

Pennsylvania
Soil Survey Biographies

by

**Edward J. Ciolkosz,
Joseph J. Eckenrode,
Norman J. Churchill,
and
Garland H. Lipscomb**

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CHAPTER 1

Introduction

by

**Edward J. Ciolkosz,¹ Joseph J. Eckenrode,² Norman J. Churchill,³
and Garland H. Lipscomb⁴**

This publication celebrates the centennial (1899-1999) of the United States Cooperative Soil Survey Program and documents some personal history and experience of individuals who have worked on soil survey in Pennsylvania. The initial collection of this information was done by Garland Lipscomb, Norm Churchill, and John Chibirka. These data were updated by most of the individual chapter authors. The information in each chapter has only been edited to correct errors and for formatting consistency. We hope that this publication will help archive this information for future soil scientists in the National Cooperative Soil Survey. It also compliments a previous attempt to document some soil survey history of Pennsylvania (Ciolkosz et al., 1998).

Reference

Ciolkosz, E. J., R. L. Cunningham, and J. J. Eckenrode. 1998. Pennsylvania soil survey history. Penn State University Agronomy Series 142. 45 pp.

¹ Professor of Soil Genesis and Morphology, ²Soil Scientist USDA Natural Resources Conservation Service (NRCS), ³Retired NRCS Soil Scientist, and ⁴Retired NRCS State Soil Scientist.

CHAPTER 2

by

Albert D. (Al) Backer¹

SCS Experience

I joined the SCS in January, 1943, as a P-1 Soil Scientist in Bridgeton, New Jersey, working on the Cumberland County Soil survey, under Party Chief Frank Z. Hutton, Jr. I was there until October, 1944. During that time, I also spent two mapping seasons in Maine, in Aroostook and Penobscot Counties. During my second mapping season in Maine, I trained as a new soil scientist. In October, 1944, I became a P-2 Soil Survey Party chief in the coastal plain area of New Jersey, at the Salem, NJ, Work Unit. From May 1945 to March 1946, I was on Military service. From March 1946 to October 1946, I was in Hackensack, NJ, working in a highly urbanized area. I also had a temporary detail to Rockville, CT. From October 1946 to May 1956, I was in Newton, NJ, Party leader for Soil Surveys in all of Northern NJ.

From April 1956 through September 1956, I was on a detail in Alaska. I then returned to Newton, NJ, and resigned from the SCS in April 1960, to pursue a business as a Soil Consultant, Landscape Designer and Contractor. During this time, I also taught aerial mapping and survey interpretations to engineering assistants and land surveyors in Sussex Co. Vo-Tech and Adult schools.

In January 1968, I returned to the SCS as a member of the Soil Survey party for Bucks and Philadelphia Counties in Doylestown, PA. In July, 1970, I became the Party leader for the Cameron-Elk Survey, headquartered in Ridgway, PA. From June 1977 to Dec. 1980, I was the Area Soil Scientist for Southeastern Pennsylvania, in Lebanon, PA. From December 1980 to February 1983, I was an RC&D project Coordinator for Northern New Jersey, and retired from the Hampton, NJ office on February 8, 1983.

From February 1983 through June 1987, I was active as a Soil Consultant in the tri-stage area (NJ, NY, PA). I am now fully retired in Newton, NJ, but an active volunteer on municipal and county boards and committees.

¹ SCS (NRCS) Retired Soil Scientist.

CHAPTER 3

by

David J. (Dave) Belz¹

Memories of People in Pennsylvania

F. Glade Loughry: While Glade was State Soil Scientist, he came to Huntingdon County on a progress field review. One afternoon we were looking at the residual soils on a fossil bearing shale formation. I told Glade that since the shale was of fissile characteristics, perhaps we should call the Biologic Artifacts - "Fissile Fossils". Glade was definitely underwhelmed.

Jake Noll: I clearly remember that Jake Noll was the person who first showed me how to do a 232 soil series field description. We wrote a description of the Weikert Series in a roadbank in Huntingdon County. To this day, blindfolded, I could take you to the description site.

Sy Ekart: I was privileged to work with Sy in at least two counties in PA. Things I remember most clearly about Sy are his skill in editing soil survey manuscripts and maps, and that he was an Eagle Scout. I thoroughly enjoyed working with Sy. A little sidebar story to Sy Ekart - I finished my SCS career and retired from North Dakota in 1989. Guess who was State Soil Scientist in North Dakota at my retirement?? You guessed it-Sy Ekart!!

Ivan Ratcliff: I was working in Washington County. Jay Weaver was on detail with the Pennsylvania Health Dept. and I was acting Party Leader of the Washington - Greene soil survey. Correlator Ivan Ratcliff came to Washington, PA to work with Jay. Since Jay wasn't available, I was "Volunteered" to work with Ivan. He scared the wits out of me. I felt that Ivan Ratcliff was the most arrogant, aggressive, intimidating person I'd ever met. I thought of him as "Mr. Ivan The Terrible". I was very lucky to get to know the real Ivan Ratcliff through the years and I finally figured him out. He was NOT an arrogant, aggressive, intimidating person!! What Ivan wanted to accomplish was to have a person take a stand, state an opinion, and defend the opinion with facts. Once I learned to ARGUE MY OPINIONS WITH FACTS, I never had another problem working with Ivan. In fact I discovered that I rather enjoyed the verbal duels. Rest in peace, Mr. Ivan Ratcliff!!! You did me more good than you will ever know!

Ray Newberry: Ray was Party Leader for Allegheny County and had a very strong emphasis on "Service" as expressed by many "Onsite Soil Investigations". Two come to mind. I did an onsite for a taxpayer who was about to purchase a new homesite in western Allegheny County. I was able to show him that the soils onsite were extremely "slide prone" under the existing construction techniques. The person declined to follow through with the purchase of the property. He didn't want to take the chance on his new home winding up as a heap of expensive junk several hundred feet downhill after a heavy rainfall. I surely earned my salary that day. The second was an onsite requested by Mr. John Robinson of the Allegheny County Health Dept. to evaluate a "Malfunctioning Septic Tank Filter Field." The home owner was about to

¹ Retired SCS (Now NRCS) Soil Scientist.

spend several thousand dollars to have a cesspool constructed to correct the problem. After about an hour of probing around the area of the tile drain field I found no indication of drainfield malfunction - no surface seepage. I asked the landowner to check the interior plumbing. As it turned out, a diaper had been flushed down the toilet and plugged the plumbing - the tile drain would have worked as designed if effluent ever got to it. I also surely earned my salary that day.

Frank Kopas: I was Party Leader of the Schuylkill County soil Survey - a "One-Man" operation. I was completely lost. I didn't have the first idea how to run a soil survey. "My God, what am I supposed to do with this??" When Frank finished Fayette County, he transferred to Pottsville to lead the Schuylkill County Soil Survey. What a relief. I no longer felt lost and alone. Thank you, Frank - you surely pulled my chestnuts out of that fire.

Jay Weaver: Of all the Party Leaders I EVER worked with in Pennsylvania, I think I had more fun with Jay. Not only was Jay a well trained Soil Scientist, Jay also had an extensive background in classical English Literature. The VERBAL BANTER with Jay was a delight. However, I think we drove Bard Judy absolutely nuts.

Dennis Bush: I devised a special technique to speed up soil mapping unit measurements. Dennis suggested that I file an employee suggestion on the idea. I did - and received a personal cash award. Thanks, Dennis!!

Bill Farley: I learned three things from Bill; (1) vienna sausage is delicious, (2) instead of running around in the field like a crazy person, "mosey" which is much less stressful, and (3) when making soils maps, be very sure of their accuracy along road banks.

Reggie Speir: I felt an instant "Like" for Reggie the first time I met him. I thoroughly enjoyed working with Reggie, and I felt very badly when things went sour with his career in Soil Science.

Harold Wingert, Rodney Rohrer: These two conservation technicians showed me a level of professional competence which was part of my personal motivation to make myself a skilled professional. Neither Rodney nor Harold took themselves too seriously, but they took their job seriously. Last, but by no means least, Rodney and Harold extended friendship which is a thing of great value. Thanks Rod and Harold.

Dan Seibert: One year Dan Seibert and I shared a Superior Performance Cash Award for the "On Time Completion" of the Cambria County soil survey. I also thoroughly enjoyed working with Dan.

Hubert Pauley: Hugh Pauley was probably the most intelligent, inventive and argumentative District Conservationist I ever met. He was also the most interesting. If Hugh Pauley had any major flaw, it was he was seriously lacking in "The Diplomacy Skills Dept." Hugh most definitely did not "Suffer fools gladly."

Roy Matelski, Ed Ciolkosz: Every time Roy and Ed came to the field on soil sampling or progress field reviews I could always count on an interesting time. There was never a dull

moment with those two around. I remember one Progress Field Review where Jay Weaver was invited as an interested observer. Since Jay had no real responsibility for conducting the field review he went out of his way to mercilessly tease Roy for the whole week. Of course Roy rose to the bait, and the verbal fur flew.

John Robinson: John was always a bit of a mystery to me. John acted like a big, amiable Teddy bear who was not overly endowed with drive. One afternoon John shared some of his personal background including that he was a graduate of West Point. Needless to say, my opinion about Mr. John Robinson underwent a major change upward that afternoon.

It is obvious to me that most of my memories of the years in Pennsylvania are of the people I was privileged to work with. Were it not for their patience, concern and understanding, I'd not have survived. Also I would not have become motivated to invest the effort to become a highly skilled, competent professional.

CHAPTER 4

by

John B. (Jack) Carey¹

I am currently a self-employed Soil Scientist Consultant in Smyrna, Delaware. I retired as a Soil Scientist with the Delaware Department of Natural Resources and Environmental Control in 1986 after four years of service. Prior to that I retired from the SCS in 1982 after a span of thirty-one years at various Soil Scientist positions in Pennsylvania and New Mexico. This included a period from 1969 to 1975, with time at Penn State for a Ph. D., and time with SEDA Council of Governments as Director of Natural Resource Planning.

From 1962 to 1969 I was Assistant State Soil Scientist for correlation in Harrisburg, Pa. Prior to that I did field mapping in Berks County from 1952 to 1956, and in Lancaster and Lebanon Counties from 1951 to 1956. My career began with the Soil Conservation Service in 1949, and I mapped in Chester County until 1951.

Some of my more interesting memories of soil survey activities include my fellow mappers. During the 1950's there was a lot of interest in Uranium. Mike Yaworski and I were mapping in Lehigh County. Because of the wide variety of geology there, Mike was sure there was a "Mother-load" of Uranium to be found which would make everybody rich. By hook or crook Mike came up with a geiger counter to carry along mapping so he could check out the area as he walked and mapped. No "Mother-load" was ever found so Mike decided to quit the SCS and open a restaurant. He came back to map soils again in a couple of years in Crawford County.

Another interesting fellow was Jay Weaver, a self-labeled "poor dumb soil scientist" in Washington County. Jay had a habit of saying this about himself, especially during field reviews when asked his opinion about a soil matter. Jay's habit came to an abrupt end one field review when Roy Matelski accompanied Glade and I to Washington County. As usual, when we would ask Jay a question, he came back with the "poor dumb soil scientist" excuse. At last Glade had enough of that and said "Jay, if you're such a dumb poor soil scientist I'll have to recommend a demotion from a GS-9 to a GS-7 or 5"! That cured Jay of being a poor dumb soil scientist.

Dave Taylor, in Pike County, was more independent than most soil scientists. He spent very little time in the office. He practically worked out of his truck, leaving the office every day at 8:00 a.m. and returning at 5:00 p.m. He did his inking and note work in the truck. Dave kept good records of his acres mapped and always reported enough acres to meet his goal. Dave built up quite a "kitty" of acres that no one else was aware of. He really surprised everyone when he announced that he had completed the mapping and was going to retire to West Virginia. This left the manuscript for someone else to write. Glade wasn't happy about his soil survey schedule being disrupted. How many field soil scientists do you know who really like to write

¹ Retired SCS (NRCS) Soil Scientist.

manuscripts? When Merrill Kunkle finished mapping Dauphin County, he retired before writing the manuscript. Another gray hair for Glade.

Jake Noll was Glade's assistant and liked to tease and joke with everyone, especially their secretary. She was an emotional and somewhat excitable person. As Glade told it – when Jake knew he was going to the field for a week he would start a discussion with her and get her all stirred up. Just before he left for the field, he would tell her that she was just an old maid, and then leave. Glade complained that he couldn't get any typing done for days, till she calmed down.

CHAPTER 5

by

John D. Chibirka¹

I have worked for the NRCS for only 11 years but it seems longer. I guess I'm still considered one of the "young ones". However I have gained a lot of valuable knowledge and experience from several soil scientists who either are still working for the Service or have left for other callings. Some of them are: Garland Lipscomb, George Martin, Norm Churchill, Scott Anderson, Ed White, Dennis Bush and others.

As I progress through my career I will try to encapsulate some unwritten knowledge I gained from these and other people and hand it on to future generations of professionals.

Presently I am the project leader for the Southeastern Pennsylvania Soil Survey (SEPASS) Update, a post I accepted in 1992. I have responsibility for the recompilation and recorrelation of 6 counties totalling over 1.65 million acres crossing 4 MLRA's. I have supervised several soil scientists.

I have been a member of SEPASS since my appointment with the SCS on July 5, 1988, as a GS-5 soil scientist trainee. On that muggy Tuesday morning I met my first supervisor, Norm Churchill, in Hazelton, PA to start on a summer-long mapping detail in remote watersheds scattered throughout eastern PA for an EPA-sponsored Acid Rain Study.

Even then, when Norm was only a few short years from retirement, it was hard to keep pace with him. I learned from him quickly the need to travel light and be well equipped. Norm was armed with only the bare essentials needed for a soil scientist: a Montana Sharpshooter and screw-auger in one hand, a Munsell color book in the other, a water flask fastened to his belt fashioned from a discarded maple syrup jug, in one pocket a compass, in another a penknife, and in a back pocket - a peanut butter and honey sandwich.

Norm had me constantly out of breath as we combed the mountainside for the perfect location for the "typical" pedon. With a mind spilling over with questions but empty for answers I continually asked the master for insight on the who, what, when, where, how and the why's of the task at hand. I was fortunate to have the opportunity to work with Norm, who I feel without a doubt has traversed more acres of Pennsylvania than any other soil scientist.

All the gems of wisdom that he taught me are straight-forward: The KISS method (Keep It Simple, Stupid) can apply to any walk of life: always consider who is the customer when mapping or developing soil interpretations. He taught me the value of keeping perspective by doing the best job you can with the resources provided - for if you accomplish this your career will be a satisfying one.

¹ USDA-NRCS Soil Scientist.

During my two and one-half year tenure under Norm he encouraged me to seek out-of-state details knowing the value of experiencing other soils and soil scientists. I gained a better grasp of understanding soils from three details: one to Clark Co., Wisconsin another to Lafayette Co., Florida, and the third to Buncombe Co., North Carolina. Being extremes in temperature and moisture regimes as compared to PA I observed very different soils. I now feel more comfortable observing the existence of certain properties in soils of PA from these details like: umbric epipedons, tonguing of albic materials, dense-compact till versus fragipans, pedogenic soil colors, and particle size classes, to name only a few. I can only encourage other budding soil scientists to do the same for the experience gained from other states can be most valuable in providing perspective for soils “back home”.

Scott Anderson, now in Alabama, was my second supervisor. Our SEPASS crew had the rare opportunity to have two project offices each staffed with a project leader. My GS-9 promotion moved me to the other office in the survey, Creamery, PA. An SCS journeyman from Virginia via South Dakota, Scott brought with him a broad spectrum of regional soils knowledge along with an insatiable appetite for co-workers lunches. Scott gave us the insight to poke fun at ourselves and provided humor even in the most humorless times. Like the time we were sampling a poorly drained colluvial soil, knee deep in water, in freezing temperatures on the eve of Halloween for the Acid Rain Study only for him to make it less dreary by inventing the “target-clod” or shaping a makeshift Jack-o-lantern from muddy handfulls of channery clay loam argillic material. I’ll let Scott explain that one.

George Martin was the Assistant State Soil Scientist while the Acid Rain Study progressed. When one of the sampling crews (staffed by three new-hires and a transfer from S. Dakota) was floundering in self-doubt of the existence of fragipans developed in Wisconsin-aged till in Sullivan County, George came to the rescue and provided a calming effect with every puff of his ancient pipe. The memory is still vivid: George leaning over the pit and telling us to “Don’t worry about it ... we aren’t making the atom bomb here ... trust your judgement.”, as the sweet smelling smoke encircled his head like a wreath.

Garland Lipscomb is the embodiment of the word reassurance. Many times Garland helped us hurdle obstacles close at hand and keeping our eyes focused on the final goal. If ever applies the saying “seeing the forest through the trees” it applies to Garland’s philosophy. In times of confusion and frustration I will always say to myself what he said to me countless times, “Do the best job you can - that is all I ask.” He made us want to strive to provide the best service possible. My only concern is who will be passed down his vast arsenal of jokes and stories from his library.

I must give Dennis Bush and Norm Churchill credit for the nicknames that will probably stay with me throughout my career. After what was later to be deemed as a grilling of our State Conservationist Dick Duncan by me (regarding the policy on on-site investigation assistance) Dick turned to Dennis and asked was I “always this eager?”. Jokingly Dennis leaned over to Dick and whispered “ Don’t worry, these young ones always start out full of p_ _ _ and vinegar (rhymes with hiss). P&V seems to have stuck with me. After witnessing Tim Craul (another P&V person) and I attacking a soils pit with shovels and strong backs Norm aptly introduced us

later at our first all-personnel meeting as “The Twin Towers” Years later I’m still asked where the other Twin Tower is.

I cannot remark on all the people I first mentioned with the space provided. If I did it would parallel the lessons learned and the anecdotes told that I’ve written about already. Needless to say that Ed White, John Hudak, Jake Eckenrode, Tim Craul and other SCS persons who I worked with elbow to elbow with have given me many things to carry forward.

As you can read, the rules that I remember best do not take into concern the numerous details our profession demands like the correct calculation of available water capacity or the exact definitions of cambic horizon criteria. These things and so many others can be found in references like the Soil Survey Manual. That’s what books are for. The things I would like to have recorded in this compilation center themselves on lessons in life and how to strive towards them.

In closing, I would like to thank you for the opportunity to contribute to what will be a truly memorable publication.

CHAPTER 6

by

Norman J. (Norm) Churchill¹

When I was studying for my Masters at Penn State, Walt Steputis was also working on his Masters degree, on the Dekalb Series. We became friends, and he informed me that the SCS would be hiring about 3 or 4 soil scientists in the summer, so I applied.

My my SCS career started on June 29, 1959, in Westmoreland County, under David Taylor, an old timer who had been mapping soils about 24 years. He told me that when he came to Westmoreland it was about one quarter mapped. The work was done by non-Soil Scientists, mostly Soil Conservationists, and some student trainees. An early Soil Association mapped showed limestone soils south of US route 30 and acid soils north of route 30. Nobody had looked up the parent material or described any soils.

Dave tried to join to the old mapping but gave it up as hopeless. He decided to completely remap the county with the exception of Rostraver Township, which had been mapped by Jay Weaver and was in good shape except being too highly detailed to publish.

Dave was the first mapper in the county to look up the Geology and he knew where the different parent materials were located, which made it much easier. We had a very loose procedure for reporting our acres. We estimated how many square miles were on a map, usually about 4 (2640 acres) for a full map and would report only 3/4 of the acres so as to take care of the remapping.

I left Westmoreland County in October of 1960. After I left, Dave continued under reporting the acres, and discovered that when he completed the mapping, he still had some unreported acres. The county was completed ahead of schedule, and because of scheduling problems, the written report lingered in the State Office for a while before it could be sent on for publication.

Dave Taylor taught me to pick out the pattern of soil on the landscape. He started his career using a planetable, before aerial photography was used, and still had a plane table in his inventory. He used a stereoscope a lot in mapping to extend his field work. I remember one example of his skill in mapping. I learned that a preliminary geology map was available. I sent for a copy, and we were surprised to learn that there was a fault line on Chestnut Ridge. Dave had mapped on the south end of the fault line, and when we looked at his mapping, it reflected the fault. He was very pleased that he had done so well.

I was transferred to Fulton County for my first Party Leader position in October, 1960. I was a little nervous about the new position, but, with a lot of help from Jake Noll, the Assistant State Soil Scientist, I survived. The county had been mapped on a topographic base at a scale of

¹ USDA-NRCS Retired Soil Scientist.

1 inch to the mile by Howard Higbee, which gave a good over view of the soils in most areas, although the soils were completely wrong in two valleys. About half of the county had been completed with a fairly large amount of the mapping by Cleo Wildasin, Dick Long, and Larry Staley. There also was some work by Conservationists, with the usual problems - streams going over the tops of hills, yellow soils mapped as red, and somewhat poorly drained soils being mapped as poorly drained in a few places. Dick Long was the first SCS soil scientist in the County around 1941 or '42. Then, in 1945 or 46, Cleo Wildason mapped for a year or two. The one problem for modern interpretations was that, until 1963 or so, the two series mapped on shale and siltstone soils were Ashby and Calvin. Both series were shallow to moderately deep. The best way of solving the problem was to correlate the severely eroded soils of both series as shallow soils. I always reported a few less acres than I mapped so as to not over-report. The result was that I ran out of maps to map on before I ran out of acres to report. The reason I did this was a story Dave Taylor told. Just before World War II, in one areas, two soil scientists deliberately over reported their acres. The lucky one went in the armed services, while the other stayed with SCS. When the problem was discovered, the one in the SCS was forced out. By the time the other one came back from the military, it had been forgotten. He went on to become a State Soil Scientist!

In November 1964, I moved to Venango County, finally getting a county that had little mapping. Frank Ackerman had mapped for a few months, then transferred to Farm Home. The only annoyance was that the District Conservationist (DC) had a new conservation technician put the match lines on the maps. He used roads as match lines, and the result was very unprofessional. One map looked like he had tried to outline a sitting dog! Since the DC was my immediate supervisor, I lived with the match lines.

I was in Venango County when there was a problem discovered in reporting acreage in the state. In one county the final field review discovered that approximately half of that county had not been mapped. The Party Leader left SCS. Then, Mercer County ran out of acres to report before the mapping was completed. The reason for the problems was that most of the first mapping in counties was done on scattered individual farms, and maps were not measured to find out if the scales were correct. At this time, all the active surveys in the state finally measured the acreage on the maps, and corrected the totals so that they matched the official acreages of the respective counties. Also, it became mandatory to block map, completing a map before starting on another map. On the completion of Venango County, in August, 1971, I moved to McKean County. There had been some preliminary mapping in the county by Dan Derr, but there were new photos and this mapping was canceled. While his mapping was very neat, there were a couple of problems. Glacial and residual soils were mapped on the same landscapes adjacent to each other, with soil color being the criteria. This resulted in red inceptisols adjacent to yellow ultisols. When I examined the red soils, they had well developed argillic horizons. Also, single streams were used as soil boundaries, and poorly drained soils were overmapped. When alfalfa grows on Brinkerton, something is wrong! One problem for the future is that what seem to be frigid soils were not separated. Also, about 600 acres in the Northeastern corner of the county were glaciated, and, because of rules at the time were included as residuum and colluvium. At the time, the rule was that there had to be 1,000 acres of a mapping unit to justify separating it.

In 1983, I moved to Berks County to start the update of Berks County, and, ultimately, the eight counties in SE Pennsylvania.. Since this was the beginning of updates in Pennsylvania,

there was a process of trial and error that delayed the completion of updates in Pennsylvania. Also, I worked on Acid Precipitation studies in 1985 and 1988, and helped complete Bedford County's soil survey in 1987. One of my tasks here was the development of a legend for all eight counties in SE PA. It seemed as though each county had been deliberately mapped to not match the next county. An example was where channery soils on the Reading Prong butted up against gravelly soils on the Berks-Lehigh Border. Also, the floodplain soils on the Delaware river did not match between Northampton and Bucks.

I retired Jan. 8, 1993, on the completion of the updates of Berks and Lehigh Counties. I have enjoyed my career as a Soil Scientist very much. Fringe benefits have been many, such as discovering strip mines in remote places in McKean County with beautiful clear water. My family enjoyed swimming in them, and one of my sons finally learned how to swim. He insisted on touching the bottom with his feet at the local pool. These were too deep, so he had to swim! I took care to make sure that some of the maps I worked on in the summer were close enough so I could have a brief swim before I returned from the field.

Because I was transferred to various parts of the state we had the opportunity to enjoy hunting and camping at Cowan's Gap, Cook Forest, and Allegheny National forest, along with learning the local history. And, here in Southeastern Pennsylvania there is always something to see or do. A great place to retire.

CHAPTER 7

by

Edward J. (Ed) Ciolkosz¹

Introduction

I was reared on a small dairy farm in northcentral Wisconsin (Thorp, WI). I attended the University of Wisconsin in Madison for two years then dropped out and served two years in the Army at Camp Hanford, Washington. After my Army service, I worked in St. Paul, Minnesota, for awhile making railroad car wheels. This experience proved to me that higher education was the way to go. I returned to the University of Wisconsin and received a B.S. (Soils), M.S. (Soils), and a Ph.D. (Soils-major, geology-minor) degrees.

When I finished my Ph.D., I was offered and accepted a teaching (33%) research (67%) position with the Penn State Agronomy Department. Prior to interviewing at Penn State in April of 1967, I had never been east of Gary, Indiana. So Pennsylvania was a totally new experience. Although a new experience, it was apparently pre-ordained that I would come to Pennsylvania. When I finished my M.S. degree, I thought of going to work mapping soils and was offered a soil mapping job with the USDA-SCS in Kittanning, Pennsylvania; but I decided to go on for a Ph.D. When I finished my Ph.D. I was also offered a job with the USDA-ARS Northeast Water Shed Group at Penn State. So I guess Pennsylvania was my future.

Teaching

While here at Penn State, I have taught courses in introductory soils, soil judging, forest soils, and most consistently, soil genesis and classification. When I arrived in August of 1967, Roger Pennock was leaving for a tour of duty in India as a part of an agricultural international development program, and I was assigned to teach his course in forest soils. I also helped Dick Ranney teach soil judging. After Dick died, I took over in the Fall of 1973 teaching soil genesis and classification and soil judging. I have continued teaching our undergraduate soil genesis and classification course (Soils 416) as well as a graduate field trip course (Soils 516), but I dropped soil judging a number of years ago.

National Cooperative Soil Survey – Wisconsin

My introduction to the National Cooperative Soil Survey occurred in Wisconsin. For a little over two summers, while I was a graduate student, I worked on a state soil survey run by Francis Hole of the University of Wisconsin. Part of one summer was spent in Menominee County (NE Wisconsin), with Clarence Milfred and Jerry Olsen and two summers in Jefferson County (SE Wisconsin), with Clarence Milfred, Gary Petersen, John Langton, Glen Borchardt, and Rod Allen. In addition, I spent one summer (between my undergraduate junior and senior years) working for the Wisconsin Highway Dept. on a soil survey for the proposed right-of-way

¹ Penn State University, Professor of Soil Genesis and Morphology.

for Interstate 90 and 94 in central Wisconsin. During these soil surveys in Wisconsin, I really didn't have an appreciation of the National Cooperative Soil Survey. It was something or somewhere where we obtained some copies of soil series descriptions. The only true contact I had with the SCS during my mapping was a soil correlation in Jefferson County in which A. J. Klingelhoets (State Soil Scientist) spent a few days in the field with us. During the same summer, two distinguished scientists (Jim Thorp and Ansel Gooding—friends of Francis Hole from Earlham College in Indiana) spent a few days in the field with us. Jim Thorp was particularly interesting because he had worked in the federal soil survey program with Curtis Marbut and had a lot of international experience.

National Cooperative Soil Survey – Pennsylvania

My arrival in Pennsylvania in August of 1967 really introduced me to the National Cooperative Soil Survey. At that time, Penn State, under the leadership of Roy Matelski, was very involved in a state-wide soil characterization program with the SCS (See Ciolkosz et al., 1998, for more information on the program). This program provided me an excellent opportunity to see soils around the state and also provided the opportunity (this was a state-funded program) to go on SCS county soil field reviews and correlations. This program also provided the opportunity to travel and interact with Northeast and National Soil Survey Conferences and participants. This interaction with soil survey people at the local, regional, and national level has been one of the most educational and rewarding experiences I have had at Penn State. Unfortunately, the funding for the soil characterization program is no longer available, and my interactions are no longer as extensive. I have been very fortunate that I arrived at Penn State when I did. If I were starting my career today, I don't think over a similar span of time I could gain the same level of knowledge or experience. Much of my present work is based on what I have learned on the job and from people I have met over the past 32 years.

I arrived at Penn State August 1, 1967, and my first true introduction to the Soil Survey came very rapidly. On August 28, the soil characterization staff, in conjunction with SCS personnel, finished their sampling of two pedons in Huntingdon County, and I assisted. The two pedons were cherty soils which were sampled as Frankstown and later correlated as Hublersburg. In retrospect, they fit much better with the cherty soils we sampled later in Mifflin, Juniata, Snyder, and Perry Counties (Ciolkosz et al., 1974). None of these soils were correlated as Hublersburg.

The following summer I encountered a full summer of sampling. We sampled Armstrong, Bradford, and Bucks Counties. These and previous samplings were truly an undertaking, and coined the term Matelski's Army. Roy Matelski was hired by Penn State in 1957, to set-up and run the characterization program. These were the days of just ask for money and you got it. Thus, the SCS and Penn State got funding for soil survey from the state, and each year they asked for more and got it. Penn State could not spend all they got on soil analysis. Thus, they hired faculty. This is the way Bob Cunningham, Roger Pennock, Gary Petersen, Dick Ranney, and I were hired. This basically was soft money. The crash came in July of 1975 when a call came to Jim Starling (the Agronomy Department Head) that the state funding for Penn State's Soil Survey work was cancelled. To say the least, a number of the younger faculty started applying for jobs elsewhere. I applied and interviewed at Virginia Tech. In the

meantime, Tom King (Penn State Extension Service Director) and others got the funding re-established but not as an annual grant item, but folded into the Penn State budget. To this date, this funding is apparently still in the budget, but it has lost its identity and is no longer made available for soil survey work. Matelski's Army consisted of a large number of students (hired in the summer), plus staff who did most of the routine work. This included taking monoliths, doing percolation work, the soil sampling, and sample processing. The faculty were involved mainly with site selection, pedon descriptions, and some sampling. The full sampling was truly a major effort; and although Roy did very little of the actual work, he was responsible for the project. Most of the work was done by the junior faculty, the summer help, and staff. The characterization program hits its high in the 1960's and is now closed down with the exception of continued computer database development of the soil characterization data (See Ciolkosz et al., 1998 for further information on the characterization program).

It would be impossible for me to write my impressions of all the people I have met or worked with in soil survey for the last 32 years. Thus, the following is but a skeletal effort, and I apologize to all I will neglect.

The first state soil scientist I met upon arrival in Pennsylvania was Jake Noll. Jake was a relaxed, very cooperative father-type figure. I probably worked most closely with Jerry Latshaw who followed Jake as state soil scientist. Jerry and I shared many common interests in minesoils and other projects. Garland Lipscomb was also very cooperative and easy to work with, although we did little together prior to his retirement because of limited budgets. In addition to SCS state soil scientists, I have worked with many SCS state office staff on various projects both here in Pennsylvania and many after they moved on to other states. For example, Ed Sautter (retired State Soil Scientist-Connecticut), Gene Grice (retired State Soil Scientist-Massachusetts), Sy Eckart (retired State Soil Scientist-North Dakota), as well as Jack Carey, and Ed Tompkins. Most of these folks came to Pennsylvania during a major push in the 1906's and 70's to complete the soil mapping in Pennsylvania.

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CHAPTER 8

by

Timothy A. (Tim) Craul¹

The soil science bug is well rooted in my family. My father's side of the family comes from York and Adams Counties where they were "Pennsylvania Dutch" farmers. When I travel back to that area, I find new old relatives that I have never met. The Kanns, Hoffmans, Sowers, and Crauls still reside there. My father Phillip got his B.S. at Penn State along with his older brothers. One which played football when Joepa was still an assistant coach. My father then went on to get two more degrees from that illustrious institution, his doctorate in Agronomy. His major professor was the indomitable Dr. Roy Matelski who placed him in charge of the soil characterization lab and a member of "Matelski's Army." The "Army" went around Pennsylvania to sample soils. More than a few of the characterization sites within Dr. Ciolkosz's database were done by my father.

I came onto the scene in 1960 while my father was working on his PhD at Penn State. I spent my early years in the shadow of Mount Nittany. I can still remember parts of the campus back then. It sure has gotten a lot bigger since then. After earning his PhD my father took the family way south of the Mason-Dixon Line to the U.S. Forest Service's Southeastern Forest Experiment Station in Brewton, Alabama. After a stint of three and half years we moved to Doylestown in 1966 where my father taught at Delaware Valley College in the Agronomy Department. Shortly after that we moved to Syracuse, New York where my father got a position at the then SUNY College of Forestry, now the SUNY College of Environmental Science and Forestry in 1967. I graduated from Jamesville-Dewitt High School in 1979 where I learned how to play a fun hard game called Lacrosse.

A former head of the Agronomy Department sat on my father's PhD committee, Dr. Starling. When I decided to continue the tradition of the Craul's at Penn State, Dr. Starling and a lot of my father's friends were still here to teach me. I played a little Lacrosse for Penn State continuing the Craul sporting tradition, and met a whole new set of friends. I finally got my B.S. in Agronomy in 1984, almost 30 years to the day after my father got his B.S. in Forestry and 20 years to the day after he got his PhD. This is the tradition.

After obtaining my sheepskin I could not seem to break into the ranks of employed soil scientists, so I drove truck for a landscape firm, worked in demolition of mall stores, and other small jobs. Finally, I got some gainful employment at two New York state dairy farms. In 1986 I received a call from Kentucky, they had accepted me as a soil scientist working on the National Cooperative Soil Survey in Kentucky as a state employee. I worked under the then Soil Conservation Service in Maysville, Kentucky on the Fleming County Soil Survey. I also mapped significant acreage in Lewis, Bracken and Robertson Counties for the 1985 Farm Bill. Finding the climate to be "too hot for this northern boy" I applied to Pennsylvania and New

¹ USDA-NRCS Soil Scientist.

York. In 1988 I took a position in Doylestown as a soil scientist. Bucks County changed a lot since I was a boy.

The first day on the job, Norman Churchill, who was at Penn State getting his Masters when my father was there getting his PhD, took me to the field in Perry County to work on the DDRP Acid Rain Study for the EPA. I was turned loose that morning with my soil legend and shovel in my hand. About three months later, Scott Anderson was assigned as project leader for the Southeast Pennsylvania Soil Survey Update. In December of 1988 after a grueling sampling program of 42 sites in three months the Acid Rain study was complete and we started on the soil survey update of Bucks County. The summer of 1989 a call for detail mapping in Illinois for the 1985 Farm Bill went out. I was detailed to the Hancock County, Illinois soil survey where I met more friends who I still keep in touch with. I returned to Doylestown to find that we were working in Lehigh, Northampton and Bucks Counties to utilize the MLRA updating concept.

In May of 1990 I applied for and got the Project Leader position for the update of Pike County. I had a field crew of me, myself and I, but managed to complete the update on time, three and a half years later. December of 1993 saw me heading out of the snowy northeast on route to State College, again! This time I was to assist Jake Eckenrode in the update of Clinton County. Spring semester 1994 I started on my Masters Degree.

With the Clinton county field work completed in 1996, John Hudak moved to the state office in Harrisburg leaving me in charge of the Pennsylvania Map Compilation and Digitizing Center in the ASI Building at Penn State. My staff of students and two full time temporary people have been working to digitize all the soils for the state. As of February 1999, we have gotten five certified, with five more very close to certification. Another five will be sent for certification in 1999.

I have come full circle, back to where I started under the shadow of Mount Nittany.

CHAPTER 9

by

Robert L. (Bob) Cunningham¹

I am a native of Fullerton, Nebraska, and I farmed for a few years. I was in the Air Force from 1950-54, graduated with B.S. in Soil Science from the University of Nebraska in 1957, and earned an M.S. in soils with the degree conferred in 1959. Studied with Dr. Henry W. Smith at Washington State University (Soils of the Anatone Plateau Washington) from 1959 till 1964 (Ph.D.), when my career at Penn State University began. I had SCS mapping experience in Dundy County, Nebraska, as student trainee in 1953-54 with Howard Sautter as party chief.

Responsibilities at PSU included teaching soil and water conservation, the course that most soil conservationists in the state selected as a course in their curriculum. My contacts with the SCS agency have been many, as many students wished to work for SCS in the early days. Other courses that I taught included introductory soil science in which I relied heavily on the soil survey report as an information source for land use planners and managers as the Soil Conservationists had known for many, many years. An interest in international study initiated a course in tropical soils that included a field trip to Puerto Rico in the last years that I taught it.

Primary responsibilities when arriving at PSU were with the Soil Characterization Laboratory. Sampling selection and analyses were coordinated with the SCS who were mapping soils county by county. I also participated in field reviews of surveying to ascertain quality and completeness. These activities assisted me in learning about the soils of Pennsylvania and having some input into how and where soil surveys were conducted. Believing the soil survey information was essential to those using or managing the land, intense interest developed in providing quality data both numerical and spatial. The use of computers in managing both kinds of data became a major thrust. With the assistance of young computer-literate students and graduate students, progress was realized; until finally the Land Analysis Laboratory emerged with tremendous capability to store, retrieve, and manipulate the mass of soil survey data, making it much more useable and valuable. The beginnings of the interest in computers were spawned in 1966 at a short course at UCLA. Other formal courses taken while at PSU include soil micromorphology at Rutgers, and tropical soils at the University of Puerto Rico.

As a member of the Soil Survey Advisory Committee, there was some input into the soil survey activities of the state, even though the procedures of the SCS were dominant and almost always overrode any decisions by the University representatives. Backhoe pits in sites selected to represent the “modal” for the series were probably the most enlightening to field soil scientists who rarely had the opportunity to examine the morphology of any soil in such detail during their mapping procedures. Users of soil survey maps should understand how the survey was made so that the patterns and separating soil lines will make additional sense in interpreting the relationship between the landscape and the soil characteristics. Some knowledge of soil genesis and soil formation processes is essential to meaningful use of soil survey digital and spatial

¹ Penn State University, Retired Professor of Soil Genesis and Morphology.

information. Recognizing the complexities of soils is also essential when understanding soils, especially at various scales, i.e., fields, soil pits, soil particles. Changes or difference also occur when time is considered. A tremendously fascinating substance when considered from just these few aspects. I was certainly fascinated for 35 years and never quite grasped the subject matter entirely. There is lots more to discover and document.

My international experience included work in India (AID contract), Israel, Ireland (sabbatical-Trinity College in Dublin), Mexico, Bahamas, Australia (with Roy Brewer-Micromorphology), New Zealand, and Argentina (leaching soil conservation). In addition, I worked with tropical soils in Hawaii and taught tropical soils in Puerto Rico.

I am presently a retired Emeritus Professor of soils at Penn State.

CHAPTER 10

by

Alex Dado¹

My involvement in Soil Survey in Pennsylvania began during my Sophomore year at Penn State in February 1993. I had recently changed my major from Forestry to Soil Science. During a visit with my advisor, Dr. Dan Fritton, I was told about part time work available with the NRCS. I went to see John Hudak and shortly after was hired as a WAE GS-3 Cartographic Aide. At first I worked mostly with the computer editing of the scanned maps but towards the end of that semester I was taught the basics of map tracing and compilation by Dennis Bush. I continued to work at the Map Compilation Center during the spring and fall semesters until my graduation. Some counties that I was involved with included York, Allegheny, and Pike.

In 1995, I received a B.S. in Soil Science from Penn State. I had been working with the Westmoreland Conservation District during the summers while a student. When I graduated, they hired me part time to do some work with the Erosion and Sediment Control program and also with a new program dealing with land application of biosolids. I knew that the conservation district was interested in having its soil survey, which was published in 1965, updated and that some discussion had taken place between Ed White, the State Soil Scientist and Greg Phillips, the District Manager. When a full time job opening became available in 1996 there, I persuaded Greg to make soil survey update part of my job responsibilities. I was hired full time in April 1996 to work half time on Erosion control and half time on Soil Survey update under the supervision of Rob Knight, who at that time was in Bedford. During most of 1996, I received my field training from Ned Ellenberger. In January 1998, I went to full time soil scientist as part of the district's commitment to the soil survey update. In January 1999, I accepted a GS-7 Soil Scientist position with the NRCS to work in the MLRA 126 soil survey project office.

¹ NRCS Soil Scientist.

CHAPTER 11

by

Joseph J.(Jake) Eckenrode¹

Hometown: Amberson, Pa

Education: B.Sc. Agronomy, Penn State - 1966

1966-1968: Soil Scientist mapping in Crawford County under Mike Yaworski, Party Leader

1968-1970: Soil Scientist mapping in Wyoming County

1970-1975: Party leader - Lackawanna and Wyoming County Soil Survey

1972-1973: One year detail in Luzerne County mapping soil

1972-1973: Four month detail to Hernando County, FL mapping soil

1975-1980: Party Leader Montour, Northumberland, Snyder and Union Counties. Completed Soil survey reports for these Counties. Party included Paul Parish, Gerald Yoder, Linda Taylor and Ellen Dietrich.

1980-1992: Area Soil Scientist, State College, PA

1992: Present Project Leader, Clinton and Potter County soil surveys.

Once Upon A Time

I am currently putting the finishing touches to the Clinton County Soil Survey update and have started field work in Potter County. Clinton County is the first update I have been involved in. All previous mapping assignments were basically a first time survey. Some had soil surveys dating from the first half of the century.

Prior to working on the Clinton update I was the Area V, Area Soil Scientist in State College. Area V covered twelve counties in the center of the state. It covered from Tioga County on the north to Cumberland County on the south and from Blair County on the west to Lycoming County on the east. The Area Soil Scientist position provided basic soil services to field offices and the public. The position also included responsibilities for plant materials, the RAMP program, NRI and numerous other duties as assigned. George Coller was the Area

¹ USDA-NRCS Soil Scientist.

Conservationist during most of my tenure in that position. It was probably the most interesting and satisfying twelve years of my career.

I served as the Project Leader in Lewisburg from 1975 to 1980. This was probably the first true soil survey project office in Pennsylvania. The staff outgrew space with the field office so we moved into a small house on route 15 in Lewisburg. The map compilation center was created about then and Dennis Bush was transferred in to head the center located in the project office. Many of the first counties compiled were done by prisoners at the Lewisburg Federal Penitentiary. The soil survey project consisted of Montour, Northumberland, Snyder and Union Counties. It was an interesting assignment after having mapped all of my previous time in glacial till. Working in pre-Wisconsin till and a wide variety of residual and colluvial soils was a welcome change and a learning experience. Project members included Paul Parrish, Gerald Yoder, Linda Taylor and Ellen Dietrich. They were a great group of people to work with. Paul and Gerry's long time experiences were a great help to me. Gerry had worked on the original Union County survey in the mid-thirties.

From 1968 to 1975, I worked on the Lackawanna and Wyoming Counties Soil Survey. I started there as a project member under Bob Malmgren and then Don Holzer. I was promoted to Project Leader about 1971. During this same time period, I mapped about one year in northern Luzerne County with Dennis Bush and Joe Hallowich. Some of the more memorable experiences there involved the Agnes flood of 1972, using a helicopter to soil survey, and coming close to being shot. When the floodwaters from Agnes went down, I was assigned to travel from Laceyville in Wyoming County to East Berwick in Luzerne County to photograph and assess the flood damages to the agricultural land. Flood erosion was devastating leaving many fields with "holes" about eight to ten feet deep, twenty or thirty feet wide and nearly the length of the field. It was a good year to find arrowheads however.

The southwestern part of Wyoming County is a wooded remote area with limited access. Dick Kirk was the Area Conservationist and my supervisor at the time. He suggested that we use a helicopter to do aerial mapping. As far as I know this was the first time a helicopter was used to map soils from the air. At first we flew over areas that I had mapped on the ground by conventional methods. Then we flew over unmapped areas about 150 feet above the ground in an overlapping circular pattern as I observed the topography and made notes on the aerial photos. After "mapping" several photos from the air I ground truthed the areas to see how good the mapping was. It proved to be very reliable, so we continued the project with about 20 hours of air time. We did this in March so that we would have leaf off conditions, however, the windy weather was a bit of a problem at times. One day when we were en route to the plateau we hit an air pocket and dropped about 50 feet. It took about two weeks to get the pucker out of my pants.

One early morning I stopped at a small farm near the Susquehanna County line. It was customary to let folks know that you were mapping in the area. I drove in to the somewhat secluded residence and parked the truck in front of the garage. The house was about 50 feet away. I started towards the house when a middle aged man stepped out from the house and started towards me. His shirt was unbuttoned and not tucked in. I said hello and walked towards him. When we were about 10 feet apart he reached under his shirt and pulled a revolver, pointing at the center of my chest. I froze! I explained, in very short order, that my business was

strictly legitimate, and that I would be on my way. He then closed the distance between us, and pressing the gun to my chest, he grabbed my cap off of my head. He motioned with the gun and told me to go into the kitchen. I went into the house with him right behind me. In the kitchen he started talking about people hurting all of his children. The house appeared empty, except for the two of us. I told him I didn't know anything about his kids. He continued rambling on about someone hurting his kids, and I just listened. He told me that he had loaded guns in every corner of every room. Then he motioned me into the living room. As he walked by the kitchen table he layed my hat and the pistol down. In the living room there were rifles and shotguns in every corner. I don't know if they were loaded, but I expect they were. Curiously, there were dozens of photographs of children and young adults setting everywhere and covering the walls. They were in frames and appeared to be professional photos. We talked at some length and his mood became friendlier. I talked and gradually kept moving towards the kitchen, eventually picking up my hat and inching towards the door. He followed (without the pistol) as I stepped out of the house. He followed me to the truck. I got in slowly and started it up. I bid him a fond farewell, and as I drove out the drive he told me to be sure and stop in again when I was in the neighborhood. Yeah, right! That was the first farm I mapped doing 60 with a dirty windshield.

My first mapping assignment with SCS was in Meadville, Pa. in Crawford County from 1966 to 1968. Mike Yaworski was the Project Leader and Dean Rector was also a "trainee" under Mike. That was truly a learning experience for me working with Dean and Mike. I only worked there two years, but I could probably write a whole volume on just that time. I won't, but some of the more vivid recollections include going airborne in an old government pickup after Dean and I bet Mike a cup of coffee that we couldn't make it back to Meadville by three o'clock. We did, fortunately. Another escapade with Mike happened shortly after I arrived there. It was a hot July and Mike was bothered with hay fever. He convinced me that we should buy some hot dogs and rolls to make our own lunch, find a shady secluded spot, and forget about mapping that day. We did, about a half mile from the truck. We cooked dogs, filled our bellies and decided to let our lunch settle. We both fell asleep. We woke to very loud thunder and lightening. All hell broke loose as we headed for the truck. We got soaked to the hide but survived.

Several other ventures during my career made some fond memories. They include a four month detail to Hernando County, Florida that involved a five and a half foot diamondback rattler. Another was the ten day field trip to Puerto Rico with Dr. Bob Cunningham and John Hudak to study tropical soils. There I became a traffic cop one day when we got involved in a major Puerto Rican traffic jam. I couldn't speak Spanish, but I got the sign language across. I look forward to possibly working in Alaska during the summer of 1999. That would be the icing on the cake to what I feel has been a very rewarding and interesting career with SCS and NRCS.

CHAPTER 12

by

Ned B. Ellenberger¹

Hometown: Pennsylvania Furnace, PA

Education: 1971: B.Sc. Delaware Valley College (Agronomy)

1971-1972: I helped on family farm till father's death, then sold livestock and farm equipment.

1973-1974: I worked on relative's farm and enrolled as a non-degree grad student at Penn State taking soil and geology courses. I also worked part time at the soil characterization lab.

Oct 7, 1974: I started as GS-5 Soil Scientist in New Castle, Lawrence County and worked under Bill Braker and Bob Smith 19767-77, helping finish Lawrence County Soil Survey while learning to map soils.

July 17, 1977: I moved to Williamsport, Lycoming County, and was a party member under Party Leader, Cliff Kohler. The fall of 1977 and spring of 1978 was spent helping finish the Sullivan County field work. I helped finish the remaining field work in Lycoming County from Summer 1978 to Spring 1980.

Apr. 25, 1980: I moved to Clearfield County under Party Leader, Joe Hallowich. While there, I mapped soils in the remaining unmapped areas.

June 28, 1981: I moved to Bedford County under Party leaders Ed White 1981-82 and Rob Knight 1983 to present.

During the time period of 1981-87, most of my efforts were in helping complete the first-time survey of Bedford County. It was during this time that the SCS in Pennsylvania purchased a truck-mounted backhoe that enables soil scientists to learn more about the soils in the lesser-studied landform positions and gain more knowledge of soil characteristics at deeper depths.

In March of 1985, I was detailed to work in Ellsworth, Maine, for four weeks on map compilation of that area of Maine. I was also detailed to Northern Minnesota in the Summer of 1987 for three months to map the soils which would enable farmers to enroll qualifying land in the Conservation Reserve Program.

During most of 1988, I worked on a research project that involved describing and sampling various soils to provide a basis for an on-going EPA Acid Rain Study. Helping with

¹ USDA-NRCS Soil Scientist.

this study enabled me to look at soils in many areas of Pennsylvania and to become proficient with the use of the truck-mounted backhoe.

During the years 1989 to 1995, I helped to update the older soil surveys in the nearby counties of Fulton and Franklin. It was during this update work that I learned the value of communicating regularly with other soil scientists in nearby survey areas that are located in the same Major Land Resource Area. Regular meetings provide information that enable the field soil scientists to learn the range in characteristics actually being observed during the re-evaluation of each survey area, and this can produce a better soils map and manuscript.

The years of 1996 to 1998 were difficult because of the pain and stiffness associated with Lyme disease. During this period, I performed less field work and more map compilation, while working to update the Westmoreland County survey and helping to compile other survey areas as needed by the map digitizing center at University Park.

CHAPTER 13

by

John Greenawalt¹

Hometown: Bedford County, PA

Education: Everett High School, B.Sc. in Agronomy/Soils, Penn State

Seven years experience as Field Soil Scientist in Bedford, Centre, Glair, Lawrence, Cumberland, and Perry Counties.

Also worked with Norm Churchill on the Acid Rain project in 1985 in Monroe and Pike Counties.

Present Position: Soil Conservationist, Bedford County, PA

¹ USDA-NRCS Soil Conservationist.

CHAPTER 14

by

Joseph S. Hallowich¹

Hometown: Jermyn, Pa. (Lackawanna Co.)

Education: B. Sc. in Agronomy from Penn State

July 1965 to Feb 1967 Soil Scientist in Washington Co., PA

Feb 1967 to July 1968 Soil Scientist in Lawrence Co., PA

July 1968 to Oct 1971 Soil Scientist in Luzerne Co, PA

Oct 1971 to July 1982 Soil Scientist Party Leader in Clearfield Co., PA

July 1982 to Mar 1993 Areas Soil Scientist in Bloomsburg Area Office

Mar 1993 to Present Area Resource Conservationist in Bloomsburg Area office covering 18 counties in N. E. PA.

¹ USDA-NRCS Soil Scientist.

CHAPTER 15

by

Donald P. (Don) Hipes¹

My experience with the Pennsylvania Soil Survey began when I was hired as a soil scientist to work on the soil survey in Venango County. I had been working as a fertilizer salesman in Maryland, Virginia and West Virginia. The company closed my territory and asked me to move to the plant in Baltimore. It was at this time when the call came from the Soil Conservation Service in PA, saying my name had come up on a panel. I had filled out the application some time ago and had forgotten about it. My degree in Agronomy from Ohio State University in 1955 and my three years experience as a soils technician in the U.S. Army had evidently qualified me to do something I didn't know anything about. I was interviewed by the administrative officer in the SCS state office in Maryland and subsequently offered the job in Franklin, PA. I reported to work in January 1965.

Karl Hellrick was the Work Unit Conservationist in Franklin and Norm Churchill was the Party Leader. At that time soil scientists were under the supervision of the WUC and I was fortunate to start out under Karl, because he was not only a good supervisor, he became a good friend. I was also fortunate to start out under Norm, because he really knew what he was doing and was capable of passing on more knowledge than I could absorb. He also became a good friend (until he asked me to do this). I worked a couple of days with Norm in the field and he turned me loose to map an area by myself one afternoon. He sent me off with the best advice ever given a government worker, "Do it consistently so it can be changed systematically". Norm gave me a good grounding in the geology of Venango County. He showed me where the glaciers had stopped, leaving a small portion of residual soils in the southeastern portion of the county. Early in my new job, Karl took me out to a farm with him to do some conservation planning. Soon after that he asked me if I wanted to switch over and be a soil conservationist. I declined, but it was a portent of things to come. He kept after me to change over until Charles Gentry was hired as a soil conservationist to work with Karl.

I mapped soils in Venango County for three years, learning as much as I could understand about the science and art of delineating mapping units using the best tools available at the time. I learned to use the stereoscope to rough in the slope breaks before going out to the field, the Abney level to verify the steepness and the compass to prove I was lost (If we had only had Geographical Positioning Systems in those days, we would have been in hog heaven). While I was in Franklin, we got the opportunity to transfer some of the mapping Norm had done in Fulton County from aerial photos to greencoated planimetric maps, using light tables and film positives. That was a real "fun" experience. Since we did the work on overtime, I had some paychecks as a GS-5 that were bigger than some I got as a GS-7. Norm and I mapped in some interesting places, including the ghost town of Pithole City, an old oil boom town. I remember one of the characterization sites we selected was in a nudist colony. We had to schedule our work there when none of the members were around in their "costumes".

¹ SCS (NRCS) Retired.

I left Franklin in March of 1968 and went to work in Hollidaysburg, Blair County. Howard Gates was the Area Conservationist and Orin Jaquish was the District Conservationist. By this time, soil scientists were under the supervision of the Area Conservationist. This was to keep the soil scientist working on block mapping and not mapping individual farms. Orin and I worked out an arrangement where my block mapping included the farms he wanted to plan. This was a relatively new survey area. Some earlier mapping had been done for conservation planning purposes. There was a new flight of aerial photos in the office so I had the task of putting on the match lines and apportioning the acreage to each map. Fortunately Norm Churchill had trained me well for this task. I was able, with Orin's help, to get some part-timers to help out. Blair County is ridge and valley country with no glacial influence, so I was in a new ball game. I had some good guidance from the area and state office. Glade Loughry, Jake Noll, Jerry Latshaw and others were quite helpful. It was here I met Dave Yost, when I went to Cambria County on a temporary assignment to help Dave meet some mapping deadlines related to funding requirements. When I came up to Vermont in 1977, Dave was the Assistant State Soil Scientist here. Tom Craft and Ed Merkle were mapping in neighboring Huntingdon County and we got together to share information once in awhile. Ed would lead you to believe he was straight out of the hills, by telling how he allowed his dog to eat at the table with him and he never washed his coffee pot, but he knew how to map soils. He and Tom gave me some good guidance.

Orin left Hollidaysburg while I was there so I was asked to fill in as acting DC until they could find a replacement. That took three months. In the meantime I moved the office and started work on the Blair County Interim Soil Survey Report. I got it put together before I left in May of 1970.

Jack Nehoda asked me to go to Honesdale in 1970 as a GS 11 party leader. When I got there, George Coller was the District Conservationist. George eventually was instrumental in my becoming a DC, but in the meantime I started mapping soils in Wayne County. Charles Dennis was a biological technician trained in soils mapping. He had worked under the previous soil scientist and was enthusiastic about his job. We had to match up to some of Dave Taylor's mapping in Pike County which was published at the time. On one of our progress reviews, Jerry Latshaw and Bob Cunningham from Penn State were trying to show us something about organic soils. We stopped at an apparent wetland just west of Honesdale on US Rt. 6 and walked out to take a look at the soils. The top few inches were nice black organic material, but underneath that was pure sawdust. It seems the site had been a sawmill at one time.

I only mapped in Wayne county for a year, because in May of 1971, George Coller was offered a job in southeast PA, and Jerry Hytry offered me the job of DC in Honesdale. George D. Martin came to Honesdale to take over the soil mapping, and it caused some confusion because we already had a George Martin working in the office. From that point on I became a user of soil survey information, and I really appreciated the hard work and endless hours that went into developing that information.

CHAPTER 16

by

John R. Hudak¹

Hometown: Natrona, PA, Allegheny County

Education: B.Sc. Penn State, Environmental Resource

MS Penn State, Agronomy

I was a member of Bedford County, PA soil survey under Party Leaders Ed White and Rob Knight from 1979 to 1983 and from 1983 to 1986, Party Leader for the update of Potter County. In addition, I worked on the DDRP acid rain project from 1985 to 1986.

In 1987, I attended the Soil Scientist Institute at University of Florida, Gainesville, FL, and from 1986 to 1988, I assisted in the update of York-Adams counties, and also spent two days per week in Harrisburg.

From 1988 to 1996, as the assistant State Soil Scientist, I was in charge of the Map Compilation Center in State College, PA, and from 1996 to present, I have worked in the state office in Harrisburg, PA, as the Assistant State Soil Scientist.

¹ USDA-NRCS Soil Scientist.

CHAPTER 17

by

W. Robert (Rob) Knight¹

I received my B.Sc. in Agronomy from Penn State in 1972. After college, I worked in Sanford Florida as a land surveyor for a small local company in the business of changing the land use from orange groves to retirement communities. Late in 1973, I journeyed back to my homeland of Pennsylvania and found work as an under ground coal miner in Greene County. If nothing else, the job gave me an appreciation of an out door job with cleaner air. Some could say that I really started from the bottom up in the study of soils.

I started my career with the Soil Conservation Service in October 1974 as a soil scientist in Ridgeway, Pennsylvania. The party leader in the Elk and Cameron County survey was Al Backer. From 1975 to 1977, I was stationed with Cliff Kohler in Lycoming County. Ned Ellenberger joined us just before I started graduate school at the University of Tennessee. Dr. Max Springer was my major professor and my research included a forest soil study in the Cumberland Mountains of east Tennessee.

Upon my return to Pennsylvania after finishing my master's program in 1979, I was transferred to Lancaster County as a soil survey party member and worked with Boyd Custer, Mike Yaworski, and Ed Merkel on an update of that county. Amish country was a fine part of the state to live and work, but it was also where I met my wife Karen. In 1982, I worked with Bob Smith in Butler County for about a year before taking the party leader position at Bedford County. This was the final county in Pennsylvania to be surveyed in the once over mapping of the state. Among the soil scientists who worked on the project were Reggie Speir, Dave Belz, Ed White, Ned Ellenberger, John Hudak, Bob Dobos, Dan Seibert, Norm Churchill, and Boyd Custer. After the Bedford survey, Ned Ellenberger and I started our first set of update soil surveys with Fulton and Franklin Counties. In 1996, we began to update six counties including Westmoreland County in the southwestern part of Pennsylvania. In a way, I have somewhat returned to the land of my youth.

At this time in 1999, I am living with my wife Karen and daughters Megan and Katie in Greensburg, Pennsylvania. I thank God for all he has given me and for the many mentioned and unmentioned people that have contributed so much to my life and career in soils.

¹ USDA-NRCS Soil Scientist.

CHAPTER 18

by

Gerald J. (Jerry) Latshaw¹

The following is a summary of my activities in the soil survey program of Pennsylvania. The last time period is listed first.

July 1972 to March 1976, State Soil Scientist

The major goal was to complete the field work in the soil surveys. There was a large workload of correlation, manuscript preparation, map compilation, and map finishing. Many soil survey areas had been conducted over a 10 to 20 year period. It was a challenging time for the states since we were handed down the responsibility for map finishing and the revision of all manuscripts to the “new” format. The SCS-Soils-5’s (soil interpretations) were required for correlations along with the revised soil descriptions. Benny Martin was the State Conservationist during this period and was very supportive in the soil survey program including assisting with public relations and encouraging cooperative agreements.

We had an excellent working relationship with Penn State. There were several cooperative projects the University and SCS worked together. PSU under the direction of Gary Peterson was conducting remote sensing projects to test older soil surveys and SCS assisted in ground truthing. Bob Cunningham was responsible for the laboratory activities in which SCS provided assistance in pedon selection, soil descriptions, and sampling. Sampling was generally completed in three to four counties each summer. A project that had special interest to me was working closely with Ed Ciolkosz on the selection, description and sampling soils in the areas disturbed by strip mining. A major objective was to test the feasibility of classifying and mapping these soils at the series or family levels. West Virginia University staff members had a proposal to establish a suborder for these soils in Soil Taxonomy (Spolents).

The accelerated soil program supported by state and local funding reached its peak in the late 60’s and early 70’s when Pennsylvania had 40 plus soil scientists on the SCS staff working on the soil survey. The staff was increased by transferring soil scientists in from other states. The soil scientist staff included people who worked in more than 20 other states. Several moved on to state soil scientist positions including Gene Grice, Carl Guernsey, Sy Ekart, Garland Lipscomb, and Ed Sautter. I moved to Fort Worth on the soils National Technical Center staff. I was the report writing specialist and later the soil interpretation specialist. I moved to Portland, Oregon, in 1979, as the State Soil Scientist. I retired in January 1994.

¹ USDA-NRCS Retired Oregon State Soil Scientist.

October 1966 to July 1972, Assistant State Soil Scientist

This was a very interesting and enjoyable time period in my career. Jake Noll was the State Soil Scientist and Mel Davis was the State Conservationist. The state soils staff was expanded to include 6 members - The State Soil Scientist, Asst. State Soil Scientist, and four other specialists. Gene Grice was the correlator, Carl Guernsey was the report writing specialist, and Ed Sautter and Sy Ekart were field located specialists.

There were other staff changes during this period but this was the staff during most of the period. A major effort was to review all the mapping in the state, update correlations, rewrite series descriptions, and classify soils in Soil Taxonomy. I spent a great deal of time preparing state-wide tables of the soil interpretations including crop yields, engineering uses, recreation, wildlife, woodland, urban uses, chemical and physical properties, etc. These completed tables provided a base for completing the PA Soils-1 which was developed several years before the national soil interpretation record (SCS-SOILS-5). Jake Noll was an excellent team leader for this group in allowing the staff the needed latitude in completing projects and duties.

February 1966 to Oct. 1966 Soil Scientist Specialist at Harrisburg

This was a position established for the extra workload created by the many county and local cost-share agreements. These agreements were to accelerate the mapping in urbanizing areas or other areas under pressure for development. During this period I worked closely with the State Resource Conservation staff and project leaders in developing interim reports for the 20 plus cost-share agreements. I provided the leadership in developing the format and the special reports for these agreements. These reports were used by the planning commissions, field office technical guides, and other individual users.

May 1965 to Feb. 1966, Soil Survey Project Leader at Towanda

I moved from Republic Washington to this location. I was the project leader for Bradford-Sullivan Counties and had technical responsibilities for several other counties including the active soil surveys in Tioga and Lycoming Counties. Amos Garrison was the Area Conservationist. Ed Sautter had technical responsibility for the east half of the area and I had the west half. Pax Wolfe was the District Conservationist and Tom House and Fred Ferguson were the soil conservation technicians in the field office. Don Hosler was a soil scientist trainee on the staff in Bradford County. The priority was mapping the urbanizing areas adjacent to the Susquehanna River as part of the cost-share agreement with the county. This was an interesting area since the SWCD was very active and most landowners knew SCS and the local Staff. Bradford County was the most active ACP county in the state and the staff was busy in application of practices including terraces, ponds, stone wall removal, tile drainage, and ag waste management for dairy farm operation.

Summary

Sharon, our children and I enjoyed our stay in the state. Four of our five children were born in Pennsylvania. Wayne was born in Towanda and Matt, Debbie and Jan were born in

Harrisburg. Becky was born in Washington prior to moving to PA. The people in the cooperative soil survey in the state were a “great lot” during these years and much was accomplished. These efforts will provide much valuable resource data for many years to come.

CHAPTER 19

by

Garland H. Lipscomb¹

Farmville, Virginia is not well known all over the world and it is one of those poke and plumb towns. By the time you poke your head out of the window, you will be plumb out of town. Things used to be slow down there (there was a sign along the road that read “slow down here: and no one was sure if it was a road sign or a sign for the town). I grew up on a farm four miles north of Farmville. Because of the farm experience I knew at an early age that I wanted some kind of career in agriculture but I did not know what it would be. We raised dairy and beef cattle, chickens, hogs, corn, wheat, vegetables and about anything else you can think of.

Being black and seeing my father struggling with scratching a living out of farming plus two other businesses (grocery store and saw mill), I knew I could not make a decent living farming because of limited income potential. (We were so poor that when the preacher came to visit us he brought his own fried chicken. We went to Kentucky Fried Chicken to lick someone else’s finger. I knew I needed a college education to have a chance to have a successful career especially financially. So I decided to go to Virginia State College, and major in agriculture.

During my first year of college I could not decide upon a field to pursue in agriculture. During the second year, I met Dr. Perry his first name eludes, me, (memory is the second thing that goes, I can’t remember the first). He had just returned from a four-year tour of duty in Africa as a Soil Scientist with the Soil Conservation Service. Dr. Perry had a strong interest in his students and quickly became my mentor. Through his influence and knowledge he had of the career opportunities in soil science in the SCS and other agencies, I concentrated my major in Agronomy, specializing in soil science. After 4 tough years (mainly struggling with health among other things) I graduated in 1963. Some graduate summa cum laude, some graduate magna cum laude, I graduated thank you Lordy. Upon graduation I had several federal job offers (one with SCS in Virginia). I decided to take the offer of soil scientist with the USDI Bureau of Recreation in Great Falls Montana. The main reason I decided to take that job was to get away from the racial discrimination in the south at that time. I was wrong; it also was out there, too, and less subtle. However, my experiences there were rewarding in a number of ways.

My job with the Bureau was classifying land for suitability for development for irrigation. We were a mobile team of 2 or 3 in a party and worked mostly in eastern Montana, weather permitting. After deciding that 40 degrees below zero and western culture was not for me, I requested a transfer to the Northeast. The first offer I received was from Michigan, which I refused. The next was Pennsylvania, which I accepted. I reported to the Dauphin work unit office on Dec. 21, 1964. Gerald Root was the Party Leader.

After two days of training from Merrill, I was given a pickup truck, spade, map and I was on my own. I spent 6 months mapping in Dauphin County. My second month on duty with

¹ USDA-NRCS Retired Pennsylvania State Soil Scientist.

SCS, I attended a work shop at State College and had the fortune to room with Dr. Glade Laughry, the State Soil Scientist. I was impressed with Glade's knowledge of a variety of soils, and his fantastic memory. Glade became one of my mentors, and had a big influence on my staying in Pennsylvania. In June 1965 I was moved to Cumberland County under the supervision of John Zarichansky. During my eight month duty in Carlisle I received a call from Ivan McKeever, State Conservationist. He wanted me to come to the state office. He offered me (it was more like he told me) the Party Leader position in Monroe County. This was Friday and I had until Monday morning to decide. In mid Feb. 1966, I reported to Stroudsburg under the supervision of John Eckes, Work Unit Conservationist. John became another one of my mentors, and helped me to become interested in a lot of self help improvement programs. There were some serious problems to be solved there. With the help of Jake Noll, Jack Carey, Ed Sautter and others, we were able to resolve them and I continued as Party Leader until the completion of the project in 1974.

About two months before completion of Monroe County, C.R. Kirk, Area Conservationist visited me and told me that Benny Martin, State Conservationist, wanted to see me. Benny offered me (more like he told me) the job of Assistant State Soil Scientist, replacing Sy Ekart, who was going to North Dakota.

I was moved to the state office in July, 1974. I completed the Monroe County Survey and finished the manuscript in the state office. As Assistant State Soil Scientist, my job was mostly working on soil survey manuscripts, but also assisting with field program appraisals and other duties. Jerry Latshaw was the State Soil Scientist and Ivan Ratcliff was the Correlator in the state office at the time. About 2 years later Jerry Latshaw moved to the South Technical Center and later was replaced by Arthur Kuhl. Art spent about 6 years here as State Soil Scientist and moved to Ames, Iowa. In June 1975 Ivan Ratcliff moved to the South Technical Service Center, about one year before Art left. After Art left, I had to manage the Soil Survey program in Pennsylvania by myself, for about 18 months, a rather frustrating experience.

Graham Munkittrick, State Conservationist offered me the State Soil Scientist job in 1981. I accepted, but I was still managing alone. After some positive influence from several people (including my wife) Munk decided to allow me to have an assistant. Fourteen months after I became State Soil Scientist, George Martin became my assistant. Moving deeply into the computer age with other added responsibilities, George and I were not able to keep up with all activities. A few years later Ed White, who was in Maryland, was hired to help us with the enormous workload. A few years later George Martin retired and was replaced by Travis Neely, from Indiana a couple of years later. In March 1994, I was offered the early out option. I decided to accept the offer ending my career with 31 years of experience. During my career I had some wonderful experiences working with our cooperating agencies; Penn State, the Pa Depts. of Environmental resources and Agriculture. All individuals I worked with (too many to mention: were all very cooperative. My experiences with the complex landscape and soil patterns in Pennsylvania were challenging and rewarding. They kept my interest alive.

To all my friends still working I wish you the best and those that are retired, thanks for the memories.

CHAPTER 20

by

Glade Loughry I¹

When I was a student in General Agronomy at Penn State University, the Soil Classification and Soil Survey course was not given because the teacher, Dr. Austin Patrick, was on leave working on his Doctorate at Cornell. I took the elementary soil course plus some soil chemistry and soil field studies. I needed to earn some money and had various jobs in the Agronomy Department, taking care of laboratory materials and equipment. By my Junior year I was grading quiz papers in the elementary soils course. Alfred Paschall, a soil surveyor from Ohio, was a graduate student teaching the laboratory portion of the elementary soils course. He later recommended me for a vacancy in the Ohio Soil Survey, to start April 1, 1931. I graduated from Penn State in January 1931, and I stayed on for two months while Dr. Patrick gave me an intensive course in soil classifications with reading assignments to make up for the second half of the course he was teaching that semester. Then I reported to a field assignment in southern Ohio, where I was in a survey party with Paschall and Gordon Steele. We got professional guidance from Dr. Guy Conrey, who was an outstanding teacher and a fine mentor. Two and a half field seasons with the Soil Survey of the Ohio Agricultural Experiment Station was excellent training for later work with the SCS surveys. But then, the state money ran out and I was furloughed. A couple of months later I went to Ohio State where I earned a Master's Degree under Dr. Conrey, Dr. Richard Bradfield and Dr. Robert Salter. (A few years later, when Dr. Hugh Bennett retired as Chief of the Soil Conservation Service, Dr. Salter became the new Chief.)

In June 1934, as soon as I got my Master's Degree from Ohio State, I reported to the Soil Erosion Service in eastern Ohio to make soil conservation surveys in the Muskingam watershed.

On Feb. 23, 1935, I reported to the Indiana, Pennsylvania office of the Crooked Creek Erosion Control Demonstration Project. I transferred (with a promotion) from the Muskingam, Ohio Erosion and Flood Control Project. My supervisors were canny. They dated the transfer so that I would use the holiday for travel. Dr. Austin Patrick was acting as State Administrator on leave from the Agronomy Department at Penn State. Dr. Gordon Steele was in charge of the soil survey staff which included Richard Long (who had some soil survey experience in Pennsylvania); Gerald Mowrey; Lester Espy; John Noll; James Wise, who had trained in Ohio; and Kenneth Craver. During the summer I helped as assistant to Gordon Steele. We recruited my Penn State Classmate, James Rayburn. I also helped recruit two more men as temporary soil science helpers; Merrill Kunkle, who continued in soil surveys for 40 years, and Everett Leadbetter, who became the State Soil Scientist for West Virginia and later transferred as staff soil conservationist.

We mapped on aerial photograph prints enlarged to a scale of 10.5 inches to the mile. The Crooked Creek project included my dad's farm so we mapped it early. My dad and uncle

¹ SCS (USDA-NRCS) and PADER Retired State Soil Scientist. Died March 1998.

were early cooperators for the project. Before the summer of 1935 was over, there were two more Erosion Control Demonstration Projects in Pennsylvania; Little Octorara Creek in southern Lancaster County and West branch of Antietam Creek in southern Franklin County. The Civilian Conservation Corps (CCC) was also doing erosion control work in Clarion, Westmoreland, Huntington, York, Lancaster, and Indiana Counties. The group of soils men at Indiana were partly dispersed, and I became a roving supervisor under Gordon Steele's direction. I was setting up mapping legends and scouting work areas.

During the summer the Soil Erosion Service became the Soil Conservation Service and we blanketed into the Civil Service on December 27. The temporary employees we had hired had gotten enough experience to qualify for permanent professional status. At the time, the Regional Office for the 12 northeastern states was established at Williamsport. At the beginning of 1936, I moved to Williamsport as an assistant to Joseph Snyder, the new Regional Soil Scientist. Gordon Steele had been transferred to Washington to edit Soil Conservation Survey reports, and Bart Oliver came in as the State Soil Scientist. As a Regional Soil Scientist, I had responsibilities that extended from Aroostock County, Maine, through New England and the Middle Atlantic States off to the far end of West Virginia. The other Assistant Regional Soil Scientist was Arnold Bauer. He had experience in New Jersey and New York and had a degree from Cornell University. Work in those states was usually his responsibility. My experience in Pennsylvania and Ohio made it natural for me to take the bulk of the supervisory work in Pennsylvania, West Virginia, and western Maryland. So, from 1936 to 1945, I spent a lot of time with the soil problems of Pennsylvania's Soil Conservation Demonstrations (SCD) and; the newly emerging SCD's. At first, I worked out of the Williamsport Office and then from the Regional Office located in Upper Darby. Early in my assignment at Williamsport, I experienced the 1936 St. Patrick's Day flood which covered desk tops in our offices.

Mobile surveys were being made in the summers by survey parties that spent the winters in the south and came north with the warm weather. Lancaster and neighboring counties rated a detailed Soil Conservation soil map of the Conestoga Creek Watershed with a crew of six or more soil scientists. In supervising them we had the help of the Soil Correlator for the Northeastern United States, William J. Latimer. I knew that I had proved myself when Bill Latimer loaned me his "little black book" with his charts of soil catena associations in it, so that I could be "an authority".

In 1945, the Regional Offices lost much of their authority to newly strengthened State Offices. Henry Adams stayed in Upper Darby as the only soil scientist at the Regional Level. Arnold Bauer chose New York, and I picked Pennsylvania. The day Japan surrendered in 1945, my wife and I were house hunting in State College.

During the War the soil science program had slowed to where I had no full-time soil scientist working with me in the State. Most of the Soil Conservationists were working with the demonstration projects and newly formed Soil Conservation Districts. They had some training in soils and could make usable maps. The next year Ivan McKeever succeeded Walter Gambel as State Conservationist. We got a couple of new soil scientists and some veterans returned. We also worked out some cooperative soil surveys with Penn State and the old Bureau of Soils. Under this program, we worked with Potter County and launched surveys of Union,

Northumberland, and Montour County. We tried to keep mapping legends and details uniform throughout the state and correlate soil classifications with neighboring states. As new districts were organized, I was very busy inspecting areas and helping write mapping legends. William Latimer was Correlator for a dozen states, so he helped in coordinating across state lines. State Soil Scientists sometimes got together for field trips and conferences, and over the years I got to work in every county in Pennsylvania. The work force kept growing and involvement of soil surveys in fields other than soil conservation increased.

In 1952, the Soil Conservation Division of SCS absorbed the duties and personnel of the old Bureau of Soil Survey, which was attached to the Bureau of Plant Industry. This further increased the responsibilities of the State Soil Scientist. In 1954, my headquarters was moved from State College to Harrisburg. Soon after that the Pennsylvania Department of Health started asking for help on on-lot sewage disposal problems. So many requests came in for this service that I recommended that they get their own expert soil Scientist, and I helped them write a job description. This led to the hiring of Ray Shipp as Pennsylvania's first environmental soil scientist about 1959.

The SCS soil science workload continued to increase in the 1960's until we had a staff of 40 soil scientists in the field, and I had two and for a while three assistants, a secretary, and one or two typists in the State Office. I found that I was so busy with paper work and staff work, that I did not have much time for field inspection and work with individual soil scientists. To me, office routine, staff conferences, and long range planning were less challenging than dealing with real problems that could be solved by working with real people. And, I also had reached an age where I was eligible for early retirement at a reduced annuity. So, it was easy to figure that I was working harder than ever for less than half my paycheck, if I subtracted the annuity that I would be getting. Also, in 1960, I had finished work for my Ph.D. At Penn State and so had some added prestige. I was ready for a change when the opportunity came.

In the spring of 1966, Ray Shipp, the soil scientist in the Pennsylvania Department of Health (PDH) called and told me that he was restless and was taking a job with the USAID Program in Thailand, and he would send me a dozen copies of the job description to use in securing a replacement. I told him that I would throw the handbills away and apply myself. He said that is what he expected, and he set up an appointment for me to meet his boss.

So, after giving 60 days notice, I retired from the SCS on July 5, 1966. The next morning, I reported to Harry Steigman, Director of the Division of Sanitation, Pennsylvania Department of Health. When I retired from SCS I did not say "good-bye" to any of my old associates at the retirement party. I just said, "I'll be seeing you around," because I would be keeping in close contact with the SCS field offices as I worked for local sanitarians in the counties. In the Division of Sanitation we used the available soil surveys and encouraged the making of more. We also had an input for making soil interpretations for published surveys and working guides for waste disposal.

Some County Planning Commissions had become aware of this technical resource that had been largely neglected. Several counties gave special help to soil conservation districts to accelerate soil survey activity. Montgomery County Commissioners made an appropriation to

SCS to help complete the county survey and that the priority be given to areas of “rapid housing development.” After I changed jobs, I attended the Northeastern Soil Survey Work Planning Conference where SCS and college soil survey representatives got together. I had been the “Chairman-Elect” of the biennial conference and was not allowed to take office because the by-laws specified that SCS and the College group provide chairmen alternately. But, they welcomed me as a consultant and featured speaker on sanitation applications of soils data. Roy Hockensmith of the Washington Office of SCS told me, “This year you have done more for SCS than you ever did before.” We laughed and agreed that it was by publicizing soil survey data and how it could be used rather than by quitting.

In the early 1970’s the Division of Community Environmental Services was transferred from PDH to the newly formed Department of Environmental Resources (DER), with all of the personnel and the same responsibilities. We also had more direct contact with State Forests, State Parks, and recreational facilities.

PDH and DER had major regulatory functions in addition to investigation and fact finding. This was a major change from SCS. In 32 years with SCS I had only been subpoenaed once for a court appearance. In the PDH and DER I could expect to average a court appearance each month. Some of the best contests were in County Courts. There were many appearances before the State Environmental Hearing Board and Commonwealth Court. And once I traveled to New York to testify in a land development case that lasted for two weeks in the U. S. Court of the Second District of New York. In all of the court work I was thankful for my Ph.D. and that I had learned to write detailed reports.

Sometimes a case would be settled after a short recess when the DER attorney would qualify me as an expert witness and submit a copy of my site report as Exhibit A. Some cases were continued because the Defense did not have an expert to counter my testimony. So my reports kept me out of court occasionally. Now, in 1994, three sites that I investigated, PDH 1966-1972 are again in litigation, and I have given depositions in one case in Federal Court (videotaped in our living room with 5 lawyers, a stenotypist, and a videographer). Two other pollution cases have been discussed with attorneys and will probably lead to testimony.

While I was with the State agencies, I helped organize the Pennsylvania Association of Professional Soil Scientists (PAPSS) to work toward professional recognition. In 1978, just after I retired from DER, the certification of professional soil scientists was started by the American Society of Agronomy. I held the Professional Certificate from 1978 to 1987.

In the summer of 1977 I retired from DER and moved from Harrisburg to Brethren Village, a retirement community in Lancaster, where health care is available as needed. Margery’s Parkinson’s Disease made the move urgent

As a professional soil scientist I was available for consultation on soil and sanitation problems. At first, demand was not very strong. But as building increased in the 1980’s, I got more requests for services. Several other SCS retirees were also working as consultants. They included Richard Long, David Taylor, Jay Weaver, Merrill Kunkle, James Rayburn and others.

Dr. William Farley and Jay weaver were employed by DER for a while after retiring from SCS. Farley was Chief Soil Scientist in; DER for a while after I retired.

While I was a consultant, I was active in PAPSS and was on the Board of Directors, where I served a term as PAPSS President. We increased our membership and got many of our members certified as Professional Soil Scientists. By 1985, I decided that the hassle of consulting and going to court was more than the job satisfaction, so I started referring requests for consultation to younger soil scientists.

CHAPTER 21

by

Glade Loughry,¹ II

The following is a semi-edited transcript of a tape that was part of an interview on Feb. 11, 1998 with Glade Loughry, the First SCS State Soil Scientist in Pennsylvania by John Chibirka and Norm Churchill. For the most part, questions and comments by the interviewers were eliminated.

(John) You've got your certification up there on the wall. I'm into my third year as an ARCPACS member and I don't know if you know that this year they've started requiring a mandatory exam for anyone applying and many people at the end of last year applied so that they didn't have to take the exam. I think it's a worthwhile organization don't you?

(Glade) Yes, I was one of the founding fathers of it.

(John) So PAPSS is even older than ARCPACS Is that correct?

(Glade) Yes.

(John) You're a founding member of PAPSS Isn't that correct.

(Glade) Yes.

(John) They're going on 25 years next year I think?

(Glade) I would think so. I've been retired for over twenty years.

(John) So you were retired before PAPSS was formed.

(Glade) I was retired from Soil Conservation Service and worked for the State for 11 years.

(John) And that's when PAPSS came into existence - When you were working for the State?

(Glade) Yes.

(John) I was talking to a friend of yours a couple of days ago - Les Rothermel. We were trying to track down some boxes you gave him when you retired from the State. There were some old memorabilia in boxes you didn't know what to do with and he took them and he said he had them laying around his office for a number of years and he was trying to track them

¹ SCS (USDA-NRCS) and PADER Retired State Soil Scientist. Died March 1998.

down. I'm sure you know Jake Eckenrode. Jake is heading up a committee to gather up old memorabilia from the hundred years of soil survey so that's something if you can help us out too would be wonderful. If you have any old pictures of soil survey activities that you can loan us that we can make copies of or old surveys, we would like to have them.

(Glade) An awful lot - there's some old snapshots. I am trying to recall the things that I can tell you about them.

(John) Well, do we want to start with some of these names.

(Norm) Well, we might as well.

(John) Well the first one is Mike Yaworski.

(Glade) Mike Yaworski, well, yes.

(John) Mike Yaworski, what can you tell us about Mike?

(Glade) Not a whole lot. He was around for a little while but as I remember, he came into SCS after I was out or just about the time I was moving out.

(Norm) Well - Seems as though I remember a story or about something about the soils in Crawford County where you said - It was Mike or somebody up there that said the soils were not so deep and that you took a shovel and dug them deeper.

(Glade) That reminded me of the time that Jake Noll was having his 50th birthday and he happened to be on a field trip with a bunch of us. Jake was feeling his age. Finally, we started sparing Jake on the digging and I offered to do the spade work and sympathizing with poor Jake.

(John) Well Jake happens to be the next one on the list we have.

(Glade) Well my doings with Jake goes back to when I was between my Junior and Senior Years at Penn State. They had a ruling then that country boys had to have one season of work in Ag industry or research. Town boys majoring in agronomy had to work on an approved farm that had a good agronomist operating the farm to teach them the ins and outs of proper farming methods. So I being a country boy was working on the experimental plots at Penn State and Jake's father was a professor at that time. He was well recognized already because of Pennoll wheat that he had a hand in breeding. So he had Jake working on the labor force on the farm as a farm hand and he gave the boss who was supervising the work instructions not go easy on the Noll boys - Jake and his brother Joe. They worked like dogs there on the farm that summer.

(John) That sounds wonderful. I wish they would still require that.

(Glade) I think we need more of that because I was a country boy.

(John) How about any personal experience with Jake on the soil survey.

(Glade) When I graduated I was lucky enough to get a job with the Ohio Experiment Station for a while. It lasted about two years. I guess two years and three months or something like that. Then they ran out of money in the early thirties, and I was out of a job for one summer. I really wasn't out of a job because the last day of June, I got in a car in Wooster Ohio and drove back to Dad's farm. He wasn't expecting me that day, so I bedded down on the sofa on the screen porch. By 10 o'clock the next morning I was helping open up the wheat field for harvest, and helping get the grain binder commissioned. Then I went back to Ohio State in September and attended for a year. I had my employee status because the bureau hadn't fired me so I could attend college for that year. So I attended college that year. By the time I got out, they were hiring. In fact my old supervisor at the Ohio Experiment Station was a soils man for the Soil Conservation Service in Ohio. So I was immediately hired and they had put on a good sized force included Jake Noll and Jim Wise (two Pennsylvanians that they had picked up at that time). I guess just a little later or about the same time I got there, they got Jim Osterman, a classmate of mine at Penn State. He had been employed in South Carolina - no, North Carolina and he transferred in to Ohio, and we were working there when Jake and Jim Wise came on the job.

(John) So you started with SCS in Ohio and so did Jake.

(Glade) It was the Soil Erosion Service under Plant Materials.

(John) Did Jake and you come into Pennsylvania together?

(Glade) Not exactly because I had been employed regularly in Ohio and there was a hitch on my employment - they were adding people so fast that they were just crazy filling out appointment papers. There was some ruling that you couldn't get a promotion for a year after you were appointed. They hadn't had that at first. A lot of people had been promoted, and here I was caught with basic pay (\$1,800 a year - \$150 a month) before I had been working for Ohio for \$1,400 a year. When I was doing that they allowed me travel expense for travel when I was away from Wooster. So only the 5 months I lived in Wooster I got the base pay, and the rest of the time I got subsistence, so long as I didn't claim more than \$70 a month for food and lodging.

(Norm) That was a state scale.

(Glade) The GS scale came on a couple of years after and I was the bottom of it with the \$1,800 I was getting.

(Glade) Jake and Jim arrived in Ohio with another fellow - Shorty Atkinson. Shorty graduated with me at Penn State and he worked for the State of Pennsylvania in soils work for a while on the emergency employment program and he was stationed in his home county (Erie). Shorty's arrival helped out. So we had several Pennsylvanians out there which included Noll, Wise, myself, and Dick Long. I had the experience in Ohio, so I was Party Chief, and everybody in the party was making more than me. I applied for a transfer back to Pa, and I wanted to transfer with a promotion. Dr. Patrick, who was Professor of Soils at that time, was

acting for the Soil Erosion Service in Pa that year, and he wanted me. So we worked it out. They were a lot tighter with regulations and saving a buck back then. They approved my transfer from Ohio to Pennsylvania for Feb. 23. This was the day after Washington's Birthday, a federal holiday. So I spent the holiday traveling from Ohio to Pennsylvania to pick up my promotion the next day.

(Glade) My position in Pennsylvania was assistant party chief in the Crooked Creek Project in Indiana County and a little bit of Cambria County. For a little while I lived at my Dad's farm, then I lived in Indiana and spent weekends at the farm. With some effort, we got Jake Noll, Jim Wise, and Charley Atkinson on the project. We got Charley Atkinson moved into Pennsylvania rapidly because he sorta fell out with management in Ohio. He wanted to be Party Chief over everybody, and Gordon Steele had been hired with a Doctor's degree - just out of Ohio State. Gordon was a good friend of mine, and I'd known him for quite some time. I worked with him in Ohio for years. He'd been hired to be director of an experiment station in the Tennessee Valley and there was a hassle and the Soil Erosion Service didn't get to administer those stations so Gordon and two other fellows that they had hired ended up being shifted around. Gordon came to Pennsylvania. Almost immediately he proved that he could write and so they took him into Washington to edit soil survey publications which he did for almost the next 30 years. Here is a picture of me with a little toddler - Gordon's son. Gordon sent that picture to me a couple of years ago. He said "we found this picture of you and John among some of our papers and here it is." John just recently celebrated his 60th birthday, and he was about 14 months old when that picture was taken."

(Glade) Lester Espy was a bachelor with the soils group, and he was very independent and very vulgar on occasion. He had an older brother who was a real smart engineer and a smooth operator in soil erosion and soil conservation. The brother was a railroad engineer - a real dressee, but Lester prided himself on being a real roughneck. Somebody kidding him in West Virginia (WV) asked him how he got along with the girls now - the WV girls. He said "They're too damn aristocratic," and so that was pretty much his view point. He worked in eastern WV and the northern panhandle of WV. When he finished up the county he was working in, his supervisor, Boyd Patton, decided that he would ask Espy to move a few times, but Espy still had a few more things to do. So Patton went down to where Espy was working with a car and said he'd move him. Espy turned up with an old Woolrich jacket that probably had never been cleaned and looking real seedy. Patton never got to stay in a respectable motel. So Patton would tidy him up a bit, but Patton never could do much with Espy. By that time some of us had found out that Espy wasn't from as rough background as it would appear.

(Glade) Boyd Patton worked in Pa and was in charge of the Clarion Co Survey and then moved from there to Indiana for a while. While I was second man in the Regional Office, Boyd was sorta playing for Pa, too. So he was a little bit put out because I bumped him out of PA. When they picked assistants out of the regional office because Arnold Bauer had degrees from Rutgers and Cornell. He got first pick and naturally he got New York and New Jersey as his main concern. Later he became State Soil Scientist of New York. Quackenbush was a native of New Jersey. He'd been away on military service, and when he came back, he got New Jersey, and I wanted Pa. Patton also wanted Pennsylvania, too. I bumped him out of Pennsylvania, and he had to settle for West Virginia

(Glade) I took over Pennsylvania as assistant regional soil scientist sometime in 1944 or 45. I have that dated pretty well because I got married in the fall of 44 and we went to housekeeping in Upper Darby for one year and then I moved to State College and we lived in State College for around 8 years. My wife went to Penn State while we were stationed there. I was the State Soil Scientist. Henry Adams was the regional Soil Scientist and he stayed in the regional office in Upper Darby. I was located in State College and they let me stay in State College because I was some of the liaison with Penn State. Howard Higbee was the man I worked with and I maintained the liaison with him. I was told I was the competition for him for the appointment to Penn State when Dr. Patrick left Penn State, and they needed a new instructor to strengthen the Agronomy Department. Higbee and I were the competition for it, and they gave it to Higbee because he was a better talker than I was. Anyway I had the liaison work with Higbee and the College and that was kind of tricky because Penn State and Missouri were the two states in the whole country that didn't have a state farm bureau organization recognized as a branch of the federal extension service. There was a great deal of hostility and rivalry and little cooperation in the states that didn't adopt a standard cooperation with the soil erosion service (Soil Conservation Service). The State Soil Scientist of Missouri and I compared notes and it was the same. We were both called "communists" by the news stories put out by the extension service in our states. That was pretty nasty, and the Pennsylvania Farmer published a weekly or monthly column by an extension agronomist which usually lambasted the Soil Erosion Service. The extension service office was across from the post office in downtown State College. The extension director ruled things. There was a number of his extension specialists who were favorable to soil erosion service people in fact a couple of his people were persons he had hired away from the Soil Erosion Service that had a pretty good start in the Soil Erosion Service. I was giving a talk to a seminar in the Agronomy Department, and a couple of the extension men were listening to me. The director came in and got them taken out of the meeting. The origin of the problem was in the personality of the extension directors in Pennsylvania and Missouri. They wanted to run all the agricultural programs in their states. Only a few of the Pennsylvania Extension County Agents were strong enough in their local areas to take it. One of them was Jack Warner. Jack had a brother, Andy Warner, who worked for the Soil Conservation Service as a Soil Conservationist. I was at a party at his (Andy Warner's) house in Chambersburg when his daughter came in leading a riding horse, a yearling or two-year old. I think she had rubber shoes on the horse. She brought the horse right into the house while we were visiting.

(Glade) It was nice work in the early days. You were out there by yourself and communing with nature and able to make a lot of observations. You learned things about the environment and so forth. It worked out fine. I'll admit that while working for Ohio I didn't know quite why I was doing these things. When I got into the Soil Erosion Service, I knew right away that I was working on interpretations for the Conservationists. In addition, we were more or less ordered so that personality didn't matter so much with the public, but I soon dropped that idea. I found that it was a soils man who usually made the first contact when an area was being worked or when a bunch of requests for farm maps was made. He was the man who went out first and contacted the farmer and did the mapping. Thus, he could do a big erosion control job right there and start the pay off that would come with the soil conservationist plan.

(Glade) Walt Steputis wasn't particularly a character, he was a pretty sound citizen. He worked in Ohio, and when business picked up so, he came to Pennsylvania. I got to share some

of the supervising work with Walt who was stationed in Lock Haven at that time and he did some of the work in the eastern part of the state. He then went directly from Pennsylvania to Maine because Stuart Hardesty was one of the Ohio fellows who had gone to Maine as a State Soil Scientist, died and Walt went up there to be State Soil Scientist.

(Glade) Arnold Bauer was the Soils man from New Jersey and he was also for New York. He worked out of the regional office before we each got our state jobs. He was later on the Correlator for the Northeast.

(Glade) Jack Carey is still around in Delaware. He does some consulting there.

(Glade) Merle Kunkle was another fellow I met when I was still in high school. He didn't know just what he wanted to do. He went to teachers' college and got his certification as a school teacher, and didn't particularly like teaching. He liked farming and agriculture. He got a summer job with us back in 1936 when we were getting underway in Pa. I was in Indiana at the time. We used him as a soil scientist although he didn't have much of the academic background he needed. He had a teacher's college degree, and he had practical farm knowledge. I remember being out with him on a farm where he introduced himself and me to the farmer and then he talked to the farmer about various things, farming and so forth and the thing that he went into most was the horses. They talked about horses. The farmer had nice horses. He bragged up those horses, talked them up real strong. I noticed that with people he talked to, if the farmer had just a couple of old plugs, he didn't even notice there were any horses there. He talked about something else and he talked to the right point. He did that consistently and he learned his soils work. He was excellent.

CHAPTER 22

by

George D. Martin¹

Chronology of Soil Conservation Service History

I started working with SCS May of 1958, at York, Pennsylvania. Believe it or not, the starting salary was \$4,210 annually. York County was a very enjoyable place to work because it had a wide variety of soils and the area was rich in Civil War History. I worked with Bob Smith who had considerable experience and was a patient teacher. That first summer we collected soil monoliths, many of which are still used in classrooms.

During 1960, I left York County and spent the next five years at Somerset County. Somerset was a pleasant place to work, but it always snowed during November and never would stop till the following April.

During 1965, I went to Armstrong County and spent the next six years completing the county soil survey, which was subsequently published.

I transferred to Wayne County during 1971, and remained on that soil survey till it was completed. Charles Dennis and I worked together until he became a conversation technician. My family and I moved near Lake Wallenpaupack where we have called home ever since.

I moved to Bloomsburg as area soil specialist during 1977 after Wayne County was completed. At that time, Area II was comprised of 14 northeastern counties. The first over soil mapping of Pennsylvania was winding down at that time.

Sometime during the early 1980s, I don't remember the year, I became assistant state soil scientist at Harrisburg soon after Garland Lipscomb became state soil scientist. Garland and I worked together on the state soils staff until Ed White transferred into Harrisburg from Maryland as soil correlator. At that time we were finishing up the last of the county soil surveys.

During 1989, the Lake Wallenpaupack Watershed Management District asked NRCS for loan of employee for coordination of state and federal agencies interested in the implementation of Best Management Practices within the watershed. At that time I was within two years of retirement, and I thought it would be an interesting way to finish out my career.

I retired in 1991 and immediately formed a consulting company called Denison Earth Sciences, Inc., that was incorporated in 1995, and I still work full time to this day.

¹ USDA-NRCS Retired Soil Scientist.

CHAPTER 23

by

Roy P. Matelski¹

The following is information on Roy Matelski obtained from various sources and edited by Ed Ciolkosz.

Roy was born August 7, 1911, in LaCrosse, Wisconsin, a son of Peter and Anna Goede Matelski. He was married in 1943 to Arlene A. Hayden, and passed away in October 1986.

He was a graduate of LaCrosse High School in Wisconsin and a graduate of the University of Wisconsin with a Bachelor of Science degree in 1934. He then earned his master's degree from the University of Wisconsin in 1938 and his doctorate from Michigan State University in 1947.

He served in the U.S. Army during World War II in the medical service corps with the rank of lieutenant colonel. Most of his military time was spent in Europe with General George Patton in the 8th Army.

He was a professor emeritus of soil genesis and morphology in the Department of Agronomy at Penn State, retiring in 1976 after 20 years of service. He had also been employed as an associate professor of agronomy at the University of Nebraska, where he served for 10 years, and prior to that had been employed by the U.S. Department of Agriculture in soil conservation service working on soil survey.

Roy was hired by Penn State to establish and supervise the soil characterization program within the Agronomy Department in April of 1957. During his tenure at Penn State, and as a result of his efforts, there was a major expansion of faculty associated with the characterization program. The following faculty were hired to conduct the analysis of soils and the interpretation of the accumulated data: Bob Cunningham and Roger Pennock in 1964 (Cunningham retired in 1991 and Pennock in 1990); Gary Petersen in 1965; Dick Ranney in 1966 (Ranney died in 1972); and Ed Ciolkosz in 1967.

¹ Penn State University, Retired Professor of Soil Genesis and Morphology, Died October 1986.

CHAPTER 24

by

John J. (Jake) Noll^{1,2}

Jake Noll retired as State Soil Scientist in 1972 after nearly 39 years of federal and military service. He was the second State Soil Scientist for Pennsylvania, after Glade Loughry, and served in that position from 1966 to 1972. Prior to that, Jake served as Assistant State Soil Scientist for correlation from 1962 to 1966. From 1954 to 1962 he was the Assistant State Soil Scientist for classification and mapping, working under Glade Loughry.

In 1954 Jake returned to Pennsylvania after working in numerous positions with the SCS various locations in the southeast U.S., including a six-month detail to Puerto Rico in 1952. From 1946 to 1954 Jake served as a Sedimentation Geologist for the SCS in Spartansburg, S.C. and in Altavista, Va. Jake served in the U.S. Army Air Corps from 1942 to 1946 in Kiska, Alaska, a remote island in the Aleutians. He was involved in air photo interpretation and reconnaissance mapping.

Prior to World War II Jake had worked for SCS from 1936 to 1942 at various locations in eastern U.S. mapping watershed projects. This included working out of the first regional SCS office in Williamsport with Glade Loughry and Austin Patrick. The office was then moved to Upper Darby in 1938. Besides work in three locations in western Pennsylvania, he also worked on mapping projects in Mississippi, Virginia, and South Carolina.

In 1935 and 1936 Jake worked on some of the first erosion control projects sponsored by the SCS in Pennsylvania. These were Civilian Conservation Corps projects in Trough Creek, and Todd, in Huntingdon County and the Crooked Creek Project in Indiana County. Jake made plane table maps of the farms participating in the projects because there were no aerial photos available. He would then make a soil map of the farm. In order to keep up with the demand for soils information, he trained two CCC boys to do plane table maps. The SCS was in charge of the work done by these CCC camps. The CCC camp in Home, Indiana County was SCS-1, the first SCS camp in Pennsylvania. Several other notable SCS'ers worked there including Glade Loughry, Corky Miles, and Dick Long.

Jake started his soil scientist career with the Soil Erosion Service (SEC) in Zanesville, Ohio in 1934 after graduating from Penn State that year. The SES was the temporary agency in the Department of Interior that was transferred to the Department of Agriculture in 1935 and established as the SCS. Jake transferred to Pennsylvania in 1935 to work for the newly formed SCS. Glade Loughry also worked for the SES in Ohio in 1934 and transferred to Pennsylvania to work for SCS in 1935.

John Jacob Noll was born in State College, Pa. on March 30, 1912. He graduated from Penn State in 1934. His father was C.F. Noll, head of the Agronomy Department at Penn State.

¹ Retired SCS (NRCS) Pennsylvania State Soil Scientist. Died

² This information was gathered by Jake Eckenrode.

CHAPTER 25

by

Paul H. Parrish^{1,2}

Paul Parrish was born on January 15, 1924. He attended St. Francis College from 1946 to 1948, and then Penn State in 1949 and 1950. He graduated from Penn State in 1950 with a B.S. in Agronomy. In 1950, Paul worked for the Engineering and Research Corporation in Maryland and as an Agricultural Assistant for the U.S. Army in 1951 and 1952 at the Dugway Proving Grounds.

Paul began working for the Soil Conservation Service in 1953 in Bloomsburg, Pa. mapping Columbia County. He completed the Columbia survey in 1961. In 1962 he started mapping in Lycoming County and mapped there a number of years.

In 1962 Paul moved to Middleburg and began mapping Snyder County. He completed mapping Snyder County in the early 70's. Paul then moved to Sunbury and started working in Northumberland County. While at Sunbury he worked with Jake Eckenrode to complete Northumberland County and also Montour County in 1979.

Paul transferred to McKean County in 1979 and worked with Norm Churchill to complete the mapping there in 1983. He retired in August of 1983 and moved back to his home in Ebensburg, Pa. Paul passed away on August 12, 1988. Paul was always very pleasant to work with and was very knowledgeable of the soils in the area he was working in. He was never without his friend "the pipe". His biggest regret in thirty years of mapping was losing his bowling ring celebrating his 300 game while in Bloomsburg. He lost it while mapping in Columbia County.

¹ Retired SCS (NRCS) Soil Scientist. Died August 1988.

² This information was gathered by Jake Eckenrode.

CHAPTER 26

by

Douglas S. (Doug) Pease¹

Susquehanna County, PA was the area where I grew up. The farm where I was born has been in my family since it was cleared in the early 1800s. My brother and nephews continue to operate the dairy farm.

After finishing high school in New Milford I attended Penn State majoring in Ag Ed. I taught vocational agriculture for one year at Albion, PA.

I joined SCS in 1956 at Honesdale, PA. I then worked as a soil scientist in Pennsylvania from August 1956 to March 1960. The Honesdale work unit office had been set up two months before I arrived. This was one of the last offices to form a conservation district. A hurricane in September 1955 had been very destructive in parts of Wayne County. This initiated the formation of the district. My first assignment was to make soil surveys in selected watersheds. Later I became involved in making soil surveys for the Conservation Needs Inventory (CNI) in Wayne County.

In August 1957 I transferred to Montrose, Susquehanna County, PA. I enjoyed working in my home county. I completed the CNI surveys in Susquehanna County. Next I did the CNI surveys in Wyoming, Bradford, Lackawanna, and Monroe Counties. I also worked some in Luzerne County. The CNI surveys were a challenge as everyday was a new experience and we didn't have a progressive soil survey to build on.

Several people in Pennsylvania were a great asset to my career as a soil scientist. Glade Loughry, PA State Soil Scientist was always an encourager. Walter Steputis was Area Soil Scientist from Lock Haven. Walt provided most of my training and quality control. He put up with a great deal to help me along. Walt later became State Soil Scientist for Maine. Heilman Schooley was WUC at Montrose. Schooley was fun to work with and to guide me along. Don Dinsmore, Area Conservationist, at Tunkhannock gave me many opportunities with the CNI work. These four men probably had the greatest influence on my early years as a soil scientist. They likely trusted me beyond my ability in those days. As I recall we were working on the third approximation at that time.

Due to arthritis, I transferred to New Mexico in 1960. I spent 17 years in the state working up to Assistant State Soil Scientist. In Feb. 1977 I became State Soil Scientist for Arizona. I held that position until I retired in 1986. The move to the Southwest was very beneficial for me both physically and professionally. It caused me to do a great deal of "growing up" as a soil scientist.

¹ SCS (NRCS) Retired Soil Scientist.

CHAPTER 27

by

Gary W. Petersen¹

Hometown: Luck, WI

Education: B.Sc. Soil Science, University of Wisconsin

MS. Soil Chemistry

Ph.D. Soil Genesis and Morphology

Professor at Penn State since 1965. I taught courses in soil mapping, morphology, and land use planning, worked closely with NRCS over the years on soil characterization, mapping and interpretation.

Professor of Soil and Land Resources, Department of Agronomy, Penn State

¹ Penn State University Professor of Soil and Land Resources.

CHAPTER 28

by

Earl J. Reber¹

I worked as a summer soil-scientist-trainee in Berks County, PA under Soil Scientists Frank Ackerman and Jack Carey, and District Conservationist (DC) Dick Kirk in 1957. I resigned from LWOP the following year. I graduated from Penn State in January 1959, with a B.S. in Agronomy, and obtained a full-time appointment effective November 30, 1959 under Robert P. (Ish) Zimmerman and Pat Partenheimer (DC) at Bellefonte, PA until the spring of 1961. At this time I was promoted and transferred to Montrose, PA as acting party leader (worked alone). In this office with DC John H. Schooley, I finished the mapping and manuscript for Susquehanna County in summer of 1968 (published 1973). I was transferred immediately to Somerset, PA as acting party leader in a one-person party and worked initially with DC Bill Steiner. Mike Yaworski transferred in as Party Leader and Warren Wittman as DC about 1973. We worked together, enjoyably, for about a year.

I was promoted and transferred to Suffolk, VA in August, 1974 as party leader; Paul Swecker, party member, was already there. A year later we added soil scientists Donnie Bradshaw and Jerry Quesenberry, graduates of the VA TECH soils program, and Cathy Carr, our full-time secretary/technician. We completed the soil survey of Suffolk (the former Nansemond Co.) in 1977, and it was published in 1981. This experience fulfilled a long-time desire to learn coastalplain marine and fluvial soils. It was also just great to have these people to work with.

I was transferred to Powhatan, VA as party leader in 1977, and worked with VA TECH soil scientists, Carol Brumback (now Swanson) and Hof Owen, (at different times). The DC initially was Joe Scales, then Denise Doetzer. At the last-acre ceremony, in 1983, a photograph was taken of a female DC, a female district chair, a female soil scientist, and a male party leader (me).

I transferred to neighboring Amelia County, VA, in 1983, as party leader, and worked alone. By this time Carol Swanson had resigned from VA TECH and became the conservationist for the SCS in Amelia; the DC, David Farmer, was located in Farmville. I completed mapping of Amelia County in 1990. It was in Amelia that the SCS ATT 6300 computer arrived and changed survey methods, and to some extent changed my life. I took quite a number of formal computer courses, including DOS, Lotus, Dbase, Cobol, Unix, during these years.

I transferred to neighboring Cumberland County, VA, (Cumberland County is Garland Lipscomb's home county) in 1990 as party leader and lone soil scientist. Delbert Southall was the DC, and the supervisory soil scientist for the area was John Nicholson. I completed the field work in the county in 1998. During the survey, more than 1,200 soil notes were taken at random sites (chosen by lotus @rand) and logged and entered into my soil note database in unix, using data entry and report programs I wrote in shell script. The computer work, random site

¹ Retired NRCS Soil Scientist.

information/correlation, and the recent experiment with self-directed teams by MLRA, have each helped to raise my level of excitement in soils work. Finally, I retired in 1998 after 39 years of actual full-time work.

CHAPTER 29

by

Dean D. Rector¹

Hometown: Spring City, TN

Education: B.Sc. Agronomy and Soils, Tennessee Technical University

Work experience:

Crawford Co., PA GS-5 Soil Scientist; 1964

Greene Co., PA GS-7/9 Soil Scientist; 1965

Windham Co., CT GS-11 Soil Survey Party Leader; 1970

Rhode Island, GS-11 Supervisor Soil Scientist; 1975

Richmond, VA, GS-12 Soil Correlator; 1978

Richmond, VA, GS-13 State Soil Scientist; 1987 to present

¹ NRCS Virginia State Soil Scientist.

CHAPTER 30

by

Panola Rivers¹

Hometown: Vicksburg, MS

Education: M.Sc. Agronomy 1989 from Alcorn State University, Lorman, MS

B.Sc. Agronomy 1983 from Alcorn State University, Norman, MS

Sept. 1980 to Jul. 1983 - Biology Trainee with US Army Corps of Engineers, Waterways Experiment Station, Environmental Lab, Wetland and Terrestrial Habitat Group, Vicksburg, MS

Sept. 1983 to Nov. 1993 - Civil Engineering Technician with US Army Corps of Engineers, Waterways Experiment Station, Coastal Engineering Research Center, Oceanography Branch, Vicksburg, MS

Nov. 1993 to 1996 - Soil Scientist, NRCS, Limerick, Pa, working on Bucks County Soil Survey Update.

1996 to Present - State Office.

¹ NRCS Soil Scientist

CHAPTER 31

by

Edward H. (Ed) Sautter¹

The State Conservationist, Ivan McKeever, bought me into PA in January, 1964 from Nebraska. About this time, several other experienced soil scientists were selected from various states for Pennsylvania. The idea was to speed the production and completion of quality soil surveys in the state. This was an excellent move as the PA soil survey program turned into one of the better statewide programs in the nation. The SCS teamwork and cooperation with other agencies, namely Penn State University, was exceptional.

From July 1967 until Sept. 1972, I was a GS-12, Field Soils Specialist. I was part of the state office staff, but headquartered at the Bloomsburg Area office. The work included providing leadership and field assistance to soil scientist staff in active soil survey areas in the eastern half of Pennsylvania. The preparation and review of operations and policy guidelines for conducting soil surveys statewide was also one of my important role.

During one particular year, I conducted 14 week-long county progress field reviews in eastern and northern Pennsylvania. Also, of special note was the annual soil sampling activities completed in cooperation with the Penn State Soil Survey Characterization staff. Sites were selected, deep pits were dug, soil profiles were described and detailed samples were collected for field and lab analysis. In addition, soil monoliths were gathered and percolation tests were conducted under the leadership of Dr. Roy Matelski and Dr. Robert Cunningham.

From January 1964 to July 1967 I was a Gs-11 Soil scientist specialist for northeastern Pennsylvania, at Clark Summit. This involved active classification and mapping in Lackawanna County, setting up new progressive county surveys, and work being done in active surveys in the assigned work area.

My work in Pennsylvania perhaps was the most significant of my career as an SCS Soil Scientist. I left the state in Sept. 1972, shortly after Hurricane Agnes flooded our Bloomsburg office, to be GS-13 State Soil Scientist for Connecticut and Rhode Island.

I retired from SCS/NRCS in Storrs, CT on Nov. 30, 1990 after 40 years of federal service.

¹ USDA-NRCS Retired Connecticut State Soil Scientist.

CHAPTER 32

by

Robert V. (Bob) Smith¹

A Synopsis of My 35 Years With the Soil Conservation Service

I graduated from high school in 1946 and served in the Army of Occupation of Japan at the end of World War II. With the assistance of the G I Bill, I attended Pennsylvania State College, majoring in Agronomy (Soils) and minoring in Horticulture. I received my B.Sc. in Agronomy in January 1952 and immediately took a job as an agronomist for a 3,000 acre vegetable-beef operation on the Eastern Shore of Maryland. In October 1954 I received my appointment as Soil Scientist in the USDA Soil Conservation Service at York, Pennsylvania. The GS-5 salary was \$3410 per year. We had two children and were expecting the third.

York county had been mapped about 1912 by Veach, Hurst and Maynadier of the Bureau of Soils. In the late 30's the original SCS Work Unit was headquartered in Glen Rock and comprised the central part of the area from York to the Maryland line. This area was soil surveyed in the 40's by Craver, Compey, and Espy. My job was to complete the soil survey of the remaining three quarters of the County. All of the County by this time was a Work Unit (District) with York as headquarters. It had two Work Unit Conservationists, Melvin Blish for the South and Al Young for the northern part. During the period 1954 to 1959 under the direction of State Soil Scientist Glade Loughry and Roy Matelski of PSU, we initiated soil sampling for soil characterization and highway engineering analysis. Sampling was done from hand dug pits. We also made many full sized soil monoliths. Soil judging was started with Vo-Ag classes in the various High Schools. George Martin joined me in 57 or 58 after graduating from Delaware Valley Agricultural College.

In September 1959, I was transferred to Montgomery County, Pennsylvania to head up the soil survey of that rapidly developing county. It was the first county to appropriate money specifically to accelerate soil surveys and soil interpretations. As party chief I had two assistants, Seglin and Levitan who were later replaced the experienced John Zarichansky and novice ex-farm machinery dealer Ed Thompkins. In years to come Ed became Assistant State Soil Scientist in Michigan. Along the way I provided soil training to another new man, Robert Heidecker. We did a lot of soil sampling for characterization, all from hand dug pits. I remember sampling Reaville soils which we described as being shallow to bedrock but by the time Soil Correlator Dr. Arnold Bauer had finished with our pit, Reaville had become moderately deep.

In December 1963, I was transferred to Butler County, Pennsylvania. That winter was spent completing the manuscript for Montgomery County. Butler County was a mixture of

¹ NRCS Retired Soil Scientist.

rapidly developing areas, farmland, woodland, many old abandoned coal strip mines and an ever increasing number of new stripping operations. We sampled for soil characterization several times during the survey. Now we were sampling from larger pits dug by back hoes and soils were becoming deeper. During most of the Butler County soil survey I was a party leader without a "party". I assisted in surveys in Mercer and Allegheny Counties, and for a while headed up the soil survey of Armstrong County.

In April 1976, I took over the completion of the soil surveys of Lawrence and Beaver Counties. I assisted Ned Ellenberger with the completion of field mapping, then sampled, wrote soil descriptions and prepared the manuscripts for Beaver and Lawrence Counties.

After September 1978, I continued the soil survey of Butler County. During the latter part of the survey I was assisted by Rob Knight who later took over operations in Bedford County. Winter stints at map compilation, soil investigations in neighboring counties, and completion of the Butler County manuscript concluded my stay in Butler.

In August 1983, I was transferred to York County to update the soil descriptions, mapping, interpretations and manuscripts of York and Adams Counties. I was assisted in map compilation by John Hudak. When all phases of the soil surveys and the separate manuscripts for York; and Adams Counties were completed to my satisfaction in 1989, I decided to retire.

CHAPTER 33

by

Edward A. (Ed) Tompkins¹

Greetings one and all. First and foremost may I say that I ask you for pardon for any omission of names, and a few misspellings. I am approaching my tenth year of retirement as Assistant State Soil Scientist for Michigan. Thanks to Benny Martin I obtained a final promotion to the state office here. My work was split between editing soil surveys and doing soil interpretative work.

While in Lebanon County, PA I had the pleasure of working under my good friend Jack Nehoda. Sam Fullerton was the D.C. and Carl Guernsey was located at the state office as one of the soil specialists. Carl tells the story of how he bought the ugliest wig he could find, and appeared in Sam's office and insisted that Same take him to visit some of the farmers who were involved in conservation practices. Sam vehemently refused to go anywhere with him! Don Holzer was one of the names I recall form those days. He had overcome some difficulties and did a good job running the Lebanon County soil survey.

My principal activity for the 17 area counties while in Lebanon was with non-agricultural soil problems. Many times I was called in after the fact and could only say what should have been done. Many a D.C. offered my time to explain soils work to different organizations. Near the end of my time in Lebanon pressure was being brought by some senior congressmen in Texas to have SCS only do soils work for Agricultural uses only. Hence my luck in getting the Michigan Job.

Bucks County was my first and only party leader job. I was fortunate in getting this position after only one year as a soil scientist. Rumors were that the high cost of living in Bucks County was the reason many did not want the job. Some who helped me greatly in Bucks County were Jake Noll, Glade Loughry, Jack Carey, as well as all the other great ones who passed through the area at that time. I should recall others but can not. There were also some young soils people from Penn State who were of assistance. Bucks County days were also when I had the major help of Ed Sautter, 'Head Guru' of that section of the state at the time. Gene Grice, Jerry Latshaw, and Carl Guernsey has major input into the survey. Bucks County was one of the counties that contributed funds to speed up the survey. A most important contribution to that was Al Backer. I must say that he was a different type of mapper. Al was an expert in the use of the stereoscope. One of my weaknesses was due to my lack of depth perception. I had to make many more field observations and slope measurements than did Al! Barrie Wolf was a Soil Scientist who, after training was a good mapper. Bucks was one of the first counties to computerize soils information after the survey.

My earliest day with SCS were in Montgomery County. Party leader Bob Smith's knowledge of soils and mapping did so much in my learning process. Soon after I started John

¹ USDA-NRCS Retired Soil Scientist.

Zarichansky also became part of the team. I should also mention that for a short while we had, “believe it or not”, to spend some extra money and that I worked some overtime for time and a half for Larry Staley in Northampton County.

CHAPTER 34

by

Alex R. Topalanchik¹

Hometown: Dunmore, P

Education: B.Sc. in Agronomy, Penn State

Soil Scientist party member in Clearfield, Warren and Forest Counties, PA . GS-5/7/9; 1975
through 1980

Morgantown, WV; Soil Survey Party Leader; GS-11; 1980

Morgantown, WV; State Correlator; GS-12; 1989 to present

¹ USDA-NRCS Soil Correlator, West Virginia.

CHAPTER 35

by

Jay B. Weaver¹

A summary of my work history with USDA-SCS and Pennsylvania PADER

Dec. 1951 to Apr. 1953: I was in Westmoreland County as a trainee for all kinds of SCS field activities.

Apr. 1953 to Oct. 1957: I was in Fayette and Greene County (not districts at this time) and served the SCS responsibilities in the ASC program. I did soil survey mapping in the southwest part of Westmoreland County in this period.

Oct. 1957 to Mar. 1963: I was sent to Indiana County to complete the soil survey of this county after I requested that I become a soil scientist rather than a soil conservationist. I also did the CNI soil survey mapping in Somerset County during this period.

March 1963 to December 1978: While in Washington and Greene Counties, I wrote the Indiana County Soil Survey Report. I completed the field soil survey of these two counties with Dennis Bush and Daniel Siebert. I also worked a couple of years as a soil scientist during this period for the PADER through a federal grants-in-aid program to the states. The work in this program involved determining the suitability of soils for sanitary land sewage disposal, sanitary landfills, coal refuse disposal piles, lagoons, and spray irrigation.

Dec. 1978 to June 1979: I retired for a while, but later changed my mind, because I didn't think I was ready for the rocking chair yet so I applied to work as a soil scientist for the PADER.

June 1978 to June 1988: I performed the same functions for DER as I did before and also conducted soils training classes for Sanitarians and Sewage Enforcement Officers. I also performed these functions in practically all the counties in Western PA. I finally retired at the age of 68.

¹ Retired SCS (USDA-NRCS) Soil Scientist.

CHAPTER 36

by

Edgar A. (Ed) White¹

I began as a soil scientist in the summer of 1972, by going to see Del Fanning after a SOILS 202 class in which he said “if anyone is interested in working in Vermont this summer, stop by to see him after class.” I thought this sounded like an adventure, and I ended up traveling to Vermont from Bethesda, Maryland late that spring. What a culture shock for a young man who had grown up in the suburbs and city to begin in a one block town in the middle of Vermont. Fortunately we had a great boss, Will Sheehan, and I went with Drew Adam, another University of Maryland student, with about the same background and many of the same interests as me. Drew and I became great friends and ended up working together the next summer in St. Albans Vermont. Will Sheehan really taught us how to be soil scientists, finding your way in the woods, packing your lunch in your shirt (we had knapsacks), and how soils were mapped, particularly hiking all day through woods and up hills. It was particularly important to become proficient in the use of a stereoscope, both to map soils and to find your way around in the woods, and stereoscopes were a part of our everyday field gear. The two other things I remember most were my fear the first time I was in a pasture with a herd of cows as they all gathered around, and my thoughts the first time I was put out on my own to map. You see we didn’t each have a vehicle so Will would drop us off on an agreed to place on our map early in the morning, and agree to meet us at another area in the evening. The first time I was dropped off, I remember standing in a pasture thinking “Now what do I do, I guess I’ll dig a hole and see what’s here;” and since that time, I have always had a thought of discovery every time I begin to dig a hole. What will I find? Will I know what it is? Will it be something unexpected or the same old thing?

After two summers in Vermont I decided that I would go back to graduate school, partly because I did not want to stay in Vermont for the winter. Getting back to Maryland I got very lucky in that they were just starting the soil survey of the District of Columbia and they were looking for a new or nearly new employee with a little mapping experience, I was in the right place at the right time plus the office was next to the school. The project leader was Horace Smith, who was also the Assistant State Soil Scientist in Maryland. Another culture shock from the woods of Vermont to the streets of Washington, D.C.. More things to learn, how to map in the city, which we were all learning, how to stay safe, how to get permission to go on foreign embassy grounds, mapping the White House grounds. But was it fun. Mapping was an adventure, but we never had to worry about getting lost. What we had to do was great planning on where we could dig holes and map and park the car. I got to see areas I never knew existed, just like in Vermont, but they were areas like the National Arboretum, off the trails at Great Falls, the White House Lawn, the embassy’s, East Park Golf Course where Lee Elder played, and the woods at Rock Creek Park.

¹ USDA-NRCS Pennsylvania State Soil Scientist.

After a few years in D.C., I worked in the office doing map compilation and map finishing for some Maryland soil surveys, being the first to finish maps with ink vs. scribes. I had great training because Carto was just down the street in Hyattsville at the time. We had fun during the long tedious days of inking lines, sticking symbols and names on maps. A lot of college kids helped, some stayed and some left fairly quickly but we got the work done for Allegheny, St. Mary's and D.C.

I then moved to Chestertown Maryland to do the first update in Maryland on a 1936 soil survey. I was now going to be pretty much on my own and again I had a great State Soil Scientist (Bob Shields) and a great area soil scientist (Dick Hall) to show and help me. The field staff in Chestertown was really special. The D.C. (Ralph "Buggsy" Timmons) was a ball of energy who would get me permission to get access to any farm in the county, in one minute or less, with a phone call; all I had to do was point to the area I wanted to go. I ended up learning the whole process of soil survey from start to finish in Kent County Maryland and had summer students from U of Maryland come to help me. The trick here was learning how to walk through 8 foot tall corn for 7.5 hours a day and scratch your arms all night. We had a student who was very allergic to the corn pollen and swelled up all over, every one else just itched all over. We also mapped the tidal marshes because a grad student who had just completed his research came and mapped with us one summer. Who ever thought that not only the marshes, but the soils beneath them were so different.

My next version of being in the right place was being offered a project leader job in Bedford Pennsylvania in 1978. I lived in a room for about a year for 25 dollars a week and went back to Bethesda on weekends. I finally brought a log house in 1979 which I guess was my version of city boy going country. I was in Bedford about two years by myself and progress seemed so slow. A lot of the county had been mapped but it was of unknown quality according to the Pennsylvania state office. They wanted me to decide whether to keep or redo it. Turned out it was not consistently right or wrong and I never could figure out why or where so eventually the whole county was mapped. I loved the new adventures of mapping in Bedford. There were many "Pennsylvania biases" for me to delve into to see if they were true or false. The geology was so varied that every day brought new things to see and learn and the farmers were so kind they really taught me a lot about how and why they do things. It was the variety of land and uses that was so great in Bedford, wooded remote mountains and farmed valleys. Poor farms and rich farms, rural people and urban transplants. What a mix? Another nice benefit was the Bedford Springs, where for \$300 I could play all the golf I could, could swim in the pool after a dirty day at work and play on clay tennis courts, becoming friends with the assistant pro with access to the golf carts didn't hurt either. It was in Bedford that I met my wife on a blind date set up by Dennis Beal's wife. When I finally got a staff in Bedford we started to make big chunks of progress, Ned Ellenberger was a great mapper; I just had to point to the map and let him go, and John Hudak was an eager young grad student from Penn State willing to learn and try anything. Sharon Waltman learned mapping in Bedford as a summer soil scientist. I remember one cooperative sampling trip I arranged in Bedford, we always had great cooperation from Penn State University and got to work with a lot of the people doing research during these trips. The trip was to study and sample colluvial soils on the ridge sideslopes, my field work had indicted there was more to them in Bedford than what had always been mapped Laidig. Well on this trip I picked out 4 or 5 areas on different mountain sides where we could get access with a

backhoe. What I didn't know was that the game commission found the same thing, at least as far as the access goes, they had made a pit to bury the road kill deer a few hundred feet up wind from where I had our soils pit dug and by the time we sampled on a hot September day the smell at the pit was unbearable. We did find out some new things about colluvium though, that it was all different!

Opportunity called from Maryland in 1982 as an area soil scientist job in Easton became vacant. I was ready to try something new and although it was a lateral I wanted the experience and it was not too far from home. This was the job I felt really rounded out my knowledge. I finally really got to see how and why people use soil surveys, the problems they had and the solutions they needed. The things they understood and didn't understand. What they wanted and what didn't matter. I also got to evaluate the mapping that was done and how it worked or didn't work. Finally, I got to work on "research" projects and learn a lot of new technology such as subsurface irrigation, waste disposal, the effects of drainage and the like. One experience I particularly remember was we were remapping a watershed where a large drainage project was being planned. There were a lot of "pothole" depressions on all the farms. After mapping one farm, I got into a lengthy discussion with the farmer about one pothole in particular and he said "Oh! My father filled in hundreds of those with a bulldozer back in the 40's." I had had no idea, it showed me how little I really did know and how important it was to talk to the people who knew. I also got my first try at computers here. We had an Osborne "portable" that weighed about 100 pounds which was in a suitcase that was bigger than what I would have needed for a two week vacation. The operating system was CP/M, talk about obsolete technology for the government! Dave Yost was the state soil scientist, who was very technically based. I remember we once gave a training session and all the SCS people could remember some years after was the "discussion" (they called it an argument!) Dave and I had had on whether the soil was fine-silty or fine-loamy. This taught me another lesson, that people probably don't care about our scientific exercises, only the bottom line on how it effects what they need to know.

After a few years I became an Assistant State Soil Scientist back where I started in College Park, commuting an hour and a half each way in traffic each day. I worked on the original FOCUS computer equipment and the soil survey database for a CAMPS pilot. This was because I had taken some computer programming (BASIC) at a community college at night to learn something new. I remember taking our daughter Amy to the college to play on the first Macintosh's, they were neat. Berman Hudson was the state soil scientist at the time, and again I was fortunate to work for a very innovative thinker and a real gentleman.

In 1988, I applied for and got the job of Soil Correlator in Pennsylvania. The state office staff had been pretty slim for a few years but it was a nice place to work. I was thrown right into the acid rain work with EPA and traveled all over doing the correlation and quality checks and helping the project leaders if I could. The acid rain project was one of those things you think is such a pain while doing it but upon looking back think it was a lot of fun. I remember the time the EPA team tried to get to fill in a two meter hole we had hand dug for sampling because they were not sure if it had a fragipan and trying to get the backhoe into places you wouldn't take an ATV so we wouldn't have to hand dig another pit. What a great job all our field soil scientists did in the mapping and sampling of so many soils around the whole state. It gave me a good look at the kinds of soils in Pennsylvania. George Martin was the Assistant State Soil Scientist and a

real friend. He found me a free place to live, while my family was still in Easton. Garland Lipscomb was always great to work for. He let everyone have all the responsibility they wanted and let us do our jobs, yet he was always there to help and support in any way he could. Another gentleman who treated every one with dignity and respect. When George retired, I was left to do both database work and correlations. I knew I had to give more responsibilities to project leaders and they kept stepping up their knowledge and work. We were fortunate that the project leaders were quick learners and hard workers. The bottom for Garland was the Union County lawsuit on the USPCI farm. He really felt discouraged by all the work it involved and the lack of support he felt he got from above. We all learned a lot in the process. I knew Garland would take the buyout and retire, but had no idea of the course of events that occurred after, when State Conservationist, Dick Duncan decided he would be the "State Soil Scientist". A couple of years later, I felt extremely lucky to wind up as the State Soil Scientist after the SCS reorganization. It was a goal I had had my whole career. Now I am not as sure as I used to be that a "State Soil Scientist" was the right thing to shoot for. Many days I long for the thrill, discovery, and "relaxation" that field mapping brought. Now I feel that I could do field mapping the way it should be done. I also understand why some great soil scientists decide to spend their whole careers in the field and I admire them for the decision. I also know the challenges I have working in a state that at one time had one of the best soil survey programs in the nation and where the demand and use of soil survey is probably as high as anywhere in the country. But I do come to work every day knowing I will be challenged to my fullest and hopefully go home feeling I've accomplished something that will help Pennsylvania and its citizens.

CHAPTER 37

by

Gerald D. (Jerry) Yoder^{1,2}

I first went to work for the SCS in 1938. The Agronomy Department wrote to me saying that I could work with Sam Bacon mapping in Crawford County. I would meet Bacon at Professor Higbee's office and travel to Meadville with him.

I worked with Mr. Bacon in Crawford County until the middle of October, 1938. I then registered late for the 1938-1939 term at Penn State. I graduated in the spring of 1939.

We used topographic maps to map on and also used a plane table and tripod. We used an auger to check the soil. We only had one vehicle, so we had a prearranged point where we would meet come evening after mapping. Bacon usually had the truck. We finished the fieldwork in Crawford County in 1939 and then moved to Union County in the fall of 1939. After that I worked for Professor Higbee at four state institutions in the fall of 1940.

I then worked for FHA located in Norristown, and Martha and I purchased the farm in 1955. We farmed until 1966 when I went back to work for the SCS in Huntingdon County. I mapped in Huntingdon, Blair, Mifflin and Juniata Counties. I then moved to Union County to work with Jake Eckenrode and Paul Parrish to complete the second generation soil survey that was published in 1985. Having worked on the first survey in the late thirties, I was glad to work on the second survey.

I retired in 1978 and enjoy working on the farm here in McVeytown with my wife Martha. I am an avid steam engine enthusiast and have built a small operating steam traction engine and also a small-scale model.

¹ SCS (NRCS) Retired Soil Scientist.

² Information gathered by Jake Eckenrode.

CHAPTER 38

by

John Zarichansky¹

I had been employed by the SCS as a Soil Scientist for over 30 years. My service began in 1954 when I was assigned to the Brookville field office in Jefferson County, PA. At that time, there were only a few soil scientists in the state, and they were widely distributed. Their primary function was to assist farm planners, and on occasion, work with cooperating agencies in problem soil areas. Because most of the money allocated to the state was directed to conservation and erosion problems, soil surveys were side-lined.

Although assistance could be requested by nearly anyone, and agencies could and have asked for our technical knowledge in woodland, wildlife, recreation, engineering, crops, and animal farming. More homes were being built and developers were taught to adhere to regulations regarding on-site sewage disposal systems and certain other building codes. All of this led to the need for more information about the soils. Block mapping and the need for published soil survey reports as well as extensive studies of the nature and properties of soils became a necessity.

In Brookville, I had worked on conservation places and installation of practices. I also made tree studies to check growth on various soil types, height, diameter, species, and recorded all conditions that might affect growth and quality of timber trees. This was done in lots of 6 to 12 trees of similar species, height, aspect, and any other growth factors. Test lots were recorded and compared for various soils for quality growth sites.

Another project that had occupied a great deal of my time was the Conservation Needs Inventory. As part of the National Inventory, the state of Pa was required to determine the number of acres of available land and their capabilities to produce. Cropland, woodland, pastureland, and idle land were listed as well as soil type, slope, and erosion. This could be projected to show future sources of food and other products.

I also assisted in the soil survey of Montgomery County before I moved to Lackawanna to begin the survey where several requests were being made. Wayne County personnel requested soil surveys and training that would help in conservation planning. In Wyoming County, some monetary assistance was offered to soil map Eaton Township for community planning.

Because there was no permanent personnel in Carlisle at the time, I was transferred to fill the position and to begin the soil survey. Until a conservationist had been assigned, I worked on conservation planning, construction, and soil surveys. Soil Surveys and soil information were in demand and developers, community planners, and individual homeowners were anxious to

¹ USDA-NRCS Retired Soil Scientist.

receive this information to satisfy code requirements. I also assisted the personnel in Lancaster County, making soils maps and gathering soils information for the soil survey report.

I began continuous block mapping in Cumberland County. Perry County also requested similar needs for soils information. Eventually the counties of Cumberland and Perry were combined for soil survey purposes. They were mapped and published as one report to be used as a beneficial aid to conserve our soils and natural resources. I retired in Cumberland County.