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JOHN HURT (Collection)

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A Translator Extraordinaire

A tribute to one of the original seven involved in the Signals Intelligence Service

From 13 May 1930 until his retirement in January 1963, John Hurt made an invaluable contribution to the nation's cryptologic effort. His work as a translator of Japanese, especially prior to and during World War II, won him the admiration of the author, along with many of the others who were connected with the Signals Intelligence Agency and the National Security Agency.

"Hitotsu, Futatsu, Mitsu, Yotsu!"

One of my earliest recollections of John Hurt is his rapid-fire staccato "one-two-three-four!" in Japanese, as he jumped up to answer a summons to the telephone. In 1936, there was only the one telephone in Mr. Friedman's office with an extension on the secretary's desk just outside. The entire staff (nine people when I arrived in August 1936) occupied one additional room plus a vault room. Normally, John was the only one who actually spent his work day in the vault room. At closing time each afternoon we carried all our classified materials into the vault for secure storage overnight. When Louise Newkirk Nelson, Mr. Friedman's secretary, had a call for one of us, she pressed a button on her desk which sounded a buzzer in the back room using the Morse code equivalent, in long and short buzzes, of our initial. Hence, the four short buzzes for "H" (dot, dot, dot, dot) and John's crisp response.

The year 1930 was a memorable one in the history of the Signal Intelligence Service, NSA's Army predecessor. Mr. William F. Friedman was the sole professional engaged in code and cipher compilation for the War Department; he was assisted for a time by a former prize fighter named James J. Skelly who was finally discharged. Cryptanalytic activities conducted in New York by a small group of people under the sponsorship

of Military Intelligence, G-2, War Department, had been ordered discontinued.* The newly constituted Signal Intelligence Service began as part of the War Plans and Training Division of the Office of the Chief Signal Officer. Six people, all hired during 1930, formed the nucleus of the new activity:

Name	Title	Started
Annie Louise Newkirk	Cryptographic Clerk	Mar. 1
Frank B. Rowlett	Jun. Cryptanalyst	Apr. 1
Abraham Sinkov	Jun. Cryptanalyst	Apr. 10
Solomon Kullback	Jun. Cryptanalyst	Apr. 21
John B. Hurt	Cryptanalyst Aide	May 13
H. Lawrence Clark	Cryptographic Clerk	Sept. 2

When Mr. Friedman formulated his criteria for potential cryptanalyst trainees, he included training in mathematics and science with knowledge of a foreign language. However, after requesting someone with Japanese language skill, Mr. Friedman and the Civil Service Commission at first drew a blank. Finally, the name of John Hurt was brought to Mr. Friedman's attention. Despite the fact that his failure to satisfy a mathematics requirement prevented him from receiving a college degree, John was hired. It soon became apparent that what John lacked in science and mathematics he more than made up for in his knowledge of Japanese and French. Thus, John's reporting for duty with the S.I.S. on May 13, 1930 launched a remarkable chapter in the history of the intelligence community.

*M.I.-8, under the late Herbert O. Yardley, was supported in part by State Department funds. Yardley's THE AMERICAN BLACK CHAMBER was published in 1931, apparently a direct result of the 1929 reorganization.

John was no ordinary translator. On his own initiative, he read extensively, accumulating an enormous collection of details about written Japanese, with especial emphasis on etymology and Japanese tradition. This gave rise to the remark by many who later came in contact with him that John knew more about the language than most native-born Japanese. His first exposure to the language came from a neighbor in his home town of Wytheville, Virginia. The neighbor had been a missionary in Japan. She gave John Japanese language lessons in exchange for vegetables from the Hurts' family garden. Later he learned more from a college roommate who was of Japanese origin. In this way, John picked up a familiarity with basic Japanese, along with an introduction to the written style and Japanese ideographs. But this was only the beginning—in a very real sense he was self-taught, using his prodigious memory and later experience with the style of diplomats who authored the materials he dealt with on the job to expand his understanding. I well remember how, during some of the classes in Japanese which he conducted for the rest of us, John would launch into a digression on the origins of particular words—tracing their roots to a remote dynasty, and explaining how their usage developed over the ages. We learned, also, of the relationship of the Japanese writing system to the Chinese ideographs from which it was derived, and the influence the Chinese system had on the Japanese language. John could converse in Japanese with ease, but his style, I am told, was not really colloquial.

Actually, John's academic credentials were much more impressive in Latin and French than in Japanese. From 1921 to 1928, he attended William and Mary College, Roanoke College, and the University of Virginia, majoring in Latin and French. In the summer of 1929, he studied French at the University of Paris. John picked up additional languages with ease, and related all Indo-European tongues back to Sanskrit. It was always a source of amazement to others to learn that John has never set foot in Japan. Many years later, after retirement, he visited France again. His disgusted comment on returning: "Parisians don't know how to speak French!"

John was a gentle soul, soft-hearted, impractical in mundane matters, and helpless in things arithmetical or mathematical. In politics he was an idealist, liberal in the extreme, and violently anti-fascist. During and following the Spanish Civil War this, of course, meant he was anti-Franco. John's translations were often literary masterpieces, but sometimes because of his political opinions, he strayed from the content of the original Japanese text. In fact, on several occasions, Mr. Friedman had to chastise John because of his color-

ful footnotes, in which he editorialized on the evils of the Spanish dictator!

John's well-known absent-mindedness included his behavior in traffic—as a pedestrian of course, since he never learned to drive a car. He often crossed streets while absorbed in thought, almost totally oblivious to oncoming traffic. He was once actually knocked down by a taxicab, but luckily he was only struck a glancing blow. The taxi driver stopped, rushed to his side, and excitedly asked, "Are you hurt?!" John got to his feet, brushed his clothes, responded with "Yes, John B." and walked on!

Stuart Buck, one of John's colleagues tells the following anecdote as an example of John's simplicity and kindness: "When I first joined the Japanese Diplomatic Section in the fall of 1944, I felt somewhat overwhelmed by what seemed to be a very complex organization, filled with 'experts' in fields I knew nothing about. With a sense of almost total inadequacy, I sat down and wondered if I could possibly measure up. A rather small man from the other end of the office got up, walked over to my desk, introduced himself, and sat down. This was the first time that I had ever heard the name 'John Hurt.' For over an hour he talked about the Japanese language and the nature of the work I was to be involved in. None of this was about himself, only on matters that concerned the *problem*. He made it sound fascinating, challenging, important—and worthy of one's very best efforts. In over thirty years at the Agency, working on dozens of problems, I never again had such an introduction to the work of a section. . . . this reveals the inherent kindness of John Hurt, and shows also his attitude toward the work itself. In the best sense of the word, he was 'mission-oriented.' And he never changed."

John's innocence as to business matters was reflected in several related areas. For example he could never master the system of military ranks and corresponding insignia. Of course, he was completely helpless in filling out forms, even daily attendance records. And his wife had to dole out his weekly cash allowance, which was frequently spent before the end of the week. [redacted] his administrative supervisor during his last tour of duty in the Agency, relates an incident when John had worked late, and "Kaz" offered to take him home. But when Kaz asked for his home address, John simply couldn't remember.

John's impatience with administrative and other impediments to his full concentration on his technical specialty was well known. In an essay describing experiences with the Japanese problem from 1930 to 1945, John devoted several pages to a harangue on the difficulties and fascinations of the cryptanalyst's profession.

(the cryptanalyst), as much as one concentrating on the mysteries of the universe or of atoms, ought to be protected. He ought to be protected from the impingements of administration, interruptions, and that devastating thing, noise. Unwitting though it be, it is nonetheless cruel to harass a man, . . . concentrating on vital matters, with notions about administrative policy, secrecy, loyalty, or this and that. . . . The hum and buzz of scores of workers punctuated by the click of typewriters do him inestimable harm.

John once related a story dating back to his elementary school experience which at least partially accounts for his inability to cope with college-level mathematics. While nothing was wrong with his natural talent for memorization, John fell down hopelessly when this involved numbers. John's fourth-grade teacher was hard of hearing. Also, John noticed that much of the testing for knowledge for multiplication tables was done orally. So our hero's recitation of the "nines" multiplication table, for example, sounded something like: "One times nine equals nine, two times nine equals 18, three times nine equals 27, four times nine equals 'uh - uh', five times nine equals 'uh - uh' . . ." One might say John took advantage of his teacher's limitation to overcome his own. In one way or another John made it through arithmetic and math classes in high school. But in college the requirement of passing grades in geometry and trigonometry held him back. Many years later, after retirement, he decided to make up for this lack by enrolling in one or two courses at the University of Maryland. By this time, Maryland's requirements with respect to math courses had been eased. Lo and behold, he finally made it! My wife and I shared in his happiness by attending the outdoor graduation ceremony, when John was awarded his cherished diploma.

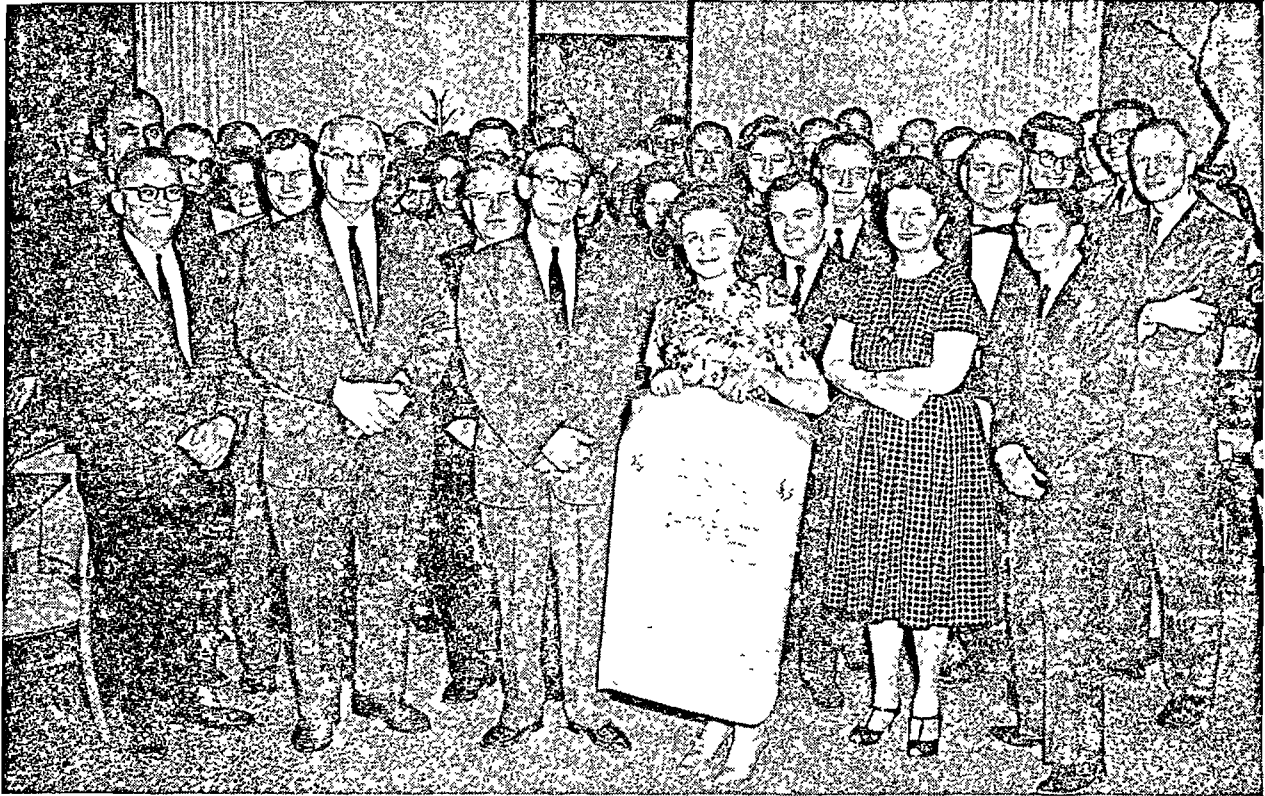
John's only hobby outside his linguistic specialty was his deep interest in operatic and other serious vocal music. He accumulated a tremendous collection of records, and although he had no musical training, his knowledge of various artists' recordings was encyclopedic. He was particularly fond of Schubert's *lieder*—he had made it a point to acquire every available recording of Schubert's "Die Forelle", for example. And he memorized the entire libretto of his favorite operas.

It was in the '30s and of course during World War II that John made the kind of spectacular contributions that earned, or should have earned, the country's grateful thanks. I recall Mr. Friedman's comment regarding John Hurt, and a few others, that those early breakthroughs justified his full salary for life, even if he never did another thing. In the thirties the principal cryptanalytic preoccupation at the Signal Intelligence Service was Japanese diplomatic systems. These systems were subject to fairly frequent change, which necessitated a new special effort every few months. John was an uncanny guesser—I

can remember how his guesses often resulted in quantum leaps in the solution process. In some cases John had even developed a familiarity with the personal style of particular Japanese diplomats, which was an invaluable support to analysis. And just before the War, when we were getting our first piecemeal breaks in solution of the Purple machine, John was in the thick of battle. At this stage, only a few isolated letters were recovered, and to further complicate matters, the Japanese began using shorthand equivalents for many diphthongs and sometimes for full phrases. Until these strange mixtures of plain-language Japanese fragments and meaningless consonant substitutions were unravelled, the reconstruction of the daily-changing Purple machine's variables made life difficult indeed. John's often inspired guesses did much to speed up system solution.

One of John's most spectacular guesses is also historically exciting because it involves our receipt, decoding, and translation of the August 1945 Japanese surrender message. Based on information contained in Japanese messages sent during the few days preceding August 14, we were expecting and were on the lookout for the surrender message. It turned out that the message was transmitted, through Japanese diplomats in neutral countries, in at least two of the Japanese code systems. When the first of these messages was received in the office, it had great blanks, one of them several lines in length, due to garbled transmission. You can imagine what excitement accompanied our handling of this message: we in fact were in possession of the official Japanese surrender document *before* the President himself—indeed, also before the Japanese official to whom the message was addressed, and even before his own code clerk had converted the message into cleartext Japanese! John was at the center of the excited little group looking over her shoulder as our ace decode clerk, Clara Watson, worked on the message. John rendered the text into English right along with the transposition and decodement process. The rather large blank areas didn't seem to bother John, as he filled in with guesses or improvisations with hardly a pause. When another, cleaner, copy of the message became available later that day, the completed text confirmed that John's great guesses were nearly 100% accurate!

John's translator colleagues report that he literally threw himself into his work. After he read through the Japanese of a message from the Japanese Ambassador in Berlin, for example, John assumed the identity of Hiroshi Oshima, and dictated his English rendition with a stride and flourish and tone to match Baron Oshima's personality. Similarly, other diplomats' literary style would be transformed into English prose in equivalent style. John was one among that rare breed of translator



Mr. & Mrs. Hurt with far left, the author, Frank Rowlett, and far right, Dr. Louis W. Tordella.

able to convey in English the style and flavor of the original. At times his transcriber would be treated to John's falsetto sing-song, and even occasionally poetic English, to faithfully emulate the personal style of the diplomatic sender.

This also applied when John made translations from Japanese or French books and documents. There was the time in 1944 when Sam Hall was patrolling an area in "B" Building at Arlington Hall Station for security check. It was about 11 o'clock at night and Sam heard a loud voice coming from behind a partition, as of someone making a speech. The door was closed, so Sam stood on a chair and peeked over the top of the partition. There was John Hurt, alone, pacing up and down with a book in his hand, and in the style of an orator, delivering aloud his English translation with hardly a pause.

When John finally retired in January 1963, he and his wife Ana celebrated by taking a European vacation. They moved to New York, where she pursued her career as a professional cellist. On August 8, 1966, John passed away, a quiet finale to a remarkable career. His contributions were known only to a few of us who were privileged to be inside the same double fence, where anonymity remains the rule. Perhaps the words inscribed

on the scroll presented to John at his retirement make a fitting close to this essay:

With genius, good humor, and wisdom
John blazed philological trails;
His talents brought truths to the surface,
Removing dense enemy veils.

Uncanny at finding the answers,
John often turned nonsense to sense;
He lightened our technical burdens
And strengthened our country's defense.

With a hearty 'Well Done!' and 'God Bless You!'
Your old friends have come here to say:
We wish you and Ana good fortune—
SAYONARA!—Good cheer speed your way!

Mr. Snyder received a B.S. in Chemistry from George Washington University. During his career as a cryptanalyst and computer specialist (1936-64), he directed an analytical unit during World War II, helped develop and adapt early computers, and supervised the HARVEST project. In 1964 he became director of automation activities at the Library of Congress. He is co-author, with Ashley Montagu, of *Man And The Computer*, and author of *History of NSA General-Purpose Electronic Digital Computers*. At present he is working on an unclassified version of the NSA computer history.