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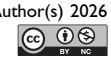
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Accountability for death(s): Reconceptualising corporate responsibility through thanatoaccountability

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Abstract

This article challenges the narrow confines of traditional accountability by introducing thanatoaccountability as a theoretical framework. Through an analysis of the German company Degussa during the Holocaust, we uncover how accounting metrics and accountability mechanisms actively obscured and normalised corporate participation in genocide. Drawing on archival analysis, we show how accounting and accountability mechanisms were repurposed to identify, exclude and ultimately erase Jewish life – first from markets, then from the political sphere and finally from existence itself. Degussa's progression from initial resistance to active complicity reveals how routine business practices, cloaked in bureaucratic neutrality, normalised genocide, even when financial gains were minimal. Thanatoaccountability not only exposes the inadequacy of conventional legal and financial accountability in capturing these processes but also offers crucial analytical tools for understanding how modern corporations normalise systematic death, highlighting how accounting practices can be weaponised to facilitate death while simultaneously shielding corporations from accountability for those death(s).

Keywords

thanatoaccountability, accountability, death, Holocaust, corporate responsibility, genocide

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'…This is like an automatic factory…At one end you put in a Jew…and he [sic] goes through the building from counter to counter, from office to office, and comes out the other end without any money, without any rights'. Adolf Eichmann, 1938

Introduction

The destruction of Jewish people and other 'undesirables' during the Holocaust is one of the most studied genocides in history. The Holocaust's legacy is multifaceted and complex, and it continues to impact contemporary discussions on ethics, accountability and responsibility. Increasing importance has been given to the significant contributions of businesses to the Holocaust and their responsibility and accountability for the murder of more than six million Jews and others. As understandings of corporate accountability have extended to include matters of moral culpability (see, e.g., Funnell, 1998; Lippman and Wilson, 2007, 2011, 2013; Detzen and Hoffmann, 2020; Walker, 2000), the re-examination of business participation in the instrumentalisation of the Holocaust can offer a new way of 'seeing' and understanding accountability.

The inadequacy of contemporary accountability frameworks, with their myopic focus on financial metrics and legal compliance, becomes evident when confronted with deliberate corporate complicity in systematic human destruction. These frameworks, deeply embedded in rationalistic paradigms of organisational governance, fundamentally fail to capture the complexity of corporate activities that cause death, revealing a systemic inability to conceptualise accountability for facilitating and obscuring responsibility for multiple forms of death. This theoretical insufficiency becomes particularly acute when examining how organisational practices can create conditions where death becomes more likely for marginalised populations through the transformation of financial and political life into bare life.

Rather than characterising business managers and companies as simply unknowing, innocent 'cogs in a machine' that enabled the Holocaust, where accountability is solely attributed to policymakers and political figures (Goldhagen, 1996: 12), this study seeks to hold officers and their companies to account under a new conceptualisation of accountability. Using the Greek term *Thanatos*, meaning 'death', the focus of this study is the accountability of businesses for death(s); *thanatoaccountability*. This lens assesses the collective contribution and accountability of the German pharmaceutical company Degussa[1] and its agents for deaths during the Holocaust, a company that provided the Nazis with Zyklon B gas used in extermination camps to murder Jews and others. Following Roberts and Scapens' (1985) notion of accountability embodying a moral order, this study enriches our understanding of accountability by introducing thanatoaccountability, extending thanatopolitics (Twyford, 2021, 2025) to consider thanatoaccountability for multiple deaths: financial, political and corporeal.

Agamben (1995: 131) explained that one of the essential characteristics of thanatopolitics 'is its constant need to redefine the threshold in life that distinguishes and separates what is inside from what is outside'. What is outside, those who are now allowed only a mere physical existence, a 'bare life' (*zoē*) that has no legal or political rights and protections, is determined for both Foucault (1976) and Agamben (1995) by modern racism which '[creates] caesuras between the people and the population, [with] people emerging through the exclusion of a population that is a biological danger for [the superior race]' (Genel, 2006: 56). The State can then place stateless people outside the political order by the removal of their political identity, what Agamben refers to as '*bios*'. The Stateless continue to be governed and regulated by the State, but without the legal protections given to those with *bios*. They are both inside and outside, within but without. Agamben concludes that a 'state of exception' prevails when those in power can suspend all normal legal, constitutional and

institutional protections and rights. These political capabilities constitute what Foucault (1979) referred to as biopolitics.

Biopower provides the State with the ability to not only regulate life but also to expand and validate it based on biological criteria and, thus, condemn those deemed not to meet specified racial criteria as biologically unfit and, therefore, a threat to the glory and well-being of the State. Biopolitics considers the interventions, supervision and regulatory controls that govern the fundamental biological processes, namely births, mortality, health and life expectancy, to comprise the biopolitical machinations of biopower that replaced the historically wielded sovereign power, or the power to *make die* (Foucault, 1979). The priorities and mechanisms used to enforce biopower also give rise to new understandings of the accountability of those who exercise biopower. Until recently, little recognition has been given to the importance of corporations as instruments of State biopower and their accountability for these contributions. In particular, few studies have examined the role of major corporations and their complicity as instruments of Nazi State policy (for notable exceptions, see Hayes, 1987, 2004; James, 2001).

By investigating corporations that, as separate legal entities, have the status of legal persons but not moral persons, further light can be shed on the role of businesses and their agents in perpetrating death, looking specifically at the Holocaust. Booth et al. (2007) uncovered the 'dark side' of German publishing company Bertelsmann's organisational culture and its links to the Nazi regime. Deutsche Bank's use of accounting as a form of 'Nazi-Deutsch' was examined by Twyford and Funnell (2023) to reveal that not every company was devoted to Nazi political ideology. Within the accounting literature, other studies have examined accountability for deaths during the Holocaust. Funnell's (1998) work in this space explored the moral culpability of accounting practice and accountants in the near eradication of European Jewry, an issue further explored by Lippmann and Wilson (2007, 2013). Detzen and Hoffmann (2018, 2020) focused on the accountability and stigmatised accounts of university workers during the Third Reich. This study contributes to this stream of research by offering a novel way of conceptualising accountability in situations where power holders, in this case corporations, have contributed to the death(s) of vulnerable populations. By introducing thanatoaccountability as a way to consider an organisation's accountability for and contribution to death, this study deepens the Holocaust literature specifically and genocidal literature generally by extending the still slender branch of research that has begun to appear in the critical accounting literature concerning thanatopolitics as the political agenda that underscored the entire regime of Hitler and the Nazis (Twyford, 2018, 2021) and discussions of necropolitics (Moerman and van der Laan, 2022).

An extension of thanatopolitics to notions of thanatoaccountability can help identify where organisations move from cooperation with State ideology and policy to calculated complicity and be deemed accountable for death(s) as they move from 'cogs' to willing instruments. It provides a new analytical tool that transcends traditional typologies of corporate misconduct by examining responsibility for multiple forms of death. This analytical distinction proves crucial in understanding how corporate entities navigate moral choices under oppressive regimes, where the erosion of financial and political *bios* often precedes and enables the destruction of *zoē*. This advances Graham et al.'s (2024) work on corporate wrongdoing by revealing how conventional categories of malfeasance become analytically insufficient in thanatopolitical contexts. Therefore, this study extends the literature on 'historical studies at the intersection of death and accounting [which] are underdeveloped' (Moerman and van der Laan, 2022: 20) by introducing the notion of thanatoaccountability to accounting and death studies.

Finally, this article responds to Roberts' (1991, 2009) call for intelligent accountability by capturing corporate responsibility across different registers of life and death that exceed conventional metrics. The study illuminates how traditional accountability mechanisms can facilitate corporate

wrongdoing by providing legitimising structures that obscure ethical transgressions. Examining Degussa's archival materials demonstrates how corporate moral agency operates differently across various activities, causing death(s) and revealing the temporal dimension through which ethical boundaries become increasingly permeable under totalitarian regimes.

The remainder of the article proceeds as follows. First, we undertake a literature review of accountability to demonstrate the importance of introducing the thanatoaccountability framework. Next, thanatopolitics and biopower are used to develop the novel framework for the study. Research data and methods are then discussed. This is followed by an analysis of the data, organised around the accountability for death(s): financial *bios*, political *bios* and *zoē*. Finally, insights from the study are discussed and integrated from our theoretical perspective before providing concluding comments.

Literature review

Accountability has an extensive literature within accounting scholarship, including corporate, environmental, corporate social responsibility (CSR), and social forms of accountability (see Albu and Flyverbom, 2019; Barth, 2015; Chung and Cho, 2018; Gray et al., 1988; Grisard et al., 2020; Michelon et al., 2020; Roberts, 2009). Central to these studies have been the giving and receiving of accounts (Roberts, 1991; Schweiker, 1993). This literature collectively argues for a broadened concept of accountability. Helle and Roberts (2024) highlight the importance of intelligent accountability frameworks that go beyond traditional financial metrics, focusing on the broader impacts of corporate actions on society and the environment, while Shearer (2002) uses an ethical framing to argue that companies must integrate ethical considerations into their decision-making processes to prevent harm and ensure justice. Roberts (1991) explores the different forms of accountability, contrasting hierarchical, individualising forms with socialising forms that acknowledge the interdependence of individuals and organisations. O'Loughlin (1990) categorises accountability into three distinct types: bureaucratic, legal and professional accountability. Later, Sinclair (1995) and Twyford (2023) expanded on this classification by including personal and crisis accountability, respectively. Despite the considerable attention given to accountability, studies have shown that it is not a panacea for corporate actions, including malfeasance, misfeasance and nonfeasance (Graham et al., 2024). This literature calls for a reimagining of accountability frameworks that hold companies accountable for harm or death to include ethical considerations and a recognition of the interdependent nature of corporate actions.

The extant literature provides valuable insights into the complex nature of accountability while emphasising the need for a more nuanced approach to accountability. Agyemang (2024) and Rached (2016) suggest that the accountability articulated through formal measurement techniques and regulations will likely be partial, narrowly defined and skewed towards pre-determined metrics that privilege economic and performance-based logics. Agyemang (2024: 7) instead insists that we look 'at the personal as well as the organisational and institutional, the informal and formal, the powerful and the less powerful and the historical as well as the current'. It is with this in mind that the present study considers the demands on corporate accountability, which in Nazi Germany were profoundly altered by the imposition of Hitler's Aryan ideology that spread rapidly throughout Germany in the 1930s. By considering informal accountability as an accountability mechanism, that is, accountability that is not prescribed by rules and regulations, an 'alternative way of knowing' becomes possible (Agyemang, 2024). Through 'intelligent accountability' (Helle and Roberts, 2024; Roberts, 1991, 2009), we can acknowledge the complexity of actions and their consequences and emphasise the need for continuous dialogue and

reflection, and a willingness to adapt and learn from past mistakes to bring forward social and cultural interactions into considerations of who should be accountable, to whom, and importantly, for what (Rached, 2016).

Similar to Sinclair (1995: 219), in this study accountability is regarded as a 'cherished concept, sought after but elusive'; an idea that is conceptually problematic but of critical importance. Following Gray et al. (1996: 38), who studied accountability in the context of a social contract, the present study considers accountability to be a 'reckoning of those actions for which one is held responsible'. In her 'relook' at accountability, Agyemang (2024) stresses the importance of recognising the power imbalances that underpin accountability relationships. Within accountability relationships, there are both more and less powerful actors. Ensuring that visibility is afforded to the less powerful voices is critical to fulfilling accountability responsibilities effectively. Importantly, Agyemang (2024) observes that while accountability may be discharged through accounting measurement techniques, other stories may be hidden that require different exploration and exposition methods. This observation is particularly pertinent when considering the limits of accounting to adequately reflect reality (see, e.g., Hines, 1988).

The conceptualisation of accountability informed by prior literature and adopted by this study is particularly relevant when considering the (in)actions of companies involved in, or connected to, the Holocaust. During that period, many companies either directly participated in or indirectly benefited from the atrocities. The traditional model of accountability that has focused on compliance and reporting is inadequate to address the implementation of the Holocaust, the depth of complicity, calculated causality, loss of lives and (im)morality of companies. It is more geared toward dealing with the aftermath of corporate negligence, where accountability is usually discharged in the form of fines or compensation.

Furthermore, the ethical violence and moral narcissism discussed by Roberts (2009) highlight the dangers of an overly simplistic approach to accountability. Companies might engage in self-criticism only to the extent that it does not threaten their self-image, or might project blame onto others, to preserve their sense of moral superiority. This behaviour mirrors the more significant societal mechanism of blame-shifting and denial that often surrounds discussions of historical atrocities like the Holocaust. Therefore, it is necessary to move towards an accountability framework that embraces the complexity and interdependence of corporate actions, their impacts on society and the subtleties of what constitutes a death (Sargiacomo et al., 2012). This involves a more nuanced understanding that aligns with the call for more intelligent accountability that recognises our shared vulnerabilities and the limitations of our knowledge. This model can guide current and future corporate practices towards greater ethical integrity and social accountability. It will also promote a more ethical and empathetic form of engagement with the past, thereby serving the purpose of historical justice.

By examining Degussa as an illustrative example, there is the ability to observe how the company operationalised Aryan ideology through its business practices and look beyond the financial accountability provided to the Nazi State toward a more 'intelligent accountability' (Helle and Roberts, 2024; Roberts, 1991, 2009).

Thanatoaccountability: A new accountability framework

Contemporary corporate accountability operates through multiple channels, including legal systems, regulatory bodies, civil society organisations and market pressures. However, while these mechanisms address direct causation and legal liability, they often fail to capture the full scope of corporate involvement in matters of life and death. This limitation becomes evident

when examining responses to modern-day corporate disasters such as Rana Plaza, a four-storey building in Bangladesh that collapsed on 24 April 2013, killing 1,100 workers. Following the collapse, various accountability mechanisms were activated: companies faced legal proceedings, compensation claims and reputational damage (Sinkovics et al., 2016). Responses by the corporations involved primarily addressing the immediate cause-and-effect relationship between corporate actions and worker deaths, failing to capture the systematic nature of corporate involvement in creating conditions where such deaths become possible. The theoretical foundation for understanding this systematic involvement begins with Agamben's (1995) crucial distinction between *zoē* and *bios*. *Zoē* represents bare life, the simple fact of living common to all beings, animals and humans, that encompasses the biological processes of birth, death and reproduction (Funnell et al., 2021). As Agamben (1995: 1) explains, *bios*, in contrast, represents qualified life or political existence, the form of living proper to an individual or group within a political context. This distinction becomes fundamental to understanding how corporate practices systematically transform political subjects into bare life.

The exercise of sovereign power (Foucault, 1976), ruled by a hallowed monarchy or privileged class, historically focused on creating bare life (*zoē*), while biopower focuses on sustaining political life (*bios*). Agamben (1995: 9) argues that

> what characterises modern politics is not so much the inclusion of *zoē* in the polis – which is, in itself, absolutely ancient – nor simply the fact that life as such becomes a principal object of the projections and calculations of State power.

Instead, he identifies the decisive factor as the process by which

> the realm of bare life – which is originally situated at the margins of the political order – gradually begins to coincide with the political realm, and exclusion and inclusion, outside and inside, *bios* and *zoē*, right and fact, enter a zone of irreducible indistinction (Agamben, 1995: 9).

The transformation of *bios* into *zoē* manifests in corporate contexts through various mechanisms: accounting practices that reduce workers to numerical units, risk assessments that normalise mortality rates, and management systems that prioritise efficiency over human life. For instance, when corporations calculate 'acceptable' workplace fatality rates or standardise compensation for deaths, they effectively strip workers of their *bios* and their political existence as rights-bearing subjects and reduce them to *zoē*, bare life that can be sacrificed for economic efficiency. These practices, which constitute thanatopolitics, do not merely violate existing accountability standards; they fundamentally alter the political status of workers, creating conditions where their deaths become bureaucratically invisible, statistically acceptable or *normalised*.

Thanatopolitics sees the emergence of life into political calculations operating under the maxim of 'make live, make die'. In corporate contexts, this manifests as what Troyer (2021: 128) describes as the transformation of 'the human body from a living state to a dead state without any acknowledgement of death or dying taking place'. Bureaucratic processes distance decision-makers from the human impact of their actions, enabling such transformations. Most alarmingly, this allows natural life to become politicised and 'included in the mechanisms and calculations of … power … For the first time in history, the possibilities of the social sciences are made known, and at once, it becomes possible both to protect life and to authorise a holocaust' (Agamben, 1995: 3).

Thanatoaccountability provides the means to examine how corporate practices systematically create conditions where people become vulnerable to death and can move from that living state to a dead state without any accountability for the death of *bios* (Troyer, 2021). Building on

Twyford's (2021) delineation of life forms into financial, political and bare life, thanatoaccountability reveals how corporate practices transform political subjects with protected rights (*bios*) into bare life (*zoē*) through subtle accounting and management mechanisms. This transformation occurs not only through explicit policies but through routine practices that gradually strip workers of their political existence, an existence with rights that extend beyond a bare life.

Drawing on the notions of financial *bios*, political *bios,* and *zoē,* interrogates how organisational processes actively transform human subjects from rights-bearing entities to expendable bodies (Twyford, 2021). This theoretical intervention moves beyond traditional accountability paradigms, which often focus on documenting or reacting to harm *post hoc*, to expose how accountability systems themselves can serve to facilitate and obscure the very conditions that make death possible. Thanatoaccountability, therefore, operates at a deeper level than conventional accountability mechanisms. Exposing the systemic transformation of financial and political existence into bare life allows for a more comprehensive critique of corporate accountability as, at its core, thanatoaccountability is concerned with the myriad ways in which corporate practices normalise and institutionalise the transformation of *bios* into *zoē,* which inevitably renders certain lives as inherently less valuable, more disposable and thus more susceptible to violence, exploitation and death.

The theoretical contribution of thanatoaccountability lies in its ability to uncover how corporate practices operate within and perpetuate zones of indistinction, where the line between political existence and bare life is blurred. By examining how organisational practices systematically transform *bios* into *zoē*, thanatoaccountability advances our understanding of the potentialities of accounting by revealing how these very systems can serve to legitimise and obscure the structural conditions that make death possible in the first place. By examining the complex interplay between legal accountability (or lack thereof) and the systemic production of *zoē*, this framework illuminates the insidious ways in which corporate practices can evade meaningful responsibility while still operating within the bounds of established accountability structures.

Further theoretical contributions of thanatoaccountability lie in its ability to reveal how corporate practices participate in what Campbell (2011: 58) terms the 'myth of passive sovereignty', recognising that 'one cannot manage life without managing death'. Thanatoaccountability extends accounting scholarship by revealing how organisational practices participate in broader thanatopolitical processes while appearing to operate within standard accountability frameworks, providing crucial analytical tools for understanding and addressing corporate involvement in systematic harm that extends beyond conventional notions of accountability. To return to the case of Rana Plaza, a thanatoaccountability perspective would situate the disaster within a broader context of structural violence, interrogating how the very accountability frameworks meant to protect workers may have paradoxically normalised the conditions that made such devastating loss of life possible. By examining how workers' lives were reduced to mere units of labour power, stripped of political and legal protections, thanatoaccountability exposes the deep-seated power asymmetries and institutional logics that enable and perpetuate such tragedies.

Thanatoaccountability ultimately seeks to unpack and address the complex interplay between the power to foster life and the power to consign to death (thanatopower) in the form of politics that has been starkly evident in historical and contemporary forms of systemic violence, such as colonialism, racism and the administration of justice, where the power to cause death is politically and ethically charged. As a framework, thanatoaccountability critically examines these dimensions of thanatopolitics and positions accountability beyond mere legal or ethical responsibility; it involves a profound reckoning with the socio-political mechanisms that determine whose lives are valued and protected and whose are not. While the transformation of *bios* into *zoē* is starkly evident in exceptional events like the Holocaust, thanatoaccountability reveals how routine corporate practices gradually create conditions where death becomes an accepted part of business

operations. This challenges conventional accountability frameworks, demanding a more comprehensive approach that acknowledges and addresses the systematic nature of deliberate corporate involvement in matters of life and death.

Research methods

To understand Degussa's thanatoaccountability and its role in the destruction of the financial and political *bios* and *zoē* of Jewish people during the Third Reich, the study draws upon a range of primary and secondary sources. Secondary sources, including company histories of Degussa and joint venture partner I.G. Farben, provided important background material alongside translated primary sources on the strategy and operation of each company (Borkin, 1978; Hayes, 2004, 1987). Nuremberg Trial documents, accessed online from the Harvard Law School Library, revealed the nature of the joint venture between I.G. Farben and Degussa and the original apportioning of accountability for the use of gas in Nazi death camps, where only the managers of I.G. Farben were found guilty (see *United States v. Carl Krauch* et al., *1948*). Speeches, published propaganda and legislation from the time were used to contextualise the analysis, revealing aspects of the socio-political environment in which Degussa operated.

Degussa's documents from the time that have survived are preserved at the Evonik Archives in Hanau and Marl, Germany. Significant volumes were destroyed deliberately by Degussa and the Nazis or during attacks by Allied forces. The chief Evonik archivists provided access to materials at the Evonik Archives (hereafter abbreviated to DUA, see Appendix 1[2]). This occurred via email due to COVID-19 restrictions. Correspondence continued back and forth, with the authors requesting materials related to Zyklon B, factories that utilised slave labour, and Aryanisations. Archivists helped curate the search where known documentation existed, for example, by focusing on the Aryanisations of Homburg and the Auer until the archivists and authors felt there was an appropriate volume of original material. This curation was constrained by the resources at the archives since an archivist was required to source, photocopy and send each document to the authors individually.

Archival materials included traditional accounts such as balance sheets, profit and loss statements and production reports, usually available only to Degussa's management. In line with the norms of the time, traditional accounts were rudimentary, with reports generally tabulating documents intended to keep track of costs, measurements and values, and with little supplementary information to understand the events taking place (Twyford and Funnell, 2023). Numbers also obfuscated the transactions and events that led to yearly changes in account totals (see Appendix 2 in supplementary file). The Degussa archival materials used extend beyond financial inscriptions. For the present study, DUA archival documents, including contracts, letters, internal memoranda and other non-financial documents, were used to understand Degussa's operations during the Nazi regime (see also Baker and Rennie, 2012; Fournés, 2020; Greer, 2009). These archival materials provide an essential means to contextualise financial documents and to understand 'relationships of power, injustices and the lived experiences of communities' (Moerman and van der Laan, 2022: 18). Similar studies have also used non-financial documents to account for death when accountability has been obscured (Carmona and Ezzamel, 2020; Funnell, 1998; Mussari and Magliacani, 2007; Neu, 2000; Preston, 2006).

All documents accessed were written in German, which, thus, required the employment of a translator with business history expertise to translate and provide an initial interpretation of source materials to illuminate historical and contextual *meanings* and any subtexts in each source. All documents and quotes in the analysis represent the translator's English interpretation of the original text. Importantly, the translator often noted that they were convinced that the way in which the material in the archives was presented and discussed was to hide subtexts typical of

the time that were accessible mainly to senior management. These are highlighted explicitly in the analysis. As with other critical approaches, the authors reject the monologism of accounting and the notions that the 'facts [speak] for themselves' (Brown, 2009: 316; see also Cordery et al., 2023), thereby allowing other renditions of events and motives to be excluded from consideration. Applying the thanatoaccountability lens and the moral understanding of accountability that it provides, we 'revisit and reinterpret archives that had apparently been fully exploited by earlier generations' (Carnegie and Napier, 1996: 14) to reveal new knowledge and apply new frameworks to enrich our understanding of accountability.

To ensure consistency in analysis, each author read through the translations in their entirety, performing a close reading (Amernic and Craig, 2017; George et al., 2024) and taking meticulous notes to uncover the elements of thanatoaccountability, particularly the death of *bios* through Aryanisations and slave labour, and the death of *zoē* through killings. Like Graham et al. (2024), the analysis process was iterative and interpretative, oscillating frequently between theoretical frameworks and empirical data. As such, the data was not 'coded' but categorised into the three elements of death to form a narrative of Degussa's operations during the Holocaust, as our methodology deliberately sought to examine the interstitial spaces where accounting practices intersected with broader institutional and political processes. This approach revealed how accounting technologies and accountability mechanisms were implicated in the gradual erosion of both *bios* and *zoē* through their role in normalising and bureaucratising processes of exclusion and elimination.

The methodological freedom afforded by this approach enabled us to trace how different forms of organisational inscription, from asset valuations to labour allocation records, contributed to death(s). This revealed how accounting practices participated in both the technical and discursive aspects of thanatoaccountability, moving beyond conventional narratives of corporate responsibility to examine the deeper structural relations between accounting, accountability and thanatopolitical power. These categorisations and subsequent results were then discussed among all three researchers who utilised thanatoaccountability informed by thanatopolitics to examine what information, discussions and consequences were evident. Comparing results enabled discrepancies to be identified and resolved. Reading this framework, the sources revealed a complex relationship between the state and corporations and traditional, social, and moral accountability in facilitating death(s). This was the basis on which thanatoaccountability was used to explore Degussa's accountability for death beyond its facilitations.

To expand the notion of death as envisioned under thanatopower and thanatopolitics, the authors have sought to understand how Degussa's actions contributed to the Jewish population's death(s) during the Holocaust. Using a thanatoaccountability lens, the study follows Twyford's (2021) delineation of thanatopolitics across three stages. First, there was a loss of financial *bios* through the policy of Aryanisation. Second, the study examines the implementation of slave labour to strip Jewish people of their political life. Third, there was a loss of *zoē* or 'bare life'. As Agamben (2002: 81) argues, 'it is as if there were in Auschwitz something like a Gorgon's head, which one cannot – and does not want to – see at any cost, something so unprecedented that one tries to make it comprehensible by bringing it back to categories that are both extreme and absolutely familiar: life and death….'. It is these deaths of the financial and political *bios* and the *zoē* that structure our analysis of thanatoaccountability in the case of Degussa.

Accountability: A matter of life and death

Aryanisation and thanatoaccountability for financial bios

Degussa traces its roots back to 1843, when Friedrich Ernst Roessler, head of the Frankfurt Mint, established a gold and silver separation factory. 'Through diversification, mergers, acquisitions and

joint ventures, Roessler's original business would eventually expand into the global specialty chemical company known as Degussa AG' (Rosenbloom and Althaus, 2010: 185). Degussa grew through acquisitions and mergers over the late nineteenth and early twentieth centuries, consolidating ownership among a small network of families (Evonik Archives, 2023). By the start of World War I, the firm had broadened its operations beyond servicing the mint, extending into porcelain, ceramics and cyanide production. Although the Treaty of Versailles forced Degussa to relinquish its international operations, the company remained profitable by refocusing on a limited product range. After WWI, the founding Roessler family's involvement waned, and an outsider, Ernst Busemann[3] (see Appendix 3 in supplementary file), joined the board. Degussa's long history of expansion through acquisition positioned it strongly for the coming Aryanisation process (Rosenbloom and Althaus, 2010: 185). By World War II, Degussa had extended its chemical businesses and, through its subsidiary Degesch, was producing a cyanide-based pesticide, Zyklon B, which was notoriously repurposed for the mass extermination of Jews (Hayes, 2004).

From 1933 onward, German corporations became instruments of Aryanisation as the Nazi regime demanded exhaustive racial documentation and classification. In Degussa's case, routine business paperwork was weaponised to persecute Jews: conventional accounting practices were systematically repurposed to facilitate the destruction of Jewish economic existence. Chairman Busemann's thorough surveys of personnel lineage and capital ownership marked the first stage of thanatoaccountability: identifying and categorising individuals whose economic life would later be extinguished. His notation that 'it is astonishing how strong the desire is, even from the Defence Ministry, to ascertain the Aryan quality of [a company] and its principal stockholder' (DUA DL 3.Busemann/4) demonstrates how quickly these accounting practices became normalised within German business culture. Degussa's internal records thus became tools for making live or making die in financial terms, singling out Jews for exclusion from economic life.

The repurposing of accounting records within Degussa reveals the mechanisms by which thanatoaccountability operated in practice. When Busemann implemented what he termed 'severe' action with 'conformity […] executed in a very strict manner' (DUA DL 3.Busemann/4), he helped create what could be termed mortality documentation. In these records, noting the 'Jewishness' of workers or suppliers served as both a death sentence and its bureaucratic justification. For example, the Pharmaceutical Association's requirement for 'written confirmation from suppliers that no Jews were in the management' (DUA IW 46.4/1) transformed ordinary supplier forms into instruments of exclusion and financial death. Business documentation, formerly used to facilitate commerce, now enforced racial ideology. Simply being Jewish became a liability on paper, effectively turning accounting practices into weapons against Jewish owners. These documents served a dual purpose: they identified which businesses to target and cloaked the subsequent dispossession in a veneer of bureaucratic legitimacy. In other words, the loss of Jewish financial *bios* was not an incidental outcome of Nazi policy – it was actively facilitated by accounting systems that acted as agents of economic destruction rather than neutral record-keepers.

The tension between action and omission in Degussa's records further highlights how accounting could both execute and occasionally mitigate thanatopolitical aims. One example is the documentary silence surrounding the Aryanisation of the Auer company, owned by Alfred Koppel, a Protestant man classified as Jewish under the Nuremberg Laws (Hayes, 2004). As Nazi economic persecution intensified, Koppel sought to sell a 51 per cent stake in Auer and resign from its board to rebrand the company as 'Aryan'. The transaction was structured so that Koppel secretly retained 49 per cent ownership until 1934, which was 'never discussed and was not reported to the authorities or party bodies' (DUA IW 24.4/6). This strategic omission in the records presents a complex challenge to simple narratives of resistance versus complicity. By leaving certain facts off the books, Degussa temporarily preserved a portion of Koppel's financial *bios*: he remained a

concealed part-owner despite Nazi directives. Such selective documentation – a form of passive resistance through accounting – meant the absence of a record could be as significant as its presence. On the surface, this silence protected Koppel's interests and could be seen as defiance of thanatopolitical objectives. However, closer analysis reveals that it paradoxically strengthened the Nazi system by creating a façade of compliance. Even well-intentioned omissions could serve to reinforce the broader thanatopolitical order, lending it an appearance of lawfulness and order that concealed its underlying brutality.

Archival evidence also reveals that economic rationality itself became an instrument of thanatopolitical power, stripping Jews of their financial life through the corruption of market logic. Initially, Degussa's leadership attempted to maintain traditional business ethics in Aryanisation deals, as seen in Busemann's early approach to company valuations. For instance, Degussa publicly declared that it had 'never employed Jewish workers' (DUA DL 11.5/21) while quietly maintaining hidden business relationships with Jews – a duplicity that manipulated records to create multiple layers of truth. The company effectively ran two parallel documentation systems: one for public show, demonstrating full compliance with Nazi racial edicts, and a second, off-the-record system that preserved elements of normal business practice. This duality is evident in Degussa's 1933 Aryanisation of Chemisch-Pharmazeutische Werke AG Bad Homburg (hereafter Homburg) from its Jewish owner, Arthur Abelmann. Official documents showed a complete Aryanisation, yet unofficial arrangements kept Abelmann involved behind the scenes. The Aryanisation of Homburg was orchestrated by I.G. Farben board member Wilhelm Mann Jr., a zealous Nazi who leveraged his position as Chairman of the Pharmaceutical Association to pressure Degussa. The Association required written proof that no Jews held management positions or majority shares (DUA IW 46.4/1). Mann essentially ransomed Homburg by insisting Degussa oust Abelmann entirely; otherwise, Degussa would face accusations of harbouring Jewish influence.

While Mann's hardline stance forced Abelmann out of Homburg's ownership, Degussa went to great lengths to retain Abelmann's expertise and economic value once it acquired his company. Degussa immediately hired Abelmann as a sales agent for Homburg in Southern Europe, Egypt and Palestine, offering him a generous salary and pension (DUA IW 46.4/1). The firm even negotiated a waiver of Abelmann's punitive Flight Tax to preserve more of his wealth – his financial *bios* – when he fled the Reich (Leo Baeck Institute, 2012). In return, Abelmann agreed to make 'his many years of experience and long-term relationships' available to Degussa (DUA IW 46.4/1). Despite outwardly 'Aryanising' Homburg, Degussa's executives showed a begrudging respect for their Jewish colleague's value. During the May 1933 sale negotiations, Busemann acknowledged that Homburg's chief asset was Abelmann himself. The contracts of sale pointedly referred to Abelmann and his brothers as 'gentlemen' and even installed them on the board of Homburg's Swiss subsidiary as a 'safeguard of Degussa's interests' (DUA IW 46.4/1). Although the tone of Abelmann's contract was at times threatening (DUA IW 46.4/1), it is clear that Degussa was willing to undermine Nazi racial dictates to secure his skills. When Mann of I.G. Farben attempted to seize Homburg at a fire-sale price, Degussa held firm to ensure Abelmann received a fair price, including 'an allowance for the owners' lost earnings over the next five years […] between seven and eight times the face value of the stock' (DUA IW 46.4/1). In these early years, Busemann's approach to Aryanisation still tried to honour market value and personal relationships, resisting the total corruption of market logic by ideology.

Busemann's handling of the Homburg deal reveals an initial attempt to uphold normal business valuation practices even under Nazi duress. However, this adherence to market logic eroded rapidly under mounting political pressure and the lure of profit. The shift is stark in the case of Koppel's remaining shares of the Auer company. At first, Busemann wrote that 'the most difficult question … is how to determine the goodwill' (DUA IW 46.4/1), indicating he anticipated paying above book

value to compensate Koppel fairly. Barely a year into Nazi rule, Busemann's tone changed dramatically as he coldly suggested to Koppel, 'we will also not hold it against you if you look for another purchaser', fully aware there were none. This veiled threat underscored Busemann's upper hand and forced Koppel to accept a fire-sale price for his remaining stake. Busemann's transition from concern about goodwill to exploiting Koppel's vulnerability demonstrates how standard market mechanisms were perverted into instruments of financial destruction. In thanatopolitical terms, violence was enacted not only by laws, but by accounting transactions, as what appeared to be routine business negotiations were transformed into tools for dispossessing Jews. Thanatoaccountability shows that genocide can be advanced through mundane financial transactions; overt violence is not always necessary when normalised business practices can be twisted toward lethal ends. This transformation challenges the assumption that market valuations are neutral. It suggests that economic logic itself, when corrupted by racist ideology, becomes complicit in thanatopolitical objectives.

Such distortions of economic practice had dire downstream consequences. One especially telling episode came when Busemann ignored Koppel's single remaining contractual stipulation: Koppel had secured an assurance that Degussa 'could block the firm [Auer] from ever producing poisonous gas' (DUA IW 24.4/4). Just months after Koppel left Germany, Degussa's Auer facilities began manufacturing the very poisonous gases that would later exterminate Jews (Hayes, 2004). Violating this clause represented a critical turning point where financial dealings bled into physical annihilation. The breach suggests that destroying Jewish financial *bios* not only preceded but actively enabled the destruction of *zoē*. By removing victims' economic autonomy and social protections, Aryanisation paved the way for their literal deaths. This finding aligns with Twyford's (2021) argument that scholars often treat economic and physical destruction as separate processes, whereas in reality they form a continuum of thanatopolitical control. Degussa's own ledgers bear this out. The company's balance sheets show a 41 per cent increase in assets from formerly Jewish-owned property and an investment of 18 million Reichsmarks (RM) in Aryanised businesses. In other words, the systematic destruction of Jewish financial life directly enriched Degussa. Though presented as routine business documentation, the accounting records for these transactions actually chronicle the elimination of Jewish financial *bios* under the guise of legality and profitability. Seemingly normal accounting and accountability mechanisms were harnessed to substantially increase Degussa's value at the cost of Jewish economic life.

Thanatoaccountability for political bios

Degussa's involvement in the Aryanisation process during the Nazi era presents a complex picture of corporate conduct under extreme political pressure. While initially attempting to navigate the Aryanisation mandates with a degree of ethical consideration, Degussa's actions eventually succumbed to the overwhelming demands of the Nazi regime. This shift from a semblance of moral resistance to outright complicity highlights the start of a significant ethical shift, a failure to sustain ethical integrity amidst the coercive political landscape, and the insidious way accounting systems can normalise genocide through administrative means. By 1937, Busemann himself acknowledged the futility of resistance, remarking that 'there's no point in swimming against the current' (Evonik Archives, 2023). This resigned statement signalled Degussa's internalisation of Nazi authority – a recognition that resistance, however minor, was futile and potentially dangerous. Busemann's remark marks the end of any pretence of moral resistance and the beginning of full compliance with state-sanctioned policies of violence. Regarding thanatoaccountability, it was the point at which Degussa as an organisation accepted the mandate to 'make die' the political

bios of those under its control. The company's role shifted from merely benefitting from Aryanisation to actively participating in the Nazi labour and extermination machine.

In mid-1939, Degussa deepened its entanglement with the Nazi state by joining a consortium of rubber manufacturers to run the Deutsche Gasrußwerke (DGW) carbon black factory in Blankenburg. This dilapidated plant became one of Degussa's first sites of compulsory labour. By 1941, Degussa was also exploiting forced labour at its newly Aryanised subsidiary, Auer, which produced war materials. The use of enslaved workers at Degussa's Gleiwitz factory helped transform the firm from 'an instrument of autarky [self-sufficiency] into one of armament' – essentially a cog in the Nazi war machine (Hayes, 2004: 127). After Aryanisation, the Auer's survival depended on lucrative state contracts, which in turn forced Degussa's compliance with Nazi labour policies.

By 1944, 76 per cent of the work at DGW was being performed by uncompensated slave labourers (Hayes, 2004), including German and Polish Jews, prisoners of war, and non-Jewish Germans deemed undesirable (DUA BU Pross, 1996). This exemplifies how the Nazi industry systematically reduced human beings to expendable units of productivity. In short, Degussa's factories were woven into the fabric of the Nazi camp system, operating at the intersection of industrial production and human destruction. The company's survival and profitability had become contingent on government favour and war contracts, which in turn required acquiescence to the use of enslaved human beings as inputs. Under these institutional pressures, Degussa's organisational culture and accounting systems adapted to treat living workers as depersonalised economic units. This marks the historical shift from economic disenfranchisement (Aryanisation) to political and social nullification – the reduction of people to stateless, rightless, and ultimately disposable labour. Degussa's corporate archives from this period capture a stark before and after, where what began as a business seeking skilled labour and fair productivity turned into a cold calculation of how to extract value from those deemed valueless by Nazi ideology.

Even the payroll accounting reflects how Degussa turned moral atrocity into a routine metric. Foreign (non-Jewish) forced labourers were paid a nominal 4 RM per day, Jewish labourers received nothing, and Degussa itself paid the state 3 RM per head for 'leasing' each worker (United States Bureau of Labor Statistics, 2002). This grotesque wage structure exemplifies what Agamben (1995: 137) calls the 'annihilation of the nonvalue' – the administration of human life as valueless. This perverse accounting arrangement reduces a person to a line-item expense. The value of a Jewish worker to Degussa was measured only in what the firm had to reimburse the SS (3 RM) – effectively treating the worker as a piece of rented equipment. The worker's own needs or humanity registered as zero in this equation. Thanatoaccountability draws attention to how such accounting renders human life calculable and expendable by quantifying lives strictly in terms of costs or output. It underwrites policies that strip individuals of liberty and self-determination. The concept of political *bios* is annihilated here – the idea that a person has inherent rights and agency. In being converted to an entry in a cost ledger, the person's political existence is negated; they exist only as labour power under total control.

Degussa managers' eagerness for 'cheap' and plentiful labour closed their eyes to the human cost and the broader economic repercussions of slave labour. They viewed Jewish prisoners simply as factory inputs, not as people. Witness accounts and retrospective investigations complement the dry corporate records to paint a fuller picture of day-to-day conditions. Helena Chmielewska, who laboured at a Degussa-affiliated site, later recalled: 'The Jews who worked with me told me they were beaten on their way to work. They were so thin and hungry' (Chmielewska, 2017). Such testimony underscores the brutality that underpinned the productivity Degussa recorded. In the archives, however, these horrors were transmuted into bureaucratic euphemisms. The death of over 500 prisoners at DGW was duly noted in company documentation, but

not as a tragedy – rather, in terms of 'exchanges' (i.e., labour turnover) and 'poor work performance' metrics (Hayes, 2004: 267). This abstraction of mass death into benign technocratic descriptors illustrates what Twyford (2021: 367) describes as 'the removal of political *bios* on an individual, naming level by reducing all problems (people) to numbers, where the intrinsic worth of the victims was lost'. In the DGW records, a person who died from overwork or abuse was essentially recorded as a lost unit of output, soon to be replaced by another unit. This mode of accounting didn't merely reflect dehumanisation – it institutionalised it. By encoding death and suffering in the neutral idiom of performance reports, Degussa's accounting system effectively wrote the victims out of existence as humans.

One of the most explicit manifestations of thanatoaccountability in Degussa's labour operations was the 9-month 'useful life' depreciation schedule applied to Jewish workers (Lippman and Wilson, 2007, 2011). In accounting terms, the company treated its Jewish labourers as depreciating assets with an expected life of only 9 months. By planning for a Jewish worker to last only 9 months, the firm was acknowledging that under the brutal conditions (overwork, malnutrition, abuse), the person would likely be dead or incapable of work in that time. This practice, noted by historians, shows the extreme of reducing humans to accounting abstractions. As Chwastiak and Lehman (2008: 321) point out, such methods help 'rationalize their inhumanity in the name of economic growth'. Degussa could justify working people to death because, on paper, it 'made sense' – they derived value for a fixed period, after which replacement was needed. Jewish workers had been so thoroughly *Othered* that even the company's ledgers denied their humanity. A Degussa manager's note dismissing Jewish prisoners as 'hardly fit to work' (DUA PCA 2/18) exemplifies how systemic violence was translated into routine administrative language. At the DGW plant, the Nazi foreman Adolf Hilpert went further by segregating Jewish labourers and ensuring they were constantly supervised by a 'reliable Aryan work comrade' (DUA PCA 2/15). A person who is itemised, depreciated and segregated in such records has been effectively expelled from the moral and social community of the firm. Such measures signified the complete loss of political *bios* for the Jewish workers.

The physical degradation of Degussa's enslaved workforce underscored how thoroughly they had been dehumanised both on paper and in person. Tattooed prisoner numbers, shaven heads and identical uniforms reduced individuals to a state of anonymity, the physical counterpart to their representation in the accounts. This treatment embodied what Agamben (1995) calls the destruction of political *bios*: the stripping away of every marker of identity and citizenship. Yet, the coercive wartime context complicates the picture when we consider accountability. Archival records reveal a stark disconnect between the cold, calculated accounting entries of the time and the post-war recollections of Degussa's personnel. For instance, Robert Pross – the DGW plant manager from 1941 – later claimed:

> I was facing a difficult decision: on the one hand, I was extremely opposed to employing innocently imprisoned people, on the other, I saw an opportunity (I remember precisely!) to perhaps spare these people a worse fate. I accepted the offer. (DUA BU Pross, 1996)

Pross's retrospective justification can be juxtaposed against contemporaneous documents that show a clear preference for 'Aryan' workers and systematic abuse of Jews. This dichotomy exemplifies how thanatoaccountability practices created parallel narratives. One narrative of routine business operations (the version told by ledgers and managers' memories), and another of organised destruction (the version told by witness testimonies and implicit in euphemistic records). The point here is not to indict Pross alone, but to reveal how deeply Nazi norms and language were internalised by the company during the war, even if individuals later tried to dissociate themselves from

those actions. The contrast between what Degussa's people said after the fact and what the company did at the time highlights the need for a new lens of accountability. It shows how easily the corporate actors convinced themselves they were just doing business or even helping prisoners, when in reality, their compliance enabled a system of industrialised death.

By 1944, Degussa's forced-labour camps had effectively morphed into SS concentration camps. Tellingly, the company's own May 1944 interim balance sheet notes in matter-of-fact terms the 'conversion of the former forced labour camp' (DUA PCA 2/2, part 2) into something unnamed but much worse. This bland accounting entry exemplifies how routine corporate language normalised an extraordinary violence. As Twyford and Funnell (2023: 13) observe, such transitions created accounting records that 'remained silent on the intrinsic human qualities of the Jews, most especially the gravity of the events and the exploitative nature of the transactions'. In Degussa's books, transforming a labour camp into a death camp warranted only a dry administrative remark. Pross later excused these choices by saying 'a merciless war was going on; other standards apply than those during normal times' (DUA BU Pross, 1996). Given this context, we can conclude that Degussa and its managers actively sought out and exploited concentration camp labour. They used the labour of people with no rights and value beyond what they could contribute to the war production. To Degussa, these workers were simply things to be used up in production, then thrust into the gas chambers when they were spent. This horror was made possible first by removing the victims' financial *bios* (their businesses, jobs, and properties) and then by stripping away their political *bios* (their rights and personhood). Once those layers of protection were gone, nothing remained but bare life ready for destruction.

A revealing paradox emerged when examining Degussa's financial outcomes from slave labour. Pross insisted that 'the accusation that we earned high profits as a result of using [Jewish workers] is not justified. *The SS was good at math*. Bottom line, they cost as much as the civil domestic and foreign staff' (DUA BU Pross, 1996, emphasis added). Hayes (2004) calculated nearly identical per capita costs for Jewish and non-Jewish workers (122.73 RM vs. 123.20 RM per month). Moreover, by the war's end, Degussa was incurring massive losses – profits in 1944/45 plunged to 1/13th of their 1938/39 levels (DUA RFI 3.6/436; DUA IW 25.5/3). These figures challenge any simplistic notion that Degussa's complicity was purely driven by profit. Even if economic rationality alone cannot explain the company's choices, the thanatoaccountability framework shows that accounting practices still legitimised the participation in genocide under the guise of pursuing profit. In other words, chasing shareholder value (or at least minimising losses) became a convenient excuse for morally unconscionable actions. The absence of clear financial benefit does not absolve the company; instead, it underscores that moral and ethical accountability persist even when activities are not profitable.

Indeed, the correspondence and records from this period reinforce our findings from the financial *bios* analysis, whereby organisational practices systematically created conditions that made death more likely. In the labour context, this occurred by transforming political life into bare life – workers were reduced to units of production that could be worked to death with impunity. Thanatoaccountability lets us see how official regulations and everyday procedures normalised these lethal conditions. It exposes how people could be worked to death under a pretence of routine administration, without any individual overtly 'pulling a trigger'. Thus, even though Degussa was operating under the coercive framework of the Nazi state, the company's willing adoption of racist accounting practices, dehumanising terminology, and reductive quantifications made it an active participant in genocide. Degussa became part of the very administrative framework that enabled systematic killing, cloaking murder in the guise of standard operating procedures. By describing deaths as 'poor work performance' or treating human beings as inventory, the company's records made the horrific seem ordinary. This has a profound implication: mass violence can

be embedded in accounting systems without triggering moral alarms, because those systems and practices have their own rationalising discourse. Degussa's accountants did not need to be overtly hateful; they simply needed to do their jobs according to the adjusted criteria, which now measured success in output and cost savings regardless of the human toll.

The trajectory of Degussa's involvement demonstrates how accounting systems facilitated the conversion of human beings into expendable resources while maintaining a pretence of normal business. The transition from labour to gas chamber was not marked by any sharp break in the corporate record; it was the conclusion of the same process. This process directly contributed to what Funnell (1998: 452) described as the point at which 'the Jew was recognised no longer as a social being'. In other words, after the death of financial and political life, the final step – the destruction of *zoē*, the biological life – was triggered. At that point, the Nazi state, aided by compliant firms, treated Jewish people as nothing more than material to be destroyed. Degussa was accountable for deaths long before a victim was actually killed – by contributing to the policies that made those individuals socially dead and civically dead, the company set the stage for their physical demise. This insight has implications for how we assign responsibility. It is not sufficient to say a company was only responsible if it pulled a trigger or dropped poison into a chamber. Degussa's culpability lies in the preconditions it helped create and perpetuate.

Thanatoaccountability for zoē

By 1942, the Nazi regime's approach to the 'Jewish Question' had escalated from expropriation and exploitation to full-scale extermination. In the first years of World War II, Jewish lives still had instrumental value to the Third Reich – as sources of wealth (through Aryanisation) or as forced labourers fuelling the war economy. In other words, Jewish existence was tolerated to the extent it could be used. However, as Nazi plans radicalised, a horrific decision point was reached where the regime resolved to treat Jewish lives as devoid of any value whatsoever, not even as labour. This shift marks the move from destroying *bios* to annihilating *zoē*. Goldhagen (1996: 148) pinpoints this moment as the Nazis' intent that 'the Jewish people were to be vanquished utterly, destroyed, obliterated from the face of the earth'. The convening of the Wannsee Conference[4] in January 1942 symbolised this pivot, as Nazi leaders coordinated the logistics of the 'Final Solution to the Jewish Problem' – a euphemism for systematic mass murder.

The historical context of industrialised killing provided both a need and an opportunity for corporate involvement. Earlier methods of execution, such as the mass shootings carried out by the Einsatzgruppen in 1941, were proving problematic for the regime. Not only were they logistically difficult to scale to millions of victims, but they were also taking a psychological toll on the executioners. SS Commander Otto Ohlendorf candidly observed that his men would 'not have the stomachs to carry out such gruesome orders, and that the deed would also brutalise them, rendering them unfit for human society' (quoted in Goldhagen, 1996: 149). Similarly, these firing squads were deemed 'too personal and inefficient for dealing with millions of European Jews' (Hochstadt, 2004: 117). Thus, the Nazi leadership sought killing methods that were impersonal, automated and scalable – essentially, methods that applied the principles of modern industry to mass murder. This drive toward a more 'efficient' solution opened the door for companies with relevant expertise to become key facilitators of genocide.

Degussa, through its subsidiary Degesch (Deutsche Gesellschaft für Schädlingsbekämpfung), was uniquely positioned to play a central role in the Final Solution. Degesch produced Zyklon B, a cyanide-based pesticide that emerged as the preferred killing agent for gas chambers. What had begun as a chemical for exterminating vermin was repurposed into a tool for exterminating

humans en masse. Degussa's commercial activities then became directly entangled with the mechanics of mass killing. The company's role was not as a passive supplier but as an integrated part of the murderous assembly line, providing the gas, liaising with the SS on its use and scaling up production to meet the demand for death 'in a manner similar to production in a factory, [that is] … killing based on the detailed organisation and principle of the assembly line' (Funnell, 1998: 453).

Thanatoaccountability at the level of *zoē* confronts the finality of corporate-enabled killing – the moment when accounting and business practices become directly complicit in ending human lives. The theoretical framing here must grapple with how ordinary corporate rationality adapts to, and even embraces, the extreme outcome of industrialised murder.

Thanatoaccountability illuminates how corporate structures can simultaneously facilitate and obscure responsibility for mass death. The tripartite ownership arrangement of Degesch was divided between Degussa (42.5 per cent), I.G. Farben (42.5 per cent), and Th. Goldschmidt AG (15 per cent) (DUA SCH 1/44; DUA BU Peters 1955; see Figure 1) exemplifying how organisational complexity creates layers of bureaucratic distance between decision-making and lethal outcomes. The archival materials reveal that as Jewish extermination increased, Zyklon B production rose dramatically, with gas sales reaching 70 per cent above peacetime levels by 1943 (DUA RFI 3.6/377; DUA, BET 9/43). The scale of this operation is evidenced by the delivery of 24,187 kilograms to Auschwitz alone and 31,894 kilograms to other camps in 1943[5] (Hayes, 2004). This increase represents not merely a business transaction but reveals the corporate rationalisation of mass murder through production quotas and delivery schedules. Traditional accountability mechanisms, focused primarily on financial metrics and legal compliance, prove inadequate in capturing this diffusion of moral responsibility through corporate structures where the numbers on statements dissociate from the human consequences. Post-war legal proceedings further demonstrate the limitations of conventional accountability mechanisms. The acquittal of Gerhard Peters, one of the inventors of Zyklon and Principal Operating Officer of Degesch, despite his Nazi Party membership and documented meetings with the SS about using Zyklon B to 'liquidate large numbers of people' (Hayes, 1987: 363), illustrates how legal frameworks struggle to capture corporate responsibility for mass death. Thanatoaccountability reveals the inadequacy of legal accountability alone in addressing corporate complicity in genocide, enabling us to examine how these very structures enabled the transformation of a pesticide company into an integral component of industrialised genocide and re-apportion blame to the individuals responsible, such as Peters.

Internal corporate communications reveal a disturbing focus on production efficiency rather than moral considerations. A memo from Dr M. Stoecker demonstrates this priority:

> Dear Director!
>
> …I would like to mention here that this plant is already working in two shifts and we are considering adding a third shift. This indicates that zyklon production will increase significantly. Currently, it is exclusively utilized by the military.
>
> I look forward, with interest, to your messages regarding your various personal visits.
>
> Dr M. STOECKER,
>
> KOLIN. (DUA, PCA 2/142).

Despite growing awareness of its lethal purpose, the willingness to increase production demands accountability beyond traditional financial metrics. Such seemingly routine business

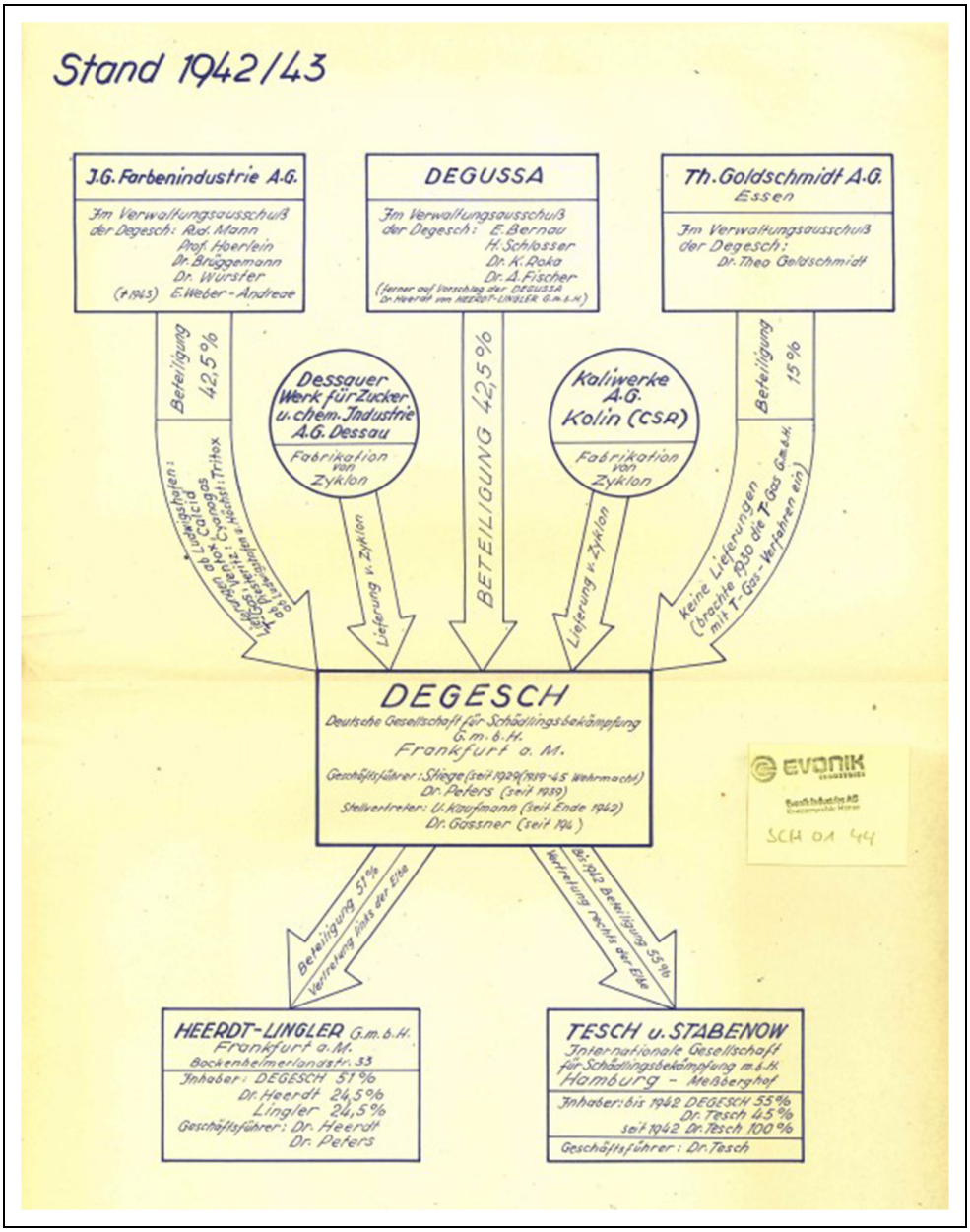


Figure 1. Corporate structure of Degesch (source: DUA SCH 1/44). For a summarised English-language translation, see Appendix 4 in supplementary file.

correspondence reveals how corporate language and practices can mask participation in mass murder through the rhetoric of efficiency and capacity optimisation. Degesch's initial involvement in pest control represented the biopolitical function of managing and preserving life through sanitation (Foucault, 1979). The removal of Zyklon B's warning odour, requested by the SS on 'humanitarian' grounds' (Hayes, 1987: 363), represents a profound breach of ethical accountability

and a shift toward active participation in destroying *zoē*. Degesch's resistance to this modification stemmed not from moral concerns but from fears about losing their 'monopoly position' through their 'patent on the warning odour' (Borkin, 1978: 123). Zyklon B production prioritised economic effects over human life, with the loss of zoē, or actual life, being almost inconsequential compared to the banality of production targets and lost capital on patents. Despite understanding the implications, their eventual acquiescence to remove the warning odour demonstrates how corporate decision-making prioritised profit over human life. Degussa *chose* to continue to manufacture Zyklon B and without the warning odour to ensure a line of product profitability. The archival evidence demonstrates a disturbing integration of mass death into standard business metrics that conventional accounting frameworks fail to problematise. Viewing under thanatoaccountability, however, reveals how corporate decision-making processes became instrumentalised in the service of mass death by applying a moral framework which posits that the managers and owners must have known the large increase in pesticide usage at camps used to house Jewish workers extended beyond the intended usage.

The stark contrast between corporate documentation and witness testimony further illuminates the necessity of thanatoaccountability. Ruth Meyerowitz's haunting account of the sensory experience of mass death, 'we could smell the gas when it was let out from the gas chambers, and then we could smell the burning of the bodies' (USHMM, 2018), stands in devastating opposition to the sterile business records that reduced human extermination to production metrics. Witness testimony from SS members and prisoners provides chilling detail about how Zyklon B was deployed: 'The gas chambers, each with a capacity for 2,000 people, were attached to the crematoria … After the doors had been hermetically sealed and the temperature raised sufficiently, the cans of Cyclon [Zyklon B] were introduced into the chambers' (DUA BU Peters, 1955). This systematic approach to mass murder was facilitated by corporate production and delivery systems. As Borkin (1978: 144) argues, 'nobody could live in Auschwitz and work in the plant or even come down to the plant without knowing'. Thanatoaccountability thus demands recognition of this disjunction between corporate accounting practices and the lived reality of mass deaths resulting from the activities of corporations and their agents who feign ignorance in the face of overwhelming evidence of death.

Discussion

This study has sought to navigate the harrowing landscape of the Holocaust to forge theoretical and analytical tools that cannot be developed in most other settings (Bauman, 2001), namely, a nuanced framework of death and accountability. The Holocaust, with its stark delineations of life and death(s), compels us to confront the profound moral responsibilities that extend beyond the individual to encompass corporate entities and their agents (Funnell et al., 2025). The gradual unsealing of corporate archives has illuminated new pathways to scrutinise and attribute accountability for the orchestrated deaths, both *bios*, the social and political life, and *zoē*, the biological existence.

In this intricate web of guilt, the case of Degussa emerges not merely as an isolated instance but as a reflective microcosm of the broader corporate complicity within Aryan-dominated industries of Nazi Germany. It challenges us to consider how accountability mechanisms can be calibrated to address the multifaceted dimensions of death imposed by thanatopolitical machinations. Moreover, this exploration into Degussa's involvement underscores the imperative to adapt our moral and ethical assessments in light of the historical context, recognising that the moral yardsticks of the past may differ markedly from those upheld today (Rosenbloom and Althaus, 2010; Wiesen, 2001).

The theoretical contribution of thanatoaccountability lies in its capacity to differentiate between corporate responsibility for distinct forms of death-dealing activities: the destruction of *bios* through financial and political disenfranchisement and the annihilation of *zoē* through direct participation in genocidal practices. This analytical bifurcation proves crucial in understanding how corporate entities navigate moral choices under oppressive regimes, where the erosion of *bios* often precedes and facilitates the destruction of *zoē*. Our analysis advances the theoretical understanding of corporate moral agency by conceptualising thanatoaccountability while simultaneously contributing to emerging discourses on thanatopolitics and corporate responsibility in accounting scholarship. By examining Degussa's archival materials, we have illuminated the complex interplay between institutional constraints, corporate agency and moral responsibility within thanatopolitical contexts.

New theoretical tools are often required for methodologically fraught studies such as genocide. Our examination of Degussa's evolution from initial resistance to explicit complicit engagement through thanatoaccountability reveals key theoretical insights about corporate moral agency under oppressive regimes. First, we illuminated how corporate moral agency operates differently across various forms of death-dealing activities. While the destruction of *bios* through Aryanisation and slave labour emerged within the constraining apparatus of Nazi ideology, the annihilation of *zoē* through the production and supply of Zyklon B represented an autonomous choice driven by profit motives without corresponding efforts to limit the effects of policies on individuals. This distinction enriches our understanding of corporate moral responsibility by revealing how organisations maintain different degrees of agency in the destruction of financial/political versus biological life in extreme conditions. Importantly, it extends beyond existing corporate accountability frameworks by incorporating the thanatopolitical dimension of business decisions and, importantly, the loss of life that can occur before the corporeal death of a person.

Second, the framework reveals the temporal dimension of corporate moral decision-making, demonstrating how the boundaries between *bios* and *zoē* become increasingly blurred, illuminating the recursive processes through which ethical boundaries become progressively permeable under totalitarian regimes. Our analysis illustrates how Degussa's initial moral resistance underwent systematic erosion through ethical desensitisation, a process whereby increasingly transgressive actions become normalised through their gradual integration into routine business practices. This normalisation sets the stage to enable corporations to take that never-acceptable step of connections to activities that kill people. This temporal perspective advances Hayes' (2017) work on the perversion of market mechanisms under totalitarian regimes by revealing how corporate moral agency operates not through discrete decision points but through cumulative patterns of ethical compromise that create path dependencies in organisational behaviour.

The archival evidence reveals how Degussa's management maintained selective autonomy in ways that strategically privileged (anticipated) profit over moral considerations. This selective exercise of agency manifested differently across various business activities, with resistance to Nazi ideology diminishing as financial opportunities expanded. This finding enriches our theoretical understanding of corporate moral decay by demonstrating how ethical boundaries become malleable through the interplay of institutional pressures and organisational self-interest. The progression from initial moral reluctance to active participation in thanatopolitical activities suggests that corporate complicity emerges not through sudden ethical failures but through the gradual recalibration of acceptable business practices under oppressive regimes. Furthermore, our analysis reveals how accounting practices not only documented but also legitimised systemic failures in accountability from initial ethical positions, enabling corporations to rationalise increasingly problematic activities through moral displacement, whereby earlier ethical compromises under the guise of adherence to applicable laws and regulations justify subsequent transgressions. This theoretical insight extends beyond Hayes (2017) to illuminate how corporations maintain the facade of autonomous decision-

making while becoming increasingly enmeshed in state-sanctioned violence. The progression from Aryanisation to slave labour to the increase in production of Zyklon B exemplifies how initial ethical compromises can create organisational trajectories that normalise increasingly severe moral transgressions over time.

Third, thanatoaccountability advances the theoretical understanding of corporate wrongdoing, particularly in contexts where the destruction of *bios* and *zoē* becomes systematised through organisational practices by providing analytical tools that transcend traditional typologies of misconduct. While Graham et al. (2024) identify distinct categories of corporate transgression, the thanatoaccountability framework reveals how these categories become analytically insufficient in thanatopolitical or extreme contexts. The laws and regulations that support traditional and contemporary accountability are not equipped to manage the nuances of death, ethics and responsibility in thanatopolitical frameworks, and they are often strangled by overarching political ideology that is focused more on outcomes than accountability (Graham et al., 2024). The case of Degussa demonstrates how corporate complicity operates through complex action and inaction, where traditional distinctions between types of wrongdoing blur under the weight of systemic violence.

Our methodological approach, incorporating both financial and non-financial archival materials, reveals how conventional accountability mechanisms systematically obscure certain forms of corporate complicity. By examining memoranda, correspondence and internal communications alongside financial records, we illuminate what Agyemang (2024) terms 'alternative ways of knowing' that challenge dominant epistemological frameworks in accounting research. This methodological intervention demonstrates how corporate actors simultaneously maintained official narratives of compliance while engaging in informal practices that facilitated their involvement in State-sanctioned violence to the point of enabling the death of millions. The significance of this finding extends beyond methodological considerations to reveal how corporate complicity operates through gaps between formal accountability structures and lived organisational practices. These ruptures emerge not merely as failures of accountability but as active sites of meaning-making where corporate actors negotiate their relationship to thanatopolitical activities. Our analysis reveals how these gaps enable corporations to maintain legitimate facades while participating in fundamentally illegitimate activities (Roberts, 2009).

Furthermore, our framework illuminates how traditional accountability mechanisms can facilitate corporate wrongdoing by providing legitimising structures that obscure ethical transgressions. Here, we build upon Shearer's (2002) work on ethical accountability by demonstrating how formal accounting practices can normalise corporate participation in death(s) while maintaining the appearance of appropriate governance. The case of Degussa reveals how seemingly neutral accountability mechanisms became implicated in what Agamben terms the 'state of exception', where usual ethical and legal constraints ceased to operate meaningfully (Twyford, 2018).

The theoretical implications of our study extend beyond commissioned corporate histories that attempted to make sense of state-directed genocide (Feldman, 2001; James, 2001; Mommsen and Greiger, 1996). Our analysis demonstrates how corporate actions were motivated by institutional and self-interests, advancing previous accounting studies of the Holocaust (Detzen and Hoffmann, 2020; Funnell, 1998; Lippman and Wilson, 2007, 2013) by demonstrating an accountability framework that recognises corporate responsibility for both the death of financial and political *bios* and the annihilation of *zoē*. Given the difficulties of conducting Holocaust research (Goldhagen, 1996) and the assignment of accountability in a crisis (Twyford, 2023), new theoretical frameworks can offer fruitful contributions to scholarship. By leveraging our primary materials, thanatoaccountability enables a deeper examination of company accountability for the *bios* and *zoē* deaths of victims of Nazi Germany. This study underscores the moral obligation to pursue comprehensive 'intelligent accountability' that addresses the full scope of corporate complicity in

systematic violence, ensuring that historical lessons inform contemporary understanding of corporate responsibility for financial, political and biological life.

Conclusion

While the primary blame for the Holocaust lies with Hitler and the Nazi ideology, businesses like Degussa should also bear accountability for their roles in the atrocities. Through the lens of thanatoaccountability, we delineate Degussa's progression from compliance with Nazi policies, such as Aryanisation and slave labour exploitation, to its direct involvement in the Holocaust by supplying Zyklon B for the 'Final Solution'. This trajectory demonstrates the critical need to scrutinise firms' actions during this era beyond mere survival motives and draw out the progressive loss of life experienced by victims of corporations following conventional accountability mechanisms rather than employing moral, ethical or intelligent accountability (Roberts, 1991). This is particularly pertinent for this case, where accountability for death was ultimately assigned to the other parent firm, I.G. Farben, with Degussa and its agents escaping prosecution. Our analysis reveals a systematic progression in which corporate practices facilitated distinct forms of destruction: first, the death of financial *bios* through economic exclusion and dispossession; next, the annihilation of political *bios* via forced labour and the reduction of personhood to mere productivity; and finally, the destruction of *zoē* through the mechanisms of industrialised mass murder.

Crucially, accounting played different roles at each of these thresholds. In the destruction of *bios*, accounting mechanisms – such as asset registers, ownership records and supplier documentation – became tools to identify, isolate and economically erase Jewish business owners and workers. In the transition to *zoē*, these same systems enabled the reduction of people to 'inputs', justified the use of forced labour and ultimately normalised their physical extermination as a calculable, routine business activity. The distinction between *bios* and *zoē* is thus not simply theoretical but enables the exposure of how accounting practices can serve, at different stages, both as instruments of exclusion and as machinery of annihilation.

Applying Agamben's concepts of *zoē* and *bios* through thanatoaccountability illuminates how corporate practices facilitated the transition from financial and political death to physical death. Degesch's involvement demonstrates how business systems and even their structure can become instrumental in transforming bare life into disposable material, processed through production schedules and efficiency metrics. This theoretical lens has revealed dimensions of corporate responsibility that remain invisible to conventional accountability frameworks. While traditional accounting metrics showed minimal financial gain from Zyklon B sales, representing only 2.7 per cent of Degussa's stock earnings (DUA BET 10/7), thanatoaccountability reveals how such measures fail to capture the profound moral and ethical implications of corporate participation in genocide. This framework demonstrates how organisational structures, business practices and profit motives can become deeply implicated in the mechanics of mass death, even when financial benefits are minimal, and human life becomes subordinate to business considerations.

Thanatoaccountability demands recognition of corporate agency in facilitating state violence, even when actions are legally sanctioned, and calls for the development of accountability mechanisms that can address the full scope of corporate responsibility for human suffering and death. The critical element in utilising thanatoaccountability, given the context of Nazi Germany, has not been compliance or adherence to policy but rather decisions that can still be judged as morally reprehensible and outside the necessities of business practices at the time. Utilising thanatoaccountability as a framework can serve as a vital reckoning of company actions, advocating for a nuanced understanding of intelligent accountability that extends beyond financial accountability. It should be

noted that Degussa is still in operation today as the second-largest chemical company in Germany, manufacturing household products such as Plexiglass®, diversifying into fields such as banking (operating over 250 branches across Germany) and even supplying plasticiser and anti-graffiti coating used for the Holocaust Memorial in Berlin (Evonik, 2023). Conventional accountability has not hindered Degussa's operations post-WWII.

The framework of thanatoaccountability extends accounting scholarship in three fundamental ways. First, it builds upon notions of biopower and thanatopolitics by demonstrating how corporate entities operated within what Agamben (1995: 131) describes as the 'constant need to redefine the threshold in life that distinguishes and separates what is inside from what is outside'. Our analysis reveals how Degussa's actions transcended mere compliance with State ideology to become active participants in creating 'caesuras between the people and the population' (Genel, 2006: 56). This theoretical advancement enriches recent work on thanatopolitics in accounting (Twyford, 2018; 2021) and necropolitics (Moerman and van der Laan, 2022) by demonstrating how corporations navigated the intersection of state power and profit-seeking behaviour.

Second, our framework responds to Roberts' (1991, 2009) call for intelligent accountability by providing analytical tools that capture corporate responsibility for the financial, political and biological dimensions of death that transcend conventional financial metrics and hierarchical accountability structures. While existing literature has explored various forms of accountability (O'Loughlin, 1990; Roberts and Scapens, 1985; Sinclair, 1995), thanatoaccountability introduces a critical dimension by examining corporate responsibility for the death of *bios* and *zoē*. This theoretical distinction proves particularly revelatory in analysing how corporate complicity operates across different registers of life and death, giving credence to Moerman and van der Laan's (2022: 2-3) assertion that 'death is nuanced, situated, contextual and ubiquitous' and demonstrating 'that life and death, even as binary absolutes, are social practices'.

Third, our analysis enriches critical accounting scholarship that seeks to hold power holders accountable for marginalising others through exploitative structures (Agyemang, 2024; Dillard, 1991). Our analysis of Degussa's Zyklon B deployment demonstrates how corporate actors could simultaneously attempt to maintain profitability while absolving themselves of moral responsibility for the actions needed. This finding supports Rached's (2016) argument that formal measurement techniques and regulations often produce partial and narrowly defined accountability, privileging economic and performance-based logics over ethical considerations.

This study calls for expanded research into corporate accountability within and beyond the Nazi regime, emphasising the importance of contextual and non-financial documentation in uncovering the full scope of corporate involvement in human rights violations. Thanatopolitical ideology continues to pervade contemporary society and, concerningly, is taking on new forms. Thus, thanatoaccountability is relevant now and in the future. By applying thanatoaccountability to both historical and current contexts, this framework not only enriches our comprehension of the Holocaust and other historical instances of death but also informs our ongoing dialogue about corporate ethics, accountability and the preservation of human dignity in the face of oppressive regimes.

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Supplemental material

Supplemental material for this article is available online.

Notes

1. The acronym of AG Deutsche Gold-und Silber-Scheideanstaltvormals Roessler was used as a timesaving measure for typists.
2. DUA abbreviation matches the identifying markers for documents in this archive to ease future research that wishes to use these sources. See Appendix 1 for a list of sources used.
3. See Appendix 3 in supplementary file for a list of key people.
4. The Wannsee conference that was held in Berlin on 20 January 1942 was attended by Reinhard Heydrich, chief of the Reich Security Main Office, who was responsible for the Einsatzgruppen who were members of the SS and responsible for the actual killing of Jews and others in occupied territory. Also at the conference was Adolf Eichmann. At his trial in 1961, Eichmann boasted that he had suggested 'these words "Final Solution". At the time I meant by this the elimination of the Jews … Later …. these harmless words were used as a camouflage for the killing' (Bauer, 1982: 207).
5. This peak was not because of a reduction in killings but because a factory had been bombed and production rates lowered (DUA BU Peters, 1955).

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Appendix 1

Evonik archive materials	*Classification*	*Summary*
DUA 3-D_2_16_Tabelle_4	Profit and Loss Statement	Profit and Loss, turnover, purchasing costs, Sales, administrative and general overhead costs, sales figures, total assets, for Degussa from 1935 to 1946
DUA BET 9/43	Sales and production statements	Sales and production information on Zyklon B 1936-1946
DUA BET 10/7	Table of Earnings	Table of Earnings for the Deutsche Gesellschaft 1924-1946

(Continued)

(Continued)

Evonik archive materials	*Classification*	*Summary*
DUA BR 1/12	Note	Note for tribunal proceedings against Dr. Peters
DUA BU Pross 1996	Document to add to the record	Pross's recollections on the use of forced labour, recorded and submitted in 1996
DUA BU Peters 1955	Court records	Court records from the trial of Dr. Peters
DUA DL 2/18	Memo	Memo concerning the use of Jewish and Aryan workers at Gleiwitz from October 1941
DUA DL 3.Busemann/4 (June 1933)	Meeting notes	Notes from meeting between Busemann and Mann on upcoming pharmaceutical boycotts
DUA DL 3.Busemann/4 (November 1933)	Meeting notes	Notes from the meeting between Busemann and Mann concerning Jewish influence in the pharmaceutical sector
DUA DL 11.5/21	Notarised announcement	March 1933, notarised announcement to declare Degussa had never employed Jewish workers
DUA IW 24.4/4	Correspondence	Letters between Busemann and Koppel concerning the initial takeover of Degea
DUA IW 24.4/6	Correspondence	Letter between Dr. Mayer-Wegelin and(Degussa) concerning the Auer/Koppel transaction
DUA IW 24.4/7	Correspondence	Letters between Busemann and Koppel concerning the takeover of Degea's remaining shares
DUA IW 25.5/3	Meeting Notes	Notes from a meeting between the Auergesellschaft representatives and Degussa representatives on issues pertaining to the balance sheet.
DUA IW 32.2/1	Memo	Discussing the increase in Zyklon production
DUA IW 46.4/1	Notes on the Abelmann takeover	Discussions on goodwill consideration, purchase price, and in which overseas operations Abelmann will take over management
DUA PCA 2/2, part 2	Commentary	Comments on the balance sheet about the Gleiwitz plant in 1944
DUA PCA 2/142	Correspondence	Letter between Dr. M. Stocker and Dr. Ernst Baerwind concerning the increase in Zyklon Production
DUA PCA 2/15	Note	Notes from Hilpert's visit to the Hydrocarbon plant
DUA PCA 2/18	Memo	Notes on the use of Jewish, forced, and Aryan labour comparing wage hours 1941-1943
DUA RFI 3.6/377	Sales figures	Zyklon, cyanide gas, and other chemicals sales figures
DUA RFI 3.6/436	Memo	Summary of discussions between Dr Fischer and Dr Baerwind on rebuilding the Auer
DUA SCH 1/44	Diagram	Diagram of the corporate structure of Degesch