Good history but strong biases, and a weak appreciation of the technology

Black paints a very melodramatic picture of Thomas J Watson and the dominant figures of industry in the first decades of the 20th century. He calls them unscrupulous and anti-Semitic. Other books one reads of the period, such as [[ASIN:091298645X The Creature from Jekyll Island: A Second Look at the Federal Reserve]] on the Federal Reserve would like to single out the nefarious Jews as the source of most of the world's problems. Biographies of Jew and Gentile alike, Paul Warberg and David Sarnoff, John Patterson and John Rockefeller, tell of similar behavior and similar run-ins with Federal government trust-busters.

The hype starts with the very title, where Black calls IBM "America's most powerful company." Nah. It was just joining the Dow Industrials in 1933. Even two decades later, in 1955, General Motors was still 20 times its size in both sales and profits. Exxon was fifteen times larger. Computers, which would bring IBM to the top of the heap in the 1970s, were still a long ways in the future.

Likewise among nations. It is undeniable that the Jews suffered horribly in the Holocaust. However, those were terrible times in general. The shoe was on the other foot in the Soviet Union. The Jews had been a driving force in the Bolshevik revolution, and a Jew named Lazar Kaganovich led the Holodomor in Ukraine (see [[ASIN:0245527850 Revolutionary Jews from Marx to Trotsky]], by Israeli author Wistrich; [[ASIN:0465031471 Bloodlands: Europe Between Hitler and Stalin]] by Timothy Snyder, [[ASIN:1442609915 Ukraine, a History]] by Orest Subtelny).

Without the benefit of Hollerith's machines there is no good accounting for the number who died in Ukraine's Holodomor, but it is an equivalent in order of magnitude to the Jews who died in the Holocaust. The Turkish genocide against the Armenians at the time of World War I, the Chinese atrocities in Manchuria and Nanking (see [[ASIN:0465068367 The Rape of Nanking: The Forgotten Holocaust of World War II]]) and the Israeli genocide against the Palestinian Arabs (see [[ASIN:1859844421 Image and Reality of the Israel-Palestine Conflict]], [[ASIN:B00J0LXYLM Against Our Better Judgment]]) bracket this time frame in history. Nothing can exonerate the Germans, but one can certainly say that they were not uniquely evil, nor were the Jews always on the side of the angels.

Black attributes almost magical powers to the electronic accounting machines of the 1930s. He reminds me of my housemate Jack Plasky's shock and horror when I told him I was going to Vietnam to support IBM. "You're not going over there with those machines that kill people, are you?" No, accounting machines don't kill people, and I think Black exaggerates their ability to pinpoint potential victims. A review of the technology is in order.

I assume that the Dehomag was using 80 column cards. Black mentions both 60 and 80 column formats. The 80 column format was introduced in 1928 and would probably have been used universally in the timeframes under discussion. Machines were built to work with one format or another; they were not interoperable. So what were the machines?

The machine that produced the reports was called an Electronic Accounting Machine. It read records from a single hopper and printed in lines of 120 or 132 characters. It had the ability to collect information from several cards sharing a single control field which had been read in sequence from the input hopper, and to print several lines on output. This was the most complicated of the machines, controlled by a large board (perhaps 3 ft.^{2}) programmed by a large number of wires crisscrossing it to make essential circuits. The placement of these wires provided the programmed logic, taking the input from a card, doing logical tests, adding to accumulators, and routing information to the appropriate place in the output.

The cards were produced by a key punch. Strike a key, and a hole combination would appear in the card. In the era under discussion there were 64 combinations generally used. In English, 26 letters, 10 numerals and 28 special characters. The German language used some of those additional characters for letters such as ä, ö ü and perhaps s-zed. There were no lowercase letters.

A card would be formatted with fields, so that the data would be represented in the same place in every card. A format for the census application Black talks would have required identifying people by an 8-digit serial number, like a shortened American Social Security Number. However, Black describes the coding system actually used. Here are the uses of the card columns he names:

2 – arresting force
4 – political
5 – nationality
6 – sex
7 – marital status
8 – children
21 – concentration camp number
22 through 27 – serial number

The serial number was only 6 digits – at one million, not enough for the entire German population. It has to have been assigned as prisoners were arrested. It would thus be disconnected from the census data. The information suggesting whom to arrest was probably manually maintained prior to the prisoner being incarcerated. This would be consistent with the limitationsof EAM accounting – but inconsistent with Black's suggestion that it was anything like a universal system. It simply could not have been. These numbers were sometimes, especially at Auschwitz, tattooed onto inmates. But there was no consistent system, either of numbering prisoners or attaching the number to an individual.

In a census system there would probably have been several cards for a single individual. They would be tied together by an 8-digit serial number. The card type code would identify which card was what, and therefore what fields were contained within it. Probably it would take a single card to hold the person's address. There could be several additional cards if they wanted to carry information on education, criminal history, professional history and so on. Electronic accounting machines would allow for quite a bit of data, but at the cost of processing time. It starts with the time to keypunch all the data, and snowballs as the cards are processed. But this is fantasy – they could not have done it.

The next essential machine in any EAM installation is a sorter. Decks of cards were usually stored in serial number order. They might have to be resorted by last name (in this example, 16 passes through the machine, sorting first the lower order character of the last name and finally the high order position) for a report by last name. They would have to be sorted by geography, religion, and last name if you wanted to provide a list for the police to round up. Sorters were essential to punched card operations. But sorters were slow. 250 cards per minute. Divide that by 16 columns for the last name and you are down to about 16 cards per minute effectively. Dealing with a population of 50 million would have been brutally slow.

The third type of machine was the reproducing punch. It was likewise controlled by a wired panel. Instead of merging information to create a report, like the Electronic Accounting Machine above, it would create a new card using merged information from one or more input cards. Later models operated at 100 cards per minute.

Another essential machine, but only later, was a collator. If you had two or more kinds of cards that needed to be merged together, one type behind the other, to produce a report, you would put one kind in the hopper at one end and the other kind in the hopper at the other end. They could be merged together, or separated out into different pockets for different purposes. If you had to merge together several types, you would have several passes through the collator. The collator was also controlled by a wired panel. It was a lot faster than a sorter. Only introduced in 1937, it still achieved 240 cards per minute. Not fast, but much faster than using a sorter to collate cards together.

From the above it should be clear that although electronic accounting machine design could support an infinite number of applications, the slow speed was a severe limitation. That lack of speed forced designers to compromise on the

amount of information carried. This in turn calls into doubt Black's hypothesis that the Nazis were able to know everything about everybody. Even modern systems have a hard time doing that.

This highlights another shortcoming in Black's hypothesis. He would like to think that the census takers collected perfect information. They cannot do that even today. Many people in the United States don't trust the census takers even though they have never had much of an ulterior motive. The vast level of concern about the Nazis that Black writes about among the Jews even upon Hitler's election in 1933 is incompatible with the theory that the census takers were able to collect accurate information. The Jews should have had sense enough to hide information from the census takers. Germany was a country with very accurate civil records. Somewhere in the state archives they probably knew when a Jew had married a Gentile. Jews were recognizable by their names, where they lived, their occupations and their dress. However, it seems improbable that the census takers would have had the resources to access such deomographic information if the person went to appropriate lengths to hide it.

Black finds it singularly sinister that the Nazis dealt with individuals simply as numbers. The more prosaic explanation is that their machines gave them no choice. They could not manipulate the punched cards fast enough to produce reports based on last name. Working only with numbers had to be less than ideal, but they probably had no choice. Police and others could use printed reports to cross-reference numbers to names.

In summary, Black's book seems to be another product of [[ASIN:1781685614 the Holocaust industry]]. While it is generally factually correct, it is mistaken in characterizing the Holocaust as an event without parallel in history, IBM's management as uniquely rapacious, and this particular application of technology as uniquely inhuman. This New York Times reporter (sic – see comments) is painting a rather one-sided picture. Should we be shocked or surprised?

This review is obviously based on many fabrications.

"Even two decades later, in 1955, General Motors was still 20 times its size in both sales and profits. Exxon was fifteen times larger." No, Exxon was formed in 1999, not during the Nazi era or in the fifities, as the commenter says--he will probably edit that now.

The codes mentioned do not appear in the book on a single card, and are a fabrication created by conflating several codes with a code sheet, and/or the commenter has invented them-- for instance "2 - arresting force" ... a search of my Kindle shows the words "arresting force appear nowhere in the book. The commenter will probably edit that now.

As for the statement "This New York Times reporter is painting a rather one-sided picture. Should we be shocked or surprised?" I think everyone knows that Black is not and has never been a New York Times reporter or writer. The commenter will probably edit that now.

He wrote: "Sorters were essential to punched card operations. But sorters were slow. 250 cards per minute." That would be 15,000 per hour. The true rate as advertised by IBM in Germany was 25,000 cards per hour... which I found at footnote 119 of Chapter 2 with a simple search for the words "per hour." The commenter will probably edit that now.

There are plenty more fabrications.

Indeed, there are so many false assumptions, false facts, false quotes, and false references wrapped up in technical mumbo-jumbo coming out this commenter who says he is in the Ukraine-- not to mention a reference to the "Holocaust

industry" and the fake references to a non-existent Israel genocide citing a polemic book ... that Amazon readers should have no problem dismissing this fallacy-filled screed for what it is.

To see how this commenter distorts and omits... Consider he does not answer the false statements about Black being a NYT reporter, and the commenter previously asserting fake phrases quoting Black that the author never uses. Now he tries to pretend Exxon existed in 1955 when it was Mobil-- a separate company. Easily exposed.
Start by Goggling "Exxon History."
https://www.google.com/#q=exxon+history
The auto reply shown is: "ExxonMobil was formed in 1999 by the merger of two major oil companies, Exxon and Mobil."

Now look at this clever extract from Forbes from the commenter. Just search the cited info on Exxon. Here it is:
"Exxon Mobil 5,661.4 584.8"
Search and you get a URL from Forbes
http://archive.fortune.com/magazines/fortune/fortune500_archive/full/1955/
There you indeed see Exxon in the #2 slot for 1955. But scroll down to the disclaimer at the bottom and read that the names have been retroactively changed by Forbes. Here is the quoted disclaimer from the Forbes page:
"Since 1955, when the first FORTUNE 500 was created, more than 1,800 companies have appeared on the list. Many of these companies have changed names over this period, owing to mergers, acquisitions, and bankruptcies. Other companies have gone private, or simply changed their names. **Companies are listed by the name with which they were associated in 2005, ** or at the time of their most recent list appearance before that. FORTUNE 500 companies that have been acquired by other FORTUNE 500 companies are listed under the name of the acquiring company. Rankings have been revised to reflect corrections in data.

I added asterisk around **Companies are listed by the name with which they were associated in 2005**

I suggest that anything this chap says should be taken with a heaping tablespoon of salt. If he now asserts it is Thursday, check your calendar. This is how falsity pervades our society. Few have the gumption to fact check people who misstate, misquote, fabricate the details, or omissively cite to create a fake fact. Then they cry "Holocaust Industry."

Whatever reply this person cares to post to try once again to redeem his exposure for what he is doing... it is not worth my reply, or anyone's notice. I suggest ignore ... as I shall.