

STUDIES

IN INTELLIGENCE | Vol. 70, No. 2 (June 2026)



Artificial Intelligence
Identity Intelligence
Nazi Enigma
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ISSN 1527-0874

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At the time Joseph Becker wrote his article, "The Computer," for *Studies in Intelligence*, the DEC PDP-1 computer was state of the art. This restored example is in the Computer History Museum, Mountain View, California. (Alexey Komarov/Wikimedia)

We Have Been Here Before

Joseph Becker's Computer and the AI Question

Kenneth Malphurs

The author is a member of CIA's Senior Analytic Service.

The really unique feature of a digital computer is what is called its "logic," its ability to choose for itself one of a number of alternative procedures according to the outcome of previous computations. This feature is the one mainly responsible for the notion that digital computers are endowed with near-human or even superhuman qualities. The fancy is encouraged in the vocabulary used by the computer people: you "instruct" and "query" the machine in its own "language"; it "accepts," "differentiates," "searches its memory," "analyzes," even "evaluates." A seasoned computer operator will argue on occasion that the machine has a personality of its own, and his emotional involvement with the machine is such that research is being done in

man-machine relationships to arrive at the right mix of human factors for happy and efficient work with a machine as colleague or subordinate. Nevertheless, although it is true that man can evolve ways to make a digital computer perform operations that closely resemble human thought, and although the machine can digest more information than a man and process it faster and more accurately, the parallel with human skills should not be carried past the point of fanciful analogy. The machine does not "think"; it is driven through a predetermined set of operations.

— Joseph Becker, "The Computer," *Studies in Intelligence* 4, No. 4 (Winter 1960)

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We Have Been Here Before

In winter 1960, *Studies in Intelligence* published “The Computer—Capabilities, Prospects, and Implications,” by Joseph Becker, a pioneer in information technology. Much of the article now reads like a tour through a technical museum, with Becker writing about punch cards, magnetic tape, and machines that occupied dedicated space and required specialist operators, but the article’s real subject was not hardware so much as the effect that a new tool might have on intelligence work.

Read today, Becker’s article does something more than illustrate an earlier stage of automation; it also brings into view a line of argument that now feels familiar.^a Becker was interested in what computers might do for storage, retrieval, dissemination, translation, and analysis, but he was equally interested in the difficulties that would follow their introduction: converting records into usable form, training personnel, reorganizing work, and resisting the temptation to confuse machine assistance with machine judgment.

That resemblance to present discussions of artificial intelligence suggested a simple exercise. I set three texts beside one another: Becker’s original article; an AI-generated short commentary comparing Becker’s discussion of computers with current discussion

of AI; and an AI-generated rewrite of Becker’s article in which “AI” was substituted for “computer” while the surrounding language was changed as little as possible. The point was not to stage a literary trick; it was to see what the comparison would reveal.

The result was clear enough: the analogy does not hold everywhere, and it should not be forced, but it holds often enough to be useful. Intelligence has faced disruptive technical change before, and although the present case is not identical to Becker’s, it is similar in one important respect: *Many of the hardest questions have less to do with the machine than with the institution that means to use it.*

Becker’s Article Still Speaks Plainly

Becker began in the right place. Computers, he wrote, were not magical devices that would spare intelligence officers the trouble of thinking; they were tools, and their value depended on how they were used. That point has lost none of its force, though it is often among the first to disappear in periods of excitement. New technologies attract evangelists and detractors in equal numbers, but Becker did neither. He wrote as if the machine were something to be evaluated, adopted where useful, and bound where necessary.

That cast of mind makes the article more durable than its technical particulars. Becker’s examples now sound dated, but the underlying problem is still recognizable. In one of the article’s most memorable cautions, he writes computers are not “glamorous Aladdin’s lamps to do our bidding while we recline at ease,” but “extensions of human skills.” Elsewhere, in a passage that survives the rewrite with remarkably little strain, he describes intelligence dissemination by matching incoming reports or cables against analyst “profiles” made up of selected words and phrases. His discussion of translation and abstracting is more tentative, but even there the direction is recognizable: the machine is moving into parts of the intelligence process that had previously been left to human labor.

The article becomes more interesting, however, when Becker leaves the machine itself and turns to the organization around it, because there the prose has scarcely aged. He anticipated problems of conversion, staffing, training, parallel operation, and work rearrangement; he argued that the organization had to be treated as a “total, integrated, functional system”; and he put the change on a planning horizon of five to seven years, with costs that might run into the tens of millions. He also observed that people would resist the prospect of the machine “taking over,” and

a. Joseph Becker, “The Computer—Capabilities, Prospects, and Implications,” *Studies in Intelligence* 4, no. 4 (1960). Approved for release on September 18, 1995.

How I Used AI in Writing This Article

I began with a very specific experiment rather than a vague request: I gave a frontier AI model Joseph Becker's original article and asked the model to do three things: comment on the similarities and differences between Becker's discussion and today's discussion of AI; rewrite the article by substituting "AI" for "computer" while changing as little else as possible; and then compare the two versions. That initial exercise produced the core insights for this piece, and from there I used AI less as a ghostwriter than as a working partner in revision. I asked it to draft an article built around the experiment, then worked back and forth with it on structure, title, tone, evidence, sentence rhythm, and ending. That approach let me focus more of my energy on what I wanted to say and how I wanted it to land. In practice, I was managing a process: testing arguments, pushing for clearer distinctions, rejecting language that felt wrong, and trying many more ways of phrasing an idea than I probably would have if I had been drafting every line alone. I still gave the article a final close review and made manual edits myself, so AI did not remove the work of writing; it made the work more iterative, faster, and more focused on the overall project—its message, purpose, and impact.

insisted that intelligence should be planning an "enlightened training program chronologically coordinated with the rest of the change-over effort." Those are not timeless truths about every profession, but they are very close to the questions our profession is again asking.

For that reason, Becker is worth reading now, not because he foretold AI, but because this article captures a pattern that is visible again in the present case. The first arguments are often inflated, while the later problems are usually mundane. What can the machine actually do? What must be reformatted or rewritten so that it can do it? Who will be trained? Who will check the output? What work changes shape as a result? Those were Becker's questions, and they are close enough

to our own to make the comparison more than a curiosity.

Rewrite was Crude and Useful

The AI rewrite of Becker's article was intentionally crude. The AI was not asked to produce a modern essay in its own voice; it was asked to make the smallest possible set of changes required to turn a 1960 article about computers into a plausible article about AI. That simple substitution proved more revealing than one might have expected.

Some passages survived with very little damage, and the pattern of survival is itself instructive. Becker's warning that the machine is no "Aladdin's lamp," his

insistence that it extends rather than replaces human capability, and his discussion of apprehension, retraining, and work redistribution all read plausibly in the rewritten version. So does the dissemination section, where incoming reporting is compared against analyst profiles; in the rewrite, that sounds very much like a contemporary description of alerting or recommendation built around the routing of new reports to the people most likely to need them. The same is true when Becker writes about the institutional effects of the computer—organizational disruption, parallel processing, staffing, and training—in terms that now feel only lightly dated.

Other passages did not survive so cleanly, and those failures were just as useful. The hardware passages, once "computer" became "AI," turned awkward or absurd, which was expected. More revealing was Becker's statement that the machine does not think but carries out predetermined operations. In the original article, the sentence is descriptive. In the rewrite, it becomes argumentative, because the contemporary reader hears it against a live debate about how to characterize systems that produce language, summarize documents, write code, and conduct a plausible dialogue. The sentence remained the same; the argument around it changed. The translation section is another revealing case. Becker wrote that smooth-prose machine translation

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was “not yet a reality” and “may not be for many years to come.”

In the rewritten version, that line no longer reads as caution alone; it also reads as a forecast whose timetable proved too slow. That, more than the successful substitutions, is what made the exercise useful. It showed that continuity of institutional reaction does not imply identity of technology. AI is not just the old machine under a new name. What the experiment does show is narrower and, in some ways, more interesting: Becker’s institutional language often remains legible even when the technology underneath it has changed substantially. Exaggeration, anxiety, managerial confusion, uneven adoption, and bad implementation are not proofs of sameness, but they are recurring features of how organizations meet tools they believe may alter the conduct of their work.

How Today is Different

The differences are substantial and should be stated plainly.

The first is accessibility. Becker wrote of specialists, operators, programmers, and scarce equipment, whereas AI has entered offices through ordinary language. An analyst can try a system directly, without a programmer, an operator, or a visit to a machine room, and that changes the pattern of adoption while also making control

harder. Institutions are not deciding only whether to introduce a tool; in many cases they are deciding how to govern one that has already arrived.

The second is speed, though even here the matter is less simple than current rhetoric suggests. New AI systems can spread very quickly across a workforce, and capabilities that once would have moved slowly from laboratory to office can now appear in common tools in short order. But broad availability should not be confused with broad integration. Computing is costly, security restrictions remain real, data are often poorly organized, and workflows are rarely designed from the start with such tools in view. The visible spread of AI can therefore be rapid even while institutional absorption remains slow.

The third is reach. Becker wrote about translation and abstracting as difficult prospects. Current systems can summarize, draft, classify, translate, review long texts, compare documents, and search across language in ways that put them in direct contact with forms of work once treated as beyond machine competence. That does not mean the machine has become an analyst, but it does mean that some tasks once regarded as securely human are now open to technical assistance in a way Becker could only anticipate in outline.

The fourth is that the problem is now defensive as well as productive. Becker wrote about what computers could do for intelligence work, but AI must also be considered as an instrument available to adversaries, fraudsters, propagandists, and ordinary opportunists. The same systems that support search, review, translation, and drafting can also support deception, impersonation, phishing, malware production, and manipulation of public information at scale. Any serious program of adoption must account for both sides of that ledger.

These differences matter, and they keep the comparison honest. They do not cancel the historical point.

What the Exercise Shows About AI as a Writing Aid

My experiment had a second purpose: it was meant to test what an AI system could actually contribute to a piece of writing of this kind. The answer, at least in this case, is that it can do quite a lot, and do it quickly. It could read Becker’s article, identify the themes most likely to survive into the present, compare them with current arguments about AI, produce the substitution exercise, and draft a serviceable essay in an appropriately formal tone. Those are substantial advantages at the stage of comparison, synthesis, and early drafting, even if they fall well short of independent authorship.

Its weaknesses were equally plain. Left alone, it tended to make everything sound slightly more complete than it really was. It generalized where specificity was needed, liked smooth transitions, and produced balanced sentences even when the thought called for a harder edge. It was more comfortable sounding authoritative than admitting uncertainty. In that respect, it behaved like a clever drafter who had read widely, written quickly, and not yet learned the value of restraint.

That combination makes it useful, but only under supervision. For writing, the best present use is not authorship in the full sense; it is assistance: summarizing a source, comparing texts, proposing language, testing a formulation, or producing a draft that a human writer will cut apart and rebuild. The technology is strongest where the work is preparatory or comparative, and weakest where it must decide what matters, what should be omitted, or where an argument needs to become more precise rather than merely more fluent. At least for now.

That distinction is worth keeping in mind because prose is one of the domains in which AI can most easily create a false sense of mastery. Orderly paragraphs, plausible transitions, and an air of confidence are easy to mistake for judgment. They are not the same thing.

The Institutional Lesson

Becker ended by calling for planning, experimentation, and system-level analysis, which still seems the right response. For a reader trying to think clearly about AI in intelligence, that is Becker's value now: he helps separate what is genuinely new in the technology from what is familiar in the institution's response. The sensible position on AI is neither missionary enthusiasm nor easy dismissal; it is to examine the work itself: which tasks benefit from these systems, which tasks become more error-prone when they are introduced, and what must be changed in data, holdings, access rules, workflow, supervision, and training if the tool is to be used responsibly.

Three practical conclusions follow from this. First, training cannot be treated as an afterthought. Access is not competence. Officers who will use these systems seriously need some understanding of model behavior, provenance, retrieval, verification, and common modes of failure. They also need a clearer sense of when the tool should not be used.

Second, infrastructure matters more than demonstration. A good model attached to disordered data, inaccessible holdings, or a poor workflow will disappoint. So will a successful pilot that collapses when it meets security rules, records requirements, and the routine architecture of office work. The

institution's problem is rarely the model by itself. It is the fit between the model and the process into which it is introduced.

Third, changes—including dramatic shifts—in work should be expected and described soberly. Some tasks will contract, others will grow, and some roles will move toward review, correction, or orchestration rather than first production. New specialties will appear, and older boundaries will weaken. None of that is unprecedented. It is what happens when a profession acquires a tool that changes the relation between labor, information, and time.

Becker's 1960 article remains useful for one simple reason: it helps clarify what is and is not new in the present discussion. The obsolete machinery is obvious enough. Less obvious, until one reads the piece closely or runs the substitution exercise, is how much of the argument turns on matters that are still with us—training, workflow, conversion of information into usable form, organizational disruption, and the temptation either to overstate the machine or to recoil from it. In that sense, the article rewards institutions that think clearly about process and punishes those that mistake novelty for strategy.

We have, in that sense, been here before. Not before the same machine, and not under the same conditions, but before the same

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professional problem: how to absorb a powerful new instrument without allowing fascination with capability to outrun standards, training, and judgment. That was true of the computer in Becker's day. It is true of AI now. The decisive question is not whether the machine is impressive. It is whether the institution using it is prepared to govern the change it brings.

Use of Artificial Intelligence. The commentary and rewrite discussed in this article were generated with AI as part of the experiment described herein. AI was also used as a drafting aid during preparation of the manuscript. The argument, selection of evidence, and final text are the author's own. ■

research note

The Quiet Cognitive Coup of Generative AI Rewriting the Rules

Debora Pfaff, PhD

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Generative AI didn't ask permission. Instead, it began quietly rewriting the rules of how intelligence analysts think, decide, and make sense of the world.

When we think of analysis, we think of cognition—brain processes that humans use to interpret their surroundings, which include perception, learning, memory and decision making.¹ Dig a little deeper, and it's clear that cognition isn't just about an individual's thoughts and decisions; it's about a cognitive ecosystem—the interactive relationship between an organism and its environment and how that interaction impacts its thinking.² Put another way, humans don't think in a vacuum; we're heavily influenced by learned, symbolic, and social processes. Cognition evolves through constant adaptation, and it's irreducibly cultural.³ As applied to the IC, one NIU study in 2024 found that intelligence work is a social process: “While intelligence professionals draw on their individual cognitive abilities to interpret information and make assessments, effective intelligence work also requires asking questions, sharing information, considering alternative points of view, coordinating assessments, and communicating those assessments to inform action.”⁴

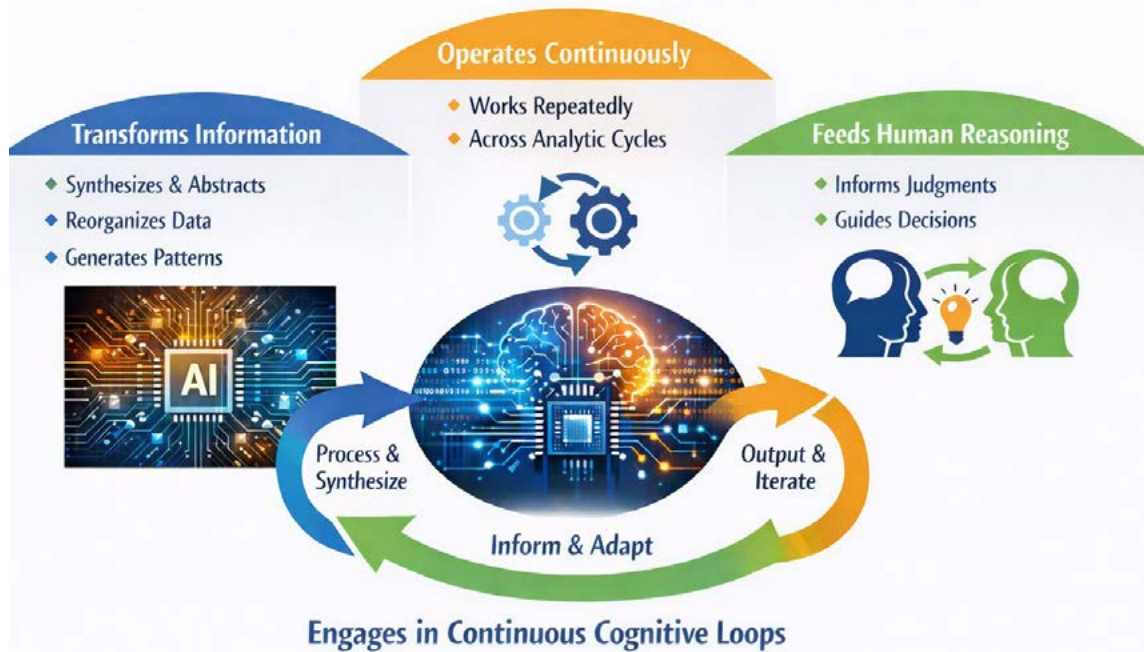
So what happens when a non-human mind is introduced to analytic workflows? Historically, technological

advances—new sensors, more data, better computing—largely changed the inputs: bigger data streams, more efficient collection, faster processing. But the outputs largely stayed the same; humans deliberate over evidence, reason, debate interpretations, and apply tradecraft to produce a product that stems from their thinking. Introducing AI introduces a new synthetic cognitive agent; one capable of hypothesis generation, abstraction, summarization, pattern synthesis, and even narrative construction. But it cannot—critically—model intuitive, affective patterns of reasoning in the same manner that humans experience them. AI cannot think.⁵ In fact, if you ask a large language model (LLM) whether it can reason, it will explain that it can generate patterns, but it cannot generate new knowledge.

Analysts draw on raw data collected from multiple intelligence sources, but the heart of their work lies in sensemaking: detecting patterns, forming hypotheses, adjudicating competing interpretations, assessing confidence, surfacing dissent, and building consensus. Sensemaking addresses the basic analytic questions—who, what, when, and where—as well as the more advanced why, how, and what next.⁶ It ultimately leads to a “foraging for answers,” and analysts must constantly

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Generative AI as Part of the Cognitive System



This graphic shows generative artificial intelligence as part of a cognitive system that transforms information, operates continuously, and feeds human reasoning.

evaluate both how the intelligence was produced and the accuracy and reliability of the information itself.⁷

AI as a Cognitive Technology

The IC has historically integrated new tools, but generative AI is the first cognitive technology. Generative models exhibit a form of synthetic cognition: pattern synthesis, abstraction, hypothesis generation, summarization, and translation. Automation and AI systems like LLMs are increasingly performing tasks that used to be conducted exclusively by humans. Some tasks are suited to AI, and make an analyst's job more efficient, like rapidly ingesting and filtering large datasets to surface relevant information, or automating translation and cross-lingual analysis to accelerate exploitation of foreign-language reporting. But as a cognitive technology, GenAI becomes a co-author of analytic reasoning; it participates in the formation, shaping, and constraint of thought rather than simply executing discrete tasks. It has shared cognitive agency in the analytic process.

AI has found its way upstream from the analytic process by affecting how a problem is framed and how options to approach that problem are constructed. This mirrors how human collaborators influence one another's reasoning—not by immediately coming up with conclusions, but by shaping the conceptual space. And unlike human collaborators, generative AI can repeatedly re-enter the reasoning loop with consistency, memory, and scale. The system ends up shaping not just single judgments, but the evolution of reasoning time and time again. This is a core premise of Hutchins' distributed cognition theory, which holds that cognition is not confined to individual minds, but is distributed across people, artifacts, representations, environments, and time.⁸ This complexity affects analysts' cognitive ecosystems in a number of ways.

Epistemically. AI-generated assessments sound authoritative—analysts may overweight them. And, generative models create many convincing-but-wrong hypotheses. As analysts share their ideas and products, they may perpetuate the illusion of understanding. Their analysis may contain coherent explanations,

confident language, and structured arguments that mimic human reasoning. As one recent study argues in a broader context, generative AI can foster epistemic illusions that make much more difficult assessing whether the “communicator” truly understands the domain.⁹

Institutionally and culturally. AI co-authorship changes the norms of collaboration and can affect mentorship and junior analyst development by reducing the back-and-forth with mentors that helps them understand problems, learn how to think analytically, and develop sound judgment. It may also limit diversity of thought by driving analysts toward the most common or mainstream interpretations, running counter to analytic standards valuing dissenting views, red-teaming, devil’s advocacy, and structured analytic techniques. It affects the relationship between an analyst and their leadership, too. Reviewers of analytic products must evaluate the credibility of output that includes synthetic cognition.

Operationally. Analytic products become a synthesis of what AI considers the most crucial arguments. Under time pressures or a heavy workload, an analyst may accept AI-generated content uncritically. In this way, the role of a human analyst shifts from being the sole sensemaker to an arbiter of synthetic cognition.

Policy and Tradecraft Recommendations

The integration of generative AI demands new tradecraft. Current policy and tradecraft frameworks are not equipped to answer questions like: How do we validate machine-sourced judgments? How do we audit AI’s influence? How do we prevent skill deterioration and an over-reliance on AI?¹⁰

This is not a subtle shift. And given that the IC is generally slow to change, intelligence leaders should quickly begin to consider the following suggestions for adapting its operations to a technology that evolves faster each day.

1. Adopt “epistemic transparency” protocols: Require delineating AI contributions from human input, and describe the prompts used to generate the output.
2. Reinforce human-centered tradecraft: Emphasize or enforce mandates requiring mechanisms for dissent, devil’s advocacy, alternative analysis, and structured analytic techniques that keep human thinking at the center of analysis.
3. Support multiple ways of thinking: AI tools shouldn’t all push analysts toward the same answers. Use multiple AI models and human judgment together to avoid converging on the same conclusions.
4. Invest in AI-literacy for analysts: Offer training to understand AI limitations, like hallucinations, bias, and overconfidence, and teach analysts to critically evaluate AI outputs rather than treat them as authoritative.
5. Introduce audit and accountability frameworks: Create institutional oversight (audit logs, validation steps, after-action reviews) to examine when AI-derived judgments led to mistakes or inaccurate threat assessments.

Conclusion

Adoption of generative AI in the Intelligence Community isn’t just a matter of automation or efficiency. It’s a profound shift, one that places non-human cognitive actors alongside human analysts to make sense of the uncertain. If we treat AI as just another tool, it will certainly offer productivity enhancements. But that will patently ignore the infiltration into the analytic cognitive ecosystem which buttresses the Intelligence Community’s objectivity and rigor.

The IC has focused on how to adopt and incorporate AI, but that’s not the real challenge. The real challenge is learning how to govern an analytic environment where AI has changed how analysts think, reason, and exercise judgment. ■

Endnotes

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In the 1890s, US firms pioneered the use of vertical filing systems, greatly improving information retrieval. The technology spread to the US government in the early 20th century, including the State Department.

Three Pillars of Identity Intelligence

A Brief History

Lara Ballard

The author served as the privacy and intelligence oversight officer for Intelligence and Analysis, Department of Homeland Security. She was an attorney-advisor with the Office of the Legal Advisor and special advisor for privacy and technology at the Department of State.

A bleary-eyed traveler steps up to the passport control counter at Washington-Dulles International Airport. An official from US Customs and Border Protection (CBP) examines the traveler's passport and runs it through a machine to read the RFID chip embedded in its cover. The traveler provides fingerprints on a digital device. The official asks the traveler a

few questions. From there, the traveler may be diverted to secondary questioning, or not. They may be denied admission to the United States, or not. Most likely, the traveler will simply proceed on their way, an experience shared by most of the 10 million-plus passengers who transit Dulles every year.

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Three Pillars of Identity Intelligence

Such transactions are enabled by a mind-boggling array of screening and vetting activities, leveraging dozens of governmental databases (e.g., the Consular Consolidated Database, which in turn links to many others),¹ as well as private sector holdings initially developed by airlines, credit card companies, and other commercial entities to combat fraud.² The additional information collected at passport control is then fed back to the US Intelligence Community, a vital stream of intelligence about the movements of terrorists and other national security threats.

Three Pillars of Identity Intelligence

Identity intelligence, or I2, consists of two functions: identity discovery/reveal (or denying threat anonymity) and protect/conceal. This encapsulates identity modalities, enabling activities (biometrics, forensics, and document and media exploitation [DOMEX]), and identity attributes (biologic, biographic, and behavioral).” While neither a recognized collection discipline nor a traditional form of analytic tradecraft, I2 underpins a great deal of modern intelligence work.

What I2’s largely unexplored history reveals, however, is that it has three prerequisites that did not exist before the 20th century:

- One or more reliable and immutable identity attributes that can travel with an individual
- A sophisticated method of information retrieval
- A robust administrative state, with a professional and incorruptible bureaucracy that can consistently collect, retrieve, and employ I2 with accuracy and integrity.

I2 cannot function without these three pillars, and wherever and whenever one of them falls short, I2 falls short as well.

To illustrate the importance of the three pillars, this article traces the history of each of them. I describe the invention of immutable identifiers, starting with how key developments in the 19th century gave rise to such a need, and how that need was then addressed through biometrics, civil registries, and medical records. Next, I trace the development of information retrieval, facilitated by both advances in data science and the revolution in business processes that accompanied the invention of the filing cabinet and later, the computer. Finally, I describe how the United States gradually built and continues to build an administrative state capable of consistently collecting and utilizing Personally Identifiable Information (PII), in immigration, law enforcement, and, much more recently, in intelligence.

Immutable Identifiers

The first pillar of I2 consists of one or more immutable identity traits, PII. In traditional agrarian societies, there was no real need for such information. Most people’s identity was intimately connected to their local community, a small geographic area they would not leave for the duration of their lives. Personal identifiers connected solely to the body, as opposed to a body in a particular fixed place, were not necessary to maintain order because anonymity was effectively impossible in such a setting.

This changed with several key transformations in global human relations that occurred during the 19th century. Chief among them were the end of slavery and rise of migrant and indentured labor; the Industrial Revolution that concentrated populations in cities; changes in warfare; and immigration law that became integral to the modern nation-state.

The sovereign interest in both identifying individuals and monitoring their movement was set into motion when Britain ended slavery in its colonies in 1838. British colonies worldwide shifted to a system of indentured labor.³ Plantation owners throughout the Americas began to enter into labor contracts directly with such individuals.⁴

The Industrial Revolution instigated large-scale migration from rural to urban centers, and with

Select Developments in Identity Intelligence, 1790s–1944

Year	Development	Category
1790s	French Revolution prompts civil registration in parts of Europe	Civil Registries
1792	US Congress defines duties of unsalaried consular officers	Immigration Enforcement
1836	UK enacts Births and Deaths Registration Act	Civil Registries
1838	UK ends slavery, spurs global market for migrant labor	Global Mobility
1849	California Gold Rush attracts Chinese immigrants fleeing Taiping Rebellion	Global Mobility
1858	Sir William Herschel begins experimenting with fingerprints for identification	Biometrics
1858	NYPD introduces “rogues gallery” of criminal photographs	Biometrics
1865	US establishes Secret Service to combat counterfeiting	Law Enforcement
1868	14th Amendment affirms birthright citizenship	Immigration Enforcement
1870s	Treasury investigation finds widespread corruption in consular corps	Immigration Enforcement
1882	Alphonse Bertillon develops body measurements for identification	Biometrics
1882	US enacts Chinese Exclusion Act	Immigration Enforcement
1885	Bertillon introduces modern mug shot	Biometrics
1890	US Census adopts punch-card technology, expands data collected	Information Retrieval
1890s	Filing cabinets begin to replace bound ledgers	Information Retrieval
1890	Bengali police officers develop retrieval algorithm for fingerprints	Information Retrieval
1891	Treasury creates Superintendent of Immigration	Immigration Enforcement
1892	Ellis Island opens to process immigrants; Marine Hospital Service created	Immigration Enforcement
1898	International Anti-Anarchist Conference adopts system to track radicals	Biometrics
1904	Scotland Yard trains US police on fingerprinting	Biometrics
1905	Congress directs fees collected by consular offices are deposited in Treasury	Immigration Enforcement
1906	State Department adopts numerical, subject-based filing system	Information Retrieval
1908	Justice Department creates Bureau of Investigation	Law Enforcement
1910	Angel Island opens as West Coast immigration processing facility	Immigration Enforcement
1913	J. Edgar Hoover learns information-retrieval techniques at Library of Congress	Information Retrieval
1914	State Department requires passport photographs	Immigration Enforcement
1917	US attempts to implement alien registration during World War I	Immigration Enforcement
1924	Immigration Act makes quota system permanent; US Border Patrol created	Immigration Enforcement
1924	Bureau of Investigation creates Identification Division	Law Enforcement
1933	Immigration and Naturalization Service created in Labor Department	Immigration Enforcement
1930s	Advances in data processing	Information Retrieval
1935	Bureau of Investigation becomes FBI	Law Enforcement
1940	INS moves from Labor to Justice Department	Immigration Enforcement
1944	US creates centralized alien registration system	Immigration Enforcement

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Select Developments in Identity Intelligence, 1947–Present

Year	Development	Category
1947	National Security Act establishes modern US Intelligence Community	Intelligence
1951	Calvin Mooers coins the term “information retrieval”	Information Retrieval
1950s	First computer programming languages created	Information Retrieval
1960s	Algorithms developed to enable text searches	Information Retrieval
1967	FBI launches National Crime Information Center	Law Enforcement
1970s	Digital information retrieval systems (e.g., LEXIS) marketed to public	Information Retrieval
1977	Personal computers marketed to general public	Information Retrieval
1985	Alec Jeffrey discovers DNA’s potential as individual identifier	Biometrics
1980s	Scientists worldwide collaborate on standards for facial identification	Biometrics
1989	Tim Berners-Lee invents the World Wide Web	Information Retrieval
1990s	State Department begins storing visa applications digitally	Information Retrieval
1999	FBI establishes the Integrated Automated Fingerprint Identification System	Biometrics
2001	State Department begins including photos of all visa applicants electronically	Biometrics
2003	Homeland Security Act passes in wake of 9/11 attack	Immigration Enforcement, Intelligence, Biometrics
2003	INS functions reorganized into Immigration and Customs Enforcement, Customs and Border Protection, US Citizen and Immigration Services	Immigration Enforcement
2003	National Media Exploitation Center established	Intelligence
2005	Congress passes REAL ID Act to standardize state-issued identification	Civil Registries
2006	US passports integrate RFID chips	Information Retrieval
2009	FBI forms Facial Identification Scientific Working Group	Biometrics
2013	“Identity Intelligence” appears in Defense Department Joint Publication 2-0, Intelligence	Intelligence
2025	REAL ID enforced on domestic flights	Civil Registries

that, a dramatic increase in commercial activity between strangers who required some form of identity verification.⁵ The anonymity of urban life facilitated fraud and other types of crime, with a particularly dramatic increase in repeat offenses.⁶ In Paris, for example, there was now a permanent criminal underclass of rural poor who moved to the city after

bad harvests and would return no matter how many times they were expelled. French authorities needed a means of identifying those whom they labeled recidivists.

Trains and telegraphs facilitated a new age of warfare, featuring the movement of large-scale conscripted armies to fight battles far from home. Draft-dodgers,

deserters, and soldiers alive and dead all needed to be identifiable. During the US Civil War, soldiers wanted to ensure that their bodies could be identified on the battlefields and returned home. Private vendors, seizing a rather morbid opportunity, began offering personalized disks before major battles.⁷ Several decades later the

US Army would adopt what are now known as dog tags.

Finally, the global movement of migrant labor fostered racial tensions and desires for immigration restrictions, as the concept of the modern nation-state evolved into something racially, linguistically, and ethnically exclusive. In California, the discovery of gold in 1849 attracted fortune-seekers from China, many of them fleeing the Taiping Rebellion. They were at first welcomed, but as the gold rush petered out and the Chinese established businesses in the cities, white Californians began to resent the competition and eventually prompted passage of the Chinese Exclusion Act of 1882.

This law proved impossible to enforce, as it had to be reconciled with a complicated legal framework. The 14th Amendment to the US Constitution, adopted in 1868, extended citizenship to all those born or naturalized in the United States. While Chinese immigrants were not allowed to naturalize, their children born in the United States were citizens.⁸ There were also treaty obligations between the US and China that authorized a certain amount of Chinese immigration in exchange for US access to lucrative Chinese markets. Chinese laborers who had arrived before 1882 were allowed to stay along with family members.

The United States attempted to manage these nuances through

an elaborate system of certifications. A Chinese laborer in the United States wishing to return temporarily to China had to first obtain a “return certificate” from the collector of the port prior to departing. Upon arrival in China, they were then required to obtain from the Chinese government a “Canton” or “Section Six” certificate. In 1884, additional documentary requirements were added: now the “Section Six” certificate had to be verified and a visa issued by a US consular officer at the port of departure in China.⁹

This system quickly became an unfathomable mess, in which “sheriffs, court commissioners, and United States marshals and deputies were known to be in collusion with Chinese agents on the borders, and money seemed to smooth the way even at the ports of San Francisco and New York.”¹⁰ Four years later, Congress enacted an additional law requiring all Chinese in California to obtain a “certificate stating minute particulars concerning themselves and must supply photographs at a cost of three dollars each,” as white Californians insisted it was impossible otherwise to tell individual Chinese apart.¹¹ Reliable identity verification had not yet been invented.

Biometrics

Amid this explosion in global mobility, the growth in 19th

century commercial interactions between strangers was the original context for biometrics. In 1858, Sir William Herschel, a British administrator in Bengal, contracted with Rajyadhar Konai to supply the building material for a road leading into a village. Konai was just about to sign the contract, when, according to Herschel’s account, “I stopped him in order to read it myself; and it then occurred to me to try an experiment by taking the stamp of his hand by way of signature instead of writing.”¹² This launched Herschel into an obsessive hobby for the next 20 years, during which he came to realize that fingerprints do not change over time.

American and British police had by that time both begun to embrace photography and what became known as the “mug shot,” with the first reported “rogues’ gallery” featuring photographs of habitual criminals introduced by the New York Police Department in 1858.¹³ For the French police, the problem of how to identify recidivists was taken up by Alphonse Bertillon, who pioneered the use of 11 different anthropometric measurements of criminal suspects: height, head width, little finger length, etc. He also developed precise guidelines for classifying eye color, lips, and ears, an important precursor to today’s facial recognition technology.

The Bertillonage method quickly spread to the United

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Fingerprints and hand prints of William Herschel, 1859–60. (Wikimedia)

States, Canada, Argentina, Bengal, and Great Britain in the 1890s. In 1898, the International Anti-Anarchist Conference in Rome even embraced it as a standard identification system to be used across Europe for tracking international terrorists and other radicals.¹⁴ However, Bertillonage required extensive training and was often copied poorly by successive police entities and prisons, which either cut corners or introduced variants to the methodology. By 1906, any hope for international compatibility of records had been lost.

Meanwhile, at the 1904 World's Fair in St. Louis, Missouri, Scotland Yard sent a security contingent to protect Queen Victoria's jewels, among them, Sergeant John

Ferrier, who offered classes on fingerprinting. Attendees included Mary Holland, who ran her own detective agency in Chicago and whose husband published a magazine for law enforcement professionals. Holland was enraptured by Ferrier's presentation and joined a group of nine Americans who studied with him for almost eight months.¹⁵ She traveled to London, where she passed proficiency tests administered by Scotland Yard, and then evangelized the method throughout the United States.

Thus, it was the portable, easy-to-learn fingerprinting technology that eventually took hold in the early 20th century, remaining in wide use today despite other biometric identifiers since

developed—iris scans, voice recognition, gait analysis, etc.—that might offer greater accuracy. As with Bertillonage, the sophistication and cost of such technologies can be prohibitive. In 1985, geneticist Sir Alec Jeffreys discovered that DNA strands are unique enough to be accurately linked to individuals, and in subsequent years he began assisting with missing persons cases and murder investigations. However, even today, many police forces do not have the funding or forensic expertise to carry out DNA testing or store DNA evidence properly.¹⁶

Civil Registries

In 2000, Prof. Latonya Sweeney observed that 87 percent of all

persons in the United States could be individually identified through only three attributes: zip code, gender, and date of birth.¹⁷ While this revelation was startling, it is a well-known practice among Internet-based services to request a person's date of birth as a form of authentication. The usage of such biographic data for identity verification and I2 was made possible by the 19th century development of civil registries.

The French Revolution and subsequent conquest of neighboring states initially brought about the adoption of civil registration in parts of Europe starting in 1792.¹⁸ However, it was largely in response to the increase in 19th century global mobility that multiple other modern nation-states began to establish central registries for births, marriages and deaths. Great Britain, for example, enacted the Births and Deaths Registration Act in 1836.¹⁹ In Japan, one of the first laws passed during the Meiji Restoration that returned the monarchy to power was the Family Registration Law of 1872.²⁰

But the use of PII out of central registries continues to have limitations arising out of their history. First, the ability of a personal detail to identify one person to the exclusion of others varies considerably between cultures. In Pakistan and Afghanistan, for example, large swaths of visa applicants list their date of birth as 1 January. In cultures where

birthdays aren't celebrated, individuals often select 1 January as their date of birth simply because it is easy to remember.²¹

Second, there is a long history of civil resistance to the centralization and standardization of such data that continues to this day. In Britain, the 1836 law was met with widespread noncompliance and rioting.²² Brazil implemented a civil registration decree in 1852 that it then quickly rescinded amid a popular uprising that sent the local registrars fleeing for their lives.²³

In the United States, vital records as well as drivers' licenses remain the province of state and local governments. In 1976, the Federal Advisory Committee on False Identification issued an 800-page report detailing how insufficient controls over birth certificates facilitated the widespread issuance of fake IDs by state and local governments, which criminals could then parlay into fake federal identification such as US passports.²⁴ By 2000, the US Department of Health and Human Services (HHS)—having acquired new immigration enforcement responsibilities in 1996—was still grappling with the same problem, noting that there were over 14,000 different versions of birth certificates in circulation issued by 6,422 different entities, rendering fraud detection exponentially more difficult.²⁵

In response to the 9/11 terrorist attacks, the federal government

enacted the REAL ID Act in 2005 to at least standardize the forms of state and local ID that could be used to enter federal facilities. The deadlines for compliance were repeatedly extended until 2025 because of popular resistance and bureaucratic foot-dragging.²⁶

Medical Records

Medical PII in the United States is also intimately intertwined with US immigration policies that emerged in the late 19th century, developing contemporaneously with the opening of the Ellis Island processing facility in 1892. Doctors and hospitals were at the time keeping records in ledger books and sometimes handwritten diaries, with no standardized approach for recording a patient's clinical history. But with the Immigration Act of 1891, there was now a new category of immigrants who could be excluded from admission to the United States: "persons suffering from a loathsome or a dangerous contagious disease."²⁷ This meant that medical professionals would need to be on hand at Ellis Island and other ports of entry to inspect each and every person arriving. The task was assigned to the Marine Hospital Service, which would be rebranded as the US Public Health Service (PHS) in 1912.²⁸

The standardization of medical examinations that resulted from these thousands of immigrant examinations was particularly

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impactful because it occurred alongside a similar effort with respect to patient records. Starting in the late 19th century, Harvard Medical School—inspired by the “case histories” being compiled over at the Harvard Law School—began developing clinical records templates complete with empty fields to enter family history, patient habits, blood and urine test results, etc. The innovation came at a fortuitous time for hospitals, which were at the same time making their own significant transition from handwritten to standardized typescript records.²⁹ To the extent medical PII can be leveraged into identity intelligence today, it is largely a legacy of this history.

Information Retrieval

The second pillar of I2 is information retrieval, a term coined in 1951 by Calvin Mooers, who defined it as “the process of finding stored information when the approximate subject is known.” He distinguished it from “information warehousing,” which is simply “the orderly storage and warehousing of information.”³⁰ The importance of the distinction is readily apparent with regard to biometrics. A collection of fingerprints, indexed alphabetically by a person’s name, is effectively useless. It is only when one can match fingerprints to names rather than names to fingerprints that the collection can support investigative work.

In general, as data scientist Vannevar Bush presciently observed in 1945, the human mind operates by association: “With one item in its grasp, it snaps instantly to the next that is suggested by the association of thoughts, in accordance with some intricate web of trails carried by the cells of the brain.”³¹ The storage of large volumes of PII can help overcome the limitations of human memory, but it cannot support activities like identity intelligence without a retrieval system that can approximate our thinking patterns.

In that sense, the real revolution in fingerprinting did not occur until the 1890s, when two Bengali police sub-inspectors, Qazi Azizul Haque and Hem Chandra Bose, worked out a mathematical formula that would enable effective information retrieval. They observed that 60 percent of all fingerprint patterns are loops, 35 percent are whorls, and only 5 percent are arches. By combining arches and loops into a single category, they were left with only two categories for finger ridges. All 10 fingers were then grouped by pairs: right index/right thumb, right middle/right ring, left thumb/right little, left middle/left index, and left little/left ring. This led to a calculation of 1,024 possibilities for fingerprint combinations. The square root of 1,024 is 32, so if a criminal-record room had 32 cabinets, and each cabinet had 32 files, each of the 1,024 permutations could be

given a numerical value, such that an official searching for a particular combination of fingerprints would be able to find this pattern, e.g., in the second file of cabinet 17.

Haque and Bose took their idea to the Inspector General of the Police in Bengal, Sir Edward Henry, who shared it with Scotland Yard. Henry shamelessly took full credit for the innovation, eventually becoming head of a new Fingerprint Bureau and branding the method the Henry Classification System.³² This was the system on which Scotland Yard trained Americans during the 1904 World’s Fair in St. Louis.

Even this innovation would not have been possible if not for a simultaneous change in business practice. For most of the 19th century, Western courts tended to look solely to records in bound ledger books as authoritative evidence in commercial disputes. Consequently, bound ledger books were how most business entities maintained their records. No evidentiary weight would have been given to a collection of loose papers in a manila folder, even if businesses had appropriate filing systems to house such folders.³³

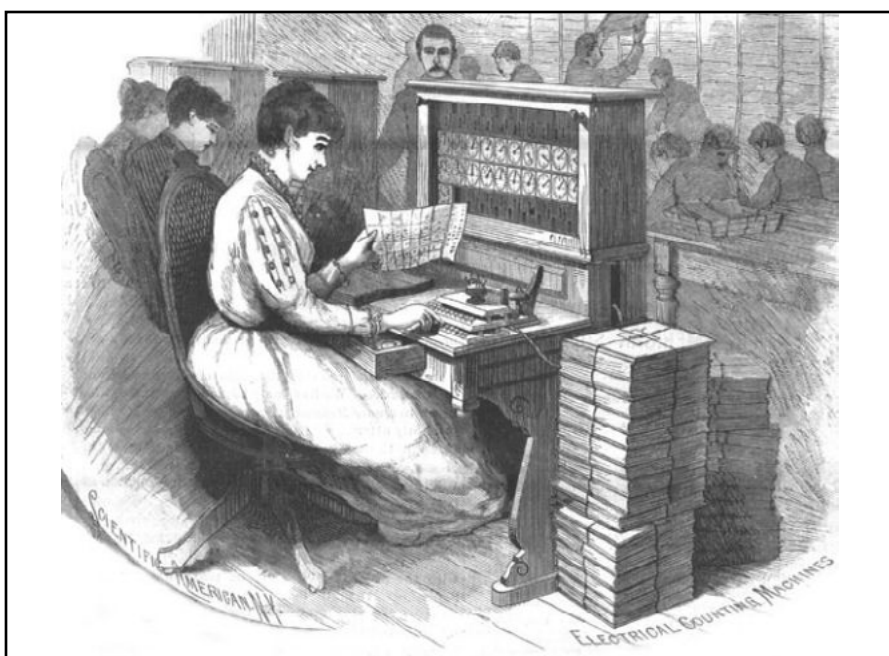
The adoption of filing cabinets and removable files started mostly in the commercial sector, with government sometimes lagging. In 1905, Secretary of State Elihu Root, who had come from private

legal practice, asked for a handful of letters and instead, to his exasperation, found several large bound volumes dropped on his desk. He felt, he said, as if he were “a man trying to conduct the business of a large metropolitan law firm in the office of a village squire.”³⁴

Other times, government led the way. The US Library of Congress, starting in 1899, established a Government Printing Office facility inside the library and began printing millions of standardized cards utilizing the Dewey Decimal System, not only for the library’s holdings but for hundreds of libraries across the country that were willing to pay for the cards at a 10-percent markup to conform to the new de facto national standard.³⁵ In 1913, a young law school graduate named John Edgar Hoover got a job in the library’s “order division,” placing himself at the cutting edge of information technology and acquiring skills and disciplines that would serve him well for decades to come.³⁶

The Advent of ADP

But a sophisticated approach to information retrieval of the type Bush and Mooers envisioned was not possible until the advent of automated data processing. The US Census of 1890 was for the first time powered by a processing machine using punch-card technology, developed by a federal civil servant named Herman Hollerith. His invention enabled



Census Bureau workers processing data on Hollerith Machines. Census Bureau image.

the collection and analysis of much more nuanced and detailed census information. Whereas in 1870 only five census topics were asked, now an army of census takers could posit 235 questions.³⁷

Hollerith sold his invention to the Computing-Tabulating-Recording Company, or CTR, headed by Thomas J. Watson. One day a CTR employee suggested a name for a new company newsletter, *International Business Machines*. Watson realized that the name described the company itself, and from that day forward the company was known as IBM.³⁸ By the 1930s, Hollerith punch cards gained widespread use in industry and government, including wartime efforts by Allied and Axis powers to identify and track classes of individuals.³⁹ While eventually

displaced by digital computers, punch cards are still sometimes used today for tabulation of voter data.

The digital computer was first conceptualized in the late 1930s by Alan Turing, who would go on to lead wartime cryptographic efforts at Bletchley Park; and by John Atanasoff, who co-developed the first electric-only computer in 1941. By the 1950s the first computer programming languages were developed. These advances in turn enabled the creation of the System for the Mechanical Analysis and Retrieval of Text (SMART), developed at Cornell University in the 1960s, which could search text and produce results based on relevance using an algebraic model that translated text into “vectors” and then calculated the similarity

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between a query and a document based on the distance between two or more vectors.

Once text searches could return results based on relevance, the market for commercial applications was obvious. In 1972, the year two US government databases containing scientific research were made available to the public, Lockheed's DIALOG retrieval system was introduced to curate searches within them. That same year, the service Medline was launched to search a database held by the National Library of Medicine, and in 1973, LEX Information Service, or LEXIS, was launched to serve attorneys.⁴⁰

Enter the PC and Internet

With the arrival of the personal computer and the internet in the 1980s and 1990s, the market for online searches exploded. Information retrieval was no longer the exclusive province of scientific and legal research and more closely resembled the world we know today, in which search engines and artificial intelligence (AI) can be used by virtually any person for any purpose. The everyday nature of online purchases, carried out between strangers who lack even a transitory face-to-face interaction, has only furthered the need for new methods of identity verification and fraud detection, facilitated by increasingly sophisticated information retrieval technology. The lawyers' research tool LEXIS has

enthusiastically expanded into this space; it rebranded itself LEXIS-NEXIS after a 1994 merger and now provides a wide variety of identity resolution services to both commercial and government customers.

Establishment of an Administrative State

Finally, the third pillar of I2 consists of professional personnel. There could not be an activity called Identity Intelligence without a robust administrative state, as illustrated by the failed implementation of the Chinese Exclusion Act of 1882. This section discusses the professionalization of immigration enforcement, the growth of federal law enforcement, and finally, the establishment of a permanent US Intelligence Community and its very recent interest in identity intelligence.

In 1882, the United States was still deeply committed to small government, particularly at the federal level. There would be no federal superintendent of immigration until 1891. Angel Island, the West Coast counterpart to Ellis Island, did not open until 1910. The United States also had not yet adopted the use of the passport as a form of identification needed to cross international borders.⁴¹

China, by contrast, had a 1,000-year head start at navigating complex bureaucracies, which is

how the elaborate system of certifications envisioned in the Chinese Exclusion Act quickly degenerated into bribery and falsified documents. The registration requirement for all Chinese nationals in California was supposed to be implemented by the US Treasury Department. A year later, only 13,242 out of 106,668 had registered, due to lack of enforcement capacity.⁴²

Pre-screening immigrants overseas also was severely limited by the nature of the US consular corps, which had been established by Thomas Jefferson as an unsalaried service; consular officers were simply commissioned by the US government and expected to live off of whatever remuneration they could personally extract overseas by virtue of their status.⁴³

The problem with maintaining a service of this nature should have been obvious. By the time a senior Treasury official conducted a worldwide investigative tour of US consulates in the 1870s, there were numerous reports of US consuls pocketing consular fees, including those designated for destitute seamen; maintaining "questionable jail accounts" in Japan; carrying out serious miscarriages of justice and abuses of power in both civil and criminal proceedings; selling "vice consul" offices to Egyptian nationals; and in Peru, being an "utterly hopeless inebriate."⁴⁴

In 1905, Secretary of State Elihu Root joined forces with Senator Henry Cabot Lodge, resulting in the Lodge Act of 1906,⁴⁵ which for first time provided for salaries for consular officers and mandated that all fees collected for consular services go to the US Treasury.⁴⁶

Impact of World War I

World War I prompted a dramatic increase in the State Department's administrative capacity, as it now needed to issue passports to its own citizens on a large scale, as well as undertake measures to combat passport fraud. Americans in Europe at the outbreak of hostilities suddenly needed identification that would satisfy European authorities while crossing the national boundaries of warring states. On August 1, 1914, the State Department authorized all US ambassadors and ministers in European countries to issue emergency passports to US citizens upon request.⁴⁷ A month later, the State Department had to issue some supplemental instructions to check birth certificates or some other form of "satisfactory identification" first, as Europeans were applying for US passports as a means to evade military service.⁴⁸

In November 1914, authorities in Britain apprehended a German spy using a fraudulent US passport. British lawmakers responded with a new requirement for photographs

and a physical description on all British passports.⁴⁹ A month later, the State Department was also requiring passport applicants overseas to submit photographs in triplicate.⁵⁰ The following year it beefed up its requirements for issuance of passports in the United States as well, following Executive Order 2285, which stated that "all persons leaving the United States for foreign countries should be provided with passports of the Governments of which they are citizens."⁵¹

Upon its own entry into World War I, the United States attempted to implement a system of nationwide enemy alien registration modeled after Canada's. In November 1917, President Wilson issued a regulation requiring completion of a four-page form that included family information, details of immigration, a physical description, a photograph, and fingerprints. Approximately 480,000 German enemy aliens were registered.

However, because of the lack of federal personnel to either oversee the program or leverage the information collected, the registration was carried out in such decentralized fashion that the impact of the program was dubious at best. Enemy alien registration records from this era have been identified at a variety of locations, including state archives, historical societies, and county libraries.⁵² The Immigration and Naturalization

Service would not be established until 1933, and the centralized alien-registration system known today as the "A-files" did not exist until 1944.⁵³

The United States also had little control over its land borders. With the drop-off in immigration of unskilled laborers from Europe that accompanied the outbreak of World War I, the US government created the Bracero Program to invite in workers from Mexico to support the agricultural and railroad industries under an officially sanctioned program. By 1917, responsibility for overseeing immigration had shifted from the Treasury Department to the Bureau of Immigration within the Labor Department.

The 1917 implementing rules issued by this new bureau governing inspection on the Mexican border, specifically contemplated the admission of aliens "who enter the United States with the avowed intention of remaining for a temporary period only and who, on the basis of such claim, are not required to undergo the detailed inspection enforced in the cases of aliens who declare an intention of remaining permanently." Apparently, these expressions of intent were supposed to work on the honor system, with predictable results. Bracero laborers stayed for some years, had children who acquired birthright citizenship, and were eventually forcibly repatriated—along with some of their

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US citizen children—in the early 1930s.⁵⁴

Immigration Enforcement

With the cessation of hostilities in Europe and the redrawing of national borders at the 1919 Versailles Conference, the United States saw a surge in European immigration on the East Coast and Asian immigration to Hawaii and the West Coast. In 1921, Congress enacted the Emergency Quota Act,⁵⁵ creating a quota system for European immigrants based upon their proportionate national origin representation in the census (a level of detail made possible by Hollerith's tabulation machine). The quota system was then made permanent in the Immigration Act of 1924,⁵⁶ which for the first time provided for the issuance of immigration visas by consular officers worldwide. No immigrants would now be admitted to the United States without an unexpired immigrant visa (Asians were excluded entirely).⁵⁷

Supporting Elements

The sophisticated method that underpinned the quota system, and the general goal of carefully limiting US immigration, would not have been possible had Congress not contemporaneously revamped and expanded the federal civil service in two key areas.

First, the Foreign Service Act of 1924⁵⁸ combined the State

Department's diplomatic and consular services into a single civil service bureaucracy with its own system of promotion based on merit, standard rank-in-person pay scales, and retirement benefits.⁵⁹ There was now, finally, a corps of professionals in place with a clear chain of command, who could be trusted to build and maintain what eventually evolved into the Consular Consolidated Database, so essential to screening and vetting today.

Second, two days after the passage of the Immigration Act, Congress appropriated additional funds for land-border patrol within the Bureau of Immigration.⁶⁰ This is generally regarded as the official birth date of the US Border Patrol. That said, providing staffing sufficient to consistently monitor all movement across the 7,500 miles of US land borders was a challenge. The 1924 appropriation provided for only 472 patrol officers.

Wholly lacking in resources and guidance from Washington and often placed in situations of great danger, they were heavily reliant on the large landholders of southern Texas and California for support, and accordingly, enforced border controls in a manner conducive to the landholders' interests, allowing unhindered border crossings of some Mexican laborers while not hesitating to exercise extreme violence against others who were seen as troublemakers.⁶¹ The Mexican government as well entered into

special arrangements with local Border Patrol officials for the deportation of political exiles from Texas back to Mexico, where some were assassinated upon arrival.⁶²

The Border Patrol was incorporated into the INS with the latter's founding in 1933. By 1939 it had sufficient funds to employ 913 personnel. By 1980 it had only expanded to 2,268 agents, but by 2001 there were 9,651.⁶³ The functions of the INS were absorbed into the Department of Homeland Security in 2002, with the Border Patrol assigned to CBP. It is CBP that now collects PII at ports of entry into the United States.

Law Enforcement

Until 1908, when the US Department of Justice established a Bureau of Investigation, the only federal law enforcement entity was the Secret Service, created in 1865 to combat counterfeit paper currency and acquiring its protective mission in 1901 after the assassination of President McKinley.⁶⁴ In the meantime, the nation's first biometrics collection was maintained by the National Chiefs of Police Union, initially consisting of photographs and Bertillon records, some donated by the Pinkerton Detective Agency, and later fingerprints.

The Bureau of Investigation stumbled along amid political scandals and limited staffing for

several decades, finally hitting its stride in the 1930s fighting the organized crime that had resulted from the Prohibition era. Under the leadership of J. Edgar Hoover, who had learned the value of information retrieval from his time at the Library of Congress, the bureau established an Identification Division in 1924, was renamed the Federal Bureau of Investigation in 1935,⁶⁵ and by the 1960s was a national standard-setter for criminal investigations.⁶⁶

The FBI created the National Crime Information Center in 1967, initially tying 15 state and city computers into the FBI's central computer.⁶⁷ As late as the 1980s, however, police still had no practical method for comparing fingerprints recovered at a crime scene with the millions kept on file.⁶⁸ It was not until 1999 that the FBI established the Integrated Automated Fingerprint Identification System, and while IAFIS bills itself as the largest biometric database in the world, it still only receives contributions from state and local entities on a purely voluntary basis.⁶⁹

Intelligence

The United States had no permanent national-level intelligence apparatus until 1947. Typically, military intelligence expanded for war and then drastically contracted during peacetime along with the rest of the armed forces.

The precursor to DOMEX was document exploitation or DOCEX, which had its origins in the American Expeditionary Force during World War I. The G-2 that supported the AEF with intelligence was trained on the examination of German prisoners and documents in their possession.⁷⁰ However, DOCEX was seen for many decades afterward as having limited operational value. During World War II, the 1st Army in Europe had just five people assigned to DOCEX. It was not until the post-9/11 counterterrorism effort that the military needed to identify and monitor individual as opposed to nation-state actors. The National Media Exploitation Center was established in 2003 to coordinate what is now known as DOMEX.⁷¹ The term "identity intelligence" first appeared in military terminology in Joint Publication 2-0, Joint Intelligence, in October 2013.⁷² Subsequent initiatives have further served to combine the resources and expertise that were each developed separately in the immigration, criminal justice, and intelligence fields.

Facial Identification

The fight against terrorism also breathed new life into the field of facial identification (FI), with many spillover benefits for DOMEX. While fingerprints as a biometric identifier continue to have many advantages over "mug shots," after 9/11 federal agencies

realized that there was a dearth of fingerprint records on terrorists.

This renewed governmental interest in and support for FI. While Bertillonage had long since fallen out of favor, forensic scientists worldwide still had been working on consensus standards for FI since the 1980s, building off of Bertillon's classification of ear, nose and other facial features to support a method now known as "morphological analysis." In 2009 the FBI formed the Facial Identification Scientific Working Group to convene the world's experts around further international harmonization of standards. But the FISWG has to keep developing new standards, not just on the features of the human face, but on the ever-changing quality and variety of digital images, as well as facial recognition technology, which is an automated form of retrieving possible facial matches from a database, not to be confused with or substituted for the manual process of facial comparison.⁷³

How could AI affect FI? On the one hand, it could improve facial recognition technology, to the point of changing or in some instances supplanting the human expert's current role in facial comparison—or at least, convincing some policymakers, perhaps mistakenly, that the same activities can now be conducted just as effectively with fewer personnel. On the other, AI can and already is producing a flood of altered digital

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images of faces, as well as wholly constructed facial images of people who do not, in fact, exist. Will the

AI being used to discover/reveal outpace the AI used to protect/conceal? Can AI detect AI-altered

or generated images? Only time will tell. ■

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Defendants on the first day of the IG Farben Trial, August 27, 1947, in Nuremberg, Germany. Missing in the dock is Ernst Fischer, a leading figure in Germany's oil industry. He was not charged, for reasons that remain unclear.

The Enigma of Ernst Rudolf Fischer

Nazi Germany's Oil Expert

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In 1946, investigators attached to the Office of the Military Government, United States (OMGUS), uncovered a mystery.¹ They had instructions from Washington to gather all the information they could find about the firm Kontinentale Oel (Konti). This company was a public-private venture established in 1941 to take possession of oil fields across Axis Europe and the occupied territories, including (Berlin hoped) those of the Caucasus and the Middle East. The Third Reich, acting through a shell company,

held most voting shares, but several private firms from German industry and finance, including the chemical conglomerate IG Farben, had also contributed start-up and working capital. By the end of 1945, with the Third Reich in ruins and its assets destroyed or expropriated, Konti existed mostly on paper. Nevertheless, the US Department of State wanted to learn more about the company, because any oil OMGUS found would be useful for European reconstruction.

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The task fell to OMGUS, which worked quickly. Its investigators soon discovered that Konti's headquarters staff had decamped from Berlin to Landshut, a small town in Bavaria. The investigators seized whatever records were still in Landshut and interrogated any staff they could find.^a

One name kept popping up during their investigation: Ernst Rudolf Fischer. He was one of the top German administrators within the economics ministry and the planning office of Albert Speer's munitions ministry.² His name was also all over the Konti documents that the OMGUS investigators reviewed and on the mouths of the men they interrogated. He would be the key to answering questions the investigators had about Konti. There was just one problem—Fischer had fled to Switzerland a month before the war had ended.

It is not surprising to learn that US investigators demanded the State Department secure his extradition from Switzerland. Nor is it surprising that the Swiss stonewalled. What is surprising is that US officials soon gave up on getting Fischer, even as they moved ahead with the prosecution of other IG Farben executives at Nuremberg.³ Two of the defendants had, in fact, worked closely with Fischer. One, Carl Krauch, was the chairman of IG Farben's supervisory board and a key figure

in the production of synthetic fuel from coal; he also doubled as Hermann Goering's plenipotentiary for chemical production and received a six-year sentence for war crimes.⁴ Another was Heinrich Buete-fisch, who was in charge of synthetic fuel production at Auschwitz and also received a six-year sentence.⁵

Not only did Fischer not join them on the docket—despite his name coming up during the trial several times, including in the context of war crimes—he submitted an affidavit on behalf of Buete-fisch.⁶ Fischer eventually returned to Germany in the 1950s, where he replaced another IG Farben veteran, Fritz Gajewski, as the chairman of the managing board of Dynamit Nobel, a former member of the IG Farben conglomerate.⁷ (Gajewski, too, was at the dock in Nuremberg, but he was acquitted.)

Intelligence Connection?

How did a man who was instrumental to Germany's oil policy during World War II and who participated, at the very least, in the spoliation of occupied Europe escape the Allies' justice? It is tempting to think that he simply slipped through the cracks or was protected by nefarious Swiss bankers, but various documents that have escaped scrutiny



This photograph of Ernst Fischer, attributed to the Bundesarchive Deutschland, appeared in Regula Bochsler, "Ein neues Leben für drei Nazis," *NZZ*.ch, October 1, 2000.

until recently suggest that Fischer had a connection to Allied intelligence. That, in and of itself, is not earthshaking. The public has long been fascinated with the history of Nazis the United States recruited to wage the Cold War against the Soviet Union. (There is significantly less interest in the German scientists who went to the Soviet Union or even Britain and France.⁸) The most notable employment of former Nazis was Operation Paperclip, which included over a thousand Germans, most of them scientists and engineers, some of them fanatical Nazis and high-ranking members of the Third Reich implicated in

a. I am grateful to David Painter, Jeremy Friedman, and Sally Paine for their feedback on an early draft of this paper. I dedicate this essay to Sally to recognize her distinguished service at the Naval War College and for her mentorship.

war crimes. The US government, initially the military but later the Central Intelligence Agency, brought these Germans to the United States to leverage their expertise in emerging military technologies such as guided missiles. In a few cases, the government obscured their wartime activities to secure visas and eventually citizenship for Paperclip recruits. There have been several popular books about Paperclip (mostly written by journalists) and a recent television series starring Al Pacino.⁹ Even the last Indiana Jones movie featured a Nazi working for the Apollo program.

The Fischer case differs from the postwar recruitment of German scientists or spies—his service to the Allies may have come during the war and not afterward. This article will present circumstantial evidence that Fischer served as an Allied intelligence source as early as 1943. If that is indeed what happened, it is no surprise that the low-ranking OMGUS investigators were unable to secure Fischer's extradition from Switzerland or that no one raised any objections to a fugitive Nazi submitting affidavits on behalf of another Nazi on trial for war crimes.

Early Life

Fischer was born in 1892, served in the German Army during World War I, and in 1922

joined a firm that was one of the six founding members of IG Farben.¹⁰ Until 1932, he served as *Prokurist* (a low-level executive officer with the power to sign binding contracts) in IG Farben's headquarters before entering the firm's petroleum business as its sales manager. His initial appointment was with Deutsche Gasolin, a joint venture since 1925 between IG Farben, Standard Oil, and Shell, which sold synthetic gasoline on the German domestic market.¹¹ This was probably how Fischer first came into contact with the international oil industry, and it was a time when relations between the two Anglo-American-Dutch oil companies and the German chemical conglomerate were exceptionally close.

The firms shared more than just markets. Standard Oil had long been interested in IG Farben's work in synthetic rubber (which began during World War I), and starting in 1926, the two firms realized that IG Farben's hydrogenation process as well as its catalysts could produce both synthetic gasoline and increase the gasoline yield from crude oil.¹² By 1929, Standard and IG Farben had concluded a number of agreements, to which Shell later adhered, whereby the IG Farben turned over its international patent rights for hydrogenation and related processes to Standard in exchange for a monopoly in the German market, a share of profits from licensing fees, and large block of shares in

Standard that made the German firm the second-largest holder of Standard Oil shares behind the Rockefeller family. That relationship lasted until the US Justice Department discovered it and forced Standard to sign a consent decree terminating it in 1942.¹³

Fischer's Key Roles

Fischer was not a bystander to political events in Germany. He played a key role in the public relations campaign to improve IG Farben's image with the Nazi Party in 1932, and the following year he supported the negotiations for the Third Reich to purchase synthetic gasoline at a fixed price to cover IG Farben's costs and guaranteed a modest profit.¹⁴

Fischer may not have been a Nazi before 1933, but like many other ambitious men, he joined the party once it became the government (membership numbered 1,773,899 on April 1, 1933).¹⁵ He then served in the Nazi Party's Economic Policy office for several months in 1933, which busied itself with a four-year plan to boost German petroleum production.¹⁶ Eventually, he joined a number of Nazi organizations, including the SS, in which he held the rank of captain.

Fischer was hardly a disinterested public servant; he always remembered on which side he buttered his bread. His employer

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was desperate to preserve its role as a petroleum supplier, despite the fact that synthetic gasoline was economically uncompetitive at a time of oversupply of (and low prices for) crude oil.¹⁷

In a 1934 overview of the German oil industry, he dismissed most alternatives to raise domestic production besides IG Farben's method, which was "practically limitless."¹⁸ He also handled negotiations with IG Farben's international partners on matters important to the Third Reich, such as the construction of additional refineries and storage facilities.¹⁹

The new regime held him in such esteem that there was talk during 1935–36 of appointing him to lead Germany's petroleum planning, but the appointment fell through, and he remained at IG Farben.²⁰ In 1937, the firm appointed him its intermediary when it agreed to serve as stalking horse for the Third Reich by purchasing a large quantity of petroleum (roughly \$20 million) from the major oil companies in London, which would serve as an emergency reserve until Germany had constructed additional synthetic fuel plants.²¹

Fischer finally moved to the public sector in 1939 just before the war's outbreak, when IG Farben delegated him to head the petroleum office in the economics ministry, where he soon became

indispensable, earning the nickname "Petroleum Fischer."²²

Fischer's Wartime Role

Once the war began, Fischer began managing the Third Reich's foreign oil policy and attended many high-level conferences with policymakers such as Goering. Fischer was also involved in German oil relations with Romania, including the confiscation of British and French assets there after 1940.²³

In perhaps his most notable contribution, in September 1940, Fischer drafted a memorandum on Axis Europe's postwar energy needs. Fischer discounted the Soviet Union as a supplier, as the Third Reich had not yet committed to Operation Barbarossa, and high Soviet consumption left little available for export. This meant that Europe needed to import oil from the Middle East, particularly from Iran and Iraq. Fischer recommended the creation of a private German firm with the requisite capital and technical expertise to oversee Axis interests in the region, perhaps after Germany had taken over Anglo-Persian and Shell's operations.²⁴

Not coincidentally, Goering soon issued instructions for the establishment of a "Continentale [sic] Oel" company "to improve Germany's supply of petroleum from abroad and strengthen

Germany's position in the international oil industry [...]." He also insisted that "all matters pertaining to foreign oil supplies" required Fischer's approval.²⁵ The formation of Konti followed early the next year, with the Third Reich holding a controlling interest, thanks to the sale of plundered Dutch securities.²⁶

Fischer was also Germany's primary interlocutor with the international oil industry. When the German Foreign Office learned that a member of SS intelligence had met with Armenian oil executive Calouste Gulbenkian in February 1941, the relevant state secretary, Wilhelm Keppler, was furious. Keppler insisted that Konti was responsible for all external oil matters, and that if Gulbenkian needed to speak with anyone, it should be with Fischer, who knew Gulbenkian "personally."²⁷

By this point, Fischer's private and public work was indistinguishable. During a meeting of Konti's supervisory board in September 1943, Fischer gave a presentation on the activities of the firm and oil engineers attached to the military, the *Technische Brigade Mineraloel*.²⁸ Although he shared the disappointment over the failure of the Caucasus Offensive in 1942, he took some comfort in the fact that the equipment Germany had gathered for oil production in the Soviet Union might instead go to other production areas such as Romania, Hungary, and Estonia.²⁹

For his dedication to the Third Reich, the regime awarded him both the Knight's Cross of the War Merit Cross (one of Nazi Germany's highest civilian decorations) and the title of *Wehrwirtschaftsfuehrer* (an honorific the Third Reich bestowed upon business leaders who supplied the war economy).³⁰ But Fischer could see the writing on the wall. Once the Allies began bombing Germany's synthetic fuel plants consistently in May 1944, defeat became inevitable unless the Luftwaffe managed to win back air superiority—a point Fischer and his bosses, Hans Kehrl and Speer, tried to impress upon Adolf Hitler during a high-level conference on May 23, 1944.³¹

The Tide Turns

As the war turned to the Allies' favor, the US government began putting more thought into postwar planning. The State Department's petroleum adviser notified a US representative on the Allied Reparations Committee on April 20, 1945, that the United States needed more information about European indigenous oil production, because the Allies could use it to supply Europe's postwar needs and avoid putting further strain on the limited supply of tankers.³² Since Allies subsequently determined at the Potsdam Conference to dismantle Germany's synthetic fuel industry, it became doubly important to identify European

sources of crude oil, which meant taking a closer look at Konti.³³

The US government had kept tabs on the firm during the war based on the Konti's public filings and open-source reporting from the petroleum-industry trade journals.³⁴ Most of its attention focused on German efforts to dominate Romania's oil industry, but the US government knew this was only the first step.³⁵ The fact that the firm announced it was soliciting additional capital following its founding suggested it "knew that an attack on the Soviet Union was coming within a few months, and it was thought that sooner or later German troops would reach the Caucasus."³⁶ Once Standard Oil's cartel agreement with IG Farben became knowledge after its enforced dissolution, one muck-raking journalist even claimed that Konti was merely a stalking horse for reestablishing the cartel with British and Dutch participation after the war.³⁷ The US Petroleum Administrator for War Harold Ickes quickly wrote to the journalist's editor to insist that Konti was solely "a German concept and of total German control."³⁸

Considering the lingering uncertainties about Konti and the pressing need to boost postwar European oil production, Washington instructed Political Adviser for German Affairs in Europe Robert Murphy in December 1945 to undertake an investigation of Konti's activities

and assets. The British had already tried to locate the company's files in July 1945 at the home of one of its directors, Karl Blessing, a former aide to Hjalmar Schacht at the Reichsbank who would subsequently become president of its successor, the Bundesbank. Blessing's home was in an area that US troops had liberated but would turn over to the Red Army.

The British had to get what they could before the transfer, because they wanted to restart German crude oil production, most of which was located within their occupation zone, lest the "British Tax-payer" foot the bill for Germany's oil imports.³⁹ Unfortunately, Konti staff had moved most of the material a week before, leaving only stationary and inconsequential paperwork.⁴⁰ Fortunately, the British secured the services of Dr. Alfred Bentz, Germany's chief petroleum geologist, who told the British that he had removed his files from Berlin in 1943 once he knew Germany would lose the war and placed them at the Allies' disposal.⁴¹ The British quickly exonerated Bentz and his colleagues and put them back to work.⁴²

Washington informed Murphy that Konti's files were either in Berlin or the town of Landshut in Bavaria, just across the border from Switzerland. The managing director of the firm, Walter Dihlman, had met with US military officers in May 1945 and later provided

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them with lists of Konti's holdings and personnel in the hope the latter could secure postwar employment.⁴³ Additionally, the State Department believed that three directors of the firm, including Fischer, were in Landshut with the files. These records, it was hoped, would detail Konti's activities across Europe and provide data on European oil deposits.⁴⁴ OMGUS started the investigation in February 1946.⁴⁵

Murphy replied in March 1946 with a preliminary update from the decartelization branch of OMGUS. The investigators had located a few documents and checked the homes of former Konti directors.⁴⁶ Murphy followed up in August in a more detailed report from OMGUS's finance division.⁴⁷ Investigators had reviewed several cases of Konti's files in Landshut and nearby of Deggendorf in June 1946.⁴⁸ They also interrogated several of Konti's employees. OMGUS briefly explained the company's formation in March 1941. It noted that, although the Third Reich maintained a controlling interest, "the running of affairs was decidedly an IG Farben show." After all, the Reich's representative, Fischer, was also an IG Farben executive, who installed another IG Farben alum, Dihlman, as the managing director.

OMGUS did interrogate Dihlman and found him to be rather "slippery"—he claimed, for instance, that he had only joined

the Nazi Party to protect his Jewish wife, although it turned out she was an Aryan.⁴⁹ He also went to great lengths to minimize IG Farben's influence, which the firm's own documents contradicted.⁵⁰ Dihlman had, in fact, secured the removal of General Georg Thomas, the former head of the military's defense-economics office, from Konti's supervisory board in 1945 (presumably after Thomas lost a power struggle to Speer and went into semi-retirement).⁵¹ Dihlman had also signed documents on behalf of the shell-company Borussia, through which the Third Reich exercised its controlling interest.⁵²

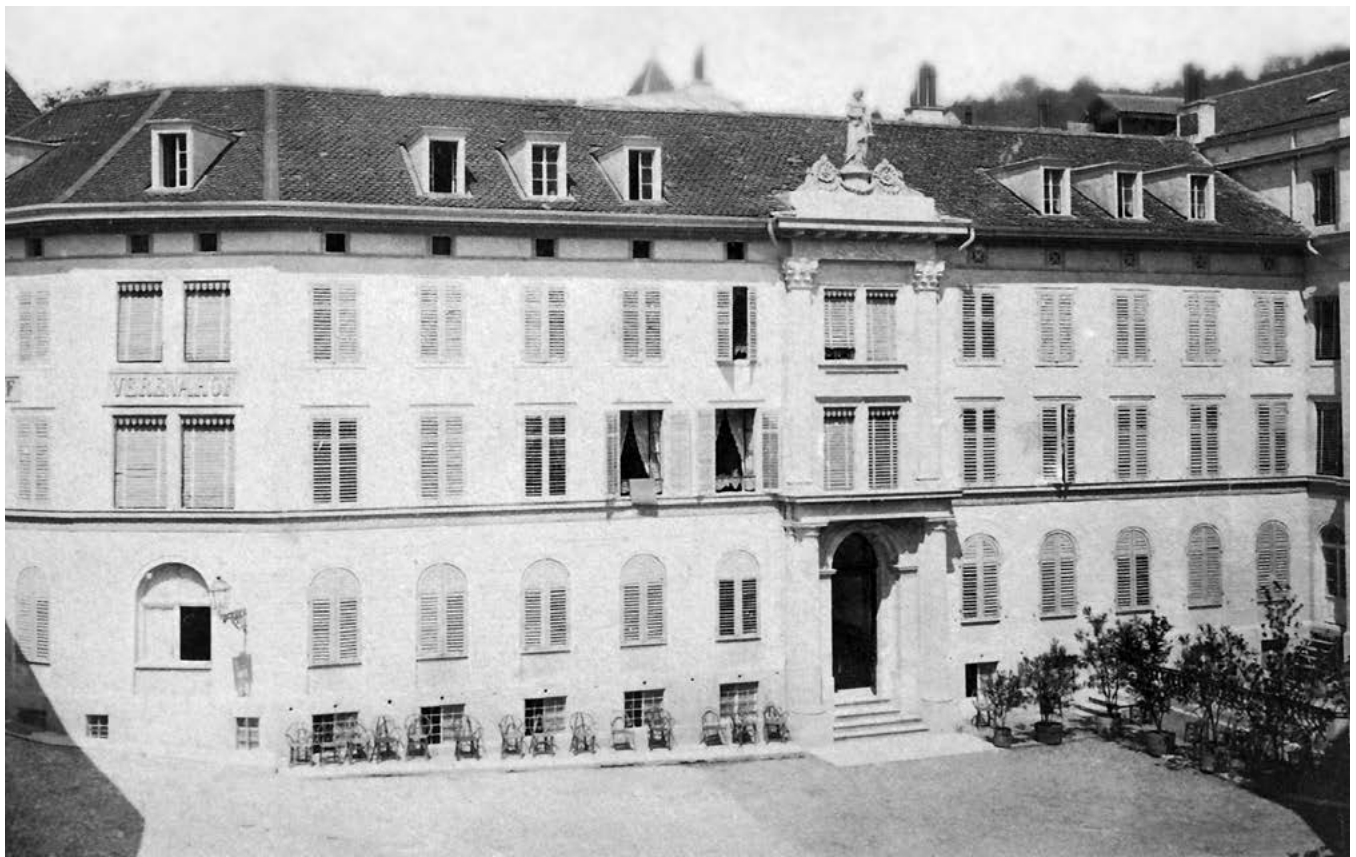
OMGUS soon found that IG Farben officials also proliferated on the boards of Konti's various subsidiaries. Only one name, however, appeared on the roster of every board: Fischer. Investigators also determined that Dihlman had concealed from them that Fischer had left for Switzerland on April 4, 1945, along with 28 tank wagons of residual oil, which Konti's transportation subsidiary had invoiced to the Petrola Zurich oil company, a state-controlled enterprise that handled Swiss petroleum imports from Germany.⁵³

The American investigators ears must have perked up when they heard about Switzerland. At that time, the US government was pressuring Switzerland to liquidate German assets in Switzerland, particularly gold in Swiss banks that the Nazi regime had looted

from across Europe.⁵⁴ (As the military situation deteriorated, the Third Reich and German firms had deposited significant financial assets there in the hope that it would escape confiscation as reparations and perhaps support German reconstruction.⁵⁵) OMGUS recommended further investigation of Konti's affairs, including additional interrogations, and that the State Department secure Fischer's repatriation to Germany.

One of the first people OMGUS interviewed in November 1946 as part of its follow-up investigation was Erich Neumann. He had previously served as a member of Konti's supervisory board, confidant of Herman Goering, and state secretary of the four-year plan, which oversaw Germany's efforts to expand production of synthetic materials critical for the German war effort and provided the funds for the Third Reich's controlling interest in Konti.⁵⁶ He also participated in the infamous Wannsee Conference of January 1942 concerning the fate of Europe's Jews, yet he managed to avoid any postwar prosecution. Neumann believed that OMGUS was exaggerating IG Farben's influence over Konti. Fischer had gotten the job simply because he "was the oil-expert in Germany" overseeing petroleum policy at the economics ministry.⁵⁷

OMGUS also tried again with Dihlman. Investigators wanted to



After fleeing Germany for Switzerland in spring 1945, Fischer and his two IG Farben colleagues lived temporarily at Hotel Verena Hof, shown in this vintage post card.

know more about Fischer and the 28 wagons of petroleum that had gone to Switzerland.⁵⁸ Dihlman, upon realizing that US investigators had discovered his duplicity, was more forthcoming.⁵⁹ He confirmed that several Konti executives had been in Landshut during March–April 1945 and made a remarkable admission:

As to Dr. E.R. Fischer and his intentions in Switzerland, Dihlman declared that Dr. Fischer had stated that Kontinentale Oel A.G. as well as the Oil Section of IG Farbenindustrie

would be best served by his presence in Switzerland and that he hoped to renew his connections with his old friends in the USA.

Dihlman could not identify those “friends” but mentioned that Fischer and two other high-ranking Nazi officials, Friedrich Kadgien and Ludwig Haupt, were then residing in a Swiss villa not far from the headquarters of Konti’s last customer, Petrola.⁶⁰ A former civil servant in the German Navy claimed that Petrola was a joint venture including Standard Oil, Shell, and Anglo-Persian, but there

is no proof of that. He added that there was conflict among Konti partners, specifically between representatives of Germany’s crude oil industry and those who produced synthetic petroleum, but that IG Farben “completely managed to dominate the organization” through Fischer, who “was not really drafted by the Reich for the job, but he was placed there by IG Farbenindustrie in order to safeguard its own interests.” OMGUS investigators reiterated that demand that the State Department press Switzerland to repatriate Fischer, as well as Kadgien and Haupt.⁶¹

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Fischer's activities in Switzerland received considerable scrutiny after 1996 when Switzerland finally came clean about its relations with the Third Reich and former Nazis after the war. The Independent Commission of Experts on Switzerland during World War Two concluded that Switzerland had welcomed certain Nazis after the war but not out of charity: "To gain admission to Switzerland, you had to be useful to the country."⁶² Although the Swiss made some accommodations for those who had provided service in the past, the most important criterion was "a narrowly defined usefulness for the economy, military, and diplomacy." Swiss officials and businessmen worried about postwar competition from US firms. The Swiss were therefore keen on engineers from IG Farben who could support Switzerland's synthetic raw-materials industry. Ultimately, some hoped that Switzerland could support West Germany's rearmament as the Cold War intensified.⁶³

Fischer was not a technical expert, but he was still useful. The Swiss already had a relationship with him because Switzerland depended during the war on imports of coal and petroleum from Germany, some of which Konti supplied via Petrola, largely from the former's oilfields in Romania.⁶⁴ Perhaps for that reason, the Swiss minister in Berlin told Fischer that the Allies were planning to put IG

Farben executives, including him, on trial after the war.

By then, Fischer's boss, Kehrl, had authorized his staff to leave Berlin, and he dispatched Fischer to settle affairs with Petrola.⁶⁵ Fischer had already visited Switzerland in November 1944, ostensibly for negotiations with Petrola but probably to prepare his escape along with two other Nazi war criminals: Haupt, who was also affiliated with one of Konti's subsidiaries; and Kadgien, who had overseen the deposit of plundered valuables, including from murdered Jews, into Swiss banks as part of a wider program of laundering the proceeds from stolen goods and securing foreign exchange for Nazi Germany to finance vital imports.⁶⁶

The Swiss granted the three Germans short-term visas in March 1945. Kadgien and Haupt left for Zurich, but Fischer stayed in Germany long enough to guarantee the shipment of the oil that OMGUS had discovered, which was vital because the three Germans depended on the money Petrola paid for the petroleum to finance their stay in Switzerland at least temporarily. The three lived initially at the Hotel Verenhof in Baden, not far from the German border.⁶⁷

The Swiss meanwhile rebuffed US requests for the trio's extradition since there was no proof they were still engaged in criminal acts. Fischer's travel companions,

Kadgien and Haupt, eventually used their stolen funds to begin new lives in South America around 1950, as international pressure to arrest him grew. Both disappeared until 2025, when Kadgien's daughter tried to sell her home in Mar del Plata, Argentina. The house photographer captured an image of a painting the Nazis had stolen from a Dutch art dealer in 1940 and which Kadgien had smuggled into Argentina.⁶⁸

Fischer might have joined them. He was keen on going to Paraguay, but the Paraguayan passport he secured turned out to be a forgery, and he had to remain in Switzerland.⁶⁹ His prior service would not have sufficed to keep him in Switzerland for a decade had he not also secured for the Swiss the services of unemployed IG Farben engineers. Former Petrola executive Ernst Imfeld assisted by finding Fischer a job with the Holzverzuckerungs AG (today known as Ems-Chemie), which produced a variety of synthetic products including ethanol from wood, fibers, nylon, and later a variant of napalm, so it needed people with IG Farben's skills.⁷⁰

Meanwhile, in West Germany, the US and British governments' interest in smashing IG Farben took a back seat to economic reconstruction, and the company was merely dismembered and repurposed from supporting German autarky to integration into the international economy.⁷¹ After a

while, Fischer became an adviser to several German firms and finally, in 1955, returned to Germany to take up a position with Dynamit, eventually becoming director of its managing board in 1957 before dying of leukemia in 1965.⁷² He never faced any penalties for his wartime service other than an unflattering reference in an East German propaganda publication outing 1,800 prominent West Germans as former Nazis, which appeared after his death.⁷³

The Explanation Behind Fischer's Freedom

So far, we have a typical history of a Nazi functionary who escaped justice for his crimes during the Third Reich and was rehabilitated by the Federal Republic of Germany. Certain factors, however, complicate this conventional narrative. Why, for instance, did the US government not pursue Fischer's extradition from Switzerland, as *OMGUS* advised? How could Fischer submit an affidavit on behalf of his former colleague, Buetevisch, at Nuremberg? And most importantly, why did Fischer escape any postwar sanction even though many of his colleagues spent time in prison for war crimes?

In the early 2000s, the East German historian Janis Schmelzer insisted that more research was necessary to clarify what exactly Fischer was doing in Switzerland and what his connections to US

intelligence were.⁷⁴ The available evidence concerning the latter suggests that Fischer survived and even prospered after the Third Reich because he had served as an Allied intelligence source after the war and possibly earlier, during the conflict.

There are two pieces of evidence to this effect—one an offer of service, the other the provision of intelligence. Regarding the former, in May 1943, the British Ministry of Economic Warfare included in its intelligence digest that Konti's president, "Dr. W. Fischer, in a conversation with a neutral last autumn, expressed the view that German could not win the war." Fischer told his interlocutor that he was doing what he could to guarantee the postwar restoration of oil properties Germany had seized. The British concluded that "Dr. Fischer was evidently anxious to place on record that he was 'different' and thus endeavoring to put himself in a position that would be of help to him in the difficult times ahead."⁷⁵ The Americans accepted the British report at face value, as a subsequent update on the firm mentioned that Fischer "endeavors to give the impression that every effort is being made to retain the individual identities of the confiscated properties."⁷⁶

As for information, Fischer provided some at least once, when he participated in an interview with the United States Strategic Bombing Survey.⁷⁷ Two things are

noteworthy about this confidential interview. First, the summary referred to the subject as "Emil Fischer." This happened to be the same name as the German winner of the 1902 Nobel Prize in Chemistry, but he had died in 1919. Another Emil Fischer had developed the Fischer-Tropsch process for producing synthetic gasoline. This Fischer was also a member of the Nazi Party and lived until 1949, but he could not have been the source. For one thing, Fischer-Tropsch was the rival to IG Farben's hydrogenation process. Moreover, the interview report described Fischer as the "commercial manager of IG Farben and director of their Ludwigshafen and Leuna plants for all oil products" before joining Speer's ministry. This was obviously Ernst Rudolf Fischer. Second, the interview took place in July 1945, but this raises another mystery because, according to Dihlman, Fischer had decamped to Switzerland in April. That means that the USSBS either interviewed Fischer in Switzerland or that Fischer returned to Germany for the debriefing before going back to Switzerland.

Whatever the case, Fischer provided useful information about the effect of Allied aerial attacks on Germany's synthetic fuel industry as well as IG Farben's technical support for Japan's synthetic-fuel program. He noted that even if the Germans had moved production underground earlier, it would not

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have materially affected the course of the war, as there was no way to transport goods to and from the new facilities. Fischer added that the Allies had missed a critical vulnerability by not targeting Germany's production of lead tetraethyl or synthetic rubber, as production of both was concentrated in two plants. Overall, Fischer concluded that strategic bombing of German industry "brought about the defeat of Germany" but dismissed the terror bombing of cities as "useless." Instead, a concerted attack on German petroleum production and transportation could have ended the war a year earlier.

Fischer advised the USSBS that "round-the-clock" bombing rather than sporadic attacks was necessary and even suggested the sorts of bombs Allied planes should have used. (The US and British raids on Leuna were inefficient and only overwhelmed German repair efforts after more than 20 raids between May 1944 and January 1945.⁷⁸) The USSBS made use of this information in its study of the German petroleum industry, but it only made a single mention of Fischer and never cited him as a source.⁷⁹

The US and British records, for whatever reason, often misidentified Fischer with an incorrect first name or initials, but we should have no doubt as to his identity. Leaving aside that they always identified Fischer as a leading executive with IG Farben and Konti, a classified postwar British study of the

German oil industry's wartime contributions identified him as "Dr. E.R. Fischer," even when quoting from the USSBS report.⁸⁰ The British also mentioned Fischer's paper on Axis Europe's postwar oil requirements but could not identify him as the author.⁸¹ The British considered this work their "opus magnum" on the subject.⁸² The Americans agreed; because the British report would be "both accurate and comprehensive," they saw no reason to write their own study.⁸³

In closing, what is the significance of Fischer's story? Does it validate the claims of East German (Marxist) historians about the close connections between German "monopoly capital" and the Nazi Party, particularly IG Farben, as fictionalized in the 1950 film, *Der Rat der Goetter (The Council of the Gods)*?⁸⁴ There is no doubt that men like Fischer moved effortlessly between private work and government service, and despite their complicity in the crimes of the Third Reich, faced few or no obstacles to a respectable life in postwar West Germany. If anything, Fischer's only handicap was his decade-long sojourn in Switzerland.

But just as importantly, the story of Ernst Rudolf Fischer reflects the moral ambiguities of intelligence work, including the recruitment of sometimes unsavory assets, including Nazis, in the service of a higher purpose.⁸⁵ Many studies of Paperclip are scathing of the

recruitment of former Nazis, but there were compelling reasons to do so.⁸⁶ Bringing scientists and technicians to the United States would, US officials hoped, boost US industry and denude Germany's future war-making capacity. Today we take for granted that Germany is a peaceful nation, but that was not the prevailing opinion after World War II. Moreover, every German expert who went to the West was one fewer who went behind the Iron Curtain. Finally, many Germans, Nazis or otherwise, did render years of distinguished service to the United Kingdom, France, and United States.⁸⁷

Nevertheless, one study of US intelligence's employment of former Nazi intelligence officers and secret police condemned it as a "blunder."⁸⁸ That may be a fair judgment in the case of some postwar recruits, but what about Germans who served both the Allies and the Third Reich during World War II? We still need to know more about what sort of specific information people like Fischer provided the Allies, and whether the Allies compensated them for their wartime crimes. Was Fischer merely a source of information or an actual asset for Allied intelligence, and for whom in particular? Most importantly, did the information he and others provide make a measurable contribution to ending the war sooner and with less bloodshed? Good history, this author hopes, prompts as many questions as it answers. ■

Endnotes

1. The article uses declassified, publicly available sources and is based largely on research I conducted for my first book, *Oil and the Great Powers* (Oxford, 2019), chapters 5–8, as well as from Dietrich Eichholtz, *Deutsche Ölpolitik im Zeitalter der Weltkriege* (Leipziger Universitätsverlag, 2010), chapters 4–6.
2. Hans Kehrl, *Krisenmanager im Dritten Reich* (Droste, 1973), 319, documents IV, IVb.
3. Janis Schmelzer, *IG Farben* (Schmetterling, 2006), 169–71; Christine Uhlig, et al., *Tarnung, Transfer, Transit* (Chronos, 2001), 187, 425–26. Popular studies of IG Farben do not mention him, possibly because of his absence at the IG Farben Trial at Nuremberg from May 1947 to July 1948. See, e.g., Joseph Borkin, *Crime and Punishment of I.G. Farben* (Free Press, 1978); Diarmund Jeffreys, *Hell's Cartel* (Metropolitan Books, 2008).
4. Jens Ulrich Heine, *Verstand & Schicksal* (VCH, 1990), 98–100.
5. Heine, *Verstand*, 166–67.
6. See, e.g., *Trials of the War Criminals Before the Nuremberg Military Tribunals* (GPO, 1953), viii: 1251.
7. Under German corporate law, a supervisory board (Aufsichtsrat) oversees the actions of the managing board (Vorstand) and appoints its members. For a summary of IG Farben's corporate organization, see: Heine, *Verstand*, 6–44.
8. For a broader perspective, see: Michael Neufeld, "Nazi Aerospace Exodus," *History and Technology* 28: 1 (2012): 49–67.
9. Paperclip was supposed to be secret, but its existence became public knowledge in December 1946. Journalists wrote somewhat sensationalist books in the late 1980s and early 1990s, as documents slowly became available. See Tom Bower, *Paperclip Conspiracy* (Little, Brown, 1987); Linda Hunt, *Secret Agenda* (St. Martin's, 1991). Detailed studies were only possible after the passage of the Nazi War Crimes Disclosure Act in 1998. The most-recent work is Annie Jacobsen, *Operation Paperclip* (Little, Brown, 2014).
10. See National Archives and Records Administration (NARA) Microfilm M892, Bueteifisch Document Book IV, Document No. 196, Reel 81. See also: Janis Schmelzer, *Devisen fuer den Endsieg* (Schmetterling, 2003), 158–59; Uhlig, *Tarnung*, 183–84, 387–88; Karsten Linne, *Öl für den Endsieg* (Wallstein, 2026), 489–91.
11. May to Fischer, "Entwicklung [...]," June 16, 1933, Bundesarchiv Berlin-Lichterfelde, R8128/10352.
12. Frank Howard, *Buna Rubber* (Van Nostrand, 1947), esp. Chapters 2–3; Rainer Karlsch, *Faktor Oel* (Beck, 2003), 135–38.
13. "Chronik [...]," December 13, 1944, Bundesarchiv Berlin-Lichterfelde, R8128/817. For overviews, see: Henrietta Larson, *New Horizons* (Harper, 1971), Chapters 6, 15; Gregory Nowell, *Mercantile States and the World Oil Cartel* (Cornell, 1994), 236ff.
14. Thomas Parke Hughes, "Technological Momentum in History," *Past & Present* 44 (1969): 106–132; Karlsch, *Faktor Oel*, 166–168; Hayes, *Industry and Ideology* (Cambridge, 2000), 117ff.
15. NARA, Record Group (RG) 242, Berlin Document Center Microfilm, A3340, NSDAP Ortsgruppenkartei (MFOK), E051, and NSDAP Zentralkartei (MFKL), G126. Germans who joined the party in March 1933 were known, pejoratively, as the "Märzgefallene" ("March fallen") and tended to be older and wealthier than members who joined before 1933. Juergen Falter, "Die 'Märzgefallene' von 1933," *Historical Social Research* 25 (1998): 280–302.
16. Some of Fischer's correspondence is in: Bundesarchiv Berlin-Lichterfelde R 8128/10352.
17. Kockel, *Oelpolitik*, passim, esp. 334ff.
18. Fischer, "Der gegenwaertige Stand [...]," September 13, 1934, BASF archives, courtesy of Raymond Stokes.
19. *Trials*, vii: 924. More broadly, see: Mira Wilkins, *Maturing of Multinational Enterprise* (Harvard, 1974), 186–89; <https://history.state.gov/historicaldocuments/frus1934v02/ch9subch7>.
20. Hayes, *Industry*, 140; Kockel, *Oelpolitik*, 212–13.
21. *Trials*, vii: 1202ff.
22. Kehrl, *Krisenmanager*, 203, 207.
23. See, e.g., Keppler to Wiehl, October 17, 1940; Neubacher to Foreign Office, "Stand [...]," 23 February 1942; Bundesarchiv Berlin-Lichterfelde, R901/112772 and /112777.
24. Fischer, untitled memorandum, September 19 (?), 1940, Bundesanstalt für Geowissenschaften und Rohstoffe, File No. 0049457. For extended discussion of this paper, see: Titus Kockel, "Eine Quelle [...]," *Jahrbuch für Wirtschaftsgeschichte* 1 (2003): 175–208.
25. Clodius to 10 German diplomatic missions, December 4, 1940, reprinted in: *Eichholtz, Krieg um Oel* (Leipziger Universitätsverlag, 2006), 51–52; Hayes, *Industry*, 256; Dietrich Eichholtz, *Geschichte der deutschen Kriegswirtschaft* (DeGruyter, 2015), i: 235–38.
26. Anand Toprani, "Germany's Answer to Standard Oil," *Journal of Strategic Studies* 37: 6–7 (2014): 949–73; Schmelzer, *Devisen*, 10; Karlsch, *Faktor*, 208–11; Uhlig, *Tarnung*, 388–90.
27. Wittrock to Maulatz, "Unterredung [...]," February 18, 1941; Kuntze to Foreign Office, "Bericht [...]," March 24, 1941; Keppler to Wiehl, April 12, 1941; Bundesarchiv Berlin-Lichterfelde, R910/116640.

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28. For German efforts in the Caucasus in 1942, see: Anand Toprani, "The First War for Oil," *Journal of Military History* 80 (2016): 815-854; Karlsch, *Faktor Oel*, 213–17; Bruno Koppensteiner and Herman Haeusler, "Das Kaukasus-Oel," *Berichte der Geologischen Bundesanstalt* 140 (2021): 77–102.
29. "Niederschrift [...]," September 21, 1943, Bundesarchiv Berlin-Lichterfelde, R176/89.
30. Heine, *Verstand*, 61; Schmelzer, *Devisen*, 158–59.
31. Kehrl, *Krisenmanager*, 366ff; Karlsch, *Faktor Oel*, 232–37.
32. Rayner, "German Synthetic Oil Industry [...]," April 20, 1945, NARA, RG 59, 862.6363/4-2045.
33. Davies to Clayton, November 19, 1945, RG 59, 862.6363/11-1945.
34. "Petroleum Press Review," October 1943, NARA, RG 169, Enemy Oil Committee, Box 2201; Uhlig, *Tarnung*, 393.
35. Stockholm to Washington, "Techniques [...]," September 29, 1943, NARA, RG 169, Enemy Oil Committee, Box 2201.
36. See the material enclosed with: Mayer to Grove, "Return [...]," September 6, 1944, NARA, RG 169, Enemy Oil Committee, Box 2201, especially "The Kontinentale Oel A.G.," February 11, 1944.
37. Stone, "Biggest Cartel [...]," *PM Daily* (September 7, 1943).
38. 'Summary [...]' enclosed with: Ickes to Lewis, October 8, 1943, Library of Congress, Ickes Papers, Box 221.
39. Author unclear, "Case [...]," January 28, 1946, British National Archives, FO 1039/496.
40. "Visit [...]," no date (circa July 1945), and Riveline to Harford, "Various [...]," September 28, 1945, both in: British National Archives, FO 1039/496.
41. Bentz, "Supplement [...]," February 11, 1946, British National Archives, FO 1039/496.
42. Titus Kockel, *Deutsche Oelpolitik, 1928–1938* (Akademie Verlag, 2005), 15–17.
43. Dihlman to Peery and Pollock, "List [...]," May 29, 1945, and "Statement [...]," June 6, 1945, both in British National Archives, FO 1039/496.
44. Memo to Murphy, December 11, 1945, NARA, RG 59, 862.6363/12-1145.
45. Heath to Draper, February 4, 1946, <https://catalog.archives.gov/id/472567766>.
46. Murphy to Byrnes, "Information [...]," March 4, 1946, NARA, RG 59, 862.6363/3-446.
47. The following discussion draws from: Wangler, "Research Report [...]," August 10, 1946, attached to: Murphy to Byrnes, "Transmitting [...]," August 29, 1946, NARA, RG 59, 862.6363/8-2946. There is a more complete record of this investigation in: NARA, RG 260, OMGUS Property Division, Box 9.
48. See, e.g., Coleman, "Records [...]," June 7, 1946, <https://catalog.archives.gov/id/472567766>.
49. Dihlman, "Extract [...]," NARA, RG 260, OMGUS Property Division, Box 9.
50. See, e.g., Dihlman, "Borussia [...]," June 21, 1946, NARA, RG 260, OMGUS Property Division, Box 9.
51. "Translation [...]," September 18, 1943, NARA, RG 260, OMGUS Property Division, Box 9.
52. "Erklaerungen [...]," NARA, RG 260, OMGUS Property Division, Box 9.
53. The oil belonged to Donau Oel (an I.G. Farben subsidiary), which operated within Austria. "Free Translation [...]," July 22, 1946, NARA, RG 260, OMGUS Property Division, Box 9; Uhlig, *Tarnung*, 390ff; Linne, *Endsieg*, 45–46, 193.
54. The Swiss agreed May 1946 to return a fraction of the German gold Swiss banks had purchased from the Reichsbank and liquidate half of German assets in Switzerland, but there was no clear process for the latter. After years of haggling over exchange rates, the Swiss made a small payment in 1952, but only after West Germany agreed to recompense Switzerland. "U.S. and Allied Efforts to Recover [...]," May 1997: <https://www.govinfo.gov/app/details/GOVPUB-S-PURL-LPS658>; <https://www.dodis.ch/en/washington-agreement-1946>
55. E.g., Janis Schmelzer, "Das Schweizer 'Komitee'," *Schweizerische Gesellschaft fuer Geschichte* 52 (2002): 213–19; Christopher Kobrak, "International Investment and Nazi Politics," *Business History* 48: 3 (2006): 399–427.
56. Schmelzer, *Devisen*, 40-42, 48ff.
57. "Interrogation [...]," attached to: Murphy, "Report [...]," January 17, 1947, NARA, RG 59, 862.6363/1-1747.
58. "Rechnung," 24 April 1945, attached to: Murphy, "Report [...]," January 17, 1947, NARA, RG 59, 862.6363/1-1747.
59. Contra Dihlmann and Schulze-Brachmann, undated declaration, NARA, RG 260, OMGUS Property Division, Box 9.
60. "Protocol [...]" and diary extracts of March–April 1945 attached to: Murphy, "Report [...]," January 17, 1947, NARA, RG 59, 862.6363/1-1747. Emphasis in the original.
61. Wangler, "Supplement [...]," 01 December 1946, attached to: Murphy, "Report [...]," January 17, 1947, NARA, RG 59, 862.6363/1-1747. Emphasis in the original.
62. The following discussion draws from: *Die Schweiz, der Nationalsozialismus und der Zweite Weltkrieg* (Pendo, 2002), 398-399; Uhlig, *Tarnung*, Chapters 5, 11; <https://www.nzz.ch/geschichte/ein-neues-leben-fuer-drei-nazis-ld.1576696>; Schmelzer, *Devisen*, 133ff.
63. Uhlig, *Tarnung*, 187–88.
64. Adam Tooze, *Wages of Destruction* (Allen Lane, 2006), 381; Uhlig, *Tarnung*, 391; Linne, *Endsieg*, 191.
65. Kehrl, *Krisenmanager*, 431.
66. Schmelzer, *Devisen*, 43, and passim; Linne, *Endsieg*, 162.

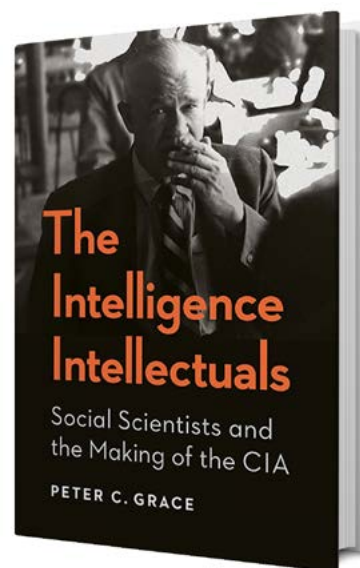
67. <https://www.badenertagblatt.ch/aargau/baden/friedrich-kadgien-der-ranghohe-nazi-der-jahrelang-im-verenahof-unbehelligt-lebte-ld.1486735>
68. <https://www.theguardian.com/world/2025/sep/06/18th-century-portrait-stolen-by-nazis-recovered-in-argentina>; <https://english.elpais.com/international/2025-09-15/looting-escape-and-mystery-the-hidden-story-behind-the-painting-stolen-by-the-nazis-and-found-in-argentina.html#>
69. Uhlig, *Tarnung*, 395.
70. See the subchapter on “Mineraloel Fischer” in *Regula Bochsler, Nylon und Napalm* (Hier und Jetzt, 2022); Uhlig, *Tarnung*, 183–88, 383ff.
71. Tom Bower, *Blind Eye to Murder* (Andre Deutsch, 1981), Chapter 14; Raymond Stokes, *Divide and Prosper* (California, 1988), esp. 201ff; Mark Spicka, “Devil’s Chemists on Trial,” *Historian* 61 (1999): 865-882.
72. <http://www.spiegel.de/spiegel/print/d-46273374.html>; Heine, *Verstand*, 161, 297.
73. Braunbuch (Staatsverlag der DDR, 1965), 13, 46–47.
74. Schmelzer review for the *Berliner Gesellschaft für Faschismus- und Weltkriegsforschung* of Dietrich Eichholtz, *Deutsche Politik und rumänisches Öl* (Leipziger Universitätsverlag, 2005).
75. *MEW Intelligence Minutes*, No. 20, May 24, 1943, NARA, RG 169, Enemy Oil Committee, Box 2201.
76. “Kontinentale Oel A.G.,” no date, NARA, RG 169, Enemy Oil Committee, Box 2201.
77. USSBS, Interview No. 67, July 2, 1945, NARA, RG 243, European Survey, Intelligence Branch, Interrogations, Box 2.
78. Peter Kelly, “The United States Army Air Force Bombing Campaign [...],” *Journal of Military History and Defence Studies* 4: 1 (2023): 116–60.
79. See: USSBS, *Oil Division Final Report* (January 1947), figure 11.
80. Technical Sub-Committee on Axis Oil, *Oil as a Factor in the German War Effort* (March 8, 1946), Combined Arms Research Library, pp. 28 n.10, 148, 156. This report was originally marked “Secret.”
81. *Oil as a Factor*, 24.
82. Foreign Office, “Factor [...],” June 19, 1945, enclosed with: Kilbey to Rayner, July 16, 1945, NARA, RG 169, Enemy Oil Committee, Box 2202.
83. Grove to Kilbey, July 21, 1945, NARA, RG 169, Enemy Oil Committee, Box 2202.
84. E.g. Eichholtz, *Geschichte*, i: 39ff; Schmelzer, *IG Farben*, passim, esp. 104ff. The film was a thinly veiled dramatization of I.G. Farben’s role in supporting the Third Reich by producing poison gas. After Germany loses the war, the executives of the firm escape prosecution because the US government wants the company to restart production so it can use the gas against the Soviet Union.
85. Luke Daly-Groves, “Control not Morality?” *Intelligence and National Security* 35: 3 (2020): 331–49.
86. Compare Bower, *Paperclip*, 273–74 and Hunt, *Agenda*, 257–61 with Jacobsen, *Paperclip*, passim, esp. chapters 6, 11.
87. See, e.g., Dave Oliver and Anand Toprani, *American Defense Reform* (Georgetown, 2022), 265, n. 6. For nuanced perspectives on Paperclip, see Michael Neufeld’s review of Jacobsen, *Paperclip* at <https://www.thespacereview.com/article/2769/1>; Brian Crim, *Our Germans* (JHU Press, 2018); and Monique Laney, *German Rocketeers in the Heart of Dixie* (Yale, 2015), esp. chapter 1.
88. Richard Breitman, et al., ed. *U.S Intelligence and the Nazis* (Cambridge, 2005), 7. See also: Hunt, *Agenda*, Chapter 10; Jacobsen, *Paperclip*, Chapter 16. ■

intelligence in public media

The Intelligence Intellectuals *Social Scientists and the* *Making of the CIA*

Reviewed Michael J. Ard, PhD

Author: Peter C. Grace
Published By: Georgetown University Press, 2026
Print Pages: 287 pages; bibliography
Reviewer: Michael J. Ard is a retired CIA officer.



In his new book, *The Intelligence Intellectuals*, University of Otago lecturer Peter Grace recounts how the CIA in its early days adopted social science techniques for national intelligence estimates. This crucial period shaped the analytic culture and methodology of the CIA to the present day. Grace's book presents a well-researched and insightful study in organizational leadership and makes a strong contribution to the intellectual history of the CIA's analysis.

From the National Security Act of 1947, the Central Intelligence Agency assumed the task of coordinating and evaluating national security intelligence, but the new organization struggled to define itself. (43) Grace recaps the CIA's founding and its shaky status with the US Congress and policymakers, and the push-back it received from the State Department and the Department of

Defense. The CIA's failure to warn of the 1948 outbreak of violence in Colombia—the “South American Pearl Harbor”—as well as the more consequential 1949 Soviet atomic bomb detonation damaged the agency's credibility. (53) Reform became urgent after the perceived intelligence failure to warn of the North Korean invasion of South Korea in 1950.

A survey led by future Director of Central Intelligence (DCI) Allen Dulles and deputy DCI William Jackson lambasted the performance of the CIA's struggling Office of Research and Estimates. Estimates were not coordinated and “not impressive.” The process itself was muddled, and the leadership too passive. (79) The early organization needed to gain legitimacy and offer an analytic product other agencies could not offer. Truman's National Security Council embraced the survey's findings.

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The Intelligence Intellectuals

Retired General Walter Bedell Smith, appointed as CIA director in October 1950, began a significant restructuring.

Enter the intellectuals. Grace focuses on Director Smith's key hires for analysis, especially Office of Strategic Services (OSS) veteran William Langer, a Harvard-based diplomatic historian, his OSS colleague Sherman Kent, who would lead the estimative intelligence effort; and Max Millikan, an MIT economist, would lead the Office of Research and Reports (ORR) and helped design methodologies to estimate the size and performance of the Soviet economy.

The intellectuals took advantage of the enormous prestige social science enjoyed after World War II. Indeed, the CIA was founded during the heyday of what political scientist Michael Desch calls "the behavioralist revolution" in the universities, which featured the rapid rise of quantitative methods, methodology, and empirical data to the exclusion of norms and values. Interdisciplinary approaches were stressed, along with a detached attitude to the phenomena being studied.^a But with this approach came a tension between science and policy that would never quite be overcome.

Between 1950 and 1952, Langer brought in the approach of OSS's Research and Analysis (R&A) branch to the early CIA. With an important difference, as Grace correctly says: R&A had focused on the present; CIA would look into the future. (126) The emphasis would be on analysis, not report writing. The priority would be long-range, future-focused assessments, which Director Smith christened "national intelligence estimates" (NIEs). Based on recent intelligence failures, Grace notes, prediction became an expectation. (26)

Langer's decisive move was hiring in 1950 his former R&A deputy Sherman Kent, a Yale historian of 19th century French history, as the chief of the Office of National Estimates (ONE) and chair of the Board of National Estimates (BNE), a position Kent held until 1967. Despite all the impressive former luminaries at

R&A, Kent was the right choice. After the war, Kent had gained prominence with his 1949 groundbreaking book "Strategic Intelligence for American World Policy," which, Grace emphasizes, served as the manual for "a new type of agency." (146)

The production of estimates centered on a two-tiered process with the CIA's ONE and the BNE. The CIA's ONE assembled a draft NIE and BNE reviewed the draft, often changing the conclusion (188). Products were coordinated across the IC, and dissenting voices were managed. The "Princeton Consultants," named for William Jackson's New Jersey home, peer-reviewed the estimates, and thus a strategic intelligence process emerged. According to intelligence historian Robin Winks, ONE under Kent would play an essential role in "explaining what intelligence means."^b DCI William Colby replaced ONE with a group of National Intelligence Officers (NIOs) in 1973, but the fundamental process remained largely unchanged.

Grace ably explains Kent's imprint upon CIA's analysis. Kent brought with him the professional techniques of this historian's craft and its emphasis of empiricism, objectivity, and "value-free" judgments. (20) The effort to detach oneself from the story translated into the policy of keeping analytical distance from the policymaker to guard against politicization. Multiple hypotheses became an integral part of estimate making.

Kent's view was that most "intelligence" could be acquired overtly and he stressed a multidisciplinary approach to the bigger picture and avoid information siloes. Kent's writing and approach stressed social science variables and causation. (143) But it would also require "leaps into the unknown." (135) Grace concludes that the new rigorous approach to analysis won over CIA's detractors. (184)

Critics of Kent's approach, like the political scientist Willmoore Kendall thought Kent focused excessively on the need for prediction, and he saw the inevitable danger when, "intelligence looks shamefaced over its failure to tell Secretary Marshall the day and the hour

a. Michael C. Desch, *Cult of the Irrelevant: The Waning Influence of Social Science on National Security* (Princeton University Press, 2019), 75-78.

b. Robin W. Winks, *Cloak & Gown: Scholars in the Secret War, 1939-1961* (William Morrow & Co, 1987), 450.

at which a revolution will break out in Colombia.”^a Grace also relates that former OSS veteran, the historian Arthur Schlesinger Jr. echoed Kendall’s criticism that intelligence and policy were intertwined. (154) Schlesinger also criticized social sciences’ separation of facts and values, because the act of choosing facts itself requires a value judgment. (106)

Grace acknowledges some institutional drawbacks to the social science approach. At the CIA, “deployment of scientific theories,” Grace writes, “would remain elusive.” (29) Practically, how can one employ these methods and answer short deadlines? (35) Moreover, in the press of business, systematic methodologies and nuanced conclusions often had to yield to the expedient—“Just give me an answer!” (194) Besides, with a focus on material conditions and observable data, how does one determine adversaries’ intentions? (189) Kent himself seemed aware of some pitfalls in the methods. (191)

Just as crucially, social science depended upon the availability of data, which would be particularly challenging to collect on the CIA’s main target, the Soviet Union. Facing this a paucity of reliable data, Max Millikan, as head of ORR, developed a distinct interpretive framework. Few academic experts existed so ORR had to create Soviet experts. Also, a “bottom-up” approach, well described by Grace, was used arrive at total defense expenditures. (210) Working in this method, economist Warren Nutter

challenged the idea of the Soviet economy as a powerhouse, although some economists still admired it. (216)

The book delves into the early NIEs, this new strategic intelligence product, with pioneering estimates of the Soviets (87). Facts and values were not always distinct; for instance, Grace identifies the “jingoistic” tone of NSC-68 in some estimates, but this was perhaps inevitable after that famous directive essentially institutionalized the Cold War, with the CIA as one of the leaders in the fight. (186) But in general, Grace leaves unexplored how the mindsets of East Coast intellectuals may have affected CIA’s analytic output.

Grace, in his conclusion, offers an assessment of the intellectuals’ legacy. The liabilities in Kent’s approach surfaced in the 1962 Cuba NIE, which failed to predict the island as a platform for Soviet nuclear-armed missiles because it did not fit longstanding patterns of Soviet behavior, as ONE saw them. (9) But the author might have offered more context on how successful the Kent system was over time. As observed by former NIC Chair Robert Hutchings, eventually the BNE—with “a compulsive preoccupation with prediction”—lost the confidence of the policymakers and, over time, Kent’s system became too detached and had to match it more closely with policymakers’ interests.^b Despite these quibbles with the conclusion, anyone interested in the origins of the CIA and intelligence analysis will find value in Grace’s important study. ■

a. Kendall quoted in Jeffrey P. Rogg, *The Spy and the State: The History of American Intelligence* (Oxford University Press, 2025), 265.

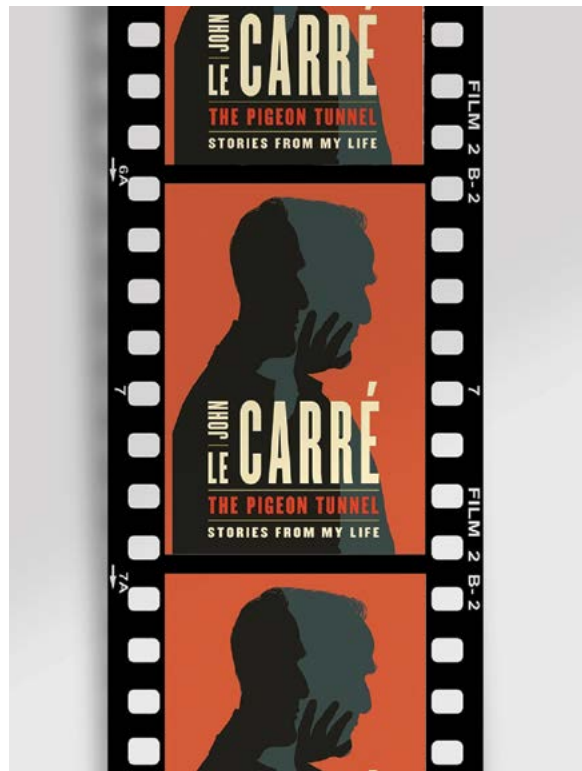
b. “Introduction” in *Truth to Power: A History of the U.S. National Intelligence Council*, Robert Hutchings and Gregory F. Treverton, editors (Oxford University Press, 2019), 9-13.

intelligence in public media

The Pigeon Tunnel *Stories from My Life*

Reviewed by Resolute Lee

Director: Errol Morris
Released By: Apple TV, 2023
Length: 1 hour, 34 minutes
Reviewer: Resolute Lee is the pen name of an ODNI officer.



Errol Morris's biographical, documentary interview, *The Pigeon Tunnel*, of David Cornwell—better known to the world by his pen name John le Carré—is an enthralling conversation between two kindred storytellers. Based on interviews completed in 2019 shortly before Cornwell's death in 2020, the film is an adaptation of le Carré's *The Pigeon Tunnel: Stories From My Life*.^a

The interview is one that could only have been crafted with the artifice of two master storytellers. Morris pits himself opposite Cornwell in an engagingly heartfelt and at times sorrowful exploration of Cornwell's life, delving into the complexities of family and relationships, education, and a career spanning both the Security Service (MI5) and Secret Intelligence Service (MI6), and global

literary fame. Morris weaves Cornwell's rich, poetic prose with the visual metaphor of the subject seated within a literal wilderness of mirrors—a nod to the labyrinthine nature of counterintelligence.

The result is a mesmerizing piece that would captivate even a le Carré novice or those unfamiliar with Morris's Oscar winning work, including *The Fog of War*. Cornwell is polished and his observations astute, punctuated by flashes of the cunning that defined his most famous characters. The depths to which Cornwell unfolds the complexities of his personal and professional lives are profoundly human and altogether expressive. There is a cinematic elegance to the conversation, heightened by Morris's apparitional presence off screen.

a. Reviewed by CIA Chief Historian David Robarge in *Studies in Intelligence* 61, No. 1 (March 2017). Robarge explored the literary merits of the memoir in these pages, while Morris' film provides the essential visual and tonal accompaniment—the performance of the man behind the prose. See also Robarge, review of *Tradecraft: Writers on John le Carré*, *Studies in Intelligence* 70, No. 1 (March 2026).

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The Pigeon Tunnel

The interview adopts a conversational tone with a respectful tension that stems from Morris's own history; before becoming an Oscar-winning filmmaker, he worked as a private investigator. This background infuses the film with the energy of a professional interrogation, a match between a subject who spent a lifetime crafting legends and an interlocutor who spent a career unearthing them.

The mastery begins in the prelude. Morris confesses, "Usually, I have absolutely no idea of where to begin, but you gave me an idea." Cornwell, revealing a characteristic touch of counterintelligence curiosity, asks, "And what was that?"

Morris responds, "You asked me about the nature of our relationship."

Cornwell emerges from behind the practitioner's mask: "It went further than that, I think. It said, who are you? Because sometimes, you're a spectral figure, sometimes you're God. And sometimes you're present. I needed to know who I was talking to. Were you my friend across the fire? Were you a stranger on a bus? Who are you?"

When Morris suggests he might be unable to answer. Cornwell smiles. "Then we'll struggle on and find out who you are."

The prose is engaging and reminiscent. Cornwell is thoroughly expressive, humorous, with a sarcastic self-deprecation that captures his wry wit.

This opening salvo reveals the pace of the match to come; two curious lions circling one another. It isn't long before the ghosts of the past emerge: shadows of an unrepentant, beguiled father and the early abandonment of his mother. Cornwell identifies the source material for a 60-year body of literary work that entailed 26 novels (many of which became films), one memoir, and many nonfiction essays and short stories, invoking Graham Greene's observation that "childhood is the credit balance of the writer. That's not a lament, just a self-examination." This pointed reflection offers a rare glimpse into the complexities of betrayal and duplicity that feature so prominently in his novels.

For the intelligence professional, the highlight of the film is a discussion regarding the boundary between fact and fiction. Morris asks, "Am I in a world of fiction, am I in a world of fact, am I in some strange blend of the two?"

Cornwell's response offers a whisper of truth regarding the tradecraft of writing: "I have tried over these conversations to talk about the process of abstraction from real life...I cannot define for you where reality goes through the secret door into fiction. I would much rather go back to the notion I painted, that I live in that bubble and I import stuff." As he speaks, his fingers dance beneath his chin, veiling a sheepish grin that suggests he is still, even in his final days, protecting the crown jewels of his private history.

The Pigeon Tunnel explores the confluence of truth, memory, and imagination. Cornwell questions the nature of object truth and memory, offering that, "we should find another name for the way we see past events that are still alive in us." This reflection delves further with Cornwell positing how the craft of writing entails abstracting from nonfiction and fictionalizing it. Those abstractions are the whispers of truth swept over the pages as human frailty, moral ambiguity, intrigue, doubt, cowardice, and complex nuance. Cornwell observes, "My business has been to try to make credible fables out of worlds that I visited or that visited me. The journey for me has been one of the imagination. The imaginative refuge from reality. The recreation of chaos. Not in an orderly way, but in a comprehensible, individualized way that makes people feel not a la James Bond, 'I wish this were me.' But more kind of, 'Jesus, I hope this isn't me.'"

Throughout the engagement, Cornwell holds back. Sadly, this would be his final interview. So, perhaps it is fitting that an author renowned for his guardedness should be paired with a director as inquisitive as Morris. ■

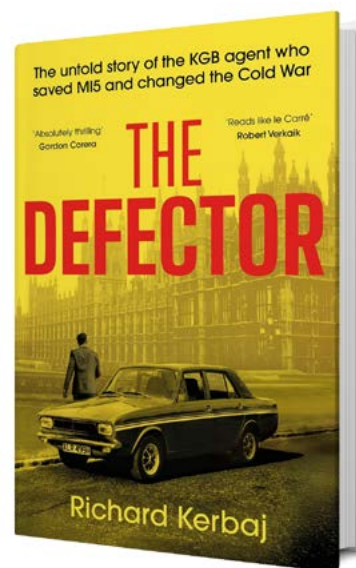
intelligence in public media

The Defector

The Untold Story of the KGB Agent Who Saved MI5 and Changed the Cold War

Reviewed by Mel Miller

Author: Richard Kerbaj
Published By: Blink Publishing, 2025
Pages: 355
Reviewer: The reviewer is a Russian linguist and regular contributor to *Studies in Intelligence*.



In *The Defector*, journalist Richard Kerbaj weaves together several stories of Soviet defectors from the 1950s to the early 1970s. It is advertised as the story of Oleg Lyalin, a KGB Department V officer sent to the UK at the height of the Cold War to conduct sabotage and assassination operations. Broadly speaking, *The Defector* is about the disorder and confusion that several Soviet defectors caused US and UK intelligence agencies during this time frame. Citing new sources from FBI Freedom of Information Act requests, the Lithuanian Special Archives (LYA), and personal interviews, Kerbaj attempts to breathe new life into one of the most important Cold War espionage cases. Oleg Lyalin was one part of this chaos.

Born at the height of Stalin's purges, Oleg Adolfovich Lyalin was first co-opted to work for the KGB while a

student at the Higher Marine School in Odessa in 1957. In 1958–59, he was sent on a training exercise to Chisinau with a fraudulent identity document in the name Oleg Aleksandrovich Liabin.¹ Based on his performance, he was invited to attend the KGB's 101 Intelligence Institute, where he trained to become an illegal support officer. After roughly two years of training, it was decided that Lyalin would not become an illegal support officer after all. Instead, he was sent to Klaipeda, Lithuania, in April or May 1962, where he was assigned to Sub-Division I dealing with foreign sailors. In March 1967, he returned to Moscow and began training to become a Department V officer specializing in sabotage and assassination operations. In May 1968, Lyalin was instructed to prepare for a mission as an illegal to Czechoslovakia. His mission was to pose as an American tourist of German origin, likely using the identity Aaron Adolfovich Stromvasser.

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The mission never took place because the unrest in Czechoslovakia, known as the Prague Spring, was brought under control. On April 11, 1969, he was posted to London under Soviet Trade Representative cover.² Aged 34 years, Lyalin defected on September 3, 1971, which set the UK and US counterintelligence communities on a path of bewilderment and madness.

At first, *The Defector* barely seems to be about Lyalin at all. The first third focuses heavily on Anatoliy Golitsyn, Yuriy Nosenko, and Pyotr Popov, whose cases brewed in the decade leading up to Lyalin's defection. James Angleton and leadership within MI5 and MI6 are also key characters. This is probably to set the stage for Lyalin's entrance, but too much of the book is dedicated to their well-known history. Kerbaj sprinkles random details of information about Lyalin in the early pages of the book and waits to mention how Golitsyn and Lyalin are connected until the second half. (177–78) While the other espionage cases discussed in the book are important in their own right, their prominence throughout the book serves as more of a distraction than helpful context. By Chapters 6 and 7, Lyalin begins to make more frequent appearances.

There's a reason no historian dared attempt a book-length work dedicated solely to Lyalin's story in the 55 years since his defection: critical archival materials are still largely unavailable. The UK National Archives (TNA) holds three indexed files relating to Oleg Lyalin.³ As of September 2025, the Foreign and Commonwealth Office (FCO) was still unwilling to release these files, citing national security concerns. While valuable, the FBI files are largely redacted, with many pages withheld in their entirety.⁴ It is clear that reports resulting from interrogations of Lyalin are not included, which raises more questions about what else is missing. Until governmental records are made available in full, Lyalin's story and the impact of his disclosures will always be incomplete.

To Kerbaj's credit, he uncovers several new records pertaining to British agents whom Lyalin ran while he was operationally active, which, combined with insights from the FBI files, add a new dimension to his intelligence activities in Britain. The FBI files on their own give a sense of how the US government

dealt with the aftermath. While improperly cited and underutilized, the Lithuanian "file" that Kerbaj discovered accounts for Lyalin's KGB assignments and confirms his bona fides. Interviews with British officers who knew Lyalin in London offer previously unknown tidbits of Lyalin's character and capture the human element of his experience. These were worth publishing.

However, these discoveries do not excuse some serious errors and sourcing issues. Kerbaj's unorthodox footnote style and lack of bibliography make it difficult for the lay reader to decipher the true scope of sourcing. There is no citation for the so-called Lyalin File from the Lithuanian Special Archives, which complicates researchers' ability to verify these records on their own. Actually, this file is Lyalin's service card, not a file.⁵ Lyalin's FBI file number is confused for the FOIA processing number. Multiple citations are mistyped, which would lead a researcher down a search for incorrectly sourced or nonexistent files.⁶ Some citations are kept suspiciously vague, only being described as an MI5 file, an intelligence briefing, or a recently declassified intelligence file.⁷

While somehow citing MI5 files, Kerbaj notes that Lyalin's MI5 file remains sealed.⁸ (266) Some important facts and analysis are without citation at all. For example, a list of Lyalin's operational names has no citation.⁹ (163) Kerbaj mislabels GRU defector Anatoliy Chebotarev, who defected in Brussels in 1971, as Anatole Thoibeve, but this name was incorrectly spelled in the source from which Kerbaj likely obtained this information.¹⁰ There are also baseless claims about KGB priorities and tradecraft, as well as details about information sharing between MI5 and the US government, that historians should question before repeating elsewhere. (149) These choices may be acceptable in journalistic reporting, but more is expected of the book claiming to reveal groundbreaking insights from newly declassified sources.

If Kerbaj had access to still-classified UK government records on Lyalin and was permitted to include this information in his book, he wouldn't be the first one. Much of Kerbaj's telling of the UK perspective on the case is already found in published works. Christopher Andrew's *The Defence of the Realm* (which

Kerbaj cites) tells what is known about Lyalin's case from official UK sources and in a much more concise format. Andrew's sourcing for much of the Lyalin material is simply "Security Service Archives," which fuels curiosity that Andrew was given special access to files that remain classified and inaccessible to the rest of us.¹¹

Even though there were probably not enough records available pertaining to Lyalin to write this book, Kerbaj still under utilizes FBI, LYA, and TNA records. The FBI's files were not released until around six years after Andrew published his authorized history, yet Kerbaj misses the opportunity to add several themes contained in the FBI file.¹² For example, Lyalin's disclosures inspired investigations in Boston, New York, San Francisco, the District of Columbia, and elsewhere. Kerbaj also misses the opportunity to expand upon several of Lyalin's unnamed sources, including one who worked for the Shell International Oil Company in London before moving to Boston.¹³ He also could have included more information about the former head of Department V in the United States, Nikolay Alekseyevich Kuznetsov, but only mentions him once. Furthermore, the FBI files report an unidentified illegal pair who arrived in London in mid-1969 and provide details about the FBI's questioning of Lyalin's knowledge of illegal operations.¹⁴ These would have all been within the scope of Lyalin's story.

Lyalin's Lithuanian KGB service card is also a significant discovery, packed with details that Kerbaj inexplicably withholds from the reader: he only cites the record three times.¹⁵ For example, Lyalin's service card shows he was assigned to military unit no. 22995 in Sevastopol for three weeks in October 1959, just before he went to the 101 school for illegal support training.¹⁶ Could unit 22995 be the unit to which Lyalin was assigned on his illegal training mission to Moldova? This question and so many others are left unaddressed.

A simple search in LYA revealed additional information about the impact Lyalin's defection had on the Lithuanian KGB that Kerbaj's book also omits. In the aftermath of Lyalin's defection, the KGB noted an increase in incidents and a worsening operational

situation at the port of Klaipeda, where Lyalin previously worked: they believed that the special services of some Western European capitalist states, especially Germany, sought to use ships departing from Klaipeda for sabotage and other subversive activities against the Soviet Union. The KGB also suffered setbacks recruiting foreign sailors as agents, and further noted that relationships with at least three agents that were recruited in 1970–71 were destroyed as a direct result of Lyalin's defection.¹⁷ For a book that purports to cover the impact of Lyalin's defection, these details seem too important to exclude.

There are still several other TNA files regarding Lyalin's source, Siraj Abdoolcader, that have yet to be explored. Abdoolcader was a clerical employee of the Greater London Council who specialized in vehicle registrations. According to Kerbaj, Abdoolcader provided proprietary information about British surveillance vehicles to the KGB. (103) Kerbaj cites one file dedicated to this source, but there are seven others housed at TNA yet to be studied. It would have been most appropriate to dedicate more attention to Abdoolcader based on these records, and less on Golitsyn and Angleton.

The Defector is also largely without Russian sources, which lends to some potentially misleading analysis on the KGB's perspective of Lyalin's defection. If the KGB were keeping score, Kerbaj states, "the Soviets were way, way ahead" and the KGB considered MI5 to be "America's junior partner." (191) He adds that the KGB and Andropov underestimated MI5. (230) This isn't to say that the KGB didn't have a lot going on: it might be fair to say that the Soviets allocated more resources to espionage as evidenced by the sheer number of personnel they deployed for their efforts, but they had their own share of setbacks in the UK. Even though Gordon Lonsdale wasn't a volunteer like Lyalin, the loss of his entire network several years prior was a massive blow to Soviet espionage in the United Kingdom, to cite one example.¹⁸ The status of MI5 as "America's junior partner" is also debatable: the British have much more history and experience in intelligence than the US services. Even if it were true, there is no apparent citation that speaks to Andropov's underestimation of MI5, either.

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Even worse, Kerbaj neglects the largest collection of Russian source material in his own backyard. Housed at the Churchill Archives Centre in Cambridge, the Vasiliy Mitrokhin Papers are a staple of primary source material from the Soviet perspective.¹⁹ There are several references to Oleg Lyalin in the Mitrokhin Papers that would have benefited Kerbaj's text, especially records that capture the Soviet perspective of the aftermath of Lyalin's defection. For example, the Soviets did not stop all recruitments of Brits after Lyalin's defection, but rather they temporarily shifted priority to former British colonies.²⁰ Readers would also be interested to know that a London Metropolitan Police Officer named John Alexander Symonds (codenamed Skat), offered his services to the Soviet embassy in Rabat in 1972. Symonds gave valuable information to the Soviets about Scotland Yard's efforts to protect Lyalin after his defection.²¹ The KGB recruited Israeli-Palestinian Haddad Wadia, codenamed Nationalist, and tasked him with finding Lyalin.²² This is just a small sample of valuable insight in the Mitrokhin Papers that Kerbaj's book omits.²³

Despite these shortcomings, *The Defector* may be appreciated by readers who seek entertainment and conspiracy more than historical accuracy. Readers may

enjoy Kerbaj's interpretation of the available records over the original government reports, even if the book contains frequent errors, embellishments, and analytic leaps. His account of the press battle in the aftermath of Lyalin's defection is engaging, although he discusses Russian media and fails to cite any. Readers who have never heard of Anatoliy Golitsyn or James Angleton may like learning about their relationship, even though their story is beyond the scope of the book. Key primary sources, such as archival records, are worthy of further inspection and may be of subsequent value for historians.

Given the incompleteness and underutilization of available records, *The Defector* probably contains a fraction of Lyalin's story. US and UK governments' refusal to release information about Oleg Lyalin even 55 years after his defection indicates the long-lasting impact of his disclosures. Withholding the Lyalin files suggests continued national security sensitivities to this day. Given his impact and the timeliness of stories about Russian assassinations and sabotage against the West, it is understandable why Kerbaj wanted to tell Lyalin's story. Unfortunately, not enough time has passed. The full story will need to be retold after more records come to light. ■

Endnotes

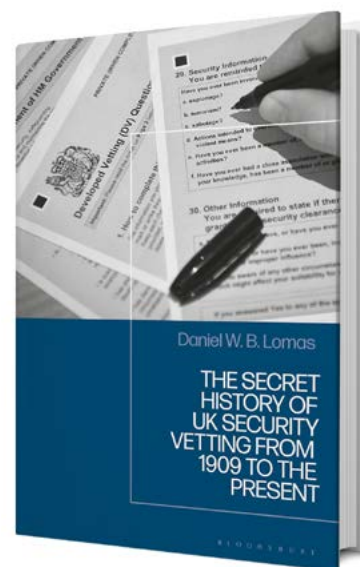
1. In archival records in Lyalin's case, Chisinau is spelled Kishnev or Kishinev.'
2. Exact dates and units of Lyalin's assignments vary in the available documents. For example, one FBI source in New York reported that he believed Lyalin joined the KGB in 1960 and served as an illegal support officer from 1960 to 1969, but this contradicts what Lyalin reported during his interrogations. This summary of Lyalin's career is based on a five-page biographic sketch in the FBI FOIA files, titled "Oleg Adolfovich Lyalin" and dated September 16, 1971, in FBI Bufile No. 105-216642 (accessed on archive.org) and Lyalin's Lithuanian KGB service card: Lietuvos Ypatingasis Archyvas (LYA), PAGRINDAS. F. K-1, ap. 61, kartoteka Nr. 41, tarnybos kortele Nr. 8033 (Oleg Lialin, Adolfovici).
3. These are FCO 168/4587, FCO 168/4588, and FCO 168/4589. I requested these files under the UK's Freedom of Information law and was denied access in September 2025.
4. Judging from a review of the FBI FOIA files shared on archive.org, 3,988 pages in the FBI's Lyalin file were withheld in their entirety. This does not include the pages that were shared but redacted in-full, of which there were hundreds more. Some of the deleted pages are listed as being "duplicates" or "referrals/consults" to other US government agencies. It is not known if the referred pages were ever released.
5. Service cards are summaries of an individual's career and contain information akin to a resume. His service card was only two pages long. Full KGB files in the Lithuanian Special Archive can be hundreds of pages long. The correct citation for Lyalin's service card in the Lithuanian Special Archive is: Lietuvos Ypatingasis Archyvas (LYA), PAGRINDAS. F. K-1, ap. 61, kartoteka Nr. 41, tarnybos kortele Nr. 8033 (Oleg Lialin, Adolfovici).
6. Multiple TNA records are mistyped. One citation in Chapter 5 points to CRIM 2/5681/1, which does not exist. He likely meant CRIM 1/5681/2, which is also cited in Chapter 6. Also in Chapters 5, 8, and 10, he cites DEFE 141/68, which does not exist. He likely meant DEFE 68/141, which is a file about one of Lyalin's British sources, Siraj Abdoolcader.
7. Kerbaj, *The Defector*, 130, 144, 182. Kerbaj cites an "MI5 File" in relation to information he includes about former Soviet Consul in Istanbul Konstantin Volkov. In the corresponding footnote, he cites his previous book, *The Secret History of the Five Eyes*, but the text about Volkov in *Five Eyes* does not provide a citation for the same information. While this has little to do with Lyalin, it calls to question the other unverifiable sources throughout.
8. The FBI files include one British memo (dated June 15, 1972) containing a heavily redacted four-page memo.
9. Lyalin's operational names are from a five-page biographic sketch in the FBI FOIA files, titled "Oleg Adolfovich Lyalin" and dated September 16, 1971, in FBI Bufile No. 105-216642. Accessed on archive.org.
10. It is widely known that this GRU defector's name was Anatoliy Chebotarev, not Anatole Thoibev. Kerbaj only cites "a press report" in relation to the "Thoibev" defection, but a search for this name in newspapers.com reveals *Daily Telegraph* and *Daily Mirror* reports on October 6, 1971, that use this incorrect spelling. The *Daily Telegraph* identifies the author as Serge Nabokoff, who reported from Brussels. The error likely came from transliterating the name from Russian to French and then French to English, but it also could have been caused by a simple reporting error early in the case. *Le Monde* spelled his name as "Anatole Tchebotarev" in an article on October 7, 1971, and some US newspapers repeated this spelling. Subsequent reporting on this case clarified his name as Chebotarev. For reference to the name Thoibev, see Kerbaj, *The Defector*, 237.
11. Christopher Andrew, *The Defence of the Realm: The Authorized History of MI5* (Allen Lane, 2009), 567–84, and corresponding footnotes.
12. Andrew's *The Defence of the Realm* was published in 2009, and the FBI FOIA records were released in 2015, judging from a watermark on FBI FOIA records.
13. One possible reason Kerbaj chose to omit this part of the story is because the source's name was redacted, see FBI Memorandum from Boston Field Office, Title Redacted, dated October, 18, 1971, in FBI Bufile No. 105-216642. Accessed on archive.org.
14. FBI Memorandum from W.A. Branigan to Mr. E.S. Miller, "Subject: Oleg A. Lyalin, Internal Security - Russia," dated September 27, 1971, in FBI Bufile No. 105-216642. Accessed on archive.org. These illegals are also mentioned in the Mitrokhin Papers. Their names are not mentioned in the FBI file, but they are mentioned in Mitrokhin as Grinenko and Tonya, see MITN 1/7, 179, accessed in The Churchill Archives Centre, Cambridge.
15. The LYA service card can be difficult to interpret because it is almost entirely handwritten in Russian.
16. LYA, PAGRINDAS. F. K-1, ap. 61, kartoteka Nr. 41, tarnybos kortele Nr. 8033 (Oleg Lialin, Adolfovici).
17. These agents are described as "Egon-Mayer," "Berg," and "Verner." From LYA, PAGRINDAS. F. K-41, ap. 1, b. 715, l. 185–218.
18. Gordon Lonsdale, a pseudonym, was an illegal in the United Kingdom until his arrest in January 1961. Several others in his network were also arrested. Lonsdale's true name was Konon Molody, but the files in the National Archives at Kew are listed under Gordon Lonsdale.
19. Vasilii Mitrokhin was an archivist in the KGB from 1972 to 1984. In 1992, he defected to the UK, bringing with him priceless records from the KGB archive. Several books on Soviet espionage history were written based on the contents of the Mitrokhin Papers.
20. MITN 1/6/3, 119.
21. MITN 1/5, 195.
22. MITN 2/24, Item 365.
23. Special thanks to Dr. Kevin Riehle for visiting the Churchill Archives Centre and digging up relevant records. For more on the Vasilii Mitrokhin Papers, visit <https://archives.chu.cam.ac.uk/collections/mitrokhin/>. ■

intelligence in public media

The Secret History of UK Security Vetting from 1909 to the Present

Reviewed by Katherina Gonzales

Author: Daniel W. B. Lomas
Published By: Bloomsbury Academic, 2025
Pages: 271 pages; endnotes, bibliography, index
Reviewer: Katherina Gonzales is a retired CIA officer who also served at NSA and FBI.



Anyone who has endured national security-related vetting such as the American Single Scope Background Investigation (SSBI) or the British Developed Vetting (DV) process knows the particular dread of sitting across from a security officer who asks, in a tone calibrated to seem casual, about your finances, your relationships, and whether there is anything in your life that might make you vulnerable to compromise. It is an experience designed to be uncomfortable, but it's necessary. Nevertheless, very few who have sat in that chair likely considered where the process came from, or how the questions evolved from “Are you German?” in 1914 (the onset of World War I) to “What social media platforms do you use?” in 2024. As every cleared intelligence profes-

sional knows, your security officer will eventually ask: “Is there anything else you think we should know?” In the case of UK security vetting there is quite a lot, as it turns out. Daniel Lomas has spent a lot of time considering this process, and the result is the first comprehensive history of British security vetting, *The Secret History of UK Security Vetting from 1909 to the Present*.^a

Lomas, an assistant professor of international relations at the University of Nottingham, who possesses deep expertise in British intelligence history, stakes out a middle position in a long-running UK historiographic debate. On one side, Lord Peter Hennessy famously argued that British security vetting had only modest

a. Lomas is also co-authoring a new history of the British Secret Intelligence Service (MI6). See his earlier work: *Intelligence, Security and the Attlee Governments, 1945–51: An Uneasy Relationship?* (Manchester University Press, 2017), nominated for the Royal Historical Society's Whitfield Prize; and with Christopher J. Murphy, *Intelligence and Espionage: Secrets and Spies* (Routledge, 2019).

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The Secret History of UK Security Vetting from 1909 to the Present

impact on hiring, citing just 25 civil servants dismissed for security reasons by the early 1980s.^a On the other, Mark Hollingsworth and Richard Norton-Taylor characterized the Thatcher era as an authoritarian apparatus that disrupted countless lives in something approaching “British McCarthyism.”^b Lomas rejects both extremes. His central thesis is that while the scope of UK screening was “much wider than others have acknowledged,” Britain nonetheless passed the test articulated by American political scientist Werner Grunbaum in 1960: that vetting in a liberal democracy must balance state protection against “those traditional liberties essential to democratic government.”^c In Lomas’s formulation: “There was, in short, no British McCarthyism” but also that the human and institutional tolls were far from negligible.

The book opens not with an expected spy scandal but with a murder. In March 2021, Wayne Couzens, a British police officer holding a Developed Vetting clearance through the Civil Nuclear Constabulary, abducted, raped, and killed Sarah Everard. In discussing the Angiolini Inquiry that investigated the case, Lomas accomplishes something methodologically important: He uncouples the vetting discussion from the spy narrative that has dominated the literature and reframes it as a question of personnel security in the broadest terms. This is also how contemporary insider-threat programs conceptualize the problem, equal parts suitability concerns and the potential for outside (and foreign) influences.

More traditional espionage-related issues are detailed in Lomas’s discussion of UK vetting’s genealogy dating back to the Germanophobia of Edwardian England. Fascinating discussions of William Le Queux’s spy thrillers,^d the “alien” registers built by MI5’s first director general, Vernon Kell, and the wartime screening of more than 50,000 aliens on munitions work by 1918 constitute the first part of Lomas’s book. The pivot from nationality to ideology arrives with the formation

of the Communist Party of Great Britain (CPGB) in 1920, and Lomas describes interesting cases, such as Wilfred Foulston Vernon, a scientist at the Royal Aircraft Establishment fired in 1937 after MI5 identified him as a CPGB member, that establish for the author a recurring pattern in security screening: vetting driven by immediate threat, constrained by political culture, and implemented inconsistently.

Lomas argues persuasively that World War II was the decisive vetting catalyst for Great Britain. MI5 officer Jane Archer’s debriefing of Soviet defector Walter Krivitsky, which revealed Foreign Office penetration by John Herbert King and pointed toward the as-yet-unidentified Cambridge Five spy ring, opens the wartime chapter with intelligence tradecraft that is all too familiar. The demands of total war—millions mobilized, scientists integrated into atomic research, sensitive facilities proliferating—forced the creation of a UK vetting apparatus unthinkable in peacetime. The Douglas Springhall case of 1943, in which a CPGB official obtained UK classified military information, accelerated checks across defense establishments and so-called “List X” contractor sites. Lomas demonstrates that wartime vetting laid the bureaucratic groundwork for everything that followed.

Igor Gouzenko’s 1945 defection in Ottawa—Gouzenko was a Soviet military intelligence (GRU) officer who carried copies of telegrams revealing Soviet espionage networks in Canada—and the unmasking of British physicist Alan Nunn May as a Soviet spy frames Lomas’s critical chapter on the Attlee government’s “purge.” Lomas’s most important argument here is that the formal announcement of a government purge procedure in March 1948 was not a sudden break in vetting policies but a public acknowledgment of covert screening already underway since wartime. The defection of Guy Burgess and Donald Maclean to the Soviet Union in 1951 then drove the introduction of Positive Vetting (PV). PV expanded the scope of

a. Peter Hennessy, *The Secret State: Whitehall and the Cold War* (London: Allen Lane, 2002), 102–04.

b. Mark Hollingsworth and Richard Norton-Taylor, *Blacklist: The Inside Story of Political Vetting* (London: Hogarth Press, 1988).

c. Werner Grunbaum, “Loyalty and Security in Democratic States: A Comparative Analysis,” *Western Political Quarterly* 13, no. 3 (September 1960): 643–60.

d. William Tufnell Le Queux (1864–1927) wrote more than 150 works of intrigue during his career as a journalist. *The Invasion of 1910* (1906) (later made into a silent film *If England Were Invaded* (1912)) is often cited as a prime example of the Germanophobia of the time.

vetting from political affiliation to perceived societal “character defects” of the time: finances, alcohol, and homosexuality. Lomas shows that PV was not a knee-jerk response to US pressure brought on by McCarthyism, but a distinctly British solution. Lomas then examines MI5’s historical internal debate over whether the service should subject its own officers to the process—ironic given that MI5 championed it for other sensitive government positions.

The book’s most original chapter examines the intersection of vetting with race and nationality. Lomas found internal Foreign Office memo in which officials openly questioned the reliability of non-white applicants on explicitly racial grounds. One official argued that a candidate with a Chinese surname would be “susceptible to Chinese influence” by virtue of ethnicity alone, regardless of individual merit. Another memo dismissed Asian applicants as only “basically loyal to themselves and the Central Kingdom.” Nationality rules in the British foreign affairs and defense offices, and intelligence agencies effectively barred candidates of Asian, African, and Caribbean descent from sensitive positions for decades after the UK Race Relations Acts of 1965 and 1968. This chapter further connects historical exclusion directly to the more recent UK’s Intelligence and Security Committee (ISC) of Parliament’s 2018 finding that agency vetting officers were disproportionately “white, male and middle-aged.”^a For any intelligence professional who has grappled with recruiting across ethnic and linguistic communities—which is to say, anyone serious about collecting against adversaries who operate within those communities—this chapter is essential reading.

Lomas’s greatest evidentiary achievement in the book, however, is quantitative. The recovery of Negative Vetting (NV) statistics clearly demolishes the Hennessy narrative. NV was the baseline screening process in which applicants’ names were checked against MI5’s records and criminal databases without the applicant’s knowledge—a covert process with no interview component, distinct from the more intrusive and thorough Positive Vetting. In 1967 alone, of 233,000 NV cases processed, 2,373 current officials

were rejected and a further 3,790 applicants denied clearance. These numbers far exceed the “twenty-five dismissed” that dominated the previous historiography. UK Defence Vetting Agency figures from 2001 show a rejection rate of 0.2 percent of all checks—a small proportion, but applied to the enormous volume of screenings, the total impact on individuals and institutional culture was significant. For anyone involved in comparative personnel security analysis, these numbers are likely invaluable, if not as compelling as Lomas’s case studies for the average reader.

The Thatcher and post-Cold War chapters navigate the unmasking of Soviet spy and talent-spotter Anthony Blunt, the Geoffrey Prime espionage case at GCHQ, the polygraph debate, the BBC vetting scandal (in which MI5 screened journalists through a discreet “Room 105” at Bush House), and the creation of the Counter Terrorist Check (CTC)—which Lomas argues was not a post-9/11 innovation but a formalization of “Irish checks” applied in Northern Ireland for decades. Lomas brings the story into the present by explaining the current UK National Security Vetting framework, which operates at three ascending levels: the CTC, Security Check (SC), and Developed Vetting (DV). Since 2017, these clearances have been administered by United Kingdom Security Vetting (UKSV), a centralized body under the Cabinet Office that consolidated screening previously handled separately by the Ministry of Defence and Foreign & Commonwealth Office. The conclusion reviews UKSV’s operational failures as documented by the National Audit Office in 2018: catastrophic IT failures, massive backlogs, and a chronic inability to meet processing goals—problems that are painfully familiar to anyone who watched the US Office of Personnel Management struggle with its own clearance backlog in the 2010s.

There is, however, a gap at the center of this book—the absence of sustained comparative analysis with the United States. Lomas opens the door to this issue by making occasional references to US vetting—the 700,000-person clearance backlog, the Snowden (2013) and Teixeira (2023) leak cases, CIA

a. The Intelligence and Security Committee of Parliament (UK), *Diversity and Inclusion in the UK Intelligence Community* (London: HMSO, July 2018).

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Chief of Counterintelligence James Olson’s observations about applicant quality—but never develops a systematic comparison. This is a missed opportunity. The US personnel security framework has undergone revolutionary change in the last decade, moving from periodic reinvestigation to continuous vetting under the Trusted Workforce 2.0 initiative.^a A chapter-length comparison of the two allied systems—their shared DNA from Gouzenko and the Cambridge spies, their divergent views on the use of the polygraph, and their respective failures—would have elevated this book from an excellent national history to an even more useful Five Eyes comparative study.

Related to this gap is Lomas’s silence on continuous evaluation and modern insider-threat detection. Lomas documents UKSV’s “woeful record on after-care” but does not engage with the technological and methodological developments—behavioral analytics, AI-assisted anomaly detection, automated financial monitoring—that are reshaping personnel security on both sides of the Atlantic. For a book published in 2025, the conclusion reads as if the future of vetting is primarily about processing forms faster, when most

security entities have already moved toward persistent, data-driven monitoring.

These criticisms should not obscure the singular accomplishment of this book. Lomas has written something the insider threat professional needed: a meticulously sourced, historically comprehensive, and intellectually honest narrative on UK vetting evolution. For intelligence professionals and policymakers across the Five Eyes, this work is an essential starting point for understanding how the British government has screened its own people for over a century—and at what cost. Lomas’s broader argument—that vetting is reactive, resistant to change, and structurally biased toward the threat of the moment rather than the threat of the future also resonates well beyond the British context. ■

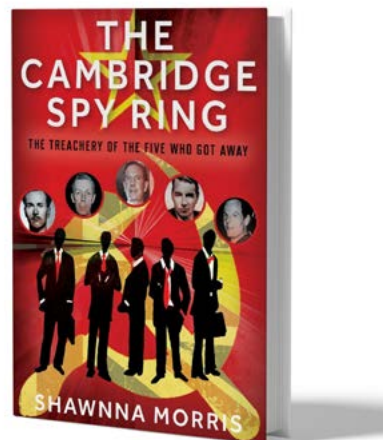
a. The US continuous-vetting framework, mandated under the Trusted Workforce 2.0 initiative, replaced periodic reinvestigation with automated record checks across financial, criminal, and public records databases. See Office of the Director of National Intelligence, “Trusted Workforce 2.0” (2018).

intelligence in public media

The Cambridge Spy Ring *The Treachery of the Five* *Who Got Away*

Reviewed by Ian B. Ericson

Author: Shawna Morris
Published By: Pen and Sword History, 2025
Pages: 224
Reviewer: Ian B. Ericson is the pen name of a CIA officer.



Perhaps no group of spies has been written about as often as the Cambridge Five. Nearly a century after their recruitment by the KGB and over three decades since the death of the last of their number, they continue to befuddle and fascinate in equal measure. How could such sons of privilege betray their motherland for such a reprehensible cause as Soviet Communism? Alternatively, having once elected to indulge a youthful fancy, why stick with it once the bloody accounting of Stalinism became impossible to deny? Shawna Morris is more successful answering the first of these questions than the second in her new volume, *The Cambridge Spy Ring*.

The five spies—Kim Philby, Guy Burgess, Anthony Blunt, Donald Maclean, and John Cairncross—were (with the exception of Cairncross) high born, extremely bright, and well on their way to elite positions within a

British Empire that spanned a quarter of the globe. They were also swept away by the communist wave that hit Cambridge University in the early 1930s. With the onset of the Great Depression and the rise of Nazi Germany, communism appeared to offer a better path than fascism or feckless parliamentarianism to alleviate the persistent economic dispossession that gripped the industrial world.

Espionage only happens when motivation meets opportunity, however, and the KGB (then known as the NKVD) skillfully exploited the young crop of ideologues. Arnold Deutsch was a Czech-born KGB illegal—a deep-cover operative—who arrived in London in 1934 with the goal of penetrating the British establishment. Deutsch's academic contacts eventually led him to Philby, a recent Trinity College Cambridge graduate who had been active in left-wing circles during most of his

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The Cambridge Spy Ring

undergraduate tenure. Philby was the first of the five to be recruited. He was also instrumental in filling out the ring, as he provided a list of potential recruits to Deutsch.

Thus began the greatest counterintelligence disaster in the history of Britain, if not the entire West. The damage wrought by the Cambridge Five is well-known and too voluminous to recount here in any detail. Suffice to say, whatever London contemplated in the diplomatic or intelligence realm from the 1930s to 1951, when Burgess and Maclean fled to Moscow, was known to the KGB within a distressingly short period. The KGB made its share of tradecraft errors (like using the Soviet Embassy in Paris as Philby's accommodation address), but it didn't have to be perfect. It just had to be better than British counterespionage. Perfunctory British background checks combined with exquisitely placed Soviet penetrations of British intelligence allowed the KGB to survive a number of close scrapes, including the near-defection of a KGB officer in Turkey in 1945 (Konstantin Volkov) who would have given away the store had MI6 not chosen Philby himself to manage the defection.^a Philby hastily warned his KGB handler and then indulged in a historic act of foot-dragging that gave the Soviets time to send a squad to Turkey, drug Volkov, and fly him and his wife back to Moscow for speedy execution.

Morris skillfully re-tells the stories of lives lost and money wasted on anti-Soviet operations that were known to the enemy before they began. She also details the lives of the spies themselves, most notably the toll that their double lives took on them and their families. As the noose began to tighten on Maclean in 1950 while he was posted to Cairo, for example, his alcoholic binges became epic. Morris vividly describes property destruction that would have embarrassed Ozzy Osbourne. Clearly at the end of his tether, Maclean was sent back to London to detox, quickly given a clean bill of health, and then allowed back to work on the Americas desk.

This was the pattern. None of the Cambridge Five paid any price for professional incompetence or

appalling personal behavior. Whether it was persistent operational failure on Philby's part (none of those teams MI6 and CIA sent into the Eastern Bloc seemed to accomplish their objectives for some reason) or dipsomaniacal outrages from Guy Burgess (drawing an explicit caricature of a senior CIA officer's wife and showing it to her), each member of the ring nonetheless managed to maintain their sensitive positions within the British government.

For all the damage they caused, things could have been much worse had US codebreakers not begun deciphering Soviet messages in the late 1940s. Venona, the name given to the effort, quickly showed that the Soviets had a penetration of the British Embassy in Washington in the latter stages of World War II, although the precise identify of the spy remained unknown into 1951. Unfortunately, MI6 had appointed Philby as its head of station in Washington in 1949, and Philby not only informed the Soviets of the need to change their codes, but also kept them abreast of the progress the US was making in identifying the mole, who was none other than Donald Maclean.

By spring 1951, Maclean's identification was imminent. Burgess, posted to the embassy and living in Philby's basement, returned to London to warn Maclean of the need to make his way to Russia. Maclean was barely functional at this point, so the KGB decided Burgess should accompany him. Thus, in late May 1951, Burgess and Maclean slipped across the English Channel while their MI5 watchers, who did not work weekends, slept. The disappearance of the two diplomats placed suspicion on Philby, who was told he was no longer welcome in Washington. Philby managed to avoid arrest, but MI6 dismissed him shortly after his return to London. Cairncross and Blunt ceased contact with the KGB around the same time, and in effect the Cambridge Spy Ring was at its end.

Morris highlights the enduring outrage that not a single member of the ring spent a day in prison for their treachery. In 1964, Blunt was given immunity for

a. On page 53 of this issues, see Kathy Gonzales' review of *The Secret History of UK Security Vetting from 1909 to the Present*, by Daniel Lomas.

his half-hearted cooperation and allowed to continue his work as a distinguished art historian. Cairncross admitted his espionage around the same time and was never prosecuted, despite not being given immunity.

As for Philby, when his MI6 colleague and close friend Nicholas Elliott visited Beirut in 1963 and presented Philby incontrovertible evidence of his betrayal, Philby made a partial confession and then defected to the Soviet Union. The stench from this counterespionage malpractice remains malodorous to this day.

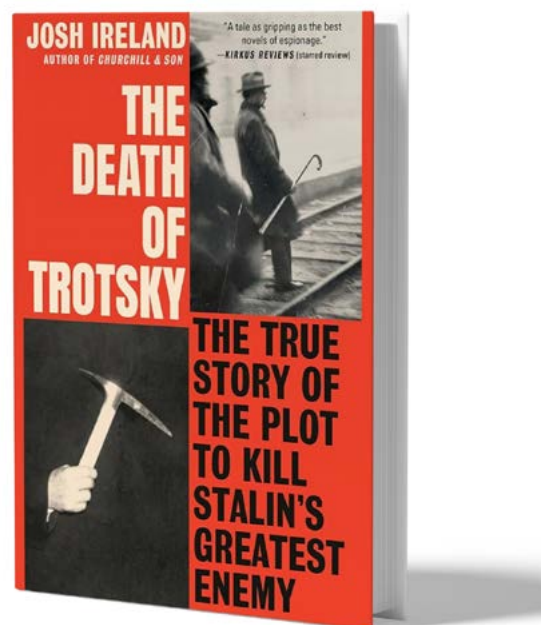
Morris is a good writer. Her prose is compelling and easy to follow. What she does not do is break any new ground. There are no new insights or even vignettes to share. Hers is an abridged version of a story—stories, really—that have been told in greater depth elsewhere. Morris admits as much in the foreword. She is nonetheless admirably conversant in the topic, and one complaint is that the book ends rather abruptly. This reader would have appreciated Morris's assessment of why it all matters and what lessons we can draw from this sorry episode. For all that, if you are looking for a one-volume summary of these five traitors, you could do considerably worse than this one. As to the question of why another volume on the Cambridge Five? The answer might simply be: Why not? ■

intelligence in public media

The Death of Trotsky *The True Story of the Plot to Kill Stalin's Greatest Enemy*

Reviewed John Ehrman

Author: Josh Ireland
Published By: Dutton, 2026
Print Pages: 380 pages; notes, bibliography, index
Reviewer: John Ehrman is a retired CIA officer and frequent contributor of reviews of intelligence literature.



Does the world really need another book on the assassination of Leon Trotsky? In truth, probably not. Memoirs, histories of Soviet intelligence, and biographies of Stalin, Trotsky, and some of the participants provide amply detailed accounts.^a With that in mind, however, British writer and journalist Josh Ireland's *The Death of Trotsky* provides a readable, straightforward telling of the story that makes for a good starting point for anyone who wants to become familiar with one of the most dramatic political showdowns of the twentieth century—one that ended with Trotsky's death in August 1940.

Strangely, however, this is a political story without politics. Ireland accurately portrays Stalin and Trotsky as ruthless Bolsheviks who developed a personal hatred that

was beyond measure. Nowhere, however, does Ireland delve into the ideological differences that drove the two rivals and that were so important to many of the events—the Spanish Civil War, the purges—that drove them and their followers. Instead, Ireland is content to show Stalin as a warped man, consumed by a lust for power as well as paranoia, and Trotsky as a brilliant theoretician and talented organizer whose blindness to his own vanity did much to cause his downfall. All accurate, but it leaves the book adrift in something of a contextual vacuum.

What Ireland does instead is focus on the human aspects of the story, telling it from three intertwined perspectives. It's a grim tale, like watching a fatal car wreck from which you can't turn away. The first strand

a. For overviews, see Christopher Andrew and Vasili Mitrokhin, *The Sword and the Shield: The Mitrokhin Archive* (Basic, 1999), Robert Service, *Trotsky* (Harvard University Press, 2009), and Mary Kay Wilmer, *The Eitingons* (Verso, 2012).

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The Death of Trotsky

centers on Stalin's obsessive effort to destroy Trotsky and all his supporters, real and imagined, through the purges at home and by deploying the NKVD to stalk them abroad. Stalin and his henchmen were relentless and by the time you read that in August 1939, the "headless body of Trotsky's former secretary and translator, the German Rudolf Klement, washed up on the banks of the Seine," you will have lost any sense of surprise regarding the lengths to which they were determined to go.^a (201)

The second is from Trotsky's perspective, as he was hounded from Moscow to Alma Ata and then Istanbul, Paris, Oslo and, eventually, Mexico City. Trotsky watched helplessly as his supporters in the Soviet Union deserted him or were wiped out. In exile, the walls steadily closed in. One by one, Trotsky's family was killed and he knew that he could not trust the people on whom he relied for protection, either because so many were NKVD agents or, that when it came to security and counterintelligence, his loyalists simply were hapless amateurs. It's difficult to feel sorry for him—after all, Trotsky was a key architect of the Bolshevik terror state—but Ireland still presents a story filled with pathos, a portrait of a man who was "impotent, hunted, a prisoner of his own past who had been defeated utterly by the man he had dismissed as an 'oafish provincial'" and left isolated and waiting for the inevitable. (287) Perhaps worse, one gets the feeling that by 1940, other than Stalin and a few diehard followers, almost no one in the world still paid attention to Trotsky or much cared what happened to him.

Tying these together is the third aspect of the story, the details of the NKVD's ultimately successful operation. Killing every Trotskyite except Trotsky was not enough for Stalin; when Stalin in 1938 replaced NKVD head Nikolai Yezhov with Lavrenti Beria, Beria understood clearly that his priority was to be the death of Trotsky. Beria put Pavel Sudoplatov in overall charge of anti-Trotskyite operations and, under him, Leonid Eitingon in charge of the actual assassination. (In the bizarre world of the Stalin-era NKVD, Sudoplatov had been sitting at his desk expecting to be arrested at any moment when Beria gave him his

orders and took him to brief Stalin.) Ireland gives a detailed description of their operations, which ultimately sprawled across Western Europe, the United States and, of course, Mexico.

Eitingon's great contribution was to develop Ramon Mercader, whom he already had spotted in Spain during the civil war, for the job of assassin.^b Ireland leaves Eitingon lurking in the background of the story, rightly focusing on Mercader. The portrait that emerges is of a confused killer. While a dedicated communist, Mercader was also something of an empty suit—a man easily manipulated by others (not least his mother) but who also had an uncanny ability to spot opportunities and take advantage of the gullibility of others. Mercader used these talents to worm his way into Trotsky's inner circle and gain the old man's confidence to the point where, fatally, Mercader was allowed to be alone with him.

Death of Trotsky is an easy read, and the action moves along. Ireland has done his research and the book is well documented, but given that this is an old story, he has added little new. Rather, it is Ireland's emphasis on the characters and NKVD tradecraft—while mostly in passing, *Death of Trotsky* gives an indication of the importance of illegals in that era—that combine to hold the reader's attention. The story also becomes more compelling as it goes along; the last third of the book, which focuses on Mercader's penetration of Trotsky's household and the run-up to the murder, reads like a thriller. Ireland's portrayal in this section of Trotsky's and his associates' astonishing negligence is a timeless lesson in the basics of security and counterintelligence.

For anyone interested in the human and operational aspects without the politics and ideology, *Death of Trotsky* is a good starting point. ■

a. Robert Service adds in *Trotsky* that "parts of his dismembered body were fished out of the Seine over several days." (432)

b. Wilmers, *The Eitingons*, is a fascinating look at Leonid and his remarkable family.