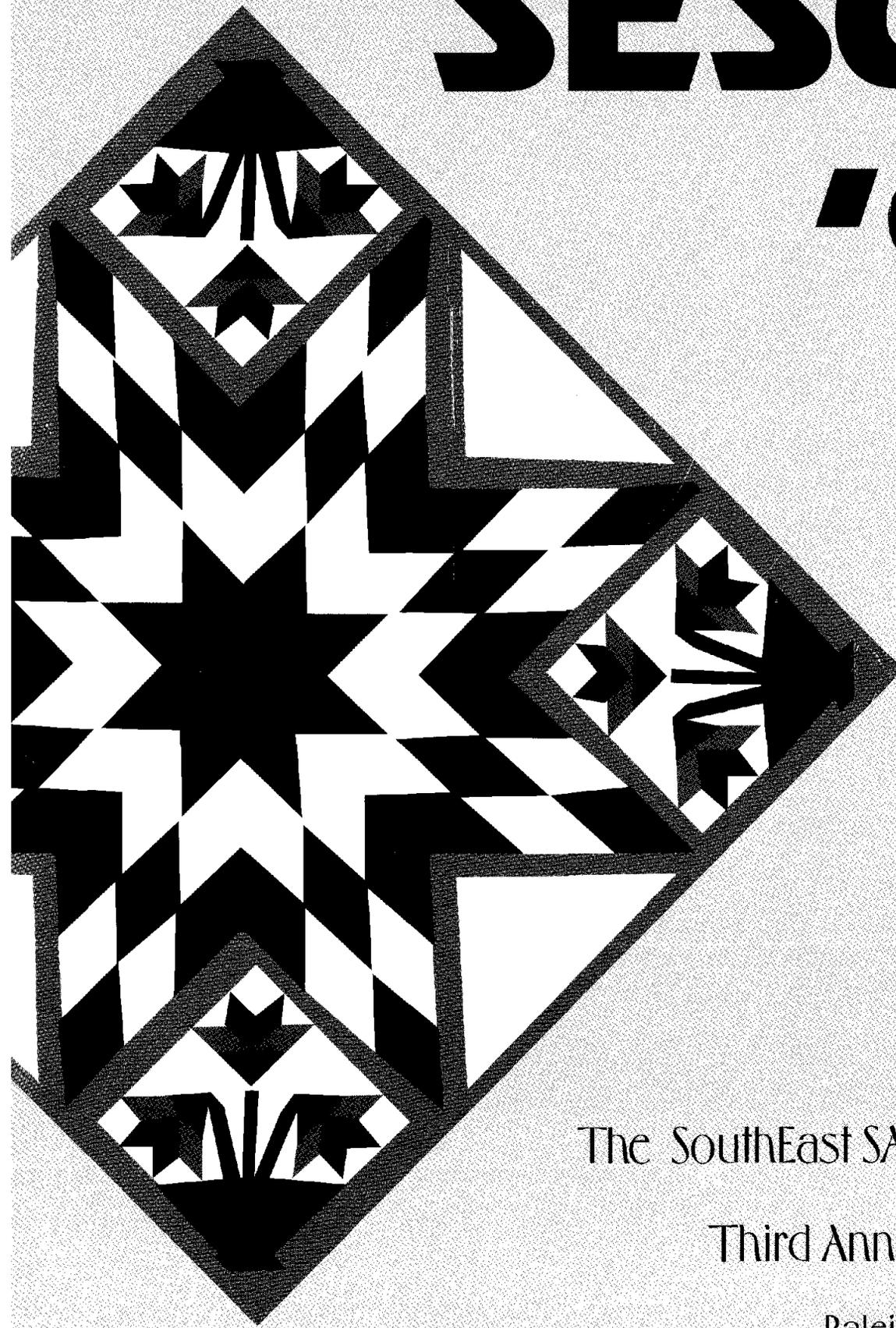


# SESUG

# '95



The SouthEast SAS Users Group

Third Annual Conference

Raleigh, North Carolina

September 10-12, 1995

# **SESUG '95**

**SouthEast SAS Users Group**

**Proceedings  
from the Third Annual  
SouthEast SAS Users Group Conference**

**North Raleigh Hilton  
Raleigh, North Carolina  
September 10-12, 1995**

## **Conference Co-Chairs**

**Melissa Garreans, John Alden Life Insurance Company  
Andrew Parks, SAS Institute Inc.**

# SouthEast SAS Users Group Proceedings

SAS Institute prints these *Proceedings* as a record of the SouthEast SAS Users Group (SESUG) Conference. Neither SAS Institute nor SESUG can take responsibility for the accuracy or the originality of this material.

## About The Cover

The cover of this Proceedings and the papers within it pay homage to two of North Carolina's finest features - crafts and the SAS System. The cover is a two-color interpretation of the quilt square featured on the cover of "North Carolina Quilts," edited by Ruth Roberson. The quilt was created around 1880 by either Keron Edwards Hales or Nancy A. L. Edwards Hearne of Edgecombe County, about 50 miles northeast of Raleigh. The design in the corner is the North Carolina Lily. Thanks to Ms. Roberson for her gracious permission to use the design!

Stepping up geographically, when we think of the SouthEast we usually think of pine trees, gently rolling mountains, and the ocean. The logo on the bottom left of the back cover incorporates each of these elements. Thanks to Betty Martinez for the design.

The cover was designed by Frank Dilorio. Special thanks to Joanna Smith for steering us to the "North Carolina Quilts" book. Thanks also to Peggy Haas, Tommy Johnson, and Kris Rinne at SAS Institute for production support.

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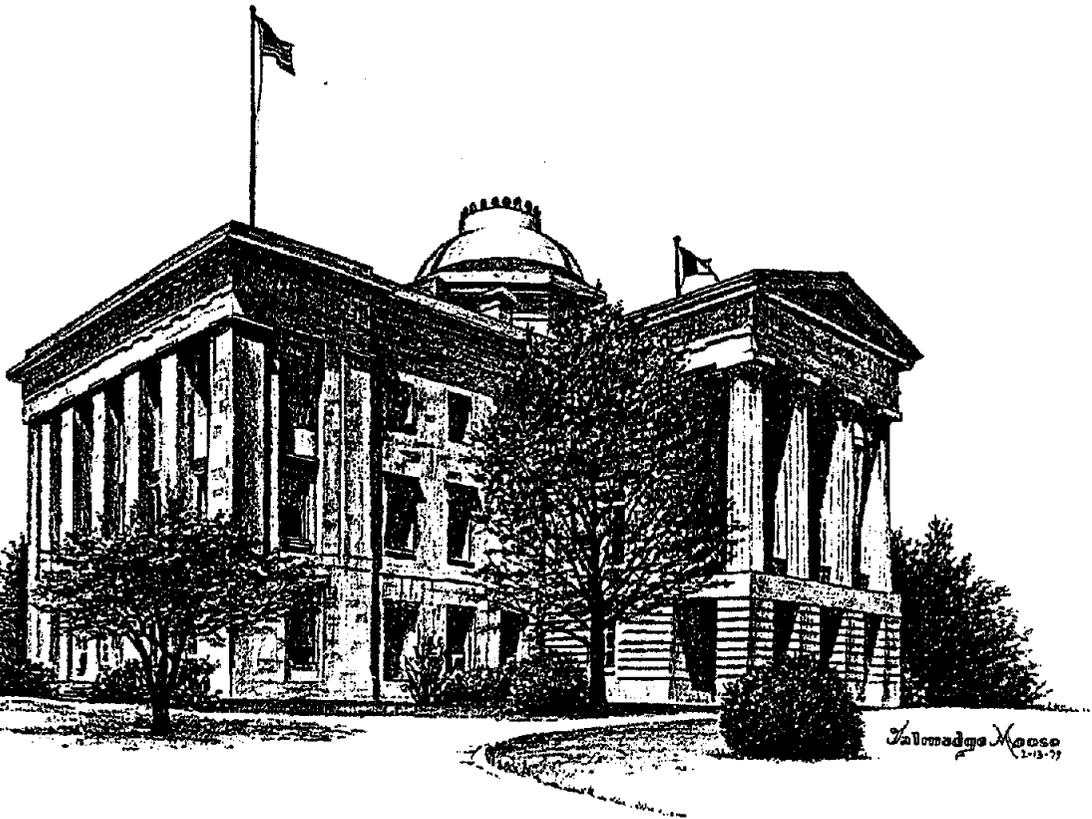
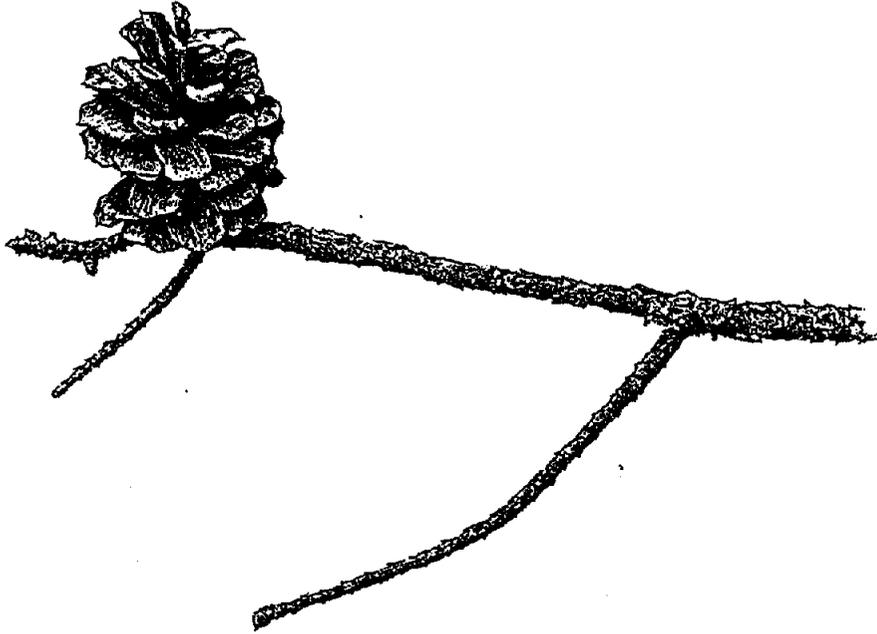
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# FOREWORD



# FOREWORD

# FOREWORD

This year the SouthEast SAS Users Group meeting was held "At the Source" in Raleigh, North Carolina on September 10-12, 1995. Turn the pages of the *Proceedings* of the Third Annual SouthEast SAS Users Conference and you will find papers written by some well-known names in the SAS community and also papers by a new generation of SAS users.

The SouthEast SAS Users Group is comprised of local and in-house users groups from Alabama, District of Columbia, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. The conference was planned and organized by a dedicated group of volunteers who worked very hard to present a program that has something for everyone. We would like to thank the Section Chairs, who helped organize the sections and then encouraged and cajoled the presenters to meet their deadlines. Their hard work and dedication made this conference possible.

## Advanced Tutorials

Nancy Michal  
ASG, Inc.

S. David Riba  
JADE Tech, Inc.

## Applications Development

Greg Nelson  
The University of Georgia

Ian Whitlock  
WESTAT, Inc.

## Beginning Tutorials

Paulette Keller  
South Carolina State Budget & Control  
Board

Andrew T. Kuligowski  
Nielsen Media Research

## Code Clinic

Frank Dilorio  
ASG, Inc.

## Coders' Corner

Dan Bruns  
Tennessee Valley Authority

Orion V. Hanger  
Nielsen Media Research

## Host Systems

David Harris  
American Cancer Society

Chris Roper  
Lotus Biochemicals

## Information Visualization

Grace Lossman  
ASG, Inc.

Tony Mastropolo  
Sandoz

## Posters

Gerri Furlow  
North Carolina State University

Elizabeth Hamilton  
University of North Carolina

## Registration

Greg Nelson  
The University of Georgia

## Roundtable Luncheon

Chris Toppe  
Computer Sciences Corporation

## Statistics

Susan Kenny  
Quintiles, Inc.

Jerry Oglseby  
Monsanto Chemical Company

## User Training & Support

Marcia Murto  
Pharmaceutical Product Development

Margaret Richardson  
Jefferson-Pilot Insurance Company

Although we cannot acknowledge everyone by name, we want to thank two outstanding contributors to SESUG '95. First we thank Sally Roberson from SAS Institute for her support and understanding during the conference planning process. We greatly appreciated her patience and enthusiasm. Also, a very special thank you goes to Frank Dilorio, SESUG '94 Co-Chair and mentor to the SESUG '95 Co-Chairs. We relied very heavily on Frank's experiences at the helm in '94 to guide us through this year. We also want to acknowledge Frank's creative contributions. His talents are demonstrated by the design of the cover of the *Proceedings* and the selection of art for the section separator pages.

One paper in the *Proceedings* is being published posthumously. John Martz, a member of the Research Triangle Park SAS Users Group, was involved in a fatal motorcycle accident in July. His colleagues in the SAS community mourn his death. His contribution to this conference was greatly missed. John is survived by his wife Christine and three sons — Matthew age 4, Michael age 2, and Andrew who was born this year. An education trust fund has been created to benefit the children.

At the close of SESUG '95 the SESUG torch will pass to the SESUG '96 Co-Chairs, Dan Bruns and Greg Nelson. Atlanta is the site for SESUG '96. As they enter their reigning year as SESUG Conference Co-Chairs, we wish them the best of luck.

We thank everyone involved in making SESUG '95 an experience we will never forget.



Melissa Garreans  
John Alden Life Insurance Company



Andrew Parks  
SAS Institute, Inc.