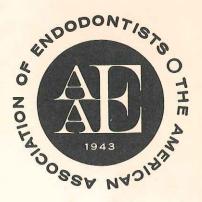


# **American Association of Endodontists**

31st ANNUAL MEETING April 17-21, 1974

Sheraton-Harbor Island Hotel San Diego, California





Mrs. Elenore Baker
Executive Director
Central Office
P.O. Box 11728, Atlanta, Georgia 30305
Phone: (404) 237-5164

31st ANNUAL MEETING
April 17-21, 1974
Sheraton-Harbor Island Hotel
San Diego, California

31nd ANNUAL MEETING April 10-13, 1975 Marriott Hotel New Orleans, Louisiana The next few days of scientific sessions and social contact at the thirty-first annual meeting of The American Association of Endodontists are the culmination of the efforts of many people. As Program Chairman, it has been my privilege to have been a part of this effort. The entire group sincerely hopes that the membership and guests of The American Association of Endodontists enjoy the leisure activities and benefit by the learning experiences during the meeting.

Frank B. Trice Program Chairman

It is our pleasure to welcome you to San Diego for we feel that here we can offer something for everyone — an excellent scientific program for the dedicated Endodontists, a lot of golf courses, tennis and racquet ball courts, or sport fishing for the more athletic types. For the ladies; brunches, lunches, shopping in both the U.S. and Mexico where they can spend as much or as little of dad's hard-earned Endo-bucks as they see fit.

Nor are the children left out. We have our world famous zoo, Wild Animal Park, and the unsurpassed Sea World featuring Shamu, the performing killer whale, porpoises and all of those good things. Or they can walk on the beach to find shells and explore the fascinating tide-pools. We have tried to combine Education, Entertainment, and Fun!

Just relax and enjoy, enjoy.

Ed Nutting Local Arrangements Chairman

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PETE WILSON

#### GREETINGS!

On behalf of the citizens of San Diego, I am delighted to welcome the members of the American Association of Endodontists to America's Finest City. I am confident that you will fall in love with our City by the Sea; just as I am sure that our residents, famous for their hospitality, will do everything within their power to make your stay enjoyable.

When the first population census of California was reported on June 1, 1850, San Diego officially had 798 residents.

Since then, our city has grown and matured. We are now the second largest city in California, yet we are still noted for our clean air and water and for our diversity of recreational, educational and economic opportunities.

We offer our residents as well as our visitors the magnificent Mission Bay Park aquatic wonderland, created from marshlands in 5,000 acres of water and beaches; a world famous San Diego Zoo with its largest collection of animals in the world; and the excitement of a city that is determined to preserve its beauty, old and new.

I hope you will take the time to visit our historical sites, our cultural and educational centers, our miles of beaches and our parks. Then you will understand why San Diegans are proud of their city, and see first hand the many ways our city reflects that pride.

Again, we welcome you and are looking forward to making your visit a successful and memorable experience.

Sincerely,

PETE WILSON

# THIRTY-FIRST ANNUAL MEETING

of the

# AMERICAN ASSOCIATION OF ENDODONTISTS APRIL 17 - 21, 1974 SAN DIEGO, CALIFORNIA

#### PRESIDENT'S WELCOME

It is my distinct pleasure to welcome to the thirty-first annual meeting of the American Association of Endodontists each of the guests, clinicians and members. San Diego, the scenic and sports center of the Southwest is the ideal spot for our first meeting held in Southern California. Its fabulous climate and picturesque Bay affords us an opportunity to revitalize our zeal for living.

Our Program and Local Arrangements Chairmen have spent untold hours over the past two years planning for the culmination of this meeting. Each deserves our sincere praise and gratitude. The context of the program offers a unique and interesting departure from past years for the general and limited practitioner, as well as the teacher and the researcher. It covers a wide range of interests extending from surgical endodontics to the operation of a group practice abetted by research papers enhancing the range of stimuli.

Membership has increased to the extent that we now must utilize more than one hotel for this meeting. The changes you note this year depict the growing pains of our association. These changes will set the trend for future years.

Organization by our Local Arrangements Committee is superb, allowing each of us time to experience the many facets of this meeting. With our lovely ladies we can appreciate the charms of the Old Town (circa 1769) while enjoying the sophistication of modern San Diego.

Speaking in behalf of the Executive Committee I want to commend each committee-man involved with this meeting for his diligent efforts in making the San Diego Meeting one we will long remember. My thanks also to the officers and the general membership of the AAE for your untiring efforts toward making the thirty-first year a step forward in the growth and excellence of endodontics.

Charles A. Scott, Jr. President

# OFFICERS AMERICAN ASSOCIATION OF ENDODONTISTS



Charles A. Scott, Jr.
President



Alfred L. Frank President Elect



Robert A. Uchin Vice President



Henry J. Van Hassel Secretary



Frank B. Trice Treasurer



Worth B. Gregory, Jr. Scientific Editor

#### EXECUTIVE COMMITTEE

1976 Edward M. Osetek John T. Sowle Paul E. Zeigler 1975 Ben J. Fisher W. Paul Radman George A. Zurkow 1974 Harold Gerstein Seymour Oliet Warren T. Wakai

IMMEDIATE PAST PRESIDENT: I. B. Bender

### AMERICAN BOARD OF ENDODONTICS

John Dowson, President Michael A. Heuer, Secretary Harry Blechman Thomas P. Mullaney

Calvin D. Tornick

Irving J. Naidorf Herbert Schilder Samuel Seltzer Milton Siskin

# TRUSTEES AAE ENDOWMENT AND MEMORIAL FOUNDATION

Andrew E. Michanowicz, Chairman Franklin S. Weine, Vice Chairman Julian L. Kelly, Secretary Richard Burns John Dowson Charles G. Maurice Edwin B. Nutting James C. Steiner

Henry J. Van Hassel

# **PAST PRESIDENTS**

*W. Clyde Davis	'43	George G. Stewart '58
		J. Henry Kaiser '59
		Paul P. Sherwood '60
		Glenn R. Brooks '61
		Vincent B. Milas '62
		James H. Sherard, Jr '63
*Elmer A. Jasper	<b>'</b> 49	J.B. Freedland '64
*Raymond L. Girardot .	<b>′</b> 50	Henry S. Schmidt '65
		John I. Ingle '66
		Edwin C. Van Valey '67
		Samuel S. Patterson '68
N. Weir Burkman	<b>′</b> 54	Warren J. Hedman '69
		John F. Bucher '70
John R. Pear	<b>′</b> 56	Dudley H. Glick '71
		I.B. Bender

#### HONORARY MEMBERS

Mary C. Crowley	Harry J. Healey	Maury Massler
Sir E. Wilfred Fish	Walter Hess	B. Nygaard Ostby
Louis I. Grossman	Maynard K. Hine	Harold Stanley

# AAE ANNUAL MEETING COMMITTEES

Program

Frank B. Trice, Chairman Gerald Cathey, Co-Chairman Franklin S. Weine, Co-Chairman

Local Arrangements

Ed Nutting, Chairman

Audio-Visual Clinics

Raleigh Cummings

Luncheon With Learning

Maurice Cutler

**Projected Clinics** 

Stepehn F. Schwartz

Research Seminars

Melvin Goldman

Table Clinics

Charles J. Cunningham

Athletic Activities

Neil Dodds

Don Morse

Entertainment, Luncheons, Banquets

Mel Pollock

Exhibits

Richard E. Schmidt, Commercial

Wes Balsiger, Signs

Navy Activities and Physical Arrangements

Neil Dodds

Gerald Poe

Projection and Sound

Paul Zeigler

Registration

Al Sander

Ushers and Monitors

Bill Young

Ladies Coordinators

Veronica Nutting

Bea Lynds

Dee Zeigler

Favors

Mario Acosta C.

Floral Arrangements

Charles and Bea Lynds

Publicity and Public Relations

Bill Neitefeld and Associates

A.A.E. Reception Hosts

Southern and Northern Academies of Endodontics

#### GENERAL INFORMATION

All functions will take place at the Sheraton-Harbor Hotel.

The A.A.E. Convention Headquarters will be found in the San Carlos Room (Mission Court Room).

Exhibits will be open as follows:

Wednesday — 6:30 p.m. to 8:30 p.m. Thursday — 8:30 a.m. to 5:30 p.m. Friday — 8:30 a.m. to 5:30 p.m. Saturday — 8:30 a.m. to 12 noon

All exhibits will be in the foyer of the Grand Ballroom, The Cuyamaca and San Antonio Rooms. Exhibitors Hospitality Room will be in the Santa Barbara Room.

Cash Bars will be open during all exhibit hours and prior to all luncheons as well as the pre-banquet reception honoring all AAE past presidents. The drink ducats will sell for \$1.75 each or three for \$5.00. There will be a 25¢ charge for soft drinks. Ducats left over from the Dallas meeting are still good.

New Member – AGE Breakfast – This Friday morning breakfast is designed primarily to familiarize new members with AAE activities and to introduce the officers and committee chairmen. All new members are invited to be guests of the association. Other members may attend, but must purchase a ticket. Following the breakfast, the Association of Graduate Endodontists will hold its annual meeting.

The Harry Healey Study Club Breakfast will be held Saturday, April 20, 1974 from 7:00 a.m. to 9:00 a.m. in the Marron Suite, third floor.

The Navy Endodontist Breakfast will be held Saturday, April 20, 1974 from 7:30 a.m. to 9:00 a.m. in the Victoria Room.

The Portola Restaurant will be open for breakfast each morning during the entire convention for the benefit of our membership.

# PAST PRESIDENT'S RECEPTION AND PRESIDENT'S DINNER DANCE

Table reservations can be made at the Registration Area. You may get up a party of eight people and a table will be assigned to you. Those people without a reservation will be seated as space is available at non-host tables.

### WELCOME RECEPTION

Wednesday, April 17, 1974

6:30 to 8:30 p.m.

#### LAGUNA ROOM

Entertainment: Dick Kriana and the Moanans

Hosts: Northern California Academy of Endodontics

President - Dr. Robert D. Thronton

and

Southern California Academy of Endodontics

President - Dr. Wayne A. Bemis

# CONDENSED PROGRAM

5.00 u.m. to 6.00 p.m.
EXECUTIVE COMMITTEE MEETING Victoria Room
9:00 a.m. to 3:00 p.m.
EDUCATION WORKSHOP Beale/Carson Room "TEACHING TEACHERS TO TEACH"
1:00 p.m. to 6:00 p.m.
REGISTRATION Foyer
3:00 p.m. to 4:30 p.m.
AUXILIARY BOARD MEETING Carrillo
6:30 p.m. to 8:30 p.m.
OPENING OF COMMERCIAL EXHIBITS
Cuyamaca Room
6:30 p.m. to 8:30 p.m.
FELLOWSHIP RECEPTION Laguna Room
HOSTS: Northern California Academy of Endodontics and
Southern California Academy of Endodontics

# CONDENSED PROGRAM

8:45 a.m.
GREETINGS AND OFFICIAL OPENING
9:00 a.m. to 11:30 a.m.  GENERAL SESSION Laguna/Palomar Room
11:30 a.m. to 12:15 p.m. RECESS
8:30 a.m. to 5:30 p.m.  COMMERCIAL EXHIBITS Cuyamaca Room and Foyer
12:15 p.m. to 1:45 p.m.  RESEARCH LUNCHEON Laguna/Palomar Room
1:45 p.m. to 2:30 p.m. RECESS
2:30 p.m. to 5:30 p.m. ESSAYISTS I
2:30 p.m. to 5:30 p.m. PANEL Laguna Room
2:30 p.m. to 5:30 p.m.  ENDODONTIC RESEARCH SEMINAR

### GREETINGS AND OFFICIAL OPENING

8:45 a.m. to 9:00 a.m. Laguna/Palomar Rooms

Invocation: Reverend James A. Tsigonis, D.D.S.

Greetings: Dr. Charles A. Scott, President

9:00 a.m. to 11:30 a.m.

**Nutrition In Wound Healing** 

Emanuel Cheraskin, M.D., D.M.D., University of Alabama School of Dentistry.

There is a little question but that in good measure, a doctor's success hinges upon the patient's ability to heal. There is also no question but that the healing process is in large measure a function of diet. This presentation is designed to relate these two phenomena.

12:15 p.m. to 1:45 p.m.

Research Luncheon

Laguna/Palomar Room

Speaker: William Frome, D.D.S., Director of Dental Service, Lyndon B. Johnson Space Center, NASA Houston, Texas

Dental Considerations in Manned Space Flight.

2:30 p.m. to 5:30 p.m.

Essayists I

Palomar Room

Moderator - Daniel B. Green, D.D.S., School of Dentistry, Medical College of Virginia

2:30 p.m.

Surgical Nuances

Harold Gerstein, B.S., D.D.S., Chicago, Illinois

The presentation will include flap design, treatment of papillae, special suture ideas, precontouring of the crown for simplified amputation procedures and instruments. Practical ideas to simplify various aspects of work will be discussed.

3:30 p.m.

Enigmatic Root Fractures

Paul E. Zeigler, D.D.S., San Diego, California

The treatment of teeth sustaining root fractures has been a controversial subject among general practicioners and men in the various dental specialties. There are still those who feel the solution lies in extraction of the tooth and replacement with a fixed prosthesis. Endodontic treatment in the past consisted of pulp extirpation and root canal filling of the coronal segment,

followed by surgical removal of the apical segment, of the fractured root. This presentation deals with the diagnosis, modes of healing, and treatment of the various fractured root situations. Emphasis is placed on the nonsurgical treatment of the injured tooth. The study is based on long term observation of clinical cases, and the literature review of the field.

4:30 p.m.

Sequential Degenerative Changes of the Pulp Following Traumatic Injury

Harold R. Stanley, B.S., D.D.S., M.S., University of Florida School of Dentistry.

A report on an aspect of the material collected and studied under the "Pulp Registry" which is sponsored by the American Association of Endodontists, the American Board of Endodontics, and The Endownment and Memorial Foundation of the American Association of Endodontists.

#### PANEL

2:30 p.m. to 5:30 p.m.

Laguna Room

"Third Party Payment"

Moderator - John T. Sowle, D.D.S., Rockford, Illinois

Panelists: Sidney Francis, D.D.S., Chairman of the Dental Care Plans Committee, A.D.A., and Trustee of California Dental Service.

David Moore, D.D.S., Member, Insurance Committee, A.A.E., San Mateo, California

Roger Patrick, Prudential Insurance Company representing Health Insurance Council, Health Insurance Association of America.

Selvin Sonken, D.D.S., M.P.H., Chief, Care Development Branch, Department of Health, Education and Welfare.

Perry Taylor, D.D.S., Treasurer, Delta Dental Plan and Trustee, Illinois Dental Service, Kankakee, Illinois.

Stuart I. Weinstein, Director, Marketing Information Services, National Association of Blue Shield Plans, Chicago, Illinois.

An in depth discussion by the panelists of Third Party Payment or Prepaid Dental Insurance. The panel will invite questions from the audience.

2:30 p.m. to 5:30 p.m.

**Endodontic Research Seminar** 

Mission Court South Room

Moderator - Melvin Goldman, D.D.S., Tufts University School of Dental Medicine.

2:30 p.m.

Principles of Pulpal and Periapical Histopathology Applied to Endodontic Diagnosis and Treatment Planning

William Dowden, D.D.S., The University of Connecticut School of Dental Medicine.

The results of experimental histopathology research and of tissue response to oral disease and trauma will be presented. These results will be related to a series of endodontic cases involving both diagnostic and treatment planning problems. From the analyzed and related material an integrated concept will be developed which should aid the clinical endodontist in developing a more biologically oriented view of the oral tissues which he manipulates during his daily practice.

3:00 p.m.

Comparative Study Of The Irritational Qualities Of Gutta-Percha E.M. Wolfson, D.D.S., Temple University School of Dentistry.

The purpose of this study was to investigate the irritating properties of some of the common brands of gutta-percha in use today. The effect of plasticizers, age resistors and radiopaquing agents has never been adequately studied to determine whether any of these agents are more deleterious than another.

The different types of gutta-percha tested included the natural gutta-percha latex (poly (trans-1,4-isoprene)), an experimental variety composed of gutta-percha and calcium hydroxide, and the following manufactured brands, Premier, Kerr, Mynol, Star, Union Broach and Kloroperka N-O (with chloroform).

The materials were implanted in the subcutaneous tissues of the backs of rats. The rats were sacrificed after 0, 2, 4, 8, 16, 32 and 64 days. The tissues were processed and stained with hematoxylin and eosin, Masson's trichrome and toluidine blue. The results of these studies will be presented.

3:30 p.m.

Lead Blood Levels After Use Of N2

Louis I. Grossman, D.D.S., Dr. med. dent. (Presenter), Irving M. Shapiro, D.D.S., Ph.D., and Samuel Iaquinta, D.D.S., University of Pennsylvania School of Dental Medicine.

Despite the fact that N2 is not available commercially in this country because of an F.D.A. ban, it is nevertheless being used by dentists who import it from other neighboring countries or else use a substitute under another name. N2 contains lead oxide and Sterikem, a substitute preparation, also contains lead oxide (16.5%).

Lead is a toxic substance and it is conceivable that some of the root canal filling material could be leached out, especially from overfilling or from resorption of deciduous roots, and enter the blood circulation causing systemic effects. For this reason, a number of teeth were treated in a primate after determining the base blood level prior to the experiment and at strategic times during and after the experiment. As controls, the food, water supply, and cage bars were examined for lead content.

4:00 p.m.

Macroscopic Tooth Form and Pulp Cavities; The Diagnostic Approach To Manipulative Treatemnt

Russell C. Wheeler, D.D.S., Washington University School of Dentistry

Salient points in the approach to maxillary and mandibular first molars will be covered. Anatomical variations of the teeth will be discussed with illustrations based on natural tooth specimens.

4:30 p.m.

Cavit As Root Canal Filling Material

Roberto Wallentin, D.D.S., U.N.U.T.E.C. Technological University of Mexico.

The complete and permanent obliteration of space that pulp tissue once occupied is the ultimate goal - of endodontic practice. Many past failures in endodontics and the disrepute into which root-filled teeth fell during the first quarter of this century undoubtedly resulted, in large measure, from the poor techniques - and materials used to obturate the root canal.

Thirty extracted, single rooted teeth were cleaned, shaped and filled. Of these, 20 received Cavit as a filling material (Premier) and 10 received mater cones of gutta-percha and Grossman sealer with lateral cementation.

Cavit tested with dye penetration showed a better marginal adaptation as seen through the conventional - microscope and the electro scanning microscope.

At the present time we are using it as a clinical application in current endodontic practice.

5:00 p.m.

The Use Of Beta Phase Tricalcium Phosphate As A Pulp-Capping Agent

Alfred L. Heller, D.D.S. The Ohio State University College of Dentistry.

Beta phase tricalcium phosphate was experimentally placed over twenty-four surgically created pulpal exposures in four monkeys. Radiographic and histologic evidence indicates that dentinal bridge formation does take place, by direct apposition, on the pulpal tissues treated with tricalcium phosphate. In treated teeth, dentinal bridge formation appears to be very predictable. The bridge is very thick, pulpal inflammation is essentially negative, and odontoblasts are observed directly under, and in contact with, the bridge.

Tricalcium phosphate appears to enhance greatly the formation of a dentinal bridge in contrast to calcium hydroxide medications used as controls.

The new evidence introduced through this investigation may well lay the foundation for the use of tricalcium phosphate as a new and improved agent for pulp capping procedures.

# CONDENSED PROGRAM

7:30 a.m. to 9:00 a.m.

3:30 p.m. RECESS

AGE-NEW MEMBER BREAKFAST Bayside Room
8:30 a.m. to 5:30 p.m.
COMMERCIAL EXHIBITS Cuyamaca Room and Foyer
9:30 a.m. to 12:00 Noon
PANEL - "MAY I HAVE THE FIRST SLIDE PLEASE"
· · · · · Palomar Room
9:00 a.m. to 12:00 Noon
PROJECTED CLINICS Laguna Room
9:30 a.m. to 12:00 Noon
GRADUATE STUDENT RESEARCH SEMINAR
· · · · · · · · · · · ·
12:00 Noon to 1:00 p.m.
RECESS
1:00 p.m. to 3:30 p.m.
LUNCHEON WITH LEARNING Laguna/Palomar/Mission

# GRADUATE STUDENT RESEARCH SEMINAR

9:00 a.m. to 12:00 Noon

Mission Court South Room

Moderator: Melvin Goldman, D.D.S., Tufts University School of Dental Medicine

NOTE: Each year the ENDODONTIC RESEARCH SEMINAR will offer a prize for the best paper presented at the GRADUATE STUDENT RESEARCH SEMINAR. The prize is known as THE ENDODONTIC RESEARCH SEMINAR PRIZE and will consist of \$100.00 and a suitabley engraved plaque.

9:00 a.m.

# Autoradiographic Demonstration Of Trigeminal Nerve **Terminations**

Richard A. Menke, D.D.S., M.S., The Ohio State University College of Dentistry (Presenter), Franklin S. Weine, D.D.S., M.S.D., Phillip A. Ulinski, Ph.D., and Marshall Smulson, D.D.S., Loyola University School of Dentistry.

Some experimenters have postulated that nerve fibers terminate in the pulp while others have theorized a direct attachment of nerve fibers to odontoblasts to form a biological transduction system.

This study utilized a neuroanatomical method by using the fast axon transport of radioactive isotope to demonstrate the termination of the trigeminal nerve in rat molars and incisors. Autoradiographic mean grain counts of experimental and control teeth were compared using t-tests. Statistically significant t-values (P=0.01) showed that trigeminal nerve terminations were found in the middle dentin, inner dentin, predentin and the subodontoblastic zone but not in the outer dentin. odontoblastic layer or pulp of the rat molars. Apical rat incisor terminations were found at the pulpodentinal membrane, subodontoblastic zone and pulp, but not in the enamel, dentin or odontoblastic layers.

9:30 a.m.

# Evaluation Of The Standardization Of Endodontic **Endosseous Implant Instruments**

William D. Powell, D.D.S., Knoxville, Tennessee

Endodontic Endosseous implant pins and implant reamers were evaluated for their taper and diameter according to the specifications of standardization of the American Association of Endodontists. The samples were measured on a contour projector at a constant temperature and humidity range. The results of the evaluation were demonstrated on Shewhart Average and Range Quality Control Charts. The control charts demonstrated the amount of variation in the manufacturing process.

10:00 a.m.

Electroanalgesia By Transdental Stimulation Leif K. Bakland, D.D.S., Forsyth Dental Center

Electric stimulation of dental tissues can produce local analgesia. Sound human teeth in eight healthy volunteers were stimulated with square wave pulses produced by a modified dorsal column stimulator. A nylon clamp was designed to position a bi-polar electrode system on the facial and lingual surfaces of the teeth, leaving adequate tooth surface areas to test the analgesic efficiency of the system. The pain stimuli used for testing the system were produced by ice and an electrical pulp tester. The results indicated that direct stimulation of teeth raised the thresholds to thermal and electrical pain stimuli. In all the tests with ice (8 teeth), the system blocked the sensation of pain totally. When the electric pulp tester was used to produce pain stimuli, in 17 of 19 teeth, the pain was totally blocked and in the remaining two teeth a maximum pulp tester stimulus production was only slightly painful. All the teeth tested responded to pain stimuli after stimulation in the same manner they had responded before stimulation, though occasionally the analgesic after effect lasted for a short time (less than 5 minutes) following cessation of stimulation.

10:30 a.m.

An In Vitro System For Evaluating Gutta-Percha Obturation
Kenneth Chasen, D.D.S., The University of Connecticut School
of Dental Medicine

The purpose of the experiment was to evaluate the effect of condensing gutta-percha using different obturation methods in an in vitro system. Two aluminum models were made to the following specifications: One simulating a conventional maxillary central root canal preparation and the other a more flared preparation. The mold halves can be separated and have a "lateral canal" in the apical millimeter. The "lateral canal" provided a means to measure the relative amount of deformation of the gutta-percha in the apical millimeter. With this system we evaluated the following instruments; Premier D11, RC40, RC25, Kerr 3, Union Broach finger Pluggers and Spreaders, and Star Dent finger Pluggers. Warm gutta-percha and chloropercha techniques were also evaluated. All tests were done under controlled circumstances. Pictures were taken and the amount of deformation of the gutta-percha was measured. The results indicate that most of the instruments tested using lateral condensation were not satisfactory according to our criteria. Chloropercha and warm gutta-percha produced an superior result using the same system.

11:00 a.m.

Histological Evaluation Of Hydron On The Periapical Tissues Of Rhesus Monkeys

Bernard H. Benkel, D.D.S., United States Air Force

Three formulations of Hydron, a hydrophilic acrylic resin, were used to overfill the root canals of 48 vital and nonvital anterior teeth of six mature Rhesus monkeys (Macaca Mulatta). The monkeys were sacrificed at various periods in excess of 60 days after the teeth were filled. Histologic sections were prepared in order to evaluate the response of the periapical tissues to Hydron.

11:30 a.m.

An Investigation Of Dentinal Tubule Size And Distribution By Scanning Electron Microscopy

Charles L. Snow, D.D.S., M.S., University of North Carolina School of Dentistry

The pulpal walls of fifty permanent teeth were prepared and mounted for viewing with a scanning electron microscope. Photomicrographs were obtained and analyzed qualitatively and quantitatively to determine the size, distribution, and character of the dentinal tubules. Many statistically significant observations differed from current accepted teachings.

#### PANEL

9:30 a.m. to 12:00 Noon

"May I Have The First Slide Please"

Palomar Room

Moderator - Stephen Cohen, D.D.S., M.A., University of the Pacific School of Dentistry

One of the most familiar phrases heard by the pre and post graduate student is "may I have the first slide please?" It signals a forthcoming series of visuals which will be designed to impart information to the viewer. Not all projected material is of the highest standard, however, most of it could be made attractive, clear and more educational. The intent of these presentations is to offer methods that can be implemented by any teacher to improve his lecture visuals.

 The Evoluation of the Title Slide, E.S.P. - Ecletic Slide Preparation, Picturing Endodontics in "3D."

Noah Chivian, D.D.S., West Orange, New Jersey

The Use of Pen and Ink Illustrations For Effective Lectures and Audio-Visual Presentations

Don Morse, D.D.S., M.A., Temple University School of Dentistry

3. The Use of Cartoons Without Being a Cartoonist

Richard C. Burns, D.D.S., University of the Pacific School of Dentistry

4. How to Prepare Slide Essays

John Sapone, D.D.S., University of California, San Francisco

# PROJECTED CLINICS

9:30 a.m. to 12:00 Noon

Laguna Room

Moderator - Stephen Schwartz, D.D.S., M.S., The University of Texas Dental Branch at Houston

9:30 a.m.

Vital Root Retention By Coronectomy: Research Study Gerald Poe, D.D.S., San Diego, California

10:00 a.m.

Vital Root Retention By Coronectomy: Clinical Application Neils R. Dodds, D.D.S., San Diego, California

10:30 a.m.

Clinical Management Of Perforations And Resorptions Franklin Kasman, D.D.S., Austin, Texas

11:00 a.m.

Odontogentic And Non-odontogentic Lesions Of The Periapical Structure

Andrew Michanowicz, D.D.S., University of Pittsburg School of Dental Medicine and Matson Nelson, D.D.S., M.S., School of Dentistry, Meharry Medical College

1:00 a.m. to 3:30 p.m.

Laguna/Palomar/Mission Court South Rooms

There will be two sessions held. The first session will be held from 1:00 p.m. to 2:30 p.m. and will include luncheon. The second session will be held from 2:30 p.m. to 3:30 p.m. There will not be any selections prior to registration. Participants can sign up for a clinician each session.

TODIC

No.	CLINICIAN	TOPIC
1	Donald Allen	The Apprehensive Patient
2	Maurice A. Alberti	Teaching Preclinical Endodontics
3	Michael Altman	The Second Mesiobuccal Root Canal in the Maxillary First Molar
4	Adolph Bushell	Practice Management in Endodontics
5	J.A. Camara	Endodontic Techniques
6	John Caufield	Broken Instruments, Prevention and Removal
7	P.J. Cavallo	Autogenous Replants
8	J.F. Claypool	Use of Assistants in Case Presentation
9	Stephen Cohen	Structure and Management of a Corporate Group Endodontic Prac- tice
10	George A. Colmer	Endodontics for Children

No.	CLINICIAN	ТОРІС	FRIDAY
(11)	Frederick L. Cox	Forocresol Pulpotomy in A	dult Teeth
12	Roger T. Czarnecki	Perio-Endo Combined Lesi	
13	R.A. DePalma	A Course Selection and	Plan for
		Postgraduate Endodontics	
14	Gerald Drew	Teaching in Endontontics	
15	Roland Duell	Conservative Endodonti	c Treat-
		ment of the Open Apex	in Three
		Dimensions	
16	Joel Dunsky	Teaching in Endodontics	
17	Robert Ellison	Pain Control and I.V. Se	dation in
		Clinical Endodontics	
18	Irving L. Fried	Failures, When and Why	Retreat?
19	George J. Geizer	Some Unusual Cases of P	ulpal and
		Periapical Pathology	
20	Edward W. Grimes	Treatment of Fractured In	cisors
21	Milton Greenberg	Diagnostic Problems	
22	Francis Howell	Apical Lesions of Non-En	dodontic
		Origin	
23	Barry L. Jurist	Diagnosis of the "Cracke	ed Tooth
		Syndrome"	
24	Franklin Kasman	Patient Education in End	
(25)	Duane E. Kalar	Chairside Semantics for E	asier En-
~	14	dodontics	X
26	James A. Kenning	Superb Intracanal Medicat	ion
27	S.P. Klimasko	Teaching in Endodontics	en•ener
28	John P. Knapp	Diagnosis of "Phantom" P	
29	Barry H. Korzen	Use of the Pressure Syringe	
30	I. Jeol Leeb	Conflicting Criteria for Er	idodontic
31	Leon A. Leonard	Diagnosis Endo-Perio Problems	
32	Paul M. Vanek	The Treatment and Prevent	ention of
32	i aut ivi. Vallek	Trauma	ention of
33	Richard Madden	Management of Perforatio	ns
34	James J. Marralle	Instrumentation of Curve	ed Canals
35	Richard Masucci	Pretreatment Techniques	
36	Joseph Merrell	Unusual Situations and	Hemisec-
		tions	
37	Grant W. Merritt	Auxiliaries in Endodontics	3
38	Bernard Metrick	How and When to Us	se Apical
		Amalgam	
39	Theodore E. McKinley	지생	
40	James H. Pearce	Intraosseous Injection for	Profound
		Anesthesia	
41	Joseph Pollock	Practice Management in	Endodon-
	7720 2021 PAZZ - VI NOVI 1	tics	
42	S.T. Pestritto	The state of the s	ergraduate
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Technique Course	- Ottor Volkey Lawrence
43	Samuel M. Robbins	Diagnostic Problems in	Endodon-
7/40 = 12	Hermonia B	tics	DI A DIRECTOR STREET
44	Howard L. Rosov	Starting Your Endodontin	
45	Robert Rubel Khodabakhsh Salamar	Endodontic Research in Conservative Treatment	Service Control of the Control of th
46	KHONANAKIISH SAIAMAL	Conservative Treatment	or ren-

		1 - Pa
No	. CLINICIAN	TOPIC FRIDAY
47	Merrill Schmidt	Cavit, Used as a Complete Root Canal Filling
48	Bruce Seidbrg	Communications in Endodontics
49	Benjamin Seidler	Combatting N <sub>2</sub> Use
50	Howard Selden	Patient Response to Recall Appeal,
		Some Unsuspected Factors
51	Thomas D. Sharples	Endodontic Cavity Preparation
52	Leonard I. Zeldow	Preshaping of the Gutta Percha
		Master Point by an Internal Impres-
F-0	Hawai D. Chaward	sion Method for Precise Obturation
53 54		Surgical Endodontics
54	Thomas H. Simpson	Gutta-Percha Filling After Root Induction
55	Irving H. Sinai	Pulpal and Periodontal Interrela-
55	Triving 11. Office	tionship
56	Hubert F. Spasser	
57	3.5	Perio-Endo and Beware the Panacea Thanatology, Pessimist or Optimist
58		Continuous Postgraduate Endodon-
		tics - The Responsibility of Every
		Endodontist
59	Martin Weiselberg	Postoperative Care and Control of
		Endodontically Treated Teeth
60	Richard Youngberg	Hemisections and Root Amputa-
		tions
61	Donald E. Arens	Operatory Efficiency with Mobile Cabinets
62	Harry Blechman	Drugs in Endodontics
63	Howard Blum	Why not Culture?
64	Morton Brenner	Pulpitis or Something Else
65	Duane Compton	An Endodontist Looks at N2
66	William E. Dowden	Pulpitis: A Diagnostic Problem
67	Harold Epstein	Endodontic Techniques
68 69	L. Irving Epstein	Diagnostic Problems
70	George Feldman Al Frank	Corporate Practice
70	ALFRANK	The Changing Role of Surgical En-
71	Harold Gerstein	dodontics
72	Dudley Glick	Endodontic Techniques
73	Mel Goldman	What Can The AAE Do About N2? Intracanal Medication
74	Fredric Goodman	Management of Endodontic Emer-
	i rodrio Goodinari	gencies Endodontic Emer-
75	B.F. Gurney	Autopotentiation of Drugs
76	James R. Jensen	N2 and Other Fables
77	Robert L. Kittredge	Internal Resorption
78	Kaare Langeland	Endodontic Implants
79	Louis Glatt	Teaching in Endodontics
80	Robert J. Matusow	Factors in Endodontic Treatment
		of Periapical Cysts
81	Charles G. Maurice	How Much or How Little Endontics
		at the Undergraduate Dental Level

No.	CLINICIAN	TOPIC	FRIDAY
82 83	Harold Maxmen Arthur C. McFeaters	Unpublished Aids in En Collection Problems an Avoid	dodontics d How to
84	Andrew Michanowicz	Practice Management tics	in Endodon-
85	Richard Moodnik	Teaching Aids in Endo	dontics
86	Donald R. Morse	Use of Drugs in Endod	
87	Irving J. Naidorf	Use of Drugs in Endod	
88	Nguyen Nguyen	Efficiency Through U	
200000	3-7	Glidden and Jovanovic	
89	Seymour Oliet	Continuing Education ics	
90	Samuel S Patterson	Problems of Referred F	ain
91	H.D. Prensky	Immunology and the	Endodontist
92	Herbert Schilder	Management of Signif	
93	Samuel Seltzer	Objectives of an Adva tion Porgram in Endod	
94	Walter Solotanoff	A Simple One-Visit Procedure - No Drugs tion	Endodontic
95	Calvin D. Torneck	What is Periapical Disea	ise?
96	Ernest J. Webb	Painless Local Anesth	
97	Manuel Weisman	Acid-Etch Splinting Teeth	
98	Harry Wiener	Diagnostic Problems in manent Teeth	Young Per-
99	I. Wolch	Trephination in Place of	f Surgery
100	Bertram L. Wolfsohn	We Treat People Not T	9 /
101	Elie M. Wolfsohn	Which Antibiotic an	

Prescribe It

# CONDENSED PROGRAM

7:00 a.m. to 9:00 a.m.
HARRY HEALEY STUDY CLUB BREAKFAST
Marron Suite (Third Floor)
man on oarso (rima river)
7:30 a.m. to 9:00 a.m.
NAVY ENDODONTISTS BREAKFAST Victoria Room
NAVY ENDODONTISTS BREAKFAST Victoria Room
8:30 a.m. to 12:00 Noon
COMMERCIAL EXHIBITS Cuyamaca Room and Foyer
8:30 a.m. to 12:00 Noon
ESSAYISTS II
ESSAYISTS II
8:30 a.m. to 12:00 Noon
ESSAYIST III - ENDODONTICS SECTION
OF AMERICAN ASSOCIATION OF DENTAL
SCHOOLS Laguna Room
9:00 a.m. to 12 Noon
TABLE CLINICS
12:00 Noon to 1:00 p.m.
RECESS
1:00 p.m. to 2:30 p.m.
MEMORIAL LUNCHEON Laguna/Palomar Rooms
WEWORIAL EUNGITEON Laguna/i aloma riooms
0.00
2:30 p.m. to 5:00 p.m.
ANNUAL BUSINESS MEETING Laguna/Palomar Rooms
5PM Exec. comm.
6:30 p.m. to 7:30 p.m.
PAST PRESIDENTS' RECEPTION Cuyamaca Room
7:30 p.m.
PRESIDENT'S BANQUET Laguna/Palomar Rooms

8:30 a.m. to 12:00 Noon

Essayists II

Palomar Room

Moderator - Don R. Arens, D.D.S., M.S.D., Indiana University School of Dentistry

8:30 a.m.

Is It Your Turn To Be Sued For Malpractice?

Jack A. Weichman, B.A., D.D.S., University of Southern California School of Dentistry

There is an ever increasing number of malpractice claims against dentists. Many of these actions could have been prevented by the dentists had they maintained good relations and communication with the patient. If the dentist is served with a malpractice claim, good record keeping is the best defense. This lecture will be a discussion of malpractice prevention and also what information is needed in the dental records for a good malpractice defense.

10:00 a.m.

Pathological Entities Which Mimic Endodontic Lesions Dennis P. Riley, D.D.S., M.A., San Diego, California

The endodontist is confronted daily with problems requiring differential diagnosis of a variety of lesions. Because the great majority of these lesions are inflammatory and more specifically, endodontic in nature, a danger exists to group all potential patients as those exhibiting inflammatory lesions only. Different pathological entities will be presented which should alert the diagnostician to the numerous non-inflammatory lesions which may be seen.

11:00 a.m.

Anatomic and Physiologic Analysis of Endodontic Group Practice John Dylewski, D.D.S., M.S. and Gerald Dietz, D.D.S., M.S., Birmingham, Alabama

The trend of professionals in general and dentists in particular is to form "Group Practices." Established practitioners merge their practices. Recent graduates gravitate toward groups. Men in solo practice grow weary of their solitary style.

The problems, considerations and mechanics of establishing a successful group practice are limitless. This presentation will be an attempt to offer some general and specific insights into the anatomy of an Endodontic Group Practice.

8:30 a.m. to 12:00 p.m.

Essayists III

Laguna Room

Moderator - R.J. Shankle, D.D.S., Professor and Chairman of Endodontics, University of North Carolina School of Dentistry

8:30 a.m.

Keeping Up With Professional Corporations
Harvey Sarner, B.S., LL.B., Chicago, Illinois

A review of the current legal and economic aspects of professional corporations.

10:00 a.m.

Endodontics Section, American Association of Dental Schools Our Specialty of Endodontics: Past, Present and Future "PAST" - Bertram L. Wolfsohn, D.D.S., San Mateo, California

Early leaders in the field of tooth conservation through the manipulation of the pulp cavity and some of the obstacles to progress in the development or acceptable endodontic therapy will be reviewed. The formation of the A.A.E. and the progress that has been accomplished will be discussed. The summation will bring into focus some of the factors which could impede the progress of the Specialty of Endodontics.

"PRESENT" - Herbert Schilder, D.D.S., Boston University, School of Graduate Dentistry

Endodontics has emerged not only as a fully accredited, but as a fully accepted specialty area in dentistry. As we assess our present, much of what we see is staisfying and pleasing. Are there, however, disquieting signs in the present scene?

Has increased demand reduced the quality of endodontic service in certain instances? Does monetary concern rival professional concern, at times? Are applicants for graduate study responding always to the highest professional goals or are they influenced by the American Dental Association's survey of earnings for specialists? Are all graduate programs in endodontics of sufficiently high calibre? Will the influx of new specialists, and the increase in new programs, soon bring the day when the number of endodontics will outstrip the demand for endodontics today? Is all endodontic research worthy of publication and cataloging, let alone of reading and study? Do we have a mounting ecology problem in the endodontic literature?

These and other questions will be explored as the "present" of endodontics is analysed and observed.

"FUTURE" - John I. Ingle, D.D.S., M.S.D., Institute of Medicine, National Academy of Sciences, Washington, D.C.

Root canal enlargement and obturation is presently being taught to auxiliary personnel. Can the specialty of endodontics stand on its own if expanded duty dental auxiliaries carry out the mechanics of therapy? There has to be more to endodontics than shaping and filling.

#### TABLE CLINICS

9:00 a.m. to 12:00 Noon Bayside Rooms

- "A Comparison of the Diagnostic Quality of the Dental Radiographs as produced by Five Rapid Processing Techniques" Salvatore T. Pestritto, D.D.S.— Augusta, Georgia
- "Radioisotope Microleakage Analysis of the Effect of Resin on Sealing Properties of Chloro-percha"
   William C. McCallum, D.D.S.—San Diego, California
   W. L. Bell, D.D.S.—Bethesda, Maryland
- 3. "An Endodontic Technique for Subosteal Coronal Fracture of Teeth and Their Restorations"

  Ramzi G. Anton, D.D.S. Baltimore, Maryland
- "Endodontia in One Hour"
   J.A. Camara, D.D.S. New York, New York
- "Endodontic Root Retention and Overlay Denture" James T. Kimura, D.D.S. – San Diego, California
- "Endodontic Endosseous Implants"
   Edward N. Green, D.D.S. San Diego, California
- "Rapid Daylight X-Ray Processing"
   Barry L. Jurist, D.D.S. Baltimore, Maryland
- 8. "Comparison of Filling Techniques on Extracted Teeth" Edward Rainey, D.D.S. Kansas City, Missouri
- "A Unique X-Ray Viewer for the Endodontic Operatory"
   Manuel I. Weisman, D.D.S. Augusta, Georgia
- "Presentation of a New Endo-Kit and Endo-Measuring-Block to Facilitate Endodontic Therapy"
   Peter H. Guldener, D.D.S. — Bern, Switzerland
- "A Superior Root Canal Medication"
   James A. Kenning, D.D.S. Salt Lake City, Utah
- 12. "Trick or Treat" Richard B. Weingberg, D.D.S. — Philadelphia, Pennsylvania
- 13. "The Root Canal What Shape For You?"
  Conrad L. Jungmann, D.D.S. Miami, Florida
- 14. "Mandibular Anesthesia in Endodontics" John F. Patterson, D.D.S. – Bel Air, Maryland

- 15. "Histologic Response of Rat Connective Tissue to Zinc-Containing Amalgam" Lloyd Ronald Martin, D.D.S. — Bethesda, Maryland Eddy Tidwell, D.D.S. — Norfolk, Virginia
- 16. "Stabilization of Traumatized Teeth"

  George S. Foster, D.D.S. San Diego, California
- 17. "Endodontic Treatment of the Severely Curved Root Canal"
  Peter Brothman, D.D.S. Ottawa, Ontario
- 18. "Healing of Endo-Perio Problem Caused by an Invaginated Radicular Developmental Defect"

  George J. Geizer, D.D.S. Long Beach, California

## EDGAR COOLIDGE MEMORIAL LUNCHEON

1:00 p.m. to 2:30 p.m. Laguna/Palomar Rooms

SPEAKER: DR. CARLTON WILLIAMS, PRESIDENT, AMERICAN DENTAL ASSOCIATION, SAN DIEGO, CALIFORNIA

#### ANNUAL BUSINESS MEETING

2:30 p.m. Bayside Rooms

#### PAST PRESIDENTS' RECEPTION

6:30 p.m. Cuyamaca/Foyer

#### PRESIDENT'S DINNER DANCE

7:30 p.m. Laguna/Palomar Rooms

Entertainment: "The Brightside"

A lively musical group of 22 teenagers who have earned for themselves the title of SAN DIEGO'S AMBASSADORS. The group is under the leadership of its founders Don and Bonnie Ward.

Orchestra: THE BRUCE DAVIS SET

# CONDENSED PROGRAM

8:00 a.m. to 9:00 a.m.

Member Breakfast Cuyamaca Roon	n
8:00 a.m. to 9:00 a.m.	
AAE Committees Breakfast Beale-Carson Room	S
9:00 a.m. to 12:00 noon	
T.V. Tapes Showing	n
9:00 a.m. to 12:00 noon	
Executive Committee Meeting Kearny Room	n

### MEMBER BREAKFAST

8:00 am. - Members and wives are invited Cuyamaca Room

# **COMMITTEE BREAKFAST**

8:00 a.m. Beale/Carson Rooms

### T.V. SEMINAR

9:00 a.m. to 12:00 noon Mission Court South Rooms

There will be two showings simultaneously of T.V. tapes made at the 1973 annual meeting in Dallas.

Room I
DENTAL AUXILIARY UTILIZATION
9:00

Modern Management in Endodontic Practice Moderator: Irving Fried, D.D.S., New York City

9:00 - GEORGE A. ZURKOW, D.D.S., School of Dentistry, University of Maryland.

10:00 - FRANCIS A. CASTANO, D.D.S., School of Dental Medicine, University of Pennsylvania.

#### 11:00 - KAREN SHELLEY, Certified Dental Assistant

Management of the endodontic office can best be approached from a total systems concept, and the principles and application of work simplification will yield increased productivity, with less stress for the endodontist. Furthermore, selection and training of an endodontic auxiliary by modern methods will help maintain an efficient team. Lastly, expanded duties should be considered part of job satisfaction from the point of view of the endodontic auxiliary.

Room II

9:00 - The Biochemical Individuality of the Dental Pulp

Moderator: CALVIN TORNECK, D.D.S., M.S.

ERNEST BEERSTECHER, JR. Ph.D., The University of Texas, Dental Branch at Houston

A brief discussion of the biochemical composition of dental pulp tissue is followed by a summary of the chemical ways in which pulp differs from other connective tissues. These factors are then considered in the light of the several functions that the viable pulp must perform, and the ingenuity of the pulp biochemical system in meeting its needs. Weaknesses are also considered, as well as the possibility of extra dental functions of the pulp tissues.

10:00 - Structural Changes in the Dental Pulp in Aging

SOL BERNICK, Ph.D., University of Southern California School of Dentistry

The effect of age upon the variuos components of the dental pulp in man and non-human primates as demonstrated by various histo-chemical methods and electron microscopy will be described. Pupal alterations produced by caries involvement, restorations, and/or drug application will be compared with the aging changes. Specific changes for each of the above factors will be discussed.

11:00 - The Biologic Basis of Pain

H.J. VAN HASSEL, D.D.S., M.S.D., Ph.D. University of Washington School of Dentistry.

The neural substrate underlying intolerable sensation will be reviewed. Topics will include the calcified tissues of the tooth as energy transducers in pulpal receptor depolarization, "dentinal", or pulpal pain, "fast" and "slow" pain, and the current status of the "gate" theory of pain transmission.

# WOMEN'S AUXILIARY OF THE AMERICAN ASSOCIATION OF ENDODONTISTS

### LADIES PROGRAM

Wednesday, April 17, 1974 3:00 p.m.

> A.A.E. Auxiliary Board Meeting Auxiliary Hospitality Room\*

Thursday, April 18, 1974

9:30 a.m. to 11:00

WELCOMING COFFEE

Auxiliary Hospitality Room\*

11:45 a.m. to 4:00 p.m.

Tour: Salk Institute, La Jolla and Shopping Buses at Sheraton Harbor Island Main Entrance

Friday, April 19, 1974

9:15 a.m. to 3:30 p.m.

Brunch at Hotel Del Coronado & Shopping in "Old Mexico". Buses at Sheraton Harbor Island Main Entrance.

Saturday, April 20, 1974

9:15 a.m. to 2:30 p.m.

San Diego Zoo Followed By Luncheon At Cafe Del Rey Moro. Buses at Sheraton Harbor Island Main Entrance

3:30 p.m.

A.A.E. Auxiliary Board Meeting Auxiliary Hospitality Room\*

\*The Auxiliary Hospitality Room will be The Butterfield Stage Saloon of the Sheraton Harbor Island Hotel.

The Hospitality Room will be open Friday and Saturday mornings from 8:00 a.m. to 9:00 a.m. for coffee and rolls.



# EXHIBITORS March 1, 1974

AMERICAN PRECISION METALS

COLUMBUS DENTAL-IVORY-DRI-CLAVE-MODERN MATERIALS

HYGIENIC DENTAL MFG. CO.

IDT CORP.

IVES LABORATORIES, INC.

J. B. LIPPINCOTT COMPANY

KERR MANUFACTURING CO.

MARCO DENTAL PRODUCTS INC.

MEDIDENTA DENTAL SUPPLY

THE C. V. MOSBY CO.

MYNOL, INC.

NATIONAL DENTAL ENGINEERING & MFG.

PREMIER DENTAL PRODUCTS CO.

PULPDENT CORP. OF AMERICA

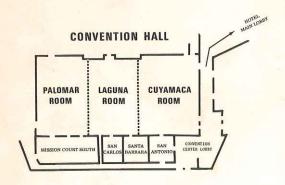
THE RANSOM & RANDOLPH CO.
STAR DENTAL MFG. CO. INC.

UNION BROACH CO.

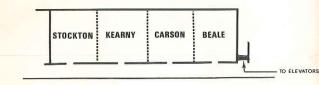


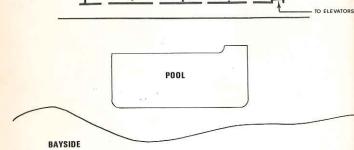


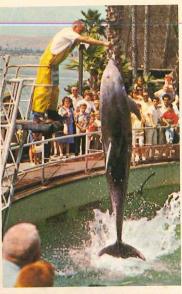
# SHERATON HARBOR ISLAND HOTEL CONVENTION FACILITIES



### **BAYSIDE ROOMS**

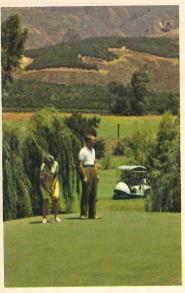
















SAN DIEGO CONVENTION AND VISITORS BUREAU
A civic, non-profit organization serving

The City and County of San Diego