Cordrey Era, 1914-1950

Historical Context

This section is named after Everett E. Cordrey, who "During the 36 years of Everett's tenure there the college grew from a two-year teacher-training institution to an accredited four-year liberal arts college" (p. 9, *Everett E. Cordrey: A Professor's Story*, by Louise Cordrey McCue). E. E. Cordrey served as a faculty member and then eventually head of the science department and dean of instruction, first at Arkansas State Normal School and then Arkansas State Teachers College.



1915 Scroll picture of E. E. Cordrey, along with a brief biographical sketch.

The culture in Conway in the early 1900s was indicative of a small town in the South during that time period (Worley, p. 48):

"Conway itself was a country town, and the Normal was a mile away from town. The mores of the community were still rural and puritan. Dancing was forbidden by city ordinance, dramas were thought risqué and movies were tolerated only if a lesson were taught. Smoking on the campus was taboo, and this included professors. Campus card games were strictly under cover. Soda fountains were frowned upon. Loud colors in clothing and low cut shoes were associated with wickedness."

Worley, p. 52, describes blue laws that, surprisingly, prohibited soft drinks and fruit on Sundays:

"In fact Conway had become one of the most conservative and strait-laced towns in Arkansas <u>because</u> of the colleges. In the drive in the 1880's and 1890's to outlaw liquor sales, pool halls, and public dancing, the standard argument for the movement was the presence in the town of young and impressionable students. In 1919, a city ordinance forbade billiards within three miles of the State Normal, Hendrix, and Central Baptist College....some of the ASTC faculty supported Mayor J.C. Dawson's drive for the enforcement of blue laws. The mayor ordered prohibition of the sale of soft drinks, cigars, and fruit by any store restaurant, or other place of business in the city, on Sundays."

In the October 9, 2011 article in the *Log Cabin Democrat* entitled "A Look at Ida Waldran, the Woman and the Auditorium" by Jimmy Bryant, the initial purpose of the Ida Waldran Auditorium located in the fourth building on campus, Old Main, constructed in 1919, was for religious purposes: "When the auditorium was given its name, chapel exercises were held on campus once a week under the direction of a pastor of a local church; therefore the word 'chapel' reflected the primary purpose of the auditorium at the time. It is not known exactly when Ida Waldran Memorial Chapel became Ida Waldran Auditorium, or if it ever did, officially."

H. L. Minton (p. 29), commented on the practice during the early days of ASNS of keeping the sexes separate, as he refers to a picture taken in front of the original building on campus: "You see him standing on the walk in front of the building and you see a group of girls on the steps behind him. At the second entrance in front of him is a group of boys. The use of these entrances is clearly indicative of the policy of separation of the sexes. This separation was no accident. The custom of the time dictated that the sexes be kept pretty well

separated in public places, except in family and closely related groups....The south side was assigned to the girls, the north side to the boys."

A story written by Louise Cordrey about her father, E. E. Cordrey, also helps to demonstrate the societal context of this time period: "Drinking was forbidden on campus, and anyone caught imbibing was either severely reprimanded or expelled. Everett [Cordrey] did not disapprove of this rule, but he understood young people and the complexities of growing up, as illustrated by this story which came to light many years after he left Conway. One night, walking across campus after working late, he happened to see one of his students lying on the ground under a tree in a drunken stupor. He knew that if he reported the young man's state, the college would take action against him, and a promising student's college days quite probably would be terminated. Instead of informing the authorities, Everett went to the men's dormitory, called out a student he knew well, and asked him to get the drunken fellow back to his room before he was discovered, thereby preserving the reputation and quite possible the future career of this young man." (p. 13, L. Cordrey)



Picture of E. E. Cordrey and Winthrop Rockefeller

Interestingly, Louise Cordrey wrote about her father, Everett, whose mom died when he was 16 years old: "a tragic loss for a family that now numbered seven children. Her dying request of Everett was that he never play cards and never dance. He never did either." (pp. 4-5, L. Cordrey)

This time period included turbulent times for the Normal and ASTC, surviving World War I, an attack on higher education in the 1920s, the Great Depression, and World War II, as described in the following sections. Burr Walter Torreyson, president from 1917-1930, oversaw a considerable expansion of the college, including a name change from Arkansas State Normal School to Arkansas State Teachers College in 1925, an increase in faculty from 20 to 50 faculty members, a move from a two-year to a four-year college (p. 39, Bryant), regional accreditation, and the building of a new training school and library (Bryant, p. 40, Worley, p. 174). Cordrey, during an oral interview by Minton, commented on the changing mission of the institution during his time here, from 1914-1950. He stated that initially "the primary purpose of the college was the training of teachers, for teaching." Over these several decades, however, "the demand for doctors, nurses, engineers, and even lawyers began to be felt." Also, in terms of degrees required for graduates to be teachers, there was a change from a two-year to a four-year degree: "In the State of Arkansas it grew from the time when a teacher was certified with two years of college work. It finally came to the present level where a Bachelor's Degree or the equivalent of a Bachelor's Degree was required for the certification of a teacher." Given these demands, the institution transitioned to offering more four-year degrees during this time period.

World War I

As noted by Bryant, p. 31, "Enrollment suffered because of World War I during Torreyson's first two years a president. The enrollment for the fall of 1916 was 441 students. After the United States declared war on Germany in April of 1917, male students began leaving campus. In the fall of 1917, only 328 students were enrolled and the fall of 1918 saw enrollment drop to its lowest point of World War I, with 302 students taking classes. In the spring of 1917, 200 men were enrolled. In the spring of 1918, only twelve men were enrolled in classes." Bryant ("World War I and Its Impact on UCA," *Log Cabin Democrat*) stated that the "female students and female faculty members were also doing their part in the war effort by being involved in many areas that directly benefited the fighting man in the field. In addition to supporting the war financially by buying Liberty Bonds, they served in the American Red Cross and participated in the process of registering women for war work." Bryant notes that UCA faculty members also joined the armed forces: Guy Dan Estes, D. D. McBrien, J. C. Cook, and Heber McAlister. Bryant also wrote that "When the United States entered World War I in 1917, the faculty, staff, and student body of the University of Central Arkansas (UCA) received virtually all of its updates on the war from newspapers. There was no television, internet, radio (UCA acquired its first radio in 1922) or cell phones. There were only two traditional land-line telephones on campus."

Early in Cordrey's time at ASNS, in 1917, an external financial audit was conducted on the Doyne administration and was thought to be politically motivated. Although the only problem found in the end was attributed to "poor bookkeeping," Doyne submitted his resignation after 10 years as president. The board of trustees, however, did not elect J. G. Cubage, the governor's preferred candidate, but instead Burr Walter Torreyson ("UCA Archives: First President Involved in Controversy" August 7, 2011 *The Log Cabin Democrat*).

1920s: Attack on Education

During the 1920s, there was a nation-wide attack on colleges and universities as places of "irreligion" as noted by Worley, pp. 50-52:

"The 1920's were difficult years for state colleges. Charges that state institutions were centers of irreligion, infidelity, and evolution-teaching were nation wide....The attack on state schools reached a climax in 1927-1928. The movement of an anti-evolution law was largely responsible. The 1927 legislature passed an anti-evolution measure, but the senate defeated it. In the following year the people, by a 45,000 majority, initiated an anti-evolution law prohibiting the teaching in state-supported schools that man descended or ascended from a lower order of animals....The attorney of Arkansas, Hal L. Norwood, pointed out that there was nothing in the initiated act to prohibit teaching that man descended from lower orders of men. The hint was sufficient. No books were burned."

E. E. Cordrey's daughter, Louise, eloquently described her father's ideas regarding religion and science in the following statements (p. 14):

"As a young man Everett rejected the traditional beliefs of his parents, but he remained a religious man throughout his life....He questioned the Biblical stories of creation, the existence of hell, and the gospel truth of numerous Old Testament tales. He found it impossible to reconcile Biblical literature with the principles of logic and science he was discovering in the classroom and the laboratory. Gradually he developed a philosophy of life based on the moral precepts of great literature, including the Bible, but not on Biblical revelations alone."

Cordrey was very interested in philosophy and religion and helped the campus work through a difficult time during the 1920s when the theory of evolution was under considerable attack. Cordrey's views were moderating, attempting to strike a balance between science and religion via maintaining that science is not irreligious. At one point he taught a Sunday School class for college age students based on his views of religion. In fact, the 1920 *Scroll* had the following quote beneath his picture: "But a! be that he was a philosophre." The notes prepared for this class are in the UCA Archives.

Louise Cordrey (p. 15) quoted her father's compelling case for both the existence of God and the process of evolution:

"It seems then that we may think of God in the infinitesimal world beneath us, in the smallest grass blade at our feet, in the hearts and minds of people, in the lights of the stars overhead – wherever there is light or power or beauty or joy, wherever there is suffering or struggle, defeat or victory, there is God....We hear much talk about the doctrine of evolution as being irreligious. Is it irreligious to enlarge this sphere of God's power and work from a narrow and circumscribed earth to a boundless universe? Is it irreligious to extend the time of his creative activity from six days to ages without end? Is it irreligious to transform our thought of a creator from that of a powerful mechanic or father, operating in one limited sphere, to that of a divine spirit giving life to his children and his world everywhere?"

H. L. Minton, in a 1967 interview (p. 117), noted that Cordrey resisted faculty members being told what kind of subject matter they should be teaching in their courses: "Cordrey was strong against imposing any limitation like that on anybody. If all the known facts that we have indicate a certain trend, he argued let that be the basis of judgment. As a scientist he was against prejudicial judgment of any kind. To him it doesn't matter whether the results of research come out the way you want them to or not, one should not be biased he insisted, in the outcome of research."

President Torreyson also demonstrated intellectual courage and integrity by helping the college survive the attacks on education in the 1920s, as noted by Worley, p. 175: "President Torreyson, an elder in the Conway First Presbyterian Church and a man of unchallenged character and morality, was not a fundamentalist in religion. It would have been easy and popular to capitulate. Instead he defended the American right of difference of opinion and the principle of separation of church and state. He encouraged faculty to weather the storm of intolerance." Burdick (p. 81) noted that Torreyson was "able to keep the school free of the turbulent politics and rampant bigotry of the 1920's...."



1923 science class. The debate over whether to teach the theory of evolution in science classes was raging during this time period.

Cordrey's preferred administrative style became obvious during an oral interview of Cordrey conducted on May 4, 1970, by H. L. Minton. Cordrey commented on the presidents during his time at this institution. For example, he credited our first president, J. J. Doyne, with being a "gentleman of the Old South" and that he "stressed religion and morality" and that he was "easy to work with." However, Cordrey pointed to a weakness of Doyne's, which was that he lacked the "ability to delegate authority. Of course, this meant that the phases of the college work in which he was not proficient or for which he had insufficient time, were not taken care of." Conversely, Cordrey praised Torreyson not only for his "wonderful personality that drew people to him," but that his "chief strength perhaps lay in his ability to select people to do things and the delegation of authority to those people."

From all accounts President Torreyson was the most well-liked and effective of the presidents in UCA's history. As noted Minton, pp. 109-110: "His personal qualities were as outstanding as professional. He was a great storyteller and had a great sense of humor. He frequently walked around the campus and through the halls of the buildings speaking to faculty and students in a humorous or witty tone. His stories were invariably drawn from his personal experience and spiked with humor." Minton tells one story that exhibits this aspect of President Torreyson (p. 111): "Mr. Harrin was known to be slow in coming to any kind of decision and Mr. Torreyson, somewhat impatient with the progress of the conference when he heard Mr. Harrin inject the statement 'on the other hand.' Mr Torreyson looked at the writer and said 'Damn that other hand.'" President Torreyson also was "a great outdoor lover – a great hunter and fisherman – and often went on long trips in pursuit of these sports" as noted by Minton, p. 111.



Burr Walter Torreyson, second president of ASNS/ASTC, 1917-1930, by many accounts the most well-liked and effective president in UCA history.

In Minton's *History of UCA*, p. 121, he tells a remarkable story about how Minton, a science major, came to be the founding chair of the Department of Geography at ASTC, via the direction of President Torreyson:

"A good example of such attitude was shown the writer in the early spring of 1925 after the writer had completed his bachelor's degree in 1924. President

Torreyson called him to his office and in his typically witty manner said: 'Minton we have decided to give you a promotion and make you head of a new department upon completion of your Master's degree. We can give you a department of Physics or a department of Geography. Which had you rather have?' The writer replied sincerely: 'President Torreyson, this is easy. I have a major in Physical Science, am teaching it now and love it. As you know, I came here as an assistant in the Science department. I have had no geography, even at the high school level, although I am teaching a non-credit review course in the subject now. I would rather have the department of Physics.' He smiled and said: 'No, you would rather have Geography. You are going to the Peabody this summer to study Geography and come back in the fall and start a department of Geography here. The demand for training [in Geography] has grown to such an extent that we must do something about it."

Torreyson and his administration and faculty were responsible for elevating the status of the ASNS from that of a two-year teacher preparation institution to a fully-accredited four-year college. Minton (p. 125) notes that "The college tried three times (1926-28-30) to be admitted [to NCA] but was turned down, even though it had been inspected each time by a committee of the association and had been told what deficiencies existed, the most serious being the library. The removal of this deficiency in 1930 opened the way for admission in 1931." One of the major reasons why it took so long for ASTC to get regional accreditation is because of the presence of remedial, developmental, transitional, or whatever you want to call high-school-level work offered on a college campus. Minton (p. 136) wrote: "At the beginning of the Torreyson administration, there were 172 courses listed in the catalog, including high school and non-credit courses. At the close of the administration the offering of high school and non-credit courses had been dropped and the number of college courses had grown to 344." It is ironic that now in 2016, there is a push for concurrent enrollment, which is a blurring of the distinction between high school and college, the very thing that prevented us from being regionally accredited in the first place!

Minton tells another good story about Torreyson (p. 116): "The writer well remembers hearing him say 'Shut off the radiators and keep the windows

closed. We can't afford to heat up the elements.' He often walked through the halls in winter and checked vacant classrooms for burning lights and open windows."

Torreyson had high blood pressure during the summer of 1929 and took a leave of absence during the 1929-1930 academic year. During the summer of 1930, he had a stroke and resigned his presidency. As noted by Minton (p. 156): "The building [library] was completed in the summer of 1930 but in the meantime President Torreyson had suffered a stroke and had resigned as President. He was present at the dedication ceremony of the building at which time the Board paid a fine tribute to him and named the building in his honor. The writer was present at this ceremony and well remembers the tremendous ovation given him and the joyous look on his face though his affliction had seriously impeded his speech so that he could not make a verbal response."

Great Depression

Minton (p. 183) also noted that each president endured major world events: "Torreyson's administration covered a period of rising national economy of the 20's following World War I. McAlister's administration covered a period of declining economy of the 30's brought about by the worst economic depression on record. In fact the accomplishment of the McAlister faculty was highly commendable in the face of the environmental conditions of the time."

Torreyson and McAlister had an interesting history together as noted by Minton (p. 169): "The organization of these study-club, or extension classes, required a great deal of travel by the Director [McAlister]. McAlister was a good driver and drove Dodge cars with which he became familiar by assignment in World War I. Torreyson, on the other hand, did not own a car and never learned to drive. McAlister, therefore, became Torreyson's chauffeur for driving to and from off-campus meetings, especially to Board Meetings which were commonly held in Little Rock."

Worley, p. 83, described the conditions prior to the Great Depression as follows:

"Arkansas State Teachers College entered the decade of the Great Depression with low salaries, an inadequate plant, a debt for the library building, and a habit of asking the legislature for a supplementary appropriation to enable the school to continue operation at all. Every building except the new Torreyson Library, which itself was unfinished, was badly in need of repair. The administration building needed a new roof. Practically no laboratory equipment had been bought in the preceding ten years."

Financial conditions for the college during the Great Depression are described by Worley (p. 83): During "the summer of 1931, all state salaries were cut ten percent. Another ten percent cut for the ASTC faculty came the following spring." During the 1935-1936 school year, salary "was in warrants, not cash. In effect a faculty member worked a month in order to acquire collateral for a loan at the bank, where the warrants were discounted....For a five year period salaries were never paid in full" (Worley, p. 87). Clearly, money was tight on campus during the 1930s and even the school's annual, *The Scroll*, was not published in 1933 due to a lack of funds (Bryant, p. 56).

The commitment on behalf of the faculty at ASTC during this time can be seen in the following action: "Early in 1933 the Bank of Conway closed, freezing ASTC's cash funds of about \$15,000. A general faculty meeting was called, and however poor the professors felt they found themselves better off than ASTC. The faculty agreed to turn back a part of its salary to establish a small cash fund so that the college could meets it smallest and most urgent expenditures" (Worley, p. 87). In a 1970 interview of E. E. Cordrey, by H. L. Minton, Cordrey addressed one reason for quality academics at UCA: "I think there is an attitude on the part of the faculty that is difficult to describe or assign a cause for, but on the staff of the college at Conway it seemed to me that there was always a dedication to purpose that was not found on every other college campus about which I knew. The value of such dedication cannot be expressed in words and that I think is very important as far as things that has helped this college grow and become a great institution." Cordrey commented on the commitment of the faculty in the early 1900s. He stated that "the college has been consistently fortunate during the years in having a faculty that would work together. Now this doesn't mean that there wasn't difference of opinion

often. Differences of opinion promotes thought and healthy discussion, we had those....we had our differences...but we were always able to work together and I really believe that over ninety-five percent of the faculty were always more interested in the welfare of the school than in their own individual ideas, especially if those ideas should happen to be in conflict with the interest of the school."

Ironically, the physical plant expanded on campus under the leadership of President McAlister, using primarily federal dollars designed to get the country out of economic depression; described by Jimmy Bryant's 2011 article in *The Log Cabin Democrat* on the topic of the Ida Waldran Auditorium:

"Ida Waldran Auditorium was built during the Great Depression and was a product of the Public Works Administration (PWA). It was part of the largest PWA project on campus that included the Prince Center, president's home, Meadors Hall, Ida Waldran Auditorium and the renovation of the E. E. Cordrey Science Building. The total cost for the four new buildings and the renovation of the Cordrey Science Building was \$445,000."

H. L. Minton (pp. 240-241) commented on a concern from the faculty regarding the massive physical plant expansion under President McAlister, or "Mac the Builder" as he was sometimes called: "As a result of such concern, a committee was chosen by the faculty to call upon President McAlister to protest the jeopardy to which the amount of plant expansion had placed upon the faculty in regard to salaries. The committee was composed of Cordrey, Harrin, McBrien, Meadors, and the writer - with the writer serving as Chairman. The committee called upon the President at his home, at night, and presented the story on behalf of the faculty. His response was, "In other words, you don't like what I'm doing." Then followed a discussion of why they were concerned and the response was that there was no need to be concerned, because the stipulated sources of income were fully adequate to cover all payments on the bonded indebtedness. The committee was not satisfied. It knew that student fees had nearly all been raised as a safeguard against a possible default but if such default were not possible then why was every legal source of income of the College required to be pledged to prevent

such a possibility? The committee agreed after the meeting that its efforts were a failure, and it is the judgment of the writer that even the threat of resignation by the committee would not have changed the result."

World War II

ASTC's president from 1930-1941, Heber L. McAlister, left his post as president to serve in World War II, and recommended his successor, Nolan M. Irby, to the board of trustees. The board approved and Nolen M. Irby began as president in 1941, remaining in the position for 12 years. (Bryant, pp. 58, 62). Regarding McAlister, in an interview Cordrey (p. 5) commented that McAlister was an "astute politician" who "could switch sides instantly, and just about as instantly establish cordial relationships with those people with whom he had been opposed to." Cordrey offered the following example (p. 5):

"To illustrate what I mean by his ability to adjust to different situations, during the primary campaign when Mr. Laney was made governor, Mr. Mac supported one of Laney's opponents, the fact is he managed his campaign for him. Then, after this man was defeated, then Mr. McAlister became Laney's campaign manager in the run-off primary."

Jewel Moore, in an April 7, 1983 interview, commented on one quirk of President Irby: "I remember one thing about him, sort of curious. He wanted to see how the faculty was doing as far as the teaching in the classrooms was concerned. I remember that on campus there were some solid doors to the classrooms, and maintenance went around and put some little windows in the doors: you know, glass windows. We were curious about that. But it was found out that Dr. Irby had ordered that so that as he went down the hall he'd sort of glance in and see what the class was doing."

Cordrey (p. 5) commented on McAlister's successor, Irby, by saying that there was "no abrupt change" and that Irby "was not prompted by any particular interest that he had in our phase of the educational process but was prompted more by what was or seemed to be the demand on the outside." And, in 1941, that demand was World War II.



1940 picture of two students taken in the Science Building, just prior to the United States entering World War II in 1941.

World War II had a similar impact to that of World War I, as noted by Bryant, p. 67: "In the school year 1940-1941, 764 students were enrolled in classes. During the 1941-1942 school year, 500 students were officially enrolled, and by the 1943-1944 school term only 289 students were taking classes, and only forty-nine of those were men." The entire campus contributed to the war effort. For example, during World War II, students participated in a scrap metal drive to support the war effort (p. 66). Another example was that Cordrey offered "defense courses" through the "extension service of the University of Arkansas, sponsored by the defense training school of the United States Office of Education. These classes met three evenings per week and were open to persons taught from ages eighteen to fifty" (Worley, p. 107). Bryant (p. 69) notes that there were 46 alumni killed during World War II and that later, "an oak tree was planted for each of those killed. These stately oak trees still line Donaghey Avenue and stand in front of Wingo, McCastlain, and Bernard Halls."

After World War II, the ASTC experienced a tremendous increase in enrollment with the return of veterans with financial support via the G.I. Bill. Bryant (pp. 69-70) states that ASTC "saw its enrollment soar from 471 in September 1945 to 1,400 in 1947. As noted by Burdick: "Suddenly, with peace came a five-fold jump in enrollments, a flood too great to permit anything but emergency staffing and the simple multiplication of offerings." Burdick (p. 17) also noted that "A sudden crush of veterans enrolling under the G. I. Bill brought an older than average group of students, many of whom were seeking to improve their chances in careers other than teaching. Simultaneously, when the public schools began to receive the first of the postwar babies, the demand for teachers placed the graduates of teacher education curricula in an enviable seller's market." Housing quickly became an issue, with Wingo Hall being the only designated housing for married students (Worley, p. 110). One veteran referred to the new housing, which included trailers and pre-fabricated homes and even worse "hutments" as "G.I. Jungles" (Worley, p. 110), including "Cornertown" at the corner of Bruce and Donaghey, between Bernard and Baridon Halls. Classroom space was limited as well, such as a "temporary building in the low ground west of the Ben T. Laney Building used for training school purposes while the new training school was erected. So great was the need for classroom space that the temporary building called Old Training School (OTS on Schedules) had to be used for college classes" (Worley, p. 111).



1949 picture of Veterans Corner Town, on the northwest corner of the intersection of Donaghey and Bruce. Housing was a major concern for students (and their families) who were veterans of World War II.

Jewel Moore was hired as a faculty member in biology at ASTC in 1947. In a 1983 interview, Jewel noted that in 1947 the biology department consisted of the department head, Charles V. Robinette, and Jewel Moore. "Well, the reason I was hired was because the campus had an influx of students: a large number of veterans who were returning to campus to finish their education." Jewel noted that by 1948, they also had hired Thomas J. Burgess in order to handle the increased student demand.

Cordrey, in a 1970 interview, p. 5, described the impact on chemistry offerings:

"Well, after the War was over there was soon an influx of returning G.I.'s coming in from training and that produced a very abrupt increase in our enrollment. To illustrate, we had been having two beginning sections of elementary chemistry, they would probably run from fifteen to twenty-five each. In the first year after the G.I.'s started coming back, the fall semester we enrolled over 225 students in general chemistry. This almost startled the administration, something had to be done. Well, we decided that I would handle three sections of general chemistry, each one averaging between seventy and seventy-five students. I would handle these by the lecture method and then we would have small laboratory classes averaging about twenty-five to a section. This was made possible by having the laboratory for general chemistry in continuous use during all regular laboratory periods and all Saturday mornings and sometimes part of Saturday afternoon."

Since there was no way that Cordrey could teach all of the chemistry lab sections, student laboratory assistants were asked to teach the entire laboratory. Dr. Mary Good (then Mary Lowe) was a teaching assistant during her time here in the late 1940s. Dr. Good noted in a personal interview: "And the labs were taught by students, I taught labs from my second year on and got seven dollars and fifty cents a semester...and that was per class...and I taught two, so that was 15 dollars. But you know 15 dollars in those days went a long, long way. But I taught chemistry labs and physics labs and one summer, I taught astronomy....and I didn't know a thing in God's world about astronomy. And they had to offer it in the summer to teachers and they didn't have anybody to teach it."



1950 picture of Mary Lowe (later Mary Good), 1950 Chemistry Alumnus.

Worley (pp. 111-112) pointed out that the returning veterans had an impact on ASTC beyond mere number of students: "The additions of hundreds of veterans, many of them with wives and children, changed the appearance, the atmosphere, and to some extent the character of the college. The veterans were on the average, older than previous student bodies. The typical veteran was characterized by a maturity and seriousness beyond the non-veteran. On the average the veteran made better grades....History and geography, economics and sociology and psychology were enlivened by the attitudes and experiences of students who had recently been in contact with other civilizations. Simple answers and shallow knowledge were more likely to be challenged than before. In science the atom bomb was no longer an obscure entity encountered only in textbooks....The idea of college as a preparation for going out into the world had become absurd. The veterans, already old in terms of experience, had been not only out in the world already but had participated in remaking it."

On May 4, 1970, H.L. Minton, who was a student of Cordrey's, interviewed Mr. Cordrey in Pompano Beach, Florida, where he was living after his retirement.

When asked about the use of student assistants in the teaching labs at ASTC, Mr. Cordrey responded:

"Our use of student assistants in the laboratory was brought about first by necessity. We did not have enough funds to employ teachers, highly qualified teachers, to do all of the laboratory work and all of the teaching. So, quite naturally, we turned to student assistants. The results of our experience with student laboratory assistants was gratifying. We would always select students that we thought would give the best service to the members of the class. It turned out that the experience was also quite valuable to the laboratory assistants. It gave them a background from which they could go into higher institutions of learning. And the student who had graduated from our college and who wanted to do graduate work, for example in chemistry or physics, would be much more likely to secure a scholarship or fellowship in some good university if he had this experience as a student assistant. This was especially true in the University of Arkansas. We sent a great many students to the graduate school at the University very much as they had done with us."

In spite of the resources demanded by the second world war, President Irby was able to eliminate a deficit of \$25,000 and leave the presidency with a surplus of \$84,000 (Bryant, p. 70). He also was able to make substantial gains in faculty salaries and benefits during this time period as noted by Minton (p. 280-281): Irby recognized faculty salaries were too low and took action: "...as of March 1, 1944, it was easily possible to give all employees a 25% raise across the board. This schedule continued for nearly three years, or until Feb. 16, 1947, when another raise was authorized for an average of 20.5%....And two years later (1949-50) cash reserves had grown to the point that another raise of 25% across the board, was granted to thirty faculty members and ten others were granted raises from 8% to 41%." Minton (p. 291) also wrote that Irby was able to add group health insurance for faculty members. Irby left office in 1953, citing physical ailments that hampered his ability to do the job.

Quality Teaching, High Academic Standards, and Success of Chemistry Majors in Graduate School

During Cordrey's time here, he emphasized quality teaching and high academic standards, and placed a number of chemistry graduates in graduate school in chemistry, traditions that remain in existence in Chemistry to this day.

"If ever a person was born to be a teacher, it was Everett. He possessed a deep appreciation of learning, an affinity for people who wanted to learn, and a talent for inspiring incipient scholars" (p. 12, L. Cordrey). Also, in a short biography that was part of Ted Worley's unpublished 1954 "A History of the Arkansas State Teachers College," Cordrey was noted for being "eminently successful as a teacher of science with a fine ability for exposition and demonstration. He had an instinct for anticipating student's difficulties in trying to understand the mysteries of molecules and the behavior of atoms. His demonstrations were actually so clearly made in elementary chemistry that the dullest and sleepiest students were likely to learn something, and quite often his humor was a catalyst that dissolved clouds of discouragement. Stubborn and recalcitrant students were quietly allowed to hang themselves or to be caught in webs of their own spinning. Old students enjoyed nothing more than seeing a newcomer initiated into the mysteries of Cordrey humor. It is likely that the basis of Cordrey's success in teaching, in addition to a thorough mastery of the material, was simply a liking for people and a zest for living. The measure of his success has been the achievement of his former students – in teaching science, in medical school, in graduate schools, and in industry."

Louise Cordrey also wrote: "From Walter E. Cole, Department of Chemistry, Vanderbilt University, Nashville, Tennessee, May 17, 1950, to Mary Lowe, president of Phi Sigma Phi, regretting that he could not attend the Phi Sigma Phi meeting at which Everett was retiring as sponsor: 'Mr. Cordrey's interest in those of us who were fortunate enough to be his students went far beyond the call of duty. Mr. Cordrey was more than a teacher and advisor to his students, for he was a highly respected friend. I know personally of many people who have gone more deeply into the field of science as a result of his inspirational teaching. Many teachers of science, doctors and chemists, owe much to this man who taught us our basic principles of chemistry'" (p. 28, L. Cordrey).

Louise Cordrey continued by writing that "He [Cordrey] sponsored the Pre-Med Club, a thriving organization which was started in 1934" (p. 12). "The Science Club, sponsored by Professor E. E. Cordrey, began in 1925. Its purpose was encouragement and promotion of students' interest in science. Under the genial guidance of Professor Cordrey the club took on some of the attributes of a social organization. Members looked forward to the annual overnight picnic at the interesting and spacious Cordrey farm near Cabot. The activities of the club have borne fruit in the form of happy memories as well as in the form of scientists" (p. 66, Worley). In a personal interview, Bob Hankins (1951 chemistry alumnus) noted that Cordrey would regularly have students over to his house and that he would serve hamburgers and fries.

Louise Cordrey continued: "A heart-warming tribute to Everett from Mary L. Good, a chemistry major who graduated in 1950, came to light in 1992.... 'When I went to college, I didn't know exactly what to major in...I actually registered in home economics the first semester...but I ended up in freshman chemistry with a professor who was just fantastic. I enjoyed it immensely and thought I would like to work in chemistry. I changed my major field the first semester. I am reasonably sure it is because of that fellow who taught freshman chemistry. And that 'fellow' was Prof. Cordrey" (p. 29, L. Cordrey).

Worley relayed a story about Cordrey's love for teaching: "Everett Emanuel Cordrey does miss teaching a little, in spite of all the activities which fill his days. He suggested to the writer that it would not be a bad idea for colleges to fix up a 'retired teachers room' where ex-professors could return occasionally and talk to empty chairs; they could do no harm with such lecturing, and they would feel better" (p. Worley, p. 212).

Dr. Mary Lowe (later Mary Good), is a 1950 alumnus of ASTC and the most distinguished of all chemistry alumni from ASTC. After receiving her Ph.D., Dr. Good served in education as a faculty member at Louisiana State University – New Orleans for 25 years. She then worked in industry at Allied Signal rising to the level of senior vice-president of technology. She served in government

under three United States presidents including four years as the undersecretary for technology in the Department of Commerce. She has received a number of awards including the Priestly medal from the American Chemical Society, the highest award given by the association. In 2012, Dr. Good was featured in "The Catalyst Film Series: Women in Chemistry" funded by the Alfred P. Sloan Foundation and created by the Chemical Heritage Foundation." Dr. Good stated in a personal interview that Cordrey had high academic standards: "And not only that but he was a very big believer in not watering the curriculum down. He thought students should be able to do what he put out. And he would help any way he could....You could go and ask him anything and my God some of them asked dumb questions. But he'd hang in there, but he wouldn't give you a grade."

This tradition of quality academics continues to this day, as indicated in an email from Joe Massey (1986 Chemistry alumnus and faculty member at Mississippi State University) to Jerry Manion on November 9, 2012 in which Joe stated that his wife, Karen, while interviewing for Medical Technologist schools, was told that at UCA "a 'C' from UCA was as good as an 'A' from many other schools."

Dr. Mary Good (personal interview) also commented on Cordrey's emphasis on placing alumni in graduate school in chemistry, something that was unique for teacher's college: "But on the other hand, he [Cordrey] was the one who encouraged all of us to go to graduate school. He was probably more responsible for graduate students out of that group than the rest of the faculty put together. And of those, a fair number of us went to graduate school. Cordrey made arrangements for us to go visit. We went to visit the university in Fayetteville and Bob Hankins ended up with the University of Missouri and Cordrey knew somebody up there. The problem was none of us had any money, so it was a question of finding somewhere where he could get us some kind of support. When I was there, Cordrey really wanted to get as many of us to graduate school as he could. And in those days that was not what Arkansas students did."

Dr. Bob Hankins graduated from ASTC in 1951. After leaving ASTC, Bob went to graduate school at the University of Missouri and earned a Ph.D. in Analytical Chemistry. After two years at Oak Ridge National Laboratory, Bob

served as Professor, Chair, Dean, and Provost at McNeese State University in Louisiana. Bob expanded on Mary Good's comment regarding Cordrey's desire to get talented undergraduates from ASTC to attend graduate school. In a personal interview, Bob said that Cordrey would call certain students "into his office" who he thought had the talent, skills, and motivation to attend graduate school in chemistry. Bob was called into Cordrey's office and Cordrey asked him whether he planned to get a Ph.D. in chemistry and Bob said yes. Cordrey said good, and said that he would give Bob a recommendation. Bob also said that if Cordrey recommended someone to Dr. Worthheim at the University of Arkansas, then it was assured that student would get accepted to graduate school there. When it came time for Bob to apply for graduate school, Cordrey had just left and Ed Radley continued Cordrey's emphasis on getting students into graduate school and, when Bob had not heard a response to his application to graduate school at Missouri, Ed Radley in fact drove Bob up to Columbia, Missouri and they tracked down the chair of the department of chemistry and the graduate dean, both of whom were chemists, during their Thanksgiving Break. Ed Radley had connections at Missouri. These two gentlemen took time from their vacation to meet with Bob and Ed and when they returned home, they had an assistantship in hand for Bob.



1951 picture of Bob Hankins, 1951 Chemistry Alumnus.

Faculty



1946 picture of Everett E. Cordrey, Chemistry.

Everett E. Cordrey or E-squared (E²) as his students called him (1914-1950). Cordrey was born in Chamois, Missouri in 1890. He walked the classic "three miles into town each day" for high school (p. 5, L. Cordrey). "Everett was graduated in 1906, valedictorian and president of his class." At his commencement address, the theme was "know thyself"...indicative of his "wide reading of classical literature and his philosophical turn of mind." (p. 5, L. Cordrey). Everett then earned a teaching certificate in the spring of 1907. He began teaching at 17 years old at Flora School in Osage County, Missouri. He then went to the State Normal School in

Warrensburg, MO and earned a two-year degree in 1910. (p. 7, L. Cordrey). In 1912, Cordrey served as a high school science teacher in Hot Springs, Arkansas. Then in 1913, Cordrey taught at Little Rock High School. In 1914, Cordrey began at Arkansas State Normal School. (p. 8, L. Cordrey). During summers, he earned a bachelors and then a masters degree from the University of Chicago, finishing his masters degree in 1925. His thesis was entitled "Conditions Affecting the Reactions involved in the Manufacture of Potassium Permanganate" (L. Cordrey). When asked about Cordrey being "scooped" on his Ph.D., Bob Hankins said it was true, that he "had his Ph.D. but not." Apparently, another research group published the very same work Cordrey was working on while he was at the University of Chicago. Nowadays, if this happened, the graduate student would be redirected, but then, graduate student Cordrey was told that he could not get his Ph.D. at the University of Chicago.

Regardless of this setback on Cordrey's plans for his education, his impact on UCA is remarkable. In 1924 he was named as the Head of the Department of Science that had been unfilled since J. T. Buchholz's resignation. It is likely that Cordrey had served as the *de facto* chair from 1918-1926 since no department heads are listed for that time period. In 1926, heads were named for all departments, a change that may have been associated with the change in the

name of the school to the Arkansas State Teachers College in 1925 as well as regional accreditation. In 1926, the Departments of Biological Sciences, Physical Science and Geography were formed and from that point until his retirement Cordrey was Head of the Department of Physical Science (except for 1930-1935 when Lackey was chair of physical science, Worley, p. 211). His service as Acting Dean during the winter term of 1929-30 indicates that he was being sought for leadership positions. He apparently was respected for gaining support primarily by the formulation of persuasively logical arguments for his viewpoint. The following year (1930-31), Cordrey occupied an additional position as Supervisor of Instruction and had a strong influence on the curriculum for 20 years.

Cordrey was apparently a man of many talents. When money was short during the construction of Old Main, Cordrey did the electrical wiring for the building.

Cordrey had several outside interests that he pursued, including a weather observer, a radio expert, and farming. "From 1916 until 1946, Everett served as Conway's local weather observer for the U.S. Weather Bureau, strictly a volunteer job. Twice a day, morning and evening, he checked temperatures on the two thermometers housed in the white box in our backyard and measured precipitation collected in the rain gauge standing next to the thermometer house" (pp. 9-10, L. Cordrey). "A memorable event in the life of the college occurred on March 4, 1925. Everett installed a radio and loudspeakers on the lawn of the campus outside the science building so students, faculty and townspeople could listen to the inauguration of Calvin Coolidge in Washington, D.C., being broadcast live on 21 radio stations coast to coast. Crowds of people sat and stood on the lawn listening in rapt amazement to something that was happening nearly a thousand miles away. It was a historymaking event for our small town." (p. 21, L. Cordrey).



Cordrey's interest in radio resulted in the on-campus broadcast of the 1925 *inauguration of Calvin Coolidge as president of the United States.*

"It has been mentioned before that the first love of the head of the physical science department is tinkering with radios, but about equal in importance is his love of the farm. Before the holidays are over, he returns a little sunburned but with a happy smile. In the back of his car may be apples, pears, strawberries, corn and other products from the farm, depending on the season of the year....When Everett was teaching, weekend trips to the farm became increasingly important to him as a means of unwinding after five stressful days in the classroom and at his desk as dean of instruction. Miraculously, a political shake-up at the college in 1941 during which many faculty members were fired did not touch Everett. Dealing with the people and problems inevitably associated with his professional life often left him frustrated and weary. Sometimes during these crises he lived on nothing but oatmeal for days on end. Then, when Friday afternoon rolled around, he loaded the car with provisions and equipment and headed for the farm, returning two days later a totally new man" (p. 24, L. Cordrey).



Cordrey loved his farm in Cabot and often invited student groups to the farm. This 1941 picture shows students parking their vehicles for gathering on the Cordrey Farm.



Group of students visiting Cordrey's farm in 1940.



Picture of E. E. Cordrey and his wife, Frances, on the farm in May of 1939.



Picture of Cordrey's home in Conway at 1725 Bruce Street. The Cordreys often invited faculty and students to their home for gatherings. 1951 chemistry alumnus Bob Hankins recalls that Cordrey often would serve hamburgers and fries.

"In late summer of 1950 Everett retired from his career at ASTC. On this occasion, commemorating his years of service to the college, the building in which he had taught for many years – simply referred to as the Science Building – was renamed the E. E. Cordrey Science Building. The naming ceremony, at which Everett and Frances were honored guests, was a memorable event on August 11, 1950" (p. 27, L. Cordrey).

ARKANSAS	STATE TE	ACHERS COLLEGE
	Conway, An	kansas
INVEI	ING	CEREMONY
Unit		
Fr	iday, Augus	st 11, 1950
S	Seven-thirty	O'Clock
F F COP	DREV SCU	ENCE BUILDING
E. E. CON	DREI SCH	ENCE BUILDING
	PROGR	AM
Invocation		Rev. J. W. Hendrickson
Tribute to E. E. Cord	lrey	Mr. Roscoe Cox
Unveiling Ceremony		Mrs. E. E. Cordrey
Presentation of Loan	n Fund	Miss Mary E. Lowe
Response		Mr. E. E. Cordrey

1950 Program for the Unveiling Ceremony and Officially Naming of the E. E. Cordrey Science Building.



1958 picture of the E. E. Cordrey Science Building, named after Cordrey upon his retirement in 1950.

"Forty-two years later, in April 1992, the College Board voted to bring the Cordrey name back to the campus, designating a wing of a modern new dormitory the "Cordrey House." The restoration of Everett's name and that of other beloved college figures whose identities had been lost in time was accomplished through the efforts of alumni and the college administration concerned that vital history was being forgotten" (p. 27, L. Cordrey).

Cordrey's impact can be seen in the 1940 and the 1947 editions of the Scroll. The 1940 edition of the Scroll was dedicated to Cordrey: "To E. E. Cordrey, dean of instruction, professor of chemistry, whose sincere guidance has sent many a young person on the road to success, whose personality and teachings have served as a bond of friendship and inspiration to all, whose qualities of character as a man are unsurpassed, we gratefully and sincerely dedicate this, the Scroll of 1940." Also, the following statement is included in the 1947 Scroll "His integrity, kindness, and willingness to help have won for him an enviable place in the thoughts and hearts of all students."

"Everett grew quite weak and was hospitalized in June of 1983. He died on June 12, 1983, at the age of 93. Burial was in Conway at Oak Grove Cemetery in the Cordrey lot beside mother and Addie Beth." (p. 36, L. Cordrey). Clearly Cordrey was one of the most influential people in the history of UCA and its predecessor institutions.



Mary Margaret Franken (1918-20) Franken taught at ASNS for only two years, but entries into the *Scroll* for the time indicate that she had a vivacious personality and was well liked by students. Her dedication in the 1919-1920 Scroll reads, "Ful wel beloved and familier was she." She was listed as active in a number of campus extracurricular activities. The fact that her name was hand-written into the 1918 bulletin indicates that she was a last-minute replacement for J.T. Buchholz. Franken had received a B.S.

1919 picture of Mary Margaret Franken, Biology.

from the University of Missouri and had done graduate work at Missouri and at the University of Chicago.



1921 picture of Elizabeth A. Jaacks, Biology.

Elizabeth A. Jaacks (1920-21) In the 1920 bulletin the biological sciences teaching slot is listed as "to be supplied." This teaching spot was filled for the 1920-21 academic year by Elizabeth A. Jaacks who held a B.S. degree from Columbia and who, according to the September 22, 1920 *The Normal Echo* "has a wide experience in science work" and who will be a "teacher of general science and biological subjects." In the November 5, 1920 *The Normal Echo*, the following joke is told: Miss Jaacks: Mr. Hanner, do nuts grow on trees? Shap: Yes ma'am.

Miss Jaacks: Then, Mr. Hanner, on what tree does the dough-nut grow?

The 1921 Scroll listed the following quote beneath the picture for Jaacks: "Forward and frolic, glee was there, The will to do, the soul to dare." I. P.

Daniel was hired in 1921 to replace Elizabeth Jaacks as the faculty member in biology.



1922 picture of I. P. Daniels, Biology.

I.P. Daniels (1926-1930) Daniels had received an A.B. degree from Hendrix in 1921 and had done some additional study at the University of Chicago. In 1926, Daniels received an M.S. degree from the University of Chicago and was named head of the Department of Biological Sciences. Beginning with the 1930-31 year, Flora Anderson Haas is identified as Professor and Head of the Department of Biological Sciences.



1922 picture of H. L. Minton, Geography.

Hubert L. Minton (1921-1966) Minton attended ASNS from 1909-1911. After teaching in the public schools for four years, he returned to ASNS and graduated with an L.I. degree in 1916 with a major in science and mathematics (Worley, p. 203). After a tour of duty in the Air Force during World War I, he returned to ASNS in 1921 as an assistant professor of science teaching mostly in the training school and completing his B.A. degree in 1924. Minton's daughter Patsy Minton Newton, in a phone conversation on July 10, 2015, said that her father had an "unassuming" personality and that he was a gifted and dedicated teacher. At the suggestion of President Torreyson, he

studied geography first at Peabody and then at the University of Chicago where he was ultimately awarded a Ph.D. in 1937. He was named as the founding Head of the Department of Geography in 1927, a post that he retained until 1947. Minton continued as Chair of the Extension Division until his retirement in 1966 ("Yesterdays," *Log Cabin Democrat*, May 16, 2004). Denver Prince (personal interview) noted that H. L. Minton's specialty was tornadoes. He also noted that while driving at night, Minton would point out constellations in the sky. He filled a number of administrative positions. He served as principal at the training school for a while and became director of extension in 1937 and director of the department of public relations in 1939. In the 1960's after his retirement from teaching he continued to serve the institution as secretary of the Alumni Association. Minton also served as governor for the Arkansas/Missouri/Kansas section of Kiwanis. Minton wrote an unpublished book of the history of UCA, which has been extremely helpful in writing this book and is available in the UCA Archives.



1948 picture of Charles V. Robinette, Biology.

Charles V. Robinette (1925-58) grew up in Saline County (Benton) and attended Arkansas State Normal graduating in 1924 with a major in science. While at the Normal he was active in debate at a time when it was a major activity on campus. He joined the faculty of the Normal in 1925 and received a masters degree from Peabody in 1926. He taught primarily biological sciences and ultimately succeeded Flora Haas as chair of the Department of Biology in 1945 (Worley, p. 216). He served in this capacity until his retirement in 1958 when he was succeeded by Neal Buffaloe. Jewel Moore, in an

April 7, 1983 interview, stated that when she was hired in 1947 as a result of "a large number of veterans who were returning to campus," Charles V. Robinette and she "were the department" of Biology. Jerry Manion recalls that during his retirement, he and his wife ran a small plant nursery in the back yard of their home at the corner of Mitchell and Martin. Their son, Allen, taught in the physical sciences for several years.



O. N. Lackey (1929-1935) received a B.S. in 1906 from Valparaiso, an M.A. from Duke in 1912, and a Ph.D. from Duke in 1929. After one year as an instructor of science, he served as chair of the department of physical science from 1930 to 1935. Lackey was hired to be chair the same year that Cordrey became dean of instruction.

1935 picture of O. N. Lackey, Chemistry.



1949 picture of William Clarence Ferguson, Physics.

William Clarence Ferguson (1940-54) received a B.A. in Education from ASTC in 1927 and an M.A. from Peabody in 1931. After further graduate work at the University of Chicago and the University of Illinois, he received a Ph.D. in Physics from Peabody in 1939 where upon he immediately joined the faculty at ASTC as an assistant professor of physical science in the area of physics. Ferguson was promoted to Associate Professor of Physical Science in 1942. He was promoted to Professor of Physical Science in 1948. Ferguson became Dean of the College in 1942 following the death of his father-in-law, A. J. Meadors, who was dean up until he

died. According to Minton, p. 279, Meadors knew that he had heart problems and that he would not live much longer such that he arranged, with President Irby, for his son-in-law Ferguson to take the position. As noted by Minton, "Eight days later [after Meadors' death] Ferguson's appointment was announced as Meadors' successor and it caused hardly a ripple of surprise within the faculty."

Ferguson was a deeply religious man which is recognized by the creation of the W. C. Ferguson Memorial Chapel on the campus, a popular spot for marriages, etc. The fact that the chapel was constructed entirely with donations indicated "that Dr. Ferguson was loved by many" as noted in a July

10, 2015 e-mail from Mary Ferguson, who was married to W. C. Ferguson, Jr. According to an interview of Hubert Minton, Nolen Irby, president at the time, had strong opinions on academic matters and insisted that things be done his way. Minton indicates that Ferguson deferred to Irby on most things and conducted academics in a manner that satisfied Dr. Irby. Dr. Ferguson died prematurely of cancer in 1954 at the age of only 54, but continued to work until he was physically unable to do so. Burdick had the following to say about Ferguson's work as dean: "He raised the status of the deanship as much by his qualities of character as by his administrative abilities...the whole of ASTC's educational fabric and campus climate were greatly improved because of him" (Burdick, p. 87). Bob Hankins, 1951 chemistry alumnus, stated that Dr. Ferguson was a very nice man who was an amateur radio enthusiast like Cordrey. Bob also said that as Dean of the College, Ferguson would chew you out if you, as a student, missed assembly. So when Dean Ferguson called Bob into his office, Bob was nervous and wondered whether he had missed any assemblies. Bob couldn't recall missing any assemblies and, when he arrived in Ferguson's office, he was relieved since Ferguson wanted him to show up for the next assembly early so that Bob could be presented with the recognition of being elected as an honorary student member of the Southern Association of Science and Industry. Burdick (p. 278), Dean Ferguson's successor as dean, also wrote: "Filling Dean Ferguson's shoes was out of the question. I lacked his remarkable qualities of character and personality." Worley (p. 215) noted: "His classroom technique was superb, his gifts as an administrator impressive. But it was in the field of human relations that he made perhaps his finest contribution to ASTC. He had the rare capacity of consistently going beyond the call of duty and shouldering the burden of others. Everything which concerned the welfare of the college, its students, or faculty Dean Ferguson was likely to consider his responsibility." From all accounts Dr. Ferguson was an extraordinary person who did remarkable things for ASTC.



1951 picture of N. F. Boling, Physics

N.F. Boling (1947-1953) had B.S.E.E. from UA-Fayetteville in 1932 and an M.S. in 1947 also from UA-Fayetteville. He served in the US Navy in World War II. Boling's primary teaching responsibility was in physics, since most of Ferguson's time was occupied by administrative duties. Bob Hankins, 1951 alumnus, recalls that Boling was successful in obtaining equipment for use in the physics labs, particularly a "chain-o-matic" balance that Bob Hankins remembers well, in much the same way Ed Radley was able to obtain badly needed equipment. Anne Butler (Chemistry major from 1951-1953), in a personal interview, stated that she

took physics with Boling and says he was an excellent physics teacher who effectively used some new laboratory equipment for teaching purposes. Anne worked as a lab assistant for Patton and Radley earning \$0.50 per hour. Bob Hankins (1951 alumnus) noted in a personal interview that Boling left ASTC to work for a jet propulsion lab in Dallas, Texas.



1947 picture of Roy Mahar, First Lab Assistant in Chemistry

Roy Mahar (1947-49) Roy served as the first Laboratory Assistant in chemistry. He received a bachelors degree from ASTC in 1946 and had some graduate training at the University of Arkansas during the summer of 1947. He is listed in the bulletin as E. E. Cordrey's personal laboratory assistant. His responsibilities included making solutions and preparing qualitative and quantitative unknowns. His hiring may be an

indication of the large teaching load being placed upon Cordrey late in his career, given the increase in enrollments after World War II. Bob Hankins, 1951 alumnus, recalls that Roy was an extremely bright person who received his B.S. in Chemistry at a very young age. Roy later became a CIA agent

and then retired to Quitman, Arkansas.



1950 picture of Jerry Young, Second Lab Assistant in Chemistry

Jerry Young (1949-50) Assistant in Chemistry Jerry Young was the second laboratory assistant, after Roy Mahar, according to a personal interview with 1951 alumnus Bob Hankins. Bob also relayed that he took the position during his senior year in school as a chemistry major (1950-1951) for a salary of \$100/month, or \$900 total, which was enough to get him through the first two years of graduate school! Jerry Young then earned a Ph.D. in Biochemistry, but after working in this field a few years, he decided to attend medical school and become a physician.



1950 picture of Edward Radley, Chemistry

Edward Radley (1948-53) BS from ASTC in 1940 and MS from the University of Missouri in 1947. In a personal interview, Bob Hankins stated that he remembers Ed Radley very well and says that Radley was hired to teach physical chemistry which had recently been added to the curriculum. When Ed joined the faculty, Cordrey advised him to prepare a list of requested equipment since his chances of getting equipment would be better earlier than later. Radley did so and was able to purchase a bomb calorimeter, an Abbe refractometer, and a Beckmann pH meter. Apparently during World War II, Ed commuted with Bob's dad to a

munitions plant in North Pulaski County (Marche) that manufactured picric acid for use as an explosive.

Workers in the plant often returned home yellow from being coated with the substance. Jerry Manion's wife, Patsy, had an uncle who worked in the same plant and she remembers that he would come home with his normally white hair turned yellow, consistent with the fact that aqueous picrate solutions are yellow. Bob Hankins had a home chemistry lab and Ed would visit with the young Bob late in the day and answer questions Bob had regarding chemistry. Bob Hankins also stated that Ed Radley was a major influence on his life. Bob ultimately received a Ph.D. from Missouri where he occupied an apartment just vacated by Pat Banks, another ASTC grad who had just completed a degree there as well. It appears that Radley left ASTC for Memphis State and

eventually earned his Ph.D. at Missouri.



1940 picture of Ed Radley and Irma Hill taken while Radley was an ASTC student on a visit to Cordrey's farm.

Facilities

The first building on campus was completed in 1908 and, upon Cordrey's retirement in 1950, came to be known as the Cordrey Science Building. Chemistry was housed in this building from 1908-1966.

In 1919, an administration building was constructed, later named Old Main. Minton (p. 145) wrote that "A year and a month after the building [Main] was opened for use it was struck by a small tornado out of the southwest which ripped off most of the roof and smashed all the south-facing windows. It struck in the afternoon after school when no one was in the building. Fortunately, the Board had taken out tornado insurance less than a year before so that all damage was fully covered." In 1919, the "science, manual training, art, sewing and cooking, and library departments were left in the old building, usually called the 'science' building after 1919" (Worley, p. 14). Minton (p. 148) pointed out that that auditorium in the Science Building continued to serve an important function: "Be it remembered that the only place, at this time, where an assembly of the student body could be held was the old auditorium in the Science Building which could seat, comfortably, only 200 and only 400 by double-seating the single-seat desks."

During this time period of 1919 to 1950, science shared the building with geography, manual training, sewing, cooking, and the library. However, the space for the library in the science building was inadequate as noted by H.L. Minton (p. 154): "With the opening of the Administration Building in 1919, the southeast corner of the basement of this building (now occupied by the Geography department) was remodeled for a library and the move was made. The space given to it had only one advantage - roominess. Otherwise it was ill-suited for a library. It could not be heated in winter, except by overhead radiators, and it could not be cooled in summer, except by ceiling fans. Ventilation was poor and humidity was generally high. Book-bindings deteriorated rapidly. Moreover, the outside walls could not be waterproofed so that seep-water came through the walls in wet weather, sometimes to a depth of a foot or more. All books and materials on the lower shelves had to be moved. Water was pumped out through a basement window and floor fans used to dry the walls, floor, and shelving." Of course these same characteristics make for a very poor facility for chemistry as well, as noted in in subsequent chapters.



1950 picture of student using a balance in a chemistry lab in the E. E. Cordrey Science Building. The UCA Department of Chemistry still has this same balance (or one just like it!).

When the Torreyson Library was constructed in 1963, the old library (Harrin Hall) was converted to use by Social Sciences and Geography was moved there. In Bryant's *The Centennial History of the University of Central Arkansas*, p. 50, President Heber McAlister referred to renovation of the Science Building as an "emergency need" with "I doubt there is as serious an emergency in this section of the United States." The Science Building was renovated during the summer and fall of 1936 (Memo from President McAlister to Mr. S. G. Smith of Conway, February 7, 1936). Apparently there was a delay in the renovation of the Science Building based on a letter from President McAlister to the E. H. Sheldon and Company in Muskegon, Michigan on October 10, 1936, in which he stated that the company reported that renovations will be completed in 50-60 days. President McAlister responded "This is very unsatisfactory....We are teaching science all over the campus and had expected to get into the new building soon after the first of November in order to do the laboratory work necessary for this semester."

During his oral interview in 1970, Cordrey commented on the need to make their own equipment because of a lack of funds. Clearly Cordrey's expertise in electronics enabled him to make a number of pieces of electronic instrumentation. As Cordrey noted, "The shop was usually a corner in the laboratory, and the equipment that we made was such that would lend itself to amateur work....This use of homemade equipment continued for quite a long while and even when I left the department in 1950, though the use was restricted, still a number of pieces of equipment still remained in the laboratory." While one would clearly conclude that a lack of funding for instrumentation needed in a chemistry lab was a serious weakness in the early days of this institution, on the other hand the training of teachers who mostly went to rural schools with little money benefited from making and using homemade pieces of equipment in the chemistry laboratory.

"The Science Building had been enlarged and remodeled a number of times through the years with the chemistry laboratory and classrooms located first on the second floor, later the first floor, and finally in the refurbished basement. During the '60's when the college felt it needed the Science Building space for another structure, the building was torn down" (p. 27, L. Cordrey).

In 1948, the Ben T. Laney Industrial Education Building was completed on the site of current chemistry building, Laney-Manion Hall. The 1948 building was named after a former governor and alumnus of ASNS (Minton, p. 308).



1950 picture of the Ben T. Laney Industrial Education Building, constructed in 1948 on the current site of Laney-Manion Hall.



1950 picture of student adjusting lathe in the Ben T. Laney Industrial Education Building.



1950 aerial view of campus. The Lewis Science Center would not be constructed until 16 years later, the Ben T. Laney Industrial Education Building stood on the site of the current Laney-Manion Hall, and there were tennis courts on the site of the current Laney-Manion Annex.

Curriculum

Burdick, p. 11, commented on the curriculum during this time period:

"The change in designation from normal school to teachers college in 1924 was a delayed recognition of the ways in which the training of teachers was being improved. While the tilt toward teaching was preserved in almost every way, curricular changes were evidence of a movement away from pedagogy."

H. L. Minton, in his History of UCA, pp. 193-196, outlines a major curricular change that occurred in the early 1930s under the leadership of the newly appointed Dean of Instruction, E. E. Cordrey:

Curriculum problems did not seem to worry President McAlister during his administration because from the very outset he seemed to have had the problem of curricular management worked out. Even ahead of his election, he provided for a take-over of curriculum work by E. E. Cordrey, the best qualified member of the faculty to direct such a program. Cordrey had prepared the class schedules, in Doyne's time, and all through the Torreyson administration. He had inherited the job from Buchholz of the Doyne faculty and had really worked at it. Each fall after he had worked it out he would spread it on the blackboard before the first faculty meeting, and a day or two in advance of the start of classwork he would explain and defend it in detail at this meeting. He was by all odds, the best-informed member of the faculty on the structure of the schedule and probably as well on the relative merits of every course listed in it, as it related to the over-all college program.

Knowing Cordrey's ability in this field, McAlister had prevailed on him beforehand to give up his headship of the department of Physical Science and turn it over to a new man in the department – Dr. O. N. Lackey – and give half his time to teaching in the department and half time to a new department of research in curriculum building....It would also head another strong department with a doctoral degree (Cordrey did not have the degree). Moreover it had the advantage of a promotion in rank for both Lackey and Cordrey.

Cordrey was impressed with the idea because he apparently saw in it, for one thing, a possible stepping stone to the Presidency though he vehemently denies such implication. He resigned his position as head of the Department of Physical Science, effective July 1, 1930 and accepted appointment to the position of Dean of Instruction – this change approved by the Board at the time of McAlister's election to the Presidency and to become effective immediately upon McAlister's assumption of his office. Moreover, Cordrey was immediately made Chairman of the Curriculum Committee, of which he was already a member, but as chairman he would be in a better position to direct the work of the committee, which he was committed to do. His first step, in preparing himself for the new job, was to spend the summer of 1931 in the College of Education at the University of Chicago "studying problems of curriculum building and college administration, with emphasis on problems of curriculum structure for Teachers Colleges. The writer also spent that summer there working on his doctoral program in Geography and roomed with him.

Guided by what he had learned that summer, and by his wealth of experience, gained on the ASTC campus under its first two presidents, and aided further by his knowledge of membership-regulations of the accrediting agencies, acquired at their annual meetings at which he had represented the college on two occasions, Cordrey and McAlister had agreed to the feasibility of visiting some of the leading teachers colleges in America. Accordingly, Cordrey was sent over the nation during the summer of 1932 to do just that. He visited about twenty of the best-known teachers colleges in America. At each college he held conferences with deans and other administrative officers and, upon his return, filed a rather comprehensive report with President McAlister.

In the fall of 1932, Cordrey and his committee began work on a complete overhaul of the curricula which had already been tentatively done before his tour of visitations. However, Cordrey and his committee set to work again immediately after his return and the results were listed in the 1934 Catalog, the next to be printed. One noticeable change shown there is the complete omission of the two-year programs and the LI Diploma. Another change shown is the change in number and refinement of the curricula as listed in the 1931 and '32 catalogs. The 1934 Catalog lists only three degrees and five curricula whereas the 1932 Catalog lists two degrees and sixteen curricula, twelve of them outlined in detail by courses and quarters. The student was required to submit a total of 120 semester hours of academic work for any degree plus four hours of Physical Education."

Then, in 1934, the B.S. in Education had more options for a major other than just physical science or biological science: Biology, English, Foreign Language, History, Mathematics, Physical Science, or Social Science. Also, a minimum of 30 hours is required for a major in a department and departments were given a maximum number of 36 hours that they could require for a major, once again avoiding overspecialization in the curriculum. The curriculum remained constant from when Cordrey arrived in 1914 until 1918 when there were significant changes to the chemistry curriculum, with a new general chemistry sequence and the first appearance of organic chemistry in the curriculum, described in the 1918 bulletin as follows:

Science 181 and 182. General Chemistry. Four-tenths unit per term, two terms, total credit eight tenths unit. Mr. Cordrey. This is the equivalent of a good high school course in chemistry. Without special permission from the head of the department, either general science or physics will be considered as prerequisite to this course. An effort will be made to make the subject as practical as possible in order that it may be profitable to the student who will not secure further training in the subject. This purpose is accomplished by a judicious selection of experiments which are at the same time practical and illustrative of the important principles of chemistry.

Science 211 Organic Chemistry – One term. Four hours credit. Mr. Cordrey. This course is meant to serve as an introduction to the study of organic chemistry. However, it is not merely a lecture course as are so many first courses in this subject. Two double periods are devoted to laboratory exercises. A large part of the experimental work is done by the students themselves. The aim is to give the students an appreciative knowledge of the fundamentals of organic chemistry.

In the 1918 bulletin, it was noted that Cordrey also is teaching Advanced Physics and Teaching Physical Science. Cordrey also is noted as teaching Household Chemistry, Science 241 and 242: "The organization and presentation of the material in this course will be adapted to the needs of students specializing in home economics. However, it will prove very profitable to any one interested in the chemistry of the home. The chemistry of foods and nutrition will be emphasized and a great deal of work will be done in testing foods for coloring matter, adulterants and preservatives. The elements of textile chemistry will be given. The best methods for removing spots and stains from cloth will be taught." In 1919, another new course, Science 217, Agricultural Chemistry, was described in the bulletin: "This course in elementary agricultural chemistry is planned to meet the needs of students desiring to specialize in agriculture. The chemistry of soils, fertilizers, sprays, etc., will be emphasized. General Chemistry is a prerequisite to this course."

Also, in 1919, Mr. Cordrey is teaching Science 255B, Teaching of Science: "This course is planned for those specializing in science and desiring to teach it in the high school. The subjects treated will be: Organization of the high school science courses, methods in the class room, methods in the laboratory, selection of texts and the planning and equipping of the laboratories. The equipment and maintenance of the laboratory receives considerable attention. Before registering for the course the student should consult the head of the department. Students expecting to teach science in high school should take this course as a methods course."

The curriculum in the two year program was as follows (1920 Bulletin):

Freshman Science: (courses normally taught to 9th grade students in the public schools) Physical Geography (I and II), Physiology (I) and Zoology & Physiology (II, elective) Sophomore Science: Botany (I, & II) and Geology - Botany III was elective Junior Science: Chemistry (I, II, III, & IV) IV was elective (qualitative and quantitative analysis)

Senior Science: Physics (I, II, III)

Laboratory experiments were emphasized throughout and students were often expected to conduct these independently. Laboratories stressed the use of equipment that might be found in a public school, including homemade equipment. Lab for Chemistry I (fall term) consisted of 150 experiments grouped into 70 exercises using a text by Remsen and Williams and met in double periods five days per week. Chemistry II (winter term) consisted of Qualitative Analysis in the fall term. In Chemistry III (spring term) students were "able to interpret readily the content of the textbook and he will be thrown more and more on his own resources in laboratory work."

The 1920 Bulletin course descriptions remained the same except for the addition of Science 361, 362, and 363 Qualitative Analysis: "This course includes not only the practical laboratory work of analysis but also the theory underlying the chemical process by means of which the separations are made. The work will be based on Stieglitz's text. As a prerequisite to this course a good course in general chemistry is required."

From 1921 through 1924, the chemistry curriculum remained the same until in 1925, there was a major overhaul, with the first appearance of Chemistry 444, Elementary Physical Chemistry: "As prerequisite for this course, one year of physics, two years of chemistry and trigonometry are required." A second course in Qualitative Analysis, Chemistry 431, is introduced: "This course will include lectures on the theory of quantitative separations together with a great deal of laboratory practice with both gravimetric and volumetric methods of analysis. Prerequisite, qualitative analysis." In 1925, Household Chemistry and Agricultural Chemistry were deleted.

The 1927 Bulletin is the same, except for the addition of Chemistry 435, Food Chemistry: "This course is planned for those students majoring in Home Economics. Prerequisite: One year in general chemistry, including Chemistry 241, 242, and 243. If possible, organic chemistry should also precede this course."

The 1928 Bulletin contains the first descriptions of baccalaureate degrees. A BA in Education and a BS in Education were created. Also, a BA degree was offered with majors in English, Foreign Language, History, Social Science, Mathematics, or Geography. A Bachelor of Science (189 hours) was offered, with the ability of students to select a Major Subject (45 hours) and a Minor Subject (21 hours). The major subjects included Mathematics, Physical Science, and Biological Science. Also included are requirements in English Composition (9 hours), English Literature (12 hours), French or German (12 hours), Mathematics (9 hours), Physical Science or Biological Science (9 hours), History or Social Science (9 hours), Elective (54 hours), and an Activity (9 hours). To further ensure breadth in the curriculum, several limits were put in place:

- 1. Not more than 54 hours were allowed from any one department.
- 2. Not more than 10 hours from History of Art, Appreciation of Art, and Drawing and Painting.
- 3. Not more that 10 hours from History of Music, Harmony, and Appreciation of Music.
- 4. Not more than 12 hours from Education.

A residency requirement was put in place for the Bachelor of Science degree, with "no student may receive a degree or diploma whose residence at the Teachers College is less than nine months, during which time he would have completed not less than 36 term hours." Also, a limit was placed on the number of freshman level course at no more than 60 hours. A minimum number of hours at the upper level are required, with "at least 18 hours of the major and nine hours of the minor must be done in courses of senior college rank." The major must be selected and be approved by the beginning of the junior year. Also, a requirement in terms of number of hours considered as full load was written, with a freshman not being allowed to sign up for more than 16 hours. If the student had a B average after the freshman year, then the student would be allowed to take as many as 18 hours and an A student could then take no more than 20 hours. Finally, a GPA requirement was in place, with a C average required in order to graduate.

In 1930, the Elementary Physical Chemistry course was removed. For the rest of the courses, there were the same course titles, yet each course is split into several sections. Also, a lab fee of \$3.00 was introduced.

The next change to degree programs came in 1931, with a four-year curriculum described in the 1931 Bulletin as "leading to the degree, B.S. in Education, with Major, Physical Science; Minors, Mathematics and Biological Science." Also described is a B.S. in Education, with Major, Biological Sciences; Minors, Physical Science and Mathematics. The BA degree was offered with

the majors of English, French, Latin, History, or Social Science; the BS degree was offered with majors of biological science, physical science, or mathematics.

A bulletin was not published in 1933 due to not enough funds. The Depression began to have an effect with an increase in lab fees to \$4.50 for some courses. At this time the institution appears to have transitioned from the quarter system to the semester system, with General Chemistry decreasing from three to two courses, Qualitative Analysis changing from three to two courses, and Organic Chemistry decreasing from two courses to one, Chemistry 341 "A brief study of the aliphatic and aromatic compounds." Also, Quantitative Chemical Analysis became Quantitative Analysis with only two courses rather than three. There was one addition of Chemistry 335, Physiological Chemistry, perhaps to fill the void of deleting Household Chemistry and Agricultural Chemistry previously. The course description for Physiological Chemistry was "A study of the chemistry of metabolism, the fate of foods in the body, blood, urine, etc. Organic Chemistry, a prerequisite. Not offered 1934-35." Chemistry 335, Food Chemistry has been changed to Chemistry 335, Physiological Chemistry.

The curriculum remained constant until 1938 when Physical chemistry returned to the bulletin, this time with more in the way of prerequisites: Chemistry 435 Elementary Physical Chemistry. A brief study of physical chemistry in class supplemented by appropriate laboratory experiments. Open to students who have at least 18 credit in chemistry, eight hours in physics and two years in mathematics.

In 1943, the lab fee increased to \$6.00 for some of the chemistry courses. Also during this year, Biochemistry was added to the list of courses for the first time:

Chemistry 330 Biochemistry. This introductory course in biochemistry stresses primarily the chemistry of foods and metabolism in the human body. It must be preceded by a course in organic chemistry. It has been planned especially to meet the needs of students in agriculture, biology, and home economics. Prerequisite: Chemistry 340: Organic Chemistry. In 1948, the lab fees were increased to \$8.00 for some courses.

Then, a new course appeared in 1949: Chemistry 320 Chemistry Calculations. This course includes calculations with general chemistry, organic, and analytical courses. Prerequisites: one year of physics and two years of chemistry. Laboratory fee, none.