McCarthy (717-787-7814)
Mid-west News	Richard Arnold (815-753-1343)
So. California News	Mert Cramer (213-843-1200)
N. Y. C. Office	Mrs. Marge Sundgaard (212-757-7138)

Please help by keeping your address current. Our cost for forwarding an incorrectly addressed JOURNAL is now in excess of fifty cents. NEWS-LETTERS are discarded. Please!

#### NIXON SELECTS NANCY HANKS

President Nixon has announced the appointment of Miss Nancy Hanks as Chairman of the National Council on the Arts filling a post left vacant since the expiration of the term of Roger L. Stevens. With Senate approval Miss Hanks will similarly serve a four-year term both as Chairman of the Council and of the National Endowment of the Arts which body annually distributes funds from a budget of seven million dollars.

As president of the Associated Councils of the Arts during the past two years, Miss Hanks has had repeated contact with USITT and is reported to look favorably on its activities and its proposals for funding its special and continued projects. She has also served as Executive Secretary of the Special Studies Project of the Rockefeller Brothers Fund and was responsible for the direction of the definitive study, "The Performing Arts: Problems and Prospects." In a recent article Miss Hanks noted that while the funding requirements for arts in this country are "miniscule" in contrast to the needs for such programs as defense, welfare, and health, "... support for the arts ... is not going to come by edict or by a mass infusion of governmental funds. It will come from a myriad of individuals, foundations and corporations, as well as governments." Jules Irving, Director of the Repertory Theatre of Lincoln Center, applauded the selection of Miss Hanks noting that she had a "... basic knowledge, sympathy, and understanding of all the unique problems of the American Arts scene."

USITT joins in Mr. Irving's praise, wishes Miss Hanks well in her new capacity, and pledges its support of a comprehensive and nation-wide performing arts program.

The Sixth Annual Theatre, Television, and Film Lighting Symposium of the Illuminating Engineering Society will be held on May 24, 25, and 26 in Hollywood California, at the Hollywood-Roosevelt Hotel. Publicity Director Tom Lemons fully expects to find some USITT members still in the hotel after the USITT meeting there last March and looks for other Institute members to re-visit the scene.

ISADORE M. FIXMAN

(1906 - 1969)

I. M. Fixman, President of Hub Electric Company, Elmhurst, Illinois, was killed in the crash of an airliner near Indianapolis on September ninth. He was accompanied on the fatal trip by Mr. Gilbert Freeman of the Westinghouse Company, the recent purchaser of the Illinois firm. A graduate in electrical engineering from Rensselaer Polytechnic Institute, Mr. Fixman set the enlightened policy of close cooperation with professional and educational associations and personnel which has animated Hub Electric publications in theatre design and engineering, many of which were prepared by James Hull Miller and Al Koga.

The Institute joins the civic and cultural leaders of Oak Park, Illinois, and professional leaders throughout the country in paying tribute to Mr. Fixman.

WILL STEVEN ARMSTRONG

(1930 - 1969)

(The following is taken from a tribute read by Donald Oenslager at the Little Church Around The Corner on September tenth.)

All of us are gathered here this morning to honor in warm remembrance our mutual friend and fellow artist, Will Steven Armstrong. Who of us could have believed the last time we were working and laughing with Will that we should never see him again -- Will, whose splendid career was but half finished... He enjoyed this earth all too briefly. Will had everything to live for. He managed to create a special world of his own around himself. He had self-confidence. He had the world by the tail. Always he was cool. He knew just what he wanted. I have always believed that every aspiring designer brings with him cupped in his hand a flame -- visible only to himself. He nurtures it, fans it into life. This secret flame is the symbol of his creativity. Will possessed this glowing energy in abundance.... His first production was THE ANDERSONVILLE TRIAL set in a southern prison camp during the Civil War which he designed in warm chiaroscuro with dramatic lighting. This self-effacing design was followed by an unorthodox spectacular production for Camus' CALIGULA in which "by a series of devices" he almost destroyed the proscenium of the George Abbott Theatre trying to create the impression of the action taking place practically in the laps of the audience. The moment he found himself cramped behind the proscenium arch of a theatre he tried to break through it. He was ever rebellious! Will was at once a successful and much sought after Broadway designer for plays and musicals all the way from his imaginative mobile design for CAR-NIVAL, for which he won a Tony Award, to his ingenious manipulation of the many scenes for FORTY CARATS. Will found a stimulating outlet for his talents designing scenery, costumes, and lighting for many theatre organizations not necessarily associated with Broadway: the Phoenix Theatre's PEER GYNT, THE POWER AND THE GLORY, and HENRY IV, Part I and Part II. He designed the productions for two seasons of the National Repertory Company. In the Stratford Connecticut Shakespeare Theatre he discovered a freedom of expression in a theatre to which he delighted to return season after season. For this theatre he designed a permanent raking hexagonal stage. The economic thrust stage was used as a basic stage for a number of seasons. On it he designed some of his most notable productions: KING LEAR, JULIUS CAESAR, ROMEO AND JULIET. But it was designing opera that later he found most rewarding as an expression of his style and sense of theatre. In recent years he worked on many of the productions at the City Center Opera,... as a peripatetic designer, he contributed his talents to the opera companies of Boston, Cincinnati, and to his favorite New Orleans. Most of his work sprung from 7½ Leroy Street in the Village, a small stucco house that enclosed a garden with flowers. This was his home and studio, his "Venetian Fantasy," he dubbed it! "When one can bring one's life and work together in a house, that's how an artist can function best," he said. And in this crowded, busy retreat Will brought forth his best work and here too he occasionally loved to entertain his crowds of friends with caviar, champagne, and music. "A Ball," he would call it!

## PRESENTATION -

Ronald C. Olson has accepted an appointment as Vice-Chairman of the Committee on Theatre Presentation. Mr. Olson's experience includes educational and professional theatre as well as industry. He has received degrees from Morehead State College, Minnesota, the University of Nebraska, taught in the Morehead School System, and is now a Ph.D. candidate at New York University. Mr. Olson served as Artistic Director of the Co-op Theatre Club in New York and is now employed as Assistant Sales Director of Century Lighting, Inc. It is altogether fitting that he should assume a post made vacant in the death of Jean Rosenthal as his Master's thesis was "The Lighting Theory and Practice of Jean Rosenthal."

### dance parley splits!

The development of Dance as an art form and as a facet of the educational process was explored in the Symposium, "Accommodating the Many Faces of the Dance," sponsored by the Presentation Committee on October 29th at the Co-op Theatre in New York. Spurred on by Thomas DeGaetani, panel moderator, Hy Faine, Executive Secretary of the American Guild of Musical Artists, urged that dance be kept "on the agenda of American society." Mr. Faine took issue with Joyce Trisler, Choreographer and Teacher, who felt that community support was inadequate to expanded dance programs, in declaring: "It would be a fatal error to contract now, to say we don't have enough (support). This is the time to insist for more. There were great artists in the thirties and forties, but it is in the fifties and the sixties that the public and legislators have finally recognized this as a necessary element of American society." Mrs. June Arey, Director of Dance Program of the National Endowment of the Arts, joined the heated discussion as she warned against sole reliance on Federal funding for arts programs and urged that local sponsors and private foundations must be persuaded to support innovative projects. While the members of the panel could agree that dance is "the imminent creative art" in this country, and while Dr. Thomas Watson and others could point to examples of strong governmental and educational support throughout the nation, there remained considerable disagreement as to just how this expanding activity might be related to the community. Mr. DeGaetani pointed to the increasingly strong liaison between the dancer and the technician as evidenced in the pages of TD&T and expressed the hope that future meetings in New York, Chicago, and Los Angeles (see schedule on p. 16) will offer answers to the questions which this lively debate posed.

(See the schedule for more Dance meetings in New York & Chicago!)

## NOTES -

Leaders of forty performing arts groups and cultural institutions, USITT members among them, have been invited to a two-day conference in New York beginning on December 8 to discuss plans for financing the arts. Samuel Rubin, President of the American Symphony Orchestra and Director of the foundation which bears his name, has planned the parley to counter the "present hand-to-mouth piecemeal financing" which has kept the arts in the role of beggar. In the hope of creating a new climate for federal financing, of cultivating a revision of present thinking patterns which curb arts funding, and of forestalling the "aesthetic decay" of the nation, Mr. Rubin has scheduled this exploratory meeting to be followed by a comprehensive conference tentatively scheduled for early 1970. Even the massive grants of the national foundations have proved inadequate to establish and maintain arts centers throughout the country, Mr. Rubin stated: "New Perspectives" in education through the arts are required and a policy of emphasizing the performing arts at every level of public education. We are now in the "post-lunar" period, he added, one in which "anything is possible once we can divorce old thinking from new."

Included in the 23 grant offerings announced by the National Foundation for the Humanities for 1969-70 is one to the University of California for filming "authentically reproduced ancient theatrical presentations. Although the other grants are largely directed toward development of new curricula and teaching aids in the areas of the Humanities proper, it is significant that the bulk of the funding is awarded to innovative theatre-related proposals. Dr. Barnaby Keeney, Chairman of the Endowment Council, supports the development of a new teaching technology designed to make humanistic "knowledge and understandings ... more widely available" to Americans of all ways of life, not alone those who are involved in the educational processes, with the specific intent of correcting social abuses and solving contemporary problems.

The large exhibition prepared by the Government of West Germany to note the fiftieth anniversary of the Bauhaus, now mounted in Toronto after a highly acclaimed showing in Illinois, will return to this country in 1970 for exhibitions in Pasadena, California (March-April) and in an East Coast city not as yet determined. The package includes some 2000 displays of work by such Bauhaus Masters as Gropius, Breuer, Klee, Kandinsky, Moholy-Nagy, and others. In addition to stage and theatre designs, architectural plans and models, the display offers advertising brochures, posters, industrial crafts, photomontages, all aspects of the Bauhaus movement, its history and its proposals for living. Much of today's theatre technology, as well as that of related media, properly finds its roots in the Bauhaus.

## MORE NOTES —

Theatre Architect John H. McFadyen has been elected president of the Associated Councils of the Arts, a national organization the membership of which includes over 600 state and community arts councils in this country and in Canada. The association has often worked in close liason with the Institute and publishes the quarterly, **CULTURAL AFFAIRS**. Mr. McFadyen, whom many USITT members will remember for his role in the presentation of the Critique of the Saratoga Performing Arts Center, is resuming a post which he held from 1966-1968 and which Miss Nancy Hanks, whose nomination to the National Council is reported elsewhere, occupied most recently. Mr. McFadyen has spoken strongly for governmental support of those major arts institutions which constitute a "national resource."

The Theatre Development Fund has announced a grant of up to \$40,000 in ticket purchases for the Lyn Austin, Oliver Smith, and Joel Schenker hit production of **INDIANS** by Arthur Kopit. During the weeks of October and early November the Fund has made tickets available to selected groups of New Yorkers at a flat \$2.00, making up the difference between this figure and scale to the production box office. **INDIANS** is the sixth New York production to benefit from this plan since 1967. Other assisted productions included **THE GREAT WHITE HOPE**, **WE BOMBED IN NEW HAVEN**, **RED, WHITE, AND MADDOX** on Broadway, and **BIG TIME BUCK WHITE** and **LITTLE MURDERS** off-Broadway. Ticket purchases by the Fund now exceed \$70,000 and total distribution in excess of 15,000 tickets. Productions are selected by a committee headed by Harold Clurman who sees his responsibility to be one of assisting those "productions of artistic merit in the commercial theatre that might not be produced or might close prematurely without such assistance." The Theatre Development Funds' operations have been sustained by grants, covering a three-year period, from the National Endowment for the Arts, the Rockefeller Brothers Fund, and the Twentieth Century Fund in a total amount of \$400,000. Additional support has been pledged from the League of New York Theatres and from individuals and firms active in the theatre.

The first issue of **MEDION**, published by the Museum of the Media, One Union Square, West, New York City, 10003, was distributed in October. Editor Stephen Globus characterized the illustrated publication as "... a sounding-board for professionals in the mixed-media field." Future issues will contain articles by prominent members of both **EAT** and **USITT**.

Sponsored jointly by the American Society for Theatre Research and the Theatre Library Association, the First U.S. Conference of the International Congress for Theatre Research was held in the Lincoln Center Museum and Library of the Performing Arts on October 6-11. The topic for the meeting was "Innovations in Stage and Theatre Design." Twenty-five countries were represented by fifty-two delegates.

## AETA seeks change . . .

Twenty-eight **USITT** members attended the 33rd Annual Convention of the American Educational Theatre Association in Detroit, August 24-27, which included an open Institute meeting on the 26th. President C. Ray Smith greeted members and guests, and with the assistance of Ed Peterson, Harold Burris-Meyer, Dick Arnold, and others, outlined the activities and objectives of the **USITT**. An overwhelmingly vocal discussion, initiated by **AETA** President Lewin Goff's call for a "Federation" of all theatre associations and interests to include **USITT**, **ITI**, and "commercial ... interests," continued far into the night in a multiplicity of fluid settings.

Institute members figured prominently in the formal Convention proceedings with, among others, Gary Gaiser chairing two panels on Experimental Research and David Weiss moderating a session on instructional methods in teaching design and technical theatre. **AETA**'s highest award went this year not only to Helen Hayes and Michel Saint-Dennis but to University of Iowa's Professor Arnold Gillette, long one of the outstanding designer-educators in American Theatre and a **USITT** member. Alvin Cohen was similarly awarded for his continuing support of the Association's Secondary School Theatre Conference.

Although the thrust of the Convention was toward a re-evaluation of theatre-in-education, it was evident that proposals for a reorganization of the association, for full participation in the "revolt" which featured speaker Eric Bentley maintained **AETA** had in fact fostered, and for meaningful student participation in the governance of the body dominated the backstage discussions. Re-design of **AETA** and a redesignation of its objectives is now assured as is some marked impact on related organizations.

## ANTA seeks "friends"

Donald Seawell, Chairman of the Board of **ANTA** has announced that under the terms of reorganization of that body the initials, **A-N-T-A**, employed since 1935 to designate American National Theatre and Academy, will henceforth be used only to refer to the 52nd Street theatre of the same name which is no longer the property of the association but which is administered by the National Council on the Arts for the federal government. The programs of the Academy will now be related solely to the theatre, the **ANTA** Theatre, that is, and former members of **ANTA** will now be known as "The Friends." Certain services of **ANTA** have been terminated with the name; among them, the placement service, playwrights' award program, and the guest artist and speaker bureau. Projects for the new organization are reported to be in the "developmental stage" under a new board of directors. Joseph Papp has been elected President of The American National Theatre and Academy; he will be assisted by a trio of vice-presidents: Walter Abel, Gordon Davidson, and Ellen Stewart.



# ELECTRIC VISIONS IN SPACE

## a special report

The Seminar opened with introductory remarks by C. Ray Smith and by Mr. Herman Krawitz who extended the greetings of Mr. Bing and the staff of the "Met."

Mr. Thompson initiated the business of the Seminar with the introduction of the first panel members.

MISS CAROL HOOVER spoke with reference to her European experience in projections reinforcing her presentation with many slides of productions throughout the continent. She also spoke to the failure of American manufacturers to make available a complete line of projection equipment and accessories for stage use. Similarly she noted a dearth of texts on the techniques of projection. American employment of projected scenery is, as a result, heavily reliant on European expertise.

MR. RUDOLPH KUNTNER AND MR. TED JONES then reviewed the state of the projection art in this country. Mr. Kuntner related the problems of the vast Metropolitan Opera Stage (proscenium, 54' X 54') to those of European stages, lamenting the seeming inability of the engineer to provide a lens system of better than a 1:1 ratio for wide area projection. This problem is not restricted to the opera stage nor to any single equipment manufacturer. For this reason the "Met" has found it impractical to tour heavy projection productions. Mr. Jones spoke from the point of view of the educational theatre, asking that manufacturers release specific performance data on lens systems and image ratios. He reviewed the capabilities of several lensed and non-lensed devices, of conventional incandescent and xenon sources, and further indicated possibilities for home-made units employing perforated plates and inter-mixes of color media. Moving discs, film strips, and other image media were discussed as were gobos employed with ellipsoidal spot lights. The possibilities of live television projection were mentioned and the limiting factor, expense. Mr. Jones suggested that projections need not be restricted to the conventional screen, but translucent forms, easily fabricated, solids, and other surfaces, not excluding the actor, should be considered. Several types of slides were demonstrated together with the use of aluminized tape as a binding material of particular utility because of its protective function as a heat reflector. He then displayed slides and equipment from the schools of Theatre and Music in Bloomington, Indiana, and detailed the equipment employed in the realization of each effect. The new music facility, now under construction, will house more projection equipment than any other educational facility in this country, including a number of 5K and 3K Xenon units

The USITT Seminar on Scenic Projection for the Stage, Cinema, and Television met on June 21st, 1969, in the Metropolitan Opera House, Lincoln Center, New York. Under the chairmanship of Richard Thompson and Carol Hoover and in cooperation with the staff of the "Met," the meeting was sponsored by the Presentation and Engineering Committees of the Institute. Preparation of the complete transcript is now in progress as a joint committee report. Due, however, to the extraordinary interest shown in this meeting, the Newsletter here publishes a selected abstract of the Seminar. This report is taken from an audio tape and doubtless contains certain inaccuracies and omissions which will be corrected in the complete transcript. Institutional affiliations have been omitted in the interest of brevity.

of several styles accepting both slides and film strips for projection on a 108' cye at a beam angle in excess of 150°. Richard Dunham, who was credited with several of the designs shown, has employed both photo process slides and painted transparencies using a tilted "X-ray table" to avoid keystone distortion.

CAROL HOOVER then reviewed the remarkable development of the projection art in Europe since World War II. She pointed out that rebuilt or new theatres in Europe have tended to accommodate projection usage more readily than the conventional American theatre. Accentuating the Bayreuth productions of Wagner's Ring Cycle, Miss Hoover showed many slides of these and other productions both in the "home" theatre and on tour indicating that although the precise effect of the same slide or slide complex may vary from house to house, this variation should not curb one from using projections on the road. A remarkable "rolling wave" fire effect was demonstrated as were other superimposed effects not seen in this country.

MR. ROBERT LEVIN discussed factors governing size, brilliance, definition and color saturation of the projected image from the viewpoint of the engineer. Lamp output, he established, is only one of several factors, often a minor one, in determining the brilliance of the image. Often overlooked is the transmission factor of the system and the limitation which it places on maximal usable lamp output. Thus, the performance of a well designed projection system will not be enhanced by the substitution of a higher output lamp than that specified by the manufacturer. Brilliance, and in some cases, image definition, can be heightened by reducing the length of throw, by use of high transmission ratio slides, and high gain screen surfaces. Mr. Levin showed curves depicting the varying performance of matte, beaded, aluminized, and those len-

tical screens which have different vertical and horizontal axis ratios. He further commented on ambient light control and on the recently developed "black screens" which are responsive to selective sources. He also spoke of the problems in rear projection, the "hot center" and the visible light source, both of which problems stem from the necessity to place the projector close to the screen.

MR. GILBERT HEMSLEY, JR., opened the second session with an often amusing account of his experience with projections in the tour of the Glen Tetley Dance Company. He described the general level of achievement as "dis-asterous to unacceptable" and noted that the contest between "light" and "projection" personnel simply did not offer any promise of creative achievement. What is required in any projection production is an "artist" in control of all lighting provisions. Hemsley recounted his experience in touring with conventional Carousel-type projectors under the most severe circumstances while using the hotel room as a slide laboratory between performances for the preparation of slides made with color media, acrylic paints, cellophane, and bubbled plastics. In summary he suggested that under the control of the "artist" the seeming disadvantages and limitations of projection techniques emerge precisely as the virtues of the process.

DONALD GERSZTOFF then spoke of non-theatrical projection use in display, night club, and gallery applications. Requirements for equipment durability, for lengthened lamp life, and for such control devices as allow for continuous or varying performance cycles, random access to subject matter, and response to audio signals were cited. The relatively high ambient light values of these applications was cited as was frequent lengthening of the throw through mirror complex. Use of stressed plastics to achieve spectrum-wide color shifts, simultaneous front and rear projection, and more conventional special effects devices are often used in combination to enhance the impact of the commercial display. The work of Wilfred was cited in connection with museum use of projected light. Gersztovf closed with the suggestion that today's projection techniques seem to be curiously related to a rising insistence on the socially oriented theme in both the gallery and the night-club.

MR. CARL MORSE introduced the concept of "Information Displays," stating that he had a "cure for a not as yet diagnosed disease." Computer generated information, digital or "on-off" in character can now be converted into a picture utilizing projection techniques not basically unlike those earlier discussed. Dynamic information was contrasted to the conventional static information in which fixed images are created and then stored for future use.

The common air-traffic scope was cited as an example of static information even though the storage time is relatively brief. Mr. Morse specified four methods for making information visually available: 1) the cathode-ray tube is no more than an enclosed projection system in which a stylus of sorts is employed to make an image in response to information collected by a camera, otherwise stored, or almost any sort of electric signal. The most obvious difference between external projection systems and the cathode-ray tube is expressed in comparative wattages, 20-30 watts, internal, perhaps as high as 10,000, external. The schmidt method of projection, using water cooled screens, was cited as a method of increasing wattage; 2) the light-valve was noted to be the basic process employed in conventional projection systems which rely on a controlled light source. The use of an oil coated mirror in some T-V projection systems simply extends the same principal. Observing that most electronic systems are not readily adapted to color projection except in the use of multiple and parallel units, he cited the resultant complexity as the central limitation in electronic color projection; 3) a static electronic projection process was described in which a film placed in proximity to a cathode-ray tube records an image and is then advanced and processed within ten seconds for conventional projection. The system, developed in England, is now used in air traffic control and is capable of three color projection through the use of three lenses, three filters, and three developing cycles. The system is cumbersome but does offer some cost advantages. 4) the electro-mechanical analogue of the artist, a process which in its simplest form is no more than a computer driven stylus scratching a slide, was briefly mentioned, chiefly for its application to T-V. The cost factor, in excess of \$25,000, seems to restrict its application.

MR. CY POSNER discussed and demonstrated with movies and slides a front projection system for projecting backgrounds of particular application to the film industry. Using a 35 mm. transparency, a film strip, or, soon, a 35mm. movie film, the system projects on both screen and actor. The resultant shadow is concealed in precise alignment of actor, projector, and camera. Advantages of the system accrue not alone from the superior quality of the front projected image and from the variety of inexpensive media which the unit will accommodate, but also form the sharp reduction in required working depth. Lighting limitations are minimized through use of a highly directional screen which "rejects" ambient light reflection. Mr. Posner's presentation included slides showing his consoles in action and examples of commercial film applications of the process. It was noted that sequences in the prize winning film, "2001, A.D.," employed a similar process and that the technique may revolutionize the movie business in that "locations" may now be brought into the studio.



MR. CHARLES RYLANDER dealt with projection techniques for T-V use, process shots involving front and rear still and movie projectors with throws of up to 60' on screens of the same dimension. He stressed the necessity for thinking of projection in terms of the "whole package," of integrating such special effects as fog and fire with all other elements so as to achieve a balanced composition. Mr. Rylander also pointed to the difficulties which color transmission presents particularly as current practices tend to result in excessive light spill on the conventional screen. A bobinette scrim, designed to absorb excess ambient light was demonstrated as were Psychedelic effects achieved with a battery of 2500 watt Xenon projectors before a translucent screen and a program for ISD (Large Screen Device!) featuring over-lapping images. The Chroma-key process for simultaneous electronic control of up to six images and their assignment to any area of the total image was discussed and the prospect of a super-sensitive color tube which will work at about  $\frac{1}{4}$  present light values was hailed for the impact it will have on projection techniques.

MR. JO MIELZINER stated that the question raised for the theatre by the Seminar appeared to be "Does the projected image replace the conventional scenic element?" His answer: "A qualified no." "Today's and tomorrow's projectors do not replace scenery ... but add an additional element to the scenic image." He offered a rule: "That the living actor must never be placed in front of a totally projected background" but must be placed in contact with some plastic element to which he can relate in space; a podium, a bench, and real 3-D object will do. Mr. Mielziner suggested that the exception to prove his rule might be found in scripts by Ernst Toller. Film simply does not work "with a live actor," he held, for the contrast between 2-D and 3-D images is irreconcilable. A "sense of depth" is essential to the stage if it is not to exclude the actor. He added that he was prepared to make a statement which he fully recognized to be "dangerous and flat:" --"that he could not conceive of a stage setting being entirely an electronic device." Projection techniques do, however, enhance the possibilities of the theatre when they are employed to depict mood and atmosphere, not literal realism, and especially when simultaneous projection is used from several sources to offer multiple, over-lapping, and segmented images. Theatre's sister arts, he maintained, are prepared to deal with realism far more capably than the stage, a discovery which Belasco, "a mechanical genius, but a man with no taste," may have made in observing the failure of some of his realistically contrived productions. "If you must use realism," Mr. Mielziner concluded, "fragment it!"

The Seminar was then opened to a brief "Q and A" period, some of the highlights of which are noted here. As in the other periods, the identity of each speaker is sometimes obscured by interference from another station.

In response to a question about the availability of "black screens," the group was directed to the SMPTE Journal (October, '68) in which E-K indicates that it is prepared to furnish small units (40" X 40") and that a competing firm will soon be able to offer somewhat larger sizes. PETER WEXLER metaphorically inquired as to the quality of information which the computer now requires to produce a complex graphic image. The answer: just as dictation can now yield typed copy, so the equation can be converted into a visual statement of some complexity. RICHARD LAND'S paper on C. A. Scene Design (See TD&T, #18) was cited as was the possibility of programmed animation in which, given an initial and a terminal image, the computer can provide the intermediate images. G.E.'s work on "Contact Analogue Display" was noted for its simulation of the "real" world as were several programs for computer development of perspective drawings from plans and elevations. A participant inquired into holography and was advised that, while the Seminar did not include this development, he was directed to Stamford's recent dance program featuring holography and to the G.M. presentation in Manhattan. EDWARD KOOK inquired whether, in view of the spatial and temporal limitations of the Broadway stage, a really workable projection system could be devised and employed. He made further reference to the ambient light problem. A suggestion was heard that the problem might be resolved in wider use of textured and light absorbing planes, especially those which form the stage floor. TED JONES pointed out that the producer needs to be made aware that projection use cannot reduce production costs either on stage or in the shop. RUDOLPH KUNTNER spoke firmly in rejection of "the picture-post-card" school of projection usage, stating that the "pretty picture" often tended, even in his own house, to overwhelm or to obscure the performer. BEN SCHLANGER's question, "Is Lanterna Magica out?" prompted some discussion as to the real meaning of the term, some discussion of its often sensational production techniques, and JO MIELZINER's coup de grace: "Lanterna Magica is no more than a technique for overwhelming the play." GARDNER COMPTON suggested that the true value of projections lies in its ability to destroy the conventional concepts of time and space within the volume of the stage. This capability has been clearly demonstrated in current dance productions, notably that of Astarte. LEO KERZ spoke in defense of Piscator's productions of ... Schweik and Rasputin, touchstone productions each, and then inquired as to the determination of textural

and other attributes of that model which the computer would employ. An analogy to the nature and quality of computer generated sound was offered and the assembly was cautioned that the artist must make himself aware of the functions which the computer can profitably perform. The creativity of man can be heightened, it was said, only if the artist assigns the appropriate tasks to the "stupid", computer.

At this point the assembly adjourned for luncheon.

MR. ROBERT BENSON, chairing the afternoon Round Table, prepared a number of provocative questions for the panel. Several members spoke to the question, "Why do we want to use projected scenery rather than conventional three-dimensional pieces?" MR. JO MIELZINER responded that projection use could free the playwright from a static locale, could introduce practical motion into the scenic idiom, and might offer the designer the opportunity to experiment with new textures and new formats if only for the sheer joy of using them. DONALD GERSZTOFF noted the ability of the projected image to convey a vast amount of information with great rapidity and suggested that the audience might demand a choice of viewable images. EDWARD KOOK observed that extensive projection usage on Broadway is now restricted to some three or four productions each year due in large measure to trade practices which force conventional practices on the producer. He also detected a tendency to ignore the intention of the playwright in developing the aesthetic and poetic values of the production. Another member then suggested that there is developing a "third theatre," one which might devolve from an integration of conventional theatre practices with those of the multi-media production. Today's audiences demand "rapidity and density of communication, ... a total environment of creativity enveloping the audience/participant." Extensive adaptation of the accepted theatre form, possibly a "convergence of forms," must be achieved if projection usage is to be an integral part of the production. RICHARD DUNHAM and others then spoke to the matter of architectural provision for projection equipment and RICHARD THOMPSON proposed a radically new scenic studio with provision for projected scenery to be "worked" at full scale prior to "loading-out." The scene studio, he added, now features a paint frame to permit drops to be painted prior to hanging; why not a projection facility of the same dimensions as the stage? TED JONES was asked whether consideration for mounting projection equipment had substantially altered rigging and other schedules in the new Indiana house. He replied that each item which was inserted for projection use, a double bridge, for example, was in fact justified in terms of more conventional practice. Designer, RALPH ALSWANG, in speaking of his "Living Screen," posed a new question, that of "trying to learn what one wants to do" with the tools of mixed-media. Contrast-

ing the filmic art with that of the theatre, he noted that mixed-media is the use of slides and films in "the non-environment of the theatre," that there is no "mix" of film and actor despite the fact that the audience does not discriminate meaningfully between the conventional and projected scenic images. Maintaining that conventional continental practices in projection are "obsolete, old-fashioned, and old-hat" and that "no art is discernible in present projection techniques," he asked: "Who ever said that a projection is something which appears on the cyclorama?" Cycles are huge and boring, collages in the Epic theatre offer the possibility of some visual excitement, but "Why, after eighty years, are we not thinking about the art of projection, about projection on three-dimensional surfaces? /But for ASTARTE/ the aesthetics of the screen have been ignored." Mobile sculptural surfaces must be the object of projection if present and future techniques are to be fused in an aesthetic of projection. (Mr. Alswang was applauded at this point.)

RICHARD DUNHAM pointed out that Bayreuth projections are not restricted to the cyc, often are not pictorial, and may be no more than hi-lites on the plastic set-piece. CAROL HOOVER explained that justification for cyc projection, at least in the productions she had earlier shown, was in the nature of the production, a touring company which had to employ "the easy way out." In response to the question whether the innovative T-V projection techniques were adaptable to the theatre, a panelist answered that the T-V industry had actually borrowed its techniques from stage and film and that the rigid limitations of the T-V studio now tended to isolate its techniques. A representative of E-K then addressed himself to new developments of value to the projectionist, citing the "black screen," several new film developments, and recent adaptations of the basic Carousel projector to widen its applications. He cautioned, however, that there is no "new magic" in the projection art and suggested that we might more profitably prepare and distribute a paper in regard to the limitations and capabilities of existing equipment. In reference to lens sources he agreed that the number of American manufacturers is decreasing, that the tendency to concentrate production on a relatively few standard lenses, and added that quality has improved, prices are down, and adaptation of available equipment is urged. Stressing the central importance of a dialogue between the designer, the engineer and the playwright, Edward Kook asked SIDNEY KINGSLEY to offer a playwright's view of the topic. Kingsley opened by saying that "You can have too much technology -- like too much air-conditioning in this room!" He then proposed recognition, despite the usefulness and validity of experiments in mixed-media, of the centrality of the playwright. Nine Evenings, he pointed out, was in a sense fascinating, but nonetheless dull simply because "the EAT people lacked a playwright!" The frequent break-down of their equipment pointed to a need for a theatre

laboratory and for an agency to stimulate the dialogue which Mr. Kook had asked for (and which the Presentation Committee is now fostering. ed.). The manipulation of light values is not new in the theatre, Mr. Kingsley added, and neither is the arch-fee of the theatre artist, "Literalism!" The Seminar, he concluded, could serve a useful purpose if it could stimulate imagination at all levels of technological application.

(The final sessions of the Seminar were devoted to equipment demonstrations both in the Metropolitan Opera House and in the "Electric Circus.")

## letters -

To Mr. Smith:

... Your publications have always contained information of great interest to us and I also thoroughly enjoyed your seminar on projection at the Metropolitan Opera House earlier this summer.

Now that ANTA has withdrawn its national service to theatres and TOG is restricting its operations solely to a casting service, you and AETA have even greater national responsibilities.

You have both my sympathies and commendation for your willingness to assume your new duties and my very best wishes for success.

RALPH BURGARD

August 28, 1969

(Mr. Burgard is Director of Associated Councils of the Arts, New York.)

To the Editor:

May I respond to the question raised in Mr. Leo Kerz's letter published in the May-June Newsletter. As Chairman of the Theatrical Presentation Committee I was responsible, in collaboration with the committee members and panel Moderators, for selection of the members of the panel for the "Playwright and the Technician: A Dialogue?" The purpose of this discussion was to investigate the relationship and the quality of communication which goes on between playwrights and designers when working on new scripts: the crosstalk, the "give and take," the ways in which each may influence the other's concepts, the language they speak. We were not, in this discussion, attempting to investigate new concepts but rather to explore in some depth, with playwrights of different ages and experiences, the process of planning involved in successful collaboration.

The choice of panelists was governed by two factors: 1) we felt it essential to represent Broadway, off-Broadway, and off-off-Broadway; 2) we tried to find a designer-playwright team who had worked on a first production of a new script. Mr. Olson had designed Mr. Gregg's plays GREEN BAGS, WHITE LINEN, and A SLEEP OF DEMONS at the Co-op Theatre Club; Mr. Lundell had been responsible for the design of Mr. Ribman's plays, JOURNEY OF THE FIFTH HORSE and A CEREMONY OF INNOCENTS. Although the two "Broadway" people had not worked together,

we felt that Mr. Mielziner, a designer who had been responsible for the first production of plays by O'Neill, Williams, and Miller, would offer valuable insights and that Mr. Stavis, whose plays had premiered in regional theatres throughout the country, would offer an additional perspective.

I certainly agree with Mr. Kerz that USITT must be "... devoted to theatre as an artistic enterprise in need of aesthetic and technological management." In matters of design and technology, certainly "What's gone" does not determine "What is" nor does it determine what is going to be." However, I do not believe that communication between humans and the process of aesthetic collaboration are as subject to aesthetic nad technological management as are other aspects of theatre; nor do I believe that they are as subject to change. "What's gone" in the process of two artists attempting a unity of production involving two very different aesthetic disciplines does seem to me to determine "what is" and "what is going to be." I am certainly interested in Mr. Kerz's views--I wish that he had expressed them at the panel meeting. I think that a discussion such as he has in mind could be a provocative one; it's not, however, the one we had in mind when planning "The Playwright and the Technician: A Dialogue?"

ANN FOLKE WELLS

October 20, 1969

(Mr. Smith has suggested publication of a portion of the following from a distinguished Australian architect.)

To Mrs. Sundgaard:

Would you please convey to your President, Mr. C. Ray Smith, the Chairman (Mr. Graeme Whitelaw) and other members of the Panel whom we met, our sincere appreciation for the help and guidance they were able to offer in our theatre building project here in Adelaide. It was refreshing to obtain constructive criticism of our preliminary sketches and face to face discussions with distinguished members of USITT. I am returning also my application for membership and look forward to hearing more of the affairs of your institute ....

HASSELL McCONNELL  
North Adelaide  
Australia

June 23, 1969

This NEWSLETTER is made possible only through the contributions of the following SUSTAINING MEMBERS of USITT.

Automatic Devices Co.	Stage Decoration and Supply
Bolt, Beranek, & Newman	Superior Electric Co.
Century Lighting Co.	Sylvania Electric Products
Berkey-ColorTran Co.	Tiffin Scenic Studios
J. R. Clancey Co.	Ward Leonard Electric
Ebner-Schmidt Associates	I. Weiss and Sons
General Electric Co.	Wenger Corporation
Hub Electric Co.	Peter Albrecht Corp.
Janson Industries	American Seating Co.
Kliegl Bros. Lighting	Electronics Diversified
J. B. Lansing Sound Co.	University of Pittsburgh
Little Stage Lighting Co.	Jean Rosenthal Associates
Major Corporation	Strand Electric Co.
Ben Schlanger, A.I.A.	I.M. Pei & Partners

NOVEMBER 20 - EXECUTIVE COMMITTEE, NEW YORK

---

DECEMBER 1 - ARCHITECTURE - N.Y. "BROADWAY REFASHIONED"  
RECENT THEATRE ZONING CHANGES - 8:00 P. M.  
NEW THEATRE WORKSHOP, 154 EAST 54TH ST. N.Y.C.  
6 - MIDWEST - TOUR OF CIVIC OPERA, CHICAGO  
18 - EXECUTIVE COMMITTEE - NEW YORK  
29 - OPEN MEETING AT SAA CONVENTION - NEW YORK

1970

JANUARY 29 - EXECUTIVE COMMITTEE - NEW YORK  
- PRESENTATION - NEW YORK - to be announced

---

FEBRUARY 6 - MIDWEST - "SCENIC PAINTING" - GOODMAN THEATRE

26 - EXECUTIVE COMMITTEE - NEW YORK

---

MARCH 6 - MIDWEST - "CHOREOGRAPHER AND TECHNICIAN" - CHICAGO

26 - EXECUTIVE COMMITTEE - NEW YORK

---

APRIL 10 - MIDWEST - OPEN MEETING AT CENTRAL STATES SPEECH CONF.  
15 - 18 USITT ANNUAL CONFERENCE - BARBIZON PLAZE HOTEL, N.Y.  
30 - EXECUTIVE COMMITTEE - NEW YORK

PRESENTATION WORKING COMMITTEE MEETS EACH MONTH ON  
THE DAY BEFORE EXECUTIVE COMMITTEE MEETING.



245 West 52nd Street  
New York, New York 10019

NON PROF. ORG. U. S. POSTAGE PAID NEW YORK, N.Y. PERMIT No. 5842
--

Dr. Thomas S. Watson  
Dept. of Dramatic Arts  
University of Delaware  
Newark, Dela. 19711

2347 I