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BASIC PATTERNS OF [redacted] CODES AND CIPHERS

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FIRST LOSSES

Our editorial board has lost two (or, in a sense, three) editors this winter. who was both Language Editor and Art Editor, has moved on to new duties. William Jackson, the TA Editor, retired from the Agency in December.

Our thanks to both for their parts in creating CRYPTOLOG and making it (we hope) a friendly visitor to your desks.

P.L. 86-36

ANSWERS TO LAST MONTH'S "CROSSED CODEWORDS"

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A C T I O S U Z S U M O R A Y T O V I P
M M X S H S T A T T E M E C T L Z O U I
B M B T O A T I S E T U H C A K E T T S
I L S L K B E R D V T E C C O M F A R T
O Y K M E R R E M A A E E T A P L A I E
U D A X Y E D R A M L L A M N R S R N L
S A E O N E O E Q U N T R U N T R E E S
Z Z R O U T E L F I R U A L S O E V E N
O E E S T L O D A U N T D T B H A M E S
O D N E X E R X A L A X E M B S E V A E
M O N E Y Y L A Y N D I I E M E R R Z Y
Y S A V I N L E L L L K G D I R B M T E
M A I N C A N O E O A A N O L O S U O E
R I G X I O U M E N U N T M O O R O E N
A L C M U S L E I E T I A T O K L S A R
M E N U P P S R D D A U V B E S O K S O
S D R O E O Z E E I E O T Y Z O O N S C
I O K S A O E N R X N E T Z B O F X I A
D E N A R K E T E D L A A R B M U U S L
N I L L I K R O Y W E N R A I N R O F I
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~~(SECRET/HVCCO)~~

LEXICOGRAPHIC CORNER

GLOSSARIES versus DICTIONARIES: WHICH SHOULD IT BE?

by JACOB GURIN, P16

Back in 1952, when the Language Research Branch was being set up in the Office of Training, we debated the ways we could provide materials of real value to linguists in the Production Organization and the School. Our objective, as we had explained it to General Ralph Canine, then Director of NSA, was to produce training and reference works which would be needed if the Agency were required to jump quickly into the processing of a relatively unfamiliar language. Our experiences with Korean had demonstrated how disastrously unprepared we could be.

We described a variety of possible publications in each language: readers, handbooks, courses, and glossaries. We agreed from the start that our lexicographical activities would be limited to glossaries--dictionaries were out! I suppose that we made a simple distinction between the two: glossaries were limited both in subject-matter coverage and in the extent of treatment of any entry. Dictionaries suffered no such restriction.

Presumably these NSA glossaries would be designed to contain the kinds of words one could expect to run into in traffic: military terms, diplomatic expressions, communications, etc. Yet somehow NSA now finds itself sponsoring the publication of suspiciously large and detailed lexicographical works which admit frankly to being dictionaries.

No one should undertake the compilation of a dictionary without realizing that an enormous investment of time and effort--perhaps an impossible amount of each--is involved. Joseph W. Scaliger, a lexicographer of the late 16th century, said that the worst criminals should neither be executed nor sentenced to forced labor, but should be condemned to compile dictionaries, because all imaginable tortures are involved in such work. And in more recent times, Henry A. Gleason, author of An Introduction to Descriptive Linguistics, states, "Dictionary making is tedious in the extreme. It is exacting. It is an incredibly large job."

Should NSA linguists be taken off their job of producing reports and translations to get involved in the tedious, time-consuming job of producing large, full-scale dictionaries? I don't think they should.

There is, of course, one outstanding exception to this. When we approach a language for which lexical aids are either nonexistent or so rudimentary as to be worthless, and where little is known about the culture background of the language, compilation of a basic dictionary becomes a necessity. Experience has shown that in these circumstances the crypto-linguist has no choice but to cull whatever information he can from whatever sources are available to him to put together a general lexical treatment of the language.

How about taking time out from production duties to compile glossaries? This they should do. Perhaps a brief historical look at the development of dictionaries and glossaries will help put the problem (and the distinction) in focus.

The Glossary came first, and it had a simple origin. As the Glossarium, it was originally a collection of glosses; that is to say, it consisted of a list of difficult Latin words with either simpler Latin versions or equivalent words in the vernacular. These words were extracted from Latin manuscripts, together with the explanatory words (glossae) which had been entered by monkish scholars.

Another prime lexical source was the Vocabulary (or Vocabularium). In the time-honored way, Latin was taught by providing instruction in grammar and drill in vocabulary. Lists of words (vocables) were committed to memory and these lists, with their meaning in the local language, made up the vocabulary.

Glossaries and Vocabularies, still in manuscript list form, were often combined, since their functions were so similar. Eventually it became apparent that their usefulness would be increased if they were arranged alphabetically. At first this meant the lumping together of all words beginning with A, then a similar mishmash under B, etc. Later someone improved on this by sorting on the first two letters only. It took a long time for the idea of the full sort to take hold.

About the middle of the 15th century, the first strictly Latin-English dictionary appeared, called Medulla Grammatices (The Marrow of Grammar), and in the 16th century the Dictionary of

Sir Thomas Elyot, Knight was the first to use the term "dictionary" in this way. In medieval Latin, the word dictionarium (literally, a collection of dicta, "sayings") gradually took on the same functions as the word vocabularium. And it was this word, dictionary, which took the place of so many others, such as Medulla Grammatices, Ortus Vocabulorum (Garden of Words), Promptorium Parvulorum (Children's Storehouse), Catholicon Anglicum (English Universal Treatise), Manipulus Vocabulorum (Handful of Vocables), Alvearie (Beehive), Abecedarium, Bibliotheca (Library), Thesaurus (Treasury), World of Words, Table Alphabetical, English Expositor, Ductor in Linguas (Guide to the Tongues), Glossographia, Etymologicum, etc.

Most of those names, although colorful, are self-explanatory. John Baret, who chose An Alvearie for the title of his 1573 work, referred to his pupils as "diligent Bees...gathering their wax and Hony into their Hive." He explained that his students perceived how much trouble it was "to come running to mee for every word they missed... I appoynted them...every day to write English before ye Latin, and likewise to gather a number of fine phrases out of Cicero, Terence, Caesar, Livie, etc., and to set them under several tytles, for the more ready finding them againe at their neede." Their experience shows that the need for developing adequate lexical aids based on terms actually encountered (with appropriate meanings for those occurrences) was as great 400 years ago as it is today.

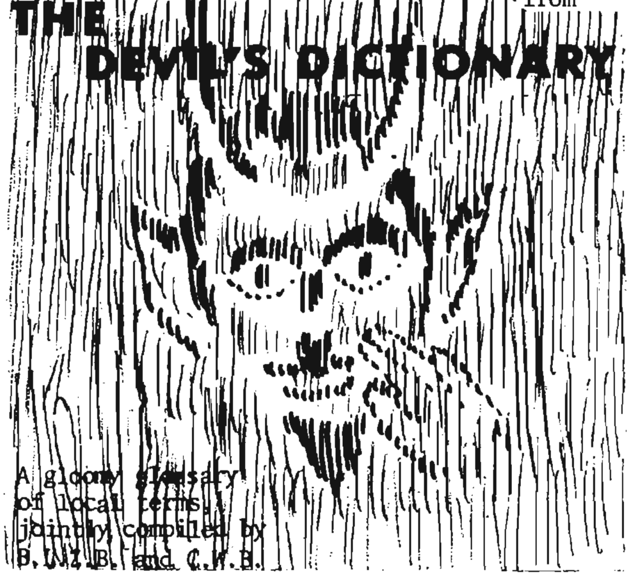
The principal stimulus to the development of dictionaries, in the modern sense, was the need to explain the hard words in one's own language. Accordingly, Robert Cawdrey in 1604 described his dictionary as:

> "A Table Alphabeticall, conteyning and teaching the true writing and understanding of hard usuall English wordes...with the interpretation thereof by plaine English wordes, gathered for the benefit and helpe of Ladies, Gentlewomen, or any other unskillful person."

By contrast, glossaries are still being published for Latin, for Anglo-Saxon, for dialects of various languages, ancient and modern. NSA is in a position to continue the old tradition by concentrating on glossaries, since our main concern is to provide clues to the meaning of difficult words in certain special forms of a foreign language, whether written or spoken, without any pretense of encompassing the entire range of the language, with all the literary and historical complexities of such an undertaking.

(UNCLASSIFIED)

AND SPEAKING OF DICTIONARIES...A few extracts from



Administrative paperwork: *the physical representation of mental constipation.*

Certification: *an imaginary line between two states of one's ineptitude, separating the imaginary abilities of one from the imaginary abilities of the other.*

Collection system: *a multimillion-dollar system for transforming electricity in the air to paper at Fort Holabird.*

Cryptanalyst: *one upon whom NSA sets its hopes during flaps and its dogs at other times.*

File: *a place where dead cryptosystems are laid to rest to await the coming of a C/A intern.*

Mathematician: *an unprincipled rogue who twists relationships in order to distort common sense into uncommon sense; for example: "Clearance + Need to Know = Access" becomes "Access - Clearance = Need to Know" or "Access - Need to Know = Clearance."*

Multiprocessor: *a computer which fails to do several jobs at the same time.*

Optimisim: *the doctrine or belief that management knows what it is doing.*

Preventive maintenance: *that which occupies the portion of the prime shift when the computer is working. (Regular maintenance, of course, occupies the remaining time.)*

Push: *one of the two things mainly conducive to success, especially at NSA. (The other is pull.)*

Reclama: *in government, to put the dice back into the box for another throw.*

Reorganization: *the admission of failure with a promise of improvement by the folly of managerial change.*

~~CONFIDENTIAL~~

Replacement of the GUPPY Library

[redacted] P.L. 86-36

Recently, the PI Diagnostic Working Group was formed to recommend a replacement system for the GUPPIES on RYE. This group is directed by Dr. Donald E. McCown; other members represent the Offices of A, B, C, E, G, and P. Expecting a RYE phase-out in the next few years, the major considerations of the Diagnostic Working Group are being centered around the diagnostic and exploitation functions of the GUPPIES. Discussions are being held on the need to reproduce certain routines in another language and on another computer complex. Backup material for such an attempt must come from experienced programmers and cryptanalysts and from the existing RYE GUPPY Library.

The RYE GUPPY Library occupies a metal file cabinet in G4, 3AIII. This collection of some one hundred programs in 494 assembly language has been placed in folders in alphabetical order and covers the date periods from 1965 through the present. New 494 programs which are CA-related are added to the collection. Many of the older and very useful programs are maintained in this file; often, the only copy of a program may be found here. The original decks of many of the GUPPY programs have been misplaced, transported to other areas outside RYE, or have been lost in organizational maneuvers. The file reflects the expertise of Marjorie Mountjoy and Carolyn Palmer, who were instrumental in developing algorithms, style, strip arithmetic, and parameter set-up. Also reflected in the file is the work of other CA programmers who have contributed a great amount of effort to the GUPPIES. The importance of the Library in 3AIII is obvious.

In the event of a RYE phase-out, the records in the GUPPY Library will serve as a guide to rewriting those programs which deal with diagnosis and exploitation. Perhaps the coding in assembly language will be difficult to follow, but the existing flowcharts for the more complex programs can be read easily. The rewriting of the diagnostic and exploitation GUPPIES for a RYE replacement cannot serve cryptanalysts as well as RYE unless the new machinery affords similar outstation input/output capabilities.

A portion of the GUPPY Library includes Special Purpose programs which account for timely decryption and processing of several cryptosystems. These routines, while performing decryption, usually will call one or more of the TREES programs to reference a Meanings File (usually a foreign language), File update, or other File processing. While not as numerous as the real GUPPIES, the Special Purpose category may be just as important to cryptanalytic effort, if not more so.

The GUPPY Library serves other purposes in addition to housing a collection of source listings. To find a failing point in a program, a bad load, or the limits of a parameter, a listing of the assembly language and an octal dump are an absolute necessity. To chap or make a correction in a program is impossible without the actual assembly containing its octal locations and machine language coding. Clever and concise coding is often studied by other analysts and programmers as an aid to their own work. The maintenance of the GUPPY File has to some extent restrained duplicate programming and rediscovering the wheel. CA-26Ø covers many areas of the 494 Library. The diagnostic and decryption effort of NSA has leaned heavily on this Library for years.

A replacement of the GUPPY Library, once the programming language and the machine have been chosen, will require the same maintenance as the present Library. Continuity and control are just as important here as in any other technical operation. To continue programming support for cryptanalytic groups, the Diagnostic and Exploitation Working Group must be informed at least a year prior to RYE phase-out as to the new computer(s) and language for program rewriting. No other approach for Special Purpose and GUPPY planning appears practical.

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THE GULF OF TONKIN INCIDENT

Walter D. Abbot, Jr.
B11

In late 1961--early 1962 a series of U.S. Navy patrols off the east coast of Communist China was proposed. The purpose of these patrols was to be three-fold. In the first place they would establish and maintain the presence of the U.S. Seventh Fleet in the international waters off the China coast; second, they would serve as a minor Cold War irritant to the "Chicoms"; and third, they would collect as much intelligence as possible concerning Chicom electronic and naval activity.

The initial phasing called for one U.S. destroyer to conduct each mission. There would be three installed positions on each mission (two radiotelephone and one manual Morse), and these positions were to serve a dual role--provide direct SIGINT support to the defense of the ship, and serve as intelligence collection facilities for as many different sources and categories of emission as could be obtained. These patrols were given the cover name DESOTO.

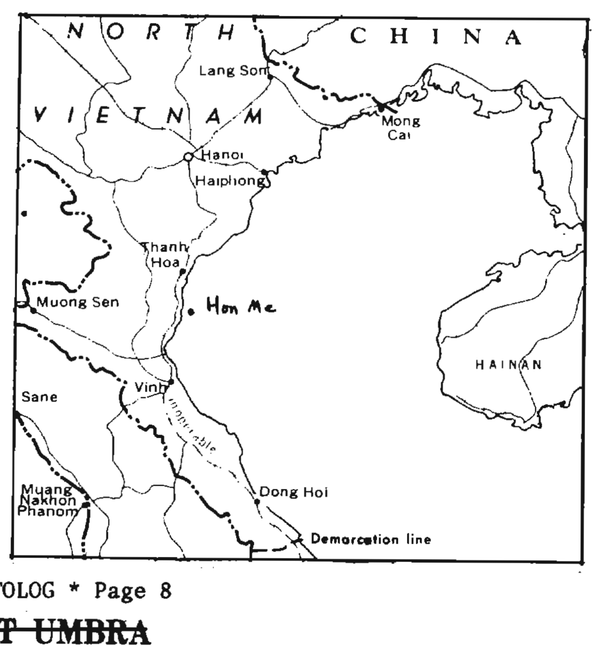
From 14 to 20 April 1962 the first DESOTO patrol was conducted, with the destroyer USS DE HAVEN as the participating vessel. The area of responsibility encompassed by the mission focused around the Tsingtao area of the Yellow Sea, and the ship was instructed not to approach any Chicom-held territory, including the offshore islands, closer than 10 miles.

Major intelligence targets for this mission fell into five categories: Chicom naval units, particularly submarines; ELINT of Chicom electrical installations; Chicom air activity; hydrographic and weather information; and merchant shipping (particularly Chicom) in the area. This first DESOTO patrol was singularly effective in evoking Chicom reaction. Such things as shadowing of the DE HAVEN by three or more Chicom vessels at one time, jamming of the DE HAVEN communications facilities, and the use of deceptive pennant numbers on the shadowing vessels all contributed to the success of the intelligence effort on this mission. In addition, the Chicoms issued three "serious warnings" to the DE HAVEN for violation of territorial rights during the 7 days the mission was in progress.

For the remainder of 1962, eight more DESOTO patrols were run, and prior to December of that year, these patrols were all conducted in the East and North China areas as well as up the Korean coast to the Soviet Gulf of Tartary. After the first mission, intelligence derived from the patrols was quite sparse. Shadowing of the patrol vessels was noted, and serious warnings were issued to almost all the patrols by the Chinese Government, but unique information was virtually nil.

In December 1962, with DESOTO patrol number IX, the USS AGERHOLM conducted the first probe into South China waters and the Gulf of Tonkin around Hainan Island. This pattern was repeated in April 1963 when the USS EDWARDS traversed the same path around Hainan Island and then extended its mission down the coast of the Democratic Republic of Vietnam (DRV). No DRV reflections were recorded at this time, and Chicom reaction was again limited to shadowing and issuance of serious warnings. Since serious warnings were not reserved for DESOTO missions (at that time the U.S. had received over 350 of these warnings for both air and sea violations), no particular significance could be attached to them.

The first DRV reaction to a DESOTO patrol came in late February--early March 1964 on the third venture into the Gulf of Tonkin, this time by the USS CRAIG. DRV radar stations performed extensive tracking of the CRAIG on her first run up the coast, and DRV naval communications referred to the CRAIG by hull number on one occasion. Although intelligence collected from this mission was not voluminous, it did contribute new insight into the placement and capability of DRV tracking stations and equipment.



Prelude to Violence

The fourth DESOTO patrol into the international waters of the Gulf of Tonkin was programmed in July 1964. Concerned more with the Vietnamese problem than the Chicom problem of its predecessors, this mission was to observe the junk fleet vessels believed to be a constant source of resupply to the guerrillas in the south, obtain navigational and hydrographic information, and procure any available intelligence on the DRV navy. Since the 1954 Geneva agreements specifically prohibited the DRV from establishing a navy, the emergence of this force had been, until late 1963--early 1964, extremely covert. During late 1957 the first DRV naval communications facilities were isolated with an estimated 30 ships involved in the transmissions. Then in 1959 the first evidence of the emergence of a modern DRV navy was noted during a probable joint DRV/Chicom naval exercise in the Pearl River estuary. Some of the vessels involved in this exercise were believed to be the same 10 motor gunboats later noted passing through the Hainan Strait, and probably represented the DRV's initial acquisition of modern naval craft. Augmentation of this force was continual after 1959, and as of late 1964 the DRV navy had a total complement of nearly 100 vessels.

Armed with this background, and clear on the purpose of the mission, the USS MADDOX reached a point on the 17th parallel about 12 miles off the coast of the DRV on 31 July 1964 at 1300 hours local time. From that point the MADDOX turned northward on a tack that was to take her up the coast for three days in what was believed to be another routine running of a DESOTO patrol.

Confrontation

Apparently the MADDOX was not the only vessel active off the North Vietnamese coast on the night of 31 July. DRV naval communications reflected that on that date the "enemy" had fired upon the island of Hon Me, and had been pursued by DRV warships to no avail. The MADDOX reported sighting vessels being pursued by DRV patrol craft, but had made no attempt to investigate the action.

Whether or not an association between the above-mentioned attack and the presence of the MADDOX was drawn by the DRV is impossible to say. They did protest to the International Control Commission that "American imperialists" had shelled their fortifications, but that was a constant complaint of the DRV and could not be directly attributed to the presence of the MADDOX. However, as the MADDOX resumed the prescribed patrol route on 1 August, a route which required her to pass Hon Me Island, DRV naval authorities reflected their awareness of the MADDOX when they mentioned that the "enemy" was "going on a course of 52 degrees...9 nautical miles from Hon Me..."

Shortly after placement of the MADDOX near Hon Me Island by DRV tracking authorities, a message was passed to an unidentified DRV fighting vessel stating that it had been "decided to fight the enemy tonight." The MADDOX was apprised accordingly in a warning which preceded the actual attack by more than 12 hours.

DRV naval tracking stations were observed in continual surveillance from that time on. In addition, several messages were intercepted, apparently pre-positioning warships in preparation for the attack.

Between approximately 1130 and 1215 (Saigon local time) on 2 August, the MADDOX reported sighting three PT's and two probable SWATOW-class PGM's (motor gunboats) about 10 miles north of Hon Me Island. During the same time frame the MADDOX reached the northernmost point of its mission and observed a large junk fleet (approximately 75 craft), which it intended to avoid on its return route. There were no military ships intermingled with the junks, and there was still no apparent hostility.

It is not possible to ascertain exactly which element of the DRV naval command ordered the attack, but shortly after the MADDOX reached the apex of its mission, a message was passed stating that it was time to close with the "enemy" and use torpedoes. The MADDOX received this information some 50 minutes before the aggressive actions commenced.

At 1530, some 30 miles from shore, the MADDOX altered her course to the southeast, heading for the mouth of the Tonkin Gulf, and increased her speed to 25 knots, attempting to avoid the three DRV torpedo boats reflected on radar as closing at about 50 knots, within 20 miles of the DESOTO ship. At that time the MADDOX requested air support and posted all hands at their battle stations.

By 1600 the DRV boats were within 5 miles of the MADDOX, still traveling at about 50 knots, and had moved into column formation, an accepted procedure for torpedo assault. The MADDOX fired three warning rounds across the bow of the lead ship, but for naught; and at 7 minutes past the hour, the MADDOX reported that she was under attack.

The PT boats broke into two formations as they closed on the stern of the MADDOX, with two of them approaching from the right side and one from the left. At a range of 2700 yards the two PT's on the right each launched one torpedo. The MADDOX then turned to the left to avoid the torpedoes, keeping the attacking craft under fire, and scored a direct hit on the PT approaching from the left, just as that craft placed a torpedo in the water. The torpedo did not run. Air support from the TICONDEROGA arrived at that point and engaged the attacking vessels, and the MADDOX withdrew from the area. Total damage: one DRV PT boat dead and burning in the water; extensive but not totally disabling damage to the other two PT's; and slight damage to one gun on the MADDOX.

In order to assert the right of the U.S. to freedom on the seas, it was decided that the DESOTO patrol should be resumed as soon as possible. The strength of the patrol was doubled, with the USS TURNER JOY joining the MADDOX for a proposed four-day continuation of the mission; a formal warning was issued to the DRV authorities in Hanoi, stating that any further such unprovoked actions would result in severe retribution; and at 0900 on 3 August, the DESOTO mission was resumed. For this phase, continuous combat air support was provided.

During the day of the 3rd, the MADDOX reported that both she and the TURNER JOY had picked up radar signals and believed they both were being shadowed. This same suspect shadow activity occurrred during the daylight hours on 4 August, but there were no provocations. Then the DRV naval communications facilities were observed alerting two SWATOW-class PGM's to make ready for military operations on the night of the 4th. The DESOTO units were advised of the possible attack, and headed for the mouth of the Gulf "at best speed."

The MADDOX reported several radar sightings of apparent hostile craft throughout the early evening hours of 4 August. Some of these sightings later broke away, but some of them continued to close. At about 2200, the MADDOX reported firing on an attacking PT boat which had presumably launched a torpedo. Three more probable PT's were tracked closing rapidly on the DESOTO ships, and continual torpedo attack was reported through 0035 on 5 August. During the attack period the two DESOTO vessels engaged several radar contacts, and the TURNER JOY reported that one vessel was probably sunk. It was also reported that a DRV PT boat may have sunk one of its own companions in the conflict.

The weather throughout the attack was overcast and cloudy, thus impairing the visibility of the support air fighters and making it impossible for them to sight the assailants. The DESOTO patrol initially reported that at least 21 torpedoes were launched during the battle. This figure was viewed as highly unlikely since the PT's carried only two torpedoes each, with no known on-sea reload capability, and the total DRV PT force was estimated at around 13, three of which had been damaged in the fighting of the 2nd. The figure was later amended when it was determined that the sonar operators may have seen their own propeller beats reflecting off the rudders during the zigzagging evasive action followed by the two DESOTO ships.

In retaliation for this second hostile action, JCS ordered CINCPAC to conduct a one-time maximum effort air strike against selected DRV targets, to include several ports known to house SWATOW-class PGM's and PT's, as well as a "priority one" hit on the Vinh oil storage area. This strike commenced on 5 August at 0700 and resulted in an estimated 90% destruction of the Vinh oil storage area plus total or partial destruction of approximately 29 DRV naval vessels. The U.S. lost two aircraft in the 64 sorties that were flown, and suffered severe damage to a third. In addition, one U.S. pilot was killed and another was captured.

The MADDOX and the TURNER JOY resumed the DESOTO mission of 6 August without further incident, and the rest is just painful history.

(At the time of the Gulf of Tonkin incident the author, then in the Army, was on his way home from USM-9, Clark Air Force Base, Phillipines, to NSA, where he became the reporter for the North Vietnamese Branch (B261). It was in connection with one of the post mortems on the incident that he gathered together the information presented in this story.)

~~(TOP SECRET UMBRA)~~

opportunities

A RYE program, PUNCH, converts punched information on cards to Field Data on paper tape. The resulting tape can be used as input to other programs. For parameters or program descriptions, call J.D. Tankersley on 3109s.

P.L. 86-36

Copies of the Guide to Russian Technical Translation, reviewed on pp. 11 and 12, may be obtained by calling Mr. Salemme on ext. 5642 or 5236, or by sending a request to him, care of P16.

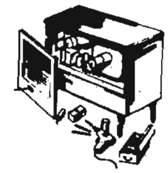
The course in codebook reconstruction, CA301, to be taught by [redacted] is scheduled to begin 24 March. Those interested should contact [redacted] as soon as possible, on ext. 3045s, since class capacity is limited, and in addition it is hoped to tailor the class, to the extent possible, to meet the needs of the students. Programmers welcome!

* * * * * * * * * *

A cluster of radio stations is sometimes called a complex. A psychological fixation is likewise a complex. Thus a traffic analyst who insists on calling his targets a complex can be said to have a complex complex. But complex also means complicated. So if the analyst's problem is complicated by other factors as well, he has a complex complex complex.... Would you like a job on one of the SIGINT terminology panels?

[redacted] reviews ARTHUR SALEMME'S P.L. 86-36

GUIDE TO RUSSIAN TECHNICAL TRANSLATION



Colleagues and friends of Arthur Salemme have been well aware that for several years now he has had squirreled away in his desk drawer two fat sheaves of typescript, the draft of a manual for Russian translators. Those who had had the opportunity to read even a part of the draft had been impressed and had urged Arthur to publish, but as so often happens, the more immediate concerns--the "short-fuse" project, the current flap--continually claimed priority and publication had come to seem at best a remote probability. Some of us, it now appears, have been unduly pessimistic. <u>The Guide to Russian Technical Translation</u> is at long last in print.

The idea for such a project grew naturally out of his years of free-lance technical translating, as well as out of his experience as an Agency linguist and a teacher and supervisor of inguists. The work as published is entirely unclassified, but do not for a moment think that it is not relevant to the work we do. The published version bears out my impression gained from a reading of the manuscript years ago that the Guide will come to have a place on every Russian translator's desk--whether that desk is here at work or in his den at home--and will be especially effective in helping those new to technical translation to avoid pitfalls and acquire competence far more rapidly.

It is the special virtue of the Guide that it will be read with interest and studied with profit by all Russian linguists; it is certainly not just a book for translators. It will be valuable to editors and others who must deal with the linguist's product, even if their knowledge of Russian is not great. Translators and linguists working in languages other than Russian will, I feel sure, find much that is pertinent and stimulating in the book.

That the Guide has a broader application and appeal than its title would suggest is due, it seems to me, to the felicitous match of form and content that the writer has achieved. No one who has read Art's recent article, "Prolegomena to a System of Sandwich Notation," will be surprised to find that the Guide is not an overly organized, structured work, and indeed, at first glance it appears to be simply a Russian-English glossary, and a rather skimpy one at that, with just 241 entries (headwords). However, the body of the Guide, 164 pages long, is followed by 24 pages of index from which it is immediately apparent that the work actually contains about ten times as many Russian terms as it does entries.

From the very first page it is also clear that the 241 entries differ widely in content.

Some (13: АРМАТУРА, 204: СЛЕСАРЬ), are more or less straightforward lexical entries, but more fully elaborated than in the typical Russian-English dictionary, elucidating meanings and suggesting appropriate translations and treatments. Old-timers will find themselves nodding vigorously as frequently abused and mishandled terms are given corrective treatment. (One of my own favorites is 15: БАЛЛ, the correct treatment of which hardly ever finds its way into our linguists' work without considerable prompting.)

Other entries (127: НАНИЗЫВАНИЕ ПАДЕЖЕЙ (Stringing Together of Cases), 169: ПОРЯДОК СЛОВ В ПЕРЕВОДЕ) (Word Order in Translation), deal with syntactical and structural equivalence and conversions. Such entries are in effect concise essays in contrastive grammar, presenting general principles and concepts that the reader will find especially helpful in handling many recurring situations in technical translation. These principles will, of course, very often apply to other types of translation as well.

A third type of entry offers advice and guidance on style. Some of these are simply straightforward, nuts-and-bolts stuff, for example, entry 178: ПРОПИСНЫЕ БУКВЫ, which reminds the translator of the difference between capitalization in Russian and English, or entry 17: БИБЛИОГРАФИЯ, which deals with the preferred treatment of bibliographies and footnote entries in translation. Entry 207: СОКРАЩЕНИЯ gives sound guidance on the treatment of abbreviations. Entries such as 74: ИМЕТЬ and 75: ИМЕТЬ МЕСТО are pure style-manual material and are a boon to the translator who is trying to write plain English instead of "translationese." Entry 189: РЕДАКЦИОННАЯ РАБОТА В ПЕРЕВОДЕ is quintessential Salemme, presenting the author's approach--the result of his many years of translating--to what is certainly one of the trickiest problems the translator must face: "How much should a translator edit as he translates?"

There is scarcely an entry that does not bear the Salemme stamp--witty, humorous asides, which though they are asides are nevertheless to the point; intriguing word play; lengthy parentheses poking good-natured fun at translators' faux pas (including the author's own), and more. Throughout, his treatment of every question is practical, down-to-earth, and leavened with wit and gentle, never malicious, irony. Like Fowler's The King's English, it can be picked up in an odd moment, opened at random and read for any length of time with profit and amusement. These qualities should make the guide accessible and acceptable to the greatest number of our working linguists.

To illustrate a few of these qualities I reporoduce here three of the Guide's briefer entries in toto:

19. БЛАГОДАРЯ - **Russian purists dwell in great detail on the difference between the gerund** благодаря **(as in** Благодаря его, . . . **"Thanking him, . . .") and the preposition** благодаря **(as in** Благодаря отцу я и сестры знаем французский, немецкий и английский языки, **"Thanks to my father, my sisters and I know French, German, and English"). They condemn the frequent occurrence of the genitive case after the preposition** благодаря **just as they condemn the occurrence of the genitive case after** согласно **("according to"). But they particularly condemn the use of** благодаря **in such "illogical" constructions as "Thanks to the ice, I slipped and fractured my leg." People don't give thanks for getting legs broken, say the purists. When such "illogical" constructions do occur in Russian text, it is often best to translate** благодаря **as "as a result of," so as to avoid an argument with English purists. If, on the other hand, one wants an argument with English purists, he can always translate** благодаря **in such sentences as "due to."**

139. ОДНАКО - **Just as the music lover, lulled by the opening strains of the second movement of Haydn's Surprise Symphony, pleasurably anticipates the chord that is supposed to shock him out of that lulled state, the translator of Russian criticism soon acquires a fond affection for the** однако. **Lulled by the leitmotifs of** положительные черты **and** полезные данные, **he knows that sooner or later a paragraph will begin with the complacency-shattering** однако, **to be followed by the contrapuntal interweavings of the** недостатки **and the** несмотря на то's.

Much as he admires the classic form, however, he should remember that English has its own forms. According to one of them, the "howevers," "moreovers," "nevertheless," and the like should not start the sentence like cymbal clashes, but should be reduced to the value of grace notes and incorporated into the main melody of the sentence. (Much, perhaps, as was done with the "however" that could easily have begun this paragraph.)

168. ПОРЯДОК - **Russian stylists object to the excessive use of** порядка **("of the order of"), a valid mathematical term, in contexts where** приблизительно **("approximately") or some similar word would do just as well.**

English stylists do not usually object to constructions such as "a speed of the order of 200 miles an hour." What they do object to is changing "of the order of" to "on the order of." They say that "on the order of" should be reserved for such constructions as "May I have some gravy on the order of mashed potatoes?" (To complicate the matter still more, there is a completely different type of expert who says that gravy should never be put on anything but meat, but let's not go into that.)

The Guide contains a number of reference features that would in themselves be sufficient reason to keep a copy on one's desk. First, there is the table of "false friends" in which the Russian word (false friend) and its correct translation are paired with the word's deceptive cognate and the cognate's proper Russian equivalent. Then there are transliteration tables, including tables for converting Chinese and Japanese proper names encountered in Russian texts into the acceptable transcriptions in English. Extensive tables summarize many of the correspondences in technical terminology between Russian, English non-technical, and English technical (derived from Greek and Latin) numerical prefixes. The different systems of enumeration of large numbers (a million and up) are contrasted in another table accompanied by a discussion of the problems faced by the translator.

In the face of the tremendous effort put forth by the author and his efficient varitypist, [redacted] it may seem like petty carping P.L. 86-36
on my part to wonder what happened to the punch line of the joke in the second paragraph of entry 184: PA3. Perhaps this is the author's way of finding out who's really reading his work!

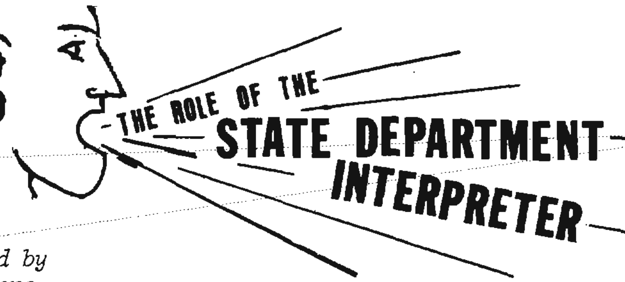
In his introduction the author solicits "comments and suggestions from the reader which could be taken into consideration in the event of an expanded re-edition of this work." I have already begun my list of items, and I hope that others will also take him at his word.

While it is true that the Agency does not "do" technical translation in the sense that Joint Publications Research Service (for instance) does, essentially similar technical linguistic work goes on here all the time; and while it is also true that the author of the Guide has done a great deal of free-lance, contract technical translating, the fact remains that he has spent his entire professional life at the Agency. Now, by judicious writing and by (I'm sure) some painful editing, the author has been able to purge his book of anything classified and thus make it available to the greatest number of readers. As applicable as the Guide is (and it is almost totally so), our work does present unique features and problems not treated in this edition. As ungracious as it may seem to ask more of one who has already given so much of his experience, I would still appeal to Arthur Salemme to relent and start work on a classified version or supplement.

Come on, now, Art. Shu-ucks, you'd enjoy it!

(UNCLASSIFIED)

THE FAITHFUL ECHO



THE ROLE OF THE STATE DEPARTMENT INTERPRETER

[redacted] P.L. 86-36

Below is the text (transcribed and condensed by [redacted] *of a speech presented before CLA on 12 March 1974 by Sophia Porson of the State Department. Although "live" interpretation is seldom required of NSA employees, there is still much of interest here for Agency readers.*

I can't tell you how much of a privilege it is for me, as an interpreter who has had to interpret I-don't-know-how-many speeches in my career, to finally get up and deliver one of my very own.

When I sat down to draw up a few notes for this talk, the first thing that came to my mind was that I would not tell a joke to start with. This is something that every interpreter dreads, and it is particularly characteristic of American speakers. I think we must all learn it in public speaking class: the first thing you have to do is get up and tell a joke. Whether it has any bearing on what follows is immaterial; the idea is that you have to have a "grabber," as they call it, to get everybody's attention and get everybody in a good mood. But, as you must appreciate, humor does not translate well. And particularly when it's in a very serious, say, a diplomatic conference, and the American speaker gets up and tells a joke, this often falls just dead! And of course the American immediately turns to where the interpreter is, in the glass booth at the back, and gives him a filthy look... (Laughter) So I said to myself, "No jokes."

I thought I'd tell you a bit about the type of interpreting we do. I'm sure you've all seen simultaneous interpreting on television, particularly some of the more important debates at the United Nations, so that you have an appreciation of what's involved there: we speak at the same time that someone else is talking and we convey that person's thoughts in another language concurrently. We lag a few words behind but we have to stay fairly close, which means quite a bit of mental gymnastics, as you can imagine, to get the syntax sorted out so that it comes out sounding right in the foreign language. This method of interpretation is the one that we use in large conferences, where speed is of the essence to get a lot of business transacted quickly, and where the absolute precise meaning of the word is not the key thing that it would be, for instance, in very delicate negotiations.

The other form of interpretation is the consecutive form, which actually, to my mind, is more challenging. The speaker makes a presentation of anywhere from one sentence to 45 minutes or more, and the interpreter stands by, takes notes, and, once the person has completed his presentation, then stands up and says the whole thing over again in the foreign language. If you've followed the debates at the U.N. you've often heard them say at the end: "I waive consecutive interpretation." They have interpreters who sit in a sort of ring in the middle at the Security Council and who take notes and are prepared to do just that when a person finishes making a presentation. However, over the years this has become a sort of vestigial thing. They don't use it too much any more. (Though every once in a while somebody forgets at the end of his presentation to say "I waive consecutive interpretation," and all of a sudden the interpreter gets up and starts interpreting madly and everybody wonders what happened!)

Well, the State Department has never waived consecutive interpretation. We use it an enormous amount in diplomatic negotiations, for the simple reason that, because it follows the presentation in English or the presentation in the foreign language, it enables the other side to check on what you're doing, it enables your side to check on what you're doing, and it gives everybody time to think. When you're in a negotiating situation you want to gain as much time as possible. You don't want to rush into anything. And all the time the interpreting is going on the speaker is able to think what he is going to say next. So this type of interpretation is the one that we use very commonly in diplomatic negotiations.

The major requirement here is memory. We do use notes, but not shorthand. We use a very schematic form of notes--a form of speedwriting, you might call it--a lot of abbreviations, and some ideographs that we make up ourselves (two flags juxtaposed, for example, to mean "peace," and flags crossed to mean "war"--that type of thing). The key to our notes is placement on the page. The "something" up here will be the introduction, the thing in the middle will be the body of the thought, and then the things down here may be the subsidiary ideas. Our work basically involves analysis of what the person is saying; you quickly digest what he said and jot down two or three words or pictures or whatever and go on to the next thought. But these notes serve only as a crutch; we rely essentially on our memories.

The interpreter that you know about primarily is the person who works at the U.N., but actually there are three different types of interpreters, as we define them.

We have the escort interpreter, who travels with foreign visitors who are here in the United States as guests of the State Department or AID. These interpreters travel extensively around the U.S. with the foreign visitor, looking at everything from hog-breeding to newspaper production. I have a diploma on the wall in my office at the State Department, and when people come in to see me the first time they think, How pretentious can she be? But when they look at it up close they see that it's a diploma in swine-breeding. I spent a month at the University of North Carolina with a group of Brazilian meatpackers and hogbreeders going through a training program, and at the end of it all, when they got their diplomas, they decided that I had worked harder than anybody, so they gave me my very own diploma. So the escort interpreter gets into all kinds of interesting fields very much off the beaten path.

Then we have the conference interpreter, who works primarily in simultaneous interpretation--not only at the UN or at State Department conferences, etc., but also at private conferences. As the world is getting smaller we have an enormous proliferation of international conferences. People meet to discuss everything under the sun, from cancer to computer language. And these meetings go on everywhere, all the time, all over the world, and most of them are international, so they do require interpretation; and the conference interpreters fly from one to the other.

The interpreters are not necessarily experts in cancer, computer language, or whatever, but they work terribly hard at studying up and keeping abreast of a variety of fields. Before you go into one of these conferences you generally spend at least a couple of days reading all the papers that are going to be delivered at the conference and learning at least the terminology. You can do, believe it or not, a fairly decent job of interpreting at a subject you haven't really studied extensively, provided you have had an opportunity to really steep yourself in the subject for a couple of days. You learn enough vocabulary and at least you learn the basic principles of what's involved to the extent that you can make a cogent job of interpreting. Then you forget it immediately and go on to something else. It all gets buried back here someplace and then maybe two years later you might have another conference on hydrology, or whatever and all that vocabulary that you learned once will come back to you. But we do have to be versatile, we have to be able to go from one subject to another very readily.

Now, as far as the type of interpreter that I am, I'm called a diplomatic interpreter. That doesn't imply that I'm necessarily tactful or anything like that--just that I work primarily in the diplomatic field. And it means that I have to have some of the skills of the escort interpreter (I have to be willing and able to travel with people, with large delegations) and some of those of the conference interpreter (the ability to go from one subject to another very readily), and I have to be able to do the two methods of interpretation that I described--the consecutive and the simultaneous.

Now, what does our work entail? Well, obviously it means that we are often the only person present during negotiations between, say, our president and a head of state of a foreign country. It means, obviously, that we have to be extremely fluent not only in our mother tongue but in at least one other language. And I might add that the State Department, as in the case of so many agencies, worries about funds and, as a result, the more languages you have the better off you are--the better they like it. But, basically most of us work in two foreign languages. We have a couple of -- I consider real phenomena--who work in three or four. This is exceedingly unusual. I mean, anyone can read a number of languages; but to have the verbal skill required to work, say, in three or four Romance languages is really exceedingly unusual. We have some who do that or who have, for example, French and Spanish and Russian, or Russian and German, and bridge two language groups even. But this is rather rare. Most of us tend to specialize in one language group. In my case, as has been mentioned, it's the Romance languages. My primary business is with French, for the simple reason that there are so many French-speaking statesmen from Africa, in particular, who have come to the fore in the past few years, that we do an awful lot of business with them, as well as, of course, with France, Belgium, and so forth. There are other people in my office who do Spanish as a primary language, and they stay busy with that. Portuguese doesn't keep me too busy because the Brazilians tend to speak English exceedingly well, except at the very highest level--at, say, the level of the President of Brazil.

But you have to be bilingual or trilingual, and your vocabulary has to be of the widest possible range because, as I've indicated, you do get into a huge number of fields. Diplomacy is not confined, as I'm sure you know, to just negotiating a treaty on a very specific matter of consular relations. Diplomacy these days involves tomatoes...it involves brassieres manufactured in Nicaragua that are being exported to the U.S., strawberries coming in from Mexico, drugs... I've just come back from a two-week seminar in Brussels on drug enforcement techniques.... Our interpreters have to be very versatile as far as their vocabulary is concerned and their interest in what's going on in the world.

We also have to be objective. This is a lot easier said than done, because generally, when somebody says something, you react to it. But as an interpreter you have to learn to subdue your own personality and your own reactions; you have to become exceedingly objective, and if the speaker says something, you go right ahead and say it. You don't think, How do I feel about it? You don't make value judgments. This is hard to learn, particularly if you have a lively interest in politics and diplomacy and you know what American foreign policy towards the People's Republic of China (for instance) ought to be!

And you have to learn to listen. It's amazing how little people actually do concentrate, but once you learn to focus totally on what you have heard it becomes a lot easier to remember. Sometimes I meet people who have been in a room with me for days on end in a negotiating situation where I've been the interpreter and they have been a subsidiary person not really taking an active part, and a year later they'll come up to me and say, "Oh, I remember you!" And I have absolutely no idea who they are because I've been so busy concentrating on just the two principals that I was interpreting for that I've blanked out everything and everybody else in the room.

We also have to do the note-taking, besides the interpreting. We often are the only ones who do the written record of what's going on at the negotiations, particularly where there's just the president and another chief of state and we're the third person there. Our notes serve as the record of what has transpired at the meeting. This places an enormous burden on us, as I'm sure you can imagine. We are, in a sense, a Witness to History, as Charles Bohlen called his book, and it does present some hazards. One of them is, if there is ever a leak, immediately you think, "My God, they're going to say it was me." Well, I'm happy to report that never has an interpreter been found guilty of a leak. The principals are the ones who generally do the leaking in diplomacy, as I'm sure you know by now.

Now, we also serve to a certain extent as cultural advisors; since we do have to bridge two cultures, we often help with things like selecting the proper poet to quote, for example, from a country's literature, or a statesman to refer to, or something like that. Also, in the course of our interpreting we try to avoid any cross-cultural misunderstanding based on a linguistic problem. For example, let's say that the American speaker refers, in talking to a Frenchman, to our "Department of the Interior." Well, that has absolutely no similarity to the "Ministry of the Interior" in France. They are just two totally different organizations. So what we would say is, "le Département de l'Intérieur," then we would add a little definition saying, "which takes care of national parks, waters and forests." Or let's say that a Frenchman would say something about the "Cour des Comptes" in France. We would render it in English as "Audit Office," but at the same time we would add, "This serves the function of the General Accounting Office in the Unites States." So we do interpolate to a certain extent this cross-cultural information. This is a rather important function, as you can imagine, because often people get side-tracked if they don't know precisely what the cultural frame of reference is.

Now what's the status of the diplomatic interpreter? It varies. A lot of countries don't even have diplomatic interpreters. Great Britain, for example, uses foreign service officers, members of the Foreign Office. I think this is all very much in keeping with the British tradition of the gifted amateur, or "Gentlemen vs. Players." Anyway, they don't have a cadre of interpreters on their staffs. The French have one interpreter who is on the staff of the Quai d'Orsay; the rest of their people are contractors. It would be very amusing to you if you knew to what extent other governments just don't care about security the way we do. Obviously these people are "vetted" and they have passed some kind of security clearance, but the government's attitude is just not the same, and they are perfectly willing to have a contractor, as in the case of the French, interpret between the President of France and the President of the United States, and then go on their way afterwards to work for another client, or other governments even.

West Germany has a very professional attitude towards the interpreting business. They have a large number of highly qualified people who work in the German Foreign Ministry and the various other departments of government. Their Defense Department, etc., all have skilled interpreters, and they have very high ranks. The senior ones at the German Foreign Ministry have the rank of Counsellor of Embassy, which, of course, all of us envy terribly. It's not so much because of the money, because we're pretty much paid about the same. But because they have a rank--a protocol rank--they cannot be required to sit behind their principals at dinner parties, which we have to do. And this is something that gripes all of us terribly. We're always sitting on tiny little chairs while everybody else is at the table, plowing their way through a ten-course meal to the Strolling Strings of the Air Force, or whatever, and there we are, plunked down on these tiny little chairs. And the waiters hate us because they can't get in to serve!

As I am sure you can imagine, the Eastern Europeans, the Chinese and the Russians have mobs of interpreters. We've been told, though I can't vouch for it since I don't know anything about Slavic languages, that the Russian interpreters are very good at the top level and then there is a lot of mediocrity at the base. But I'm sure you've heard of all these stars. Troyanovsky was a star interpreter of the fifties who later became the Soviet Ambassador to Japan. Viktor Sukhodrev, who travels with Brezhnev and who was here recently, holds the rank of U.K. desk officer in the Foreign Ministry. This, I think, may give them a slightly different approach to their interpreting.

As I've already indicated, in the West we take the "faithful echo" approach to interpreting. We have no authority to change what people say, to embroider it, improve on it, or edit in any way. Our instructions are, "If he said it, he meant it. Just go right ahead, don't add or subtract." We do try, of course, to follow the emotion and the animation of the speaker (not to the extent that it looks like we're making fun of him, obviously), and we try to follow the same style. If his style is peasanty, we try to sound peasanty; if its highfalutin', we try to sound highfalutin'. So this again places strains on our vocabulary and our knowledge of the language. We don't correct anything except what is obviously a slip of the tongue.

You have to be very careful with your voice and your face because, as I've mentioned to you, we try to be objective, we try not to make value judgments about what somebody is saying. But you must realize that when you are working alone as an interpreter for two sides you're going to hear some pretty outrageous and even some idiotic things said which you have to convey. And it's hard for you to keep a straight face or not let your voice give away what you're thinking. (You know, "How could he say such a thing?" when you know it's a patent lie.) But this happens. And you have to be able to keep control of yourself throughout and never give away what you actually feel about what you're saying.

The other thing is, never, never to try to interpolate or give any clues to the people you are interpreting for. General Vernon Walters, the No. 2 man over at CIA, has worked as an interpreter off and on for many years. When he was a young aide to General Mark Clark (I guess he was just a second lieutenant or something), Mark Clark was trying to extract a concession from De Gaulle. Lt. Walters was trying to help Clark in this difficult task, so he kept saying, "Well, General de Gaulle says no, but I think he means maybe." Or, "He's just said he won't go along with you, but I think if you press on this issue, he'll change his mind." At the end, when de Gaulle came to leave, he turned to Lt. Walters and in very good English thanked him for his fine and fascinating interpreting. You can imagine how Walters must have felt. He told me that from that day forward he never, never, ever added or subtracted anything of that sort. You have to assume that people do know what you're saying, and that they understand, particularly English, and know pretty well what's going on.

The interpreters in the Communist countries, however, seem to have a lot more leeway in adding and subtracting for the basic purpose of making their people look good. Recently Brezhnev was here in the U.S. and one of the American interpreters told me what when Brezhnev addressed a private meeting of senators and members of the House he kept referring to "Senators": "It's a pleasure to meet with you, Senators," "I know you Senators are very important," etc. And Sukhodrev, who was interpreting, was very careful to keep working in the Representatives at the same time, because he knew that they would be heartily offended if they thought that Brezhnev was just addressing himself to the senators. This is a very mild case. Actually, they have been known to tone down some horrible threats, etc. Khrushchev, particularly, used to get carried away, as you know. And they would tone him down a lot. There have been a number of instances of this, so obviously they have authority to make their principals look better, and make sure they don't tread on too many toes.

One of my favorite experiences was when I worked at the Paris Peace Talks with the Viet Cong and the North Vietnamese for a while (the ones with the table, you remember the table!). The Viet Cong had an interpreter--a woman. (I might add, interpolating here, that women are very good in this business. I say this in total immodesty. Women are very active in this business, both in the Communist countries and in the United States and in Western Europe. I can't give you a percentage but I know that at least half of the interpreters are women, and maybe more.) Anyway, the Viet Cong's interpreter was a very strident type, very vocal and really gung-ho. In fact, I called her "La Pasionaria." I never knew her name. We weren't allowed to meet, even in the ladies' room. If we did meet we turned our backs to each other at the sink. "La Pasionaria" was ideologically very sound. She and her principal had a litany where they had to say certain things about the Saigon regime: that it was bloodthirsty, corrupt, lackeys of the West, etc. They had this whole long string of things that they had to say every time that they referred to the Saigon regime. Sometimes her principal would forget some of those adjectives, and inevitably she would put them all in, regardless. Because she was ideologically sound! So, they do have more leeway in this way than we do.

The Chinese--you've had Charles Freeman here and maybe he got into this--but he tells me that the Chinese are very literal. Of course they have linguistic problems, too, but they are free to convert at least factual errors that their principals make.

We in the West are generally nonpolitical. We're career civil servants, which means that we survive changes of regime fairly well. I've been through three presidents. We don't always, by the way, work alone. Often the foreign government will assign an interpreter to come with their principal. This is particularly true of the French, the Germans, the Russians, and the Chinese. A lot of the African countries don't and a lot of the Latin American countries don't; they just use us as the interpreter. But countries with whom we have really serious negotiations and who feel very strongly about languages and cross-cultural communications do assign their own interpreter. In which case what I do is interpret what my president says into the foreign language and they interpret what their president says into English, so that neither of us is working into our mother tongues. But it works out very well because we monitor each other, and we help each other. I remember when I was in Iceland with President Nixon and President Pompidou, and somehow they got on to the subject of the Queen of Sheba--I don't know why--and the French interpreter had one of these terrible blanks where he couldn't remember how to say "Queen of Sheba" in English. So I whispered it to him. And he in turn bailed me out a couple of times.

What are the requirements for being an interpreter? Obviously, you need the language. You'd be interested to know that most of us haven't been to interpreting school; I'm one of the few that have. About 15 or 16 of us at the State Department do the kind of work I do, but only three of us actually went to interpreting school. Most of us either come from foreign-language backgrounds or have grown up overseas, as in my case. We work at the languages all the time. We study, we get magazines and newspapers from overseas. Our office pays for them so that we can keep up with the living language and with what's going on. We study the briefing papers and have access to them before the meeting actually takes place so that we can be prepared. (Sometimes we run into trouble. People don't trust linguists; people that speak foreign languages are suspect! There'll be a paper labelled "Eyes Only" for the Secretary of State, and I say I need to see that. They'll say, "Why? It's 'Eyes Only' for the Secretary." And I say, "What about the Secretary's mouth?" Sooner or later, I get it.)

Then there's another attitude, toward women interpreters, that I ought to mention. I think these are people who read a lot of spy novels--they think we really do more than just interpret. I vividly remember being somewhere in the Middle West with a group of Frenchmen. There was a cocktail party reception for us. This American came up to me, took me aside and said, "Girlie," (I love that) "I just want you to know that there are not many women who would do what you're doing for your country."

We do have to be able to adjust ourselves to the idiosyncracies of our customers. President Kennedy, as you'll recall, was a demon for speed. He was clocked at 200 words a minute. (A court reporter is required, at best, to do 180 words a minute. You can see that standard note-taking just doesn't work in this kind of situation. That's why we need this schematic thing and rely on our memory.) When President Johnson came to office the first thing we did was to rush to the Bible to find out how to say, "Come, let us reason together." It turned out, as is so often true of Bible translations, that what it was in French had absolutely no bearing on the English, and the same for Spanish and so forth. We also had to learn how to say things like "varmint" and "bluebells" and "God-willin'-an'-the-crick-don't-rise." Interpreting for Johnson was literally a bruising experience. He was the kind of person who has to have physical contact with the people he was talking to. Since he was talking through the interpreter he'd hold on to the interpreter. In my case, he would grab me always by the upper arm, and I'd come home with these big bruises.

President Nixon has a marvellous gift, which is fine for us, of using these pointers--"Let me say this about that," and "Let me make this perfectly clear." He really does say that, and it gives us a clue that he's building up to an important line.

We worked with Secretary Rusk for 8 years. He liked to work into any conversation "There's more than one way to skin a cat." Then he'd sit back with that Buddha smile and see how we got it across in the foreign language. We tried something different every time, and it never worked. Our present Secretary of State /Kissinger/ understands French exceedingly well, and we don't interpret French for him. He also understands German, of course. The only problem with interpreting for people who know the language, so that you are just there as an aide--to hop in when the going gets tough--is that when the going gets tough, that's generally when it's something that you don't know either. They'll suddenly turn to you and ask, "How do you say 'moose'?" And of course, you just have this total blackout. I would much rather interpret for two people who don't know the language any day than find myself in a situation where I'm bridging a gap between two people who halfway know each other's languages.

* * * * * *

I've tried to give you a very brief aperçu of what it's like to be an interpreter. As Dr. Johnson said, "Words are but signs of ideas," and basically we're communicators of ideas. We try to do it as honestly and as perceptively as we can. Of course, our interpretation is only as good as the foreign policy we're helping to advance; the finest interpretation in the world doesn't do much good if there's no will to cooperate. But where the will to cooperate and to understand does exist, then effective interpretation can contribute very much to international understanding. And this makes my work exceedingly gratifying.

(UNCLASSIFIED)

P.L. 86-36

Department of GOLDEN OLDIES

ESTABLISHMENT OF MOLECULE SUPERSERIES

EPSILON CONTROLLED ITEM
AMERICAN SECURITY AUTHORITY
Fort George G. Snead, Massachusetts

TECHOUTS NO. 54-40 (or fight)

1. Establishment of Superseries. The EPSILON superseries, MOLECULE, is hereby established to protest a most useful product which is based on the exploitation of an obvious source, the New York Times. Reports made up of reprints of articles on government leaders indicating liberalism, untruthfulness, or Sabbath-breaking will bear the caveat NEGATIVE MOLECULE.

2. Authority to Publish MOLECULE Superseries. The Chief of Z Group is authorized to publish all products in the MOLECULE superseries except NEGATIVE MOLECULE (BUCKLEY), MASORETIC MOLECULE (HEBREW), MASOTTI FIELD MOLECULE (R&D), MOFFETT FIELD MOLECULE (AEROSPACE), and MICHIGAN FIELD HOUSE MOLECULE (ATHLETIC).

3. Serialization. The product will be serialized by the date, section, page; and noted as to whether it is morning, afternoon, or Sunday edition.

4. Classification of Superseries Designator. The designator MOLECULE when used out of context is an ordinary word. Sly inferences to the contrary are to be avoided.

5. Recommended Hazardous Activities Group. The recommended HAG for MOLECULE is P to -M in inverse order of sensitive knowledge, with a double inverse calculation of HAG for those also holding NEGATIVE MOLECULE clearances. The NEGATIVE HAG resulting from MOLECULE access requires that when a person resigns or is transferred he must leave the United States for the period of the HAG. This is to insure his safety from interrogation by the Black Panthers, the John Birch Society and Senator Fullbright. Travel expenses will be paid by the U.S. Treasury from foreign counterpart funds providing the relocation is to a country which by reason of climate or lack of night clubs is not visited by junketing Congressmen. The country of resettlement must also be one which has never been visited by Stokeley Carmichael, Richard O. Douglas, William O. Douglas, Douglas O. Haliburton, Richard Haliburton, or a Greek yacht. The nation may not be one in which the reigning queen or princess is a former American citizen or from which a king has at some time abdicated in order to marry an American citizen. Also excluded are nations ruled by juntas, oligarchies, royalists, despots, fascists, communists, centrists (right or left), and intransigent nationalists. This leaves Rwanda.

Can you make out the name?

A real-life puzzle submitted by [redacted] P16

[redacted]

~~(TOP SECRET UMBRA)~~

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Letters to the Editor

To the Editor, CRYPTOLOG:

The item in the December CRYPTOLOG entitled "Citizens of the World" recalled to me how amused my classmates and I were at the Navy language school when our German-born instructor informed us that Germany's most famous railroad trains (pre-WWII) were the "Flying Hamburger" and the "Flying Frankfurter." This news reduced the class to laughter, but our instructor was not at all amused.

Incidentally, if you happen to be in Tangier and would like a tangerine (the orange), you would do well to ask for a "mandarin." On the other hand, if you should ask for a mandarin in China (in the old days), you might possibly get a Pekingese.

[redacted]

P.L. 86-36 (an Alexandrine)

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To the Editor, CRYPTOLOG:

It is a reasonably safe bet that your four-part series on the intern program will win few friends in the Career Development establishment. There will be valid objections to some of the specifics in this series, but no one person or group of people can be expected to have a total command of the facts in question. It would be a mistake, therefore, to dismiss everything "Anne Exinterne" (henceforth "AE") says for this reason. Her perception of the overall problem is quite good.

The following comments on the series are made from an admittedly narrow point of view--my personal experiences and observations in the Language Career Panel office from 1967 to 1972. They represent my own opinions and the policies which were in force during that period, not necessarily the views of the present Panel.

In discussing the philosophy of the intern program AE notes that many of her friends had the idea that they were FSGs (future supergrades). I haven't the faintest clue how they ever got that into their heads. The only thing we ever told them was that we would do our best to see that they could meet the criteria for certification in Language at the end of three years (providing they were not starting from scratch in a new language). I used to stress diversity in work assignments as the key element in their internship (within the limitations of their "major" language), but I have no recollection of including anything other than technical objectives in their programs.

[redacted] at grade-point averages (3 or above, on a scale of 4), CQB scores, ALAT (language aptitude) scores (at least STATEN 6), and proficiency test scores in a foreign language. On the few occasions when we departed from these criteria, we almost always lived to rue the day. We did not have any criterion for judging someone's staying power, however; that is, the degree to which a person was committed to a career in this business. In the course of a 35- or 40-minute interview, everybody looked dedicated. Another point about selectivity: you can select only from the output of the recruitment and screening processes. In some instances I think we are recruiting the wrong kinds of people for the language field, but more about that later.

It is hardly a managerial triumph to graduate interns into surplus career fields, and AE is quite right in taking us to task on this issue. My only rejoinder here is that she may have identified the wrong set of villains in the melodrama. Neither the panel offices nor line operational elements have any real control over sudden shifts in targeting, organizational structure or billet distribution. Intern programs were begun in good faith, but the rules were changed in the middle of the seventh inning. To this day we continue to encounter problems in (1) accounting for the skills we have, and (2) projecting the skills we're going to need. Nowhere is this more true than in the language field, where the "labor units" are not interchangeable. If you decide to stop reporting Zendian internal communications, you can't simply transfer the Zendian linguists to the Basque navy problem, even though the job descriptions sound remarkably alike. I've always assumed everybody knew this, but lately I'm not so sure.

In her discussion of recruitment, AE comes close to a *favorite theme of mine*. I don't think that an AB right out of school (typically female) with a degree in language and literature (typically French) is necessarily the best choice to send off to learn a language like Amharic, [redacted] My example is hypothetical, but it is a good profile of the kind of intern program most likely to fail expensively.

I don't agree with AE's suggestion that we take on high school graduates to train against some of our jobs, at least in the language field. On the contrary, for some of our jobs we ought to be going after graduate-level specialists in fields like Uralic and Altaic studies, untenured college teachers, and ex-SCA personnel who have continued their studies in languages and linguistics.

There are several reasons for this. On most language problems the language analyst has to know far more than irregular verb forms and odd usages of the subjunctive. Culture, history, politics, economics, personalities, international relations, technology--all of these factors and many more play a role in producing a transcript, a translation, a report. All human knowledge is not derived from SIGINT, but much of it can be applied to the SIGINT process. Why do we have to start with a *tabula rasa*?

We also need people who have already had some of life's experiences. Our analysts should have heard of such things as letters of credit, visas, four-barrel carburetors, rectifiers, compound interest, the Diet, etc. Many brand-new college graduates have never before been responsible for (1) supporting themselves, (2) renting an apartment, (3) putting a car on the road, (4) obtaining a loan, etc. Hiring 18-year-olds can hardly alleviate this situation. I have to go along with George Allen on the wisdom of putting rookies on the starting team.

But most of all we need people who are ready to make some reasonable sort of commitment to our kind of work, people for whom the grass will not necessarily seem greener elsewhere. Granted, we have to look out for the job-hoppers and the unemployed academics who are waiting for the foundation money to start flowing again, but these risks seem to me far easier to support than the odds we face in trying to "assimilate" liberal arts AB's into the work force, particularly where training (often in the form of self-instruction) in rare languages is involved.

One of the advantages of recruiting the kinds of people described above (graduate-level specialists, untenured college teachers, ex-SCA personnel) is the fact that they have already gone part of the distance toward the goals we have in mind when we think of the NSA/CSS professional linguist. This kind of recruiting makes more demands on us, but if we exploit all the contacts we now have in departments of languages and linguistics (and perhaps anthropology) we should be able to come up with a few good prospects who will eventually have a greater impact on our mission than fifty of the typical college hires we get now.

The graduate student in Uralic and Altaic studies may be somewhat harder to clear than the new graduates of a small liberal arts school, and this touches on something else that AE said in one of her articles:

"I suspect that the testing battery and the other screening devices used by M may be producing a population that is too homogeneous."

Many of us who have worked on the problem of recruiting and processing would-be linguists for the Language Career Panel or for A Group have remarked on the apparent inverse relationship between language proficiency scores and the score on some mysterious M7 personality profile. It was kind of a running joke that if a recruit got STATEN 9 on the Russian test, we would never see him again. Maybe there's nothing to it, but I for one would feel a lot better if someone could convince me that it isn't so. Any takers?

In her treatment of selection and orientation, AE makes one point that I would like to support with few if any reservations. I too think that new hires should serve in some general capacity (SIGINT technician) for some 12 to 18 months, use the skills which they bring to NSA/CSS, <u>skills for which they were recruited to begin with</u>, and only after this period be considered for an internship. Both the panels and the individual intern candidates could then make better choices in several important ways. Why not have a year or so of being "engaged" before taking the plunge? In this way a linguist could work in a language he knows while he's learning the SIGINT business, which presumably he doesn't know. I would probably waive this requirement in the case of someone with both a working knowledge of one of our languages and previous SCA experience.

The 12--18 month "cooling-off" period has a number of intriguing consequences. It would address the problem AE raises of people coming here with urgently needed skills and then going off to an internship in a competing but unrelated field which offers the promise of more glamour, fame, success and love (none of which characterize the language field), at least for the first year and a half. The practice might even keep us from recruiting individuals who have no immediately usable skills.

In the section on motivation and morale, AE scores some palpable hits on a relatively inviting target, but her quarrel is not with the intern program, but rather with the larger problem of personnel management. If interns see no real relationship between the quality of their work and the rewards they receive, then neither do many non-interns. If interns have few incentives to aspire to professionalism (as opposed to professionalization) in a technical field, then what about everyone else? The fact remains, on this latter point, that for whatever reason, there is little professionalism in the language field. Most of our language analysts profess to have only a limited interest in the languages they use on the job (outside of the traffic that goes across their desks or through their earphones). Most of the people I counseled in the LCP office, particularly after an unsuccessful shot at the PQE, acknowledged that they did nothing or almost nothing to develop and maintain their skills. As one man put it: "Why should I mess around with that (expletive) at night? I see it all day on the job!"

Yet most of our senior linguists insist that outside contact and work with a foreign language is about the only way to achieve and maintain any real competence, and just about all of them practice what they preach. A professional has a deep and abiding interest in what he is doing. It is never "just a job" for him. By this standard we have only a small number of professionals.

AE spends a lot of time in this section dealing with the issues of psychic income, feedback, incentives, morale, and the general atmosphere on the job. I agree with most of what she says, but find myself overwhelmed by the high level of generalization. Maybe the only solution is to abolish Original Sin. One small aside caught my eye: a colleague of hers was described as "spending a portion of his working day running down leads for new clients for his many enterprises, delivering orders and displaying wares." Such practices are unfortunately quite common, and if you add to them all the hobby, craft, and related activities that go on throughout the working day (and not only during the lunch hour), you are confronted with what must be an enormous amount of employee time devoted to non-work, or at least non-Agency work. Maybe the Small Business Administration could be persuaded to open a regional office within the building here.

Where do intern graduates go? AE talks about the fact that interns are loved and cared for until they are certified and then cast out into outer darkness, and this is true. It is no less true for anyone who has received his certification as a professional. His next logical career move is out of the field, in many instances.

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If AE's article were the whole case for the intern program, then the obvious conclusion would be to do away with it entirely. Two counter-arguments have to be made: (1) The problem is not the intern program per se, which cannot transcend the supervisory and managerial climate in which it exists at the present time. If we want to improve the intern program, we should begin by improving first-line supervision, and maybe the new performance appraisal system will be a step in this direction. (2) The intern program, at least the language part of it, has achieved some outstanding successes. If challenged, I can name them, the outstanding young men and women who came out of the program to achieve exactly what we had in mind for them to begin with. Maybe they would have gotten there anyway, but like a proud parent I can point to them and say, "These are my jewels." Any program that does this can't be all bad.

Emery W. Tetrault, P16

~~(CONFIDENTIAL/HVCCO)~~

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CAMINO NEWS

CAMINO is a good idea that keeps getting better. Many linguists will remember the name CAMINO [redacted] in existence since the mid-60's, which could be queried [redacted]

These first three files on the RYE system have proved of great value to linguists. In the last few years they have been joined by more and more new machine language files and abbreviation files. The newer files have made use of the IBM 370 system rather than RYE, for two main reasons: first, RYE will probably soon be superceded by newer machines, and second, RYE memory storage space has been getting harder and harder to come by. There are now nearly 20 machine language files of various sizes, all in the same format and processed by the same machine programs and procedures, and all forming one system which still bears the name CAMINO, in honor of the original good idea-[redacted]

Each file has an executive who is responsible for all linguistic and lexicographic aspects of it. In some cases he has others helping him. Machine processing standards, programs and procedures for all CAMINO files have been developed and are being maintained in P16. Below is a list of the files now forming the CAMINO system, with the names of their file executives or other contact points, and the sponsoring organizations:

[redacted]

For further information call [redacted] 3045s.

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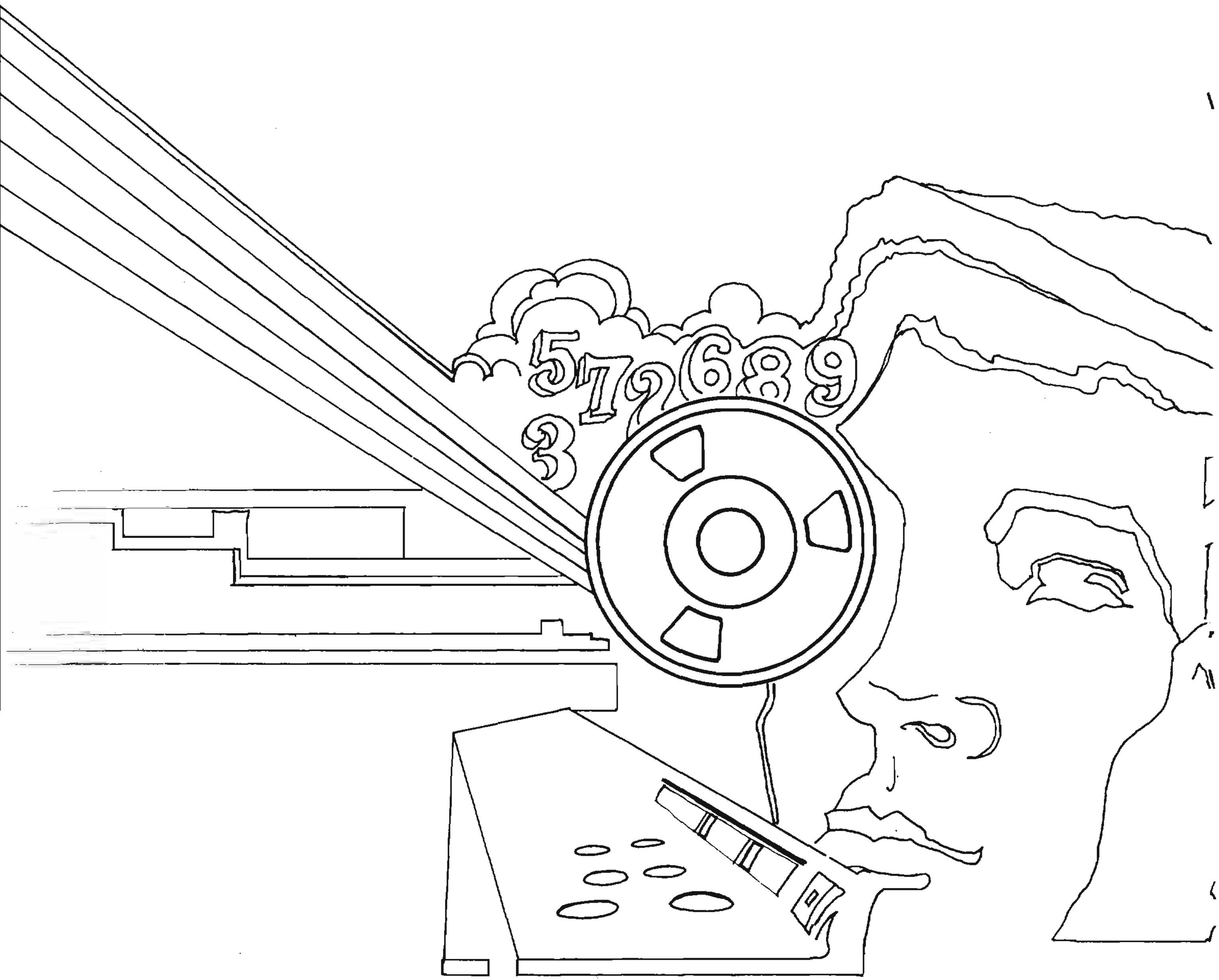

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