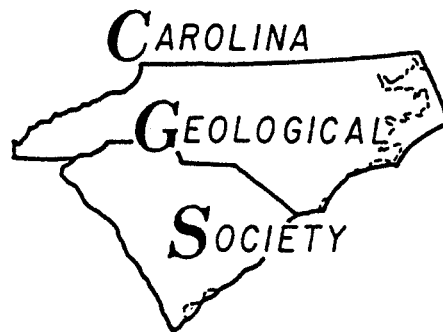


The Carolina Geological Society

1937-1987



1937-1987

Golden Anniversary

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THE CAROLINA GEOLOGICAL SOCIETY

1937-1987

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INTRODUCTION

National and international geological societies have a broad range of activities most of which revolve around dissemination of research results through publications and annual meetings. Local geological societies tend to be oriented towards sponsoring field trips or field conferences as they are often called. The Carolina Geological Society is no exception, for its focus is an annual field trip. There are no papers presented, and publications are limited to field guides. Simplicity as to organization has been a hallmark of the Society. Only in the last few years has the Society become incorporated.

In 1987 the Society marked the 50th anniversary of its founding. The Board of Directors asked the Secretary to write a brief history of the Society as one of the ways to celebrate the first half century. An earlier history was written in 1968 (Berry and Heron, 1968). The information in this history is based in part on the 1968 edition, the minutes of meetings and Executive Committee sessions, papers in the files of the Society, and the memories of a number of long-time members.

THE EARLY YEARS

Wilbur C. Holland (Figure 1) was the founding father for both the Carolina Geological Society and the Department of Geology at Furman University. He received his undergraduate degree at Marietta College in Ohio, studied a year at the University of Cincinnati, and then went to the University of Pittsburgh for another year where he received his M.S. degree in 1933. At Ohio State he worked on his Ph.D. degree into 1935. On May 22, 1935, he answered a letter from Furman President Bennette E. Geer and gave him details of his education. Presumably Geer was responding to a job inquiry from Holland. Thus Holland came to Furman in 1935 and left in 1942 for graduate school at Louisiana State University. He received his Ph.D. in 1943 and went to work as a field geologist for Carter Oil Company, a subsidiary of Standard Oil Company. Charles Cazeau (SUNY at Buffalo, retired) remembers Holland in the late 1950s as the overseer of the Humble Research Center library. "He was a most helpful and self-effacing gentleman who aided me greatly in my early report writing and research" (letter, July 27, 1987). Holland retired from Exxon in 1965.



Figure 1. Wilbur C. Holland circa 1930, founding father of the Carolina Geological Society



Figure 2. Willard Berry 1937, Secretary-Treasurer of the Society 1937-1965.

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Please let me have your reactions to the following

1. Name of the organization -- I should like to suggest "The Carolina Geological Society." What would you suggest?

2. Membership -- who should be included as members of this Club? I think that, in addition to those actively engaged in geologic work, we should include geology major students and graduate students specializing in geology. Several have suggested including geographers who are interested in geology. What is your reaction to this?

3. Time of meetings -- we should have a meeting, I think, once a year. When would be the best time? The G.S.A. meets during the Christmas holidays, and the Academy of Science meets during the spring. I think the meeting should be sometime during the school year. When would you suggest? I think that we should have one meeting this year, perhaps late in May, providing everything is in shape by then.

4. Purpose of meetings -- I should like to suggest that we have a full day meeting, preferably on Saturday, and that we have the morning session devoted to the presentation of papers and the afternoon session devoted to a field trip.

5. Place of meeting -- the place of meeting should be varied from year to year.

6. Officers -- there should be three officers: (1) a president, whose duty it is to preside over the meetings, (2) a secretary-treasurer, whose duty it is to take the minutes, to tend to the financial matters, to issue membership cards, etc., and (3) a corresponding secretary to take care of the correspondence, arrange the programs, etc. The first two officers should be elected yearly, the latter should hold his office for about two years.

7. Dues -- the dues should be kept as low as possible. How much would you suggest?

What other suggestions do you have to offer? (write on back)

Figure 3. Questionnaire circulated in April 1937.

Willard Berry (Figure 2) got his A.B. degree in 1924 and his Ph.D. in 1929, both from Johns Hopkins. He went to Ohio State in 1929 and remained as an instructor in geology until 1936. He must have known Holland at Ohio State. Apparently Berry knew that Holland had talked Furman into a geology department, for in 1936 Berry convinced Dean W. H. Wannamaker at Duke of the need of a geology department and his ability to form it.

Berry (Berry and Heron, 1968) recalled that Holland found little interest in geology in the Greenville, SC, area. There were no active local geological societies in the Carolinas as there were in Ohio. He wrote in the fall of 1936 to Willard Berry about the idea of a local society. Berry tried "to help him all I could", but "Mr. Holland deserves much credit for the formation of the Society" (letter to B.E. Geer from Berry, June 4, 1937).

Holland sent a questionnaire (Figure 3) to at least 50 people in higher education institutions, government agen-

cies, and industry. Thirty-four responded favorably. The responses are of interest. As to the name of the organization, one respondent suggested the "Southeastern Geological Society", two others "The Carolina Geological and Geographical Society", but most liked the name Holland suggested, "The Carolina Geological Society".

As to who should be included as members, many favored making the membership as broad as possible to include geology undergraduate and graduate students, geographers, "those engaged in mining", soil scientists, and hobbyists. One unidentified person suggested that "some mining promoters" should be kept out. At least one favored full membership restricted to "those actively engaged professionally in geological and mining engineering work with a minimum of three years of active work in the field"; others could be associate or junior members.

The time of the meeting that Holland suggested was late May. Naturally, there was a variety of opinion, with some

CAROLINA GEOLOGICAL SOCIETY 1937-1987

Table 1. Attendees at the Carolina Geological Society Organization Meeting, May 15, 1937, Furman University.

Name	Birth-Death	Affiliation in '37 ¹	Title ¹
Berry, E. Willard	1900-1968	Duke University	Asst. Prof.
Binford, Raymond	1876-1951	Guilford College	President Emeritus
Burgess, Blandford C.	1893-1959	Tenn. Min. Products Co, Spruce Pines, NC	Manager
De Beck, Hubert O.	2	Burnsville, NC	Consulting Geologist
Edwards, Richard A.	-1984	UNC	Grad. Student ^C
Grant, Leland F.	1913-	TVA, Murphy, NC	Geologist
Grassy, Richard G.	1911-	Soil Conserv. Serv., Green- ville, SC	Asst. Geologist Sedi- mentation
Gravaat, Marshall	2	Asheville, NC	
Holland, Wilbur C.	1909-1976	Furman University	Asst. Prof.
Huddle, John W.	1907-1979	UNC	Professor
Hunter, Charles E.	1900-1977	TVA, Asheville, NC	
MacCarthy, Gerald R.	1897-1974	UNC	Assoc. Prof.
McMurray, Lynn L.	³ -1983	TVA, Knoxville, TN	Geologist
Martin, Romeo	1917-	Furman	Undergraduate
Moneymaker, Berlen C.	1904-1982	TVA, Murphy, NC	Geologist
Murray, Grover E.	1916-	UNC	Undergraduate
Prouty, William F.	1879-1949	UNC	Chmn. Geol Dept.
Reddie, Roy	2	Knoxville & Spruce Pines	Consulting Geologist
Rowell, Willia	1917-	Furman	Undergraduate
Straley, H.W., III	1906-1979	UNC	Grad Student
Stroud, William	1917-	Furman	Undergraduate
Vail, Richard	2	York, SC	
Ward, James B.	1915-1952	TVA, Murphy, NC	

¹ From biographical sources or list compiled by W.C. Holland.

² No information available.

³ Reported deceased, no other information available.

favoring the Spring and others the Fall. Two people suggested two meetings a year, and two others said that the meeting should be at the same time as the Academy of Sciences.

The original purpose of the meetings, as Holland envisioned it, was one full day meeting with presentation of papers in a morning session and the afternoon devoted to a field trip. Most favored this, but a few suggested the papers should be in the evening only. John Huddle (UNC) wanted "1 or 2 day field trip — papers in evening only — IF ANY."

Most agreed that the place of the meeting should be varied from year to year. Holland suggested three officers for the society, a president, secretary-treasurer, and a corresponding secretary. The latter was to hold a two year position and would "arrange the program". Most agreed, but Hubert

O. DeBeck said that there should be a vice-president because "you should always have a Vice-President to anything."

Dues should be kept as low as possible in Holland's opinion, and most agreed that \$1.00 or even fifty cents was the right amount. Two suggested \$5.00.

The minutes of the organizational meeting on May 15 and the notice sent to charter members show that many of the current customs and practices were formulated at that time. The name Carolina Geological Society prevailed. The meeting time was approved for the Fall so as not to interfere with the Academies of Science in the two states. The concept of formal papers was dropped, and it was decided to hold a field trip and informal discussions. The field trip limit of 2 days was set. Dues of \$1.00 per year were established and were not changed until 1986.

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Table 2. Charter members of the Society.

Bailey, Harry	Penland, NC	McMurray, Lynn L.	544 New Spranlle Bldg., Knoxville, TN
Barrett, H.P.	Charlotte, NC	Marsh, Steve P.	Box 889, Durham, NC
Berry, Willard	Duke Univ., Durham, N	Martin, Romeo	Dept. Geology, Furman Univ., Greenville SC
Binford, Raymond	Guilford, NC	Mattson, VL.	Burnsville, NC
Bryson, H.J.	State Geologist, Raleigh, NC	Money maker, B.C.	T.V.A., Murphy, NC
Burgess, B.C.	Tenn. Mineral Prod. Co., Spruce Pine, NC	Murray, Grover	UNC, Chapel Hill, NC
Colburn, B.S.	Graystone Court, Biltmore Forest, Biltmore, NC	Parker, J.M.	State College, Raleigh, NC
Davis, Harry T.	State Museum, Raleigh, NC	Petty, Julian J.	Dept. Geol., U.S.C., Columbia, SC
DeBeck, Hubert O.	Burnsville, NC	Prouty, Wm. F	UNC, Chapel Hill, NC
Eargle, D. H.	Spartanburg, SC	Reddie, Roy	Spruce Pine, NC
Edwards, Richard	UNC, Chapel Hill, NC	Rowell, Wm.	Dept. Geol., Furman Univ., Greenville, SC
Emory, S.T.	UNC, Chapel Hill, NC	Smith, Laurence L.	Dept. Geol., U.S.C., Columbia, SC
Grant, Leland	T.V.A., Murphy, N	Straley, H.W.	UNC, Chapel Hill, NC
Grassy, R.G.	Greenville, SC	Stroud, Wm.	Dept. Geol., Furman Univ., Greenville, SC
Gravaat, Marshall	76 Arcade Bldg., Asheville, NC	Stuckey, J.L.	State College, Raleigh, NC
Holland, W.C.	Furman Univ., Greenville, SC	Taber, Stephen	Dept. Geol., U.S.C., Columbia, SC
Huddle, J.W	UNC, Chapel Hill, NC	Vail, Richard	Burnsville, NC
Hunter, Ch. E.	T.V.A. Box 609, Asheville, NC	Van Horn, Isaac	23 O'Henry St., Asheville,
Johnson, W. Ray (Jr.)	Chapel Hill, NC	Ward, James	T.V.A., Box 134, Murphy, NC
Laird, Wilson	UNC, Chapel Hill, NC	Watkins, J.H.	The Citadel, Charleston, SC
LeBaron, P.M.	UNC, Chapel Hill, NC	White, Max	Dept. Geol., Furman Univ., Greenville, SC
MacCarthy, G.R.	UNC, Chapel Hill, NC		

A decision made about a program committee at the organizational meeting was not followed by the Society, at least not in the latter post-war years. The program committee of three appointed by the President with a suggested term of three years was to “consider extended program areas desirable to study”. At the second meeting in November of 1937, D.H. Eargle (Spartanburg, SC) was appointed chairman of the Program Committee with Raymond Binford (Guilford College) and B.C. Burgess (Spruce Pine) members. Their report listed eight two-day field trips along with a brief description of what might be seen in each of the localities. In a letter about the duties of the Program Committee to Jasper Stuckey (NC State), Willard Berry said that “if I may stick my oar into what is not my business, it comes to mind that it might be desirable for the program committee to fish around and see if they can get invitations for the Society to hold their programs at various places.” The Program Committee with various members continued to function through at least 1948 (9th meeting). The contents of the Committee reports were “read and filed with the Executive Committee”. Contrary to present custom, it was the Executive Committee that decided where the meeting would be held. In the 1952 meeting minutes, the Acting Secretary (Duncan Heron, Duke) referred to the field trip leader, Phil King (USGS), as Chairman of the Program Committee. After that time there was no program committee as originally defined.

There were 23 people at the organization meeting (Table 1). So far as it is known, five of these are still living. There is no information available on four additional attendees. By suspension of the rules, the group approved as charter mem-

bers those who had responded to Holland and said they wished to cooperate in the Society and had paid their \$1.00 dues before the next meeting (Table 2). J.M. Parker (NC State, retired) is the only charter member still on active membership in the Society.

WORLDWAR II AND THE CAROLIN GEOLOGICAL SOCIETY

The Executive Committee of CGS met by correspondence on September 5, 1941. Because of gasoline shortage, the Executive Committee had to decide if there would be a meeting that fall. The trip was approved, but the meeting place was moved from Murphy, NC, to Asheville because of the lack of space in Murphy. The meeting was held on November 8 and 9, one month before the United States entered the war.

On September 14, 1942, a notice was mailed to the membership about the Executive Committee's action to postpone the annual meeting “for the duration”. In addition the membership was asked to vote on a proposal to amend the constitution so as to make the office of Secretary-Treasurer permanent. The idea of a permanent Secretary-Treasurer was to give the society a stable address, one where members could know that they could contact the organization. Berry (Berry and Heron, 1968) reported that 42 of the 50 members who responded wanted the Society to continue. The membership list at the time of the 1941 meeting had 118 names. Berry sent out 150 notices for the 1946 meeting. He extended an invitation to join the Society to “those known to

be interested or whose names were sent to the Secretary by other members". In the Report of the Secretary for 1946 Berry said, "The Secretary craves pardon for this un-constitutional act (asking people to join without formal approval) but it seemed necessary to clear up the disruption caused by the war."

At the Shelby meeting the membership passed a resolution of appreciation to Willard Berry "for his contribution to keeping together of the membership during the war years" (Minutes, 1946 meeting).

PURPOSE OF THE SOCIETY

For 50 years the Carolina Geological Society has existed for the purpose of sponsoring an annual field trip. Yet the founders envisioned a broader scope for the Society. As the 1937 Constitution states the objective is:

"...to promote the science of geography, geology, metallurgy, mining, ceramics, and soil science....to promote and encourage their study in the schools and colleges....to encourage research in these sciences and the presentation of its results; and to promote a spirit of friendship and cooperation among the earth scientists within the area named."

Promote the Geoscience

Promotion is interpreted as public awareness of the earth sciences. The founders used the specific fields of geography, geology, metallurgy, mining, ceramics, and soil science. Apparently, the inclusive terms, "geosciences" or "earth sciences", were not in vogue in 1937.

The first examples of promotion are two resolutions passed at the 1939 meeting. The first resolved that "the Carolina Geological Society is in hearty accord with the proposal that the National Park Service establish and maintain a mineralogical museum in the Spruce Pine District". Copies of the resolution were sent to Congressman Bulwinkle, Secretary of the Interior Harold Ickes, the National Park Service, and S.T. Henry. The idea of the resolution was that of S.T. Henry, who had sent a telegram to the Society asking for support of the museum. Henry was the publisher of the *Tri-County News* in Spruce Pine, NC. Apparently, Congressman Bulwinkle was behind the project and Secretary Ickes had approved inclusion of the project in the 1941 budget. Perhaps World War II interfered with the museum, for it was not founded until 1955. The other resolution urged the South Carolina Public Service Authority to establish a natural history museum on the grounds of the Santee-Cooper project.

Press coverage of the annual meeting also promotes the Society and geology. Press coverage was good in the early years of the Society. Secretary Willard Berry wrote some press releases, especially after the annual meeting, containing a brief account of the field trips and a list of the new officers. Field trip leaders often gave the local newspaper

word of the field trip. The *Tri-County News* of Spruce Pine and Burnsville, NC published an article on the front page of the October 19, 1939, issue with considerable details of the upcoming meeting including news of "nearly 100 expected". The *Cheraw Chronicle* (SC) published on October 10, 1974, three pictures on the front page with the headline "Geologists Pick Way Around Country". The best headline, "Geologists Go Perambulating During Conference Held Here", refers to the 1938 meeting in South Carolina.

Encourage the Study of Earth Science

The Society has encouraged the study of earth science in the schools by sponsoring an award for the best earth science-type exhibit at the North Carolina and South Carolina Science Fairs. North Carolina winners received a total of \$325 between 1956 and 1971. South Carolina winners received a total of \$50 in 1957 and 1958. A certificate to go with the cash award was approved in 1958, and a year's free membership was voted in 1970.

The minutes of the Executive Committee and the annual meeting reflect much discussion about the science fair awards. The money as approved in 1955 was intended as an unrestricted gift, but it was used by the North Carolina Fair as an award for the best earth science project. The 1957 minutes refer to the money as an award for the best earth science project. In 1969 Villard Griffin (Clemson) was appointed to look into the problem of no award for South Carolina. In 1970 he reported that there was no state science fair, but there were four regional fairs. The Society approved a \$5.00 award for each regional fair, but no claim was ever presented to the Secretary for the money. In 1973 the Society voted to discontinue the award because there was no longer a science fair in North Carolina, and the South Carolina fairs were so fragmented into regional fairs that it was difficult to keep up with the nature and caliber of the earth science exhibits.

Thus ended the only formal attempt to support the study of earth science in the schools of the Carolinas

Promote Spirit of Friendship and Cooperation

The Society does by its annual gathering promote a spirit of friendship and cooperation among its members. The opportunity is always present to see old friends, make new friends, and discuss research or plan cooperative research. Naturally, there is no record as to how successfully the annual field trip promotes these activities.

Formal attempts at promoting friendship and cooperation are presented in the Society's newsletters. A newsletter was approved at the annual meeting in 1954. L.L. Smith (USC) and R.J. Councill (NC Survey) were appointed to coordinate the gathering of news in South Carolina and North Carolina. Other members were to be appointed from each state to represent academics, government, and industry.

The first newsletter was a summary of the 1954 meeting

and a list of members. It reported that Dick Council (NC Survey) aided by Roy Ingram (UNC-CH) and Mason Banks (Mineral Research Lab, Asheville) was to handle the North Carolina side of the newsletter. L.L. Smith (USC) with D.H. Eargle (Naval Base, SC) and R.W. Jones (Columbia) were to coordinate the South Carolina side. This newsletter was probably mailed in December, 1954.

Newsletter No. 2 was 5 1/2 legal-size pages long. News about faculty and students at the University of North Carolina, NC State, Duke, and the University of South Carolina included such things as recent publications, current research, and employment. News from Federal Surveys included only activities of the North Carolina Division of Mineral Resources. News of Members included one marriage announcement. General Activities of Mineral Industry announced the Museum of North Carolina Minerals and activities of some North Carolina mining companies, mostly abstracted from publications such as *Mining World* and *Engineering and Mining Journal*. All in all, the newsletter was more informative about activities of earth scientists in North Carolina; only five brief items about South Carolina were mentioned. The newsletter was mailed in midyear 1955.

The last issue of the newsletter was published in January, 1956. Like the first newsletter, it was a summary of the last meeting and gave list of officers and a membership list.

Encourage Research

The Society has never directly encouraged research. The Society's annual field trip has in most cases presented the results of original research on the geology of the Carolinas. The exceptions might be some of the early field trips that were nothing more than visits to mineral or mine sites with few new ideas or results of extensive study.

CGS field trips do serve a useful means of introducing new geological concepts to the profession. Examples of these will be discussed in another portion of this history.

After years of field and lab work, it is only natural that the results should be communicated to the profession. Formal publication is the common method of consummating research. But few people take the time to read and study publications unless some revolutionary idea is presented. "Mundane" local geology publications seldom are read unless there is an immediate need. What better way to spread the word of local geology than a field trip? Changes in concepts and terminology can be promoted on the outcrop, where the evidence is available for all to judge. Personal gratification and development of a professional reputation are quickly earned as a leader of a major field trip. Examples are found in Table 3. Young graduate students such as Stephen Kish (UNC) established a reputation after a successful field trip in 1975 on the geology of the Blue Ridge. More seasoned researchers have established reputations by repeated field

trips in their areas of expertise. Thus, Bob Butler (UNC-CH) served as leader or assistant in '64, '65, '74 and '81 and Don Secor (USC) in '68, '78 and '87. Both are recognized as expert Piedmont geologists.

Encourage Publications

One purpose of the Society is to encourage research and the presentation of results. This includes the annual field trip (Table 3) with the auxiliary guidebook. The history of the Society's guidebooks probably parallels that of guidebooks in general; that is, increasing complexity and costs.

The early guidebooks were nothing more than a few mimeographed pages consisting mostly of a road log and perhaps a very brief description of each locality. The earliest "guidebook" in the files of the Society is that of the second annual meeting held in the Durham-Chapel Hill area on November 6-7, 1937. The leaders were W.F. Prouty (UNC) and Willard Berry (Duke). The guide consists of three mimeographed pages of road log, a page sketch map of the roads, and a generalized geologic map of parts of Orange, Durham, and Wake Counties. The Triassic area was hand-colored in yellow. Other early guides that are in the CGS files are for 1938, 1940, 1948, 1949, 1950, and 1951.

The first fancy guidebook was prepared by Phil King (USGS, deceased), Jerry Hadley (USGS, deceased), and Bob Neuman (USGS, retired) for the Great Smoky Mountains trip in 1952. But by today's standards, this book is primitive having 60 mimeographed pages bound in a press board binder with a large blueprint-type black and white map insert. It contains 5 tables, 11 figures, and 2 large maps. This was also the first guidebook sold to the field trip participants.

The guidebooks during the balance of the fifties, the sixties, and the early seventies never quite matched the book by King and others in length and in number of figures and maps. Of course, the printing quality improved and photographs were introduced.

The first multi-article guidebook came in 1961 with two articles, each with its own road log. The authors of each article (J.F. McCauley, USC, and Henry Johnson, SC State Geologist) were also the field trip leaders. The separate articles met the need of really two different field trips. The Saturday portion was in the Piedmont and the Sunday half day trip was in the Coastal Plain. This was also the first guidebook published in a regular publication series, *Geologic Notes* of the Division of Geology, South Carolina State Development Board. Four other guidebooks were published in this series through 1969. All were single articles except the last one. "A Guide to the Geology of Northwestern South Carolina" by Villard Griffin and Bob Hatcher (Clemson) was the first guidebook with stand-alone articles and separate road log-and-locality descriptions.

The next major change in guidebook style was in 1978. Art Snoke (USC) initiated the first guidebook with invited

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Table 3. Data About Carolina Geological Society Field Trips, 1937-1987

Date	Meeting Place	Trip Title	Leaders & Assistants	Attendance
1937, May 15	Greenville, SC	Geology in the Greenville-Caesars Head area	Wilbur C. Holland	22
1937, Nov. 6-7	Chapel Hill-Durham, NC	Geology in the Chapel Hill, Durham, Raleigh area and the Deep River Coal Field, Glendon Pyrophyllite	W.R. Prouty, E.W. Berry, J.L. Stuckey, H.J. Bryson	40
1938, Nov. 12-13	Columbia, SC	Piedmont and Coastal Plain Geology around Columbia, the Haile Gold Mine	Stephen Taber, L.L. Smith, Julian Petty	58
1939, Oct. 21-22	Spruce Pine, NC	Geology of the Spruce Pine area	B.C. Burgess, W.J. Alexander	70
1940, Oct. 19-20	Charleston, SC	Geology in the Charleston Area, the Santee-Cooper Project	J.H. Watkins, Stephen Taber, W.B. Cormack	52
1941, Nov. 8-9	Asheville, NC	Geology around Ashville	Charles Hunter	42
1946, Nov. 16	Shelby, NC	Kings Mountain Geology	Charles Hunter	54
1947, Oct. 25-26	Clemson, SC	Geology in Clemson, Elberton, Ga., area	F.H.H. Calhoun	65
1948, Oct. 30-31	Chapel Hill, NC	Geology of the Deep River Triassic Basin, pyrophyllite geology	J.A. Reinemund, J.L. Stuckey	70
1949, Nov. 5-6	Myrtle Beach, SC	Geology in the Coastal Plain between Elizabethtown and Myrtle Beach	W.A. White, B.W. Wells	
1950, Oct. 21-22	Albemarle, NC	Geology in the Albemarle area	H.E. LeGrand, W.A. White, J.L. Stuckey	75
1951, Oct. 20-21	Columbia, SC	Basement, Cretaceous, and Eocene Geology, Columbia-Aiken	Stephen Taber, L.L. Smith	50
1952, Nov. 1-2	Gatlinburg, TN	Geology of the Great Smoky Mountains	Phil King, J. Hadley, R. Neuman, R. Goldsmith, W. Hamilton, H. Malde	250
1953, Oct. 24-25	Shelby, NC	Geology of the Shelby area	W.C. Overstreet, P.K. Theobald, Jr., N.P. Cuppels	65
1954, Nov. 6-7	Asheville, NC	Geology in the Spruce Pine area	Charles Hunter	80
1955, Oct. 8-9	Wilmington, NC	Geology of the N.C. Coastal Plain	Harry LeGrand, Phil Brown	60
1956, Oct. 13-14	Gaffney, SC	Geology of the Kings Mountain area	Tom Kesler	100
1957, Nov. 16-17	Florence, SC	Geology of the S.C. Coastal Plain	George Siple	75
1958, Oct. 30-Nov. 1	Orangeburg, SC	Geology of the Basement and Eocene rocks of Central, South Carolina	H.S. Johnson, Jr., L.N. Smith, J.W. Clarke, S.D. Heron, Jr	69
1959, Oct. 24-25	Albemarle, NC	Geology of the Albemarle and Denton Quadrangles	Arvid Stromquist, James F. Conley	115
1960, Oct. 8-9	Morganton, NC	Geology of Grandfather Mountain	Bruce Bryant, John Reed, Jr.	80
1961, Oct. 21-22	Columbia, SC	Geology of Newberry Co. and Geology in the Sand Hills	John McCauley, H.S. Johnson, Jr.	102
1962, Oct. 19-20	Southern Pines, NC	Geology of Moore County	James F. Conley	100
1963, Oct. 26-27	Clemson, SC	Geology of Oconee and Pickens Cos.	Charles Brown, C.J. Cazeau	55
1964, Nov. 7-8	Durham, NC	Geology of the Slate Belt	George L. Bain, E.P. Allen, W.F. Wilson, Robert Butler	65
1965, Oct. 22-23	Rock Hill, SC	Geology of York County	Robert Butler	100

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Date	Meeting Place	Trip Title	Leaders & Assistants	Attendance
1966, Oct. 22-23	Concord, NC	Geology of Cabarrus County	Harry LeGrand, Henry Bell	124
1967, Oct. 14-15	Abingdon, V	Geology of the Mt. Rogers area	Doug Rankin	100
1968, Oct. 20-21	Columbia, SC	Stratigraphy, Structure and Petrology of the Piedmont in Central South Carolina	Don Secor, H.D. Wagener	100
1969, Oct. 4-5	Clemson, SC	Northwestern South Carolina	V.S. Griffin Jr., R.D. Hatcher, Jr.	125
1970, Oct. 24-25	Danville, VA	Stratigraphy, Sedimentology and Economic Geology of Dan River, North Carolina	Paul A. Thayer, Dewey S. Kirstein, Roy L. Ingram	125
1971, Nov. 13-14	Murphy, NC	Stratigraphy and Structure of the Murphy Belt, North Carolina	W. Robert Power Joseph Forrest	161
1972, Oct. 7-8	Raleigh, NC	Geology of the Coastal Plain, New Bern to Wake County, North Carolina	R.B. Daniels, E.E. Gamble, W.H. Wheeler, C.S. Holzhey	100
1973, Oct. 13-14	Newberry, SC	Granitic Plutons of the Central and Eastern Piedmont of South Carolina	H.D. Wagener, D. E. Howell	150
1974, Oct. 5-6	Cheraw, SC	Geology of the Piedmont and Coastal Plain near Page-land, SC and Wadesboro, NC	H. Bell, III, R. Butler, D. Howell, W. Wheeler	175
1975, Nov. 8-9	Bryson City, NC	Geology of the Blue Ridge South of the Great Smoky Mountains, North Carolina	S. Kish, C. Mersch, D. Mohr, L. Wiener	260
1976, Oct. 23-24	Clayton, GA	Geology of the Eastern Blue Ridge of the Carolinas and nearby Georgia	Robert D. Hatcher, Jr.	190
1977, Oct. 8-9	Apex, NC	Geology of the Durham Triassic Basin	George L. Bain, Bruce W. Harvey, plus 10 others	209
1978, Oct. 7-8	Columbia, SC	Bedrock Geology of Central South Carolina	Arthur W. Snoke, Don Secor	175
1979, Oct. 20-21	Wrightsville Beach, NC	Structural and Stratigraphic Framework for the Coastal Plain of North Carolina	Gerald R. Baum, W. Burleigh Harris, Victor A. Zullo	208
1980, Oct. 11-12	Danville, VA	Bedrock Geology of South Central Virginia	V. Price, Jr., P.A. Thayer, W.A. Ranson	182
1981, Oct. 24-25	Gaffney, SC	Geological investigations of the Kings Mountain belt and adjacent areas in the Carolinas	J.W. Horton, Jr., J.R. Butler, M. Schaeffer, C. Murphy, John Conner, D Milton	318
1982, Oct. 9-10	Aiken, SC	Geological investigations related to the stratigraphy in the kaolin mining district, Aiken County	Paul G. Nystrom, Jr Ralph H. Willoughby	118
1983, Oct. 22-23	Boone, NC	Geologic Investigations in the Blue Ridge of Northwestern North Carolina	S. Lewis, M. Bartholomew, G. Feiss, G. Gully, J. Monrad, J. Gryta	250
1984, Oct. 27-28	Albemarle, NC	A Stratigrapher's View of the Carolina Slate Belt, South-central North Carolina	Gail G. Gibson, Steven A. Teeter	162
1985, Nov. 16-17	Durham, NC	The Virgilina deformation: implications of stratigraphic correlations in the Slate Belt	Charles W. Harris, Lynn Glover, III	112
1986, Oct. 11-12	Columbia, SC	Cretaceous-Tertiary stratigraphy of the upper edge of the Coastal Plain between North Augusta and Lexington, SC	Paul G. Nystrom, Jr., Ralph H. Willoughby, Lucille E. Kite	118
1987, Nov. 14-15	Hickory Knob Resort State Park, SC	Anatomy of the Alleghanian orogeny as seen from the eastern Piedmont of SC	Harmon Maher, Paul Sacks, Don Secor	

papers. There were articles on regions not within the guidebook area and authored by some who were not field trip leaders. There are eleven articles on the general subject of eastern Piedmont geology by a total of 22 authors. This was a major change in style and content of a CGS guidebook.

This trend of invited papers continued through 1979 (Coastal Plain of North Carolina with 10 articles and 14 authors), 1980 (Triassic and Piedmont of Central North Carolina and Virginia with 13 articles by 18 authors), 1981 (Kings Mountain Belt of the Carolina with 21 articles by 27 authors), 1982 (Kaolin Mining District of South Carolina with 8 articles by 10 authors), and 1983 (Blue Ridge of Northwestern North Carolina with 8 articles by 15 authors). Subsequent guidebooks have not had invited papers. Why the change?

Many CGS guidebooks have been printed by the geological survey in the state hosting the field trip. In 1983 the North Carolina Survey printed the Blue Ridge guidebook edited by Sharon Lewis. The guidebook manuscript was late arriving at the Geological Survey office and the copy was not camera ready resulting in added time, trouble, and special expense to the Survey. According to Phil Brown, then Chief Geologist, the Survey's direct cost for printing the guidebook was \$3,624.10, and the unrecovered cost was 16 percent of the Survey's printing budget. The excessive length of the book caused by double-spaced text, figures not reduced, and failure to print on both sides of many pages were contributing factors to the higher costs.

The guidebook problem was discussed in the CGS Executive Committee meeting in October, 1983, where the Secretary was instructed to prepare guidelines for future guidebooks to be submitted to each of the State Geologists for approval. Meanwhile the South Carolina Survey prepared guidelines, and after comments from the NC Survey, the modified guidelines were adopted by each survey. The main constraint offered by these guidelines is a maximum number of 80 pages.

Since 1983 the Society has met in North Carolina twice. The 1984 guidebook for the Carolina Slate Belt in south central North Carolina was printed by the Department of Geography and Earth Sciences, UNC-Charlotte, and the 1985 guidebook for the Slate Belt in Northcentral North Carolina and Southcentral Virginia was printed at Virginia Tech.

The Carolina Geological Society is the technical publisher for CGS guidebooks. They are printed and distributed by other organizations or individuals. Table 4 lists the 1987 prices and availability of all guidebooks. In addition, all guidebooks are housed in the Duke University Perkins Library.

INCORPORATION

The need for incorporation of the Carolina Geological Society did not arise until the lawsuit that arose out of the

1982 meeting in Aiken, SC. The Heart of Aiken Motel sued Norman K. Olson (SC State Geologist) and CGS for non-payment of rent on twenty motel rooms for two nights. According to the complaint the rooms were reserved in February for use on October 8 and 9. Because the rooms were not used, the Motel demanded payment. Of course the suit was unjustified because the rooms were to be held only up to a week or so before the meeting. If they were unreserved by a specific date, the room reservation was to be canceled. Olson was represented by the State Attorney General and the Society by a Lexington, SC, law firm. The magistrates found that Norman K. Olson was acting as an agent for the South Carolina Geological Survey and that magistrate court does not have jurisdiction on a civil action against the State. The judge also ruled that the court did not have jurisdiction against an out-of-state unincorporated association and that Olson was not an officer of the Society or its registered agent. The plaintiff's lawyer did start proceedings for an appeal, but an appeal was never finalized. The cost to the Society for a totally frivolous suit was \$250.

It was plain that the Society and its officers might be subject to litigation if an accident were to happen during the course of a field trip. Protection would best be afforded by incorporation and liability insurance. Furthermore, incorporation would allow for application to the IRS for tax exempt status. Accordingly, the membership approved a motion on October 27, 1984, instructing the Secretary to take the necessary steps for incorporation and tax exemption.

In January, 1985, Coralynn Y. Harward, an attorney in Durham, NC, drew up rough drafts of Certificate of Incorporation and By-Laws of the Carolina Geological Society, Inc. The Certificate of Incorporation was modified and signed by the seven incorporators of the Society: Don Secor (USC), Gail Gibson (UNC-Charlotte), Duncan Heron (Duke), Stephen Conrad (NC State Geologist), Norman Olson (SC State Geologist), Wallace Fallaw (Furman), and Kenneth Sargent (Furman). The first three were the current officers of the unincorporated Society and Kenneth Sargent was Chairman of the Membership Committee.

The organizational meeting of the Carolina Geological Society, Inc. was held in Cheraw, SC, on April 13, 1985. Of the seven incorporators, Stephen Conrad and Norman Olson, were absent. The elected officers of the new Society were, Don Secor, President; Gail Gibson, Vice-President; and Duncan Heron, Secretary-Treasurer. The proposed by-laws were modified and then adopted. Eight resolutions were adopted relating to the operation of the Secretary-Treasurer's office, liability insurance, and the annual field trip. President Secor appointed Ken Sargent as Chairman of the Membership Committee and Wally Fallaw as Chairman of the Nominating Committee.

In 1985 the Internal Revenue Service granted the Society federal income tax exemption under section 501(c)(3) of the Internal Revenue Code. The Society is under an

advanced ruling period (May 15, 1985-December 31, 1987) as a publicly supported organization under section 509(a)(2) of the code.

Table 4. List and Sources of CGS Guidebooks and Miscellaneous Publications

The Carolina Geological Society has published guidebooks since 1952. The guidebooks have been printed and distributed by other organizations or individuals. Many are still available. Inquiries should be made to one of the following for the particular guidebook.

¹North Carolina Geological Survey
P. O. Box 27687

Raleigh, NC 27611-7687

²South Carolina Geological Survey

No. 5 Geology Road

Columbia, SC 29210

³Out of Print

⁴Virginia Division of Mineral Resources

P.O. Box 3667

Charlottesville, VA 22903

⁵Carolina Geological Society

Department of Geology

Box 90234

Duke University

Durham, NC 27705-0234

Most guidebooks are housed in the Duke University Perkins Library under the call number.

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557.56
C292G
(year)

Miscellaneous publications are also available at Perkins Library. Ask your librarian about inter-library loan.

GUIDEBOOKS

1937-1951, No guidebooks, usually only a short road log with a brief description of localities. Some copies are available from the Society's headquarters.

1952, Guide Book of Excursion in the Great Smoky Mountains by Philip B. King, Jarvis B. Hadley, and Robert B. Neuman, 60p., 5 tables, 11 figs., 2 large maps.³

1953, Road Log for the Annual Excursion of the Carolina Geological Society, by W.C. Overstreet, P.K. Theobald, Jr., and N.P. Cuppels, 26p., 2 figs.³

1954, No Guidebook.

1955, Guidebook of Excursion in the Coastal Plain of North Carolina, by H.E. LeGrand and P.M. Brown: 43p., 1 table, 4 figs.³

1956, Carolina Geological Society Guidebook (west of Kings Mountain, NC), by Thomas L. Kesler: 4p., 1 table, 1 map.³

1957, Carolina Geological Society Guidebook for the South Carolina Coastal Plain Field Trip, by George E. Siple, Bull. 24, State Dev. Board, Div. of Geology, Columbia, S.C., FG-2, Price \$0.75.³

1958, Carolina Geological Society Guidebook by L.N. Smith and H.S. Johnson, Jr., FG-3, 13p., 1 table, 2 maps, Price \$1.80.³

1959, Geology of the Albemarle and Denton Quadrangles, N.C., by A.A. Stromquist and J.F. Conley, 36p., 3 figs., Price

\$3.00.¹

1960, Road Log of the Grandfather Mountain Area, North Carolina, by Bruce Bryant and John C. Reed, Jr., 21 p., 2 figs., Price \$2.00.¹

1961, Relationships between the Carolina Slate Belt and the Charlotte Belt in Newberry County, S.C., by J.F. McCauley, and Fall Line Stratigraphy Northeast of Columbia, S.C., by H.S. Johnson, Jr.: published in Geologic Notes, v. 5, no. 5, FG-4, 28p., 1 fig., Price \$0.60.²

1962, Road Log of the Geology of Moore County, N.C., by J.F. Conley, 6p., 1 fig., Price \$1.00.¹

1963, Guide to the Geology of Pickens and Oconee Counties, South Carolina: by C.J. Cazeau and C.Q. Brown, published in Geologic Notes, v. 7, no. 5., FG-5, 10p., 2 figs., Price \$1.30.²

1964, Road Log of the Chatham, Randolph and Orange County areas, North Carolina, by George L. Bain, Eldon P. Allen, and William F. Wilson and James R. Butler, 23p., 1 fig., Price \$2.00.¹

1965, Guide to the Geology of York County, South Carolina, Carolina Geological Society Field Trip, by James R. Butler: published in Geologic Notes, v. 9, no. 2, p. 27-36, FG-6, 10p., 1 fig., Price \$0.60.²

1966, Guidebook of Excursion in Cabarrus County, North Carolina, by H.E. LeGrand and Henry Bell III, 39p., 1 table, 7 figs., Price \$3.00.¹

1967, Guide to the Geology of the Mt. Rogers Area, Virginia, North Carolina and Tennessee, by Douglas Rankin, 48p., 3 figs., Price \$3.00.¹

1968, Stratigraphy, Structure, and Petrology of the Piedmont in Central South Carolina, by D.T. Secor and H.D. Wagener: published in Geologic Notes, v. 12, no. 4, FG-8, 18p., 1 table, 1 large map, Price \$0.90.²

1969, Carolina Geological Society Field Trip Guidebook for Northwestern South Carolina, by VS. Griffin, and Robert D. Hatcher Jr.: published in Geologic Notes, v. 13, no. 4, p. 143-147, FG-9, 60p., 3 tables, 17 figs., 19 plates, Price \$0.60.²

1970, Stratigraphy, Sedimentology and Economic Geology of Dan River, North Carolina, by Paul A. Thayer, Dewey S. Kirstein and Roy L. Ingram, 44p., 4 tables, 12 figs., Price \$3.00.¹

1971, Stratigraphy and Structure of the Murphy Belt, North Carolina by W. Robert Power and Joseph T. Forrest, 29p., 11 figs., 1 plate, Price \$3.00.¹

1972, Carolina Geological Society and Atlantic Coastal Plain Geological Association, Field Trip Guidebook by R.B. Daniels, E.E. Gamble, W.H. Wheeler and C.S. Holzhey, 64p., 3 tables, 21 figs., Price \$3.00.¹

1973, Granitic Plutons of the Central and Eastern Piedmont of South Carolina by H.D. Wagener and David E. Howell, FG-11, 25p., 3 figs., Price \$2.10.²

1974, Geology of the Piedmont and Coastal Plain Near Page-land, South Carolina and Wadesboro, North Carolina by Henry Bell III, J. Robert Butler, David E. Howell, and Walter H. Wheeler, FG-12, 23p., 4 figs., Price \$1.90.²

1975, Guide to the Geology of the Blue Ridge South of the Great Smoky Mountains, North Carolina by Stephen A. Kish, Carl E. Merschat, David W. Mohr and Leonard S. Wiener, 49p., 3 tables, 8 figs.^{3,1}

1976, Introduction to the Geology of the Eastern Blue Ridge of the Carolinas and nearby Georgia by Robert D. Hatcher, Jr., FG-

14, 53p., 3 tables, 14 figs., Price \$2.40.²

1977, Field Guide to the Geology of the Durham Triassic Basin, by George L. Bain and Bruce W. Harvey, 83p., 24 figs.^{3,1}

1978, Geological Investigations of the Eastern Piedmont, Southern Appalachians (with a Field Trip Guide on the Bedrock Geology of Central South Carolina), edited by Arthur W. Snoke, FG-15, 123p., 3 tables, 38 figs., 2 plates, Price \$4.50²

1979, Carolina Geological Society and Atlantic Coastal Plain Geological Association, Structural and Stratigraphic Framework for the Coastal Plain of North Carolina, edited by Gerald R. Baum, W. Burleigh Harris and Victor A. Zullo, 111p., 1 table, 31 figs., 3 plates.^{3,1}

1980, Geological Investigations of Piedmont and Triassic Rocks, Central North Carolina and Virginia, with a field trip guide on the bedrock geology of south central Virginia, edited by V. Price, Jr., P.A. Thayer and W.A. Ranson, 180p., 14 tables, 70 figs., 1 plate.³

1981, Geological Investigations of the Kings Mountain Belt and Adjacent Areas in the Carolinas, edited by J. Wright Horton, Jr., J. Robert Butler and Daniel M. Milton, FG-16, 247p., 4 tables, 95 figs., 3 plates, Price \$9.00.²

1982, Geological Investigations Related to the Stratigraphy in the Kaolin Mining District, Aiken County, S.C., edited by Paul G. Nystrom, Jr., and Ralph H. Willoughby, FG-17, 183p., 5 tables, 66 figs., 1 plate, Price \$9.60.²

1983, Geologic Investigations in the Blue Ridge of Northwestern North Carolina, edited by Sharon E. Lewis, 138p., 11 tables, 81 figs., 2 plates, Price \$13.00.¹

1984, A Stratigrapher's View of the Carolina Slate Belt South-central North Carolina, by Gail G. Gibson and Steven A. Teeter, 43p., 3 figs. (Department of Geography and Earth Sciences, University of North Carolina-Charlotte, Charlotte, NC 28223)⁴

1985, The Virgilina Deformation: Implications of Stratigraphic Correlations in the Carolina Slate Belt, by Charles W. Harris and Lynn Glover, III., 58p., 1 table, 11 figs., Price \$3.00.⁵

1986, Cretaceous-Tertiary Stratigraphy of the Upper Edge of the Coastal Plain between North Augusta and Lexington, South Carolina, by Paul G. Nystrom, Jr., Ralph H. Willoughby, and Lucille E. Kite, 82p., 46 figs., 1 plate, Price \$7.00.²

MISCELLANEOUS PUBLICATIONS

1968, Carolina Geological Society History, 1937 - 1968 by E. Willard Berry and S. Duncan Heron, Jr., 28p., 3 tables.³

CAROLINA GEOLOGICAL SOCIETY GOVERNANCE

Before incorporation the Society's officers consisted of a President, Vice-President, and Permanent Secretary-Treasurer (as previously explained, the office of Secretary-Treasurer was made permanent during World War II). Up until 1952 the officers were nominated from the floor at the business meeting. In 1952 a nominating committee appointed by the President made the selection. This committee usually functioned on the outcrop during the Saturday field trip. The committee reported to the membership at the business meet-

ing and the slate was elected by acclamation. The spirit of the nominating committee has been to try to rotate the officers between the two states. As it turns out through 1987, each state has had 22 presidents (Table 5). Three presidents have been outside the Carolinas. Don Secor (USC) has served as President in 1965 and 1985. There have been two Secretary-Treasurers, Willard Berry, 1937-65, and Duncan Heron, 1966. The Constitution (1937-1984) of the Society provided for the election of a Chairman of the Membership Committee who is not an officer of the Society. The Chairman was directed to choose one member from each state "represented in the Society to serve as members". In practice the chairman served as the only member of the committee. He solicited names and presented them to the Executive Committee for approval. So far as known only one person has been turned down for membership by the Membership Committee and that was in 1938. No reason was given in the minutes of the Executive Committee. After incorporation the Chairman of the Membership Committee is appointed by the President.

Since incorporation the Society's affairs have been managed by a seven-member Board of Directors elected by the membership at the annual meeting. The officers of the Board are elected by the Board immediately following the annual meeting. These officers, the President, Vice-President, and Secretary-Treasurer automatically remain as Directors of the Society for one year immediately following their term of office. This allows for continuity between boards and means that the membership elects four new Board members each year.

The by-laws (Appendix 1) provide for three standing committees: an Executive Committee, a Membership Committee, and a Nominating Committee. The President appoints all committee members except that the President, Vice-President, Secretary-Treasurer and immediate past President are automatically members of the Executive Committee.

The by-laws provide for an annual meeting to be held during the month of September, October, or November. Special called meetings are also possible. Membership in the Society only requires a serious interest in the geosciences.

CGS FIELD TRIPS: TESTING GROUND FOR NEW CONCEPTS

Many of the CGS field trips have introduced new ideas or concepts about Carolina geology. Most of the trips were based on several years of field studies. New geology is better appreciated when one can argue with colleagues on the outcrop. As Jasper Stuckey (NC State Geologist, deceased) once said (perhaps he was quoting someone else), "the rocks don't change, only our concept of them". The following accounts are samplings of significant field trips taken from my memory and those of several colleagues who responded to a letter of inquiry in the Spring of 1987. They are not

DUNCAN HERON

Table 5. Presidents and Vice-Presidents of the Society

1937	W.C. Holland	Furman	1963	Charles Q. Brown	Clemson
	Berlin C. Moneymaker	TVA		Steve Conrad	NC Survey
1938	H.W. Straley	UNC	1964	Henry Brown	NC State
	B.C. Burgess	TN Min. Prod.		George Siple	USGS
1939	L.L. Smith	USC	1965	Donald Secor	USC
	J.H. Watkins	Citadel		Robert Butler	UNC
1940	J.H. Watkins	Citadel	1966	George Bain	USGS
	W.H. Alexander	Bryson City, NC		Bruce Nelson	USC
1941	G.W. Crickmay	Univ. of GA	1967	William J. Furbish	Duke
	R.G. Grassy	USDA-SCS		Maurice Magee	TN Copper
1942	R.G. Grassy	USDA-SCS	1968	John Carpenter	USC
	1946 J.W. Huddle	UNC		David Dunn	UNC
1946	J.W. Huddle ¹	UNC	1969	David Dunn	UNC
1947	J.L. Stuckey	NC State		Villard Griffin	Clemson
	W.B. Cormack	USC	1970	Steve Conrad	NC Survey
1948	B.F. Buie	USC		Ed Sharp	USC
	Mitchel H. Klein	Bureau of Mines	1971	Ole Olson	SC Survey
1949	J.M. Parker, III	NC State		Walter Wheeler	UNC
	C.E. Hunter	TVA	1972	Walter Wheeler	UNC
1950	G.R. Graham	USC		H.D. Wagener	Chiasma Consultants
	E.L. Miller, Jr.	NC State	1973	H.D. Wagener	Chiasma Consultants
1951	G.R. MacCarthy	UNC		Charles Welby	NC State
	W.H. Swanson	USC	1974	Paul Fullagar	UNC
1952	Stephen Taber	USC		Robert Hatcher	Clemson
	Sam D. Broadhurst	NC Survey	1975	Robert Hatcher	Clemson
1953	Sam D. Broadhurst	NC Survey		Jay Leith	NC State
	Virgil I. Mann	UNC	1976	Jay Leith	NC State
1954	George Siple	USGS		Charles J. Cazeau	Clemson
	S.D. Heron, Jr	Duke	1977	Dave Snipes	Furman
1955	S.D. Heron, Jr.	Duke		Neil Gilbert	Law Engineering
	W.J. Dukes	Augusta, GA	1978	Eldon Allen	NC Survey
1956	Roy L. Ingram	UNC		Wally Fallaw	Furman
	E.S. Perry	USC	1979	Art Snoke	USC
1957	Harry LeGrand	USGS		Bob Lemon	UNC-C
	O.F. Stewart	Zonolite	1980	Bob Butler	UNC
1958	Thomas L. Kesler	Foot Mineral		Van Price	E. I. DuPont
	Henry S. Johnson, Jr.	SC Survey	1981	Dick Chalcroft	College of Charleston
1959	Henry S. Johnson, Jr.	SC Survey		Malcom Shaeffer	Duke Power Co.
	Walter Wheeler	UNC	1982	Wright Horton	USGS
1960	Owen Kingman	TN Copper		Ed Sharp	USC
	John F. McCauley	USC	1983	Wally Falla	Furman
1961	John F. McCauley	USC		John Chapman	Western Carolina
	Virgil I. Mann	UNC	1984	Ed Burt	NC Survey
1962	Virgil I. Mann	UNC		Mike Katuna	College of Charleston
	Charles Q. Brown	Clemson	1985	Don Secor	USC
				Gail Gibson	UNC-C
			1986	Gail Gibson	UNC-C
				Alexander Ritchie	College of Charleston
			1987	Alexander Ritchie	College of Charleston
				Edward Stoddard	NC State

1. Acting President after Grasseley withdrew owing to war work.

listed in any particular order.

Arvid Stromquist (USGS) and Jim Conley (NC Survey) worked on adjacent quadrangles in the Carolina slate belt of south-central North Carolina. The rocks of the slate belt had been recognized for over a hundred years, but little was known about their structure or stratigraphy. The 1959 field

trip demonstrated that the rocks had a stratigraphic sequence and could be sub-divided although no formation names were used in the guidebook. These geologists also proved that there are a series of folds, some with wave lengths of 10 to 12 miles.

Jim Conley and George Bain (USGS) put this strati-

graphic concept into a regional picture by subdividing all of the slate belt in North Carolina into formations (Conley and Bain, 1965). They, assisted by E.P. Allen and W.F. Wilson of the NC Survey who had been mapping in Orange County, as well as by Bob Butler (UNC), presented their formations to the geological community at the 1964 CGS field trip. The guidebook contained a map of the slate belt formations west of the Triassic Basin.

The following quote from Art Snoke (USC) is in the Foreword to the 1978 guidebook.

"In 1973, Glover and Sinha described the southern Appalachian Piedmont as 'the last large-scale modern frontier of extremely complex regional geology in the United States.' These words, I think, reflect the excitement that many of us feel toward the region. We are all aware of the poor exposure, the complex structure, and the local intensity of metamorphism; but as Appalachian geologists along the length of the orogen are concluding - it is the metamorphic core terranes that will be the 'proving grounds' for the multitude of regional tectonic models now available. Therefore, we, who are presently working in the internal zones of the southern Appalachians, are in a unique position to put major constraints on working hypotheses concerning the tectonic evolution of the region. It is truly an exciting time to be studying Piedmont geology, and as a field geologist, principally trained in the western United States, I feel fortunate to be able to participate in this 'renaissance period' of southern Appalachian geology."

Don Secor (letter, April 20, 1987) remembers the events leading up to the field trip:

"We had been teaching the USC field course along the Fall Line near Batesburg, SC and the students had mapped out a plutonic complex of strongly deformed orthogneisses in the Kiokee belt. We had interpreted the strongly deformed character of these gneisses as an indication that they were of late Precambrian or early Paleozoic age and that they carried fabric of the Taconic and/or Acadian orogenies, which in 1976 were thought to be the only deformation events to have affected the region. In 1976 or 1977, we had received a letter from Bob Butler and Paul Fullagar telling us that they had obtained a preliminary Rb-Sr whole-rock isochron which indicated a late Carboniferous age for one of the deformed granites in the plutonic complex. This was the first hint that there was an important belt of Alleghanian ductile deformation and regional metamorphism along the Fall Line. Shortly thereafter, Steve Kish (who at that time was doing a Ph.D. with Paul Fullagar at UNC) came down and went around with us collecting a lot more samples for Rb-Sr whole-rock analyses. The results, which strongly confirmed the presence of a belt of Alleghanian deformation along the Fall Line, were announced in two abstracts at the Chattanooga Southeastern GSA meeting in the Spring of 1978. The Alleghanian orogen in the eastern Piedmont of South Carolina was the central theme of the CGS field trip that Fall, and (aside from the previously mentioned abstracts) the relevant data were first published in the 1978 CGS

Guidebook. More recent studies by numerous investigators indicate that the Alleghanian deformation and regional metamorphism in the hinterland extends from Nova Scotia to at least Georgia and is a fundamentally important feature of the Appalachians."

The 1984 trip in the Slate Belt of south central North Carolina led by Gail Gibson and Steven Teeter (UNC-C) demonstrated the detailed sedimentologic characteristics of the slate belt. The Ediacarian fossils found by these men and their students are remembered by Don Secor (letter, April 20, 1987):

"You may remember that Joe St. Jean (UNC-CH) had described what he thought *Paradoxides* trilobites from the upper part of the stratigraphic sequence at Albemarle during the late 1960's or early 1970's. Gail and Steve had discovered additional fossils that were better preserved than those that St. Jean had, and with the aid of M.A. Fedonkin, had concluded that both their own and St. Jean's fossils were representatives of the Precambrian metazoan genus *Pteridinium*. Gail and Steve had their fossils on display at the smoker before the trip, and they demonstrated that all or virtually all of the rocks in the Albemarle Group were of Late Precambrian age. Before this trip many of us had thought that the fossiliferous Cambrian rocks in the South Carolina slate belt were correlative with the Albemarle group in North Carolina. After the 1984 trip, it was clear that this correlation was untenable. The relationship between the South Carolina and North Carolina sequences remains a fundamental unsolved problem."

The 1979 Coastal Plain trip led by Gerry Baum (College of Charleston) and Bill Harris and Vic Zullo (UNC-Wilmington) is memorable in that they considered tectonics in the Coastal Plain relative to stratigraphic interpretation. However, the disclaimer in the guidebook stands out as a first. Even though the Society publishes guidebooks, they are normally printed and distributed by others. So it was in 1979 that the North Carolina Survey printed the guidebook. The insertion on p. VI is a disclaimer on the "accuracy of the opinions and conclusions contained in this guidebook". The authors inserted a slip that said "The North Carolina Geological Survey inserted p. VI without our prior knowledge or permission".

MEMORIES FROM VARIOUS FIELD TRIPS

Those of us who have attended many CGS field trips usually recall something special about each trip. Those who have not attended many meetings are building up their own memory bank. The "memorable event" from each meeting is seldom geological, but instead relates to personalities or the weather or something unusual that imprints the mind with an event and the CGS. I asked a number of long time member of the Society for special recollections of events from various meetings. The following is a selection of memories of my own and other "old timers".

Rain is the bane of a field trip. October and November are dry months in the Carolinas, and when it does rain, the event sticks in the mind. The 1957 trip in the Coastal Plain of South Carolina was led by George Siple (USGS, Columbia). I remember a long caravan of cars going the 50 miles or more between localities in the pouring rain. There is some unwritten law of physics that says when the first car in a caravan is going 55 MPH, the last car must do 80 MPH to keep up. Henry Johnson (SC State Geologist) and I were in the last car.

Don Secor (USC) remembers a similar long auto caravan in the Piedmont of South Carolina in 1968. Again it was rain from a Fall hurricane. Don says that:

“We had a nice box-lunch picnic planned, however, I vividly remember a torrential downpour at lunch time. For lack of a picnic shelter, we all ended up in the cars eating soggy fried chicken.”

The rain during the 1946 trip in the Kings Mountain Belt caused the cancellation of the Sunday morning trip. This was the first and only cancellation of a CGS field trip caused by the weather.

Rain for the Geology of Cabarrus County (1966) trip occurred between localities. As the caravan came to a new locality, the rain stopped. This didn't happen at the 1981 Kings Mountain Belt. It seemed to rain only during the locality stops. There was some rain for the Durham Triassic Basin trip in 1977 and for the Blue Ridge of northwestern North Carolina in 1983. All in all, only seven of the forty-seven trips between 1937 and 1986 have had rain.

Stuck busses are a sure thing to remember especially if you are riding the bus. Who knows how many busses have

been stuck. The problem almost always relates to the crown of the road scraping the middle of the bus. This happened during the 1983 trip in the Blue Ridge of northwestern North Carolina and again in 1986 on an unpaved road in Aiken County, SC. Color slides abound of the attempt of the gang to push the bus off the crown of the sand road. It didn't work.

Food at the banquet and at the noon lunch on Saturday stirs memories with the heartburn elite. The typical field lunch is soggy fried chicken or else a couple of cholesterol laden sandwiches. There have been exceptions and the people in South Carolina are known for their bar-b-que lunches. The 1986 trip in the Coastal Plain around Aiken, SC had a drilling demonstration combined with a hot barbecue lunch. A similar trip in Aiken County in 1982 also featured barbecue.

The usual fare at the Saturday night banquet is baked chicken, mashed potatoes and English peas -- and for a reason. The idea is to have a simple, inexpensive meal so that students can afford to attend. That is probably false logic as most students seem to prefer fast-food on Saturday night. There have been at least two notable banquet meals. The first was in 1980 in Danville, VA. Paul Thayer (UNC-W) was in charge of the meal. Somehow he raised money to subsidize a \$15.00 or so steak dinner that cost the participants \$10.00. It was, as I recall, a really nice filet mignon. The other notable meal was at the Daniel Boone Inn in Boone, NC, in 1983. The inn features all-you-can-eat family style. There were at least two meats and many vegetables, all for a reasonable price. One banquet in Aiken, SC (1982) is noted, not for the food, but for the verse. Found at the dinner plate of each guest was the following:

AN INCOMPETENT VERSE WITH NO RHYME OR REASON

A structural geologist named Milo Knight
Lived with his Auntie Cline (nicknamed Mag)
And his Mother Lode (nicknamed Ma);
(His Pa, Hoy-Hoy, died of subduction at an early age.)

Milo, a worthless creep, continually took nappes
Until he was ejected from the Mag-Ma chamber.

One day he met Lynne E. Ation, a Pole from the Lower Hemisphere*
Whose lovely folds and cleavage were obvious
As she dressed for him in her net slip with its plunging syncline.
He sighed, “Marry me, Lynne! Let me take you away from those
Crowded klippe joints to a place with no room problem!...
My home! It's complete with adequate depth to basement,
A strong roof pendant, 2 1/2 batholiths, and plenty of windows.”

She accepted. He replied, “Great! Breccia didn't think
I'd pop the question, eh?”
She groaned, knowing that with Milo they were ultimately
Heading for undulatory extinction.

*When she was age 10 she and her parents emigrated from Warsaw to Melbourne.

An anonymous CGS punster

Ole Olson was in charge of the meal and no doubt the verse.

Sex stories do not abound as a result of CGS meetings. The author knows of only two although there must be more. In 1962 in Southern Pines, NC, a CGS member got up on Sunday morning to find a dog asleep in the chair of his motel room. Another member remarked that it wasn't the first time that a bitch had spent the night in a motel room at a CGS meeting. The other incident is told by Chuck Cazeau (Clemson), one of the leaders for the 1963 trip on the Geology of Oconee and Pickens Counties, SC. He tells the story best (letter, April 18, 1987):

"My younger daughter Suzanne was conceived at the Clemson House on the night of October 26th. My specification of this night was rigorously scientific, purely logical, and in the finest tradition of the CGS. Most of the rest of the time as can be verified by Dave Snipes, Wally Fallaw, and Dick Wagener we spent (over some whiskey) compiling a definitive list of all the synonyms for the human reproduction act."

Which brings up the subject of whiskey. Saturday night drinking was a ritualistic practice of Willard Berry (Duke) who was often accompanied by his wife Dot. Berry had the reputation of being able to drink anyone under the table. He would party until the wee hours of Sunday morning and still be able to go on the Sunday trip. Walter Wheeler (UNC-CH) helped out at one of these parties at the 1956 meeting at the Hotel Carroll in Gaffney, SC. Wheeler was on crutches as a result of a long standing battle with polio. On Sunday morning he was seen asking about his crutches. Seems they were "standing there in the corner" of Mary and Jim Clay's room. Walt has never used crutches since that time.

Geological embarrassment might be the headline for the 1959 trip in the Albemarle and Denton Quadrangles near Albemarle, NC. A student on the trip collected a rock sample with an imprint of a fossil. He handed it to Henry Johns (SC State Geologist) who said it could be, but he should show it to his professor or a paleontologist. Nothing was heard of this until a few years later when a school boy found a specimen in the same general area that proved to be the first of the Ediacarian fossils ultimately identified by Gail Gibson (UNC-C). Henry Johnson's excuse is that he is an exploration geologist and "it did not look like ore".

Memories from early field trips include those of William H. Stroud of Greenville, SC. He is a charter member and was at the organizational meeting. As a student curator of Furman's Natural Science Museum, he was asked by Holland to be his student assistant. Stroud said that it was Holland who recognized vermiculite on a mineralogy trip near his home at Tigerville and showed it at the first CGS meeting. According to Stroud, a geologist on the trip was very interested in vermiculite and contacted the Zonolite Corporation who later opened a mine and processing plant.

Jack Parker (NC State, retired) recalls the 1947 trip at

Clemson and "the half-mile long exposure of metamorphic rock in the unfinished railroad tunnel". He also said that the 1950 trip to Myrtle Beach was to have been led by W.F. Prouty (UNC), the Carolina Bays expert. Prouty died in June of 1949, and Bill White had a hectic job of arranging the trip at the last minute".

Roy Ingram (UNC-CH) remembers only two things about his first CGS meeting in 1940 at Charleston: "large tombstones rotated by THE earthquake, and acres of fossils in the spoil dump and excavations for the Santee-Cooper project."

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APPENDIX

Carolina Geological Society, Inc. Bylaws

ARTICLE I

Board of Directors

Section 1.

The management of the Society shall be vested in a Board of Directors composed of seven members who shall be elected at the annual meeting of the members or at any adjourned meeting thereof, except as stated in Section 2., and said Directors shall serve until the next annual meeting of the members or until their successors are elected and qualified.

Section 2.

The Directors who are serving as President, Vice-President and Secretary-Treasurer shall automatically remain as Directors of the Society for one year immediately following their term of office.

Section 3.

The Board of Directors shall exercise all of the powers of the Society either conferred upon it by law or by its certif-

icate of incorporation except such powers as are by law reserved exclusively to the members.

Section 4.

In case of vacancy on the Board of Directors through death, resignation, disqualification or for other cause, the remaining Directors may elect a successor to hold office until his/her success or shall be elected by the members and qualified.

ARTICLE II

Officers

Section 1.

The officers of the Society shall be elected by the Board of Directors by a plurality vote and all of the officers shall be elected from the members of the Board of Directors.

Section 2.

The officers of the Society shall consist of a President, a Vice President, and a Secretary-Treasurer.

Section 3.

The officers of the Society shall serve until the next annual meeting of the Board of Directors or until their successors are elected and qualified. Any officer of the Society may be removed by the Board of Directors at any time for or without cause.

Section 4.

The officers of the Society, subject to the approval of the Board of Directors, may appoint or employ such agents, employees, or representatives as may be necessary to carry on the work of the Society, prescribe their duties, fix their compensation, if any, and dismiss them for or without cause and without previous notice.

ARTICLE III

Duties of Officers

Section 1.

The duties of the officers shall be as set forth for the President, Vice-President, and Secretary-Treasurer in Roberts Rules of Order, Revised ed., which manual shall be parliamentary authority for the Society.

Section 2.

In case of the death, resignation, disqualification, temporary or permanent, absence, or disability of any officer of the Society, his/her duties and powers may be delegated by the Board of Directors to any other officer of the Society or any Director of the Society for a specified time.

ARTICLE IV

Committees

Section 1.

The President, with the approval of the Board of Directors, shall appoint annually an Executive Committee, a Membership Committee, a Nominating Committee and such committees as in the judgment of said Board may be necessary to conduct and transact the business of the Society.

Section 2.

The Executive Committee shall consist of the President, the Vice-President, the Secretary-Treasurer, the immediate past President, and one additional Director. Three shall constitute a quorum and the Committee may act upon the majority vote of its members. The Executive Committee shall, during the intervals between the meetings of the Board of Directors, possess and may exercise all of the powers of the Board of Directors in the management of the business and affairs of the Society except as to such matters which the Board has, by resolution, expressly reserved to it. The Executive Committee shall keep full and fair records and accounts of its proceedings and transactions. All action by the Executive Committee shall be reported to the Board of Directors at its meeting next succeeding such action and shall be subject to revision and alteration by the Board of Directors; provided that no rights of third persons shall be affected by any such revision or alteration.

Section 3.

Each committee shall make such rules and regulations as from time to time it may deem proper for its own government and for the transaction of the business of the Society, subject to the approval of the Board of Directors, and shall make a written report of its actions to the Board of Directors at each meeting thereof. Committee meetings shall be held on the call of any member of the committee but the committee shall be deemed to be in continuous session and, between called meetings, may act upon the vote of its members, taken by telephone or otherwise.

ARTICLE V

Membership

Section 1.

Any person having a serious interest in the geosciences shall be eligible for membership.

Section 2.

Any candidate for membership shall let his/her intent be known to the Membership Chairman, who will make recommendations to the Executive Committee, which shall formally accept or reject the candidate.

Section 3.

Any member of the Society may resign his/her membership at any time, by written notice to the Secretary.

Section 4.

Any member more than one (1) year in arrears in the payment of his/her dues shall be automatically dropped from the membership rolls.

ARTICLE VI

Meetings

Section 1.

The annual meeting of the members of the Society shall be held each year during the month of September, October, or November at such time and place as may be designated by the Board of Directors by notice mailed by the Secretary at least ten days prior to the time of the meeting.

Section 2.

The annual meeting of the Board of Directors shall be held on the same day at the same place and immediately after the annual meeting of the members.

Section 3.

Special meetings of the members of the Society shall be called upon the request of the President or the request of ten or more members of the Society, and notice of such special meetings shall be given by mailing notices of the time, place and purpose of such meetings to each member ten days prior to the date of such meetings.

Section 4.

Special meetings of the Board of Directors shall be called upon the request of the President or upon the request of three or more members of the Board and notices of such meetings shall be given by mailing a written notice of the time, place and purpose of such meetings to each Director at least three days prior to the date of said meeting.

ARTICLE VII

Dues

Section 1.

The fiscal year of the Society shall coincide with the calendar year.

Section 2.

The annual dues of the Society shall be payable at the start of the calendar year and acceptable up to the date of the annual meeting. The amount of dues for each year shall be decided upon by the Executive Committee but in no case shall exceed five dollars (\$5.00).

Section 3.

Members whose dues are in arrears at the time of the annual meeting shall not be considered in good standing and shall not be permitted to vote or hold office.

ARTICLE VIII

Corporate Seal

Section 1.

The corporate seal shall be circular in form and shall have inscribed thereon the name of the corporation, the year of its incorporation and the words "Incorporated, North Carolina."

ARTICLE IX

Quorum

Section 1.

A majority of the number of Directors shall constitute a quorum at any regular or special meeting of the Board of Directors.

Section 2.

Ten members of the Society shall constitute a quorum at any regular or special meeting of the members of the Society.

ARTICLE X

Liability

Section 1.

Neither the members, the Directors, nor the officers of the Society shall be liable or responsible for its debts or obligations.

ARTICLE XI

Amendments

Section 1.

These by-laws may be amended or repealed by a majority vote of a quorum present at any meeting of the Board of Directors provided that written notice of the proposed amendments or repeal has been give to all members of the Board of Directors ten days prior to said meeting.

1. As adapted April 13, 1985.