

GEORGE C. MARSHALL FOUNDATION

TAPE #5: FABYAN, RIVERBANK, AND THE BILITERAL CIPHER

ELIZABETH SMITH FRIEDMAN INTERVIEWS

THE MARSHALL RESEARCH LIBRARY

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This is a recorded interview with Mrs. Elizebeth Smith Friedman at the George C. Marshall Foundation in Lexington, Virginia on June 6, 1974 in which Mrs. Friedman discusses Colonel Fabyan, the Riverbank Laboratories, and the biliteral cipher with Marshall Research Library staff members.

ESF:

They were few and far between in those days, and I was staying on the south side with friends and I learned that the Newberry Reference Library, which is a private library on the north side of Chicago, had a Shakespeare first folio, an original, and I had never seen one of course, and so I highed myself to that library to see the Shakespeare folio and afterwards I was talking to the librarian there who was a graduate of, is it Earlam College at Richmond, Indiana? And Indiana is my home state and my ancestors, a lot of them, lived in Richmond and had a lot to do with the development of that part of the state and so I said to her, "I am looking for a job and did she have anything to offer" and she said, "Well, as a matter of fact, I do."

She said, "There is a man who has asked me to find some young person who is versed in English literature and knowledgeable about Shakespeare and so on to do research work for him on his estate outside of Chicago," and that was all that she told me about him, and she said, "I'll call him up and ask for an appointment for you." And she called him up and he apparently replied, "Well, I will be right out" and that's all he'd say. Well, he arrived at this library and he came in, in a Prince Albert suit, striped and, you know, the tails and the striped trousers, and a stock in place of a collar, and had a message and he strolled with a very authoritative bearing and he came in and Miss Whatever-Her-Name-Was introduced me and did he say "pleased to meet you" or anything like that? Oh no, he said, "will you \_\_\_\_\_ and spend the night with me?" Why, you can imagine at my age and inexperience how that struck me! And I kind of stammered and said that I didn't have anything with me; I wasn't prepared to go right then or prepared to go anywhere to spend the night. And he said "Well, we'll furnish all that. Forget about that. Come on!" and I went along with him and we went outside and there was his Chicago limousine with a chauffeur. He kept one in Chicago with a chauffeur, and a couple of them, and several chauffeurs out at Riverbank, and so I don't remember what he chattered about but we had to hurry to make that train, the one that he customarily took back to Geneva, Illinois where his estate was. And so we got on the train and he took me forward in a coach and put me on a seat that was down front, you know the very last one, that way, and set me down there, and then he disappeared, apparently looking up to some of the train officials for some reason or other, or I don't know what, but when he came back, he came back, he sat down and beside me, I was here by the window and he sat down beside me and he looked over at me like this. He said, "Well, what in hell do you know? And I was nonplussed for a moment, but kind of a stubborn streak arose in me and I looked at him out of my right eye and said, "That remains, sir, for you to find out." Well, he laughed! He roared! You could hear it all through the train, not only the car, that single car, so then I turned my head back and looking out the window and he settled in beside me and started talking.

Well, the hour went very quickly, the trip out to Geneva and I don't remember what all we talked about. He probably did all the talking because he was the one who usually dominated every situation that any other people shared in, and we arrived, and another limousine and another chauffeur met us at the train there, and I was taken to this estate which is only about a mile away from the station. It was about between three and four hundred acres and it was split into three strips. There was land over on the farthest off, was the land along the eastern side of the Fox River. Then there was the Fox River and then comes another strip of land which was retained for his personal and private property and their house called the Villa was there and Mrs. Fabyan's pet zoo; she had a lot of zoo animals, in a small, large cage on the grounds and she was interested in...I as shown everything, and then on the west side of the highway, the Lincoln Highway. The Fox River and the Lincoln Highway were the two parallel breaks in the land that belonged to the Riverbank Estate. And on that side of the Lincoln Highway, as you go away from Geneva, Illinois, there were two frame houses, one was called the lodge and one was called Ingledew Cottage down the road a piece, and that's where he kept all his workers and he developed these different laboratories.

He had an engineering laboratory which has gone down in history because, for two reasons. They perfected Sabinite which is the material that you used to put on auditorium walls to make it soundproof. There was no such thing as soundproof materials in those days at all so this Sabinite was something that could be used as sort of an extra layer of wall and it contained this Sabinite. And then the engineering department also had perfected something that to me looked exactly like a tuning fork, like a giant tuning fork, and it had some very important something or other to do with the war, that was secret, I don't particularly know what was, so he really did, you know, do some things that were for the benefit of humanity and not just George Fabyan alone, and so I was housed in the lodge which was the nearest to the villa; I mean on that side of the road it was the nearest to the villa down here, and he had a great big, this isn't important to the story but it just shows the character of the man, he had a tremendous fire cave, I guess you'd call it. It was, it had a brick wall around it, the wall about the height of the seat there and that was all built of brick and it took about five or six foot logs to burn and every night he would have a big fire in that fireplace and over here, that direction not very far from the fireplace, no farther than Lynn is from that wall there, he would swing back and forth in this tremendous chair.

This is the portrait that's in here, he's swinging back and forth in that big chair and whenever he wanted to ball anybody out, which he did frequently, he would have them brought there. He would stand them up over here say and over there was George Fabyan and he'd swing back and forth on those gigantic chains that seemed to me they were about fifty feet high, fifty feet long, and give that person hell, so it was called "the hell chair." Everybody, all of us, were always calling it, oh here, yes, that's it. And that was his dress. At Riverbank, he never wore anything else. Always puttees and knee bloomers and the rest of the...but anyway there he is, looking quite like Teddy Roosevelt, by the expression and the mustache and the hat, and the expression and so on.

Well he had, you see, he had run away from home when he was a boy in his teens, from his blue blood family in Boston. They, his father was the head of the Bliss Fabyan Cotton Goods textile corporation. It was the largest textile corporation in the world at that time, and he had offices in Chicago, I mean there were branch offices in Chicago and in Saint Louis. And of course the main office in Boston, and so after George Fabyan had run away from home and gone off somewhere, he worked with lumber for a while. I've never been very clear about whether he did it in Chicago in the selling and loading of lumber or whether he did it in, up in Wisconsin or Minnesota where the lumber was found, and cut, and shipped from there; but at any rate, when he was, I think he was fifteen when he ran away from home, and when he was nineteen he went down to Chicago, or down to Saint Louis, saw the manager of the Saint Louis office and asked for a job as a salesman and he made the Saint Louis manager promise not to let the senior Fabyan know that he was there, that he George was there, and he made the Saint Louis manager promise to send all his sales records in to the parent company, parent office, under the name of Mr. X.

Well, he made phenomenal sales. You know, everything he did was on the grand scale so his sales were... just nothing like it had ever been seen or heard of before. So after two years, the father just demanded to meet this Mr. X whose sales had been so phenomenal, and the father just couldn't understand why Mr. X was remaining so secretly behind a pseudonym, so he persuaded the Saint, Fabyan in Boston, persuaded the Saint Louis manager to bring this Mr. X to Boston. Well, of course, it's the usual story from there on. The father fell on his neck and forgave the, he'd been disinherited when he disappeared, but the father reinstated him in the family, and family fortune, and the family business, and at the age of twenty-one he was made manager of the Chicago office, which was the second largest office in that tremendous corporation, and in the meantime he had married a young woman named Nell Wright, W-R-I-G-H-T. Her father was an army officer and he had met her somewhere up in Wisconsin or Minnesota or wherever it was and they were married and stayed married all the rest of their lives, which is not kind of the conclusion you would expect from that in most cases with such an individual, such a demanding individual, and all the other history.

Well, then at twenty three his father died and left him three million dollars. I think it was three million. Anyway, it was somewhere in the millions and so with that he started to work up this idea of having all these research departments doing things of one kind or another, and, of course, one of the things that he fell for which shows his lack of education was the biliteral cipher of Sir Francis Bacon which Mrs. Gallup claimed proved that Bacon wrote Shakespeare, and she had published in 1899, quite a while previous to all this, she'd published a book about this thick and this big. It's probably there; there must be a couple copies of it in the Friedman collection, and he had been introduced to her by the Prescotts of Boston who were among the millionaire friends of the Fabyan, senior Fabyan family, and they were interested in Mrs. Gallup and her biliteral cipher so they got Mrs. Fabyan, George Fabyan, in touch with Mrs. Gallup and he brought her and her sister, Miss Kate Wells, to Riverbank and set them up in one of those two frame houses as personal guests, and to go ahead and pursue the work, and that was when he got the idea of

getting a number of young college graduates who were interested in the subject of Shakespeare to come out there and learn from Mrs. Gallup, what she had discovered, quote discovered close quote, and so we began to work. That was in the, he got some young college graduates, I remember there was one girl, Cornell graduate, and another one from some big university, and I forget where the young men came from. There was only one of those for a while because my husband was already there as the head of the genetics laboratory where he was, a lot of these things sound extraneous, but it's all just a part of the day to day development in the story. He had written to Cornell University, George Fabyan had, a couple of years before I went there and had said that he wanted a geneticist, a person who could develop new breeds of corn and oats and experiment with planting them in the light of the moon or the dark of the moon, you know all those old wives tales, and so he wrote to Cornell and said that he wanted, he didn't want a "has-been-er," he wanted an "as-is-er." Those were the very words. I saw copies of the letter. Well, my husband was doing postgraduate work and working for the Carnegie Institution with corn on Long Island at the time, so Fabyan thought that that was just ideal, so he had brought my husband there.

These crazy ideas even included the fact that Fabyan believed in perpetual motion and he was going to have this person, whomever it was he was going to get, he was going to have him work on theories. He had a thing that he called a perpetual motion machine which was out back of the laboratories. I remember going, looking at it for quite a while, and it just seemed to me like a great, huge metal something-or-other but he didn't, I guess he got so much ridicule from the perpetual motion idea that he gave that up shortly and didn't adhere to it but he had my husband dealing with fruit flies, *drosophila melanogaster*, those teensy-weensy fruit flies, and trying to develop new rules and laws in genetics by marrying a yellow-eyed fruit fly with one yellow eye and one blue eye with a normal fruit fly. You see the reason they use fruit flies is because it has such a short lifespan you get a whole new generation in three weeks. And I can remember William Friedman's laboratory was in a wind mill. It was a great framework with real rooms in it which were two stories. There was the main story and then the greenhouses were off that, where he worked with plants and then upstairs was his sleeping quarters and studio. And the bottom floor that you entered had to go into the windmill building from just one entrance and that was where he worked on the fruit flies. I used to watch him; each little bottle about that size would have some overripe banana in it and the fruit flies would be put in there because that was what they lived on. So after he would marry a certain type of pair, one with some defect and another one which was perfect, and that went on and on and on, and that's when I first met him was in that laboratory.

Fabyan showed me all over the place, even the engineering laboratory with all these complicated things that I didn't have the faintest idea what they were about because I am no engineer, I can assure you, or ordinance man either but they did a lot of things during the war. You see, the war came on so soon after that. Within less than a year we were in the war and the engineering laboratory at Riverbank really turned out some good things. Well, the thing that we learned later

on but before, fortunately, before the end of the war—he had us teaching people who could be used in the war, sent overseas, in communications, that is in dealing with ciphers and cipher systems and how to use them and so on. This is what we were doing, but mainly I was supposed to be engaged on this proof that Bacon wrote Shakespeare and so he...with all his roughness and his booming voice commands to everybody that he talked to, everything was done for us, you know. Our beds at night were always turned down, our covers were always turned down, pitchers of ice water on the bedside table, dishes of fruit with fruit knives, when you go to bed at night this would all be awaiting you. We had superb service. I'm sure all of us young college people who were, we must have numbered some, oh, fifteen by the end of the first summer that I was there, and of course all of us were living in such luxuries we had never known but he didn't pay anything. When I first went there he paid me thirty dollars a month. And keep, whatever he called that, he had a special term for it. You weren't allowed to have any wants, any individual want, no matter how. You could ask for something outrageous even and he was just outrageous enough himself that he would think that it was, you know, fun, a good idea, and you'd get it if you made sure that it was outrageous enough to shock him a little bit.

Well, then of course, he had, like so many uneducated people, they seemed to have some kind of a perspective and look into the future that the rest of us don't have, and he seemed to sense long before anyone else that it was only going to be a very short time before we'd be in that war, and so he started the study of ciphers and he got everything that was available for us to work with and the only thing that was available in the form of instruction for military ciphers was a little book about this thick called the *Elements of Cryptography*, is that it? That Parker Hitt book. Parker Hitt was an army officer who had taught classes at Fort Leavenworth which is the Army, well I guess you'd call it graduate school, and he had taught there and he had developed this science of solving ciphers up to the point of where he could solve a substitution cipher that used six different alphabets, that is letters 1..2..3..4..5..and 6 would designate, there would be six alphabets used in the message where the first letter would be in the same alphabet as the seventh letter and the fourteenth letter and so on. So we had that as a textbook and we brought in other young people and he never, never let anybody forget though the bilateral cipher and his main purpose in life and that was to prove that Bacon wrote Shakespeare so that had to be carried on along with the other, but he built up quite a decent group of people.

But then his foresight is strikingly evident in the fact that he came down to Washington and because of the very impressive, imperious manner that he had, he got the ear of all our higher ups in Washington and they agreed that he should do all the deciphering of all the secret correspondence for the armed forces at, well not only the armed forces but it was for all the departments of government—State, State Department, Justice Department, what are the other? Well, there was War Department, Navy Department, State Department, Justice, and Post Office—five, five divisions, and we were doing the work that everything that they got that was in any kind of a secret form or disguised cipher was sent to us and we would solve it and it would go back to Washington, usually within two hours by wire, but after, oh, a year or so there were

certain people in Washington that got kind of tired of that time being spent that the messages were sent, for the messages to be set back and forth by wire, wired out in their secret form and wired back in plain text, although I'm sure we didn't use any cover system for that at that time because it wasn't considered dangerous enough to be worried about. Well, then, as I say, they wanted to take over this operation in Washington, the Army and Navy and military intelligence and whatever the intelligence branch of the Navy was called at that time. It wasn't called intelligence, and I don't recall that name. But at any rate, they wanted, had wanted, we learned all this later, that it was proposed that the whole body of his people at Riverbank be moved bodily to Washington but he was, he couldn't give it up, wouldn't give it up, you see. He opened all our mail. We didn't know anything about this until years later and my husband had been offered commission two or three different times. Found that out much later, year, year and a half later after it happened. He was just so determined to keep his, keep a hold of things and he thought nothing of opening anybody's, everybody's mail. There was just loads of mail that we learned years later about the contents of and perhaps we even saw carbon copies of the letters in Washington eventually, but that was the kind of man he was. And so after my husband went to, did go in, did get into uniform and left for Europe in May of 1918, not 1917, you see we went to war in the spring of 1917, World War One, and all of this that I've been talking about had to happen in the meantime and my husband finally got a commission in the Army and went to general headquarters of the American Expeditionary Forces and was there during the war, and the rest of the war he went, oh dear now, I think I mentioned a moment ago but at the moment I can't think exactly when he went. At any rate, he was asked to stay in Chaumont, France, American headquarters, after the war was finished to write up the story of the section on codes and ciphers, and so he didn't get back until April of 1919. The armistice, you see, had been signed in November, November before, but he got back in 1919 and before he left Chaumont, George Fabyan sent him a telegram, a cablegram saying "come on back, your salary has been going on."

Well we had decided that we didn't want to go back to Riverbank, that we'd like to have a few things, be allowed to make decisions on a few things anyway. We were determined we wouldn't go back there, but anywhere my husband went to apply for a job, he wanted to get a job with an industrial company, where he could, where he'd be given laboratories and equipment and so on to experiment and everywhere he'd appear, and answer to an appointment about a job, right in that office at that moment would appear a telegram from George Fabyan, "Come on back! Your salary has been going on." And we finally realized that he was having us watched, you know. He knew every move that we made and that we would have to go back to at least convince him of something or other. Well, we did and he convinced us that things would be different. In the first place, the first condition we made was that we would not live on the estate, that we were insistent that we would live in the little town of Geneva, a mile away, which we did; we did succeed in doing that. But the second condition on which my husband was adamant was, that was that we would be given liberty to prove or disprove that bilateral cipher because we had

come to be absolutely disillusioned with it. No eyes had dealt with the type forms and it was a question of visual, of exact differences, you had to have the eye.

ESF:

At that time we would be given absolute freedom to prove or disprove the bilateral cipher but everything we tried to do was the same old story. He'd find some way of breaking it up. He'd mess the whole plan up, and if this college professor from Chicago University or Princeton or Yale or Harvard or anywhere that, he would get the top people in the English department and bring them out to Riverbank and give them a grand time, as you can see how he treated us poor, lowly members of the place that with the people like the head of the English department at a big university would be treated like a king and they always were, but none of them were ever convinced of the reality of, that the cipher was really there and that there were and that there were the two different kinds of the small "a" for example, there were two of everything were supposed to possess different characteristics, because that's explained quite explicitly in that book. And so the Army kept clamoring for my husband; the Army Signal Corps was determined to get him to Washington and they kept after him. Well, Fabyan took most of that mail, so they finally started telephoning, and twice we went to Fabyan and said that. My husband told him that he had been offered this job in Washington and that whatever branch it was whether it was Army or Navy or State Department and Fabyan would say, "How much did they offer you?" And if my husband said three thousand, for example, Fabyan would come back, "Well, I'll give you six. You can't go. I'll give you six thousand." And that happened twice that some negotiation like that was attempted and he said that he would double salary, whatever salary was offered my husband. But he never, never gave a single dollar that original cablegram to France, "come on back your salary is going on," never a dollar paid him and any of these times when Fabyan said "I'll give you twice whatever they'll give you," never materialized. So I proposed that, see we were living in a house in Geneva, and I proposed that we get all ready to go, all packed up, and even dressed to travel on the train, and then we would go and tell him that we were leaving and that's exactly what we did and he realized at last that he was beaten and he did let us go without having somebody run over us before we got out of town. And so we went to Washington.

My husband went to work for the Army. I guess pretty well know his history from then on; we had a very interesting life because when, sad for me in this respect, somebody would ask for him, try to hire him away from the Signal Corps or whatever branch he was working for at the time, and when they couldn't get him, I'd be offered a job. So I said rather bitterly sometime recently, somebody asked me to do something or the other, and someone else said, "Oh well, you don't have to do that. Mr. Friedman did that in such-a -such a year," something like that. I said, "That's the story of my life. Somebody asks for my husband and they can't get him, so they take me." So that explains why I know so much more about what went on in my husband's brain and hands and there are a lot of very entertaining incidents connected with our working together. I only stayed in, with the government services for a year after we came to Washington. Then I decided to stay home and write some books, and I started two books but I was never allowed to

stay there. Somebody, every time I'd find somebody sitting on the doorstep and when, as I said, they couldn't get my husband, they took me so I've had a rather split personality over the years, and I've never had, so much has been written about my husband although his actual biography is still to be written, as you all know when Ron Clark was down here last year. Well, that's not out yet but it will be out eventually and some more things will be told. Now Lynn isn't here, there was, she had a list of things she wanted me to tell you and I don't know whether I...

Man:

...have some questions?

Woman:

Yeah, I want to know, were you all married at Riverbank? What did Mr. Fabyan think about that? Was that alright with him?

ESF:

I think he felt that that was fine. He knew that I would stay then as long as my husband did and of course, my husband was doing this really, very valuable experiments in heredity and generations of fruit flies, and, well, he did other things too, he worked with plants and...and then too when we went back to Riverbank after he followed my husband around and ruined all the chances of his getting a job in industry, after we went back there, he promised that we would have the chance to prove or disprove once and for all Mrs. Gallup's decipherments and then every time a college professor would arrive he would let him be shown everything that there was to be seen but then he'd begin this sales talk about this or that phase of the thing, and just never got anywhere. You see, many times he would rig up some story about some person not being available. Say, a professor from Princeton, for example, was supposed to arrive on such-a-such a day at such a time and I suppose it was, I didn't think of it then, but I have since very much, I think that it was Fabyan who rigged up the telegram saying he couldn't come. You see it would arrive, this telegram, which we'd be shown that he couldn't come and I think it was all a matter of connivance on his part

Man:

After you left Riverbank, how much did you work on the Shakespeare question until? Did this come up then again in the fifties or?

ESF:

Well, it was there all the time. There were other people besides Mrs. Gallup, for heaven's sake, thousands of them from over the world, people even from foreign countries. At that time too, *Baconiana*, which was the journal published by the Bacon Society of England, which was a very large society and consisted of a great many very wealthy people published that, and, well, we

kept up with all those things and our names got known around not only in the United States but abroad and people would approach us constantly with ciphers , other forms of ciphers, not her form, not that, not dealing with type, but some other way, they'd have some silly complicated way of, diagonal lines that went like this down a page. They couldn't give any rule or reason at all why they had, took that particular form but there were thousands of them. You people must, some of you at least must remember about Marie Bauer digging down at Williamsburg. She was a California woman and she got the idea that the Shakespeare manuscripts were buried underneath the Bruton Parish Church and everybody liked that that had some new cipher system. Or it really wouldn't be a system but one they claimed was a system to prove that Bacon wrote Shakespeare would sooner or later turn up but some of the public was taken in by it.

When Theodore Roosevelt was president of, what was that publishing company he was president of? I mean Theodore Roosevelt Junior. He was ready to publish a book; the Roosevelt Publish House was ready to publish a book by a man named Dr. Cunningham, the doctor being an economist, and he was well known in his field. He was from California but he was well known in his field as an economist and an authoritative person. But he went haywire on this thing and he'd pick out a letter and this line and then zigzag down like this and, you know, just no rhyme or reason you could prove anything under the sun by that. He came to our, Theodore Roosevelt wrote my husband, and asked him to see this Dr. Cunningham and so he did and he brought Dr. Cunningham out to our house, I remember, and he went into the library and, well we got all of the books that pertained to the subject and the volume had got so staggering with these nuts who had, they really weren't legitimate systems so we stopped collecting that kind of thing but those who had seen us personally and so on. Well, this Dr. Cunningham did come to see my husband and sent by Theodore Roosevelt, and he, it just didn't work out. There was no basis whatever for, except in his head, for the cipher system he used. It wasn't a system and so then this woman in California where Dr. Cunningham lived, Marie Bauer had read his books, his little pamphlets he published about the bilateral cipher and Bacon's authorship, and she got money from somebody, I don't know who, and we never did know who the wealthy people in California were who sent her east, but she was determined that she was going to dig under the Bruton Parish Church. Well, they wouldn't let her and so she started getting cipher messages out of the names and dates on the tombs themselves that were in the Bruton Parish churchyard, and I remember one journalist that really, he was a young college graduate and a very bright person but he was so sure that she was right about some of these messages that she got from a tomb or two there that he wrote an article about her and you know, kind of present both sides of the story and so on, but he was actually taken in by it and he was the only person of his state of education, he was, really, had very fine training back of him, college training, and so you never know what a quirk it is in people's minds that can convince them that something is, you know, really works according to rules when there is no rhyme or reason or rules about it at all.

Man:

But after World War II you decided to take this up again and actually write a book about it or?

ESF:

Well, I think we'd been at it, you know, in scrap fashion all through the years and then all of a sudden one January somebody on the staff at the Folger Library, we said, had always said, when we left Riverbank, that when Mrs. Gallup died, we were going to write a book but she died in 1934 and while we worked at it in a scrappy kind of fashion because we didn't have time to devote all of our time to that, so one day somebody said to us, "Why don't you enter the manuscript in the Folger Library competition?" They had two prizes to offer, one for Elizabethan history and one for Elizabethan writing, and history and literature those were the two branches, and it was then, within a month I think, time to enter the manuscript in the competition. We didn't have time to do any revision or anything. So as I look back on it, I am really kind of ashamed of the fact that we presented this manuscript with a stack of stuff about this high because we hadn't done any weeding out. You see there was no time to do any weeding out; the contest was upon us. Well, it won the prize. The literature prize.

[End of tape]