The Penn Papers

No major figure in early American history has been more poorly served by modern historical scholars than William Penn. To help correct this situation, a new edition of the papers of William Penn is to be published in time to commemorate the tercentenary of Penn's founding of Pennsylvania in 1682.

Jointly sponsored by the University of Pennsylvania, the Historical Society of Pennsylvania, Bryn Mawr College and Haverford College, the proposed edition is the first of a series of research projects organized by the Philadelphia Center for Early American Studies. It is being directed by Richard S. Dunn, Professor of History and Director of the Center, and Mary Maples Dunn, Professor of History at Bryn Mawr.

Five volumes are planned, four containing Penn's most interesting correspondence and business records, with the fifth being an annotated bibliography of Penn's 139 books and pamphlets. The bibliography is being written by Edwin B. Brenner, Librarian of Haverford College.
Penn's correspondence and publications form the most important source for far the scholarly study of early Pennsylvania. But while there are several excellent books and articles on the founding of Penn's colony, Dunn points out that many aspects of the subject remain unexplored; there is abundant fresh material among Penn's papers which needs to be brought to the attention of historians.

Thus in 1968 a committee was formed to try to gather, assemble and photocopy all known Penn documents; over 3000 papers turned up. "This may sound like a lot but it is far fewer than other famous people; the Benjamin Franklin papers, for example, number over 30,000," Richard Dunn explains.

The original objective was to put these papers on microfilm for scholars to use as a resource. The most difficult part—collecting, transcribing and microfilming—was essentially completed by 1975. Although anyone can now buy the film series (there are fourteen reels, costing $15.00 per reel), the papers are still not as accessible to scholars and the public as hoped.

"I thought, and my wife thought, that it would be very helpful to try to do a select edition, to choose the best, most integral and most interesting of these papers," explains Dunn. With this in mind the team applied to the National Endowment for the Humanities for a grant. NEH has generously awarded $186,000 outright plus matching grants to cover editorial costs.

During the past year, Richard Dunn has been going through Penn's 3000 letters, business papers and legal documents, which are now housed in an office in the Historical Society of Pennsylvania. There are a lot of writings from Penn's later years, including a number of financial receipts, which paint a picture of Penn as either quite incompetent or the victim of his steward's swindling. However, a number of gaps exist during his boyhood and young manhood. The most incomplete of all are his private papers. The personal side of the man is still very much unknown. In the 1870's Penn's papers were widely dispersed and many were destroyed, which helps to account for the gaps found today. Trying to track down these missing papers is extremely difficult. Manuscript dealers, protecting the anonymity of their clients, are reluctant to provide names.

The first of the four volumes will cover the young Penn—1644 to 1679—up to the establishment of Pennsylvania. It will include his conversion to Quakerism and his extreme militancy which resulted in several arrests. Many of these papers are belligerent letters trying to convert everyone to Quakerism. As Dunn notes, Quakers of that era were very different from our concept of them today; they were outspoken, aggressive and radical. After being imprisoned, Penn added civil justice to his list of causes. He was a very well-born Englishman and did not take being jailed lightly. Penn seems to have been popular amongst Quakers, although certainly not amongst American colonists in general.

Volume II will cover the four years in which Penn established Pennsylvania, 1680 to 1684. It will include his plans for the colony, the constitution he drew up—and the subsequent drafts—and his ideas for the distribution of the land, including 5000 acres in each of the counties, Bucks, Montgomery, Chester, Delaware, Berks, that he reserved for himself. "He took care of Number One pretty well," notes Dunn.

The last two volumes will describe Penn's declining years. Because of the great number of documents from these last fifteen years, only one out of six documents will be used, whereas in the first two volumes the ratio is closer to one out of two. Penn's increasing dissatisfaction with the colonists—and their's with him—will be covered in these later volumes. Penn was considered too arbitrary and thus his rules and regulations were often ignored. His aristocratic background and airs alienated most. In addition, Penn suffered from a number of financial difficulties. At one point he was sent to debtor's prison for owing his steward—legitimately or not—is still unknown—the equivalent of $100,000. Penn had to sell a number of his land tracts, his family inheritance and he nearly sold Pennsylvania itself to Queen Anne to help pay off his debts.

Penn is less easy to appreciate than our other founding fathers, which may be part of the reason his documents and the man himself have received relatively little attention. His militant Quakerism is not particularly attractive to non-Quakers. In addition, Penn could be haughty and was not overly personable. The few personal documents that have been found show him to be a rather ineffectual father and parent. As Dunn concludes, "I find that I still don't have a very good sense of how he was put together" despite a number of years of near "living" with him.

Both Richard Dunn and Mary Dunn are leading specialists in colonial American History. Both have participated in every stage of the Penn Papers project since 1959 and are members of the Committee on the Papers of William Penn. Mary Maples Dunn in the author of William Penn: Politics and Conscience. Richard S. Dunn is the author of three books and numerous articles on the Anglo-American world of the seventeenth century. The Dunn's collaborator, Edwin Brenner, is the author of William Penn's 'Holy Experiment.' The editorial office is at the Historical Society of Pennsylvania, which owns the bulk of the Penn Papers.
Scholarly Ties Link US and USSR

A group of 80 Soviets and Eastern Europeans—some of the Soviet Union’s finest scholars and professors—spent much of last summer in Philadelphia learning English through the Faculty of Arts and Sciences’ English Program for Foreign Students. The group came as part of an international exchange program in which visiting scholars from the Soviet Union attend such institutions as Penn, MIT, Berkeley and Michigan to do research in their areas of specialty.

The group arrived with varying expertise in English. One scholar, Dr. Vitaly V. Rogozhin, came to the United States with little more than a ten to twenty word English vocabulary. He now has no trouble following lectures and in fact he is currently taking two courses at Penn. However, speaking English is more difficult because as he put it, “There’s too much slang and you speak so fast.”

For scholars like Vitaly the summer program was especially helpful. The program involved a highly intensive month of language study; for five hours a day, five days a week, these Soviet engineers, lawyers and scientists attended classes designed to improve their spoken and written English skills.

Others, like George Kvesitadze, a biochemist who is working with Drs. Kendall Pye and Arthur Humphrey on the saccharification of cellulose materials, and Elena Androunas, a scholar in the field of communications, have been conducting research in English for a number of years. For them, it was the practical usage of the language that was of greatest value. Non-classroom hours were spent at Robin Hood Dell concerts, the Philadelphia Art Museum, movies, restaurants, bars and Penn’s gym. As Penn’s program coordinator and foreign student advisor, Ann Kuhlman, explains, “Asking for a beer at Carney’s demands a certain vocabulary and familiarity that is best learned by ordering that drink yourself.” There were also on-site courses to learn such vocabularies as those necessary in a supermarket or laundromat. In addition, Philadelphia families invited many to dinner. The visitors’ reputation for friendliness and quick wit preceded them and the number of dinner invitations far outnumbered the evenings free.

All of the scholars lived at International House during the summer where the number of options for extracurricular activities was further extended to include weekly square dances, cocktail hours and barbeques. But these events simply introduced the Soviet group to what was available. Most trips and evenings out were unscheduled. Elena, for example, became quite a movie buff. She found the variety of American movies and television a great pleasure, and being in the field of communications, she said, “I could rationalize all the movies and television programs I watch as part of my research.”

Ms. Kuhlman described the group as “enthusiastic, eager to know Philadelphia and its people, and very open to new experiences.” The one complaint they all voiced however, was about the weather. As Vitaly described it, “I found Philadelphia’s summers reminiscent of my childhood in Georgia—hot, wet and uncomfortable!”

The events, courses and activities were organized by a number of different organizations. The staff of the English Program for Foreign Students was responsible for the 25 hours of class time a week; the Council on International Visitors supervised the extracurricular activities and was assisted by the International Hospitality Program in arranging evenings with host families; International House provided accommodations and served as a focal point for many of the program’s activities; and the International Programs Office was responsible for the overall coordination of the program. “The response of the Penn faculty and Philadelphia community was tremendous,” says Ms. Kuhlman. “Everyone enjoyed it so much, and I know for myself I’ve never worked with a group I enjoyed more.”

Even after the summer program was over and schedules had become filled with labs and libraries, those remaining at Penn continued to supplement their professional commitments with extracurricular activities. George Kvesitadze, who is the head of the Department of Enzyme Engineering at the Georgian Academy of Science, has been invited to give several seminars throughout the country. Of the cities he has seen, he says, “I loved New Orleans. It is so open. I liked it better even than Boston and maybe even more than Philadelphia.” Although he spends eight to ten hours a day in the lab, he still makes time to swim or play basketball daily, shop at the Italian Market and see movies on a regular basis. He greatly enjoys watching basketball games, “but not your American football. It’s too much a game of force and not enough from thought.”

Vitaly, one of the other Soviets to remain in Philadelphia, is a lawyer, associated with Temple University and involved in the study of the American social security system. He finds our system impressive but is even more impressed with the computer network that makes it possible. In Baltimore, where the social security administration has its headquarters, Vitaly said, “I talked to a computer, and it talked back!”

In the Soviet Union, instead of a central administration, every individual carries their employment record and other vital statistics of their lives around with them on a small card. Although impressed by the size and scope of the American
system, Vitaly did comment, "What takes one week to process in the USSR might take two months to clarify here," because of the amount of paperwork necessary in an organization as large as the American social security system. It is Vitaly's hope that by studying our system—which he has done for the past eight to ten years—he will be able to utilize the best of both worlds.

Although his English is not as fluent as others, Vitaly has learned to laugh at his mistakes. He may not be familiar with colloquialisms but he certainly has acquired an American sense of humor, to the point of even making puns. He has also been busy teaching Americans how to drink Russian vodka, which is much more flavorful than American—straight up and fast.

Elena, the third of the group of Soviets at Pennsylvania, spends a large part of her day reading books and periodicals in her office in the Annenberg School. Her special interest lies in the area of ownership of mass media, which resulted in a master's thesis on the American system of media ownership. It was written at a time when many newspapers and magazines were folding and the larger ones were forming conglomerates. Rather than believe that printed media was being replaced by television, as many did, she concluded that the market was oversaturated but that it has now leveled out and the number and type of publications being produced are more on par with real demand.

In the United States newspapers are privately owned, although they have been consolidated to such an extent that each city has only one or two major papers. In the Soviet Union, on the other hand, all aspects of the press—printing, paper, organization—are nationalized. However, their system is based on special interest groups and, Elena explained, in theory every 1000 persons has input into the national press. In actuality it is not so formalized. The trade unions, individual company's employee groups, government branches and others, have their own minipaper within the larger, centrally-owned newspaper. The American and Soviet systems thus are more similar than is immediately apparent.

"There is at least one major difference," Elena pointed out. "The New York Times is a 50-page daily, whereas Pravda (Moscow's equivalent) is typically six pages." The difference is almost entirely due to the absence of advertising in Pravda.

Americans, she felt, often watch capitalized television news instead of reading a paper because its sheer volume overwhelms many. With a smaller paper, Russians are apt to do both.

Whether it be Philadelphia's cobblestone streets which particularly fascinated Vitaly, or the exquisite Rodin Museum which Elena and George especially loved, the Soviets at Penn have enjoyed Philadelphia tremendously. That the scholarly aspect of the exchange has been successful goes without saying. In fact, there is a program in the works now establishing formal ties between the University of Pennsylvania and the Georgian Academy of Science. However, it is more likely that it is the informal friendships that resulted from this program that will continue to link Penn with the Soviet Union for some time to come.

The Soviet scholars initially came to Penn based on the reputation of the English Program for Foreign Students. The International Research and Exchange Board (IRED) approached EPFS and suggested that they submit a proposal to host these scholars for the summer program. Under the direction of Barry Taylor and backed by a staff of 20 instructors, the program was a great success and funding has recently been approved for Penn to host the program again this summer. The program this year will concentrate more on orientation and socio-linguistics rather than formal language study.

The Overthrow of Lysenko

It may sound like a James Bond thriller, full of near escapes, fast cars and international espionage. The "Lysenko affair" is, however, far from fiction. It is a very real era in Soviet scientific development in which a quack biologist, who denounced the science of genetics as being "abstract and bourgeois," dominated Soviet biological science for over a quarter of a century.

But the fascination of the Lysenko affair is more than in the man himself. As Mark Adams, Julian S. Bers Assistant Professor of History and Sociology of Science, points out, the phenomenon of Lysenko poses intriguing questions about Stalinism and the politics of science in general, about man's control of nature and the age-old environment versus heredity debate, and about the basis of science itself. Adams has recently completed a book, Science, Ideology and Structure: Soviet Genetics 1948-1965 which uses the Lysenko affair as a case study exemplifying some very important facets of the interaction of scientific work within its institutional, philosophical and political context.

Explains Adams, "My major concern in the book is to explore the relationship between actual scientific research (in genetics, molecular biology, and other related fields), public and ideological discourse (statements made by the government, the Soviet Academy of Sciences, and scientists about science, what is should or shouldn't do, where it is going), and institutional and organizational structure (including hierarchies of authority, decision-making, funding, etc.)."

Who was Lysenko? In the 1920's, Lenin, and later Stalin, were anxious to achieve modernization through scientific discovery, particularly modernization of Soviet agriculture.
The Religious Studies Department has recently engaged in a project to determine the feasibility of applying advanced computer technology to the production of a lexicon, or dictionary, of the Jewish-Greek Scriptures. Directed by Robert A. Kraft, Chairman and Professor of Religious Studies, the project also hopes to utilize a video tube to facilitate some very difficult text analysis.

Ancient texts were translated and reprinted by hand. Variations between each version is great and determining the authenticity of one version over another is a painstaking task. By using computers and the video tube, with its accompanying television screen, these texts can be lifted from the page to the screen, enlarged and illuminated. In addition, a video tube could pick up a page of the lexicon itself, reproduce it on a screen, and print it directly from the screen, thereby eliminating the laborious copying, typing and typesetting that is usually involved in a publication of this type.

The current study is the first of a possible ten-year project. The year has been spent discovering what equipment is needed, what the University already has, and what limits, if any, exist for the use of this facility. It appears likely that a mini-computer, of approximately 2-4 cubic feet, tied into one of the University's super computer systems, will be used. And perhaps a larger network of micro-, or desk-top, computers may someday be used by everyone, eliminating all those hours of busywork altogether.

By 1929, however, Stalin changed his position, and worked for the leveling of the class structure, the elimination of a scientific elite in the collectivization of the farms; he supported those doing work with immediate practical value, i.e., farmers, not researchers and scientists. As a result, the sciences were filled with sycophantic groups catering to the whims of political bosses.

In this environment, Lysenko, a grass-roots scientist, presented the government with an alleged discovery that could help offset the country's agricultural failures. He claimed to have discovered a way to manipulate a seed's growth through a heating, soaking and chilling process and to thereby alter its hereditary make-up in desired directions—or in Lysenko's words, "to sculpt organic forms at will." Soon he was attacking the science of genetics and linking it with fascism.

More than offering the government a solution to their economic difficulties, Lysenko's discovery and theories catered to Bolshevik ideology. Beginning in 1936, and again in 1939, official agricultural conferences endorsed Lysenko's ideas. Finally, at the August 1948 session of the Lenin Agricultural Academy, genetics became a "renegade" field; biology texts and curricula were changed, geneticists lost their jobs, and "official" biology was now Lysenkoist.

Adams points out that most studies on Lysenko have concentrated on agricultural administration, ideology or government politics. "What I did," Adams said, "was virtually to study all of the science-related literature published in the Soviet Union from 1948 through 1965." As a result he was able to identify a group of physicists, chemists and mathematicians who to a large extent controlled the prestigious Soviet Academy of Sciences. It was this group who in 1953 became vitally concerned with what was happening in biology. The breakthroughs in biology concerning RNA and DNA had brought the field to the forefront of science everywhere. For the first time, heredity was an area that could be studied and explained in terms of the physical and chemical properties of a molecule. Hence, these discoveries irrevocably linked biology with all the other sciences.

The question these scientists had to face was how to deal with Lysenko's political backing—which by this time included Krushchev—in light of their growing disbelief in Lysenko's authenticity and in light of all the remarkable discoveries being made in genetics.

"The problem," Adams explained, "is one encountered whenever there is an in-group (a scientific community) and an out-group.

Lysenko.
(the general public)." It is a difficult process to accurately and fairly explain complex issues to a public that often has no understanding of any technical aspect of the subject. Kruschev himself was a member of the "out-group," and had to rely on the interpretations and explanations of the country's scientists—one of whom was Lysenko.

It was not a simple matter of facts and figures, or of choosing a peasant scientist over sophisticated scientists. Both sides argued that they were basing their conclusions on facts. How was Kruschev, an outsider, to know that Lysenko's facts, or his interpretation of them, were any less legitimate than those of a physicist or mathematician who had no special qualifications in biology? Soviet scientists generally believed that Lysenko's science was a fraud; but how were they to convince Kruschev that their word was to be trusted and not Lysenko's and how could they do so without appearing to undermine Kruschev's authority or his support for science?

As Adams explains it, "They had to convince the government that as physicists, chemists and mathematicians, they had an expertise that enabled them to judge biological matters. The scientific community set out to make a place for the "illegitimate" science of genetics by using their organizational and institutional power and breaking down, or reorganizing, traditional "territorialism" amongst scientists. They whittled away at Lysenko's area of expertise to such an extent that by the time they were through, he had been administratively isolated from centers of genetics research, which were protected in specially designed institutional "niches." The process was executed by using well-respected, familiar administrative techniques.

The first step was taken in the mid-1950's when the Academy began a series of "philosophical discussions" about the relevance of physics, chemistry and mathematics to biology. What emerged from these discussions was the established right of these other sciences to have some control in biological research. In addition, these discussions led to some major organizational changes in the Academy. Of particular importance, Adams notes, "Each change resulted in the establishment of at least one excellent center of genetic research, isolated from Lysenko; essentially, they were creating new institutional bases for genetic study."

To any outsider, the scientific community seemed to be working smoothly with the government: officially "Lysenko was in, genetics out." In actuality, however, throughout the entire period, there were covert, underground genetics research laboratories and institutes, hidden under various pseudonyms—physico-chemical biology, radiation biology, biological cybernetics. This reorganization process helped illuminate the fine structure between these interacting disciplines. Viewed in isolation, each act of reorganization was presented as largely irrelevant to biology. But as part of an overall strategy, taken together, they had the remarkable effect of "recreating" a science that was officially condemned by political authorities.

"Thus," Adams said, "Lysenko was trapped by his own rhetoric" by claiming himself an expert in biology alone. The entire process was done without posing any threat to Kruschev, without attacking Lysenko on biological grounds and without forcing the government to make subjective decisions between good and bad scientists. What finally eroded Lysenko's authority was not a single individual, institution, or discipline, but rather a carefully designed process involving interdisciplinary cooperation.

The Future of Democracy

As conflicts between industrialized and developing countries intensify, the critical question arises whether democracy, based as it is on international openness, is a viable system when compared alongside the pressing need for national self-determination, particularly in the poorer countries. Even more difficult to answer is the question whether democracy and individual freedom are realistic and legitimate goals in countries where basic material needs are still desperately lacking.

The Center for the Study of Democratic Politics, opening this fall, will confront international questions such as those that challenge democratic government. In addition, the Center aims to face a third major issue that deals specifically with the United States: do democratic principles, such as increasing direct popular participation, in reality best serve the nation's needs? Is it possible that increased public input could jeopardize the implementation of important long-term policies that are more complex than any one person can fathom?

Growing dissatisfaction with the government's actions regarding energy, taxes, inflation, etc., has made it apparent that an increasing number of people do not believe that our government, as it is, is the central body that could best implement the decisions necessary to solve the intricate problems facing the US today. What vehicle then can best uphold the principles of democracy?

Through seminars, conferences and general research the Center will look into these questions and hopefully those involved will come away with a better understanding of the problems and what modifications might be possible.
Unearthing the Past

In the small village of Repton in the midlands of England is the church of St. Wystan, a church which has captured the imagination of scholars for over a century. The church, considered "one of the finest surviving fragments of Anglo-Saxon architecture," according to Martin Biddle, Director of the University Museum and Professor of Anthropology, History and Art History, contains an Anglo-Saxon crypt supported by magnificent monolithic columns, "twisted like barley sugars," and flanked by two descending stairways. The eastern part of the church, immediately west of the chancel is also Anglo-Saxon.

The question which has fascinated so many is why has this small church in this tiny village got such a splendid piece of architecture? It is a question that Biddle and his colleagues have been trying to find answers to during the past several summers. In order to better understand the building and its complicated series of changes, Biddle and his group have staged a highly detailed architectural survey of the building, stone-by-stone, drawing elevations of the walls, sections, plans and in the elevations particularly, drawing every stone to allow additions and alterations to be easily identified. Thus far, they have discovered that in the seventh to ninth centuries A.D. the church was a monastery in which some of the kings of the Anglo-Saxon kingdom of Mercia were buried. In fact, two Anglo-Saxon kings were buried there: King Aethelbald of Mercia, buried in 747 A.D., and King Wiglaf, buried in 840 A.D. Some local historians even claim it was the burial ground of the Mercian kingdom.

The history of the church is an amazing tale covering the entire course of British history. In 850 A.D., the grandson of King Wiglaf, Wystan, was murdered and, Biddle quotes, "miracles began to take place at the scene of his murder." Wystan's body was brought to Repton and buried in the mausoleum of his grandfather Wiglaf. It is now believed that the crypt, in its current form, was originally the burial place of King Aethelbald, but was rebuilt by King Wiglaf with the four twisted columns as Wiglaf's own mausoleum. The two stairways on either side of the altar were added to allow pilgrims to visit and pray at the site of Wystan's burial because of the miraculous powers that his tomb was reputed to hold.

Bodies laid out with heads to the west, indicative of a Christian cemetery.

The town of Repton.

Martin Biddle, Birthe Kjbye-Biddle, Harold Taylor and others digging at the southeast corner of the site. The white lines mark the boundaries of the Viking ditch.
The exact date of the foundation of the Repton monastery is unknown, but Biddle says, "we do know that it was there at least by 692 A.D. because St. Guthlac, of whom there is a nearly contemporary life written in Latin, entered the monastery that year and learned to become a monk, then left it to go to East Anglia where, after his death, he was revered as a saint." The monastery was probably founded earlier, shortly after the christianization of Mercia in 653-4 A.D. It survived until 875 A.D. when the Vikings, who were attacking England with great force, wintered at Repton. It is assumed that they destroyed the monastery; although there is no documentation.

Little more is heard of the monastery until Doomsday Book in 1086, when it is known that a church and at least two priests were at Repton. Later, in the 1150's, a new priory was founded there; it survived until Henry VIII's dissolution of the monasteries in 1538-39. Its buildings soon became the home of a famous English "public" school, Repton School, which still exists today. In fact, the Church of St. Wystan projects into the east end of the school, and the excavation actually takes place in part within school grounds.

Biddle and his wife, Birthe Kjeldby-Biddle, first became interested in the dig in 1972 after hearing a lecture given by Dr. Harold M. Taylor—the greatest living authority on Anglo-Saxon churches, according to Biddle—in which he discussed the latest findings at Repton. Taylor doesn't dig; he does above-ground, architectural studies. Biddle and his wife, who had been digging on Anglo-Saxon sites for some years, suggested to Taylor that the three combine efforts. They did and started what is now a five-year old team project of two weeks per summer. This summer a three-week dig is planned, from August 6 to 26.

In the past, the project has been financed by such groups as the Society of Antiquities in London, The Observer, the governors of Repton School and the University of Pennsylvania Museum. This year, it is being supported by a grant from "Earthwatch," the Center for Field Research in Boston, which matches people's interests with projects that need interested people. The organization offers its members the opportunity to work side by side with professionals in all areas of field research. Those participating in the work at Repton do so during their vacation time, without pay, living in the school's dormitories. Up until now, only fifteen to twenty people have been involved each year, but this year the group plans to include up to thirty volunteers. Although in the past participants were all from England, last summer one American student (the son of a Penn faculty member) was included and this year American volunteers through Earthwatch, interested Penn students, and Biddle and his wife will be going.

According to Biddle, excavations have shown that earliest occupation of the site goes back 6000 years. "We found that a Mesolithic settlement, evidenced by flint tools, possible animal bones and a small living area, existed on the bluff above the River Trent." The next use for the site was a small cemetery in which all the bodies were laid out with their heads to the west. Such an arrangement, Biddle explained, is typical of a Christian cemetery. A few fragments of Roman pottery were found in the graves which indicate that the first Christian use of the site may have occurred during the days of the Roman empire, although the probable date of this first graveyard is perhaps the seventh century. Radiocarbon dating will be done this summer to pinpoint the exact date.

What follows are approximately ten layers of living floor surfaces, associated with pottery believed to be early Anglo-Saxon. "We also have found fragments of fine colored glass windows amidst these 'living surfaces,'" Biddle adds, "that are almost certainly for a church's windows." The fact that this glass has been found in levels earlier than the crypt, is evidence that "there was a church somewhere before the crypt itself was built to be used, we believe, originally for King Aethelbald's mausoleum."

As soon as the church was built, burials began again nearby, because where the king was buried, other people wanted to be buried. More building work follows to the east, incorporating the crypt into the church beneath the chancel. Biddle explains, "By analyzing changes in the crypts, such as the introduction of four twisted columns by King Wiglaf, we can mark key dates in the development of the church." In a third stage, the means of entry was changed. Still unsolved is how visitors entered before this third stage; it is one of the major problems to be worked on this summer.

Everything changed when the Vikings wintered at Repton. An enormous ditch, 30 feet wide by 12 feet deep, forming a sharp V profile, was discovered coming from the east towards the corner of the crypt. It is probably the defensive ditch of the Viking camp constructed during the winter of 874-5. What they seem to have done is to have dug a ditch from a stream to the east up to the church and then from the other end of the church to the bank of the River Trent, cutting off an area of about two acres on which they formed their camp. The church itself acted as the main gate, guarding entry in and out. Biddle believes the ditch remained open for 30 to 40 years. The bank was later thrown back into the ditch and the site leveled.

There is no evidence of any other activity on the site until the twelfth century when the monastery, the Priory of Repton, was founded to the east. The church had probably been in use again since the early tenth century, but the priory was founded as an entirely separate establishment. A period of monastic burials lasted through the twelfth and thirteenth centuries around the east end of the church.

In total, there is only a very small portion—approximately 1000 square feet—of this highly involved site under excavation. The area is small, Biddle said, because it is "one of the most complicated sites we've ever been involved in. This is why we work with so few people, and only trained people, as much as possible."

This year's excavation is moving to the north of the church where the team hopes to discover the original entrance to the crypt. Work will also be done on the cliff above the old Trent River to find the northwest end of the Viking defenses. Taylor will continue his highly detailed analysis and recording of the church itself, stripping more plaster from the crypt's walls to see the original stonework construction. According to Biddle, investigation is expected to continue for at least another three or four years.