‘REAL-EXISTING’ UTOPIA: CREATING A TECHNOLOGICAL CULTURE IN THE GDR 1945-1989

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‘REAL-EXISTING’ UTOPIA: CREATING A TECHNOLOGICAL CULTURE IN THE GDR 1945-1989

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In a system such as late-stage capitalism, so obsessed with individualism that collective work is considered less valuable, it would be easy to believe that a project such as this was done alone. But in reality, this work, like all work, was done in the context of a collective. My thoughts in this work were influenced by the books I read, the institutions I inhabited, the colleagues who workshopped with me, the advisors who looked out for me, and by the love and creativity of my friends and family. I want to take these pages and reflect on the collectives that brought me here and the kindnesses that made this dissertation.

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LIST OF ABBREVIATIONS

AMLO – Akademie der marxistisch-leninistischen Organisationswissenschaft (Academy for Marxist-Leninist Organizational Science)

BSG – Betriebssportgemeinschaft (Company Sport Association)

DDR – Deutsche Demokratische Republik (German Democratic Republic [GDR])

DFV – Deutscher Fußball-Verband der DDR (German Soccer Association of the GDR)

DHfK – Deutsche Hochschule für Körperkultur (German Academy for Body Culture)

DKSV – Deutscher Kanu-Sport-Verband (German Canoe Sport Association)

DS – Deutsche Sportausschuß (German Sport Commission)

DTSB – Deutscher Turn- und Sportbund (German Gymnastics and Sport Federation)

DWAG – Deutsche Werbe- und Anzeigengesellschaft (German Advertising and Visual Display Company)

FDJ – Freie Deutsche Jugend (Free German Youth)

FG – Forschungsgruppe (Research Group)

FKS – Forschungsinstitute für Körperkultur und Sport (Research Institute for Body Culture and Sport)

GST – Gesellschaft für Sport und Technik (Society for Sport and Technology)

HFO – Halbleiterwerk Frankfurt (Oder) (Semiconductor Factory of Frankfurt (Oder))

ISG – Industriesportgemeinschaft (Industry Sport Association)

JE – Jungeisenbahner (Young Railroaders)

JP – Jungpioniere (Young Pioneers)

KdF – Kraft durch Freude (Strength through Joy)

KdT – Kammer der Technik (Chamber of Technology)

KJS – Kinder- und Jugend Sportschule (Children and Youth Sport School)
LSK – Luftstreitkräfte der Nationalen Volksarmee (Air Forces of the National People's Army)

MMM – Messe der Meister von Morgen (Fair of the Masters of Tomorrow)

PIKO – Pionierkonstruktion (Pioneer Construction)

RFB - Roter Frontkämpferbund (Red Front Fighter Federation)

SBZ – Sowjetische Besatzungszone (Soviet Occupation Zone)

SED – Sozialistische Einheitspartei Deutschlands (Socialist Unity Party of Germany)

SKKS – Staatliches Komitee für Körperkultur und Sport (State Committee for Body Culture and Sport)

SMAD – Sowjetische Militäradministration in Deutschland (Soviet Military Administration in Germany)

SV – Sportvereinigung (Sport Association)

USSR – The Union of Soviet Socialist Republics

VB – Volkseigener Betrieb (Publicly Owned Enterprise)

WTR – Wissenschaftlich-technische Revolution (Scientific-Technological Revolution)

ZK – Zentral Kommittee (Central Committee)

ZPL – Zentrales Pionierlager (Central Pioneer Camp)
SUMMARY

My dissertation examines the genesis and evolution of technological utopianism in the German Democratic Republic (GDR). Throughout the state's existence, political leaders believed that technology offered the sole path to true communism, and attempted to create a shared vision of technological utopia while equipping the East German population with the skills to bring it about. In the early years of the state, communist culture was almost entirely future-oriented. However, with the change of power to Honecker in the early 1970s, East Germany attempted to strike a delicate balance between making the current moment tolerable and promising real change in the future. What resulted is what I term ‘Real-existing’ Utopianism, a culture that stressed the necessity of building a future utopia while simultaneously maintaining that the GDR already was one. My dissertation uses three case studies — education, hobbies, and sport — to trace the effects of ‘Real-existing’ Utopianism on GDR culture, with a focus on the dedicated state efforts to steer women toward technical careers.

The chapter on education examines the technological utopianism that defined GDR pedagogy. Textbooks in the GDR taught students the fundamentals of science in terms of future-building, while state curricula stressed the importance of science even within other disciplines — history, for example, was written as a story of technological development, the GDR its final culmination. Such educational efforts extended to youth groups like the Young Pioneers, where concepts of science and technology were introduced early through group activities, expeditions, and speeches. At the Jugendweihe (Youth Ceremony), East Germany’s replacement for Christian confirmation, young adults were given books of scientific and philosophical principles.
meant to guide their adult lives. Taken together, the pedagogical system of the GDR was entirely subsumed by the desire to build a future utopia.

My work on toys and hobbies focuses mainly on chemistry sets, building sets, and model trains, which had been popular pastimes in Germany since the Kaiserreich. In the GDR, however, play was explicitly meant to be constructive: state companies used packaging and instruction booklets to extoll the virtues of socialist technology and expected children to acquire technical skills from play. Toy aesthetics became more technologically utopian as well; some dolls for girls were dressed as steel workers, some toy cars painted like moon rovers. The state also attempted to emphasize technological play by instituting a yearly “Fair of the Masters of Tomorrow,” where young children presented what they had created in terms of how it could serve the future of their homeland. Thus, play in the GDR introduced the East German child to utopia.

The case study on sport covers the influence of technological thinking on athletics and the reciprocal effect of this influence on society. Much has been written on the East German doping scandal, but it fails to account for the program's deep roots in the state’s technological ideology. Even as the doping program was kept secret, athletes' victories at the Olympic games proved the efficacy of technology to the state. State apparatuses treated athletes, termed “test persons,” as scientific subjects, and sport as pure science, amenable to strict regulation, study, and experimentation. Sport was also used to generate interest in technical industries—with industry maintaining their own teams named for industries rather than regions.

I conclude by discussing how the paradoxical nature of ‘Real-existing’ Utopianism was a contributing factor to the downfall of the GDR. The East German state
sought to use the concept of utopia as societal cohesion, yet increasingly borrowed against future greatness to assuage current consumerist woes, wearing away at the promise's legitimacy. The GDR relied on brown coal as a primary energy source, for example, by promising that some undefined future technology would eventually replace it. Finally, the government’s overwhelming focus on science and technology while East Germany was embargoed from the technological community of the west disproportionately consumed the small country’s resources. Thus, from political theory to the substance of daily life, the idea of utopia had tremendous real-world effect on the GDR, its history, and its demise.
Chapter 1: Introduction

“The rationalist utopia is a power trip. It is a monotheocracy, declared by executive decree, and maintained by will power; as its premise is progress, not process, it has no habitable present, and speaks only in the future tense.”
- Ursula K. Le Guin, “A Non-Euclidean View of California as a Cold Place to Be”

1.1. Introduction

1.1.1. A Future that Never Was

This dissertation is about a utopia, a future, that never was. During its short lifespan from 1949-1989, the German Democratic Republic (GDR or East Germany) was an experiment with the concept of building a better future. Throughout the full duration of East Germany, the state sought to construct a collective imaginary turned toward future possibility. Many of the leaders and citizens of the nascent socialist state remembered all too well the Nazi persecution of communists, their liquidation in concentration camps or their exile from their homeland. Thus, the past was something to be left behind rather than cherished. But the present too was far from comforting. Living consistently in the shadow of their richer, more successful Western sister, the East often found itself perceived to be the lesser half. Thus, the GDR crafted a rhetoric that foretold future greatness. This rhetoric promised an alleviation of want and the final triumph of socialism by way of unchecked technological advance. Technology became synonymous with a socialist future, leading the state to invest massively in industrialization,

mechanization, and cybernetics. Discussions of the future promised the elimination of drudgery from human work and the final conquering of nature. The state, in a country now spangled with automatic factories and apartment homes for all, crisscrossed with clean and speedy public transit, would finally wither away, leaving behind full communism. Socialist technology, then, was poised to bring about utopia.

Of course, this future was never to occur. Rather than the gleaming technological future that was promised, the GDR was consumed by the Federal Republic of Germany, reunited into the Germany we have today. However, to dismiss the GDR simply because it failed is to dismiss the concept of experimentation entirely. Despite its ultimate downfall, the GDR was never an experiment unarticulated; it was meticulously planned, so much so that to the ruling Socialist Unity Party of Germany (Sozialistische Einheitspartei Deutschlands or SED), its downfall seemed arbitrary, mistaken. Despite the reward structures of modern science, there is in fact as much to learn from a failed experiment as a successful one. For one, in failure, we can learn what did not in fact function with the hopes that we will not senselessly repeat the same mistakes. Similarly, the rubble-heap of history can be scavenged for parts, picking up the wires and cogs that worked, leaving behind what did not. Finally, past images of the future can grant us a new way of thinking of our own. When concerned with our own historical vectors, we can look to these past futures to both identify how things could have been different and to see where we went astray.

This dissertation explores the technological utopianism of East Germany to better understand the real-world effects that a concept of a future can have on a state. While those who foresaw a future of communist supremacy were incorrect, there is still value in their vision and historical significance in their thought. As Howard Segal phrased his reflection on the importance of a study of utopia, “Every social group needed an explanation of reality, and the explanation that developed and was then inculcated had enormous impact upon the thoughts, feelings, and behavior of its adherents.” For the GDR specifically, Franziska Becker and Ina Merkel stated that “The concept of utopia served two functions in the GDR: it served to legitimize the project whose citizens did not choose it and also served as an exit point for all criticisms of the current situation.” Furthermore, early utopianism acted as a sort of “start over point” in the face of Nazi crimes. Thus utopia helped citizens of the GDR go on with their lives in the face of the unthinkable. Utopia, then, made life livable in the GDR, both in the sense of moving away from Nazism and moving toward the hope of something better in the future.

Thinking about utopia, the articulation of a better future, has become increasingly rare in our current age. As thinkers like Franco “Bifo” Berardi have articulated, our post-Soviet Union world lacks a collective image of a better world in the future. Even if the Eastern Bloc was far from paradise on Earth, its sheer existence served as a reminder that a different world was possible. Workers’ rights, the New Deal, the improvement of

4 Howard P. Segal, Technological Utopianism in American Culture (Chicago: Univ. of Chicago Press, 1985), 5.
5 Becker et al., Das Kollektiv bin Ich, 7.
6 Ibid, 8.
infrastructure in the United States was done against the specter of the Soviet Union, the need to prove that one system was better than the other. In our late stage of capitalism, on the brink of environmental collapse, only barely crawling out from a global pandemic, with no real alternative left, we lack an image of a future where things get better. In Robert Elliott’s words: “We will never again be able to create imaginative utopias with the easy confidence of the nineteenth century,” however, “Without goals (even if limited goals), without an image of the good life before us, we flounder.”8 Therefore, in the face of the void, we must return to past futures, see how our ancestors saw their way out from a present that was, in a large or small way, flawed.

In this way, the study of past utopias also illuminates their present moment. As Darko Suvin noted, all visions of the future tell us something about the present.9 And as Oliver Sukrow articulated in his own study of East German utopianism, utopia is not just space-bound, “it is timebound.”10 Studying the futures of the past is a methodology of plumbing history. These images of the future tell us the values of the society that begat them, illuminate the problems that society sought to solve, and also illustrate what the society in question saw itself having already achieved. In sum, as articulated in the introduction to Utopia/Dystopia, “Utopia, dystopia, chaos: these are not just ways of imagining the future (or the past) but can also be understood as concrete practices through which historically situated actors seek to reimagine their present and transform it

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8 Elliott, The Shape of Utopia, 75.
into a plausible future,” and, “We hope to examine utopias (and dystopias) not for what they tell us about an intellectual construct in assorted individuals’ heads but rather for what they reveal about a set of abiding concerns and cultural formations that generated both the desire for utopian transcendence and the specific form that utopia/dystopia took.”\textsuperscript{11} As we will see, East Germany entangled itself and its future deeply within the concept of technology and science, always intermingled with concepts of building socialism in a uniquely East German way.

The articulation of the East German future through the joint utilization of science and technology and the ideologies of socialism is the subject of this dissertation. I examine a series of cultural nodes (education, toys and hobbies, and sport) as case studies of a sociotechnical imaginary, to borrow a term from Jasanoff and Kim.\textsuperscript{12} They define a sociotechnical imaginary as “collectively imagined forms of social life and social order reflected in the design and fulfillment of nation-specific scientific and/or technological projects.”\textsuperscript{13} This sociotechnical imaginary existed as a collective image of the future, meant to both inspire young citizens of the GDR to believe in the guidance of the state to build a future utopia, but also to impart the technical engineering and science skills needed in the population to actually bring that future about. I term the collective result of these state efforts “‘Real-existing’ Utopianism,” or a utopianism that was carefully managed by the SED, shifting with political changes within the GDR and beyond as well.

\textsuperscript{13} Jasanoff and Kim.
as with developments in technology. ‘Real-existing’ Utopianism is also shorthand for the totality of GDR future-engineering; it includes not only the deep focus on science and technology, but also the importance of including women in the construction of the future, the promise of the elimination of human drudgery, and the mastery over nature. The full articulation of the term will be explained in the sections below.

Taken together, this dissertation seeks to answer a few core questions. Namely:

How did the East German state collectively imagine the future? By what means did the ruling body of the state get the population to believe in that idea of the future? What skills did the state deem necessary for constructing that future? How did the concept of utopia change over time? What were the factors that changed it? What were the real-world effects of this idea of the future? How did a concept of technological future contribute to the ultimate failure of the East German project? And, finally, what can the past visions of the future of the GDR teach us about our own future?

1.1.2. Summary of Work

This study is comprised of five chapters. The remainder of this chapter is spent further defining ‘Real-existing’ Utopia and how technological utopianism manifested itself in the GDR. Here I address the unified concept of utopia as an image across the culture, and how that sociotechnical imaginary changed over time. Of course, it was impossible to get every individual in East Germany to believe in the state’s version of technological utopia, but that does not mean that its existence did not have a real consequence on action. Even if individuals didn’t actually believe in such a future, they were expected to act as such. Therefore, I explore what the state hoped the citizens would come to believe, but also thereby the strictures by which they were to act. This chapter
also delves into the state of research on East Germany, the study of its technology, and specifically the study of the concept of utopia in the GDR. I identify my engagement with the literature and how my own work fills a gap in the literature. Finally, the chapter concludes with clarifications of terms and general remarks on the context from which this dissertation is written.

The second chapter examines the scientific-technological dialectic present in curricula and education practices. The education system in the GDR was both the purveyor of technological culture and the result of it. Of course, textbooks taught students the fundamentals of science. But more than that, they explicitly stated how to use the student’s budding scientific skill in service to the state. State curricula, starting in the post-war Soviet zone, evolved to become increasingly obsessed with the idea of activating a scientific-technological culture. So much so, that in the twilight years of the GDR, even humanities were to be done in a scientific mode with the intention towards revolution. This was particularly true of history education. While education in science and technology of course taught students the technical skills needed for building a technological future, history education created the ideological underpinning for advancing the notion of it. History, always the official mythmaking of a state, served therefore as the groundwork justification for building the East German state.

Furthermore, the East German concept of technological education was not limited to the classroom. Rather, the GDR viewed all state sponsored activates as potential educational mediums. Primarily, the Jugendweihe (Youth Ceremony), East Germany’s stand in for Christian confirmation, equated becoming an adult with a commitment to science, gifting the young adults textbooks of scientific and philosophical principles
meant to guide their adult lives. The second half of the second chapter therefore deals directly with the *Jugendweihe*. First, I explore how preparation for the ceremony was used to further cement the notion of future GDR technological greatness. Thereafter, I analyze the rhetoric of the gifted textbooks, tracing how the notion of the future technological utopia changed over time, be it through technological change or political shifts. Taken together, history education and Jugendweihe rhetoric exemplify the main tenants of technological utopianism in the GDR and how the state sought to manage the expectations of that utopia as politics, technologies, and times changed.

The official arms of the state were of course not the only lines of indoctrination into the GDR’s scientific-technological culture. The third chapter presents another mode of acculturation: toys and hobbies. This chapter focuses mainly on “educational toys,” or toys such as chemistry sets, building sets, model trains, or computer toys. These toys were meant to not only impart the skills necessary for being a scientist or engineer, but also to foster an excitement for the technological revolution. Rather than simple “useless” play or “idle” hobbies, educational toys in the GDR were built to explicitly join an excitement about the future together with the development of the skills necessary to create it. Through the packaging, marketing, and instruction booklets, the East German state sought to manipulate educational toys to depict a socialist image of things to come. Furthermore, the state saw educational toys as a way to nurture budding technical talent, as building toys introduced the geometrical, spatial, and physical reasoning necessary for an engineer. The state companies used the packaging and instruction booklets as to extoll the virtues of socialist technology, and advertisements to depict young men and women enjoying these small technologies. However, it was not simply the explicitly
technological toys that were outfitted to serve the scientific-technological revolution. Dolls meant for young girls came dressed not as Barbie, but instead dawned steel worker uniforms or accessorized with farming technologies. Finally, the state attempted to capitalize on technological play by instituting a yearly Fair of the Masters of Tomorrow *Messe der Meister von Morgen*. The fair gathered the young minds of the state together to both create and celebrate new technologies that were deemed “necessary for the advancement of the socialist state.”

Chapter four is a study of the technological influence on sport and sport’s reciprocal effect on society. During the relatively brief lifespan of the GDR, the East Germans funneled money and expertise into technological projects abroad. And while the display value of these artifacts was undeniable, it proved rhetorically difficult to claim a definable “victory” from them. This was not the case with sport. At its height, East Germany won more Olympic medals per capita than any other country, collecting 409 Summer Olympic medals over 5 participations. However, as would later be discovered, perhaps the largest factor in East German success was the massive, state operated doping program meant to engineer the best possible Olympic athletes. Much has been written on the East German doping scandal, but what has been written fails to realize that the impetus for the massive program had deep roots in the technological ideology of the culture. Even if the doping program was kept secret, the victory of the athletes at the games proved the efficacy of technology to the state. The entire culture of sport in East Germany was shot through with a scientific-technological agenda. State apparatuses treated sport as a pure science, one amenable to strict regulation, measurements, and experimentation, while treating athletes, termed *Versuchspersonen* or “test persons,” as
scientific subjects ready to be improved upon by technology. The structures of elite sport in the GDR sought to re-engineer humans into sporting machines: maximized output balanced against load-bearing capabilities, humanity recast as questions of engineering rather than humanity. Elite sport was also a site of acculturation for women specifically. Of the Olympic gold medalists, the vast majority were women, as the state provided both the material and rhetorical support for the development of physical abilities of women. Indeed, the East German Olympic domination in women’s sports was seen as an Eastern victory generally.

Sport was also used to generate interest in technical industries. Rather than name a local team for the region, East German sports teams were named for industries, such as SV Steel Workers or SV Railroad Workers. Sport teams were created for individual factories, with the express aims to keep the workforce in shape and to generate a spirit of camaraderie. The everyday sport of the GDR was not as dedicated to the transformation of the human body, but rather strove for the hearts and minds of its citizens. Sport, done in the shadow of industry, should inspire workers to continue to work towards the future of the state and its various technical projects.

My final chapter first places the East German project against the historical concept of utopia and traces its origins. Within the first handful of pages of Der Sozialismus – deine Welt (Socialism – your World), a textbook given as a gift during the Youth Ceremony of the GDR, comes an article entitled “The Age-old Desire of Mankind.” The article ponders the history of the concept of utopia, congratulating Thomas More for imagining a better world, Saint-Simon for his ingenuity, and Bacon for advancing the notion that science could be the lever of utopias. The author then wonders,
how, given the history of utopian thinkers, has there never been a ‘real-existing’ utopia? He answers that while all these thinkers may have had the right idea, they never had a state to back them. Only now, with the full support of the East German state, can utopia begin. This chapter therefore asks how East Germany was able to justify subordinated personal liberties to a larger social agenda as well as how that notion changed as technologies changed. Early East German notions of the world of tomorrow were atomic based, imagining infinite energy to power machines to replace human labor. As technology changed, the focus of the future moved to cybernetics, plastics, and finally the computer as utopian signifiers. By tracing the linages of the concept of socialist utopia, one can get a better sense of how the East German state envisaged itself as an existing entity.

The chapter also looks to the utopian philosopher Ernst Bloch as an example of how the East German promise of utopia lead to disappointment rather than achievement. Bloch, himself an East German professor, eventually fell from the graces of the SED and was forced to leave for West Germany. Both his life and philosophy of utopia exemplify how the realities of East German utopianism left many disappointed, that while a different East Germany was always possible, the ‘real-existing’ GDR was not what was promised.

By the same measure, my dissertation concludes by asking the question of the usefulness of utopia. Thinkers like Ursula K. Le Guin and George Orwell have invoked the question of the purpose of striving for utopia in the first place. Can an entity as imperfect as a human ever inhabit a place that is by definition “perfect?” For whom is a given time or place ever “perfect?” But if utopia is something that cannot and perhaps
should not exist, what is the point of studying it in the first place? I answer these questions by reflecting on the GDR both as a warning and a hope. The technological utopianism of the GDR left questions of environmental damage unchecked for favor of the concept of eventually building some sort of undefined technology in the future. This technology would retroactively solve for the damages done by the brown coal that powered the GDR, rhetorically allowing the GDR to excuse its behavior in the present by promising a future. In a world threatened by total environmental collapse, staved off only by more vague promises of technology, we citizens of the present can learn from the damage this caused to East Germany.

Finally, taking to task the question of the usefulness of striving for something as impossible as utopia, I return to the technological utopianism of East Germany as a message of hope. Even if the promise of a world without drudgery, with work automated, nature conquered, and the comforts of life provided for never came to fruition in East Germany, the image of the future as a positive place still maintains tremendous value. In the final throes of late-stage capitalism, the Soviet Union a distant memory, it becomes tremendously easy to think there is no escape from the structure of the world that we live in. We no longer have a collective idea of hope in the future; we maintain that the future is bleak and we are powerless to stop it. Without the hope that things can get better, how will we ever awaken within ourselves the power to stop it? Will we, us lonely creatures on the precipice of global warming-fueled environmental collapse, ever live to see a utopia that really exists, or are we eternally damned to a “real-existing utopia”?

1.2. Literature Review

1.2.1. East Germany in Context
This dissertation is built from scholarship on East Germany. My own work exploring the technological utopianism of East Germany draws primarily from three different aspects of GDR historiography: general histories, histories of technology, and histories of utopianism of East Germany. First, of course, I draw from larger, general histories of East Germany. The historiography of the German Democratic Republic tends to follow a rough chronological vector. Contemporaneous scholarship done during the GDR’s existence, given the secrecy of the regime and its penchant for falsification, tended to try and divine some reality on the subject through its veneer of propaganda. For example, Andreas Dorpalen’s *German History in Marxist Perspective* attempts to draw conclusions about East Germany’s own historiography and thereby their own mythmaking through historical resources that were available beyond the wall.\(^{14}\) Other joint histories of Germany, like Volker Berghahn’s *Modern Germany* attempted to sketch an image of the then present East Germany by looking to Germany’s joint past; how had industrialization happened differently in Germany and how could that have contributed to the two separate Germanys?\(^ {15}\) Finally, researchers like Raymond Bentley used external observers like the World Bank as the lens through which to assess the status of East Germany’s success as a nation.\(^ {16}\) Each of these approaches, using available East German materials, drawing out vectors of the past into the present, or using political-economic entities as resources of assessment were naturally limited. East Germany was largely

\(^{14}\) Andreas Dorpalen, *German History in Marxist Perspective: The East German Approach* (Detroit: Wayne State University Press, 1988).


closed off to critical investigation from within. And while this work was interesting in its own right, scholarship on East Germany really exploded open with the fall of the wall. With the government gone and with most files intact and open to the public, a new era of scholarship began, for one could now ask what had truly transpired.

Scholarship done in the early post-wall era was largely a scholarship of indictment. As Paul Betts pointed out in *Within Walls*, the first wave of post-Wall scholarship was written by those who were persecuted by the East German state and wanted to bring to light what had happened.\(^{17}\) Thus, early archival explorers were quick to flesh out the misdeeds of the GDR. Almost immediately after the fall of the wall, individual Stasi records became available, internal party minutes and directives were now for the first time offered to the public. Some found evidence of their own families reporting on them to the Stasi. Others found the real histories of loved ones who had disappeared. What resulted was an indignant scholarship, one meant to hold East Germany accountable for its crimes. Of course, such scholarship appeared on a spectrum. On one end, works like Jens Gieseke’s *Das Mielke-Konzern: Die Geschichte der Stasi 1945-1990* (Reprinted as *Die Stasi 1945-1990*) explored the crimes of the Stasi without making a massive value judgement for the entire concept of socialism.\(^{18}\) At the other end of the spectrum came books like John Koehler’s *Stasi: The Untold Story of the East German Secret Police*, where the author, himself a Cold War US Army intelligence officer, attempted to paint East Germany (and communism generally) as worse than the

\(^{17}\) Betts, *Within Walls*.

Nazis.\textsuperscript{19} These works did indeed achieve their goal of calling for recognition of the misdeeds of the GDR. However, in doing so, many often obscured positive aspects of the GDR, simplifying the whole East German project into broad-stroked negativity. In reality, no state, person, or entity is ever entirely good or bad, rather somewhere on the spectrum in between.

The early historiography of the GDR was also an era of ‘victor’s history,’ a type of history done when the victorious party gains control over the narrative of its former rival and can rewrite its history as they see fit. As West Germany engulfed the former East, the narrative of East Germany often became a narrative of oppression and dictatorship, one without the subtleties of the lived experience of the everyday East German. For example, Jeffrey Kopstein’s \textit{The Politics of Economic Decline in East Germany, 1945-1989} discussed the history of East Germany as a foregone conclusion: it was always to fail, the question was simply how did it last as long as it had?\textsuperscript{20} Much along the same lines, André Steiner’s \textit{The Plans that Failed: an Economic History of the GDR} sought only to decry the fallacies of a centralized economy, its inability to read price signals and to quickly adapt to new market trends.\textsuperscript{21} Many former Ossies did not see themselves in these histories, and a countermovement began to represent the everydayness of East German life.

After having proved that East Germany was a state worthy of antipathy, there began a movement of *Alltagsgeschichte*, or ‘everyday history.’ As Eli Rubin noted, moving beyond the histories of simple totalitarianism led to more sophisticated techniques of history.\(^{22}\) This new sort of history of the GDR sought to address the growing feelings of *Ostalgie*.\(^{23}\) *Ostalgie* was itself a growing movement, replete with pickles presented in GDR style packaging, dances to East German music in GDR music halls, GDR fashion shows, and even a recreation of an East German supermarket.\(^{24}\) These new histories asked why, if a state was entirely awful, would any of its former inhabitants yearn for its existence? Instead of blanket reprehension came searches for subtlety, attempts to represent history as it was experienced by those who lived it. Paul Betts and Katherine Pence’s edited volume *Socialist Modern: East German Everyday Culture and Politics* actively called into question the representation of East Germany in museum culture and history, challenging simple victor’s histories and turning instead to everyday citizens to offer their own stories.\(^{25}\) Similarly, the work of Andres Ludwig in *Forschritt Norm und Eigensinn* and *Alltag und soziales Gedächtnis: die DDR-Objektkultur und ihre Musealisierung* asked how the everyday existence of former Ossies was not only represented in the post-Wall world, but also how the citizens themselves saw everyday

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\(^{22}\) See introduction in: Rubin, *Synthetic Socialism*.

\(^{23}\) *Ostalgie* is a portmanteau of the German words *Ost* meaning East and *Nostalgie* meaning nostalgia.


life in their foreclosed country. Similarly, Thomas Großbölting’s *Friedensstaat, Leseland, Sportnation? DDR-Legenden auf dem Prüfstand* offer varied studies on the reality of everyday life in East Germany ranging from sports to factories to fashion, cast in a form to directly confront myths about the GDR and offer instead everyday representations. Furthermore, both *Within Walls* by Paul Betts and *Anatomy of a Dictatorship: Inside the GDR 1949 – 1989* by Mary Fulbrook offer comprehensive overviews of everyday life in the GDR, allowing for a better understanding of life as it was lived in the GDR.

With the advent of *Alltagsgeschichte*, the space was opened up for more varied studies of the former GDR, from specific studies of technology or gender to more nuanced studies of the socialist command economy. Berhoff and Balbier’s *The East German Economy, 1945-2010: Falling Behind or Catching Up?* exemplifies the latter, itself a comprehensive study of how the East German economy developed, from which I begin to trace how the lack of natural resources in the GDR helped to create a technological trajectory for the country that was difficult to undo. No longer needing to prove that the East was destined to fail, the space for works like Eli Rubin’s *Amnesiopolis: Modernity, Space, and Memory in East Germany* began to appear. The book, a study of the utopian city of Marzahn, explored how the East German need to

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29 Berhoff and Balbier, *The East German Economy, 1945-2010*. 
create the myth of creating a new future helped to erase the history of the Nazis and the so-called imperialist Germany before it.\textsuperscript{30} As I will discuss below, this newfound focus allowed for the study of both East German technology and concepts of utopianism.

This rough timeline is precisely that, rough. All of this is not to say that subtle studies of the GDR did not at all emerge during the first years without the wall or that simplistic victor’s histories of the GDR are not still being written. Rather that these were large, broad trends of scholarship of East Germany from which my current study derives. As with East Germany itself, there is much to be gleaned from both experimentation and failure. Without them both, this study would not exist.

1.2.2. Technology in East Germany

My work is also deeply indebted to the existing scholarship on East German science and technology. As mentioned above, scholarship on East German technology largely did not exist until the foundational groundwork was laid; general histories of East Germany forged the pathway toward more specialized histories of technology. This is not to say that no such histories existed at all, indeed one of the earliest studies of science and technology in the GDR was \textit{Science under Socialism}, edited by Kristie Macrakis and Dieter Hoffmann.\textsuperscript{31} In \textit{Science under Socialism}, the authors asked the fundamental questions of how science and technology were created in the GDR, how the concept of the coming ‘scientific-technological revolution’ influenced East German culture, and how one is to judge the quality of science and technology, thereby calling into question the simplistic narratives of the failure of the GDR. Similarly, Kristie Macrakis’s \textit{Seduced by

\textsuperscript{30} Rubin, \textit{Amnesiopolis}. \textsuperscript{31} Kristie Macrakis and Dieter Hoffmann, eds., \textit{Science under Socialism: East Germany in Comparative Perspective} (Cambridge, Mass: Harvard University Press, 1999).
Secrets again challenges the concept of the GDR as a technological failure by lauding the advancement of East German spy craft technology.\textsuperscript{32} Again, the question of how to judge the quality of technology comes to the fore, where the GDR perhaps lagged technologically, they stood at the cutting edge of other arenas.

In addition to the nuanced work of *Science under Socialism*, some studies of East German technology offered only a new realm by which to trace the GDR’s prescribed doom. Raymond Bentley’s *Technological Change in the German Democratic Republic* is one such example, where technology is reduced down to output numbers of certain goods. Continuing this trend in *Research and Technology in the Former German Democratic Republic*, Bentley uses the GDR’s inability to produce certain consumer goods as a talisman of the East’s long foretold failure; the East was doomed from the start because it never could provide enough cars and microwaves for its citizens.\textsuperscript{33}

Following once again a rough chronology, later histories of technology of the GDR began to pull away from prescribed declarations of failure toward a deeper attempt to study how technology influenced East German society. For example, Peter Caldwell’s book *Dictatorship, State Planning, and Social Theory in the German Democratic Republic* noted “the regime sought to ground its legitimacy in technological progress. Technology was to render old questions of theory irrelevant.”\textsuperscript{34} Throughout, Caldwell notes that technology was a primary driving force for the East German state. Similarly,

\footnotesize{34} Peter C. Caldwell, *Dictatorship, State Planning, and Social Theory in the German Democratic Republic*, Digital pr (Cambridge: Cambridge Univ. Pr, 2006), 13.
Dolores Augustine’s *Red Prometheus* delves into the question of women’s participation in the technological and engineering infrastructure of the GDR, from which I draw upon her understanding of gender as something co-created by the need to create technology.\(^{35}\)

Newfound space for studying the nuance of GDR technology also led to hyper-specific studies of subsections of technology such as Peter Salomon’s *Die Geschichte der Mikroelektronik-Halbleiterindustrie in der DDR* and Ulrich Berger’s *Frust und Freude: die zwei Gesichter der Gesellschaft für Sport und Technik*, the first a study of semiconductors in the GDR and the tremendous effort put into creating an industry on East German soil, and the second an in-depth look at the Society for Sport and Technology, connecting technology to sport and showing how sport was used to manage expectations about the GDR.\(^{36}\)

Still later works have begun to trace the connective tissue between science and technology in the GDR and the creation of a unique East German culture. For example, Eli Rubin’s *Synthetic Socialism* takes up the question of plastic in the GDR and how the material was given semi-messianic cultural status. As East Germany lacked the natural resources to replicate other Western rivals in the creation of consumer goods, plastic came to replace wood or metal as the material for chairs and cups and the like. Rhetorically, plastic also came to represent a material of the future: it was indestructible and permanent, but malleable; it could be melted anew into any form imagined.\(^{37}\)

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\(^{37}\) Rubin, *Synthetic Socialism*. 
such as Rubin’s began to connect the concept of technology with the concept of utopia, the future of the GDR as seen in East German culture.

1.2.3. Utopianism in East Germany

Finally, my dissertation on the technological utopianism of the GDR builds upon the existing studies of utopia in East Germany. Studies of past utopias are few and far between. This is doubly true of small nations such as the former GDR. However, the few studies of utopianism of East Germany have laid the groundwork for my own understanding of what thinking about the future meant for the East German state. Of particular note is the Dokumentationszentrum Alltagskultur der DDR’s *das Kollektiv bin ich*, edited by Franziska Becker, Ina Merkel, and Simone Tippach-Schneider. The collected studies of utopia that make up *das Kollektiv bin ich* offer invaluable insight into the usage of the idea of utopia in East Germany as a tool for banishing any critique of the then-present into the future and as an erasure of Nazi past. Individual chapters such as Dietrich Mühlberg’s “Alltag und Utopie: Gedanken bei einem Rückblick auf die ostdeutsche Geschichte” and Ulrike Helwerth’s “Kann man in Hoyerswerda küssen? die Schriftstellerin Brigitte Reimann (1933-1973)” offer important glimpses into the lives of individual East Germans and how the state influenced their own visions of what was to come and how technology could bring that future about.\(^{38}\) I also appreciated that the editors saw their book as starting a conversation about the concept of utopia in East Germany, a conversation that I am eager to participate in. In their words, “This book is a

beginning. It could, so we hope, open a new discussion. Not only on the concept of
different understandings of living in the GDR, but also about shared future
imagination.”

Oliver Sukrow’s book is perhaps the best existing overview of utopianism in the
German Democratic Republic. Despite focusing on art and architecture, his book does an
excellent job in realizing that technology was a primary driver both of East German
society and of the utopianism that categorized it. In Sukrow’s estimation, there was no
precise definition to utopia in the GDR, but it could “be understood as a time-space
bound alternative plan to something deemed presently lacking.” He argued that utopian,
future images served as a sort of cultural adhesive that led to a sense of stability in the
present time. In his study on pictural art, he argued that works of art, particularly those
with a positive image of the future, have a stabilizing function, with not only an
intellectual but emotional force of the power of the present to bring about the future.
Sukrow argued that the drive for utopia and the usage of technology to bring it about was
implicit in Marxism itself, as the desire to control the future categorized the 19th century
which Marx was writing. Indeed, this utopianism coupled itself with technology within
the concept of the scientific-technological revolution, taking up the mantel of the third
industrial revolution that Marx predicted. The scientific-technological revolution was

39 Franziska Becker et al., eds., Das Kollektiv bin Ich: Utopie und Alltag in der DDR
(Köln: Böhlau, 2000).
41 Ibid, 30.
thereby poised to change the whole culture of the GDR as Marx predicted, bringing about
the utopia of full communism.44

Other studies of utopia touch upon various aspects of my own dissertation. For
example, Ulrike Breitsprecher explores the concept of East German utopianism through
the lens of the Jugendweihe or Youth Ceremony. She does an excellent job of revealing
the utopian underpinnings of the secular replacement for Christian confirmation, while
also seeing the divide between the utopianism of Ulbricht and Honecker. She notes that
the Jugendweihe reflected the general state rhetoric of utopianism, with later stage East
Germany retracting some of the utopian fervor of years prior.45 Similarly, Juliane
Brauer’s excellent study of play and the history of emotions in the GDR also explores the
concept of utopianism and technology. She notes that play in the GDR often connected
concepts of space travel and technological development.46 Much in the same vein, my
work in the same volume connects play and technology to the sociotechnical imaginary
of the GDR. Finally, I am also indebted to the work of Martin Sabrow and his discussions
of the “utopian decade” of the GDR. Sabrow marks the 1960s as the pinnacle of GDR
utopianism, with new experiments with academic freedom such as the New Economic
System eventually giving way to the retrenchment of pseudo-Stalinist reforms of the

45 Breitsprecher, “Zukunftsdenken in der DDR am Beispiel der
Jugendweihe. "Vorbereitet auf das kommunistische Morgen."”
46 Juliane Brauer et al., Jahrbuch für Historische Kommunismusforschung 2021:
Schwerpunkt: Spielen im Staatsozialismus. Zwischen Sozialdisziplinierung und
Vergnügen, 2021.
Honecker era. He also names GDR utopianism as a “legitimation” force, and thereby highlights the importance of studying past futures in the first place.⁴⁷

In totality, I draw upon these existing histories and theories of the German Democratic Republic as the groundwork for my own study of the short-lived state’s technological utopianism. All of the scholars mentioned above, even those dedicated to proving that East Germany was nothing more than a mistake doomed from the start, found value in studying the small nation. Each one knew that the study of its failure still holds tremendous value.

1.3. Notes on Methods

1.3.1. Clarification of Terms

It should be noted that my intention is in no way to write a letter of apology for East Germany. Its crimes were real and numerous. During its existence, East Germany oversaw the imprisonment and torture of numerous dissidents perpetuated by relentless surveillance and culture of informants. It was home to a clandestine doping operation that left athletes with numerous health problems both mental and physical. It was complicit in Stalinist purges both in the refusal to disavow his actions and in persecution of its own peoples. It built a wall to seal in its citizens and revoked the freedom to travel. East German border guards shot wall-jumpers, government bodies banned books, allowed Soviet tanks to quash real worker revolution, and poisoned the landscape with brown coal

soot and smog. The excesses of the East are not to be forgotten. One should read this book with their victims and crimes in mind. However, existing scholarship has done due diligence in setting East Germany in the pillory. While it is indeed worth pointing out, this work will not spend much time retrying East Germany for its crimes.

There are a few methodological and terminological acknowledgements that should be addressed before moving forward. First, in the spirit of the work of Atanasoski and Vora, there was of course a whole (so-called third) world outside of the Eastern bloc and the Western capitalist self-proclaimed protagonists. Their stories are important and necessary, but they are not the focus of this study. However, East Germany’s technological utopianism did occasionally abut these countries. The GDR often cast itself as friend to downtrodden lands ravaged by capitalist imperialism, and did actively participate in some technological projects abroad. As such, I will address these projects and terms when conditions allow. My focus, though, will mostly stay within the hard-cast divisions of the Cold War, as these were the terms with which East German technological utopianism was written.

It should also be acknowledged that the German Democratic Republic was not a monolithic actor. To say that the “state” performed an action is not an act of intentional rhetorical obfuscation, but rather a shorthand for the collective result of GDR individuals working within the frameworks of the East German state. Of course, the GDR was made up of a multiplicity of bureaucratic entities that, in turn, were comprised of their own subgroups and individuals. Its hierarchical power was fragmented by these groups, sometimes leading to duplication, sometimes to competition, sometimes to harmonious

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48 Berghoff and Balbier, *The East German Economy, 1945-2010.*
accord. However, the sociotechnical imaginary, that is the “collectively imagined forms of social life and social order reflected in the design and fulfillment of nation-specific scientific and/or technological projects” of the GDR operated above the din of bureaucratic infighting.\footnote{Jasanoff and Kim, \textit{Dreamscapes of Modernity}.} That being said, throughout the chapters that follow, I will deal directly with smaller agencies and individuals that were responsible for sub-categories of technological utopianism, as, much in keeping with their own rhetoric, the small parts make for a bigger whole. And while their individual views on utopia may have differed, there was no massive ideological break in the envisioning of the socialist technological future at the level of the larger sociotechnical imaginary. Socialism would win and technology would be the tool of victory.

Despite demanding so much cultural bandwidth, or perhaps precisely because of it, the real-world implications of utopia were agnostic to belief in it. Even if one didn’t believe in the communist technological utopia, one was forced to mime a belief in the world of tomorrow in order to exist in the system, to move up the ranks, to gain funding for research.\footnote{Jaroslav Švelch, \textit{Gaming the Iron Curtain: How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games}, Game Histories (Cambridge, Massachusetts: The MIT Press, 2018); Alexei Yurchak, \textit{Everything Was Forever, until It Was No More: The Last Soviet Generation}, In-Formation Series (Princeton, NJ: Princeton University Press, 2006).} Therefore, those who did not actually believe in the future were locked in a state of what Alexei Yurchak terms \textit{vyne} in \textit{Everything was Forever, Until it was No More}. “Often translated from Russian as ‘outside’ this word can also denote “a condition of being simultaneously inside and outside of some context – such as, being within a context while remaining oblivious of it, imagining yourself elsewhere, or being inside
your own mind.”\textsuperscript{51} Even if state engineers did not imagine the same future of the GDR as the prevailing sociotechnical imaginary, the actual institutional realities of their everyday life demanded its appearance. State research institutions funded projects that reflected larger state goals, elite sports advanced only those with both physical talent and a socialist mindset, and five-year plans poured resources toward technical industry. Thus, the very existence of the sociotechnical imaginary had real world effect on the material conditions of the state and those who worked within it.

This is also a story written from the viewpoint of the state. It is primarily about the state’s own mythmaking of its past, its present, and most importantly, its future. It is an attempt to understand how an idea about the future can dictate how a culture is constructed. It is not, however, a story told from the viewpoint of individuals who lived in that culture. As is always true, a historian can only write from the materials they are given. Inserting the stories of engineers who lived through these years of state technological utopianism is indeed my intention as this project grows. At the present moment, doing so has proven difficult. As Paul Betts noted, East German diaries were few and far between but the few that did exist feared their discovery.\textsuperscript{52} Interviews were my intention, but the realities of lockdown in Germany during my Fulbright grant stymied my attempt to do so. Of course, I believe that the story of the state has tremendous value on its own, as states dictate the freedoms of everyone on Earth. However, it is indeed my hope to someday also hear the voices of those who were asked to believe.

\textsuperscript{51} Yurchak, \textit{Everything Was Forever, Until It Was No More}.
\textsuperscript{52} Betts, \textit{Within Walls}. 
Chapter 2: Real-Existing Utopia: A Process

“A true opposite of utopia would be a society that is either completely unplanned or is planned to be deliberately terrifying and awful. Dystopia, typically invoked, is neither of these things; rather it is a utopia that has gone wrong, or a utopia that functions only for a particular segment of society.”

- Michael D. Gordin, *Utopia/Dystopia*

2.1. "Real-Existing" Utopianism: A Definition

Upon the occasion of the 9th meeting of the Central Committee of the SED in 1973, Erich Honecker, then leader of East Germany, minted the term ‘real-existing’ socialism and called for its adaptation across the socialist world. Honecker, citing the newfound recognition of East Germany by the West, danced around admitting that ‘real-existing’ socialism was not the socialism Marx had promised, mere stepping stone before the advent of full communism, but rather a pragmatic acceptance of the realities of the Cold War. In his speech, he asked for a continued belief in the promises of Marxism, but tempered with the material realities of socialism as it existed. In other words, this redefinition of socialism promised consumer goods, while also calcifying the GDR as its own end-goal, a paradise already on earth. Interestingly, however, the GDR never gave up on its rhetoric of a better technological future. Instead, both existed simultaneously: the GDR was both paradise built and not-yet constructed, both utopia in the present and utopia to be. ‘Real-existing’ socialism, then, would bridge the gap between the ideological promises of the GDR and the actual lived experience of everyday life.

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55 Ibid.
This new longevity of the state implied in the concept of ‘real-existing’ socialism inevitably had deep effect on the concept of the future of the GDR. The promise of a future technological utopia on East German soil served as a cultural emulsifier, a unitive element that redirected critique of the state toward the future. The advent of ‘real-existing’ socialism bent the image of that future, but never broke it. The core tenants of East German technological utopianism, that the future would conquer nature and that human drudgery would be eliminated with technology, remained until the fall of the wall, but realigned themselves with new technological invention and political shifts. The GDR was never to completely give up the unitive power of a technological future that would finally allow weary workers to rest. Instead, “Real-existing” Utopianism meant managing both the workers expectations and the image of things to come.

Technological utopianism endured as a central force in East German socialist dogma, rhetoric, and action, and thereby had real-world effect on the construction of the state and its culture. The final promise of the state’s sociotechnical imaginary was always two-pronged. The future German communist paradise was to inevitably eliminate human drudgery while also allowing humankind to fully conquer nature. The worker of the future was depicted as a lab-coated engineer, working few hours, allowed to relax into nature under human control. No longer would human beings have to languish long hours in factories; automated robots and computers would entirely replace human labor. Their tireless metal appendages would construct an era of bounteous luxury: the fruits of industry would be indiscriminately available to all. Instead, humans would be left only the task of overseeing the progress of machines, spending their leisure time in cities built into nature. Trees would spire out from atop buildings, natural light would pour into
massive collective apartment buildings, public transportation would move underground.\textsuperscript{56}

The future technology of the GDR was to usher in an era of peace, rest, and harmony.

Figure 1: An image of an imagined "fully automated factory" of the future from Unsere Welt von Morgen
Sometimes rendered as the “scientific-technological revolution” *Wissenschaftlich-
technische Revolution* (WTR) or simply as a vague promise of a peaceful socialist future, utopia in the GDR always implied a unitary focus on science and technology. Technology, built by engineers imbued with the socialist spirit, would be emancipatory: capable of lifting the entire world out of poverty. Simultaneously, socialist engineers would activate the WTR that would rocket East Germany into a full communist utopia, the state withered away as Marx promised. However, if this was to ever happen, the GDR needed to fill its ranks with engineers both with technical know-how and a belief in socialism. Therefore, education took on the methodologies and practices of natural science, citizens were to continue learning technical skilled throughout their lives, and the advancement of technology was given the heaviest weight when funding or directing education programs. In this way, the burden of hope was placed on children; like stem cells, each child contained the limitless potential to become exactly the engineer the GDR needed. Each child contained the future of the GDR in miniature.

The concept of the ‘scientific-technological revolution’ of the GDR was omnipresent, lurking behind every charge of future socialist supremacy. For example, the 1967 school-law began by declaring “the most important objectives for the comprehensive development of socialism are the mastering of the scientific-technological revolution, the development of the national economy of the GDR, and the advancement of productivity by way of the highest level of science and technology.”\(^{57}\) Toys took on a distinctly technological bend, meant to teach foundational engineering skills rather than

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simply entertain.\textsuperscript{58} Christian conformation was replaced with a secular ‘youth ceremony’ that asked young men and women to affirm their belief in science rather than god, with the slogan “knowing is better than believing.”\textsuperscript{59} Sports teams took the name of industry, and athletes were clandestinely engineered by doping and carefully crafted sports materials. The state held a yearly Fair of the Masters of Tomorrow where student-led design was meant to help build the future.\textsuperscript{60} Design occupations such as architecture and industrial design were recast as engineering disciplines, with an architect in Brigitte Reimann’s novel \textit{Fransziska Linkerhand} claiming, “there are no more architects, only engineers.”\textsuperscript{61} The state funneled scarce currency into heavy industry technologies, computer hardware, scientific education; all sorts of projects that offered a glimmer of hope of producing socialist supremacy through technology.

The concept of utopianism as constructed by the East German state was always designed to be in service to the state itself. Technological utopianism in East Germany fulfilled a set of distinct state goals and needs. First, as the editors of \textit{Das Kollektiv bin ich} stressed, the concept of a future utopia shifted any criticism of the state into the future.\textsuperscript{62} Anything less than ideal in the present moment would be corrected in the future, allowing the state to create the rhetorical space to act in any way it saw fit. As we will see in the final chapter, this led to disastrous real-world damage, as the GDR promised against its

\begin{thebibliography}{99}
\bibitem{58} “Ich werde dann Lokomotivführer,” \textit{Berliner Zeitung}, February 17, 1953, 6.
\bibitem{60} “MMM diesmal schon ab April,” \textit{Berliner Zeitung}, March 17, 1967, 4.
\bibitem{62} Franziska Becker et al., eds., \textit{Das Kollektiv bin Ich: Utopie und Alltag in der DDR} (Köln: Böhlau, 2000).
\end{thebibliography}
environment, arguing that a future technology would come and repair any environmental damage done on the way towards that technology. Secondly, a shared vision of a future worked as a cultural emulsifier, a way of unifying a disparate population. A joined idea of the future of the GDR co-constructed the very idea of what it meant to be a citizen of the GDR. Finally, as Ernst Bloch pointed out, humans require a concept of hope in the future in order to make the present moment bearable. For much of human history, that role was fulfilled by religion. In a state such as the GDR, one cast in the Marxist-Leninist image, religion was to no longer hold its power over the state. But by removing the hope for a better world in the afterlife, the GDR left a rhetorical gap. The concept of a technological utopia, a kingdom not in the spiritual world, but in the Earthly one, came to replace the promise of the afterlife. A better world would indeed exist, and humans themselves were capable of building it.

However, the concept of utopia always remained in a dialectical pull. On one hand, it stressed the absolute necessity of building a world of socialist technology in the future, while on the other communist propaganda held that such a world had already arrived in the East. The reality was, much like ‘real-existing’ socialism, that the concept of utopia in East Germany was a compromise, both an admission of reality and a rejection of it. ‘Real-existing’ Utopia, as I will term it, was the lived in-between, the actual cultural manifestations of East Germany’s concept of the future. It was the delicate balance struck between making the current moment tolerable and shifting rewards to the future. The concept of “Real-Existing” Utopianism naturally includes the state’s technological utopianism, however it also traces how the focal point of that utopianism changed over time.
That a concept of a technological future would change is inevitable. What was once science fiction becomes reality, but in its corporealization, it loses its utopian potential. East German utopian signifiers, as they came into being and failed to bring about full technological utopia, were exchanged for new not-yet-existing technologies that still held promise. In the early 1960s, the promise of atomic power and potentially limitless energy stood at the center of East German technological utopianist rhetoric. However, as the realities of nuclear proliferation during the Cold War set in, the frontiers of space became the frontiers of utopia. The early flights of both Sputnik and Gagarin lent utopian potential to space travel, however the United States’ successes in the Space Race stripped away its propagandistic potential. Finally, with its actual capacity for automation, the computer bore the weight of late East German utopian hopes.

The promise of atomic energy was the first utopian potentiality to capture the cultural imaginary of East Germany. The power of nuclear reactions had, at the time, only recently come into human articulation. With the United States’ usage of nuclear weapons at the end of the Second World War, the entire planet was blasted into the nuclear age, forefronting the new technology as a key piece of the new Cold War. As the Cold War developed, nations wanting to “join the modern world” sought to produce an atomic weapon of their own, thereby offering the same threat as the other great powers of the Earth. Germany, however, given its militaristic history, was never to be allowed an atomic weapon. Instead, Germany rearticulated the potentials of nuclear energy into a utopian energy supply that would unshackle humanity from nature.

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The utopian imagery of nuclear power was perhaps best captured in Böhm and Dörge’s *Our World of Tomorrow (Unsere Welt von Morgen)*.64 Appearing around the 1960s, the book depicted a future East Germany entirely alight with nuclear power. Cities of the future would draw their power from nearby nuclear power plants, public transportation would reach new levels of speed from their nuclear cores. These sources of energy would work around East Germany’s lack of natural resources; the new, clean energy of the atom would unshackle East Germany from nature. Similarly, a Soviet filmstrip from 1960, titled “In the Year 2017”65 also stressed the importance of atomic energy and foresaw travel powered by nuclear energy to the stars and to the bowls of the Earth.66 However, because East Germany was barred from creating its own nuclear weapons and lacked natural resources, East Germany focused more on the utopian peacetime applications of nuclear energy than its Soviet cousin.

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66 В 2017 году.
Figure 2: An infographic from Unsere Welt von Morgen explaining how nuclear energy had the potential to power the whole world.

The launch of Sputnik into orbit ushered in a new expression of technological utopianism. The Earth’s first co-traveler, Sputnik’s arrival triggered the massive competition of technological power that would come to be known as the Space Race. Of course, East Germany itself would never develop its own space flight program, having to instead vicariously live through the Soviet Union. However, books like Our World of Tomorrow still stressed the utopian potential of travel to the stars. As we will see in the coming chapters, space travel enthralled the East German mind: toys meant to represent the future were cast as celestial exploring vehicles, while Youth Ceremony textbooks
talked of going to space as the logical end of a peace-oriented philosophy such as socialism.

For East Germans, plastic was consecrated as the material of the future, a utopian potentiality made tangible. Plastic was cheap, plentiful, and eternal, something that could be melted down and shaped anew. As such, plastic was deeply embedded in the East German imaginary. Cultural propaganda foretold gleaming cities molded from plastic. Engineering education was chemicalized, shifting focus from metal to synthetics. Design journals presented plastic cups, frames, picnic baskets, tables, chairs; the infinite accoutrement of daily life rendered in plastic.67

Figure 3: A flowchart from Unsere Welt von Morgen explaining how plastic was made.

Finally, in what would become the final years of the GDR, the utopian promise of the computer took the mantel of progenitor of utopia. Given that one of the primary promises of East German technological utopianism was the alleviation of drudgery, the automating power of the computer seemed poised to bring about such a reality. Best

exemplified by exhibitions in the *Akademie der marxistisch-leninistischen Organisationswissenschaft* (Academy for Marxist-Leninist Organizational Science or AMLO), where white-coated technicians of the future were depicted as sober machine-minders, freed from the misery of hard labor, the computer was immediately cast as a utopian object.\(^{68}\) However, it was not until the late 1970s and early 1980s, when the computer became increasingly the sole holder of utopian promise. As such, East German industry turned toward attempting to create its own chip manufacture, pooling already scarce resources into the quest for a state computer program.\(^{69}\) Of course, East Germany, a small nation of limited resources, was destined to never fulfil that promise.

These shifts in utopian rhetoric of course followed the changing technological trends of the state and the world around it. However, these changes also coincided with change in East German politics. The 1970s saw a change in state leadership, from Walter Ulbricht to Erich Honecker, and with it a change in the rhetoric and usage of the concept of utopia. The Honecker era, home already to the concept of ‘real-existing’ socialism, became, in kind, the home of “Real-Existing” Socialism. Leaving behind the soring rhetoric of hope of the Ulbricht era, the utopianism of the Honecker era, as mentioned above, attempted to balance the future-craft of the early GDR with the alleviation of present woes, effectively splitting the GDR into two temporal halves. Ulrike Breitsprecher’s excellent summery of these two distinct phases is worth reproducing in full:

\(^{68}\) For an in-depth look at AMLO, see Sukrow, *Arbeit, Wohnen, Computer.*

“The first phase extends to the mid-1960s and is characterized on the one hand by the question of an all-German solution that shaped ideas about the future, and on the other by an effort to legitimize socialism - mostly derived from German tradition and with claims to be a scientific. The society of the GDR and its organizations (e.g., the FDJ) were created [during this time] and were explicitly political organizations, perceived as such by their members. At that time, the political goals and positions were still characterized by a spirit of optimism that also spread to the youth. The young people were not only addressees of political ideas, but were actively involved in the creation of a socialist future. The decision by the SED to build the Wall in 1961 was the first concession to a possible political and economic failure of this supposedly more just society. In order to avert criticism of current social deficiencies or of the new state and economic form of socialism, the GDR and socialism were advertised as legitimate, realistic and desirable in publications for young people. With the New Economic System, the building of socialism decided at the beginning of the 1950s was confirmed and consolidated. Socialism was no longer understood as a transitional phase, but as an independent, longer phase to communism. During this time, the examined texts increasingly contain concrete ideas of what the future socialist and communist society in the GDR could look like. These ideas are not only utopian but also pragmatic in nature. In the articles about the future, technological innovations were primary; the social conditions in which people will live are only dealt with marginally. The inventions are intended to make life and work easier, but technology as a savior was always in the foreground.
At the end of its constitutional phase, society in the GDR seems to have had a strong need for the realization of a hopeful future. After an all-German solution had moved into the distance with the building of the Wall, the near future had to be filled with positive images and socialism had to be presented and legitimized as efficient and forward-looking. That is why the sixties can also be described as a high phase of utopian thinking with regard to the future.

In the second phase, at the end of the sixties and into the seventies, utopian ideas were softened and there was an individualization in future thinking. The description and illustration of a possible future diminished. Socialism had established itself as a model of society, and the future had become part of the present. It was no longer necessary to use the future to legitimize the GDR, because it was possible to point to its successes and those of its brother states and the GDR was increasingly recognized as a sovereign state in foreign policy.”

This shift marks the core of “Real-Existing” Utopianism. In the Honecker era, socialism was proclaimed as real and now classless, an achievement all on its own. However, at the same time, discussions of technology maintained the same utopian promises of the eras prior; technology would still set the GDR free in the future. “Real-Existing” Utopianism, then, is the net cultural result of a state locked into promising a better future while also claiming such a future had already arrived.

Of course, East Germany was not unique in having or maintaining a concept of a technological advance or even utopia. During the Cold War, the United States

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simultaneously adhered to a messianic conception of technology (and, I would argue, continues to do so today).\(^7\) The Soviet Union and the Eastern Bloc more generally also foresaw the scientific-technological revolution as panacea for Soviet society.\(^8\) Both halves of the Cold War saw technology simultaneously as a pathway to victory and as a showpiece of state power.\(^9\) However, East Germany was unique from East, West, and beyond both in the all pervasiveness of the vision of technological utopia and its subsuming of GDR culture and its attempted standardization of that vision.

More specifically, East Germany differentiated itself from American notions of technological utopia in two ways. Most obviously, its linkages to socialism/communism and therefore the concept of the collective, differed greatly from Cold War American thought. Indeed, the terms of the Cold War cast the ideologies of East and West as diametrically opposed. In contrast to the US, where for even early technological utopians “the virtue of cooperation is often preferred to individualism on the basis of its efficiency and not on moral superiority,” East Germany relied heavily on the notion of collective action.\(^7\) Cold War versions of American technological utopianism, personified in the image of the astronaut, particularly exemplified this difference. Whereas Eastern cosmonauts were representatives of the everyman, avatars of Eastern men generally, American astronauts were rugged individualists, sent into space due to their unique and

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\(^7\) Howard P. Segal, *Technological Utopianism in American Culture* (Chicago: Univ. of Chicago Press, 1985).


specific abilities. Much the same could be said of the difference between Eastern and Western sport, where individual athletes were either again archetypes of the collective or unreproducible talents simply whetted by American training.\footnote{Gerovitch, \textit{Soviet Space Mythologies}.}

Secondly, East Germany distinguished itself from the United States through an entirely unique gender politics. In an interview with former East German engineer Barbara Bremer, I asked her bluntly if she believed women were better off in East Germany than in the West. She responded, “Without a doubt. In the 60s, if I were living in West Germany, I would have had to ask my husband if I were allowed to go to work. In East Germany, I simply decided to get my PhD.”\footnote{Interview with Barbara Bremer, 3 February, 2018.} The East did indeed take seriously the goal of gender equalization. As historian Dagmar Herzog succinctly phrased it: “The difference lay in the combination of institutional structures and strong rhetorical support in the East, which made woman’s work for wages not only possible but also much less guilt inducing.”\footnote{Dagmar Herzog, ‘East Germany’s Sexual Evolution,’ in \textit{Socialist Modern: East German Everyday Culture and Politics}, ed. Katherine Pence and Paul Betts, \textit{Social History, Popular Culture and Politics in Germany} (Ann Arbor: Univ. of Michigan Press, 2008).} In \textit{Sex After Fascism}, Herzog argued that East Germany did not need the sexual revolution of the West; they had already provided women with the rights of communism.\footnote{Dagmar Herzog, \textit{Sex after Fascism: Memory and Morality in Twentieth-Century Germany} (Princeton, NJ: Princeton Univ. Press, 2007).} Women were seen in positions of power in higher numbers than the West, particularly in technical careers; women received the same levels of education and training as men; and it was the women, not the men, who were the true heroes of the East German Olympic teams.\footnote{Gemkow, \textit{Der Sozialismus—Deine Welt}, 272.} Furthermore, the state advocated for safe pre-marital sex,
upheld the right to abortions, and granted free childcare, thereby reducing the home labor that so often fell on the shoulders of women.\(^{80}\) 

Indeed, a primary focus of technological utopianism in its East German form was the inclusion of women in the technological consciousness of the GDR. This meant reconfiguring factory labor to make way for the inclusion of women. For example, the DEWAG (Deutsche Werbe- und Anzeigengesellschaft, Berlin) put out a call for housewives to come to a semiconductor factory (HFO) with the invocation: “Housewives, every hand is needed. Today we are turning directly to you. You probably know that hundreds of Frankfurt’s women already work at HFO. You know that efficient modernization and automation of production is made possible through our semiconductors. (...) Husbands value the imitative and activities of their wives, who are made equal through their work, and who support their wives, even when that means a change in their personal life.”\(^{81}\) Indeed, one woman who chose to work there noted that the “living space, kindergarten places, and short walk to work were the most important aspects.”\(^{82}\) In addition to the nearby home amenities, the HFO maintained a day care and supermarket installed in the workplace with better offerings than in the city so that women could do shopping more easily. By the 60s, the HFO installed a salon to counterbalance the fact that women couldn’t put on makeup in the clean rooms.\(^{83}\) Thus,


\(^{82}\) Ibid, 42.

\(^{83}\) Ibid, 45.
the state sought to rewrite the workplace and the housing that surrounded it to better accommodate women.

This was not to say that the state was entirely successful in the full integration of women and their equality. As seen above, changes made to factories to include women made strong assumptions of gender and femininity. Furthermore, as Gunilla Buddle noted, the state continuously viewed women as a “specialty group” who were treated as a “collective,” failing to acknowledge the diversity of opinion between women.84 Indeed, in 1975 the institute for opinion research of the GDR started a questionnaire for measuring the role of women at home and at work, and the most unsatisfied were a group known as “women of intelligence.”85 However, throughout the 1960s, the state underwent campaigns to get more women into leadership positions. Compared to Nazi Germany, huge strides were made in the education of women, and numbers of employed, educated women in East Germany continually trounced West German numbers. “Among university students, the number of women increased about 25% in the 1950s, but by the beginning of the 1970s, there were about as many women as men matriculated at East German universities.”86 Thus, while the GDR sought to educate and include women in the technological-utopian mode of the state, the result was complicated: women did indeed enter the technological workforce in droves, but were also burdened with regressive responsibilities of homecare and femininity at the same time.

85 Ibid, 99.
East Germany also differentiated itself from its comrade and overseer, the Soviet Union. Although East Germany maintained a strong connection to the USSR and its satieties throughout its lifespan, it differentiated itself in three key regards. Firstly, the GDR was distinct from the Soviet Union in its unique lack of natural resources. While the oil-rich Soviet Union shared some resources with East Germany, the GDR was mostly left to fend for itself. In fact, during the Soviet occupation of the Eastern zone, Soviet officials directed German communist officials to concentrate on technology to make up for the lack of natural resources. As the book *The East German Economy, 1945-2010: Falling behind or Catching Up*, has claimed, early Soviet directives did not necessarily seal the fate of the GDR, but they did influence the direction of actions and the concentration of resources that were difficult to reroute in a planned economy.87

Secondly, and perhaps most importantly, East Germany began with and maintained a strong technological base, from which the USSR itself was forced to copy and adapt. Immediately following the Second World War, the USSR began to exact reparations from its held territory in the form of factories dismantled and shipped back to Russia. Because Russian engineers did not know how to operate the factories or the technologies they produced, German engineers were sent to Russia to train Soviet workers and operate factories. In a sort of reverse imperialism, where the former periphery takes from the center to improve its own base, Russia was forced to learn from the Germans, despite having conquered the Nazis. Additionally, in the established GDR,

87 Hartmut Berghoff and Uta A. Balbier, eds., *The East German Economy, 1945-2010: Falling behind or Catching Up?*, (Cambridge: Cambridge University Press, 2014).
such trends continued. For example, East German publishers noted the exchange of scientific texts with the GDR and USSR, with German exports disproportionately high.\textsuperscript{88}

Finally, East Germany saw itself as distinct from the Soviet Union. The GDR was not an official part of the Soviet Union in the way that Latvia or Estonia was; it was its own unique country with its own unique directives and goals. While it did indeed maintain a friendship with the USSR, and was ultimately at its mercy, the GDR grew into perhaps the most successful of the Eastern Bloc countries, certainly within the realm of technology. Its own perception as an individual unit, separate from the Eastern Bloc, helped to direct its actions and shape its perceptions of its own future. The GDR’s status as a self-entity also led to reactionary tactics by the USSR. For example, during the oil crisis in the 1980s, Russia reduced its exports to East Germany and increased its prices, choosing to export for Western hard currency over altruism toward its Comecon sister. East Germany, in turn, also treated the USSR as both benefactor and rival, as for example, the GDR kept the details of its doping program secret from the USSR, treating them as yet another rival for the Olympic podium.

This distinction is important. Atanasoski and Vora, in their article queering the concept of (post)socialism, suggest ‘provincializing’ the Eastern European articulation of socialism: “in addition to opening up space to consider the multiplicity of socialist legacies at work today, as well as offering a reading practice for accounting for the collectivities not legible as subjects of history in the Marxian sense, pluralizing postsocialisms as a method invites us to provincialize Soviet state socialism.”\textsuperscript{89} Doing so...

\textsuperscript{88} See literature exchange numbers in BArch DR 1/20333.
allows for a deconstruction of the monolith of ‘socialism’ as it existed. “Articulating postsocialism as a global condition, not one that just affects the former Soviet-bloc, demands that we re-imagine the local, and insist that unified political vision for which ‘the left’ pines was a phantasm to begin with, as allied but diverse political movements represented in the examples of black internationalism and third-worldism and their ongoing legacies attest.”

While Soviet socialism is indeed a province all on its own, East Germany then exists as a province within a province. Atanasoski and Vora rightly call attention to socialist movements beyond the Soviet-bloc, I believe that provincializing the providence of the Soviet bloc allows for a more nuanced understanding of what transpired.

All in all, East Germany was unique in its origin and constitution. Inheritor of Nazi crimes, Soviet foundling, demarcation line of the so-called Iron Curtain, and one half of a country bifurcated, it differentiated itself from Western capitalism and Soviet communism. It lasted a mere fifty years, a radar blip against the backdrop of nations. However, its importance outsized its small stature. The smashing of its wall signaled the end to the entire Soviet system, whose failure was so profound that economist and capitalist thrall Fukuyama dared to declare the end of history. In what follows I will follow the vectors of East Germany’s technological utopianism. I will attempt to show how what I will term ‘real-existing’ utopianism had profound effects on culture building in the small communist state. Finally, I will place East Germany into the lineage of the concept of utopia and show that there is much to be learned from an experiment that failed.

90 Ibid, 5.
2.2. The Dialectic of the *noch-nicht-geworden*

“It is uninhabitable as soon as we reach it, it does not exist.”

- Ursula K. Le Guin, “A Non-Euclidean View of California as a Cold Place to Be”

To think of “real-existing” utopia in East Germany as a place would be incorrect; real-existing utopia was a process. It was the lived experience of becoming. As with all imaginations of the future, the technological utopia of the GDR was bound to the present. It was formulated by people living in their time, situated in their culture. As such, the concept of utopia in East Germany was dynamic, ever changing as the present changed, adapting its promises to the needs of the present. This was particularly evident when viewed through the lens of technology. Technologies “of the future” came and went, and with them their power as panacea to activate utopia.

Technology, to borrow a term from Walter Benjamin, maintained a “weak messianic power” in East Germany. Technology in the GDR was weak not in its ability to cause real, transformative change, but weak in the sense of its ability to fail. Unlike the Jewish messiah, who, by their very nature, was infallible, technology’s future was not deterministic. With each technological promise came the possibility of unfulfillment, its failure to bring about utopia magnified by the volume of its promise. The technological-utopian signifiers of East Germany, promised as they were to be the handmaidens of utopia, created an eternal state of *becoming* utopia for the GDR. To maintain the hope in the future in the face of such failures, East Germany’s utopian technological signifier always had to be relocated. For example, despite the lofty promises, space travel did not usher in an unfathomable new era of human relations. Humans went to the stars and

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returned to the same political realities they had left. Nuclear energy did not eradicate coal and oil. Instead, it brought about some of the greatest disasters humanity had ever known: nuclear war and reactor meltdown. Each time one of these technologies was reached, its failure to bring about utopia caused a relocation of the messianic promise of utopia. Each time the GDR failed to become a utopia, it shifted to become a different one.

Thus, just as the technological promises of the GDR seemed to be coming into reality, they never brought with them a full utopia. With each instance of non-utopia, the GDR remained in the state of becoming or, to use a term from Ernst Bloch, noch-nicht-geworden (not-yet-become). Bloch saw the noch-nicht-geworden as a possibility imbued into the present, always remaining possible until it definitively became impossible. For him, each present moment held a multiplicity of possibilities, yet only one becomes reality. The passage of time was thus a process of narrowing of possibilities until one became reality. However, the “not-yet” could always be a vessel for hope. Anything not yet existing still contained the possibility to change, become something other than what it seemed destined to become. Thus, each moment contained some element of hope until the very last moment.

Bloch’s conception of future possibility echoes that of Philip K. Dick’s idea of “future crime” in The Minority Report. The short story hinges on the existence of “precogs,” or entities that can predict the future, and thereby future crimes. Part of the “precrime” division of police, the precogs were able to name future criminals to apprehend before the crime is ever committed. However, their infallibility begins to unwind when an officer of the precrime division (John Anderson) is himself targeted for arrest for a crime he would commit in the future. In his quest to clear his name, he
discovers that the precogs do not produce deterministic reports of the future, instead they offer statistical possibilities, futures more and less likely to occur. The less likely, the minority report, is always still possible. Thus, Anderson shows that many had been wrongfully arrested for it was always possible that no crime would be committed.

Bloch’s notion of future possibly functions in the same way. The possibility for a better future, or the possibility that a technology would bring about utopia was always the minority report. However, as Bloch knew, unlikely was never impossible.

In the same way, the utopian rhetoric of the GDR always hinged on the “minority report” and on the management of the noch-nicht-geworden. That nuclear power would entirely dissolve the East German state in favor of full communism was always extremely unlikely. However, as long as a utopian future was still possible, and that a technology still becoming maintained its status as a vessel for hope, that technology maintained its functionality as utopian signifier. Each signifier helped the GDR to shift the problems of the present to the future and offer hope in the future as a unifier for the population. It was not until a technology (and, by extension, the technological utopian future state) fully became itself, closing off any other iterations, that the technology lost its messianic power. The utopia it promised didn’t arrive. Its promise was lost.

The history of technology in East Germany was a continuous series of technological becomings and subsequent utopian disappointments. However, East Germany’s ability to refocus that utopian concentration, the belief in technology itself, meant that the actualization of a moment, and its final shunting of possibility, did not spell the end of hope. A new moment always crowned upon the horizon, and with it a new vessel for hope. The promise of nuclear energy begat space travel, begat plastics, begat cybernetics,
begat the computer. The phenotype of utopia was always in flux, its spirit always the same.

In a similar fashion, East Germany’s rhetorical balance between claiming to be an existing utopia and working to become a utopia acted as a management of the hope of the noch-nicht-geworden. Each disappointment, each utopian non-becoming threatened to shatter the entire endeavor. By attempting to place the hope of a better future for an entire population in a technology, its failure would have noticeable effect on those who believed in it. As such, the GDR’s real-existing socialism was an attempt to mitigate the disappointment of hope by offering relief in the present. It still, of course, maintained the rhetoric of the future, but tempered with an explanation of the present as a utopia, at least partially, itself.

Thus, the concept of “real-existing” utopia was, counterintuitively, a process of maintaining a noch-nicht-geworden utopia. It was the continual process of defining a technology as utopian, imbuing it with the ability to bring about a harmonious future, then relocating that possibility to a different technology when the former failed to open the gates to utopia. Technology held greater sway over the definition of utopia for East Germany. It was technology that was to free the worker from drudgery, it was technology that was to conquer nature. The central idea that technology would bring about the future always remained, only its corporeal form changed. At the same time, the state of always becoming created the rhetorical space for the paradoxical nature of claiming both existing utopia and future utopia. East Germany was a utopia, it was becoming itself, it was always already being its future self. The GDR existed as this process.
A Neue Zeit article titled “Utopia Became Reality” indicates exactly this dialectic. Within, the author describes the events of 18 March, 1965 when Soviet cosmonaut Alexei Leonov became the first human to conduct extravehicular activity in space. The author reminds the readers that this was exactly what was depicted in the Czechoslovakian film *Ikarie XB-I*, translated into English as *Voyage to the End of the Universe*. The film, previously nothing more than story, became reality through both the scientific achievements of socialism and the collective efforts of the whole society. “But the new precise pioneering work of Soviet scientists, engineers, workers, and cosmonauts is not just the outstanding work of a few individuals, but an expression of the achievements of a whole society that has imprinted the growth of communism onto their flags.” 92 The author promises that such achievement will propel socialist lands toward an even greater future. “After all, significant scientific achievements without a powerful economic base would not have been possible, as, on the other hand, the outstanding scientific knowledge of the technical revolution, gained not only in the USSR but also throughout the socialist camp, will give new impetus.” 93

Similarly, in another Neue Zeit article from approximately the same time, Hermann Kalb discusses the utopian reality of East Germany in relation to Protestantism. Perhaps because of the metaphysical promise of eternal reward inherent in Christianity, the terms of discussion were cast in utopia. This particular article covered Ulbricht’s meeting with church leaders to discuss the dangers of atomic weaponry, where “the ecumenical consensus of the church peace vote accords with the peace politics of our state.” Due to

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93 Ibid.
this accord, church leaders were warming to the state, for, in Kalb’s words, “many ecclesiastical officeholders have long since taken steps of loyalty toward responsible participation in building our society in the spirit of the February 9, 1961 dialogue. Their unconditional commitment is living proof that the socialist people's state is not a distant utopia, but already a dynamic present.”

The state’s future was messianic for all.

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Chapter 3: Historical Education and the Jugendweihe: Mythmaking the Technological Future

“There's imagine we're living in the year 2059. All over Germany and the world, people live free from the fear of nuclear war. Communism has triumphed in all of Germany. The boundaries between physical and mental work have been removed. The people in the state-owned companies work on fully automatic machines, the operation of which requires a good technical knowledge, but apart from a few necessary manipulations hardly requires any physical work. Since they work only 5 to 6 hours a day, they can use most of the time for professional, cultural and political further education, for recreation or for sporting activities. The people are healthy and feel free from any worries about the preservation of their existence.”

- Jugend und Technik 4/198, Berlin 1959

3.1. Introduction

3.1.1. The Question of Education in East Germany

In the immediate aftermath of the Second World War, under the rubble of once-great cities, lay Germany’s total cultural annihilation. Not only were many of Germany’s once vibrant cultural establishments eviscerated by Nazi rule and military defeat, but in the wake of such Nazi atrocities the very concept of education had to be redefined. In order to proceed again under the auspices of the state, education had to be reconfigured by foreign and domestic forces into a new discipline, one free of the corruption of nationalistic narratives and racial supremacy.

But given the realities of post-war occupation, there could be no one way to go about this project. Instead, two separate Germanys, carved out by foreign powers as spoils of their conquest, would construct their own unique national education systems ghostwritten by their occupiers. For the German Democratic Republic, this meant reconstruction under the aegis of the Soviet Union. As such, East Germany drew upon the existing education structures of the Soviets, borrowing heavily from Marxist-Leninist concepts of historical materialism, strictly standardized curricula for the entire country, and the ability of the
Central Committee of the Socialist Unity Party *Sozialistische Einheitspartei Deutschlands* (SED) to dictate the needs of education to those below. However, the resulting East German education system was far from an exact replica of the Soviet system. The GDR also, inevitably, drew from long-existing German traditions that, before Nazi rule, were world-renowned. As the Soviet occupation dissipated and the GDR became its own country, the education system of the small state became more and more unique unto itself, driven by the government’s visions of what the future would look like.

As has been mentioned, the German Democratic Republic oriented itself toward the future. Marred by Nazi crimes, war-torn and lacking in natural resources, the state came to define technology as the panacea for current East German issues. But as a new state built from fascist parts, the GDR rightfully identified that only youth could build such a future. As such, state resources poured into an education system that was not only meant for elite men as in the Germanys prior, but rather for the masses, boys and girls alike. This dual focus on education for all and the naming of technology as the harbinger of the coming socialist future manifested in a few key traits of East German education.

First, it meant a focus on science and technology, not only in the teaching of the skills necessary to work in these fields, but also in the idea that technology and science would be the means of fulfilling the promises of communism. What we would now call STEM (science, technology, engineering, and math) education was heavily supported by the

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state, both rhetorically and structurally. The GDR developed polytechnical schools meant to churn out highly trained technocrats and replaced Christian Confirmation with the Jugendweihe, a coming-of-age ceremony during which young adults affirmed their belief in science and promised to further educate themselves in socialist technological values.

Second, East German education reshaped history into a history of technology. Because history in East Germany was done in a Marxist-Leninist historical materialist mode, history was “scientific:” there was one historical truth that was to be found in the material conditions of the time. As Andreas Dorpalen noted in German History in Marxist Perspective, progress was defined in East Germany as the development of productive forces, aka the science and technology of the era. Thus, East German historical education too took on a focus on science and technology. History carried a particular weight in East Germany as state’s official form of mythmaking. While this is the case for all state-sponsored history education, East Germany made a particularly conscious effort to portray itself as a clean slate, a country that had left its Nazi past behind and transformed into a future-oriented technological paradise.

Third, because the East German state saw itself as an educator of the masses, the GDR made a concerted effort to educate young women and girls at the same level as their male counterparts: something never before done in the history of the Germany state. While their West German neighbors maintained regressive Nazi laws regarding women, East Germany sought to create structures that would ensure young girls had the support

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97 Andreas Dorpalen, German History in Marxist Perspective: The East German Approach (Detroit: Wayne State University Press, 1988).
they needed to pursue technical and scientific careers. As we will see below, the GDR enshrined these rights within school laws throughout the country’s existence.

It should be noted that all education is also a process of defining the future. The process of creating an educational system, at least in highly centralized states, is one by which a state defines what students should learn in order to be prepared for both their own lives and their roles in society. In order to define what students should prepare for, the state must also define what that future will look like. Education, then, is the impartation of the skills deemed necessary for bringing about a certain state-defined future. For East Germany, this future was cast as a technologically advanced socialist state, one that would beget full communism by way of the elimination of human drudgery. Thus, the education system in the GDR sought to impart students with both a socialist consciousness and with the technical skills needed to build the technologies of the future.

But how did the new East German state seek to impart their concepts of future socialism to the youth? What would that future socialism look like? How did a concept of socialist technological utopianism help to define and direct education in the GDR and how did those notions change over time? In this chapter I will explore how the concept of technological utopianism came to define the educational system in the GDR. I draw from textbooks, Jugendweihe documents, interviews, newspapers, and curricula to define the effect of technological utopianism on education.

I begin by exploring the immediate post-war East German rhetoric surrounding the rebuilding of education with a focus on science and technology. Here I draw primarily from the earliest pedagogical laws in East Germany to show the immediacy of science
and technology in GDR education. I then look at how primary school laws changed over time, and how those laws maintained a distinct focus on science and technology.

In the section that follows I turn to history education in the newly formed GDR and how the concept of historical materialism reforged history into a story of technological determinism. The next section shows how science and technology came to dominate education, not only in content, but in form. This first means, of course, a focus on technological and scientific education, but also the attempt to merge other fields with scientific ones. I make use of a broad range of official state pedagogies to show how concepts of a coming “scientific-technological revolution” (*wissenschaftliche-technische Revolution*) (WTR) was a primary driver of East German education.

The final section of this chapter shifts focus to the Jugendweihe, or the secular coming-of-age ceremony in the GDR. As a marker of the graduation to adulthood, the Jugendweihe was the means by which the GDR symbolically transmitted its image of the future to young adults. In this section, I explore not only the ceremony itself, but also the textbooks the young East Germans were given as gifts during the ceremony. These textbooks serve not only as an excellent window into the pedagogical aims of the state, but also trace how the concept of the future changed over time. Taken together, these documents show how East Germany foresaw its technological future and thereby what skills the state saw necessary for students to learn in order to bring that future about.

3.1.2. The Post-War Context and Educational Laws

The immediate post-war years presented a paradox for the Allies. Germany, now conquered, was to be punished as well as reconstructed. It needed to be stripped of its Nazi parts, but also rebuilt to stand on its own so as to not repeat the conditions that
brought about a second world war. Thus, the response to the German question was often contradictory and fragmented, and approached in divergent ways by the country’s different occupiers.

After 1945 the German educational prognosis was grim. In their anti-intellectual campaigns, the Nazis had destroyed libraries and educational institutions, while the war had ravaged equipment and physical spaces.\(^{98}\) Jewish intellectuals, along with leftists, homosexuals, and their sympathizers, had largely either been exterminated or had left for less hostile shores. Those who were left, be they rabid Nazis or shell-shocked “apolitical” scientists, came into the crosshairs of their new occupiers. The Americans, eager to snap up Nazi scientists for their own gain, quickly began Operation Paperclip to bring German scientists into their fold. On the other side, the Soviets, looking to exact some sort of revenge for the massive traumas the Germans had caused, began to vacuum up trained scientists, as well as dismantle entire factories and ship them wholesale back to Russia.\(^{99}\)

After the dust cleared and scientists were shuffled around between conquerors, the problem of actually rebuilding Germany remained. In the first few years of occupation, this question went largely unanswered and education was left alone due to more practical problems such as feeding the population and rebuilding cities, coupled with the lack of any ready alternatives to the old system.\(^{100}\) However, by the end of the occupation, with clear distinctions set between East and West, different answers emerged.

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\(^{99}\) Förtsch, 26.

Though they could not immediately implement an alternative educational system, the Soviet administration did acknowledge the problem immediately after the war. A 1945 article from the newly established newspaper Neue Zeit argued: “in the years and decades to come, Germany will depend on the achievements of its academic offspring to a barely imaginable extent. The Hitler regime’s absolute hostility to science and the madness with the "camps," [...] has enormously damaged the quality of the young German academics since 1933. It will take a massive amount of work to make up this deficit.”

The article argued that the primary way to do so, however, would be through mass education regardless of personal wealth: “the main thing we should seek to prevent is having material need force highly capable minds to give up on education. The other thing we must achieve is a genuinely democratic spirit, a profoundly democratic conviction, within the student body in universities and colleges. This requires creating a whole new way of life for students, a whole new development away from the past regime. It seems to us that this is one of the most important and inevitable obligations of the new German democracy of 1945.”

In the East, this “important and inevitable obligation” was to be solved through centralization and scientization. First, following in the footsteps of the Soviet Union, education was structured to be dictated from above, with the Central Committee of the SED setting the curricula for all education in the GDR. This centrally planned structure also created the need to train central planners, further warping the structure of education. According to historian Peter Caldwell, at the beginning, even the central planners didn’t

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102 Ibid.
know how to centrally plan, and hence “the East German universities began to transform themselves into centers that could produce central planners.” Furthermore, scientific and academic institutions served as loci to oversee the direction of the totality of science done in the GDR. For example, a central research council, made up of scientists and engineers of all fields, was set up in 1957 to centrally decide what types of scientific was to be funded in the GDR. The centralized nature of GDR education also saw the standardization of schools themselves. In comparison to West Germany, which maintained a system of high schools that were highly class based (Gymnasium which permitted entry into university vs. Realschule/Hauptschule that lead to vocational training), the GDR maintained one type of high school under the aegis of equality.

Universities, while largely not the focus of my study, also changed form in order to accommodate research that would benefit industry in the GDR. Disciplines in the universities were reorganized into sections to promote interdisciplinary work and to make the institutions more research-oriented in favor of increased production. This was solidified in 1968 with the promotion of Hermann Klare, an industrial scientist, as the head of the German Academy of Sciences, making it abundantly clear that industry was of the utmost importance to the SED. This restructuring of schooling in the GDR was

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104 Förtsch, 36.
105 Ibid., 55.
106 Ibid.
part of the larger East German process of scientization, where education was to take on the characteristics of science while also promoting science as a discipline.

This push towards scientific education and the scientization of education began immediately after the Soviet occupation in Berlin. Coming only a year after the founding of East Germany in 1949, a law called “The Law Concerning the Participation of the Youth in the Construction of the German Democratic Republic and the Advancement of the Youth in School and Profession, and in Sport and Recreation” came to outline exactly what a future education system in the GDR would look like and what it’s primary goals would be.\footnote{Reproduced in full in: “Zukunft der Jugend rechtlich Gesichert: Gesetz über die Teilnahme der Jugend am Aufbau der Deutschen Demokratischen Republik und die Förderung der Jugend in Schule und Beruf, bei Sport und Erholung,” \textit{Berliner Zeitung}, February 11, 1950, 3.}

Science, technology, and their connection to industry were to be the primary focal points of education. Within a section titled “the Advancement of Career Education of the Youth,” the authors of the law clearly stated the importance of educating for and towards certain technological careers. “In accordance with the 1950 Economic Plan of the German Democratic Republic, the training of professionally qualified industrial workers, especially for the leading branches of industry including: mining, metallurgy, chemistry, construction, mechanical engineering, energy management, rail transport, shipbuilding, optical industry, and agriculture is to be organized.”\footnote{Ibid.} The education for these jobs was to be highly centralized: “Uniform job descriptions, especially for technical training, must be worked out and the publication of textbooks corresponding to the job descriptions must be ensured. When drafting professional profiles and compiling
textbooks, the principles of uniformity of theoretical and practical vocational training for pupils, especially for all technical vocational schools, must be assumed. The German Central Institute for Vocational Training must be created to fulfill these tasks.\textsuperscript{110} Thus, the East German state was poised to centralize education to orient it towards the development of technological industries.

Within the text of the law, the importance of technology and science extended to all facets of the East German population. If any technological future was to be built in the GDR, it would require the full mobilization of man, woman, and child, regardless of their economic backgrounds. Hence, the law stated that: “the gates to science have been opened wide to the children of the workers, peasants, working intellectuals, and artisans. One third of all secondary school students in the Republic are children of workers, peasants and craftsmen, while in 1939 their share was only 5 to 7 percent.”\textsuperscript{111} In order to educate these new swaths of the population, a section of the law called “the Further Development of School Education of the German Youth” declared that the 1950 economic plan will include the construction of 159 new schools.\textsuperscript{112} Under the aegis of the newly founded GDR, all would be asked to contribute to building the scientific-technological revolution.

This focus on the importance of science and technology also subsumed other disciplines beyond math and science. According to the law, the creative arts were also to be channeled toward building a technological future. Writing and history would perhaps have the most important roles, as they were now responsible for constructing both the

\textsuperscript{110} Ibid.
\textsuperscript{111} Ibid.
\textsuperscript{112} Ibid.
vision of the technological future and also the enthusiasm for bringing it about. Thus, the law argued, “It is the great duty of all writers and poets to help to create a new youth and children's literature that promotes the democratic education of the developing generation. All scholars and specialist writers have the grand task of imparting the knowledge of the main questions of modern science and technology to the youth by creating popular scientific and technical literature.” This literature was meant to both educate and inspire the East German youth; those that read it were to be rallied to help build the new GDR.

The law also provided the mechanisms by which this literature was to be produced. “The Ministry of Education of the GDR is required to award biannual prizes for writers, poets, musicians and composers, dramaturges, and scientists for the best books, plays, and songs for young people and popular youth literature in scientific and technical fields.”113 Work on creating this body of literature was to begin immediately. “In order to better supply children with literature, an independent publishing house for children's literature is to be founded. This publishing house must be provided with all necessary equipment and materials in such a way that the publication of good children's books is increased significantly in a short time.”114 This law thus demonstrated the importance of building both a body of scientific/technological literature that would inspire the youth and also the schools necessary to educate the masses to build a technologically advanced future GDR.

By the 1960s, the importance of science and technology was crystalized in education with the usage of the concept of the scientific-technological revolution (WTR)

113 Ibid.
114 Ibid.
in East German school laws. The concept of the WTR was first minted by British biologist John Desmond Bernal, himself a supporter of communism, in a 1954 issue of *Science in History* to describe how recent technological advancements were poised to upend the social orders of the world as the industrial revolution of the past had done. For many of the Eastern Bloc countries, the WTR gained ground as the best-articulated vision of technology’s ability to beget full communism and fulfill some of the primary promises of Marx. The WTR, as defined in the School Law of 1965, was nothing short of utopian: “The sciences are experiencing a tremendous boom. They are exploring new areas and blurring boundaries between one another. The time between scientific discoveries and their industrial exploitation is getting shorter and shorter. The main features of the current technological revolution include: full mechanization and automation, combined with the transition to continuous production processes and highly productive manufacturing processes; the penetration of chemical products and chemical process technologies into almost all areas of our economy and our daily life; the application of electronics and cybernetics; the development of new energy sources; the increase in efficiency of all energetic processes; and the gradual transition to industrial production methods in agriculture.”

This revolution, and the mode of futuristic living that would attend it, was deemed possible if all students in the GDR collectively worked together to activate it. As such,

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116 This is not to say that the term meant the same thing in each of the socialist lands that adopted the term. On the contrary, each of these bloc countries was their own unique entity, complete with their own desires, specialties, deficiencies, and dreams that came to differentiate individual concepts of the WTR from one another. This is not the place to expand upon the differences, minute or massive, between these ideas.
starting in 1965, the concept of the WTR came to define and guide education in the GDR. The GDR school law of 1965-1991, the law that served as the backbone of all curricula in East Germany, stressed the importance of activating a new technological revolution. The law began with the words: “the most important objectives for the comprehensive development of socialism are the mastering of the scientific-technological revolution, the development of the national economy of the GDR, and the advancement of productivity by way of the highest level of science and technology.”\textsuperscript{117} In short, “the socialist education system contributes significantly to empowering citizens to shape socialist society, master the technological revolution, and participate in the development of socialist democracy.”\textsuperscript{118}

Throughout the law, its authors detail the importance of education in science and technology from the earliest years of a child’s life to their final years of schooling within the university system. Under the eyes of the state, most students should be learning and mastering science while preparing to work in technical fields. However, those that did not directly study science were also expected to learn it and adhere to its methodologies. “The students are to be trained to think independently and to master scientific working methods so that they can strive for new knowledge in their professional activity and constantly increase their knowledge and skills.”\textsuperscript{119} This applied most of all to students engaged in more creative endeavors. Like the earlier law set into place immediately after the war, those in humanities fields were given special responsibility for popularizing the


\textsuperscript{118} Ibid, 25.

\textsuperscript{119} Ibid, 82-83.
WTR. This was to be achieved not only by using the methodologies of science in all disciplines, but also by creating excitement for an educational system that was “solely in the interests of the German people and their happy future.”\textsuperscript{120} This meant that those trained in art were given the duty of the “continuation of the socialist cultural revolution,” one that, as mentioned, placed tremendous value in and around science and technology.\textsuperscript{121} Thus, “under the influence of the rapid development of science and its role as a direct productive force, the technological revolution, and in connection with the fundamentally changed position of people in socialist society and with the formation of socialist culture, the content of general education is changing.”\textsuperscript{122}

But it was not only the general content of education that was changing in the GDR, but also the character of who was to be educated. Continuing from the 1950 law, education in East Germany was expanded to include the masses. As the 1965-1991 law held: “All citizens of our state, regardless of their gender, their social position, their ideological convictions, their creed and their race, have equal rights.”\textsuperscript{123} And while this did of course still mean the children of the previously excluded social groups such as workers and peasants were to continue to be educated, the GDR turned its focus towards the question of gender. By 1965, class distinctions were rhetorically dissolved; workers were all considered equal in the new socialist state. Gender divisions, however, remained to be eradicated. Thus, the 1965-1991 law began by declaring: “Women have been granted equal rights.”\textsuperscript{124} Throughout the text of the law, the question of gender equality

\textsuperscript{120} Ibid, 22.
\textsuperscript{121} Ibid, 118.
\textsuperscript{122} Ibid, 28.
\textsuperscript{123} Ibid, 12.
\textsuperscript{124} Ibid, 11.
was answered in terms of technological utopianism. Early in the articulation of the law, its authors demanded that “the education of women and girls for technical careers shall receive dedicated concentration.”\footnote{Ibid, 67.} This was further elucidated when the authors continued: “The striving of women and girls for higher professional qualifications is to be promoted through diverse and differentiated forms and methods. They are to be trained as skilled workers and prepared for use in middle and managerial positions.”\footnote{Ibid, 101.} The increased representation of women in technical careers was to be achieved by providing state support during their educational journey: “working women are to be supported by a variety of measures to achieve the engineering and technical college degrees.”\footnote{Ibid, 109.}

By the 1970s, the number of women receiving technological-scientific education was continually on the rise in East Germany. With the transition from Ulbricht to Honecker during the 1970s, this rhetorically meant that East German media was to focus not on the future possibilities of more women in technical careers, but rather on what had already been achieved. To this end, a 1971 Neues Deutschland article argued: “Our women have a significant share in the development and successes of the Socialist German Democratic Republic. Their role in real co-determination over the development of the GDR is constantly growing. Special recognition is due to the initiative of youth, boys and girls alike, in building up and fighting for automatic machines, in the struggle for the scientific-technical progress.”\footnote{Walter Ulbricht, “Wir gehen weiter unseren guten Weg des Friedens und des Sozialismus,” Neues Deutschland, January 1, 1971.} Within the “real-existing” utopianism of the Honecker era, the existence of women who received technological education became an
argument for the utopian achievements of current East Germany that would have been deemed impossible only a few decades prior. Indeed, implicit in this claim was also the expectation that the number of women in technical careers would continue to increase, thereby the government was able to manage the technological-utopian fixation on the future while also seeking to appease desires for a better East Germany in the present.

Thus, both the laws and the rhetoric of education in East Germany served to further the concept of technological utopianism under socialism. From the onset, this meant that education was intended to teach science to groups traditionally excluded from learning it, namely poorer children and girls. As the concept of technological utopianism developed in the GDR, the inclusion of these groups was rhetorically used to manage expectations surrounding the WTR in GDR as an already existing utopia on the one hand, and as a land constantly working to build a technological super-state on the other. In order to do so, of course, the state needed to provide as many young minds with the technical skills as possible. But if this future was going to reflect the values and imaginaries of the state, the GDR also had to teach students what a scientific-technological revolution could bring. That job would go to the discipline of history.

3.1.3. History Education as State Mythmaking

In addition to the impartation of technical skills, the creation of a technological culture and consciousness was a primary task for the education system of German Democratic Republic. Since the earliest education laws the creation of new socialist science and technology was of the utmost importance to the state. However, in order to ensure that the mass-educated citizenry made use of their technical knowledge, the GDR saw it necessary to officially cast the state as a technological advanced nation. History,
always the official mythmaking of a state, thus became a history of technology in the GDR.

As James C. Scott elucidates in *Seeing Like a State*, states seek to standardize history within their borders in order to not only control the narrative of their own self-hagiography, but also to create cohesion amongst the population in their belief in the state itself.\(^{129}\) With the attempted erasure of the Nazi past during the Soviet occupation and the emergence of the *tabula rasa* narrative, history in East Germany was neatly abolished and rewritten to frame the GDR as the culmination of the linear technological progress of history. What resulted was a Marxist-Leninist story of German history that drew progress along the lines of production, guided by socialism and driven by technology. This history was tasked with instilling students with a faith in the technological-productive capabilities of the GDR and the state’s ability to construct a technological future.

In the immediate aftermath of the Second World War, before any new socialist history could be created, Nazi history first needed to be completely erased. During the Third Reich, textbooks were rewritten, math and science twisted to eugenic and militaristic purposes, and all historical processes retold to culminate under Hitler.\(^{130}\) Indeed, under National Socialist tutelage history lessons had been fully repurposed to serve Nazi ideology. Often heavily inflected with nationalism, Germany history had long tended toward grand narratives and heroic portrayals of historical figures.\(^{131}\) The scale of historical glorification only increased under National Socialist rule over Germany: Hitler

\(^{129}\) See the sections about education in Scott, *Seeing like a State*.
was cast as the great savoir of Germany, the First World War a patriotic clash lost only due to a “stab in the back” by the Jews and communists at home, and National Socialism as the rightful continuation of past German greatness.

Thus, history, in the eyes of the occupiers, could not continue as it was—it needed to be cleansed. But the cleansing of German history was not simply intended to resuscitate an intellectual discipline; it served both of the occupiers’ larger goals of mirroring their own economic systems within Germany. This meant nothing less than the hollowing out of German history and rewriting it from the ground up. History, especially at the lower school level, is often the material of state mythology building. Thus, the occupiers of conquered Germany knew that history, with its power to be the official self-conception of the state, was extremely important on the quest to win over the “hearts and minds” of the German people.

The first step for both sides of the eventual East-West divide was the complete erasure of history from German soil. Extremely little has been written on the process of removing history from Germany in the immediate post-war years. My exploration of the process is based on a series of interviews designed and conducted by Dr. Marianne Heinemann-Knoch of the Institut für Gerontologische Forschung of both East and West German physicists and economists. The initial aim of these interviews was to examine how growing up under Nazism affected the sciences of physics and economics in two separate economic systems. I myself used these interviews in an article in German Studies Review to show how economics during the Cold War was particularly susceptible to political influence due to the insistence by economists that their discipline was a
science and therefore apolitical. While reading these interviews, I noticed a common agreement among scientists that history was completely banned during the initial occupation years. One professor of economics at the Free University of Berlin in the former West, Erich Klinkmüller, stated the situation in no uncertain terms: “The Allies indeed forbade history in 1945, it could no longer be taught. It was unclear what content German history should now hold.” This was further corroborated by a fellow West German economist Wolfram Fischer, who stated that “[h]istory was after all forbidden.” Others, like East German physicist Witlof Brunner, explained that their immediate post-war education was strictly technical, including only hard sciences and math. Indeed, these interviews reflect what writer W. G. Sebald has summed up: “From the outset, the now legendary and in some respects genuinely admirable reconstruction of the country after the devastation wrought by Germany’s wartime enemies, a reconstruction tantamount to a second liquidation in successive phases of the nation’s own past history, prohibited any look backwards.” In this way, Germans were forbidden from looking back at their nation’s history until a new content for that history could be fabricated. So complete was German annihilation that time itself was reset.

As the discipline was reimplemented, any history that could be considered “political” was ousted from schools and academies. Naturally, such an understanding of what constituted political history was cleaved across the borders of East and West. In the

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133 Erich Klinkmüller, INT08, 2001, 15-16.
134 Wolfram Fischer, INT03, December 12, 2000, 5.
Soviet-supervised East, education was reshaped to incorporate communist objectives. The question then became: what would an apolitical history look like? How could the imperialist impulses so long present in German historiography finally be expunged? The solution, it seems, was to make history more like science. This was done in two interlocking ways. First, the curricula of the East shifted away from grand historical narratives laden with heroism and militarism toward programs that sought to replicate the empirical truths of science. Second, new academic studies of Germany were conducted through the lens of economic-technological history, with the content of history being recast as a history of science and technology.

In East Germany, starting with the first curriculum enacted by Soviet occupiers and continuing until the demolition of the Berlin wall, history was to be shaped and studied as a science. Indeed, the first curriculum enacted by the Soviet presence in the Eastern zone declared that, “The supreme law of history education must be to come as close as possible to historical truth.”

Furthermore, history’s responsibility was the “recognition of the dialectical relationship between historical processes and their economic necessity.” Thus, from the onset of East Germany, history was seen as a sort of case study of technological-economic science.

The party apparatchiks of the newly established GDR continued this development, and made the connections between history, economics, and science all the more apparent. By 1966, GDR policy fully demanded a scientific study of history. Thus:

137 Lehrpläne für die Grund – und Oberschulen in der sowjetischen Besatzungszone Deutschlands: Geschichte (July 1, 1946) in Dierkes, Postwar History Education in Japan and the Germanys, 37. 138 Lehrplan für Grundschulen Geschichte 1. bis 8. Schuljahr (1951) in Dierkes, Postwar History Education in Japan and the Germanys, 34.
“A scientific view of history [emphasis in original] shall be imparted to the students. To achieve this, it is necessary that [students] should familiarize themselves with all historical-scientific knowledge and understanding of human society from the beginning until the present that is necessary for a reflection of the process of historical development in juxtaposing concrete variance and nomothetic determinism, and world-historical and national-historical processes. This knowledge and understanding plays a fundamental role in the development of a national view of history and in the realization of the basic national conceptualization of the German working class.”

Julian Diekers, in his study of post-war education, clarified what was meant by scientific history: “‘Scientific’ here did not refer to an epistemological notion of human knowledge, but instead suggested particular methodologies and an explicit reference to ‘Marxist science.’” But such an explanation of the scientific understanding of GDR education is incomplete. One would be remiss to forget that Marxist science was an economic science, and that economics in the Marxist-Leninist sense meant the collective output of productive forces. One would also be remiss to forget that productive forces in this context meant the technological output of a given society.

Thus, in the East German context, all of history could be reduced to a history of science and technology. This conception of science and technology derives heavily from the argument made by Soviet historian of science Boris Hessen in his 1931 article “The Social and Economic Roots of Newton’s Principia,” where he argued that science and

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139 Emphasis in original. Ziele und Inhalt des Unterrichts im Fach Geschichte (Klassen 5 bis 10) und Grundsätze zur Unterrichtsgestaltung und Präzisierter Lehrplan für Geschichte: Klasse 6 (June 30, 1966) in Dierkes, Postwar History Education in Japan and the Germanys, 35.

140 Ibid.
technology develop due to material conditions of the time. He argued that scientific development was not, as much of the West held, the work of individual genius, but rather the collective scientific consciousness of a society that only bubbled to the top when the material conditions were conducive to the reception of a new idea. It was precisely this sort of historiography that would come to dominate East German history. For example, in a historical article from Weltall, Erde, Mensch titled “the Construction of the Universe” by Prof. Diedrich Wattenberg, he argues “real history” began with the worldwide revolution of Copernicus. He continues, “what came from this was the development of technical instruments which gave birth to the idea of technological development.”

Technology and science, according to Wattenberg, generated the conditions for a materialist view of history when Galileo discovered sunspots and created the idea of a heliocentric world. This discovery brought about the church’s wrath, but also for the first time allowed science to exist in opposition to the church. It was then, Wattenberg argues, that societies were truly able to progress, as science and technology became productive forces. In other words, Hessen (and those who came after) argued that history was primarily driven by technology, and that understanding and mastering technology was of the utmost importance for the development of society. This historical materialism, imbued with Hessen’s conceptions of science and technology, crystalized into a version

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142 Ibid.
144 Ibid, 73.
145 Ibid.
of historical linearity that brought science and technology to the fore as the main drivers of history.

Thus, beyond the “scientific” structure of history, the content of history was also to change. As science and technology were considered naturally apolitical applications of natural truths, they were to become the focus of historical inquiry. Also, because of the East’s focus on the construction of historical materialism, there was also a need to find and define a technological trajectory to history that would help to delineate the progress from feudalism to capitalism to socialism to communism. A focus on history of science and technology would create the narrative necessary for creating a collective image of the future of East Germany.

Turning once again to the Institut für Gerontologische Forschung interviews for an illustrative example of this content change in action, it becomes clear that the type of history that would meet the criterion of creating a story of linear technological and political development would be a history of science and technology. For example, in the immediate post-war years, East German economist Lothar Baar and his colleagues worked on the history of industrialization during the 19th century in order to begin this process of creating a materialist history of the 19th century.\textsuperscript{146} Tellingly, however, the content of his study was much more technical than historical. As Baar explains, “Indeed, I spent more semesters studying pure economics, but I received a diploma in economic history.”\textsuperscript{147} But economics did not only encroach upon the study history, but also began to wrest other academics out of the humanities and into its fold. According to another

\textsuperscript{146} Lothar Baar, INT01, 2001, 8.
\textsuperscript{147} Ibid, 7.
East German economist Hans-Jürgen Krupp, the field began to bring over scholars outside of economic history. “We brought over Dr. Horn [another East German scholar], and he brought us all the best things from the German humanities. Before he came to economics, he studied theology and philosophy.”¹⁴⁸ In this way, history education in East Germany began to not only resemble science in form, but also in content. And while these interviewed scientists act as unique individual witnesses to the process of scientization in history, the actual official state curricula for history education in the GDR reveal the full extent of the pervasiveness of science and technology in GDR self-historization.

As has been mentioned prior, history education acts as the official documentation of the state’s own mythmaking, where the state’s self-declared values are taught to young students in order to integrate them into larger society. It is through history education that students learn what it means to be a part of their respective societies and also which vectors of the past they are expected to continue. For East Germany, this meant that students were taught to see the GDR as the culmination of all past socialist efforts, as well as the logical endpoint for all productive forces of history. In keeping with the rhetoric of Marxist-Leninist historical materialism, the terms “production” and “production processes” served as terminological stand-ins for the concept of technology. In short, students in history classes within the GDR were expected to integrate into the state’s concept of technological utopianism.

State curricula for history education were designed to integrate students into larger societal concepts of technological progress. Created by the Ministry for National

Education (*Ministerium für Volksbildung*), these curricula set the exact lessons for any given schoolyear. Each grade level’s curriculum detailed not only the important concepts students were expected to learn that year, but also outlined individual lessons that were to occur at specific points during the year. In this way, the state ensured that all students in the country were receiving the “correct” information at the “correct” time, while the teacher was to “impart a scientific image of history to the students,” so that the students learned the importance of science and technology as the productive drivers of history.\(^\text{149}\)

The presentation of history in the school system in the GDR followed a rough linear trajectory. Students in the lower grades began with antiquity and slowly worked up to the Soviet Union and the genesis of the GDR. Starting with the very earliest societies, the importance of science and technology for societal advancement was the focal point of student study. The 1972 curriculum for grade 5 instructed teachers that the primary goal for history education for the year should be the development of technology in antiquity. “The students should understand the connections between the development of production instruments and the betterment of work and life standards of humans, while also learning the connection between the state and character of production relationships in antiquity.”\(^\text{150}\) This, the curriculum noted, was part of the scientific chronology of history.\(^\text{151}\)


\(^{151}\) Ibid, 6.
Importantly, in the curriculum for the history of antiquity, the authors used history to define humanity itself: it is through the creation of goods and tools, they wrote, that humanity differentiates itself from animals. Humans, who are creative beings, elevate themselves by applying their higher thinking abilities to their environment. Language begets cooperation, begets the creation of tools, begets society. Thus, “though work, language, and thought, humanity differentiates itself from animal.” Students should “understand the connection between this development of production and the betterment of the living standards of humanity.” This argument lays the foundation for the rhetorical underpinnings of East German socialism: through communist cooperation and technological productive forces, humanity defines itself and builds the ideal society. Indeed, students in classes 5-7 were to learn directly that the development of production is “the rule for the development of society.” Through the development of production materials and work, “humans create history themselves” and are thereby “no passive object of history, rather history’s subject.” History, then, was the accumulation of technological development within societies.

As the students progressed in their history education, class 7 was deemed particularly important as it was the year that covered the 15th century to the middle of the 19th century and the turn from feudalism to capitalism. Again, because history was

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152 Ibid, 10.
153 Ibid, 14.
155 Ibid, 46.
taught in the Marxist-Leninist mode, the change from feudalism to capitalism taught as a leap forward for humanity. Feudalism, an extremely oppressive system built on the uncompensated work of laborers bound to the land they worked, morphed into capitalism during these years. Capitalism, while still crushingly oppressive, begat new production technologies that created the conditions for workers to eventually take over the means of production. It was precisely these new production technologies that were most important in the linear idea of progress. Indeed, according to the curricula, capitalism broke the shackles of feudalism with the advent of new production methods.  

“In this context,” the authors wrote, “one must deepen the students’ understanding that production and technology are the fundamental domains of human culture and the basic conditions of the history of human society and that capitalism represented progress from feudalism.”

What primarily differentiated capitalist technology from eventual socialist technology was the system itself: capitalism was an extremely oppressive system, one that used technology not for the betterment of humankind, but to further the imperialist exploitation of the globe. For example, as one curriculum noted, “new developments in technology, particularly regarding ships,” allowed Columbus to go and conquer indigenous lands for the benefit of empire. Under the capitalist mode of production, the globe was to be conquered to feed the endless need for input into the capitalist system. In sum, “Western European conquerors used their technological advantages to conquer

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157 Ibid, 7.
newly discovered lands.”¹⁶⁰ This was, by then-current socialist standards, a misuse of technology. Socialist technology was to free humankind from drudgery, not enslave indigenous peoples to it.

In the mid-stages of state historical education, focus shifted to the Industrial Revolution, which marked one of the most important developments in productive history. According to the class 7 curriculum, the Industrial Revolution was ‘the turning point in the history of the forces of progress against the reactionary powers.”¹⁶¹ It was, from the East German historical perspective, the moment in which capitalism began to build the tools of its own destruction. The Industrial Revolution marked an unprecedented advancement in productive capabilities, for the first time shifting the primary physical input of labor to machines rather than humans. The revolution therefore laid the conditions for one of the primary promises of Marx: that technology would replace the need for human labor and would also lead to a productive abundance that would fulfill basic human needs for ever increasing swaths of the human population. This development, therefore, had the potential to fully unshackle labor from drudgery. The question then became: how to divest emancipatory technologies from the greedy clutches of capitalists?

By the time students reached class 10, GDR educators sought to answer this question through instruction on the history of the Soviet Union and the GDR itself. Class 10 began with the victory of the Soviet people over the Nazis and moved through the

¹⁶⁰ Ibid, 14.
present to show how socialism would be the future for the whole world. The October Revolution and the victory of the Soviets over the Nazis marked the next advancement along historical materialist linearity: capitalism had finally given way to socialism. Of course, from an East German standpoint, the greatest indication of the victory of socialism was the founding of the GDR, a socialist state on the soil of Marx’s birth. Together, the Soviet Union and the GDR served as proof of the progressive nature of history.

Once again, the terms by which progress was discussed were technological. According to the curriculum, the victory of the Soviet Union over Nazi Germany marked the end of the monopoly of the US over nuclear weapons and energy. Now in the hands of socialists, this potentially limitless energy source would be repurposed from weaponry to peaceful energy production. Further in the class 10 curriculum, Yuri Gagarin’s space flight and Sputnik’s orbit acted as further proof that the existing socialist lands were technological powerhouses, poised to use their technological base to activate a scientific-technological revolution freeing humankind from drudgery. In their words, “the concept of the WTR, already well known from prior lessons, is […] the concretely displayed victories of socialist countries in the fields of science and technology.”

The combined technological achievements of socialist countries proved both the GDR’s

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163 Ibid, 12.
164 Ibid, 25.
165 Ibid, 35.
commitment to a technologically-led future and their ability to actually construct it. According to state curricula, the scientific-technological revolution had begun.

History education provided the rhetorical foundation for technological future building to attend actual instruction in technical fields. For example, a computer technology curriculum stressed the importance of technical application within industry: “when doing their productive work, students should learn the function and usage of computers for text, data, and graphic work for usage in industry (for jobs in industry) or for industry adjacent needs (computer cabinets). Students should learn things like “the usage of standard and user software, the creation of industry-ready computers and their peripheral devices, and the allocation and intake of data.” Students should also relay the “general understanding to [other] students about the usage of computers for leading processes and the economic usage thereof for the betterment of production.” On its own, such technical demands might not read so differently than their equivalents in capitalist counties, where technicians were also expected to apply their knowledge to further industry. However, within the context of GDR historical education, the aims of industry were cast differently: industries acted to bring about a technological utopia, rather than simply just to line the pockets of shareholders and CEOs.

166 Ministerrat der Deutschen Demokratischen Republik, Ministerium für Volksbildung, Arbeitsbereich “Informationsverarbeitung und Rechentechnik” für die produktive Arbeit der Schüler der Klassen 9 und 10 (Berlin: Volk und Wissen Volkseigener Verlag, 1989), 3.
167 Ibid, 4.
168 Ibid, 6.
3.1.4. Conclusion: The Purpose of History Education in the GDR

History education in the GDR acted as a vehicle through which the state stressed the importance of science and technology for building the future of socialism and the GDR. Throughout state curricula, history was presented as the collective effects of the productive technological forces within society as dictated by the material conditions of the time. This history, done in the Marxist-Leninist mode, was conceived linearly, assuming an inevitability of progress from tyranny to feudalism to capitalism to socialism to full communism. History education functioned primarily to mold students toward an actual belief in the technological future of the GDR, to provide the rhetorical mythmaking for the state to claim itself both a historical inevitability and a force of good in the world. While other sectors of education provided the technical skills for building a future utopia, history education argued for its necessity. Only together could the GDR claim a dedication to building full communism.

As a *Neue Zeit* article sums up, the purpose of education in the GDR was to teach both the importance of learning to master science and technology along with the skills to conduct and create: “In the past, the workers' movement workers fought to defend the interests of the working class against the greed of the capitalists in strikes and other conflicts. Today, in the socialist state which is the fatherland of the working people, the functionaries of the working class must prove themselves not least in the struggle for the mastery of social science and the scientific-technical revolution to achieve superiority.
For only in this way can the vital interests of the working class and of the entire people be perceived in the long run.”\(^{169}\)

Formal education in the GDR acted to fulfil two primary roles in service to the scientific-technological revolution and the activation of a future utopia. The first role was obvious: scientific and technological education were to instill the technical skills necessary for creating a technological base in the GDR, thereby establishing the state as a technological powerhouse then and in the future. Thus, state education focused heavily on STEM education and sought to get as many young boys and girls invested in technical skills as possible. However, the second role of education in the GDR manifested primarily in history education: the state also needed to get children interested in the concept of a technological future, and to believe that the GDR was capable of bringing about a better life through socialist technology.

This task, the genesis of belief, was of course much trickier than the migration of scientific knowledge from experts to neophytes. In order to achieve a totality of belief, the state’s system of education needed to move beyond the confines of the school day. Thus, the definition of state education expanded to include another aspect of childhood development: the Youth Ceremony (Jugendweihe), where children officially transition from child to young adult, and, as we will see below, affirmed their belief in science and their commitment to building a technological socialist future.

3.2. The Jugendweihe

3.2.1. Introduction: A Techno-Utopian Replacement

As the GDR transitioned into a Marxist-Leninist state, it attempted to shed old German Christian roots in favor of a scientific rationality more in line with the political atheism of the Soviet Union. While this did not mean a complete eradication of church
life in East Germany, it did mean a cultural shift away from Christian Confirmation as a cultural signifier of adulthood. In its stead came the Jugendweihe, or Youth Ceremony. The Jugendweihe was meant to mark the end of school and the official passage into adulthood, and typically occurred at age fourteen. By the end of the ceremony, young adults would be addressed with the formal (Sie) rather than the informal (du) for the first time. The Jugendweihe was first founded in 1953, only a few years after the founding of the GDR, after some pressure from Moscow to exchange the popular religious ceremony for a secular one.\(^{170}\) During the event, young adults expressed their belief in science and their dedication to building a new world under the aegis of socialism, rather than a belief in any sort of god to guide them.\(^{171}\)

The Jugendweihe in East Germany served as an educational indoctrination point into the state’s larger technological utopianism. Because the ceremony was replacing a religious one, it needed an entity to stand in for the concept of god. Science, and the results thereof, therefore took on a semi-religious standing within the Jugendweihe and East German culture more generally. Indeed, as Robert Elliott described in *The Shape of Utopia*, "Utopia is the secularization of the myth of the Golden Age, a myth incarnated in the festival of the Saturnalia."\(^{172}\) In other words, the shaping of utopia itself is a religious-adjacent practice, done in the secular world rather than the spiritual. As East German society began to construct a future myth of technological greatness, it placed its future utopia on earth rather than in the spiritual realm.

\(^{171}\) Ibid.
This transformation of science into a semi-religious entity occurred in both form and content. Depictions of the concept of science replaced religious images in the ceremony. For example, a 1972 invitation to the Jugendweihe bore a logo that contained only the faces of a young boy and girl, a dove of peace, and a picture of an atom.\footnote{“Einladung Jugendweihe 1972,” 1972, DDR Museum.} A eponymous magazine’s front cover showed smiling faces at work in technical careers, some looking under a microscope, others discussing advanced technologies.\footnote{“Jugendweihe: Zeitschrift für Mitarbeiter und Helfer,” May 1971.} In an imagine from a 1978 Jugendweihe in the Wende Museum’s 	extit{DDR-Handbuch}, the stage adornment features a large flower that contains the profiled faces of a boy and a girl gazing off into the distance where a factory is illuminated by a shining sun.\footnote{Justinian Jampol, Benedikt Taschen, and Wende Museum (Culver City, Calif.), eds., 	extit{Das DDR-Handbuch: Kunst und Alltagsgegenstände aus der DDR: die DDR-Sammlung des Wendemuseums} (Köln: TASCHEN, 2017).}

These depictions of industry, science in action, and science in Platonic form replaced religious symbols and were meant to function in the same manner. Much like the image of Jesus on the cross, the joining of pictures of atoms with the smiling faces of young adults was meant to humanize otherwise abstract concepts. According to the 1961 Central Committee for the Jugendweihe of the GDR, "In this way, cultural work in the field of the Jugendweihe also contributes to shaping the human face of the socialist future." Images of science and technology for the Jugendweihe quickly associated future adulthood with technical and scientific careers.

Positioning young adults as the state’s future saviors was an explicit goal of the ceremony. As Ulrike Breitsprecher noted, “It [the Jugendweihe] started in the 1950s with
clear utopian visions.”\textsuperscript{177} Coming out of Nazism, with its hatred of communism, “only the youth remained, who were perceived as fresh and politically malleable.”\textsuperscript{178} Given the nature of East Germany’s attempt to break with the past and pour all hope towards the future, it was of course children who would take up the task of making a better tomorrow. Of course, as Breitsprecher further notes, this was not unique to East Germany. “It was not only in this particular situation in post-war German history that young people were seen as pioneers of a better future. As a rule, it served all socialist movements and societies as a special addressee and bearer of hope for political ideas and utopias or ideas of a better future.”\textsuperscript{179} However, as has been explained, East Germany sought to channel the power of the state’s youth toward a technological utopian vision.

3.2.2. The Structure of the Jugendweihe

Much like in the Christian confirmation it was replacing, students seeking to undergo the Jugendweihe were first required to study and prepare for the ceremony. During these preparatory hours, the state was able to further exert political influence on the budding comrades and shape them according to the state’s ideas of the future. Preparation for the Jugendweihe involved direct discussions of how East Germans should live their lives. The content of these lessons provided little in the way of concrete images of the future. Indeed, according to Breitsprecher, the concrete topic of the future was only marginally mentioned in instruction booklets for youth lesson leaders.\textsuperscript{180} Rather, children were asked

\textsuperscript{178} Ibid.
\textsuperscript{179} Ibid.
\textsuperscript{180} Ibid.
instead to imagine a world where socialism ruled worldwide. Accordingly, the first lessons for the study hours were called “what does youth consecration mean? The step into life, today and tomorrow,” but developed into the history of mankind, the mastery of nature, and the need for peace.”\textsuperscript{181} Thus, the lessons taught during preparation for the ceremony mirrored closely the types of lessons present in history curricula: the past always led to socialism, and the future belonged to communism.

The mastery of science and technology was the conduit of the realization of this inevitability. Should one take in interest in science and technology, they would have an active role in shaping the future. Such a sentiment was explicitly addressed in the Jugendweihe participation booklet from 1969. Albert Norden, a member of the Politburo of the SED, began the booklet by addressing young readers directly: “The idea of a socialist future presents a challenge to you. Meet this challenge head on! Know that our socialist future is not yet finished, […] but love the future! Hurry to meet it! Accelerate its arrival!”\textsuperscript{182} It continues, “Before you there is a beautiful future, and by acquiring a high level of knowledge and with your constant readiness to work for socialism, you will have a say in what that future will look like.”\textsuperscript{183}

The actual structure of the ceremony itself was relatively simple, following closely the structure of its Christian predecessor. Soon-to-be young adults would populate an auditorium with their parents and teachers, whereafter the teacher of the class (or another notable guest such as a politician) would first give a speech to mark the importance of the

\textsuperscript{181} Ibid.
\textsuperscript{183} Ibid.
moment. Then after, each student would make a pledge, swearing themselves to the service of the future of the socialist state, and cross into adulthood. Finally, students were given the gift of commemorative books meant to help guide them on their journeys in the future.

Speeches given during the Jugendweihe were highly technologically utopian in content. A speech by Ruth Seydewitz, founder of the publishing house “Neues Leben,” for the 1964/1965 Jugendweihe provides an illustrative example: “We often say that we live in the era of technology. Our children experience technology almost as soon as they are born, and for this I am happy. But, because I am a woman, I am particularly happy for our young girls, because they have the opportunity to learn so much about the field of technology. And yet, I would argue, that saying that we are in a technological age is not entirely correct. One of our greatest German poets, Johnannes Erbecher, who died all too soon, once said “we are living for the first time in the age of humanity.” So, I know that it is imperative to learn to master technology. […] But, for the first time, people are free from the estrangement of their labor, and we can as free people create, use, and live.”

She continued, “we must not only learn to master the technology, but also learn to understand the social context of that technology.” Only then can we live in the truly humanistic times she speaks of. “This,” she argued, “is the biggest and most important goal of the Jugendweihe.”

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185 Ibid.
186 Ibid.
Thus, the imagery and speeches of the Jugendweihe served to progress the notion of a coming scientific-technological revolution that would require the mastery of science and technology by the youth of the era. Because the Jugendweihe was a replacement for a religious event, the secular GDR ceremony replaced religious images with scientific ones. Serving much the same purpose, these images of science served to humanize the scientific endeavor and make it more familiar to young adults. Similarly, speeches given during the East German state coming-of-age ceremony underscored the main points of East German education: that the future was only possible through technology and that every child had a duty to participate in the process. And while the ceremony itself was indeed important to creating the image of the East German state as a land dedicated to progress, the textbooks given as gifts after the ceremony were the primary loci of the state’s crafting of the myth of the future as they were intended to be guideposts for how to live a good socialist life. In the following section, I will closely analyze these textbooks to show not only how the myth of the future was propagated, but also how that description of the future changed over time.

3.2.3. The Textbooks of the Jugendweihe

Like all coming of age ceremonies, the true work comes after completion. Freshly anointed young adults were coaxed forward into the world of adulthood to make their mark on society and to contribute to the state collective. However, they were not expected to do so entirely on their own. Instead, the East German state provided a series of textbooks after the completion of the Jugendweihe to serve as Bildungsbücher, instructional texts to help young adults acclimate into society and guide them towards the way they could live a good life in socialist society. These books, produced by the state,
were primarily pieces of propaganda for technological utopianism within the East German state. They stressed the importance of youth contribution to building the socialist state; the linear nature of history, driven by technology and science; the inevitability of socialism; the inherent socialism within science and technology; the new inclusion of women within scientific and technological careers; and the gleaming beauty of the technological future should the reader decide to dedicate themselves to building it.

As a gift for completion of the Jugendweihe, each young socialist was primarily given one of three books, depending on the era: *Unsere Welt von Morgen (Our World of Tomorrow)* (1953, but still printed thereafter) *Weltall, Erde, Mensch (Cosmos, Earth, Man)* (1954-1974); *Der Sozialismus – deine Welt (Socialism – Your World)* (1975-1983); or *Vom Sinn unseres Lebens (On the Meaning of Our Lives)* (1983-1989). Each one of the books, regardless of iteration, touted the same basic premises. These books were meant to outline the future of the GDR and the young adult’s role in creating it, as well as map out a linear socialist-materialist history of science and technology that brought about the GDR. Indeed, the introduction to *Weltall, Erde, Mensch* intoned, “this book will help children, and adults, build a scientific world view,” and that it should also inspire young readers to study science more closely.\(^{187}\) However, as times changed, power structures adapted, and technology developed, the content and character of the imagined future of the GDR changed in these textbooks. Together they functioned as a mirror of the cultural developments of the GDR.

The first book used for the Jugendweihe, *Unsere Welt von Morgen*, displayed a rare glimpse into a defined idea of what the future would look like. Throughout the entire

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book, society was given future form: fully automated factories and workplaces, cities of gleaming metal, new ultra-fast methods of transportation that would reduce unpaid time spend traveling to and from work; total human mastery over nature, the elimination of drudgery from work. Images of this future were rendered in as bright colors as the era could muster. Blues and yellows and reds of the future cities popped off the pages, accenting the cool slivers of the vehicles and buildings. These images of future methods of transportation or cities were presented in diagram form: a series of explanatory bubbles attended each image, adding an air of being a scientific textbook explaining the inherent truths of the world (see Figure 1). These images of the future were meant to inspire new comrades by showing them what their work within technical fields could achieve. As Breitsprecher summarized, “Technology and research would satisfy all human needs, and nature would be changed to such an extent that it would serve man.”

The combination of future technologies and socialist ideals would bring about a new “Homo-Marxist,” a new type of human that had mastered nature and used it for egalitarian purposes. For this reason, imperialist Western ideals would be erased from the map, replaced by a world-wide peace. In all of the books that came after Unsere Welt von Morgen, authors of the textbooks shied away from providing concrete images of the future. Instead, in order to better manage the expectations of the future, concepts of what the future would bring were made vaguer—"human drudgery would be erased”; “nature would be conquered”—but the exact method by which this would occur was obscured.

188 Karl Böhm and Rolf Dörge, Unsere Welt von Morgen (Berlin: Verlag Neues Lebens, 1959).
189 Breitsprecher, “Zukunftsdanken in der DDR am Beispiel der Jugendweihe. "Vorbereitung auf das kommunistische Morgen."”
In further iterations of the Jugendweihe textbooks, brief glimpses of the future replaced grand, sweeping visions of a totality of the coming East Germany. Rather than encourage their readers to dream, later textbooks sought to manage the expectations of what the future could/would look like. If the earliest versions of Jugendweihe futurism promised a future out of science fiction, each successive book sought to claim that some level of science fiction had already been achieved through existing socialist technology. In an article titled “On the Usage of Space Travel,” Mstislaw W. Keldysch assured readers, “What was only recently phantasy is today a reality.”190 Similarly, a chapter from Vom Sinn unseres Lebens called “What is Life” proclaimed that “what was sci-fi before is today reality.”191 Important to these claims was the idea that the actual construction of

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socialism as it existed had produced results that were once considered impossible. In the same chapter from *Vom Sinn unseres Lebens*, the author claims that space travel had always been connected to utopian ideas.\textsuperscript{192} However, the advent of socialism in the Soviet Union and in East Germany brought an impossible idea from fiction into reality. In a similar rhetorical turn, the authors of *Vom Sinn* claimed that soon East German scientists would be able to synthesize nuclear material and begin the ancient dream of creating things like an alchemist.\textsuperscript{193} *Vom Sinn*, appearing in the 1980s, took on the task of beginning to show young comrades that East Germany was making good on its promises of building a promised future.

Throughout these later textbooks, the reader is occasionally offered images of the future that East Germany had yet to build, but would be able to with the help of the youth. For example, in “Friendship – Cooperation – Socialist Economic Integration,” Gerhard Schürer argued that “the socialist people of the future will work in gigantic industrial complexes and in the most modern factories throughout the socialist world.”\textsuperscript{194} Because such factories were already appearing across East Germany, “This future has already begun.”\textsuperscript{195} However, beyond promising a phenotypical change to cityscapes, Jugendweihe textbooks promised biological manipulation that would usher in a new era of humanity. A chapter in *Weltall, Erde, Mensch* on biology promised that East German scientists would “solve of the question of photosynthesis and eventually be about to

\begin{footnotes}
\item[192] Ibid.
\item[193] Ibid, 54.
\item[195] Ibid.
\end{footnotes}
produce synthetic food.”196 Similarly, *Vom Sinn*’s authors argued that biology was becoming a “science of production” as gene manipulation became a regular science, as exemplified by using animals to produce human insulin.197 Such promises came to replace grand technological changes to the cityscape, as biological changes were more invisible and subtle, easier to hide if they did not come to pass.

Although the successor Jugendweihe textbooks after *Unsere Welt von Morgen* lost almost all of the concrete imagery of future cities and technologies, their primary theme remained the development of a scientific consciousness, for when the concept of the future lacked a concrete form, it could be reduced down to technology. According to Keldysch, “there are many uses for space travel, chief among them is the changing of the view of the world.”198 As the introduction to *Weltall, Erde, Mensch* began: “You are living in an age where the critical economic and technological revolution shall deepen the human character.”199 Articles throughout all three of the primary books drove home the idea that technology would be the pathway toward an East German future. In an article titled “History Knows no Pause” from *der Sozialismus – deine Welt*, Heinz Hümmler argued that “Every day we experience the advancement of science and technology through the people’s economy and with international cooperation with other socialist lands.”200 However, “the proletariat needs a scientific clarification of history in order to properly lead the class struggle.”201 That progression of history, much like what was

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197 Oppermann, *Vom Sinn unseres Lebens*, 53.
198 Keldysch, “Vom Nutzen der Raumfahrt,” 278.
201 Hümmler, 72.
argued in school curricula, was the development of tools, production, and the ends of production. Therefore it was the job of these books to guide the proletariat through a scientific view of history in order to understand and bring about a future socialist utopia.

Along these same lines, these textbooks maintained the deep, yet sometimes subtle intertwining of politics and technology. In Max Steenbeck’s article “Science and Responsibility,” he argues that technology offers East Germany the chance for an “almost unfathomable scientific perfection.” However, after the dropping of nuclear weapons, humans learned for the first time the equally unimaginable power of technology to destroy. Therefore, in order to ensure the peaceful advancement of socialist humanity, everyone, even nonscientists, had a responsibility to ensure there is no misuse of science. Steenbeck defines a misuse of science not in the act of scientific observation, which was considered neutral, mere observation of truth, but rather in its application. Thus, “a discovery is never a misuse of science at first, only in its application: this is the core of the problem.” In other words, it was technology that rhetorically housed the politics of science. Of course, in practice, science itself was indeed political and even discussed as such.

Further articles from the Jugendweihe textbooks exemplified the actual politics within science. In Dörge’s chapter in Weltall, Erde, Mensch, titled the “Conquering of the Atom,” he mentions that science and technology have always been tied to the high politics of the era, particularly in regards to gender. When discussing the materialism of

\[ \text{Ibid, 73.} \]
\[ \text{Max Steenbeck, “Wissenschaft und Verantwortung,” in Der Sozialismus - Deine Welt (Berlin: Verlag Neues Lebens, 1975), 96.} \]
\[ \text{Ibid.} \]
\[ \text{Ibid.} \]
past scientists, Dörge mentions Marie Curie as an example of the past oppression of women. He states, “she had to be a mother, a housewife, and a researcher at the same time.”

Similarly, in an article called “Natural Scientists Fighting for the Truth,” from *der Sozialismus – deine Welt*, Friedrich Herneck argues that scientists have some essential elements: they are diligent, happy, and maintain a spirit of self-sacrifice.

Again, Marie Curie was used as an example of the self-sacrifice of science, but also the political nature of the oppression of women

That East Germany offered women the chance to do science was another key feature of these books. Most exemplary of this theme was a chapter from *der Sozialismus – deine Welt* by Marlis Allendorf called “Women in Socialism – a Path without Comparison.” Throughout the chapter, Allendorf drives home the point that East German offered an entirely unique opportunity for women to enter into scientific and technical careers. This, she argued, was only possible under socialism. Recalling August Bebel’s 1897 work “Women and Socialism,” Allendorf reminds readers that it was once thought impossible that men and women could be equal.

Prior permutations of Germany had considered women inferior to men, incapable of higher thought needed to enter into technical careers. “Think,” she demands, “of the thousands of women from past generations who had a mechanic, or technician, or an engineer within them.” However, this misogynist

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208 Ibid, 93.
210 Ibid, 272.
211 Ibid.
argument was not simply a relic of the past. The West, due to its attachment to conservative imperialist ideals, was still disallowing women from reaching their full potential. Allendorf reminded readers that “all over the world, women are oppressed,” and that “83.4% of all women cannot read or write.” Thus, the GDR’s high placement of women within technical and scientific careers marked a point of pride for the state, and made it “clear that we have left behind the capitalist lands in this regard.” In another similar article called “How We Work Today is How We Will Live Tomorrow,” Christa Seifert argues, “First and foremost, there have been many improvements in the workplace for us women. This includes, in particular, the elimination of heavy manual work, the nicer design of the rooms - flowers in front of the windows and on the tables also make work more pleasant - and the great support that [the state] provides in caring for our children through additional kindergarten places […] But I am also thinking of our company library.”

Most telling, however, is a quote from a young girl that Allendorf uses as an example of the power of the youth to build the future. According to the young girl, “My favorite subject is physics. I dream of working in one of the huge hydropower plants on the wild Angara or the Yenisei, or even preferring to help build a completely new one, to fight against nature, like the builders of Bratsk. I may live on the Spree, […] nevertheless: my life will never be boring in the GDR.” Here this young girl hits upon some of the primary points of East German technological utopianism. First, she realizes her potential

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212 Ibid, 274.
213 Ibid, 276.
as a young woman to join the technical workforce. Secondly, she also realizes that she herself, by joining the workforce, has the power to shape the future. Thirdly, the large scope of her dreams beyond East German boarders reflects the concept that socialism will one day cover the earth. Finally, and most importantly, she notes that socialist technology’s main usage is the conquering of nature. Along with the removal of drudgery, this was a primary goal of East German technological consciousness.

Thus, Jugendweihe textbooks were written to guide young comrades into their journey into adulthood. Primarily, they sought to instill the ideals of technological utopianism into young men and women alike, preparing them to believe that a communist future of East Germany was not only possible, but attainable. As a chapter in *Vom Sinn* summarized, “Let's assume someone dreams of one day controlling entire production processes as a process specialist or an engineer, and, to a certain extent, of mastering certain natural processes that have been converted into technological processes. This is an ideal that is undoubtedly worth striving for and realizable under socialism. But without the acquisition of scientific, technical, and sociological knowledge, the ideal will remain an illusion for the person concerned.”

At first, the authors of the Jugendweihe texts presented concrete images of future cities that would spangle the future landscapes of the GDR. However, as socialism settled into being the everyday reality of East Germany, visions of the future became more vague, more difficult to disprove. At the same time, Jugendweihe textbook writers began to argue that the GDR had already achieved some of the promises of the future. Authors stressed space travel and the equality of women as elements of human existence that were

216 Oppermann, *Vom Sinn unseres Lebens*, 216.
long since dreamed of, heretofore deemed impossible. The future, then, in some ways, had already arrived.

The question then became: how could the authors of these textbooks maintain a hope in a technological future while also arguing that it already existed? The answer came through the Marxist materialist idea of the transition phase between socialism and full communism. According to Grigori J. Gleserman, in his chapter titled “On the Way to the Communist Future,” the two phases of socialism and communism are differentiated by their technological development of production.\(^{217}\) In his estimation, full communism would require full automation of production processes, something indeed underway in East Germany, however still a way off in the future.\(^{218}\) Socialism, therefore, was not just a short stop before communism, it was a semi-permanent phase to prepare both a technological basis and the technological consciousness to wield it.\(^{219}\) Thus, the GDR was not developed enough “for people to work without the government.”\(^{220}\) Therefore, the “creation of the material-technical basis of communism is the most important requirement for the full transformation into full communism.”\(^{221}\)

Similarly, in a chapter called “Revolution – the Locomotive of History,” in *Vom Sinn unseres Lebens*, the author names the SED as the inheritor of all progressive elements of the German people, vanguard of the development of the future.\(^{222}\) The chapter argues that socialism would have to remain in place for the time being under the guiding light of the

\(^{218}\) Ibid, 302.
\(^{219}\) Ibid, 307.
\(^{220}\) Ibid, 303.
\(^{221}\) Ibid, 307.
\(^{222}\) Oppermann, *Vom Sinn unseres Lebens*, 149.
SED in order to fulfil the economic development and development of science and technology needed to advance to full communism. Thus, the Jugendweihe textbooks sought to manage the expectations of the future of East Germany, seeking to inspire hope in the future enough to have the youth become state engineers, while also maintaining placidity within the population waiting for things to become tangibly better in the present moment.

3.3. Conclusion

3.3.1. The ‘Real-Existing’ Utopianism of the Jugendweihe Textbooks

As discussed in the chapter prior, the most explicit example of technological utopianism within the Jugendweihe textbooks was Gerd Irrlitz’s “the Age-old Desire of Mankind.” In it, Irrlitz positions the GDR as the final iteration of the socialist dreamers of old. Starting with Thomas More’s *Utopia*, Irrlitz points the vectors of Saint-Simon, Fourier, and Owen towards the GDR, arguing that past dreamers had failed not because their visions were unjust or lacking, but rather because they did not have the full backing of an existing state. According to Irrlitz, the GDR, a mature state, offered new socialist dreamers the material backing to construct a real-existing utopia on earth.

Irrlitz’s chapter appeared at a turning point for the GDR’s technological utopianism. Published within *Der Sozialismus - deine Welt* (1975-1983), it was included in the first Jugendweihe textbook entirely under the command of Honecker. As has been established, the Honecker era ushered in a much deeper focus on socialism “as it existed,” rather than how it could exist. With the repeal of the New Economic System (NÖS) and the

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223 Oppermann, 159.
relatively quick dismissal of Ulbricht era techno-utopian projects, such as the Akademie der marxistisch-leninistischen Organisationswissenschaft (AMLO) meant to train new thinkers in cybernetics and computing, technological utopianism in the GDR was forced to adapt. Instead of turning all eyes toward the future at the expense of the present, Honecker era utopianism focused more on providing consumer goods. However, in order to maintain the argument that the future would remain a grand technological paradise in service to inspiring new engineers, 1970s-1980s technological utopian rhetoric in the GDR attempted to strike a balance between claiming that the GDR would create “almost unfathomable scientific perfection,” and that the GDR was an already-existing paradise. This trend was directly reflected in the final two Jugendweihe textbooks, Sozialismus - deine Welt and Vom Sinn unseres Lebens.

Furthermore, the Jugendweihe textbooks also reflected the changes in technologies of the times and, thereby, their role in imagining the future. As technologies developed in East Germany and the power structures of communism changed, so did the technological-utopian signifiers at the time. In the early era of the GDR, that signifier was atomic energy. According to the East German imaginary, by harnessing the power of the atom, humanity had discovered a limitless energy source, and was now able to endlessly power the cities and transportations of the future. Thus, the one of earliest of the Jugendweihe books, Weltall, Erde, Mensch, spoke of atomic energy as a primary focus of hope for the future development of East Germany. In the chapter titled “the Conquering of the Atom,” Rolf Dörge, co-author of Unsere Welt von Morgen, claimed that the scientific

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technological revolution needed “a new source of energy, unlike burning fossil fuels.”\footnote{Dörge, “Die Eroberung des Atoms.”} This new energy source would be the atom itself. According to Dörge, the energy from atoms, the individual units of life, were now capable of making an ancient desire of mankind possible: the ability to reproduce the power of the sun.\footnote{Ibid, 61.} Much like Unsere Welt von Morgen, he envisioned this limitless energy changing the face of cities forever, unshackling humanity from the drudgery of work. For Dörge, this future lurked just around the corner, and he claimed that such infinite and clean energy should be available by 1980s as uranium became cleaner and reactors more safe.\footnote{Ibid, 53.} Moving into the realm of science fiction, Dörge also posited that atomic energy could be used to quickly mutate plants to grow larger and faster, thus enabling a more constant food supply, or even to synthetic food yet unseen on planet earth.\footnote{Ibid, 58.} Atomic energy, then, would be capable of bringing about a future GDR worthy of science fiction.

Weltall, Erde, Mensch remained the primary Jugendweihe text from its inception in 1954 until it was retired and replaced in 1974. Its twenty-year run was interrupted by the transfer of state power from Walter Ulbricht to Erich Honecker. With Honecker’s rise came a new focus on consumer socialism and making the present moment more bearable while still attempting to offer the promises of the future. As such, a new Jugendweihe text, Der Sozialismus – deine Welt, stood to teach children about this new ‘real-existing’ socialism and how it would come to shape their lives.
Again, this change from Ulbricht to Honecker did not spell the end of an idea of a future utopia in East Germany, but rather a change in it. The lines of continuation for the concept of utopia are immediately detectable in *Der Sozialismus – deine Welt*. In an early chapter titled “The Map Shows in which Direction the Earth Turns,” Heinrich Eberhard states that utopia is “yes, an inflammatory idea,” but necessary for “the imagination of people who want to see and model a better world.”\(^{230}\) However, much in keeping with the managerial mentality of “real-existing” utopianism, he goes on to note that socialism itself was “a crazy idea, but now socialism covers a third of the world.”\(^{231}\) Eberhard, in this short chapter, cleanly distills the utopianism of the Honecker era but tries to strike a more realist—if concessional—tone, insisting that the GDR is already proof of once-unthinkable ideas made manifest. The promises of socialism are no longer fulfilled through changes in material reality, but are evidenced simply by the fact that socialist states exist.

This second book marked a point of exchange not only for the high politics of the era, but also for the changing focus of technological utopian signifiers. For the writers of *Der Sozialismus – deine Welt*, atomic energy was dethroned as the East German technology of the future, and a new savoir anointed. In his chapter titled “the Socialist People’s Economy – a Field of Preservation,” Eberhard Prager describes the future of East Germany as one made from plastic. While often considered cheap and disposable in the West, plastic was deemed a material of the future in East Germany, with design journals

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\(^{231}\) Ibid, 33.
such as *Form und Zweck* boasting its beauties and potentialities.\(^{232}\) However, plastic was also poised to solve a persistent problem of production that dogged East Germany from the start: the lack of natural resources. Accordingly, Prager noted that the development of technology in the GDR aimed for four things: first, the creation of things of better quality at a lower price; second, using raw materials in a more rational sense to save coal and energy; third, to reduce the reliance on raw materials through new chemical processes such as plastic; and finally to order all branches of industry into a scientific organization.\(^{233}\) According to Prager, “the ‘secret’ to many successes is to find scientific-technological problems whose solutions also enable versatile improvements. An example of this is the development and implementation of polyurethane.”\(^{234}\) Prager then goes on to explain the malleability of polyurethane, how it can be molded into all types of shapes and forms, including objects of beauty like furniture, now formed by a material that lasts forever.\(^{235}\)

The final book, *Vom Sinn unseres Lebens*, following the technological trends of the time, then turns attention to electronics and computers. In a chapter titled “The GDR – Land of the Youth,” the author expounds at length about the importance of the youth for constructing the future. If the youth were interesting in helping the future, he argued, they would focus their attention on microelectronics, named as a specialty of the GDR and of the utmost importance for coming five-year-plans.\(^{236}\) Furthermore, turning once again to

\(^{236}\) Oppermann, *Vom Sinn unseres Lebens*, 173.
the future, these microelectronics could someday be used to inhabit robots that would help automate away the drudgery of factory work.\textsuperscript{237}

Beyond the high technology of the era, \textit{Vom Sinn unseres Lebens} marked the final iteration in the evolution of technological utopianism in East Germany. Only coming into print just a few years before the fall of the wall, \textit{Vom Sinn} sought to explicitly declare that some, if not many, of the utopian promises of the early GDR had been achieved. In one section titled “the Time in Which We Live,” the author argues that “our time is also one of great progress and incredible development of science and technology.”\textsuperscript{238} Furthermore, the book argues, “what was just a few years ago simply a dream is today is reality: the peaceful use of atomic energy, products that create a better standard of living, worldwide information transfer, modern technical developments for transport, and the discovery of new raw materials through biology and chemistry.”\textsuperscript{239} Rhetorically similar to prior claims of existing greatness, the most marked shift in utopian rhetoric comes only shortly thereafter: “In the socialist countries, even if we do not live in abundance and have to work hard on things again and again, our achievements in science and technology as well as our entire material, cultural, and spiritual potential are used for the benefit of man. They are used for our real liberation from hardship and drudgery, for education and culture, so that we can control nature and society ever more comprehensively. We are able to use our knowledge and abilities for the well-being and happiness of all.”\textsuperscript{240}

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\textsuperscript{237} Ibid, 176. \\
\textsuperscript{238} Ibid, 10. \\
\textsuperscript{239} Ibid. \\
\textsuperscript{240} Ibid, 11. \\
\end{flushleft}
using science and technology for the good of all distills the nature of late-stage technological utopianism: the GDR had made some technological achievements, and perhaps more lurked in the future, but it was important to accept the GDR as it existed. Elsewhere within the book it remains clear that the units of measurement of achievement had changed. In a chapter called “the Scientific-Technological Revolution and the Advantages of Socialism,” even the WTR is half-heartedly declared complete: “We have gone to space.” The article argues that all of humanity’s past scientific endeavor had led to the moment of going to space. Now that this had been achieved, one need only maintain the system that had made such an achievement possible.

Finally, *Vom Sinn unseres Lebens* encapsulates the permutation in technological utopianism of East Germany though one rhetorical trick. Begun in the work of Georg Klaus, premier cybernetician of the GDR, who argued that cybernetics could only be built to function in a society of strict rules such as the GDR, *Vom Sinn* makes the argument that true freedom came from following rules. “If one tries to build a house without following the rules of physics, they won’t have the freedom to live inside.” Much like Klaus, this small musing betrayed the larger project of the late GDR. Gone was the full promise of a better future powered by technology. The real utopia now was the preservation of the society that had already achieved greatness.

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241 Oppermann, 221.
243 Oppermann, *Vom Sinn unseres Lebens*, 221.
Chapter 4: Toys and Hobbies: Playing with Utopia

“The right of our children to play with and receive toys has not been forgotten; it is one of the major tasks of construction [of the GDR]. Toys are not worthless trinkets; we recognize that they have social and economic value; toys are the most important extracurricular educational tools.”

- Berliner Zeitung, December 3, 1950

“Utopia has something in common with the games of children, the radical simplification of the model builder, and the outsider seeing the familiar in a new way.”

- Fredric Jameson, Archaeologies of the Future

4.1. Introduction


The advent of the German Democratic Republic (GDR), offered East German communists the opportunity to redefine what the future of Germany could look like. Coming out of the devastation of World War II, East Germans saw greatness not in the past or the present, but gleaming off in the future, a technological utopia activated by the “scientific-technological revolution.” This revolution would require the full mobilization of the state: a subservience of all other disciplines to science and technology, a massive influx of workers into engineering and technical jobs, and a continuous funding of large-scale technological projects. The result, if all went according

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246 For East German textbooks espousing this belief see: Heinrich Gemkow, Der Sozialismus - Deine Welt (Berlin: Verlag Neues Lebens, 1975); Lothar Oppermann, ed., Vom Sinn unseres Lebens (Berlin: Verlag Neues Lebens, 1983); Alfred Kosing, Weltall Erde Mensch (Berlin: Verlag Neues Lebens, 1971); Karl Böhm and Rolf Dörge, Unsere Welt von Morgen (Berlin: Verlag Neues Lebens, 1959).
to plan, would be what an East German textbook defined as an “almost unimaginable scientific perfection.” In the minds of technocratic apparatchiks, industrialization, mechanization, and cybernetics became the sequential watchwords of communism, and technological-scientific revolution the logical endpoint of Marx’s convictions.

However, East Germany was not born in a vacuum. Inheritor of Nazi crimes, the new socialist, anti-fascist state was built on fascist grounds, with fascist parts, and in some part by fascists themselves. As such, the state’s new emancipatory socialist dreams were, at least at the beginning, tainted by the realities of its population. Thus, children, either too young to remember Nazism or born thereafter, were the true harbingers of the socialist future.

As we have explored in the previous chapter, the revolutionary potential of children was tangibly felt in the structures of East German education. The newly restructured school system steered toward science and technology education, while historical education drew the contours of a history of technology, hoping to both awaken the spirit of technology in students but also scientize the historical process and align it with Marx’s historical materialism that marked progress as inevitable. Additionally, the Jugendweihe, secular successor to Christian Conformation, attempted to imbue coming-of-age children with the foundations of a socialist-technological consciousness to become the activators of the scientific-technological revolution that would rocket the socialist world into the future, far surpassing the Western world while freeing East Germans of want and drudgery.

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But with a task as large as constructing a future technological utopia, the state deduced that formal education was not sufficient for fully preparing a budding comrade for the future. Structured education, the actual hours spent sitting in school or at home doing homework, were limited. So many hours of free time were left to be potentially be frittered away on unproductive tasks or lost in thought, dreaming of a world outside of socialism, while children too young to attend formal classes could miss out on formative years of socialist acclimatization. Thus, the state sought to install its technological-utopianist imaginary into the free time of children as well.

This chapter explores that process by examining toys and hobbies as both a catalyst and microcosm of East German technological utopianism. More specifically, I argue that the educational and industrial structures of the German Democratic Republic aimed to use toys to inspire young boys and girls to pursue a career in engineering, to foster a collective belief in the scientific-technological revolution, and to work towards the communist goal of gender equality.

Of course, not every toy in the GDR carried the burden of futurism. Children could, and did, play with toys or have hobbies that were futuristically agnostic. However, play in this fashion was deemed frivolous and wasteful. Indeed, one *Berliner Zeitung* article noted: “…balls, rings, hoops, painting and picture books – near all of these traditional toys there comes a new dominating force in the world of toys: technology.” Instead, children could now play with small washing machines, toy boats, all sorts of technologies in miniature for young boys and girls.248 Therefore, I argue, that the state, wherever possible, strove to make play and hobbies educational. This was primarily

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achieved in two ways. First, the state produced and supported educational toys, or toys that historian Amy Ogata defined as “toys intended to teach physical skills or develop cognitive abilities.”

For East Germany, these types of toys mainly fell into three categories: construction kits, model trains, and computer toys. Although distinct, these three types of toys all served the higher purpose of invading the child’s free time in order to direct towards a state vision of the future while also imparting technical skills to bring that future about. Educational toys in East Germany were seen as teaching toward a future career in engineering.

The second primary way the state sought to keep play and hobbies educational was to encourage their execution under the watchful eye of the state itself. Rather than send a Stasi agent into every home, the GDR instead encouraged young comrades to join youth groups and practice their hobbies among like-minded individuals and trained state representatives. Groups like the Young Pioneers (JP) used the club houses of industries (like the Reichsbahn) to pursue hobbies ranging from model train building to dance to theater. That these club houses were attached to industry was no accident. Leaders and managers from the industry could work with children on their hobbies with the hope that they would, as a byproduct, become interested in the industry itself. This was doubly true for educational hobbies like electronic tinkering, model train building, or construction set erection. Such hobbies were pitched as group activities so that the young neophyte could have access to the state’s leading experts in industrial fields. Thus, through industrial club

249 Amy Fumiko Ogata, Designing the Creative Child: Playthings and Places in Midcentury America, Architecture, Landscape, and American Culture (Minneapolis: University of Minnesota Press, 2013), 35.
houses and state youth groups, the larger goal of a technologically literate and socialistically compliant future work force was begun.

Throughout the course of this chapter, I examine toys as conduits of cultural values of the GDR. As Walter Benjamin noted in the late 1920s in *The Cultural History of Toys*, “children do not constitute a community cut off from everything else. They belong to the nation and the class they come from. This means that their toys cannot bear witness to any autonomous separate existence, but rather are a silent signifying dialogue between them and their nation.” Steven Gelber echoed this concept years later in the American post-war context in *Hobbies*: “play, of course, is almost universally recognized as the way children learn and practice their roles in society.” This was of course true for the GDR as well. However, what differentiated the state from both its own German past and the capitalist west was the GDR’s cultural values that dictated that play should teach children technical skills, comradery, excitement for the future, and gender parity.

In this chapter, I also problematize the scholarly distinctions between play and hobbies through the lens of East German discourse on toys. If, as Johann Huizinga suggests in *Homo Ludens*, “play is superfluous, but is turned into a need through the enjoyment it provides,” what differentiates a hobby from play generally? According to Gelber, “Hobbies occupy the borderland that is beyond play but not yet employment.”

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Within the East German context, hobbies were always meant to be educational, useful in some way to one’s own development in service to the goals of communism. If possible, they were to happen under the auspices of state institutions such as the Free German Youth (FDJ), the Young Pioneers (JP), the Society for Sport and Technology (GST), or, in the case of model trains, the Young Railroaders (JE). The industries of the state, be it railroading, chemistry, or otherwise, maintained clubhouses where children could sing, dance, play sports, and explore many other hobbies. Additionally, the instructional booklets, advertising, packaging, and journalistic coverage of these toys meticulously laid out their “proper” usages and described how playing could help develop a child's technical skillset. Toys and hobbies in East Germany, then, were explicitly intended to educate. Indeed, a 1969 Neue Zeit article began by declaring, “hobbies are no longer simply play. Increasingly, modern technology and free time are proving to be in a fruitful marriage.”

This claim by Neue Zeit marks an interesting East German distinction between “simple” play and hobbies. Hobbies in the GDR, it seems, were seen as something above play, done with an intentionality of learning, be it technical skills, comradery between hobbyists, or a general socialist consciousness. When Petra Tjitske Kalshoven studied the play-acting of Europeans as Native Americans as a hobby in her book Crafting the “Indian,” she found that East Germans had a difficult time calling their hobbies “play.” “Only a minority of Indian hobbyists would immediately agree with the term

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254 BArch DY 40/1340
256 While her work was conducted after the fall of the Wall, her former East German interviewees corroborate my findings on the GDR’s conceptions of hobbies and play.
“play” as a categorization of their hobby," she notes. “[…] Play, in most hobbyists’ perception, implies a lack of seriousness."257 She goes on: “Most of my discussion partners in the former East Germany would contrast nachempfinden or nacherleben [to experience] with spielen or schauspielen, to play or act out a part, which they usually disapproved of.”258 East German hobbies, then, were seen as something distinct from play, more akin to Gelber’s conception of something approaching the workplace, serious and rule driven, but also done in a socialist manner: as part of the collective whole, preferably under the eyes of state institution, and, most importantly, inclusive of girls.

In the sections that follow I will discuss how East German play came to serve the larger goals of East German technological utopianism. I begin with a brief historical contextualization of educational toys in Germany generally. From there, I move to East German playthings as well as the state’s general expressed goals on play. I then explore the first example of educational toys in the GDR, construction kits, and how they were seen in terms of their pedagogical potentialities for educating a future cadre of technologically literate socialists. In the section after, I detail the usage of model trains for these same goals. Model trains, for reasons that will be discussed below, were seen as the ideal toy/hobby for both imparting technical skills but also to install a vision of a better East German future. I end the chapter with a move to computer toys that grew out from model trains and how they represented a rhetorical and technological shift in the concept of utopia and future building. Throughout these sections I also argue that these toys were used to stress the importance of women in technical careers and how the

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258 Ibid, 86-87.
inclusion of women into the technological consciousness of the GDR was one of the expressed goals of the scientific-technological revolution.

4.1.2. The German Context

Scientific play in East Germany grew from larger contexts of already existing types of educational play, scientific popularization, and modeling traditions already existing in Germany. Modeling small facsimiles of reality began in Germany in the 19th century with small carving scenes meant to represent work, villages, and soldiers; everyday life rendered in miniature. For example, the Erzgebirge region was famous for its farmyard scenes that included houses, barns, outbuildings, fields, wagons, and animals. Village scenes included houses and the exhibition of trades, churches, and figures that represented class-structure. Work scenes also included detailed models representing the region’s mining operations. These models were created when mining faltered, handicraft of toys meant to make up for gaps in income. According to the Erzgebirgisches Spielzeugmuseum:

“Whenver mining faltered, the number of wood carvers increased. With the further decline of mining, carving itself became a decisive profession. […] Since the middle of the 18th century, toys were increasingly being manufactured in addition to consumer goods. Above everything, the secret of the upswing came from the fact that the human race in the area had been marked by mining for centuries: mentally active, skillful, decisive, adaptable, but also tough and willing

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260 Ibid.
261 Ibid; for visual examples, see: Erzgebirgisches Spielzeugmuseum.
to sacrifice. Seiffen's development was not an isolated case. Other villages, for example the mountain village Pobershau, followed similar developments.”

These small renderings of work life not only held artistic value, but also helped to introduce young children to their potential future work. Children were given small mining scenes to play with so that they could grasp some concept of how mining worked, how it was organized, and what technologies were involved in the process. These scenes could also be exported to families outside of the mining industry, spreading the general scientific knowledge to those outside of the specific niche. Of course, these types of toys were labor intensive and slow to manufacture. It was not until the advent of industrialization that such sorts of educational toys could be mass produced.

As industrialization came to sweep the nation, German toys too came to reflect technological trends. As Andreas Daum’s book *Popularization of Science in the 19th Century* carefully details, science took on a greater role in Germany later in the 19th century. Its popularization saw the proliferation of toys that would encourage technological play, that is, play with the express goal of both teaching and inspiring science. As the popular discourse under the German Kaiserreich began to turn away from religion and toward science, books promoting a general and approachable understanding of science began appearing throughout the country. Popular science writers of the time wrote texts aiming to gradually introduce German society to a concept

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264 Ibid. pg. 193
of nature viewed as a point of harmony between science and religion. As notions of science became more accepted in German culture, toys were developed to popularize the idea of science to both children and their parents. German chemistry sets were primary in this endeavor, allowing children to develop chemical familiarity while also honing creativity deemed imperative to the scientific discipline. Eventually, the model train too would join chemistry sets in the mission to emphasize the role of science in society.

Educational toys fell out of favor to some extent with the advent of the Nazi state. Anti-intellectual in nature, the ideologies of Nazism favored a “pastoralization” that was hostile to the ideals of science. As Jeffrey Herf detailed in his book *Reactionary Modernism*, the Hitler state paradoxically embraced the concept of technology while also harking back to German days of yore, of green farmlands and idealized “pure” bloodlines. However, this embrace of technology did not necessarily transfer over to play. Under the Nazi dictatorship, play too was “pastoralized;” physical education and sport were more highly valued than the careful practice of attending a chemistry

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267 Daum. 206-209.

experiment or building a model. This is not to say that modeling completely disappeared in Nazi Germany. As we will see below, model trains came to reflect the grandiose designs of the Nazi imagination when in the hands of Nazi leadership. Play, however, was only technological in its encouragement of war, but otherwise stressed more traditional ways of living, like hiking, sport, or hunting.

Educational play was also abandoned under Nazism due to the newly stressed idea of collective action. Gone were concepts of children toiling away at scientific endeavors by their lonesome, replaced instead by all-but-enforced youth groups like the Hitler Youth or the League of German Girls. These groups would instead stress the values of fascism and its return-to-the-past mentalities.

Conspicuously absent from these modes of educational play throughout German history, Kaiserreich and Nazi dictatorship alike, were young girls. Until the end of the Second World War, patriarchal conceptions of femininity barred women from participating in educational play. Engineering, technology, and science were the realms of men. Women were to find their place in the home. Play for girls throughout these times reified gender norms, with girls playing with dolls that emphasized physical beauty or clothing, with miniaturizations of kitchen tools, or by learning a “home” skill like sewing or knitting.269 It was not until the advent of the German Democratic Republic that these gender norms would be questioned and changed.

East German educational play was both a continuation and a repudiation of the legacies of German history. The GDR returned to the Kaiserreich’s focus on the mass

popularization of science and technology through play (as well as generally). The GDR also maintained Nazi Germany’s tradition of youth groups and collective play. However, the new East German state broke with both legacies in a few distinct ways. First, of course, the GDR tried to turn away from the Kaisereich’s singular nature of play in favor of the collective. But this also meant that East German educational toys would, by nature of both industrialization and a new focus on mass education, be more widely available. This meant that such educational toys would no longer be solely for the rich.²⁷⁰

Secondly, while East Germany did of course continue the collective youth group structure of play prevalent in Nazi Germany, it did so with a focus on science and technology rather than a rejection of it. As we will see in the next chapter, this included sports and physical activity as well; both were drawn into the technological ideologies of the East German state.

Thirdly, the East German state broke entirely with its German legacy in establishing itself as a state dedicated to the advancement of women. As we saw in the last chapter, the GDR fully advanced the idea that women under socialism were to be equal to men. This manifested itself in education by way of new school laws that not only created the rhetorical support for women to enter into fields relating to science and technology, but also the structures necessary to do so. The introduction to women into the world of technological and educational play marked and important and necessary step for the actualization of this process. As noted above, children’s play introduces them to their roles in society. In both Nazi Germany and the Kaiser’s Germany, patriarchal gender

²⁷⁰ Of course, there were still politics of power in East Germany, with some items being more available to some than others. Overall, however, consumer goods like toys were more generally attainable.
norms were introduced to girls at a young age. In the GDR, the existence of mixed gender youth groups, the depiction of young girls on the boxes and booklets of technological toys, and the state rhetorical support, in school and otherwise, acclimatized young women into a new role as active participant in the construction of the technological future of the state.

The educational toys and hobbies of the GDR were also intimately tied to the technological utopianism of the state. While the advancement of women was indeed an aspect of said utopianism, these objects also sought to depict a vision of the future approved by the state while also providing the skills needed to bring that future to fruition. However, how exactly that was to be done and what that future would look like changed over time. With the collapse of the so-called utopian decade and the power shift from Ulbricht to Honecker, coupled with the changing focus of the “technology of the future,” the utopianism of these toys was tied to the contexts of their times. In the following sections, I will explore three main types of educational toys: construction kits, model trains, and computer toys. For each section, I will highlight some examples of each type of toy, as well as how those toys expressed the state’s technological utopianism: through the advancement of women in techno-scientific fields, though the impartation of technical skills, and through discussions of the future. Additionally, I will also highlight how changing technologies and politics morphed the ideas of utopia depicted in each type of toy.

4.2. East German Playthings

4.2.1. Construction Kits
One of the primary educational toys/hobbies prevalent in the German Democratic Republic was the construction kit. Construction kits in East Germany varied in material, size, scope, design, and function, but were primarily defined by the fact that they were “incomplete” toys, or toys that came in parts that required the child to put the object together. Sometimes this would mean that there were instructions to build toward a final product, other times children were free to construct whatever they wanted with the pieces given. However, like all educational toys in the GDR, construction kits were part of the state’s larger technological utopianism.

Construction kits, at least according to state media, were excellent vessels of scientific and technical education. However, these kits also indoctrinated children into the state’s vision of the future, with children building futuristic apartment buildings or other technological devices. Additionally, East German construction kits also were designed to include young girls in technological play, further addressing the state’s explicit goal of gender equalization at play. Finally, these construction kits were subject to the changing aims and desires of the East German state, with the technological hopes of the 1950s and 60s giving way to the tempered realism of the 70s and 80s. All of these diverse elements of the state’s technological consciousness were reflected in these toys.

As mentioned, some construction kits were more akin to small models that the child was left to construct. Toys like the Biggi-Variant or VEB Kombinat Chemisch-technische Erzeugnisse Gotha’s “The Little City Block Building Master” (der kleine Grossblock [sic] Baumeister) presented children with unfinished objects and a set of

271 Again, the concept of toy versus hobby comes to the fore. For East Germany, it seems, that the rhetorical difference between an educational toy and hobby was slight: the toy referred to the object itself, and the act of playing with the toy became the hobby.
instructions for their completion. In the case of the Biggi-Variant, children would fit pieces together to build a few different types of small trucks, while the Großblock Baumeister had children construct a small housing unit in a *Plattenbau* style. According to the instruction booklet, the child could “build apartment blocks, skyscrapers, hotels, commercial buildings, bridges and much more in the modern style of our time.”272 In both cases, these kits saw the child rebuilding the GDR in miniature in the new socialist image, with technology the primary focus of children’s play. These objects familiarized children both with the form and function of these technologies with the hopes that they would gain interest in them in the future.

One of the most popular examples of the other type of construction kits, kits where the child was relatively free to build their own object, was the VERO “Construc” kit. Construc was manufactured by VEB VERO-Holzspielwarenkombinat throughout the late 1970s until the final years of the GDR. The kit was produced in a few different iterations, ranging from the Construc 100 to the Construc 400. The early Construc models were little more than blocks of varying shape and size that could slot into one another and be made into different objects. These objects, however constructed, were seen as introducing children to the world of technology. One article in *Neues Deutschland* showed a small image of little wooden helicopters built from Construc pieces, claiming “already five- and six-year-olds are building their own technology from VERO Construc kits.”273 By the final iteration of the Construc kit, the 400, the set boasted easy to fit together pieces, motors, and gears so that children playing with the toy could construct

272 Der kleine Grossblock instruction booklet, 1.
more complex technological objects like cranes and also have more hands on experience with the actual functionality of machine parts.

Regardless of form, construction kits in East Germany carried with them the corresponding technological utopianism of the era they came from. Specifically, construction kits in the GDR were discussed as objects that could introduce technologies to children with the expressed aim of having them build a technological future for the state, as well as to introduce gender equality to the children at play. As such, a Neue Zeit article argued, “It is not every day that children are technically ahead of adults. And yet the more or less imaginative offspring have been assembling a wide variety of models with the same components for years. […] Children of this era are playing with construction kits that anticipate the work of factories or machine industries.”274 However, even if the goal of creating a more technologically advanced future remained the same, the exact form of that technological future changed over time with both political and technological shifts.

As with almost all technological elements present in the 1950s, the rhetoric surrounding construction kits in the immediate post-war years had an almost messianic bend. Early construction kits were seen as alternatives to war toys that were common in Nazi Germany that also reminded the child and adult alike of the war the Germans had so recently lost. Indeed, construction kits were viewed early on as artificial universes that could help the child at play to move away from the realities of war-wracked Germany. For example, a letter to the editor section of Berliner Zeitung in 1950 featured a mother

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begging for more “peaceful” toys. In the letter the unnamed mother mourned the harsh realities of war: one of her sons had lost a leg in battle. Another war, she feared, would come soon. She hoped, therefore, that toys for children would move away from objects that glorified war. “I think it’s better for children to get a nice doll or a construction kit rather than tin soldiers or other war toys.”

Similarly, a 1950 article in Berliner Zeitung argued that construction toys could act as alternatives to war toys, replacing the imagined glory of combat with constructive rebuilding. “It is easy to see that toys in our Republic in the post-war era have started a “new chapter” (eine neue Linie). There will be no tanks or cannons given toy form, rather we are trying to do justice to the pedagogical elements of toys. Therefore, much weight will be given to toys that stimulate the child’s mind. “Completed” toys aren’t the only objects of interest, but rather also toys like construction kits where the child can build their own environments.” Thus, these toys granted a utopian power to children, who’s imaginations, coupled with state produced objects, could build away from Nazism and toward a new, more peaceful socialist future.

In keeping with the more stabilized years of the 1960s and early 1970s, construction kits during the “Utopian Decade” were more focused on concepts of furthering and structuring education. For example, J Hertlet of Neue Zeit claimed that the VERO Construc 400 was “the antecedent for physics education.” This type of attitude was strongly represented in the GDR during this era. At the 1965 International Meeting

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276 “Unsere Kinder sollen Spielzeug erhalten: Eigenbedarf und Export wird Gedeckt / pädagogischer Wert entscheidend / Christbaumschmuck nicht vergessen.”
for Polytechnical Education in Socialist Countries, senior teacher Heinz Frankiewicz suggested the use of “technical construction toys” for auxiliary education in the first through third grades. He argued that play with such toys would help with physical and technical insights and reasoning, thereby augmenting the education that was otherwise happening in the classroom.278 This, he argued, would not be possible in every socialist country. “The forms and methods of the polytechnical education of the socialist lands are not always comparable as they are dependent on material-technical basis.”279 In his estimation, East Germany was the most prepared for such an education due to both to the fact that such toys were being produced in the GDR and that the GDR had the technological base to merit the usage and advancement of such toys.

Construction toys were expected to not only offer technical skills to children, but also to lay the groundwork for a future career in a technical field. In one telling article in *Berliner Zeitung*, “The Man in the Yellow Hardhat,” author Gisela Karau described the ideal trajectory of the toy-to-career process. Karau began by describing the work of Eugen Schröter, a construction worker in Berlin. His desk, she detailed, is covered in precise drawings and models, all necessary work for a successful construction worker. She then, however, turned her attention to his grandson. “As grandpa works at [building] the sport center, Stefan [his grandson] takes his construction kit with him and builds the project in miniature.”280 This, she argues, is “orienting him towards a career in construction.”281 According to her, this sort of imagination, this future oriented thinking,
was what drove young Eugen Schröter to become a construction worker at the advent of East Germany. According to him, a young worker in 1950: “All the imagination we had was not enough to think that these mountains might one day have disappeared and that a city as beautiful as today's one would stand there.”

His grandson’s generation, therefore, was gifted with the ability to use construction kits to foretell how East German cities of the future would look.

By the early 1980s, with the shift to a more “real-existing” socialism under Honecker, the rhetoric surrounding construction toys shifted too. For the most part, the technological-scientific promises remained the same, that children playing with construction sets would learn skills necessary for technical careers in the future. However, the language was more tempered with the realities of the time. For example, the materiality of construction toys was discussed partly in reaction against the highly technological society of the late GDR. Practiced designer Helmut Flade explained why there was an increasing interest in toys made of wood: “We live in one of the most industrialized countries in a technological era. Therefore, people these days feel themselves more drawn towards natural materials like wood. It’s not good for children to grow up without contact with wood.”

This was true too of the packaging for the VERO Construc models, which also began to feature different languages on the box for export to other countries in the West. This meant too that the instruction booklets forewent the rhetoric of futurism in favor of simple usage directions. Thus, the era, politics, and technologies of the GDR helped to dictate the design and rhetoric of construction toys.

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282 Ibid.
Construction kits also demonstrated another angle of East German technological utopianism: the attempt to pair young women with technical careers. Unlike the construction kits in Germanys past and also unlike their equivalents in the West, East German construction kits were not explicitly gendered toys. The Vero Construc 200, billed as a “young engineer’s kit,” featured a smiling young girl and boy on the cover of its instruction booklet and package.284 The Biggi-Variant dump truck construction set’s box depicted a boy and girl playing together peacefully with miniaturized heavy machinery.285 Similarly, the instruction booklets for both the Variant and the Construc did not use gendered language to describe the ideal user, rather erring on the side of child (Kind).286

Such a trend was also backed rhetorically by the state media from the very onset of the East German state. For example, a 1953 Berliner Zeitung article argued that “construction kits and learning toys of all kinds should no longer merely be for boys, but also for girls in order to point them on their way to technical or construction careers early on.”287 This trend continued throughout the existence of the GDR, with an article almost ten years later claiming “girls may be interested in miniature looms or in an embroidery box, but if not, in keeping with the trend of the times, they may prefer a metal construction kit.”288 Indeed, educational toys in the German Democratic Republic were also seen as sites to challenge traditional concepts of gender in order to recruit young

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284 Vero Construc 200 Instruction Booklet and Packaging.
285 Biggi-Variant Baukasten Packaging.
286 Vero Construc 200 Instruction Booklet; Biggi-Variant Baukasten Instruction Booklet.
girls to future technological careers. As we will see below, this was particularly true of model trains, which became explicit zones of influence for young girls.

As this section has shown, construction kits in East Germany were a type of educational toy deemed capable of advancing the state’s technological-utopianist goals. These toys were seen both as sites where children could learn technical skills necessary for building a technological future, but also as vessels for the state’s imaginations of the future. For example, the city block construction kit had children design their own city in the then futurist style of *Plattenbau* while the VERO Construc had children build futuristic transport vehicles of their own imagination. These toys also served the other aspect of the GDR’s technological utopian goals: the inclusion of women in technological careers.

4.2.2. Model Trains

While construction kits were lauded in the East German state for their ability to let children create their own environments, model trains were perhaps the primary bearers of the GDR’s technological utopianism manifested in educational toys. Model trains, unlike other educational toys, were directly tied to industry in the State Railway (*Reichsbahn*), and thereby received dedicated state attention. In this section, I begin by showing how model trains were used to invite women into the fields of science and technology, fields from which they were mostly excluded in the past and continued to be in the West. I then show how these toy trains were seen as a means of imparting engineering skills to children, while the rhetoric around them—be it their instruction booklets, advertisements, or journalistic write-ups—was meant to inspire hope in the scientific-technological revolution. Taken together, trains marked the larger trends in East
German culture that were aimed toward building a future technological utopia, where want was erased and women were equal to men.

As Germany industrialized, the train became symbolic of both modernity and achievement, its importance spanning political eras and technological change. Consequently, cultural representations of Germany’s fascination with the train abounded. The cinematic expression of High German culture, *Berlin: Symphony of the Great City*, began with an engine charging proudly into the heart of the metropolis, Thomas Mann devoted a short story to gawking at a railway accident, and Walter Benjamin dedicated a section of the *Arcades Project* to the railroad. The Nazi era brought about a deep change in the perception of the train, their termini concentration camps or warzones. Modern day depictions, however, have attained reputations of cleanliness, reliability, and punctuality. Trains are even embedded in German expressions. Take, for example, the idiomatic expression “ich verstehe nur Bahnhof;” often translated as an equivalent of “it’s all Greek to me,” it is literally rendered as “I only understand the train station.” Considering all of this, it should come as no surprise that in Germany, child’s play often involved trains. Throughout the ages and across the political spectrum, the children of

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291 All translations the author’s unless otherwise noted.
Germany connected track together and watched models chug around their invented landscapes.

The German Democratic Republic (GDR) was no exception. Throughout East Germany’s lifespan, the various arms of the state initiated a series of projects that encouraged railroad modeling. However, model railroads in East Germany marked a new valence in both the ideological underpinning of modeling and the target audience of the state’s designs. From the very beginning, the GDR used model trains as catalysts to encourage students to seek careers in science and engineering. The packaging, instruction booklets, and press coverage of modeling kits served as vehicles for the state’s utopian rhetoric extolling the future of technology. It was through model trains that the state sought to popularize a future of communist computing. However, the East German state also used model railroads to shift focus to young women as the main targets for their recruitment to scientific and technological careers.

The history of modeling trains in Germany mirrors that of actual train development. In 1836, following only one year after the premiere of the Nuremburg-Furth railroad, the first set of laid track in Germany, the world’s first model train appeared in Germany. This first model train, however, was explicitly not a toy. Rather,

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much like an architectural model, it was viewed as a pedagogical device, fashioned as a way to garner interest and support for a future age of railroading. This splendid new technology rendered in miniature, was at first, rather expensive, only shown at exhibitions or found in the homes of the wealthy.\textsuperscript{294} It was not until later in the 19\textsuperscript{th} century when electricity and mass production made it possible to expand the model train to a toy. Electric railroads were more widely marketed after 1927 after an internal power reduction, as earlier versions caused electrical shocks and even electrocution.\textsuperscript{295}

However, the widespread availability of model trains came at a time when Germany was descending into Nazism. The Nazis weaponized modeling to serve the power-mad fantasies of the far right, building imagined landscapes meant to foreshadow victorious political futures. One need only recall Albert Speer’s models of \textit{Germania}, with buildings of stupendous size built upon the new epicenter of the Thousand-Year Reich.\textsuperscript{296} Model trains too were conscripted into the war fantasies of Nazi leaders.\textsuperscript{297} Luftwaffe commander Herman Göring built massive personal train layouts in the attic of his hunting lodge Carinhill, where he frequently entertained members of the military. Göring developed an aerial wire system in his attic that allowed him to launch model planes to target moving model trains from overhead.\textsuperscript{298} This allowed Göring to play out fantasy

\textsuperscript{294} Charlotte Kalla, ‘Spur und Spiel, ‘\textit{Eisenbahn Spielen}, 49-64; 57.
\textsuperscript{295} Ibid, 49-64; 53.
\textsuperscript{296} Albert Speer et al., \textit{Inside the Third Reich: Memoirs} (New York: Touchstone, 1997).
\textsuperscript{297} Nazi train play is featured in prominently in a scene from the show “Babylon Berlin,” in season 1 episode 7. In the scene, a young boy enacts a fantasy of a Germany victorious over the British in WWI. He uses a train board to show both the action of the fight and the victorious German forces before a grinning cabal of future Nazi officials. Hank Handloegten, Achim von Borries, and Tom Tykwer, “Babylon Berlin” (Berlin: Sky 1, November 3, 2017).
\textsuperscript{298} Volker Knopf and Stefan Martens, \textit{Görings Reich: Selbstinszenierungen in Carinhall}, 7., aktualisierte Auflage (Berlin: Ch. Lings Verlag, 2015). For photos of Herman
battles of the war to come, Nazi planes returning victorious after bombing enemy supply lines. Modeling in this regard represented a method of control over a miniature world when real control seemed yet unattainable.  

Model railroads in East Germany would come to be both a repudiation and continuation of the legacies of modeling in Germany generally. As early German models mapped the experiences of everyday life in Germany, turning existence into something tangible, so too would GDR hobby magazines depict the state. East German party functionaries, be they from the state railway or the Chamber of Technology, extolled the pedagogical potential of model trains, much as Keiserreich technological toys served as inspiration and introduction to scientific careers. Under the Nazis, military men and power brokers saw modeling as a tool of power, a method of controlling the present by tinkering with the future. So too in the East. However, modeling in the GDR reshaped these impulses into something uniquely East German. Models of the future foretold not battles won, but technological achievements built by the hands of both men and women, the final eternal victory of socialism in Germany.

4.2.3. Girls on the Right Track

“Men and women are equal,” announced the GDR’s 1949 constitution. This small declaration marked a turn in German gender history, coming out of the immediate Nazi past and the troubled gender relations of the eras prior. Shortly thereafter, the GDR

Göring’s model railroad see: https://marklinstop.com/2011/12/marklin-at-carinhall-hermann-goerings-miniature-railway/


introduced the “Law Concerning the Rights of Women” (*Gesetz über die Rechte der Frau*), that sought to create protections for women in marriages and grant equal rights to single mothers, while also initiating the construction of full-time day care centers and nurseries to allow for more women to enter the work force. From its very inception, the GDR created rhetorical and structural support for women to exist in a more equal society.

Of course, gender equality is never that simple: the concept of equality is always contextual, defined by the society that creates it. For East Germany, equality was seen as something that existed primarily in relation to the workplace, and the shift towards a more inclusive society was contingent upon women’s usefulness in pursuit of the scientific-technological revolution. Article 18, paragraph 5 of the GDR’s constitution clarified: “Women shall enjoy special protections in employment relationships. Through the laws of the Republic, institutions shall be created that will guarantee women the ability to combine their duties as citizens and workers with their duties as wives and mothers.”\textsuperscript{301} This was particularly true of technical industries. The 1965 School Law governing the direction of pedagogy in the GDR decreed, “the education of women and girls for technical careers shall receive dedicated concentration.”\textsuperscript{302} Indeed, technical industries were reformed in order to attract more women to the factory floor. For example, the semiconductor works of Frankfurt (Oder) (*Halbleiterwerk Frankfurt (Oder)*) installed salons within the work premises where women could be treated to

\textsuperscript{301} Ibid.

cosmetics not allowed in the clean rooms. The factory also undertook an aggressive advertisement campaign to recruit housewives into the technical workforce.

The efforts of Halbleiterwerk Frankfurt (Oder) were part of a larger emerging trend in the GDR to attempt to attract women to technology. In addition to the childcare provided by the state, polytechnic schools increased enrollment of women, the state expanded funding for girls’ education in science and technology, and companies began producing toys that would underscore the connection between women and technical careers. Dolls, still a highly gendered plaything in the GDR, were reimagined to depict realistic careers for women. Girls could now play with a steel worker, a tractor driver, or a farmer in her work attire, rather than a housewife who existed only as a consumer. As early as 1953, this was seen as a direct intervention in the gender politics of play; as *Berliner Zeitung* stated, “these dolls bring the social equality of women directly to the child at play.”

Model trains, much like construction sets, were seen as educational toys where girls could come to learn technical skills and also find the rhetorical support to put them to use in a career. However, model trains, due to their clear connection to the Reichsbahn (state railway system), maintained the direct support of an industry, and therefore particularly flourished. As *der Modelleisenbahner* (the Model Railroader), a publication under direction of the Reichsbahn, explicitly stated: “In the youth groups of the Young Pioneers, those busying themselves with the problems of railroad

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305 Ibid.
engineering will be awakened to an interest in and a love for our largest state-run institution [the railroad], and more than a few will have the wish to become a railway worker.”\(^{306}\)

As early as the mid-1950s, the Reichsbahn saw model trains as a way to entice young students to technical careers. In 1953, the vice-president Kurt Freitag, mapped out East Germany’s intentions with train sets before a crowd of Young Pioneers (an East German youth group). Standing before them, he dubbed them “young railroaders,” and invited them to build a model of their newly founded state.\(^{307}\) Freitag labeled such modeling revolutionary, a new era of German toy making. He claimed, “The [former] toy industry, for profit-seeking reasons, was not grounded in reality. Instead, it produced fantasy models.”\(^{308}\) However, of particular interest to the journalists covering the event were the words of one young girl: “One day I would like to be a railroad station manager.”\(^{309}\) Her statement underscored both the importance of model trains for inspiring technical careers, but also how they were useful in female recruitment. A few years prior, in 1950, the GDR held a model train exhibition featuring an entire East German town contained within a glass case, the factories its organs, the trains its veins. This, according to the journalistic write-up, had the potential to be life changing. “With this exhibition, the public interest in technology shall be awoken, particularly among women and girls.” What is particularly striking about both of these examples is that the journalists gave no explanations as to why


\(^{307}\) ‘Ich werde dann Lokomotivführer,’ Berliner Zeitung, February 17, 1953, 6.

\(^{308}\) Ibid.

\(^{309}\) Ibid.
exactly these moments would particularly inspire young girls toward technical careers. The answer, however, lies in the usage of model trains as tools of gender socialization.

As many other scholars have parsed, socialization through play is often gendered, and East Germany was no exception. However, East Germany began to socialize girls at play as equally capable as boys of technical thought. This was achieved primarily in two ways. First, East German advertisements, instruction booklets, and packages did not depict users as singularly male. Contrasted with the Fisher Body Craftsman’s Guild that Ruth Oldenziel analyzes in “Boys and their Toys,” the target audience of technical hobbies in the US in the mid-1900s was depicted as “fatherly: mature and responsible, ready to take a bride.” A survey of the depicted users on the packaging and advertisements of educational toys in the GDR betrays a lack of an ideal-type user. There are girls and boys; some girls are wearing dresses, some are in work slacks, some smiling, some in serious dedication to their work. One of the earliest issues of the East German train-hobby journal Der Modellleisenbahner proudly featured a woman on the front observing the circulation of a train. Internal documentation from the Reichsbahn’s Department of Mass Cultural Development specifically requested this cover to show how girls too should become interested in the hobby. Furthermore,

311 BArch DY 40/604
312 Ibid.
PIKO model train advertisements in state newspapers often showed the faces of little girls excitedly opening new train sets.\textsuperscript{313} Without a standardized depiction of a target user, more children could find themselves in these depiction, as East Germany lacked this moralizing gender-coding found in advertisements like that of the Fisher Body Craftsman’s Guild.

Second, the GDR did not produce separate “feminized” versions of educational toys for girls to play with. This was a regular practice in the West, where toys and tools often are “encoded” as appropriate for one gender over another.\textsuperscript{314} For example, Lego Friends, as Carroll Pursell noted, were created in the early 2000s as a Lego “for girls” that “remained a construction toy, which ‘mirrored the boy’s experience,’ but was designed to also appeal to girls ‘interest in remodeling and redesign, and themes like community and friendship.’”\textsuperscript{315} The Lego Friends models were simplified versions of Legos proper, thereby not offering the same learning experience offered to boys. East German girls were not offered differentiated educational toys, but instead were given the same objects as boys. The result of the GDR’s concerted effort to pair together girls and technical careers was a socialization through play that did not actively discourage girls from playing with educational toys and simultaneously offered rhetorical and pictorial support for the notion that girls were equally capable of technological play.

The East did indeed take the goal of gender equality seriously. As historian Dagmar Herzog succinctly phrased it: “The difference lay in the combination of institutional

\textsuperscript{313} Neue Zeit, January 24, 1964, 3.
\textsuperscript{315} Carroll W. Pursell, \textit{From Playgrounds to Playstation: The Interaction of Technology and Play} (Baltimore, Md: Johns Hopkins Univ. Press, 2015), 19.
structures and strong rhetorical support in the East, which made woman’s work for wages not only possible but also much less guilt inducing.”316 In Sex After Fascism, Herzog argued that East Germany did not need the Sexual Revolution of the West; they had already provided women with the rights of communism. Women were seen in positions of power in higher numbers than the West, particularly in technical careers, and received the same levels of education and training as men. Furthermore, the state advocated for safe pre-marital sex, upheld the right to abortion, and granted free childcare, thereby reducing the home labor that so often fell on the shoulders of women.317

According to historian Dolores Augustine, women found true careers in engineering, not only on the factory floor, but also in management. Indeed, the number of employed women with engineering degrees had almost tripled from 1950 to 1971.318 This was a point of pride for the GDR. One article in the textbook Socialism – Your World titled “The Woman in Socialism – a Path without Comparison,” implored the reader to “think of the thousands of women from past generations who had a mechanic, technician, or an engineer in them!”319 Further, “there is no such highly-developed capitalist land that can compare to our young women’s ability to choose their career, or who have aided so much in the development of scientific and technological development. In 1970, the number of

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319 Gemkow, Der Sozialismus—Deine Welt, 272.
women working in technical fields in the GDR averaged the following: Data processing: 79%, Electronics assembly: 76%, chemical production: 67%, and plastics processing: 80%.”  

However, this pathway to industry was not without its detractors. Successor to Nazism, East Germany first had to shake loose the gender roles of the past. For example, a Neue Zeit article from 1954 stubbornly insisted, “trains are to boys both big and small, as dolls are to girls grown and young.” Even the state had to admit to some early failures. Socialism – Your World found that at the time of its publication in 1975, 80% of women were still primarily responsible for the housework, admitting that this is one of the things still left to solve.

On the western side of the Iron Curtain, educational play in the post-war US served to underscore gender differences. Steven Gelber points out that “even a casual glance at the toys available for children [in the United States] reveals two striking facts: first, that children are encouraged to follow scientific and technological fads of their elders; and second, that these are often advertised as being more appropriate for one sex than the other.” Amy Ogata elaborated, “while the experience of classroom learning in the twentieth century [U.S.] has often discouraged girls interested in scientific careers, the imagined maleness of the “fun science” offered alongside the formal curriculum may have done much to cement these exclusions.” This was particularly true with model trains in the United States. Rachel Maines, in her book Hedonizing Technologies, makes

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320 Gemkow, 276.
321 ‘Internationael Zuversicht in unsere wirtschaftliche Kraft.’
322 Gemkow, Der Sozialismus—Deine Welt, 276.
323 Gelber, 9.
324 Ogata, Designing the Creative Child, 4.
use of model trains as the primary example of a hobby that remained immutably male
with women entering into it only if their father or husband enables such an activity within
the American context.325 Indeed, Gelber notes “ultimately, hobbies have transcended
class much more easily than gender.”326 The Western discrimination of women in
technical fields had (and continues to have) profound effect on of the efficacy of science
and technology done within western borders. For example, Mar Hicks in their book
Programmed Inequalities, details how England, seen in many ways as the founding
nation of computer science, lost its leading edge by way of their abandonment of
women’s expertise after the Second World War.327

The existence of educational toys was not unique to East Germany. However, for
whom these toys were intended did indeed set the GDR apart from the West. The
inclusion of women fulfilled two distinct goals in the GDR. First, it added more bodies to
the ranks of the technocrats who would be trained both as scientists and as socialists to
usher in the future of state-directed communism. Second, women in technical careers also
fulfill one of the most basic and pressing promises of communism: that men and women
would be made equal in the eyes of the state. Educational toys, seen as catalysts for future
careers in engineering, became sites of inclusion for young girls into the technical
apparatus of the state. Model trains, however, stand out among these educational toys for
being seen as particularly fruitful for impartation of technical skills.

325 Rachel Maines, Hedonizing Technologies: Paths to Pleasure in Hobbies and Leisure
(Baltimore: Johns Hopkins University Press, 2009), 14.
326 Gelber, Hobbies, 5.
4.2.4. Trains and Pedagogy

In a 1955 letter addressed to the Central Committee of the GDR, the Reichsbahn’s Department of Mass Cultural Development wrote excitedly of an upcoming model train contest. This contest, they wrote, would be a “perfect way to awaken the spirit of a railroad worker in the young modelers” and also to “foster the peaceful construction of advanced technology.” Some years later, a 1969 Neue Zeit article claimed that model trains “may plant the germ in many children toward a propensity for a technical career.” Advertisements for model trains represented a further site for the distribution of such rhetoric. In one advertisement for the PIKOdat, a train modeling set meant to teach basic computer coding, the ad declared “the toy computer imparts new knowledge and checks existing knowledge through 70 preexisting program tables with 350 questions relating to math, physics, chemistry, geography, literature, music, sport, and street traffic.” Pewesti, another model train manufacturer, offered wooden train sets that proudly declared the child “the little engineer” on the package, assuring parents that their child could grow up to serve the technological needs of the state. Thus, throughout the existence of the GDR, model train sets were envisioned as a confluence of gender equality, skill sharpening, and technological consciousness.

To the educational apparatuses of the GDR, train modeling introduced the geometrical, spatial, and physical reasoning deemed necessary for an engineer. The Transportation Ministry’s pedagogical curricula readily used model trains to sharpen the

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328 BArch DY 40/599
331 Pewesti, Der kleine Ingeneur, photo from Wende Museum.
technical skills of its students, as well as a way to help them to visualize what they would soon be building in the world.\textsuperscript{332} According to a \textit{Neue Zeit} article titled “\textit{Two Years of Education Saved},” engineers working for the Reichsbahn needed to learn math, physics, chemistry, strength analysis, materials engineering, and the like. Dresden’s Technical School for Railroad Engineering was slated to teach these skills with the assistance of “model trains, modern technical libraries, and train-oriented educational films.”\textsuperscript{333} Additionally, in a 1965 \textit{Neues Deutschland} article called “Teacher’s helper,” the author mentions the use of model trains and construction kits as enhancements to a school in Prenzlauer Berg.\textsuperscript{334} Thus, interaction with model trains was never simply play, but rather the introduction to the \textit{work} of an engineer.\textsuperscript{335}

In order to ensure the creation of models that emphasized the future of East Germany, the GDR placed modeling groups under the direction of state youth groups ranging from the overarching Free German Youth (FDJ) to the Young Pioneers (JP). Such groups were often the first nodes of influence for a budding comrade, meant to reinforce the ideologies of the school system. Youth groups also ensured expert tutelage with direct linkages to industry, as clubhouses were managed by the Reichsbahn itself.\textsuperscript{336} In a note to the Central Committee of the East German state, the cultural wing of the Reichsbahn declared the Young Pioneers the ideal home for group train modeling, as “the group could oversee the actions of individuals to ensure play focused on

\begin{itemize}
\item \textsuperscript{332} ‘Zwei Jahren Ausbildung werden erspart,’ \textit{Neue Zeit}, July 11, 1952, 4.
\item \textsuperscript{333} Ibid.
\item \textsuperscript{334} “Helfer des Lehrers,” \textit{Neues Deutschland}, April 2, 1965, 8.
\item \textsuperscript{335} ‘Oldtimer zum Selbstauen,’ 8.
\item \textsuperscript{336} Ibid.
\end{itemize}
development.\textsuperscript{337} On the Meaning of Our Lives, a textbook given at East Germany’s coming-of-age ceremony, explicitly noted: “collaboration is essential for the true realization of the scientific-technological revolution.”\textsuperscript{338} The instruction booklet for the PIKOtron, a toy similar to the PIKOdat, noted that interested individuals wouldn’t have enough space at home, where “the space for practical pursuits remains but small. For the most interested, this is not enough. They require the electronic working groups, where they can find like-minded individuals, and where experienced teachers and technicians can guide them.”\textsuperscript{339} This sort of argument was present in East German state rhetoric from the very advent of the country. For example, a 1956 Neue Zeit article made much the same argument: “Working groups consisting of young technologists and scientific researchers, students of polytechnical schools and participants of youth clubs build cybernetic models. The young engineers of tomorrow thereby prepare themselves eagerly for this difficult but interesting science, which is young, but has a big future.”\textsuperscript{340}

These two toys, the PIKOdat (1969) and PIKOtron (1971) represented evolutions of the concept of the model train’s ability to teach technical skills. Both the PIKOdat and the PIKOtron came about at a time of transition for East Germany. As the seventies roared into being, East German party mouthpieces were busy shifting focus away from amorphous concepts of cybernetics to the utopian potential of the computer.\textsuperscript{341} PIKO, the

\textsuperscript{337} Barch DY 4/599 Abt. Kulturelle Massenarbeit
\textsuperscript{338} Lothar Oppermann, ed., Vom Sinn unseres Lebens (Berlin: Verlag Neues Lebens, 1983), 233.
\textsuperscript{339} PIKOtron Instruction Manual, 2.
\textsuperscript{341} Peter Solomon, Die Geschichte der Mikroelektronik-Halbleiterindustrie in der DDR (Dessau: Funkverlag Bernhard Hein, 2003), 13.
largest East German train model manufacturer, responded accordingly by producing toys that would teach users skills necessary for computing. PIKO was particularly well positioned to take on this role as it already saw itself as a pedagogical entity. Its name, an acronym for ‘Pionierkonstruktion,’ underscored the importance of the social vision of the Young Pioneers youth group, while PIKO’s motto elegantly distilled the general goal of train modeling in East Germany: “Through Play, Knowledge.”342

By the end of the 1960s, the largest among the computer industries of the GDR, VEB Kombinat Robotron, had successfully created their own personal computer, the Robotron 300.343 These computers were, however, expensive and rare, and were therefore largely only installed at important academies across East Germany. Therefore, the onus of computer popularization was shifted to toys such as the PIKOdat and PIKOTron. Both the PIKOdat and PIKOTron were to act both as heralds of a future to come and as practical tutors of technical skills. By playing with them, and model trains more generally, young comrades were expected to learn practical skills they could someday use on job sites throughout East Germany.

PIKO’s first computer toy product, the PIKOdat, was a small plastic box with a row of lights at the top and various connection points for lengths of wire. Users could program the small computer by arranging wires between the lamps and buttons. The PIKOdat came equipped with preset “programs” that the user could build out that included quiz questions, math problems, and even a simple game of “computer hockey.”

But, as PIKO was primarily a manufacturer of model trains, the most integrative program offered by the PIKOdat was meant to sync with and direct PIKO train sets, acting as the signal box. Rather than just a controller, the PIKO signal box was an excellent and practical example of the usage of Boolean algebra. Furthermore, if the user installed the PIKOdat into PIKO model train sets, train movements could be controlled by the small computer. Train movements were rephrased into questions of logic. For example, when will a train go was reworded to read “under what conditions is a trip to a train station unimpeded?” If the program found a station unoccupied, it would command a train to that station and return “to the train station!” on the display. In this way, PIKO aimed to reconfigure model train play into something that resembled computer programming in order to orient the youth toward a technological future.

Another such product, the PIKOtron, was also billed as a learning device. The PIKOtron, much like the PIKOdat before it, was also coded through the rearrangement of lengths of wire. The tron, however, could be turned into a small radio or simply the site of electronic experiments. As such, the PIKOtron was advertised to both neophytes and budding experts. Young students were meant to learn the fundamentals of electronics, while more practiced students could build upon what they had already learned.344 In contrast to skills in the classroom or in the pages of textbooks, the PIKOtron allowed students to physically program the device and immediately see the results of their hypotheses. “The blinker actually blinks, the switch actually activates the light when it's dark outside, and the radio device actually allows us to enjoy music.”345 Thus, both the

344 PIKOtron Instruction Manual, 2.
345 Ibid.
PIKOtron and the PIKOdat were built to introduce real skill development into the free time of students outside the classroom.

For both toys, students were meant to learn both practical skills and strengthen their understanding of new technologies. For the PIKOtron, this meant a fuller understanding of what electrical devices could do. “Understanding stands at the beginning of any successful repair, production, or participation in the design of devices and systems.” The PIKOtron could introduce this understanding to users through the practical programs presented in the box. For the PIKOdat, users could expect to glean similar skills, but especially those relating to electronic data analysis and logic. Users could rearrange the wires to tinker with new programs for their trains and experience the trial and error that accompanies early programming. These toys also addressed head on the question of what a hobby meant in the East German context. According to the PIKOtron manual, “for many, electronics will remain a hobby as they get older, while for others it will become a beautiful and interesting career.” Again, much like Gelber’s definition of what a hobby is, play with the PIKOtron was the actual act of hobbying, something that approached the work place and taught the skills necessary for engineering.

Model trains were used as a way to impart skills and values that would lead children toward a career in engineering. As the technological needs of the state changed, so did the skills taught by the train toys. And, as detailed in the section prior, these skills were taught to boys and girls alike meant to help invite more young women into the technical workforce. Taken together, model train toys were a strand of the GDR’s larger

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346 Ibid.
347 PIKOdat Instruction Manual, 6.
348 PIKOtron Instruction Manual, 2.
technological-utopian project that sought new socialist engineers, both men and women, who could join together to activate the scientific-technological revolution.

4.3. ‘Real-Existing’ Utopia at Play

4.3.1. Computer Toys and the Changing Notion of Utopia

Both the PIKOdat and the PIKOtron marked an important point of transition for educational toys in the GDR. Computers, and thereby computer toys, played a very important role in utopian rhetoric in the twilight years of the GDR. As mentioned, by the 1980s, personal computers were the preeminent utopian signifiers of late East German communist rhetoric, shouldering the dual burdens of surpassing the West and bringing about the full potentialities of communism. In order to do so, however, the East German state needed to both produce computers and train users in their application. Although state industry such as VEB Kombinat Robotron did indeed produce personal computers, they were largely unavailable to the general populace. Their production was costly, their political implications carefully managed, and their use restricted to approved academies.349 The GDR, then, needed something to educate the youth without access to these expensive machines. As ever in the GDR, the youth of the state were given almost messianic promise to advance the future of socialism and technology.

While some proto-computer toys did exist in the early East German state, they were few in number and obscure. For example, a 1956 Neue Zeit article mentions that “in the GDR there is a cybernetic educational building toy that allows one to show cybernetic

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problems.”  

This unnamed toy allowed the user to make use of binary logic, a “nichtschaltung” (switched off) and a “und-schaltung” (switched on) to show simple cybernetic systems. However, this brief mention of this unnamed toy seems to be the only description of such a toy; mentions of computer toys do not begin to come into the mainstream focus until the late 1970s.

While the spirit of utopia may have passed on in the transition from Ulbricht to Honecker, utopia’s physical form shambled onwards into the final years of state socialism. The East German state maintained the strong rhetorical utopian underpinnings of the WTR in educational sectors such as schools and youth ceremonies and kept a strict focus on techno-scientific education and skill building angled towards the same hopes of catching up to and surpassing western technologies. The difference, then, lie in the attempt to contain and manage utopian impulses and the shift in focus to consumer products. Under this newfound conservatism, it was the act of consumption that could contribute to the final victory of socialism and communism.

Objects produced during the time of transition between Ulbricht and Honecker reflected this shift in their composition and rhetoric. These toys carried with them the changing form in the concept of utopia. They still had the strong rhetoric of the WTR and still hoped to generate the same skills, however this was now passed onto a consumer product, an object of entertainment to fulfill some sense of enjoyment in the present moment.

350 “Zensuren aus der Maschine: Breites Anwendungsgebiet für Kybernetik - Skizzenblock berechnet Konstruktion.”

351 Ibid.
PIKO products, as the name suggested, also reinforced the importance of practicing these skills within state sponsored youth groups such as the Young Pioneers. Under the watching eyes of youth groups, young engineers could be monitored to ensure their designs and inspirations aligned with the intentions of the state. One *Neues Deutschland* article highlighted the importance of collective tinkering with objects like the PIKOtron: “Siegmund, Harold, and Detlef from the 5th Oberschule in Berlin-Mitte are interested in technology. They want to know the secret behind things and they find that what they learn in classes isn’t enough. So, they meet regularly in the working-group “Electronic Technology” led by physicist Horst Lindner. While Detlef tinkers at his scale model, Harold and Siegmund build a coupling for their portable radio device.”

The PIKOdat (1969) and PIKOtron (1971) are two primary examples of these “Learning Machines” (*Lernmaschine*) meant to impart practical skills that young comrades could someday use in service to building the technological revolution of the GDR. Much stock was given to the ability of this toy to teach practical computer knowledge. In a *Berliner Zeitung* article titled “The computer toy PIKOdat can do it all,” Michael Müller wrote of the device, “The computer toy, which is delivered in parts, is a combination of learning machine, a partner for conversation games, and an observation center, for example for model trains. According to Mr. Stephan, one of the fathers of the PIKOdat: “In addition to the “playful” transfer of knowledge, the PIKOdat encourages

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logical thinking. It offers the children the opportunity to put their own ideas into practice and also explains the most important basics of computer technology.”

Therefore, the onus of computer popularization was shifted to toys such as the PIKOdat and PIKOrton. The instruction manuals for both toys used their introductory pages to expound on the potentials of the computer. For example, the PIKOdat explained:

“In a time when airplanes fly over continents at supersonic speeds, where science and technology are developing wildly, man must equip himself to reach for the stars. Never before has man held at his disposal such an abundance of insight, knowledge, and experience as in our time. But in order to solve the remaining complicated tasks of science and technology, new tools must be created. Tools that allow man to unshackle his thoughts from routine work in order to focus them instead on further creative development. One such tool is the COMPUTER. For this reason, the state enterprise PIKO has created a device that is both computer and toy: the PIKOdat. The PIKOdat fosters knowledge impartation as well as logical reasoning through play and allows users to put their own ideas into practice, all while teaching the most important foundations of computer engineering. Prestigious experts, experienced teachers, scientists, engineers, and technicians of our people’s industry created this modern toy that corresponds to our time.”

The PIKOrton continued this rhetoric:

“In the future, the computer will be found in all areas of society, like science, industry, agriculture, traffic and trade, and will help humankind leave behind

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monotonous physical labor. [...] Electronics are becoming increasingly important in our lives. It makes people's work easier, multiplies their productivity, frees them from many tiring routine tasks, and enables the automation of production processes. Electronic devices control modern traffic, and even in the home we can no longer do without these devices, as proven by the millions of radio and television receivers. The more electronics affect our daily lives, the more people have to be able not only to use them, but also to understand them.”

Here in the language of these instruction booklets, one can see the transition away from the soaring utopianism of the 1960s into “real-existing” utopianism of the Honecker era. While the assumed end goal of playing with both devices remained the same, that the child would gain a level of technical expertise by playing with the toy, the lofty utopianism of the PIKOdat morphs into much more pragmatic language with the PIKOtron. Focus too moves away from solving the most pressing questions of science and technology toward the importance of radios and televisions within the East German homes. However, the ultimately utopian goal of reducing the drudgery of mankind is still a promise and seeming inevitability so long as children learn the technical skills necessary for the development of the socialist future.

PIKO would later go on to produce another computer toy from 1975-1985: the PIKO Kybernet programmable computer car. Built to look like a futuristic space rover, the small car operated by way of a central “control disk.” In order to program the car, the user inserted little colored slats to create a program for the directions the car should run. A yellow slat told the car to go left, a blue to go straight, and no slat to go forward.

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355 PIKOtron Instruction Manual, 2.
Unlike the PIKOtron and PIKOdat before it, however, the instruction manual of the Kybernet contained no introductory pages to explain the value of technology under socialism. Rather, the booklet was instead populated by multiple languages on the precise usage of the device so that it could be exported.\footnote{Kybernet instruction booklet.} The utopianism of the computer toy was then to be found solely in the design of the object itself. The little window of the Kybernet featured a man with all the trappings of a cosmonaut, white helmet with a central star, clean white scientific suit. He sits at a large futuristic computer terminal controlling a central disk meant to mirror the control disk at the front of the car. Around him are numerous other computer terminals. Colorful and complicated, they were meant to show the driver as a master of numerous devices at the same time, mirroring the new socialist worker in Renau’s paintings, a master of machines rather than a routine worker.\footnote{See note 18.} Thus, the Kybernet also mirrors this change toward a more pragmatic utopianism, where the advances of technology would still bring about a socialist future, however more by way of careful management of the present moment.

This transition toward consumer focus was not isolated to the GDR. For example, in Romania, the board game \textit{Bunul Gospodar} explicitly mirrored the development of consumer socialism in practice by having players play out the exchange of goods. The discussion of the board games and how the market aspects of society were integrated into playing.\footnote{See Röger, forthcoming in \textit{Das Jahrbuch für Historische Kommunismusforschung}.} In the GDR however, the imagery and rhetoric of these computer toys remained utopian in content, no matter their deep intertwining with the new consumerist
socialism. As has been shown, the East German computer toy manufacturer PIKO also included lofty utopian rhetoric in their packaging and advertisements. However, with the turn away from the utopianism under Ulbricht, the new utopianism under Honecker was more carefully managed, more tied into the “real-existing” socialism he ruled over. Thus, these computer toys existed as a synecdoche of the larger changes in technological utopianism that were occurring in East Germany at the time.

As has been shown, East German computer toys also included lofty utopian rhetoric in their packaging and advertisements. For example, the instruction booklet of the PIKOdat provided a space to expound on the utopian potential of socialist technology. “In the future, the computer will be found in all areas of society, like science, industry, agriculture, traffic and trade, and to help humankind leave behind monotonous physical labor.” 359 Such technology, in infancy in the PIKOdat, would be capable of unshackling the worker from manual labor. The PIKOtron too was home to lofty utopian rhetoric, with promises of full automation of work made possible by electronics. 360 Thus it was the express responsibility of the youth of the GDR to help bring about a new future of socialism, one activated by way of technological advance.

Taken together, the larger cultural focus on technological futurism was found in microcosm on in these computer toys. They became sites of integration into state imaginaries along the contours of changing technological trends. These toys also served as sites of practical skill development. East German students could come to learn algebra and programming by setting up signal boxes for their miniature railroads. They also

360 PIKOtron Instruction Manual, 2.
served to invite young women into East Germany’s technical workforce, a move unparalleled in capitalist countries. These toys therefore mirrored the utopian dreams of the state, meant to pave the way to a future of socialism victorious, chugging proudly toward a technological future freed of want and drudgery.

4.3.2. Conclusion: Toward Utopia

Educational toys were but one part of a larger cultural movement in the German Democratic Republic that stressed the importance of bringing about a scientific-technological revolution that would lead to a society of gender equality and freedom from drudgery. Throughout East German culture, the concept of the ‘scientific-technological revolution’ was omnipresent, lurking behind every charge of future socialist supremacy.

361 For example, the 1965 school-law began by declaring “the most important objectives for the comprehensive development of socialism are the mastering of the scientific-technological revolution, the development of the national economy of the GDR, and the advancement of productivity by way of the highest level of science and technology.”

362 Christian confirmation was replaced by a secular Jugendweihe (Youth Ceremony) that asked young men and women to affirm their belief in science rather than god, featuring the slogan “knowing is better than believing.”

363 Sports teams took the names of

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industries rather than places to attract children toward technical careers, and athletes were clandestinely engineered both by doping and training programs that took on a scientific vigor. Additionally, the state held a yearly Fair of the Masters of Tomorrow (Messe der Meister von Morgen) where student-led design was brought before technological industries to both recruit children and stir excitement for the coming technical revolution. Design occupations such as architecture and industrial design were recast as engineering disciplines; as the namesake architect in Brigitte Reimann’s famous 1974 novel Fransziska Linkerhand claimed, “there are no more architects, only engineers.”

The state funneled scarce currency into heavy industry technologies, computer hardware, scientific education, and all sorts of other projects that offered a glimmer of hope of producing socialist supremacy. The WTR, while never exactly defined, was to be a socialist utopia, where men and women were equal, rational technocrats headed society, work was minimal and enjoyable, and housing plentiful. Purposely vague, the concept served two goals. First, it did offer hope to the citizens of the GDR, but second, and perhaps more importantly, it shifted any criticisms workers might have of the GDR to the future. Things may not be good now, but in the future, when technology is omnipresent, all problems will disappear. In short, East German society was to be viewed as a collection of catalysts for the activation of the WTR.

In order to generate enthusiasm and willing engineers of the WTR, the GDR crafted utopian rhetoric about the coming future. For example, within the Jugendweihe textbook

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Socialism – Your World, among the long chapters on natural sciences, came an article titled “The Age-old Desire of Humankind” by Gerd Irrlitz. According to Irrlitz, humanity’s true desire was nothing as base as magical immortality, it was utopia: the state perfected, the freedom from want, the unshackling of humanity from the manacles of hardscrabble existence. By focusing on Thomas More, Irrlitz traced the socialist utopian dreamers of old, drawing vectors out from Karl Marx, Robert Owen, Francis Bacon, Henri Saint-Simon, and Charles Fourier toward their logical endpoint: the German Democratic Republic.  

The book advanced a set of practical applications for bringing about such a socialist technological future. As a first step, Socialism – Your World suggested both looking at and creating maps or models. Such acts were seen as revolutionary, as modeling always precedes actual creation. Second, the book pointed to Yuri Gagarin’s voyage to space as a prime example of the promises of technological advance. The readers were to follow in his footsteps by finding technical careers and building the technologies of tomorrow. Finally, the book impressed the importance of the advancement of transport if any revolution was to occur. Here too the authors implored the readers to find an appropriate career advancing the technologies of transport. Doing so would spell an active hand in the realization of the scientific-technological revolution.

These narratives of greatness also stressed the importance of women for building the future of the GDR. Within Socialism – Your World, in an article called “Women in

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369 Ibid, 19.
370 Ibid, 235.
Socialism – a Path Without Comparison,” Marlis Allendorf stressed the importance of women’s equality for the WTR and how East Germany stood apart from the rest of the world through their unique gender politics. “Almost all over the world, women are oppressed,” she stressed, with “83.4% of all women unable to read or write.” However, in the GDR, women could not only read and write, but actively learned science on a path toward scientific careers. This idea, that men and women could be equal, “appeared absolutely utopian,” something to be dreamed of, rather than realized. East Germany, however, had already achieved this in the workplace. In another article on the importance of career tracks, the author interviewed Christa Seifert, an engineer, for her views on the status of women in East Germany: “Primarily it is much better at the workplace for us women. Some of the reasons include the elimination of hard manual work, the more beautiful decoration of the rooms – with flowers in the windows and on the tables that makes work much more comfortable – but also the massive support, in terms of childcare: there are more cribs and kindergarten spots, as well as consumer and housing options. But I am also thinking of our technical libraries!” Seifert’s words illustrate the ideal East German woman: one who thanks the state for making her life better, believes in the ideals of socialism, works in a technical career, and will continue to educate herself outside of work at one of the technical libraries installed throughout industries in the GDR.

372 Ibid, 272.
In this way, educational toys in East Germany were a representation of the German Democratic Republic in miniature. As the GDR crafted the concept of a better future, educational toys were crafted as vectors of the new scientific-technological revolution. These toys represented both a piece of technology to be mastered and also as a place to impart both the skills and the consciousness necessary for the new socialist engineer. And because the GDR sought to bring about a new gender equality, these toys too mirrored the overall trend toward inclusivity East Germany. Of course, the GDR’s plan of a scientific-technological revolution and resulting technological utopia was never to be. The future met its premature end in 1989 with the fall of the Wall and the subsequent consumption of East Germany by West. But whatever the future, the GDR did indeed succeed in creating a large force of women engineers, trained on technical toys like model trains, who continue to be proud of their education in reunified Germany.
Chapter 5: The Perfect(able) German Body: Sport as Technological Utopianism in East Germany

“Freed from capitalist exploitation, the productive relationships of communal cooperation and mutual aid are developing. This leaves its mark on work, free time, and, of course, play and sport.”

Otto Reinhold, “Vom Wachsen und Reifen des Sozialismus” in Der Sozialismus, deine Welt, 209

5.1. Introduction

5.1.1. The Question of East German Success

During its existence, East Germany won more Olympic medals per capita than any other country, collecting 409 Summer Olympic medals over 5 participations. Dominating swimming and track events, the gold, red, and black of the German Democratic Republic’s flag flew proudly behind the Olympic podium. Much could be said of the East’s success after its bifurcation from the all-German team in 1968. As Erich Honecker declared, it was the unique East German determination that trounced Western competition.³⁷⁴ Or as newspapers like Neues Deutschland would have it, it was the East’s superior training that crushed the West.³⁷⁵ However, as would later be discovered, perhaps the largest factor in East German success was the massive, state operated doping program meant to engineer the best possible Olympic athletes.

As is now recognized, the ramifications of doping are dire. Many of the athletes formerly in the clutches of the state’s doping operation would go on to sue reunified Germany for health related damages after their files were opened in 1993.³⁷⁶ Some

³⁷⁵ “Glückwünsche für unsere Medaillengewinner,” Neues Deutschland, September 1, 1972, 11.
developed cancer, others cardiomyopathy, many suffered long term emotional damage.377 A good portion of these athletes had no knowledge of the fact that they were being issued drugs, only to find out after competitions were won, and the state dissolved.378 This leads one to ask, why would the GDR risk discovery, embarrassment, and the health of its athletes to bring home Olympic medals?

Standard narratives of GDR sport argue that the GDR was willing to risk everything to best their Cold War rivals on the world stage. Huge victories at the Olympics could lend an air of legitimacy to the East German rhetoric of superiority.379 While this was no doubt a primary reason for participation, seeing the Olympic games simply as a matter of statecraft misses the deeper technological underpinnings of the East German sport program. GDR Olympic doping was not just a product of Cold War showmanship, but rather a culmination of a long-fostered belief that technology could be the savior of German socialism. The multiple successes at the Olympics were not only a victory in sport, they were victories of high technology. Nor was doping the only product of this belief: East German athletics were intimately entwined with industry and social relations in ways that stretched far beyond the performances of Olympic athletes, such that the many successes at the Olympics were not only a symbolic victory in Cold War

378 Mike Dennis and Jonathan Grix, Sport under Communism: Behind the East German “Miracle” (New York: Palgrave Macmillan, 2012).
379 Dennis and Grix; Braun, “‘Jedermann an jedem Ort - Einmal in der Woche Sport’: Triumph und Trugbild des DDR-Sports.”
politics, but a victory of a state-sponsored technological vision that reached much of the East German public.

This chapter will argue that East German sport was inextricably bound up with the state’s larger focus on the scientific-technological revolution and its promise to create the new socialist person of the future. In addition to the technological utopianism that pervaded GDR pedagogy and the realm of the mind, East German technological utopianism sought also to conquer the body. GDR sport reimagined the socialist body in two primary ways. First, sports acted as one of the key sites for both recruiting and maintaining a technical workforce. Adults working in industry were encouraged to participate in sports tied to their work, as industry teams were poised to foster comradery among workers, as well as keep them fit and healthy for long-term industry jobs. For children, sport served as a way to plant the seeds of interest in a future technical career through the deep association between sport and industry. Professional or semi-professional sports teams, such as SV Lokomotive or SV Chemie, meant to be watched by children were named for industry with the hopes of inspiring long-lasting positive associations. Youth groups that administrated sporting activities maintained close ties to industry, with larger industrial concerns maintaining their own clubhouses for sporting activities. Furthermore, the Society for Sport and Technology (GST) was closely linked to the Fair of the Masters of Tomorrow (MMM) where children could find technical careers deemed integral to ensuring the future of communism on German soil. Finally, the competitive model of sport had a reciprocal influence on the work structures of the GDR, where five-year plans were supercharged through the Wettbewerb (Contest)
system, where workers would compete against others in their own factories and beyond to outdo each other in speed and output to be named Heroes of Labor.

Secondly, sport allowed the state apparatus to both further the efficacy of its own science and technology and test its perceived superiority. Where measuring the successes or failures of technology could otherwise be a nebulous endeavor, sport offered a tangible medium to gauge success through wins or medal count. Doping was far from the only manifestation of this impulse. East Germany fostered a scientization of both training and the athletes’ bodies themselves. Sports training was treated as a pure science, and the athletes something to simply be improved with science and technology. The state used steroids to ‘improve’ the possibilities of the athletes to levels unreachable without the help of techno-science, and saw sporting technologies (such as skis or skates) as objects to be fully integrated into the bodies of athletes, a harmonious bond where the athletes would feel the technologies as extensions of themselves. Psychological evaluations were created and standardized with the hopes of discovering a scientifically derived personality best fitted to sport competition. Training was designed to be generally applicable and measurable, with scientifically derived benchmarks of speed or agility applied to all sporting institutes, and with strict regulation of behavior of the athletes.

Sport was also used to uplift the rhetorical elements of East Germany’s technological utopianism. Discussions of sport in East German media and textbooks were often were used to extoll the benefits of industry as well as women’s participation in East German society. Sporting victories also were used as proof of the increasing superiority of East German society and thereby of the linear progress inherent to Marxist-Leninist historical materialism. Increasing medal count, a tangible measure of victory, came to
represent how GDR society should think about their technology: on the rise, ready to overtake the West. Of course, East Germany was far from the only state to use elite sport as an illustration of superiority. Sport has long since proven itself to be a strong tool of historical mythmaking. In Nazi Germany, for example, the 1936 Olympics were billed as a “gladiatorial” event for the Nazi state to demonstrate its claimed status of the master race, where the biologically superior Aryan would do battle with the lesser stocks. East Germany, however, steered away from racialized rhetoric of competition, leaning instead on the benefits of socialism while also forwarding their own arguments of technological superiority.

The study of sport in East Germany is also necessarily a study of gender. Women in sports in the GDR received dedicated attention and were the pride of the East German sport infrastructure. Of the medals won in Olympic appearances, East German women took home the lion’s share, trouncing women from other countries and largely outpacing their male counterparts. East Germany saw women as ideal technological athletes for a few reasons. First and foremost, East Germany was a communist country, the foundation of which was built on the concept of gender equality. Thus, excluding women from dedicated athletic training was illogical; women were to receive the same attention as men. The second reason was intimately related to the first: other capitalist countries, mired in misogynistic views of women’s bodily weakness, were not training their female athletes with nearly the same rigor. This created a feedback loop in East German sport. The better the women did in comparison to their undertrained rivals, the more dedicated attention given by the state. The result was a uniquely East German focus on women in
the sporting regime that allied with the state’s larger goal of folding women into the technological consciousness of the GDR.

This chapter will explore the interconnectedness of the state’s technological utopianism with its own built sport structures. The chapter begins with a brief contextualization of East German sport. East Germany’s sport program drew from its own past (Nazi and beyond) and from the preexisting sport structures of the Soviet Union. These legacies helped to shape GDR sport into its own unique entity. In the following section, I explore the industrial elements of sports in the GDR and examine both the ties sports maintained with industry and the technological-utopian ideas that sport attempted to foster. I then move into the scientization of elite sport and the treatment of elite athletes as scientific subjects that could have their bodies improved by technological interventions. In totality, sport offered both the ability to generate an interest in the idea of technological careers, as well as a quantifiable measure for the actual ability of the state’s science and technology in action, twin pillars of the state’s technological utopianism.

5.1.2. Sport and Ideology: Background and Context

East German sport, like most aspects of East German culture, was future oriented, promising coming greatness as technology evolved and science became more precise. However, no matter how future centered, East German sport culture, as with all cultures, did not arise out of nothingness. Rather, much like Heidegger’s conception of Geworfenheit or ‘Thrown-ness,’ it was born into a world already existing, carrying with it
the legacies and prejudices of its progenitors. The so-called “Stunde Null” or ‘Zero Hour’ of German history after the end of the Second World War, in which history was perceived as tabula rasa, did indeed allow for the creation of a new culture of sport. However, this “new” culture built upon Germany’s already-existing history of sport and competition, be it worker sport or Nazi athletics, joined now with the traditions of its new handler, the Soviet Union.

Of course, the most prevalent, and recent, of these sport cultures was that of Nazi Germany. Under Nazi rule, sport had earned itself an enshrined, almost mystical, place within state ideology. As with much of what was deemed ‘Aryan,’ sport was seen not as a task, rather a sacred duty. For example, Leni Reifenstahl’s Triumph of the Will begins with an extended focus on the German body in motion: shirtless male figures, meant to depict the primacy of German stock, tumble and wrestle for the camera, beckoning the viewer to join the master race in physical perfection. Much like the adolescent men depicted in the film, the indoctrination into the culture of sport and competition started young in Nazi Germany. The Hitler Youth (HJ) taught young boys the importance of physical health and fierce competition, concepts directly aligned with Hitler’s ideological misuse of Darwinism: Existenzkampf. German education under the Nazis reflected these selfsame goals, shirking intellectualism in favor of physical education. According to John Cornwell, physical education so outweighed the importance of mental education,

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381 Roberto Rossellini, Germania Anno Zero (G.D.B. Film, 1948).
382 Leni Riefenstahl, Triumph des Willens (Universum Film AG, 1935).
383 Adolf Hitler, Mein Kampf (München, 1942) pg. 195
that one geography teacher chose not to escape the country when he had the chance so as to “Give these children some sort of fighting chance, that when all of this is over, they might have learned something other than exercises and warfare.”

Of course, physical education in Nazi Germany reified and enforced the gender ideologies of the state. In opposition to the perceived decadence of the Weimar era, Nazi Germany once again relegated to the home. As a counter to the gender binary, where men were warriors in training, recalling the Spartans of yore, women were labeled as soft, peaceful creatures, tenders of the home and demure bearers of children. Women’s physicality, then, existed only in relation to the family, its genesis and development. For young girls, this meant a distinct secondary status in regards to the importance of sport. The *Bund Deutscher Mädel* (League of German Girls), the female equivalent of the *Hitler Jugend* (Hitler Youth), focused primarily on home economics: clothing design and sewing, cooking and cleaning. However, certain weekend days were indeed also carved out for strenuous physical activity, not for future warfare, but rather to keep girls in good health for bearing children. As we will see, the gender politics of sport in East Germany were done partially in direct opposition to this legacy, with the participation of women in sports deemed one of the distinct markers of the superiority of communism.

As fate would have it, the ‘Thousand-Year-Reich’ lasted only twelve, and two new states grew from the ashes. One of them was to become East Germany, the prized possession of the Soviet Union. Being the first to take Berlin, the Soviet occupiers were quick to snatch up cultural institutions, setting up radio stations, newspapers, and

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385 Cornwell, 132.
film production outlets in the teetering shells of buildings.\textsuperscript{387} Given the Soviet Union’s hold on East Germany’s newly reclaimed cultural institutions and eventually the state itself, the Soviets were able to remold sporting institutions in their own image.

The Soviet Union, with its advance of thirty odd years of communism, had well established concepts of what communist sport was to look like. Thus, the first institution set up under communist auspices was the German Sport Commission (DS).\textsuperscript{388} Its goal was to realign sport along the lines of industry, in keeping with the Soviet model.\textsuperscript{389} According to \textit{The History of Body Culture in Germany 1945-1961}, an East German history of sport, the October revolution was named as the primary groundwork for the construction of East German sport. Furthermore, East German sporting schools followed the Soviet model, built to churn out Olympic athletes by standardizing training practices. Throughout the existence of the GDR, the Germans would maintain the same structures of the Soviet sport system. However, Soviet sport did not have the deeply scientific concentrations that the GDR had, making the East German model unique onto itself.\textsuperscript{390}

This difference was due in part to Germany’s own history of workers’ sport. East Germany bore their inherited legacy of Weimar era communist fighters with pride. Its ruling party, the SED, declared itself “the inheritor of all progressive elements of the

\textsuperscript{389} Wonneberger.
\textsuperscript{390} Dennis and Grix, \textit{Sport under Communism}.
German people.”391 One such progressive element was sport.392 According to Antifascism, Sports, Sobriety: Forging a Militant Working-class Culture, “the German speaking world was the center of the worker’s sport movement.”393 In Austria, for example, militant workers sport associations were the only groups in Austria to physically resist the Anschluss, brawling with Nazis in the streets.394 According to a 1967 East German history of German sport, these heroic fighters were inspiration for the Free German Youth (FDJ) in East Germany.395

Within Germany, militant communist groups of the Weimar era came together to form radical sport groups. These groups served multiple purposes; purposes not dissimilar to those that would appear in East Germany. First, communist sports were seen as useful in shattering the overreliance of the individual. According to Gabriel Kuhn, “at the heart of the work’s sport movement stood the fight against individualism, competitiveness, and commercialism.”396 Team sports were seen as practical manifestations of the ideals of communism: the whole was greater than the sum of its parts. Only by working together as a functional unit could one team best another, only through comradery and mutual aid did a team emerge victorious. East Germany used similar rhetoric within its advertisements to join groups like the Gesellschaft für Sport

391 Lothar Oppermann, ed., Vom Sinn unseres Lebens (Berlin: Verlag Neues Lebens, 1983),149.
394 Ibid.
395 Wonneberger, Geschichte Der Körperkultur in Deutschland von 1945 Bis 1961.
396 Deutsch and Kuhn, Antifascism, Sports, Sobriety, 27.
und Technik (the Society for Sport and Technology) or the Pionierorganisation “Ernst Thälmann” (better known as the Young Pioneers), arguing that children could learn comradery from joint outdoor activities that would help them grow into good socialist members of society.

Secondly, sports and games were used as a way to attract members to the growing communist cause. Once again according to Kuhn, early communist parties eyed the sports movement with skepticism, but they quickly realized that people got more excited about a sports game than political meeting.397 Sports were simply seen as fun, and a large team sport could effectively usher new and returning members to one location. Informal discussion between play could spread communist ideals, while literature and propaganda were distributed. East Germany too realized the importance of offering fun activities to its population, and that sport could serve as an effective locus of political ideology.

Finally, early leftist sport theorists such as Julius Deutsch realized the physical importance of sport. In 1926, Deutsch argued that “workers’ sport strengthens the working masses.”398 The physicality of exercise built muscle and endurance that would be necessary for what he deemed the coming physical confrontations, be they with police, fascists, or otherwise. This strength also helped the worker “believe in their own power.”399 Workers who kept in shape also reduced their chances of getting injured on the job and observed better health overall. The importance of keeping a fit and healthy workforce was also touted in the GDR. Healthy workers worked better and lived longer,

398 Ibid, 78.
399 Ibid, 77.
reducing the waste that came along with training new workers to replace those injured or dead.

Taken together, the GDR drew from elements of pre-Nazi communist/socialist sports movements, Soviet sport structures, and Nazi physical fitness, to generate a sport culture uniquely East German. While these legacies were part of the GDR sporting genome, East Germany would come to differentiate itself by way of a focus on the utopian potential of sport to bring about a technological revolution toward the final victory of communism. And while both elite sport and mass sport served the greater goal of this technological utopianism, these two branches of GDR sport did so separately, with different goals and different intended outcomes. In the sections that follow, I will address both sports distinctions on their own to highlight the different goals the GDR addressed in sport.

Before going forward, it is important to understand the structural make-up of sport in East Germany. Sport in the German Democratic Republic was primarily split into two categories: elite sport and mass sport. For the purposes of this chapter, I define elite sport as any sport or sport practice done with intentionality toward the Olympics or other grand international appearances. Mass sport, on the other hand, included any sport not meant for international exposure or prestige, but still was done under the banner of the state. This includes any sport conducted through youth groups or industry, all under the aegis of the German Gymnastic and Sport Association, (Deutscher Turn- und Sportbund) to which 20% of the East German population belonged. Both elite and mass sport had a role to play in the technological utopianism of the state. However, it was elite sport that would challenge the very notion of what it meant to be a socialist human.
5.2. Mass Sport as Industrial Sport

5.2.1. Introduction

The East German state apparatus, for all of its failings, was never guilty of a belief in spontaneous generation: utopia would not simply arrive. Any sort of technological future was only possible through the combined efforts of industrial workers and engineers, through sharp focus of both mind and body. East German mass sport was designed to deliver both. For industrial laborers, sports were cast as a way to keep the working class in good physical condition and spirits so that productivity would reflect a continuous upward trend. For future engineers, sport was a site of indoctrination into technological concentrations, as they were overseen by youth groups with vested interests in technological imaginaries of the future. Together, sport’s industrial focus was meant to serve as a practical method for activating the so-called ‘scientific-technological revolution.’ That sport would become a locus of technological utopian rhetoric required direct state intervention. Growing out from the ashes of the Nazi state, mass sport in the GDR ran the risk of repeating the structures and ideologies of Nazi mass sport. However, as will be discussed below, the East German state dedicated time and resources into creating a mass sport system uniquely East German.

Mass sport became an East German focus right after the Second World War. The Soviet Military Administration in Germany (*Sowjetische Militäradministration in Deutschland*) (SMAD) immediately dismantled Nazi sporting associations in 1950 under a law titled the “Reorganization of Sport for the Production Arena.” Already this law in its title began to link sport to industrial production. SMAD also hastily formed the

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400 *Neues Deutschland*, 2 October, 1948.
poorly articulated German Sport Commission (*Deutsche Sportausschuß*) to oversee mass sport, but was replaced by the German Gymnastic and Sport Association (*Deutscher Turn- und Sportbund*) (DTSB) shortly thereafter. The DTSB was commissioned by and jointly run by the Free German Youth (*Freie Deutsche Jugend*) (FDJ) and the Free German Trade Union Federation *Freier Deutsche Gewerkschaftsbund* (FDGB).\(^{401}\)

Already in 1950 SMAD announced the “Law on the Participation of Youth in the Development of the German Democratic Republic and the Promotion of Youth in School and Work and in Sport and Recreation.”\(^{402}\) This law sketched the contours of GDR mass sport that would remain until the fall of the wall. For example, the law created a sports performance badge as an incentive for the development of body culture that read: "Ready for work and for the defense of peace!" This association of sport and work would come to define mass sport in the GDR for its full duration. Furthermore, the law also declared that the economic plan of 1950 included the establishment of a university for physical education that would “train lecturers for the institutes for physical education, as well as train physical education teachers and coaches for the promotion of the scientific work of sports.”\(^{403}\) This law thereby also created the first vectors for the scientization of elite sport as will be discussed below.

The creation of mass sport in the GDR was also seen as an indicator of the good health of the state itself. According to Dr. Stefan Doernberg in *Weltall, Erde, Mensch*:

“The upswing in the national economy was the prerequisite for our state being able to spend more funds every year on popular education and health care, on cultural

\(^{401}\) Ibid.  
\(^{402}\) Reproduced in full in *Berliner Zeitung*, 11, February 1950, 3.  
\(^{403}\) Ibid.
institutions and sport, and the life of our working people constantly improving.”

Thus, Walter Ulbricht proudly declared in 1959, “Every person in every place - sports once a week,” indicating that the East German state was strong, advanced, and interested in the health of its citizens. Ulbricht also declared that in such a healthy state, “every child does sports.” Thus, mass sports in the GDR served to advance the productivity of technical industry while also pushing for the health of the nation.

In the sections that follow, I will detail how mass sport in the GDR served the SED’s larger goals of technological utopianism. Distinct from elite sport, which by its very nature was to only ever be for a small percentage of the population, mass sport was meant to address huge swaths of the East German population. In the first section, I expand upon the industrial structures that maintained the linkages between sport and industry. East German mass sport, highly bureaucratized, furthered the concept of technological utopianism by keeping industrial workers in good working shape, by fostering comradery within technical industries, and by getting children in potential future industries. From there, I explore the usage of sport youth groups in the GDR to press children toward technical careers. Much like East German toys, sport in the GDR also made sure that children’s free time was also spent preparing for the technological future. Finally, I conclude by addressing sport’s reciprocal effect on East German society.

5.2.2. Mass Sport and Industry

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405 Braun, “Jedermann an jedem Ort - Einmal in der Woche Sport’: Triumph und Trugbild des DDR-Sports.”
406 Ibid.
In the second five-year-plan for the Democratic Sport Movement, the State Committee for Body Culture and Sport declared that “industry sport clubs have the responsibility to get a larger part of workers interested in sport”\(^{407}\) Thereafter, mass sport in the GDR was primarily administered through industry. Industrial centers and factories within the GDR maintained their own clubhouses and sport centers for the mutual enjoyment of the local population. These clubhouses were also the meeting places of groups such as the Society for Sport and Technology (\textit{Gesellschaft für Sport und Technik}) (GST), Free German Youth (FDJ), and the Young Pioneers (JP). The housing of mass sport under the aegis of industry was no accident; sport in the GDR was directly linked to industry in order to keep workers in good working shape, to foster worker solidarity, and to get children interested in technical industry, all to further the notion that industry and technology were critical to the future of the GDR. Indeed,

Early foundational directives for East German sport institutions were quick to push the linkages between sport and industry. In a 1959 directive on the development of physical culture and sports, particular emphasis was given to creating a \textit{Volkssportbewegung}, a people’s sport movement.\(^{408}\) According to the directive, the onus for the movement would be put on industry: “industry or residential areas, with the help of leadership of work unions and the National Front of the GDR, shall widen the circles of interest in sport participation for the population.”\(^{409}\) Together, unions and state

\(^{407}\) “Des II. Fünfjahrplanes für die Demokratische Sportbewegung” (Staatliches Komitee für Körperkultur und Sport abt. Planung und Investitionen, 1956), BArch DR 5/767, Bundesarchiv Lichterfelde, 1.
\(^{409}\) Ibid.
industry advanced the notion of sport and industry by creating company sport associations and industry sport associations (Betriebssportgemeinschaften and Industriesportgemeinschaften) that would offer workers the chance to participate in physical recreation with other workers from their workplaces. Convincing workers to join these industry teams was a primary goal of dedicated state sporting associations. Ultimately, state institutions sought to bring both the youth and workers under the same banner of “ready for work and defense of the country.”

410 The GDR’s stress on worker sport was not just to foster a socialist spirit for the defense of the country, it was also to keep workers in good working condition. According to the “Directives on the Development of Body Culture and Sport in the Year 1959,” industry sport was mainly to be used for the “maintenance of health [of the worker] and for their [the worker] performance ability.” After the food scarcity of the immediate years after the Second World War, the health of workers for the new GDR became an extremely important goal for the recovery of East German industry. Sport offered the opportunity to improve the health of workers to ensure that their bodies remained fit and active for the stresses of factory work.

412 However, if workers were going to be convinced both of the need to stay healthy for work and in the need to be ready to defend East German Socialism, industry sport also needed to appear fun and appealing. To advance this goal in a public manner, the GDR implemented a yearly Betriebsportfest, or industry sport festival. Of course, the internally stated aim of the fest was not necessarily to develop sport capabilities, but

410 “Direktive über die Entwicklung der Körperkultur und des Sportes im Jahre 1959.” 4
411 Ibid.
412 Dennis and Grix, Sport under Communism. 32.
rather “to convince all workers the value of physical fitness for their health and their ability to work.” But the State Committee for Sport and Body culture also knew that the fest had to be fun. According to the report, “the Betriebsportfest must be the high point of life at the company.” Workers would be free to enjoy sport for the entire duration of the festival, and their fun was to be the primary goal of the event. However, “introductory materials available for all ages and for all career paths” would be “freely used to win over the largest group of workers and youth” to all sorts of technical industries. Thus, while this festival was on one hand meant to be a relaxing reward for workers, it was also a chance for the state to ensure the health of their workers and to win over potential new workers to technical industry.

The oversight of sport by industry also allowed the East German state apparatus to pair amateur athletes with state-trained professionals. Under the watchful eyes of state apparatchiks, the “industries of the people’s economy [could] serve as the thermometer for the successes of mass-movement sport.” As such, the State Committee for Body Culture and Sport’s second five-year-plan called for the construction of approximately 4,260 training centers at trade schools so that the apprentices could learn “the important elements of the democratic sports movements from trained professionals.”

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414 Ibid. 
416 Ibid. 
417 “Des II. Fünfjahrplanes für die demokratische Sportbewegung” (Staatliches Komitee für Körperkultur und Sport abt. Planung und Investitionen, 1956), BArch DR 5/767, Bundesarchiv Lichterfelde, 2.
industries were also tasked with bringing workers into the fold of mass sport. For example, in the five-year plan for the State Committee for Physical Culture and Sport in 1956, SV Traktor was expected to get at least 4% of farmers involved with sport.\textsuperscript{418} In this way, mass sport organizations sought to bring in as many workers as possible into industry sport while also ensuring that state institutions were able to monitor their development.

Finally, the actual naming of sports teams in the GDR served also to connect industry with sport. Sports teams in East Germany were not named for fierce animals or historical figures. Rather, teams carried the names of industries, with logos featuring I-beams or train engines.\textsuperscript{419} Each industry, regardless of geographic location, bore the same sports team title. For example, any team made up of workers from the chemical, gas, or ceramic industry carried the title SV Chemie; any railroad workers, SV Lokomotive; farming, SV Traktor; metallurgy, SV Stahl. Naming teams for industry served to further instill the deep linkages with sport and industry, while also stressing worker comradery with one another within their respective industries.

In sum, linking sport to industry served the larger technological utopian goals of the East German state. Because any technological future of the GDR would require continuous output of state industry as well as the collective belief in that future by the state population, the GDR was quick to align mass sport with technical industry. Doing so allowed state sport institutions to maintain comradery among workers, sculpt a physically fit industrial workforce, surveil the usage of sport, and, as we will see in the

\textsuperscript{418} Ibid, 1.
\textsuperscript{419} See logos for SV Stahl and SV Lokomotive.
next section, to convince younger generations to grow up and join the growing ranks of
the technocrats.

5.2.3. Mass Sport and Youth Groups

Youth groups in East Germany, ranging from the overarching Free German Youth
(FDJ) to the Young Pioneers (JP) “Ernst Thälmann,” named for the former head of the
German Communist Party who was murdered by the Nazis, were often the first nodes of
influence for a budding comrade, meant both to pave the way towards and reinforce the
ideologies of the school system. GDR youth groups offered structured activities for their
members, ranging from model train hobbies to camping trips and hiking expeditions.
These groups often functioned also as military training and indoctrination, should the
Cold War ever grow hot. However, these groups proved more multifaceted than simple
warcraft; they also served as signposts for future technical careers.

Often times these technological signposts were blatant; the FDJ and the JP were
responsible for overseeing technological hobbies such as tinkering, model building,
computer coding and the like. As explored in previous chapters, the state recruited
experts in technological fields to lead lessons and discussions so that children could gain
the skills needed to bring about a technological future. These hobbies also served to
ensure that the “correct” ideas about the future of technology were instilled. State
bureaucrats and approved technological experts guided the hands of interested youths so
that they did not accidently build toward an unapproved state future. Furthermore, such
hobby groups also ensured that children’s free time would be “productive,” not spent
idling or daydreaming, rather spent learning a new skill or practicing socialist politics in
action.
However, while blatant, the technological hobbies offered by the FDJ and JP were not the only loci of technological influence. Young comrades were also to learn technological consciousness through sport. As with the aforementioned hobbies, the reasons for youth groups encouraging mass sport were similar: the state could keep an eye on the children in their free time and ensure that such time was also spent productively, while also instilling a technological consciousness into the young amateur athletes.

The foundational directives for the development of body culture and sport in the early years of the GDR explained how sport could foster a socialist mentality in children and young adults. Sport, they declared, “should connect children to socialist ideals.”

One of the most important socialist ideas that sport could teach was the value of the collective. Children working together on a such a tangible goal as winning a game was the first step towards a lifelong belief that the many were more powerful than the few. Thus, sport should teach children the “discipline of being on a team.”

Sport also required discipline and training and those who would most excel were those who listened closely to their coaches and trainers. Thus, sport also introduced children both to military and industry discipline and values. GDR sport, then, was done under the title “ready for work and defense of the country.”

Future careers in both the military and industry would require a well-trained individual who was willing to listen to their superiors for the good of the collective.

421 Ibid.
422 Ibid, 3.
Therefore, one of the main aims of sport in the GDR was introducing children and young adults into the societal systems of the state. In the minds of state planners and the SED, sport was the GDR in miniature. A player was to rely on their comrades and make sure they themselves were doing everything they could to not let the team down. Of course, for sport, this team was literal, but as these athletes transitioned into the workforce, not letting the team down meant reaching and breaking personal quotas, working additional hours when necessary, and putting the needs of the workplace before one’s own.

This early directive on the future of sport specifically named the JP as responsible for developing “the interest and culture of sport.” However, as the GDR grew and developed, more specific sport youth groups developed to specifically link sport and technology. One such group was the Society for Sport and Technology (GST). As *Neues Deutschland* declared, the GST would help further the creation of socialism as well as prepare children for the defense of the country. In this way, the GST served to link the otherwise estranged spheres of sport and technology, albeit with a distinctly military bend. Because the GST primarily operated under the directive to prepare youth for the defense of the country, the GST sponsored radio operation, marksmanship, model aircraft construction, and vehicle operation, skills and technologies that would prove valuable in times of conflict. This was particularly true in the early years of the GDR when a fear pervaded the East that war with the West was potentially immanent.

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423 Ibid.
424 *Neues Deutschland*, 17, August 1952, 8.
However, as the 60s and 70s came into being, the GST turned toward more creative aspects of technology and toward fostering a general technological consciousness. This was primarily achieved through a sponsorship of the Fair of the Masters of Tomorrow. *(Messe der Meister von Morgen)* (MMM). Founded in 1958 and organized by the FDJ, the MMM was itself a yearly competition where young adults and children would present their own creations and inventions to be judged by leaders in their respective technological fields. The MMM was meant to be open to all so that no potential talent would go unnoticed. As one FDJ song went, “Visit the Fair of the Masters of Tomorrow, be you a young student, an older student, or an engineer! Here the apprentice presents themselves as a master!”

The explicit aims of the fair were to raise the interest in science and technology and to find up and coming talent that could be recruited into engineering fields.

The GST acted as a primary recruitment body for the MMM. All members of the GST were encouraged to take the technological skills they learned from the youth group and apply them to the good of the GDR generally. For example, the GST’s 1967 call for participation (a particularly important year as it marked the 50th anniversary of the October Revolution) for the MMM read: “Students! […] Strengthen your cooperation with scientific and technological working groups by tinkering and puzzling. Apply your skills to future careers and support the accessibility of high learning outcomes!”

This is not to say that the GST lost its militarist bend. Just a few years later, for example, the GST held a ski competition under the theme of “strengthening our ready-for-action-ness.

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426 FDJ Lied ““Besuch die Messe der Meister von Morgen, ob Schüler, Student oder Ingenieur, hier zeigt sich der Lehrling als Konstrukteur”

and the increasing of our defense preparedness of our achievements in the GDR.\textsuperscript{428}

Instead, the GST joined together military discipline and training with the deeper technological goals of the state. That new engineers could possibly have military training and preparedness was only a boon to state overseers.

Thus, GDR youth groups also used sport to further the state’s technological utopian goals. First, young comrades were to be enticed toward certain industries by naming sports teams in their likeness. If a child enjoyed the soccer team of SV Stahl, perhaps they could be convinced to become a steel worker in the future. Secondly, sport offered the opportunity to instill the values of socialism in impressionable youths. Team sport taught respect for authority, discipline, and the value of the collective, all of which were deemed important for creating a socialist future. Finally, the Society for Sport and Technology trained young comrades in the usage of military technologies while also offering a path towards the Fair of the Masters of Tomorrow where technological talents were recruited into engineering fields by state companies. In totality, sport in youth groups was used to further the technological goals of the state.

5.2.4. Conclusion: Mass Sport and Society

Mass sport in East Germany was always much more than simple play or calisthenics. The entire mass sport infrastructure of the GDR was meant to contribute to a concept of a new socialist human in line with the state’s technological futurism. From the earliest years of the GDR, official state doctrine saw the creation of this new being as fundamental to the construction of socialism on German soil. In the eyes of the state, the ideal socialist was physically fit, able to work with untiring determination in factories,

\textsuperscript{428} \textit{Neues Deutschland}, January 7, 1971, 5.
strong bodies outstripping production quotas with ease. At the same time, the new socialist human would also value collective work, believe in the future of socialism, and trust science and technology to bring about glorious abundance in the years to come. For these reasons mass sport became very important in the early years of the GDR.

However, as with all elements of utopianism in East Germany, the concept of what sport was meant to achieve changed with the shift from Ulbricht to Honecker. The technological utopian ideals of mass sport in the early years of the GDR contracted in the 1970s under Honecker. One major shift that occurred in the later years of the GDR was a manifestation of sport that focused on industrial output. The competition of sport, while always rhetorically reflecting away from individual glory in favor of the collective also helped to define industry infrastructure generally. The most tangible example of this was the East German Competition (Wettbewerb) system. The competition system, broadly defined, was a method of developing mass movements within socialist countries. When five-year-plan outputs were deemed otherwise unreachable, factories held competitions to reward heroes of labor who were able to produce beyond their expected quotas. Medals and monetary incentives were awarded for Wettbewerb winners. Categories for competition included product quality, improved effectiveness of the basic funds, improvement of material economy, the most rational use of labor, highly effective realization of investments, production of high-quality consumer goods, planned improvement of working conditions, and/or improvement of order, security and discipline in the company.

Yet the most telling aspect of this changed notion of sport was the shift in state focus from mass sport to elite in the 1970s. Once the realm of all, sport became
increasingly focused on elites with the GDR’s entrance as a distinct country to the Olympics in 1972. As we will see in the remainder of the chapter, elite sport became the new vessel for the technological utopianism of the East German state.

5.3. Scientization of Elite Sport and the Perfection of the Body

5.3.1. Introduction

Within the pages of the Jugendweihe (Youth Ceremony) textbook *Weltall, Erde, Mensch* (Universe, Earth, Human), a book meant to serve as a cultural guidepost for young adults, Prof. Dr. Jacob Segal mused, “What is Life?” Life, he argued, was simply the expression of biology. Life, in all its aspects, was entirely knowable, waiting to be mastered by the scientific endeavor and biology. It was not just the expansion of knowledge and the study of life, but an attempt to improve upon it. Biology had the potential to free us from the manacles of our animalistic nature, to transcend it: “We are just like nature, we eat like animals and die from sickness. But if we can control nature, we can control ourselves.” The GDR, he reasoned, was working toward this goal of controlling the development of humanity, with biology as the “science of the future.” Segal, tethered as he was to his era, understood that the full control over one’s own evolution was still the stuff of science fiction, but he concluded that citizens of the GDR had reason to be hopeful. “We have never created artificial proteins that are active, but tomorrow we can. We have already created artificial insulin that works.”

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430 Ibid, 159, 162.
431 Ibid, 163.
432 Ibid, 182.
433 Segal, “Was ist Leben?” 182.
then, in Segal’s estimation, contained the potential to rewrite the pathways of human
evolution, to harbor such a mastery of nature that humanity would finally be able to
extract itself from it. Socialism was poised to redefine humanity.

Prof. Dr. Jacob Segal was far from the only socialist to believe in the potentiality
of socialism to create a new human. The concept of creating a new “socialist man” was
present in the within the ur-writings of communism, an expressed goal of any communist
revolution. Leon Trotsky argued in Literature and Revolution that “man will make it his
purpose to master his own feelings, to raise his instincts to the heights of consciousness,
to make them transparent, to extend the wires of his will into hidden recesses, and
thereby to raise himself to a new plane, to create a higher social biologic type, or, if you
please, a superman.”

Thus, after the October Revolution, the concept of a new
biologically advanced man appeared across the articulations of Marxist-Leninism and
became a mainstay of Soviet mythmaking. Indeed, Slava Gerovitch argued in Soviet
Space Mythologies that “the myth of the new Soviet man was one of perfect physical
health.”

Interestingly, however, the USSR’s notion of physical perfection was not tied
to sport. Instead, the new socialist man of the Soviet Union was embodied by the
cosmonaut. Cosmonauts were required to be excellent physical specimens able to
withstand the harsh expanses of space, while also exhibiting the other key feature of the
new socialist man: an affinity for and integration with technology. “Soviet cosmonauts
were “designed” as part of a larger technological system; their height and weight were

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434 Literature and Revolution, Chapter 8.
435 Slava Gerovitch, Soviet Space Mythologies: Public Images, Private Memories, and the
436 Slava Gerovitch, “‘New Soviet Man’ Inside Machine: Human Engineering, Spacecraft
strictly regulated, and their actions were thoroughly programmed.” The human bodies of cosmonauts were viewed by Soviet engineers as extensions of the technologies of space, perfect examples of the future of Soviet humans: beyond biology, able to be engineered to perfection.

East Germany too saw the future of its citizens as one of physical perfection achieved through the mastery of technology. However, with no real space program of its own, East Germany came to articulate the state concept of physical perfection through sport. Much like Soviet cosmonauts, East German athletes were strictly regulated biological specimens. In the elite Olympic training schools, the East German overseers treated sport as a ‘pure’ science, one amenable to strict regulation, measurements, and experimentation. East German scientists prescribed such milestones after careful scrutiny of the movements of a human body engaged in sport. The result was a sort of Taylorism of sport, where every throw or stroke was designed for maximum efficiency and speed.

Indeed, Horst Röder, then vice president of the German Gymnastics and Sport association (Deutscher Turn- und Sportbund) (DTSB), directly aligned Taylorism with sport in 1977, seeing each movement as something that could be “studied, reproduced, and standardized.” In application, those who could not conform to these standardized measurements would be culled after each test and dropped entirely from the program. For example, all track athletes were expected to reach very particular times or speeds by a predefined age, or they were cut from the program. Boxers were to meet a certain height and weight, soccer players a certain set of reflexes and so on. Scientifically derived tests

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437 Gerovitch, *Soviet Space Mythologies*. xvii
438 BArch DY/30/IV
were developed to apply across the whole of East Germany; all athletes were to be measured in the exact same way.

But a standardized physicality was not the only similarity the East German athlete shared with their Soviet cosmonaut comrades. East German elite athletes were also treated as scientific subjects ready to be improved by and integrated with technology. For sports that involved technological instruments, such as skiing or canoeing, East German researchers sought to integrate the athlete as closely as possible with their sporting instrument. A ski was to feel as if an extension of the foot, an athlete an extension of the ski. The result was a sort of cyborg conception of the athlete, a discussion of the instrument and the athlete as a single unit, both of equal importance for Olympic success.\(^{439}\)

Furthermore, East German elite athletes were continuously treated as scientific subjects to be experimented and improved upon. Much like the USSR, where cosmonauts were the consistent subjects of research on the limits of the human body, GDR sport researchers examined athletes of varying ages to explore the limits of the human body at different levels of development. Much like early Baconian ideas of science, sport research in the GDR operated under the assumption that there was a single “truth” about the human body that needed only be discovered. The goal of the researcher, then, was to find the pathway to the correct method of training, the biological truth of the human subject that would point the way towards physical supremacy. Sport research results were therefore considered “objective,” a discovery about the truth of the human organism.

Once completed, research results would be synthesized into training manuals for use across the whole of the GDR.

Finally, the creation of the new socialist human went beyond the bodies of athletes and reached into the realm of the mind: the new socialist human would be mentally strong as well as physically fit. Of course, what constitutes mental health is entirely dependent on the hegemonic culture that sets the conditions for a “sound mind.” For East German sport research, athletes were to see their “positions as reiterations of the socialist mentality.” In other words, athletes should foster an attention to science and discipline with a societal praxis, trust in the science behind their training and work toward the collective good. Sport researchers sought to discover and co-create the ideal psychological conditions for elite athletes, to select for possible athletes who exhibited a trust in socialist society and in science.

That the Olympics could be a proving ground for the effectiveness of East German science was an explicit goal of the GDR. This was particularly true of the 1972 Olympics, where the GDR competed separately from West Germany for the first time. On this auspicious occasion, the State Secretariat for Body Culture and Sport saw this appearance as a moment “whereby the effectiveness of the scientific work is measured against the practical sporting success.”

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441 Ibid.
According to the State Secretariat for Body Culture and Sport, the 1972 Olympic games were to be a culmination of the main vectors of elite sport training in the GDR. According to this report, success was the collective responsibility of all scientists at hand, the collective named more powerful than the individual.\textsuperscript{443} Furthermore, the State Secretariat saw it necessary that the full state contribute, “with certain directions of industry, of universities, and of academies to solve technological problems.”\textsuperscript{444} Additionally, athletes preparing to participate were to be measured according to “material stimuli,” the rhetoric of the report reducing them to a mechanical problem to be solved.\textsuperscript{445} The State Secretariat also demanded “the creation of an optimal training plan through the development of a capability-system for the regulation of training systems,” meaning that any training done for the 1972 Olympics was to be standardized.\textsuperscript{446} Finally the report stressed the need for the psychological department to investigate the psychic effects of competition in order to discern the type of competitor best situated for international play.\textsuperscript{447}

Elite sports in the GDR were the first frontiers for the creation of a new socialist human biology. Much like their Soviet counterparts, this new socialist being was to be both physically and mentally fit, dedicated to scientific advancement, and faithful to the collective. In the following sections, I will tease out these layers of the new socialist human as generated by elite sport. I will first begin with a brief overview of the structures responsible for elite sport in East Germany. From there I will begin to discuss the

\textsuperscript{443} Ibid, 3.  
\textsuperscript{444} Ibid, 14.  
\textsuperscript{445} Ibid, 3.  
\textsuperscript{446} Ibid, 5.  
\textsuperscript{447} Ibid, 6.
dehumanizing rhetoric of sports research in the GDR and its effect on the types of research conducted in the GDR. The next section examines the standardization of sports training and how that training was viewed as “scientifically objective.” Next, I will discuss the integration of athletes and technology, how researchers sought to make athlete and instrument inseparable, while also discussing the importance of technology in conducting sports research. Finally, I will explore the concept of a “sports personality” and how psychological research co-created and selected for the ideal sport personality. Together, my exploration of elite sport research in the GDR helps to define what the East German state began to see as the future of biological supremacy of the communist being.

5.3.2. Structure of Elite Sport Training Institutions in the GDR

In the words of the director of research for the State Secretariat for Body Culture and Sport, “Competitive sport research is in principle applied research, in which the comparative aspect will dominate in the next few years. The prerequisites for such work are complex scientific achievements in both sport and sports groups, and their coordination of the scientific work of sport associations with that of the complex research groups (for sports groups or overarching issues in an effective system). De facto, the training conceptions of a sport group become a complex research conception, that is, in the form of comparative research, long-term training methodological studies carried out on selected and junior squads. Currently, the most urgent basic scientific concern is to assess the current state in a complex manner on the basis of objective parameters and thus to be able to measure and thus control the effect of the training. This is intended to suppress the still widespread subjectivism in the assessment of the development
process.” They further argued that all research “must have a model character to it, so that it can be used in related sport-types and disciplines.” In other words, sport research in the GDR was meant to be comprehensive and scientific, researched by dedicated research institutes who would, in turn, compare their findings in order to create a generalized training program for elite sports throughout the country.

In order to create such a state-wide research program, Elite sport in East Germany was structured very rigidly, strictly adhering to bureaucratic hierarchy. At its core, the elite sport training structure of East German sport was built as a triangle. At the foot of the pyramid stood the training camps for children, simply titled Sport I and II. These early stages of training consisted of training camps and schools that focused on recruiting potential talent to the state pool. Children at this stage were mostly trained for sport “generally,” not gaining a focus sport until they exhibited a proclivity towards one in particular. Movement up the ladder was dictated both by skill and by age, with fewer and fewer trainees making up to the next level. Only those who showed particular promise and maintained a “socialist” personality (a dedication to the state and an admonishment of individual sporting glory in favor of the collective good) could advance.

Athletes who advanced beyond the first two levels of training were then placed into Sport III and Sport IV. In these higher levels of the pyramid, trainees were separated into their respective sports, soccer, gymnastics, etc. Once again students at this level were subjected to highly standardized tests and those who did not pass muster were dropped

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449 Ibid, 3.
450 For a diagram of the structure of Sport I and Sport II, see BArch DY 5/1960
451 More on the development of a sporting “personality” below.
entirely from the program. Only the select few who advanced to the final levels were
given the chance to compete at the Olympic level.

At the very top of the pyramid of hierarchy stood the sport research institutions.
The primary organizing body for GDR sport was the State Committee for Body Culture
and Sport (SKKS) (Staatliches Komitee für Körperkultur und Sport), which was changed
to the State Secretariat for Body Culture and Sport (Staatssekretariat für Körperkultur
und Sport) in 1970. The SKKS was founded in 1952 with full support from the SED,
and was modeled off similar sporting institutions within the USSR. Its primary directive
was to provide scientific advice and direction to the sporting academies of the GDR,
including the German Academy for Body Culture (Deutsche Hochschule für
Körperkultur) (DHfK) in Leipzig. The DHfK, in turn, was responsible for setting and
executing research programs to advance the performance of athletes. This included
creating standardized training protocols for individual sports as well as studies on both
the limits of capabilities of athletes and on the possibilities of integrations with
technology in sport. The SKKS was also responsible for the Research Institute for Body
Culture (Forschungsinstitute für Körperkultur und Sport) (FKS), which, like the DHfK,
oversaw athletics testing but focused more on sports medicine. Created in 1969 in
preparation for the 1972 Olympics, the FKS had over 600 employees and worked closely
with trainers, sports clubs, and athletes. The creation of the FKS in 1969 was no
coincidence. The 1972 Olympics were of the highest importance to GDR prestige as they
were the first to see East Germany stand on their own, breaking from the all-German

452 For simplicity’s sake I will refer to both as the SKKS, as their functionality largely did
not change with the name change.
team. Before this bifurcation, East Germany was not recognized as an independent country, rather a zone held hostage within another country. As such, the FKS’s main focus of research was that of “high-performance sport,” or sports that lent themselves to an international stage. Under the guise of sports medicine, the FKS was the center of East German doping research and was primarily responsible for all doping done in the GDR.

While the FKS and the DHfK were perhaps the most important elite sport research organizations in the GDR, sport-specific institutions abounded, with institutes dedicated directly to gymnastics, swimming, soccer, boxing etc. These individualized research institutions, too numerous to name here, were linked to each other through the centralized sport committees in order to share research that could be applicable across sporting discipline boundaries. Their linkages to the SKKS also made them responsible to the SED, thereby making sure East German sport remained aligned with the larger goals of the socialist state.

Taken together, the bureaucracies of GDR sport functioned together to further the goal of scientization of elite sport. In this context, I define scientization as treating something outside the realm of science as if it were a science, replete with the idea that there is one natural truth that can be arrived at through observation and testing. As we will see below, this meant standardized and “rationalized” testing for athletes, biotechnical enhancements meant to push humans beyond their normal limits, and the creation of psychological tests and personality types for athletes that were to be both sought out and fostered. This scientization permeated the full trajectory of Olympic cultivation, starting with children recruited at a young age, to the final levels of competition and training.
5.3.3. The Rhetoric of Sports Research

In 1952, the SED under Walter Ulbricht created the SKKS with the expressed goals of “constructing socialism” and advancing the class war against capitalism.\textsuperscript{453} This meant that the elite sport institutes of the GDR were to use scientific research and training to unlock the potentialities of elite athletes. Under socialism, scientific athletics programs would allow athletes compete at levels well beyond those of their Western rivals. However, beneath the public-facing arguments of innocuous competition, hid a deeper goal of the GDR’s technological utopianism: the advancement of a new socialist biology. Socialist biology, much like socialist technology, was poised to transcend the limits of the body, marking a new point in evolution beyond nature, entirely under human control. These new socialist humans, much like the cosmonauts of the USSR, were to be physically strong, mentally sound, and in tune with a socialist personality that promoted the success of the collective. However, the creation of such a person would require research and experimentation. Thus, the first proving grounds of this new biology were to be the bodies of elite sport athletes. Already carefully selected, expecting scrutiny, and constantly monitored, elite athletes proved themselves to be perfect test subjects for a new socialist biology.

While never explicitly labeled as a program for a creation of Übermenschen, the rhetoric of sports research documents betrays this deeper goal of creating a new humanity. Throughout the many studies conducted by the DHfK, the FKS, and the SKKS, athletes were consistently rhetorically dehumanized, broken down to component

\textsuperscript{453} Hajo Bernett: Körperkultur und Sport in der DDR. Verlag Hofmann Schorndorf, Schorndorf 1994, 79.
parts to be rebuilt into new socialist beings. The research proposals of the DHfK and FKS often referred to athletes as “test persons” (Versuchspersonen) or simply as “organisms,” less individuals than biological factors that were to be “solved” by science. Their bodies were tested for strain and load capacity, output and development, with the hopes of first defining the limits of the human body to then exceed through scientific and technological intervention.

While already present in early sport research documents, this focus on biological improvement became exponentially more prevalent in the early 1970s in anticipation of East Germany competing separately from West Germany in the Olympics. The 1970s saw both a more “scientized” rhetoric for both training programs and athletes alongside the advent of wide-spread doping efforts to enhance the performance of the human body. For example, the German Academy for Medical Training offered a sports medicine course in 1970 that promised to “present the performance-physiological findings on the effects of exercise on the [human] organism. The general consequences of stress are supplemented by sport-specific examples. The most important functional systems and their reactions will then be shown.”454 Similarly presented, the Institute for Sport Medicine funded a research project from 1969-1972 that sought to “research into the metabolism-mechanisms in skeletal muscles during muscular high-delivery, their genetic programming, and their hormonal control.”455 In both of these examples, the human body is explored as a mechanical anomaly, something that must be observed in order to master

it and improve its performance. In the process, the actual humanity of the subjects is lost and what remains is pure functionality. This reduction to pure functionality opens the rhetorical space to begin improvement upon a purely functional problem.

This “mechanistic” thinking came to define the research programs of sport institutions of the GDR in preparation for their proper Olympic debut. One such program was a research program titled “Nachwuchstraining” or “Up-and-Coming Training” administered by the DHfK. In one preliminary research document, the researcher stated that the “scientific primary task” of the research program was “the raising of the quality of the multifaceted sport-oriented basic training through accentuation of scientific knowledge, particularly regarding systematic training, methodological make-up, competition programs, control programs as essential factors of the development of the effectiveness of the training.” The program aimed to further construct scientific training methods that could be applied across sports, including track, soccer, boxing, canoeing, gymnastics, skiing, swimming, etc. Beginning with the youngest years of training, researchers hoped to definitively trace the development of the growing human body to know the absolute limits of training and how close they could therefore come without completely overloading the human subject.

According to the research proposal, the Nachwuchstraining project sought to “define the biological behavior of the child-organism with a definitive endurance load and elaboration of criteria for the level of development of endurance in the various age groups with consequences for the effective methodical design of sporting training.”

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This would offer “an effective structuring of the development of aerobic capacities.” And that “the development of high aerobic performance seen as a prerequisite for stress tolerance across sporting disciplines.” Again, the “child-organism” is treated as something to be studied and improved upon, with the end goal being: “the clarification of the connection between strength performance and bone metabolism as well as its hormonal regulation can lead to better adaptation of the connective and supporting tissue and have methodical conclusions for a higher load capacity and lower susceptibility to failure.” Finally, the Nachwuchs project was summarized as the “study of the biological underpinnings of the child in order to find the exact line of duration for exercise, for different age classes.”

This reduction of the human child to a “child-organism” allowed for researchers to go beyond what might be normally acceptable for strain on a child’s body. Because the child in question had been abstracted, questions of their comfort or consent were able wither away, leaving only the scientific problem at hand. This allowed researchers at the DHfK to demand that the faculty of children’s institutes follow the “rationalities of science.” Under the rationalities of science, researchers were, for example, asked to make sure every calorie was accounted for and to “work with the research institutes to find the most rational usages of energy.” Of course, what “rational” meant was defined

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457 Ibid, 5.
458 Ibid.
459 Ibid.
460 Deutsche Hochschule für Körperkultur, Sektion II: Wissenschaftsbereich Allgemeine Trainingslehre “Nachwuchstraining” 1975/76 BArchiv DR 5/1960. pg. 3
462 Ibid, 4.
by the highest levels of sport research and the SED itself. Rational in the East German context, then, meant primarily the advancement of the new socialist being.

In sum, the rhetoric of East German sport research documents achieved two goals simultaneously. First, it created a space for testing concepts of the new socialist human. Because this new socialist being was to be physically fit and societally conscious, GDR sport training emphasized standardized training, synchronous usage of technology, and a socialist personality that fostered a belief in the collective. Secondly, the rhetorical reduction of athletes to biological entities abstracted the athletes’ humanity and allowed researchers to see questions of the body as questions of mechanical functionality. Once this reduction was achieved, the uniqueness of each human athlete began to disappear, paving the way for a fully standardized sports training program that was meant to apply to all athletes across the GDR.

5.3.4. The Standardization of Training

Much in the legacy of Baconian concepts of scientific truth, where careful, clear-headed observation of natural occurrences would lead a scientist to one singular truth, the elite sporting world of the German Democratic was crafted into a science with one singular best practice for training derived from the natural “truth” of the human body. Elite sport done in the GDR was therefore considered by sport researchers to be “solvable,” and that research and experimentation would reveal the “correct” way to train a human body. But in order to divine such a truth, sport experimentation would have to be standardized so that all factors could be controlled and accounted for, while also

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offering the change to implement the practices that were most considered to be correct. Therefore, standardization in GDR sport did not just mean that sport training would be unified, it meant that humans would once again be treated like scientific test subjects, their individuality erased in order to unlock human sporting potentiality. Thus, the scientization of sport research in the GDR also meant standardization of research methods and athletes in order to arrive at the perceived best possible training method for the generalizable human body.

In practice, standardization of East German sport meant two things. First, it meant that the younger athletes in Sport I and Sport II were treated like human stem cells. Much like stem cells, which offer the possibility of becoming any cell in the body, these young athletes were to start off mailable, trained not in a single sport, but for sport generally. Only after careful scientific observation to find their propensity for a certain sport would they be given a specialization. Secondly, it also meant that each sport discipline, from soccer or boxing, was to train all of its athletes in the same manner. Once again, this standardization allowed for sport science researchers to control their own experiments while also implementing what was already deemed to be the best practices. Only by doing so could the human remain a “sport organism” that could be intervened upon by institutions like the State Secretariat for Body Culture and Sport.

That sport in East Germany was to be standardized was an expressed goal from the very first sport institute declarations. However, a 1974 research document from the DHfK best summarizes the usefulness of standardization in the sport research practice:

“After a first two-year training experiment and the introduction of annual training plans on the basis of a hypothetical standard card indexes derived from research, it can be
determined that those in basic training could be significantly profiled in terms of content, methodology, and organization. The work of the large number of trainers working [under the DHfK] was made easier by standardizing essential elements of the training. In addition, this created the opportunity to contribute to the scientific foundation of the training concepts.

The standardization of training led to preliminary training materials (standard catalogs, annual training plans, protocol booklets, and home training cards) over various stages. The task now is to finally merge these materials into training practice, to enable the trainers the ability to provide high quality training, and to further research the open questions for the content-related specification of the training concepts.\(^{464}\)

The first step in the standardization of sport training and research was, of course, the early recruitment and training of children who exhibited sport potential. As mentioned prior, children at the earliest stages of sport training were not yet assigned an individual sport. Instead, they were trained generally, observed by leaders of Sport I to decide what sport they exhibited the highest propensity towards. As discussed in the sport rhetoric section above, children’s bodies were at this stage tested for strain and output, what the human body was capable of at a young age. This research helped to standardize the recognition of what sort of athlete would be “best” from an early age. Such tests also helped sporting scouts sort budding talents into the sports that they exhibited the highest propensity towards. This stage was deemed essential for the entire GDR sporting project. If the wrong child was selected for a sport, talent would be wasted. For example, the

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swimming division of the DHfK named the “updating and synchronization of critique for the earlier recognition of talent” as one of their key goals for 1974-75.\footnote{WB Sportschwimmen, “Zweijahreskonzeption für die Forschung im Sportschwimmen in der 1. Förderstufe (1974/75),” n.d., BArch DR 5/1960, 1.}

Once the athletes had passed the bar for their initial training, they were then selected for particular sports. According to the DHfK, “the discipline specific methods must be created and measured with a very tight measurement system.”\footnote{DHfK - Sektion III: Wissenschaftbereich Leichtathletik, “Präzisierte Forschungskonzeption 1975-76.”} Therefore, each separate sport was designed to have its own unique standardized training method. Every boxer was to punch the same punching bag, every footballer to kick the same ball.\footnote{See the numerous reports from BArch DR 5/1960; many sports are represented in these documents all arguing the importance of standardizing movement and equipment.} As Dr. Detlef, leader of the research group on soccer methodology argued, researchers were to “begin with a theory, check it through experimentation, then generally apply it to all footballers”\footnote{“Kurzfassung des Berichts des Rektors der DHfK vor der AG Wissenschaft der LSK zum Stand der Forschung in Fußball.”} Each specific sport was to standardize its training and athletes according to these scientifically derived standards. In a report by the DHfK on the research directions for the advancement of soccer for 1975-1976, the report stressed: “Checking of experiences and intelligence and its effect on playing skills; comparing this with filmed motions and joining the two together; objectivity of psychic delivery methods in relation to reaction time, attention, and perception; joining this research to the simplest of motor functions.”\footnote{BArchiv DR 5/1960: Feinkonzeption für das Forschungsvorhaben Fußball (Nachwuchsbereich) für die Jahre 1975/76, 3.} Once these modes and norms were established, researchers developed very specific measurements that would come to be markers for advancement. For example, if
the standardized benchmark demanded that an up-and-coming athlete at stage 1 should run a mile at a set time, the athletes were expected to match or exceed that expectation or they were threatened to be entirely dropped from the program. Athletes were monitored for specialized skills and with recording technologies to ensure that they were matching these standardized benchmarks.470

Beyond benchmarks, all elements of the sporting individual were to be controlled and standardized. For example, the department of biomechanical and motor studies for sport science at the University of Jena sought to standardize the “exact objectification and quantization of the morphology of human (sporting) movement” through the “development, optimization, and testing of high-precision, automatic measuring methods of kinematic parameters of human (sporting) movement.”471 Sport medicine also sought to standardize their own practices and join sport medicine with sport research generally. For example, one sport medicine course argued that “in this course, the entire system of sport in the GDR as well as the structure of the field of sports medicine and its integration into the overall system is presented. In addition, the position of the sports doctor in this system and his tasks in shaping the developed social system of socialism are explained.”472 Sport medicine researchers also advanced the standardized training protocols that included sport hygiene, nutrition and traumatology.473

471 Universität Jena, 4.
Reports on the general health of the GDR sport program continuously stressed the importance of standardization across all sports and all training. The search for the one single best practice for training remained the express goal of GDR sport until the fall of the wall, ever tinkered with, but always believed possible. This was also manifested in the creation of standardized training manuals and pamphlets for the trainers themselves.\textsuperscript{474} Because of the importance placed on sport, trainers needed to exhibit traits aligned with the declared values of the state. This meant an adherence to the ideological underpinnings of socialism such as a belief in the importance of the collective over the glory of the individual. These same values were to be passed onto the young athletes, thereby granting trainers the double burden of creating both good athletes and good socialists. Sport trainers were often the products of the sport training system itself. Former athletes in training who didn’t pass a benchmark, yet still exhibited good socialist traits could be recycled back into the system as trainers or coaches.

Thus, the sport research institution of the GDR sought to standardize sport training in numerous ways. Sport trainers were often themselves products of sport training, keeping all education in-house, already products of the system itself. Young athletes were trained in sport generally so that they could be studied in a controlled environment and so that they could more carefully be selected for higher levels of sports by individual talent. Older athletes training in individual sports were met with standardized benchmarks for their sport that they were required to meet in order to stay within the program, while also producing data on the best practices of their sports for

future use. In total, standardization of sport training in the GDR helped to further advance notions of a new socialist human that was in line with the values of the future of communism.

5.3.5. The Integration of Technology and the Body

Another aspect of improving the new socialist human body through science was the body’s integration with technology. As mentioned above, one of the exemplary traits of the cosmonauts in the Soviet Union was their ability to seamlessly integrate into the technology that brought them into space. The harmony of human and technology was capable of feats otherwise thought impossible. Thus, this integratory ability was a hallmark of the new socialist being: technology and science would be the human intervention in their own evolution, with technology the body could be improved upon, even transcended.

Once again, the proving ground for the integration of technology with the human body in the German Democratic Republic was elite sport. Technology was of the utmost importance to the elite sport endeavor in the GDR. First, technology was invaluable in sport for the surveillance necessary for a scientifically derived training program. If, for example, an athlete was going to be judged on how their body moved, they would have to be properly recorded. Secondly, as we have seen, the rhetoric of the elite sport training programs in the GDR likened the human body to a machine itself: scientists measured load-bearing capabilities and carefully clocked human speeds. With this consideration of the human being as technology themselves, the integration of the human body with technology became even simpler: putting on skis was as if snapping two parts together, like with like, technology with technology. Thus, in sports that required parts external to
the body in order to be performed, the technologies of practice became as important as the body itself. Finally, the usage of doping technologies on unwitting athletes was the final iteration of this line of thinking. If biology was the science of the improvement of life, then biological technologies should be freely used to enhance the sporting body.

Technology was an important as a tool for demarcating and thereafter observing scientifically derived milestones. For example, a report on the research priorities for soccer for the years 1976-1980 stressed the importance of both “better video technology for the very technical movements”\textsuperscript{475} and “technical device capabilities: cassette recorders; ball materials; reaction measurements; tape recorders” etc.\textsuperscript{476} Indeed, this became a centerpiece for the advancement of sport research in the GDR. The precise study of movement was directly intertwined with the usage of technology. Much like early photographers were able to snap a series of photos to reveal the mechanism of flight in birds, video technology was used to trace the exact movements of a body engaged in sport.\textsuperscript{477} In both instances, the exact mechanisms would be otherwise invisible without the given technology. Technologies such as treadmills also provided the controlled space by which a runner could be observed and timed.\textsuperscript{478} Each of these types of technologies helped to measure and test the human body in movement in order to develop scientific best practices for athletes.

\textsuperscript{476} Ibid.
However, sport technology in the GDR was also to join the body in harmonious action. Because the human body, the “sport organism,” was itself a technology, its integration with sport technology was not only necessary, it was natural. For sports that required a piece of technology to be performed, such as skiing, rowing, or archery, the integration of the human body and these technologies became extremely important for sport researchers. The rhetoric on canoeing in the GDR provides an illustrative example.

Canoeing for at the Olympic level in the GDR was seen as an integration of the technologies of the boat with the technologies of the athlete. In the main conception for research on canoeing for the years 1976-1980, the German Canoe Sport Association (Deutscher Kanu-Sport-Verband) (DKSV) sought to focus on “the effect of strain over years, the technology of rowing, and endurance research” on the human body. 479 According to the research document, the first step in the improvement of rowing was the “development of body construction” including the athlete during “complex activity including training age and functional biological elements.” 480 The report also demanded that the “time for the mastery of the technologies of the sport be reduced.” 481 However, once the body of the rower was better understood, the technologies of the boat could then be built around them. The report also specified research into the technologies of steering and propulsion of the boat; however, the rhetoric of these reports speaks of the body in question with the same weight and vocabulary as the mechanical object. No differentiation is made between the boat and the body; each is to be improved. In this

480 Ibid, 4.
481 Ibid, 6.
way, the DKSV saw both the sport body and the sporting equipment as integrable technologies of sport, both to be improved by scientific intervention.

All of this culminated in the massive, state-run doping operation. Again, much ink has already been spilled detailing the technicalities of the doping program, and I will therefore leave those technicalities to scholars better versed, however it is important to cover the basics. In 1964, SV Dynamo, the Stasi controlled sport organization, began secret experimental trials with doping. Their focus was anabolic steroids, clearly hoping to increase strength and performance. After some initial success, by 1966, some of these steroids were administered on a small scale, mostly without the prior consent of athletes, who were often told that the pills and injections were for other uses, be it simple vitamins or general health upkeep. But by 1974, the state exerted a centralized effort to control and oversee doping, with the Ministry of Science and Technology at the top of the organization. The SED passed state plan theme 14.25 allowing the Ministry to contract and fund the research of doping drugs. For some funding-starved scientific institutions, the offer was impossible to turn down. Thus, scientists at universities and labs throughout the East contributed to the research and development of these drugs. And as successes mounted and scarce currency was spent, East German apparatchiks demanded the widespread use of the so-called miracle pill before the 1988 Olympics.

However, beyond what has already been covered about the GDR’s doping operation, the rhetoric used once again betrays the underlying scientific-technological utopianism of the project. In preparation for the 1972 Olympics, the Research Institute for Body Culture and Sport (the main institute for the study and development of the doping drugs), held a series of colloquia titled such things as “neuromuscular tests and
their sport specific usage in technical speed and fighting sports.” 482 Such titles were indeed in keeping with the scientization of sport discussed above, however, nestled amongst such colloquia was one titled “anabolic substances and their effects and side effects in athletic competitions.” 483 Not much information is given in the research report about the colloquium, implying that its situation amongst the others was natural; nothing out of the ordinary to introduce drugs into training regiments. If the goal was the improvement of human output in sport, drugs were a natural progression.

Furthermore, the actual language of the reports of the Research Institute for Body Culture and Sport discussed doping as if it were a biological improvement of the human entity. Much like the argumentation of Dr. Segel in “What is Life?,” doping could help to move human biology beyond its normal boundaries. As such, doping was often discussed by the Research Institute for Body Culture and Sport as a “hormonal” intervention. One funded research line leading toward the 1972 Olympics was titled “Sport medicine and biological sciences: hormonal regulation mechanisms under extreme stresses during competitive sport.” 484 Here doping drugs, as a “hormonal regulation mechanism,” would help push the human in question beyond their normal body output. Important too was the discussion of doping drugs as “biological science.” In the years leading to the Olympics, the Research Institute promised to further fund “sport medicine and biological sciences:

the development of power through the help of biological means.”[^485] Here the term “biological means” acted as the scientific-technological utopian stand-in for doping: biology was, under socialism, the improvement of life, not just the study of it. As such, the institute’s natural sciences and technology department was to create “bio-mechanical models” of human beings under the influence of doping drugs. Their aim was once again to standardize and repeat the improvement of the human machine.

The GDR elite sport program, across discipline and age group, sought to integrate the human machine with the technologies of sport. The integration of human and machine marked a new node in human development; technology and science had the power to go beyond biological boundaries and create a new socialist person that was stronger than those who came before. Furthermore, this new socialist human would integrate seamlessly with the technologies that surrounded them. However, though, in order to ensure that a “test person” would be capable of carrying the burden of becoming a new socialist person, the GDR also had to also foster a socialist psychology.

5.3.6. Sport Psychology

The final, and perhaps most important, piece in the quest to construct a new socialist being was the creation of a socialist personality. This new socialist person was to believe in the power of communism and the SED to bring about the future through the collective, that the future of a humanity unshackled from drudgery was only possible by way of socialism into communism. Of course, the creation of a socialist personality was not singularly a task of sport; education, child rearing, and general integration into East German society were primarily responsible for fostering what it meant to “think

[^485]: Ibid, 2.
socialist.” However, because elite sport in East Germany was itself a testing ground for this concept of the new socialist person, the development of a sport psychology that echoed the main features of socialist society was an important task for sport researchers in the GDR. Thus, the DHfK and FKS’s careful crafting of athletes went beyond just their bodies; they sought to also forge an ideal mind for their competitors.

The creation of a GDR sport psychology had two primary attributes. First, sport psychology meant creating and fostering a mental state for athletes that would allow them to perform at the highest levels of competition. After all, athletes, even at the highest levels of physical conditioning, were still human. Competition at the international level was stressful, and an athlete could crack under pressure if their mind was not properly trained. This proved particularly true for sports that required more teamwork than others, like soccer or volleyball. Thus, the DHfK in conjunction with FKS and other research institutions sought to develop a standardized sport psychology that enforced teamwork and increased the chances that an athlete would function well under pressure.

Secondly, sport psychology in the GDR was also to emulate the ideals of socialism. Because elite athletes were to compete on the international stage, they had to be exemplary avatars of the East German project and display to the world the power of what socialism could accomplish. Furthermore, the opportunity of international travel offered athletes a chance to escape the normally restrictive borders of the GDR. The SED therefore wanted only athletes that believed in socialism to travel abroad to avoid the overwhelming embarrassment of a star athlete defecting to a western rival.

Like all aspects of elite sport in the GDR, the development and selection for the proper sport psychology began at a young age. The Research Institute for Body Culture
and Sport sought to develop a “child-developmental science” that dealt with the “psychological problems in the development of socialist athlete personalities.”486 The institute “needed a bio-mechanical and psychological understanding of the athlete to make better judgment of technical skills.”487 This developmental science was slated to discover the “best phases of learning in children” so that they could intervene on their psychology “at the right point of development and thereby affect change in the personality of the athlete.”488 In other words, the Research Institute for Body Culture and Sport sought to create a psychological profile for children entering into early phases of sport training in order to better control their development into an athlete within the systems of the GDR. They sought to select potential athletes that would uphold the socialist mindset while also performing well under pressure. Manipulating the personality and psychology of an athlete at a young age meant that they would be easier to guide in the years to come.

Sport research institutions such as the Research Institute for Body Culture and Sport created standardized psychological profiles of the “proper” developmental paths of athletes. These profiles were created through “written and oral questionnaires; literature, document and material analysis; training experiments; tests; training analysis; and observation.”489 Content-wise, these profiles addressed “basic questions of socialist

487 Ibid.
leadership, the internalization of social norms, methods of political conviction as well as
didactic and planning problems in the field of education and training processes.\textsuperscript{490} These
traits were to be found in athletes and trainers alike; only a trainer that exhibited the
proper personality would be allowed to lead the development of others.\textsuperscript{491} Furthermore,
as elucidated by a plan for a large seminar to discuss the state of Olympic training in
1971, sport psychology also included “tournament-specific physical and psychic
requirements in the Olympic year (for example endurance characteristics or duel
hardships).”\textsuperscript{492} These psychological evaluations used to measure athletes in training were
layered, meaning on one hand that they would scale with the athletes as they aged, but
also be standardized, resulting in a fully realized construction of the ideal sport
personality.\textsuperscript{493}

The construction of such a sport personality was of particular importance to team
sports as they required the careful interlocking of multiple people in action. Of course,
due to its massive popularity, the sport that garnered the most attention was soccer.

Researchers working on the improvement of soccer performance focused heavily on the
concept of a proper soccer personality type and psychological development.\textsuperscript{494} In a report

\textsuperscript{490} Welsch, “Facharztausbilderlehrgang für Fachärzte für Sportmedizin,” December 2,
\textsuperscript{491} BArchiv DR 5/1960: DHfK / Section I – WB Sportpädag./Sportpsychologie FG
\textsuperscript{492} “Konzeption zur Durchführung des wiss. Seminars 1971,” August 4, 1970, BArch DR
5/1671, 2.
\textsuperscript{493} DHfK/Section 1 – WB Sport pedagogy/Sport psychology for first stage training
“Two-year conception 1975/76 of the project “Upbringing of the first level” (top secret)
\textsuperscript{494} D. Krauspe, “Konzeption des Komplexen trainingswissenschaftlichen
Forschungsvorhabens im Fußball (Nachwuchsleistungsbereich) für den Zeitraum 1976-
by the DHfK on the research directions for the advancement of soccer for 1975-1976, the report stresses the “checking of experiences and intelligence and their effects on playing skills, then comparing the results with filmed motions.” The report also detailed that the DHfK was researching the “objectivity of psychic delivery methods in relation to reaction time, attention, and perception and joining this research to the simplest of motor functions. Psychological evaluations and high scores on psychological tests were imperative to international appearances. Thus, the DHfK required “long term construction of game-specific tournament conditions and an evaluation of performance physiological examination results in preparation for the UEFA [Union of European Football Associations] tournaments.”

Finally, the ideal socialist sporting personality would also exhibit the proper socialist ideals of society. According to the State Secretariat for Body Culture and Sport, athletes preparing for the 1972 Olympics would also exhibit class consciousness and a belief in socialist supremacy: "the ideological-political preparation of the Olympic team in the GDR for the class confrontation should be supported and an atmosphere of self-confidence and the struggle for the highest performance goals should be created." Furthermore, the State Secretariat for Body Culture and Sport’s department of contemporary history was charged with discovering the “strategic and tactical goals of

496 Ibid.
the West German state sport and its political-ideological goals in the battle against the GDR.” 499 These western ideals were to be then countermanded through “cooperative work on the elaboration of an offensive conception of the smashing of the goals of West German imperialism.” 500 An international elite athlete then, was to be both mentally and socially fit, a perfect emblem of the supremacy of the socialist endeavor.

5.3.7. Women in Elite Sport

Although East Germany spent exorbitant amounts of money on athletes of all sorts, particular attention was given to women. East Germany had unique gender dynamics that allowed women more equality in both sport and labor than was experienced in many other capitalist countries. In East Germany, rather than see women’s place as in the home, women were welcomed into the workforce. The East German state felt that purposefully excluding women from workforces was akin to letting half of all fields lay fallow; the harvest would always be half as good. Indeed, one could argue that East Germany never had the luxury of casting aside women, with such a tiny workforce to begin with, but the East’s socialist ideology was based upon rhetorical support for women’s participation. Whereas in the West, being feminine meant assuming a passive role and passive body, East German femininity allowed for more corporeal strength and less subservient social positions. Thus, the state exploited the West’s disregard of the potentialities of women in Sport, not only subjecting them to training which was much more difficult than in the West, but also by choosing them as the targets for the state’s technological prowess in the form of doping.

499 “AG Technische Sportarten,” n.d., BArch DR 5/1671. 3.
500 Ibid.
Stories of women’s achievement in sport abounded. East German newspapers ran headlines trumpeting the importance of women in Sport, Jugendweihe books featured interviews with female athletes, all while women flashed across the television screens sporting their Olympic attire. The rhetoric of the importance of women in Sport could be seen as early as 1950 in East German newspapers. One such article was the 1950 Berliner Zeitung piece titled “Female Athletes – Ambassadors of Peace.” The author details the accomplishments of women throughout the world, but notes the particular respect for women in East Germany. They conclude the article by declaring that East German women are carrying the world to a better future by raising their voices in the face of regressive ideas of femininity.

Women in sports were also positioned to be national heroines for East German children. The Jugendweihe textbook, der Sozialismus – Deine Welt concluded with an interview and monograph on Monika Zehrt, a star sprinter who won gold medals in both the 400 m and the 4 x 400 m in the 1972 Olympics and set 4 world records across her career. Klaus Ullrich, the interviewer, carefully chose questions that would illicit a political underpinning to her answers, how it was the creation of socialism that allowed her to become the woman she was today. She also turned her interview back towards the Jugendweihe, when she stated that she could “compare winning the medal to the Jugendweihe: one can’t win a medal or become an adult unprepared.”

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502 Ibid.
503 “Monika Zehrt erzählt Klaus Ullrich” in Der Sozialismus - Deine Welt, 439.
504 Ibid.
blatant politics of her interview, her inclusion in a Jugendweihe textbook carried a more hidden politics. She was used as an example in a book meant for all children, meaning that the path of a woman could, for the first time, be seen as something young boys could relate to as well. This breaks with prior German convention where men were the default and women were expected to graft their own experience onto that figure. Now, under communism, both men and women were heroes and heroines that the young could look up to.

What was also particularly telling of the GDR’s stance on gender in sport was the lack of differentiation between men and women in sport research documents. Throughout the research programs of the DHfK or the Research Institute for Body Culture and Sport, sport training programs were meant to apply to men and women alike. Both genders (the GDR had a binary conception of gender) were to be pushed to the limits of their human bodies. That women were less physically capable was never considered. In this way, the GDR maintained a conception of female physicality that was done in distinct opposition to Western notions of the passivity of the female body. The usage of women in sport existed in direct opposition to western models of femininity and women’s bodies. According to Rob Beamish and Ian Ritchie, “Physical education programs in the West have a long history of regulating activity on the basis of gender, the devaluation of girls’ and women’s activates, and the normalization of heterosexuality.” Thus, “…The

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Eastern bloc female athletic body emerged as a visible challenge to Western normative ideals regarding what constituted “proper” female appearance.”

5.4. Conclusion

5.4.1. The New Socialist Human

In the German Democratic Republic, the concept and construction of the new socialist human was first explored in the arenas, training facilities, and laboratories of elite sport. Without the infrastructures of space exploration, the GDR was unable to rely on the mythmaking of the Soviet cosmonauts for their elaborations of the new socialist being. Instead, the GDR turned to elite sport, where athletes were already carefully monitored to test the state’s conception of what a new socialist being would be. Much like their Soviet counterparts, the new East German was to be both physically and mentally fit. They were to exhibit socialist personality traits that glorified the collective while also believing in the potentialities of socialism to bring about a future free of want. But the creation of such a being was not to left to chance; the East German apparatus sought to carefully engineer athletes that would stand atop the highest pillars of the Olympic medaling ceremonies. Sport research institutes thereby treated athletes like scientific subjects: their bodies were to be studied and improved upon, mere questions of mechanics rather than individual humans. This was achieved primarily by creating a rhetoric within sport research documents that abstracted the athletes from their humanity. Once “sport-organisms,” improvements of athletic performance became questions of scientific intervention. Research scientists sought to standardize athletes into ideal types so that the sport infrastructures of the GDR could quickly and easily mass produce

506 Beamish and Ritchie, 19.
perfect athletes that were also stellar socialists. What resulted was a massive system of psychological evaluation, careful surveillance, and clandestine doping, but also an Olympic medal count per capita largely uncontested in the modern world.
Chapter 6: ‘Real-Existing’ Socialism / ‘Real-Existing’ Utopia: The Limits of Utopia and Hope Disappointed

“What is objective is what is socially agreed.”

- McKenzie Wark, *Molecular Red*

6.1. Introduction

6.1.1. The Age-Old Desire of Mankind

As mentioned at the end of chapter two, within the *Jugendweihe* textbook *der Sozialismus – deine Welt*, came an article titled “The Age-old Desire of Humankind” by Gerd Irrlitz. According to Irrlitz, humanity’s true desire was nothing as base as magical immortality; it was utopia: the state perfected, the freedom from want, the unshackling of humanity from the manacles of hard-scrabble existence. In the article, Irrlitz focused on the history of the concept of utopia, tracing the trajectories of the socialist utopian dreamers of old by drawing vectors out from Robert Owen, Francis Bacon, Henri Saint-Simon, Charles Fourier, and Thomas More toward their logical endpoint: the German Democratic Republic.508

Of course, any history of these dreamers was simultaneously a history of failure. Each one of them died without realizing their imagined utopia, each of their “non-places” eternally relegated to the nonexistent. However, as self-appointed inheritor of their ideas, the GDR was then tasked with addressing these thinkers’ failures and achieving where they had not. So, what, then, was different about East Germany? Why would the thinkers and builders of the GDR succeed where so many others had failed? Irrlitz’s answer came

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in the form of the state itself. He argued that none of the utopian thinkers of eras past, until Marx, had realized the importance of the working-class seizing control of the entire state. “Until this decisive insight, a prerequisite for the victory of the working class, utopian socialists were unable to advance.”

Before the GDR and the Soviet Union, none had the backing of an entire state. This time, then, would be different.

As has been demonstrated, the entire East German project was done with an impulse toward technological utopia. The state structure of the GDR was so constructed to best encourage the proliferation of technical workers, scientists, and engineers so as to then generate emancipatory technologies to free humanity from drudgery and to fully conquer nature. The cultural institutions of the state merged technical knowledge with the inherited utopianism of socialism to promise a better life in the future. At the same time, state planners also declared the then-current East German state as a utopian achievement in and of itself. While the future would still be a technological paradise, the core tenants of Marxism had been achieved in the existing East German state.

The result was what I have termed “real-existing” utopia. “Real-existing” utopia, paradoxical by its very nature: not a place, but a process. East Germany remained in a perpetual state of becoming, inherently unstable, threatening to break apart at any moment. Thus, the process of “real-existing” utopia was management, both of the present moment of the expectation of the future. Both the future and the present co-created one another; the present moment imagined the future and that imagined future helped to direct the present. In order to maintain a constant state of becoming, the GDR needed to

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509 Ibid, 40.
510 Ibid.
constantly manage both the present and the future, always maintaining a sense of hope for both. If true utopia was to be achieved, the state would have to become management itself.

This chapter addresses the concept of utopia itself in East Germany. The first section explores the concept of management in the GDR, and how the future utopia of the GDR was defined as management perfected by exploring the philosophical cybernetics of Georg Klaus. Thereafter, this chapter will contextualize East Germany within the historical and philosophical idea of utopia, illuminating what elements of prior utopias did exist in East Germany and what did not. It will then seek to highlight the dialectic of employing the term utopia at all, how the state sought to simultaneously point towards a perfected future, while maintaining a notion that things were also currently near-perfect, and how achieving utopia could be something undesirable in the first place. Finally, this chapter will close with a study of the East German utopian philosopher Ernst Bloch, his ideas, and his ultimate expulsion from the GDR after a failure to align with the rigidities of the state’s imagination of the future. It concludes with a study of Bloch’s idea of ‘not-yet-existing’ and its importance for understanding how a ‘real-existing’ utopia could exist at all.

6.1.2. Managing Utopia / Managerial Utopia: The Cybernetics of Georg Klaus

As we have seen, the concept of utopia in East Germany was one that was carefully managed by the state. Within state rhetoric, utopia existed both in a form of hope, a not-yet-existing landscape to be built in the future, but also as the present tense of the GDR, the best possible existence in a flawed world. In its then-present form, “real-existing” utopia meant appeasing present wants of the populace with consumer goods and
material improvement while at the same time maintaining the continual quest to catch up and outpace the west in the realm of technology. This was to be achieved through the central decrees of the SED; the party was to manage the present utopia by setting educational tracks, production figures, funding distributions, and propaganda. However, “real-existing” utopia presented another paradox for the state. If the state was to actually construct a stateless future, it would be the architect of its own demise. Centralized state power would be liquidated in a classless society, as true communism meant decentralization of power. Thus, the GDR was rhetorically claiming to work towards a proposed future, while secretly hoping to never fully achieve it. Those in the SED setting the parameters for the future were also those who benefited the most from the state’s existence. The real goal then of “real-existing” utopianism was a constant management of the expectations of the population.

Thus, the party, the central management apparatus of the GDR, carefully oversaw the deployment of the future. Within the planning rhetoric of the GDR, the coming utopia, the shape of the future state, would be one of an entire land of managers. Nowhere could this be seen more clearly than the work of Georg Klaus, the premier cybernetic philosopher of the GDR. His work *Cybernetics and Society* storyboarded the future societal structure of the GDR, the actual plan of joining technology with society.

For Klaus, the concept of cybernetics was the merger of historical materialism and political economy activated by technological development.\textsuperscript{511} Within his work, the concept of management carried two meanings. First, any sort of future of the GDR could

\textsuperscript{511} Georg Klaus, *Kybernetik und Gesellschaft* (Berlin: VEB Deutscher Verlag der Wissenschaften, 1964), ix.
only come through careful central management of the state and society itself. The cybernetic future of the GDR could only function with hard structures, and only the SED could set those structures in place. Second, the future of the GDR was management; the laborious factory jobs that haunted the present moment would give way to automation that required only minimal human oversight. Management was the goal itself.

In terms of the management of the state itself, Georg Klaus held that cybernetics indeed contained the power to fundamentally change human society forever. However, by its very nature, cybernetics functions according to a set of strict rules. These rules must be immutable; any unplanned interruption to the system would lead to system failure. Cybernetics, then, if it was to guide an entire society, was only able to be implemented in a socialist society. Socialism in its “real-existing” form meant a centrally planned and run economy. The central “regulator” (the party) dictated down the functioning of the entire state. Like the human body, the party acted like the brain of an organism, able to drive the whole beast without the rebellion of individual parts. Socialism, with its centralized economy, was thereby the ideal place to implement cybernetics. Cybernetic systems could not abide individualized parts; much like the body, the whole organism breaks down if the heart fails or cancerous cells replicate at their own rates.

Therefore, the socialist economy, fixed as it was by a central plan, was capable of being “black-boxed” or abstracted for cybernetic functionality. As Klaus explains, “the economic life of a given society is extremely complicated, so much so that at first glance that it would be entirely impossible to discover its scientific relationships, and best-case
scenario, would only lend itself to a general explanation.”

But cybernetics allows one to represent complicated systems into less complicated “black boxes.” According to Klaus, “cybernetics develops an excellent method of abstraction and generalization. With its help, scientific conclusions can compare many different aspects of reality.” The socialist economy was fixed, it was not subject to sudden change. It could be therefore taken for granted and abstracted, slotted into a cybernetic system. This, according to Klaus, would lead to the stability of the system, as “the stability of cybernetic systems is important for economic and political systems.” In other words, by maintaining the rigidity of the socialist economy, the party could manage the entire state economic apparatus through cybernetic abstraction. The rigidity of the socialist economy made cybernetics possible.

It is imperative to stress the importance of the rigidity of the state-socialist structure for Klaus’s notion of a functional cybernetic system. To borrow one of Klaus’s own metaphors, the rigidity of the centralized structure was akin to the rules of language. In order for language to function at all, it required a set of very strict words and grammar. Stray too far from those rules, and no thoughts get conveyed at all, just noise and gibberish. In the same way, the strict management by the SED over all aspects of East German life made the language of cybernetics possible. All aspects could fit the proper grammar and vocabulary. Everything could fit into the perfectly stable system.

512 Klaus, 174
514 Ibid, 4.
515 Ibid, x.
Klaus defined the stability of the socialist economy against the instability of capitalism. Capitalism, Klaus argued, operated fundamentally in an “anarchist” state, constantly bombarded by market shifts and the irregularities of the boom-and-bust cycle.\textsuperscript{516} Any attempt to create a well-regulated system would therefore fail. No economist had ever been able to predict the functioning of the capitalism market, therefore there was no suitable regulator for the cybernetic system. Indeed, systems such as democracy were unstable: “Perfected democracy would be a thorough system of regulation; a system of perfect steering, by contrast, would correspond to a total centralism. Leaving aside completely the problem of humanity, freedom, and human dignity that a system of total steering necessarily presents, let us ask only: can such a system function? Even from this point of view total steering proves unrealizable and inexpedient. Steering has to be subordinate to regulation, and the system as a whole has to be organized as an optimal system of regulation.”\textsuperscript{517} Furthermore, because of the class politics of capitalism, any cybernetic system that was implemented under the dictatorship of the market would enslave humanity to machines, rather than the other way around. In Klaus’s words: “in capitalism, humans have to fit machines both bodily and spiritually.”\textsuperscript{518} By the same measure, automation in a capitalist society would lead to mass unemployment as humans were replaced by machines.\textsuperscript{519} Thus, under capitalism, what promised to free humanity from drudgery became a negative, further oppressing the

\textsuperscript{516} Ibid, xi.
\textsuperscript{517} Georg Klaus, \textit{Kybernetik und Erkenntnistheorie} (Berlin: Verlag der Wissenschaften, 1966), 201.
\textsuperscript{518} Klaus, \textit{Kybernetik und Gesellschaft}. 151.
\textsuperscript{519} Ibid, 152.
already oppressed. According to Klaus, therefore, cybernetics could never work for unstable systems like capitalism, but rather “can help with stable societal systems such as socialism.”

Cybernetics was poised to bring about the two most fundamental promises of the scientific-technological revolution: the elimination of drudgery and the conquering of nature. This was uniquely true to socialist societies, for “the discussion naturally leads to the taking over of machines from men. But this is only a problem for capitalist lands where they would program the machines to be like them. While automation would only deepen human slavery to machines in capitalism while increasing unemployment, it would relinquish most workers from the most undesirable jobs in the GDR. Even if automation came to capitalist societies first, Klaus imagined that the regressive elements could be forgotten when developed further in a socialist system. As Klaus argued, early cars copied the design of horse carriages, thereby hindering the design of cars with the clunky designs of a prior technology. However, just as the car forgot the carriage, the machine will forget capitalism.

According to Klaus, once full automation had arrived, the jobs of the future would be thus: repair people tasked with making minor and active repairs on the machines; people in charge of repairing systems rather than individual machines; people to watch over the functioning of machines, who, rather than the machine-minders of capitalism, would make sure entire factories were running smoothly; those who would actually build

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520 Ibid.
521 Ibid, xi.
522 Ibid, xii.
523 Ibid, 121-122.
the machines that went into the factories; and finally the scientists who designed
machines. Each of these roles represented mastery over the machine rather than
enslavement. Each role was in some way managerial, making sure the whole system
could function for the whole of humanity, unshackling the worker from routine, laborious
work. According to Klaus, “A human as the ruler and creator of production processes is
the free man of the communist organization of society.”

Cybernetics also contained the potential for conquering nature itself. Like all
elements of the world, the problem of nature was yet another problem of “black boxing.”
One could reduce down the most complex problems on earth if one had the correct
information. According to Klaus, all material has three aspects: a physical aspect, an
energy aspect, and an information aspect. Nature, then, need only be understood in its
information aspect to be controlled. Science, the search for nature’s information, would
eventually be capable of black boxing nature itself.

Klaus defined automation as “the joining of all three aspects,” physical, energy,
and information. If science could discover nature’s informational aspect, then it too
could be automated. Human motion would no longer be needed for fabrication of goods,
it could be automated through its three aspects. Thus, “the understanding of causal
connections [of the three aspects] is the actual method that allows humans to build
technical devices and to shape the environment to their needs.” Indeed, cybernetics
offered the chance to not only copy nature, but to perfect it: “It is important to note:

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524 Ibid, 148.
525 Ibid, 15.
526 Ibid, 17.
527 Ibid, 18.
learning automatons are not copying the operation of any production workers, but rather the best ones.\textsuperscript{528} Cybernetics under the strict control of the central party regulator would eventually free humans from labor and from nature, turning any relations with them into a managerial relationship.

By Klaus’s prediction, those workers once tethered to the endless demands of machines would be freed, leaving only managers in their wake. However, as managerial work would be largely less demanding than any work done in factories or on construction sites, Klaus foretold the future of worker’s time would be found in art, sport, music, or whatever other creative outlet they desired.\textsuperscript{529} Indeed, with a majority of citizens able to more fully dedicate themselves to their own pursuits in their free time, art, sport, rest, music, play, and experimentation would all have a greater place in society.\textsuperscript{530} East Germany, run by the managerial hand of the SED would become a state of peaceful artists and thinkers, each the manager of their own creative destiny.

Klaus’s focus on management tied into larger cultural trends in the East German technological-utopian imaginary. The paintings of Josep Renau gave face and corporealization to Klaus’s idea of the future manager. By the 1960s, Renau’s paintings no longer depicting the classical worker-heroes of socialism: builders, railroaders, farmers, factory laborers, heaving men with sweat-soaked brows. In their stead came a new class of worker: thinkers, planners, and machine minders, people of disparate gender and physique. They were often depicted as clean, wearing lab coats or other professional dress. Around them swirled atoms or technological concepts, flowing from their hands.

\textsuperscript{528} Ibid, 147.
\textsuperscript{529} Ibid, 154.
\textsuperscript{530} Ibid.
that managed switches or grasped control apparatuses. According to Oliver Sukrow in his study of Renau’s utopian depictions of the future, the old image of the worker in the factory became dis-aligned with the GDR of the late 60s, who wanted to stress the white-collar workers. 531 Indeed, “Scientists and engineers now became new hero figures who were supposed to reduce in themselves all the salient characteristics of man in the developed social system of socialism.” 532

Figure 6 - Der zukünftige Arbeiter im Sozialismus - Josep Renau 1969

532 Ibid, 120.
These depictions of the future worker, both in Renau and in Klaus, attend the larger rhetorical goals of the scientific-technological revolution and of “real-existing” socialism itself. That “real-existing” socialism was an eternal state of becoming required careful management. The continuation of “real-existing” socialism demanded not only the eternal supremacy of the state, but also the maintenance of hope for the future. The depiction of the future worker as manager achieved both: it promised the conquering of nature by the power of science and the elimination of drudgery, but it also promised the continued existence of the state. Thus, the GDR could claim that full communism was indeed the final goal, but the more immediate future was the perfection of the state as it existed.

As Klaus concluded, the imagination of the future GDR as a cybernetic system was much more than the fanciful dream of some unmoored thinker. At the time of writing, Klaus believed that the GDR was firmly on the path of such a future. For Klaus, the proceedings of the XXII Party Meeting of the USSR showed that the way toward automation was not already possible, but underway.533 His own freedom to experiment in the New Economic System of the 1960s gave him hope that the rigidity of a centrally planned economy would pave the way to a perfectly managed future. However, whatever discussions of automation were had in the Soviet Union remained just that: discussions. And as power transferred from Ulbricht to Honecker, whatever cybernetic potentialities existed in the GDR gave way to more pressing needs of real existing socialism. This begs the question, then, what notion of utopia actually existed in the GDR? What concepts of utopia actually existed?

533 Klaus, Kybernetik und Gesellschaft. 160.
6.1.3. The Lineage of Utopia / “Real-Existing” Utopia

Implicit and often explicit in GDR rhetoric, the GDR was the logical endpoint of all past utopian dreamers. As On the Meaning of Our Lives assured young comrades: “Many generations before us drew courage, hope, and confidence from the image a better future. Such images, expressed in myths, fairy tales, utopias, and scientific theories, were certainly of a very different nature. But as a consequence, they mostly created a single vision of the future: the idea of communism – of a societal organization in which all people live together equally prosperously, peacefully, and fraternally. Today the idea of communism is no longer simply a dream, but rather a scientifically-based, realistic goal of revolutionary world change.”

This was not the only instance of looking to past utopians to inspire the present. East German media often returned to past dreamers to trace past vectors towards culmination in East Germany. For example, Wolfgang Jonas’s Neues Deutschland reflection on Jules Verne for the 60th anniversary of his death put then-current East German readers in conversation with technological utopianism. Jonas begins the article by lamenting the relegation of Verne’s work to the realm of pure story, rather than usable theory. For Jonas, it was Verne’s enduring humanism and level-headed trust in technology made him particularly well poised to influence East German youth. In Verne’s work, “technology was never technology for the sake of itself, and his novels never got lost in an ‘only-technology utopia.’” Rather, Verne’s technological optimism

was well tempered – he was no technological pessimist, nor was he a wide-eyed adherent to unchecked advance. Verne was able to couple this careful trust in technology with a communist-adjacent humanism aimed at helping the common man. “And did he [the captain of the Nautilus] not have our full sympathy,” writes Jonas, “when he retrieved gold bars from sunken vessels and stealthily passed them to oppressed peoples to support their liberation struggles?”

But if the dreams of the past culminated in the GDR, how close did the GDR adhere to schema of past utopian thinkers? What elements of the of these utopias ‘really existed’ in the GDR? What elements were missing?

As mentioned above, Gerd Irrlitz named Robert Owen, Francis Bacon, Henri Saint-Simon, Charles Fourier, and Thomas More as the foundational utopians for the construction of the GDR. Each of these utopians found some imprint in East Germany, their main ideas indeed interpreted through the East German Marxist-Leninist lens. Thus, the GDR was in some way a ‘real-existing’ modality of these different utopias, never a complete reiteration of one single thinker, but rather a collection of different ideas from disparate thinkers. In the section that follows, I will map certain elements of Robert Owen, Francis Bacon, Henri Saint-Simon, Charles Fourier, and Thomas More that really existed in East Germany, as well as how their ideas simultaneously clashed with GDR as it was constructed.

The first of these thinkers I will discuss, Henri Saint-Simon and Robert Owen were both largely spiritually represented in East German thought. The utopian ideals of Henri Saint-Simon greatly influenced the ideas of Marx, and, thereby, the rhetoric of the GDR.

536 Ibid.
A 1946 article in *Neues Deutschland* memorialized Saint-Simon by positioning his thoughts within a Marxist continuum. The article lauded his ability to see the French Revolution as class war, and named him a leader in socialist thought until Marx invented scientific socialism. According to the article, Saint-Simon foresaw the liberation of the “working class” (a term of his invention) through more fair labor practices and reduced drudgery. Born in 18th century France, Saint-Simon dedicated himself to revolutionary practice, fighting both for the Americans during the American Revolution and in the French Revolution itself. Saint-Simon saw the misery of the industrial classes and political conflict in terms of material conditions, thereby laying the foundations for Marx’s historical-materialist interpretation of history. Saint-Simon also saw science as a guiding principle of humankind, believing science to be the only way forward for a more just society. This too foretold Marx’s own interoperation of technology and the scientific endeavor.

Similarly, Robert Owen, was a utopian interested in reforming labor practices to make life more tolerable for industrial workers. Born in 1771 in Wales, Robert Owen worked his way up factory hierarchy by investing in new technologies for spinning thread. However, once offered a position as partner of a mill, Owen gave up mill management in favor of attempting to construct utopian communities. Most notably, Owen and his son founded New Harmony, Indiana in 1825, a community meant to foster communal living, mutual aid, and universal education. Owen’s experimental community ultimately ended in economic ruin, as it was but one single cell in the otherwise capitalist

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United States. In this way, Irrliz’s argument that the entire state was necessary for the sustained existence of a utopian experiment rang true.

Primary to Owen’s utopian belief system was the idea that the drudgery of the worker should be reduced. For Owen at the time, this meant the introduction of the eight-hour work day and the elimination of child labor. In his words: “Eight hours of labour is enough for any human being, and under proper arrangements sufficient to afford an ample supply of food, raiment and shelter, or the necessities and comforts of life, and for the remainder of his time, every person is entitled to education, recreation and sleep.”\(^{538}\) Owen sought a world where workers had the time and space to live a life outside of work, where they could find meaning in self-education, communal activities, and rest.

As we have seen, the promise of the elimination of drudgery was primary to the GDR’s technological-utopian promise. Automated factories and cybernetic management were to whittle working hours down to a mere handful, allowing the East German populace to dedicate the majority of their lives to science, art, sport, and leisure. In reality, however, such factories never materialized, and most workers in the GDR toiled in factories that required an arduous input of human labor. While Owen’s ideals of shortened workdays and banishment of child labor did indeed exist in the GDR, his larger spiritual promises of a new life for workers remained but promises in the GDR. Drudgery was indeed reduced, but never eliminated, just as Owen’s community was indeed built but never sustained.

\(^{538}\) Robert Owen, “‘Foundation Axioms’ of Society for Promoting National Regeneration,” 1833.
While Owen and Saint-Simon were spiritually represented in the genetic makeup of the East German state, the remaining thinkers had a more direct role in the implementation and execution of the East German state. Frances Bacon directly influenced the discussions of science and scientific utopia in East Germany and lay heavily upon the East German imagining of the scientific-technological revolution. Bacon, a nobleman of 17th century England, saw the advancement of humanity primarily driven by the advancement of science. Bacon imagined the whole world one large scientific exchange, and in that exchange the solution to all of the ills of the world. For Bacon, only the conquering of nature could ease the imperfections of humanity. Societal ills such as poverty, crime, and the like were less political problems than the ramifications of imperfect science. Science was to make nature the thrall of man, infinite riches squeezed out from the bountiful earth. In Bacon’s words: “Nature cannot be commanded except by being obeyed.”539 Once man was in full control of nature, the need for politicians would fall away, only scientists would remain.540

For Bacon, the perfection of the scientific endeavor would then usher in an age of utopia for humanity. Bacon’s final work, the New Atlantis, published only two years before his death, acted as a literary thought experiment for such a society. Much like Thomas More before him, Bacon’s fictional utopia was an island some distance from Europe. The government of this utopian isle were simply the greatest scientists, its halls populated by economists, astronomers, physicians, sociologists etc. Because of the

leadership of the greatest scientists, the island wanted for nothing, everything needed was produced, and everything produced perfectly consumed. The completely autarkic society needed only nature, servile to man.

As we have seen, this was a primary promise of the scientific-technological revolution in the GDR. East German science and technology would be responsible for the conquering of nature and the alleviation of want for all its citizens. Science and technology would evolve the GDR beyond socialism to full communism and politicians would give way to the logical rule of scientists. However, this once again presented a paradox for the East German state as it existed. How could the SED maintain their legitimacy as party vanguard while also arguing for the rule of scientists?

The answer to this paradox also lay within Baconian thought. Himself a devout monarchist, Bacon harbored no trust for the intelligence of the masses, arguing “the lowest of all flatteries is the flattery of the common people.”541 Bacon knew that the sciences, unguided as they were by a central force, could not alone bring about utopia. They needed something above to guide and command them. As Durant summed up, “Science, which is the organization of knowledge, must itself be organized.”542 Bacon therefore argued for a meta-science, a science beyond that could organize the other sciences for the good of the whole society and for the creation of utopia. “For as no perfect view of a country can be taken from a flat; so, it is impossible to discover the remote and deep parts of any science by standing upon the level of the same science, or

541 Bacon, The Works of Francis Bacon.
without ascending to a higher.”\textsuperscript{543} For East Germany, that highest science was historical materialism, its scientists the party itself.

Thus, in the rhetoric of East German technological utopianism, Bacon was what Marx called “the father of English materialism and of the modern scientific experimentation.”\textsuperscript{544} Bacon realized that knowledge itself was power when he founded a rational method of science.\textsuperscript{545} East Germany, built as it was on the rational meta-organizational science of Marxist-Leninist historical materialism guided by the party was thereby rhetorically positioned to bring about the New Atlantis. East German science and technology would wrest control of the future away from nature and bring about a self-sufficient future guided by science. Some level of this New Atlantis already existed in the GDR. The organizational scientists who were command utopia were already at the top. The citizenry of the GDR need only wait for science and technology to catch up.

Charles Fourier, another French utopian theorist, also saw implementation within GDR thought. Active in 19\textsuperscript{th} century France, Fourier sought to reform society toward a more equitable distribution of resources. Fourier’s concept of social reform was, at its core, a theory of housing reform. In order to more justly reconstruct the lived world of humanity, Fourier proposed the construction of what he called “phalanxes.” These massive living communities would be stacked according to wealth, the more desirable parts of the housing, perhaps in size or in access to light, would be at the top, with decreasing desirability as one descended. For Fourier, however, income was determined

\textsuperscript{543} Bacon, Adv. Of L., I, 81, quoted in Durant.
\textsuperscript{544} Alfred Kosing, \textit{Weltall Erde Mensch} (Berlin: Verlag Neues Lebens, 1971), 30.
\textsuperscript{545} Lothar Oppermann, ed., \textit{Vom Sinn unseres Lebens} (Berlin: Verlag Neues Lebens, 1983), 64.
not by the valuation of capitalist markets, but rather by which jobs were deemed least desirable. Thus, if one was to agree to work in a factory, dangerous and monotonous it might be, the worker was rewarded with a better, more comfortable home. Non-laborious, desirable jobs were to be considered rewards in and of themselves and thereby led to less desirous living conditions.

Fourier’s valuation of living conditions as a reward for less desirable labor was a key part of planning new industrial cities in the GDR. As outlined by Eli Rubin in his book *Amnesiopolis*, the GDR offered modern and spacious living conditions to workers and their families if they were willing to work in the VEB Machine Tool factory. Rubin takes as his case study Marzahn, a living community on the edge of Berlin, which was built to house industrial workers as a reward for their labor. Much like Fourier’s vision, Marzahn was viewed as more than just an apartment complex; it was the embodiment of a new type of living, where a socialist consciousness could grow and develop.

According to Rubin, new living communities such as Marzahn helped to strengthen the argument that the East was working to build a better future. Marzahn itself was built on razed ground; whatever had stood there before was flatted to make room for the new development. This, Rubin argued, worked against the lived experience of much of Berlin, which given the housing shortage after the war, still looked like the 19th century and therefore made it more difficult to claim the East was a new space. The actual construction of Marzahn required massive upheaval of the existing landscape. As such, East German propaganda surrounding the project declared the construction a feat of

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humankind’s ability to conquer nature.\textsuperscript{547} Marzahn, therefore, was making good on East Germany’s Baconian promise to rule over nature.

Begun in 1973, the living community was constructed to provide housing for the workers for the nearby VEB Machine Tool Factory. As such, the cost of the apartment included mandatory labor in the surrounding area.\textsuperscript{548} However, amenities were amongst the most modern in the GDR, and proximity to work reduced unpaid travel time between one’s job and home, allowing for more free time away from work. Thus, the GDR women’s magazine \textit{Für Dich} called Marzahn “The future embodied.”\textsuperscript{549} Taken together, Marzahn acted as an example of “real-existing socialism” as it simultaneously tried to break with the past and show that the utopian future was already here. However, in reality, the apartments were difficult to get, mostly attained through party connections.\textsuperscript{550} Those that lived in them during their construction period complained that they felt as if they “living on the moon,” as the conquering of nature necessary for building the complex meant the mass removal of trees and fauna.\textsuperscript{551} Marzahn, then, promised to be the future in the now, while promising a better future as the environment grew back around the inhabitants. It was both an alleviation of want in the present and a promise of a better future.

While all the aforementioned utopians contributed to the rhetorical genome of the ‘real-existing’ utopia of the GDR, perhaps no thinker had more import in East Germany than the original utopian, Thomas More. In the “The Age-old Desire of Humankind,”

\textsuperscript{547} Ibid, 57.
\textsuperscript{548} Ibid, 86.
\textsuperscript{549} Ibid, 69.
\textsuperscript{550} Ibid, 85.
\textsuperscript{551} Ibid, 93.
Irrlitz defined Thomas More’s *Utopia* as “the most important and most enduring societal utopia.”\(^{552}\) It was here that East Germany could draw its most important inspiration. More’s work, masquerading as a travelogue of sorts, describes a fictional journey to an island called Utopia, where the inhabitants lived a life almost in direct opposition to More’s 1516 England. Upon arriving at Utopia, the travelogue’s narrator is toured around the political system of the island. The denizens of the foreign isle were described as industrious, meek, and communal, allergic to the hierarchies that defined English monarchy at the time of More’s writing. More himself, born in 1478, was the son of a successful lawyer, born into bourgeois privilege that East German rhetoricians tended to detest. Irrlitz acknowledged More’s bourgeois position as lord chancellor to King Henry VIII, but stressed that More was “friendly and uncompromising,” and eventually sentenced to death because he opposed King Henry’s divorces.\(^{553}\)

In order to better align the GDR with More’s Isle of Utopia, Irrlitz recast More’s thought into a Marxist-Leninist vocabulary. Irrliz named the Utopians a “democratic community, in which the private property of land and tools has been eliminated.”\(^{554}\) As such, associations between More’s utopia and the built East German state were immediate. More’s Utopians lived in homes that “looked like a single house,” a description that much accords with the communist ideal of bloc housing.\(^{555}\) But, beyond surface level aesthetics, the warrior class of Utopia bore similar foundational goals to the

\(^{552}\) Irrlitz, “Uralte Sensucht der Menschheit,” 38.

\(^{553}\) Ibid.

\(^{554}\) Ibid.

Freie Deutsche Jugend (FDJ). In More’s words, any trained soldiers “see no glory in war yet constantly train for battle should one come.”

There are also some very key differences between More’s utopian isle and East German utopian rhetoric. One of the more striking examples is More’s insistence on the continued existence of human slavery. While More’s slaves are not racial chattel slaves that defined North America, they were collected as trophies in war or as indentured servants from other counties seeking the promise of a better life. Slaves were of course tasked with the undesirable. Their lives consisted of hard labor and unclean work. If any vestige of this type of thinking existed in East Germany, it was relocated to machines. In the future GDR, machines were to take the jobs of hard labor away from humankind, a world free from drudgery, but not at the expense of the world’s poor.

More’s extreme misogyny was also largely incompatible with the East German state. As has been described, East Germany took seriously the attempt to equalize men and women. The state set in motion numerous campaigns to recruit women into the workforce, to normalize men’s participation in work in the home, and to remove certain taboos of sexual relations before marriage. However, More allowed his Utopians to carefully police women’s bodies and to maintain rigid patriarchal structures. For example, More did not allow divorce of any kind, polygamy, or premarital sex. Men were also ominously allowed to “correct their wives.” Finally, he allowed some

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557 Ibid, 117-118.
558 Ibid, 108.
561 Ibid, 122.
women to learn trades, but held that women were weaker, and therefore should be more limited in what trade they were allowed to practice.\textsuperscript{562} This conception of women’s bodies as weaker directly went against East German sporting practice, where women’s strength was actively encouraged and used to win numerous Olympic medals.

Given the incompatibilities of More’s Utopia and the GDR, and the reality that More’s promised land was built on the work of slaves, the subservience of women to men, and a tight control over the lives of its inhabitants, why would the GDR seek to align itself with such a future? Why would the GDR strive to be what many would consider to be undesirable? And finally, why was the GDR never able to completely construct such a place, caught always in the lived in between of future promise and lived reality?

That the GDR claimed to be the endpoint of the past utopian dreamers, a group of individuals whose dreams contradicted one another and clashed with the actual built reality of the GDR tells us something about the nature of the idea of utopia itself. The attempt to dictate the future down from above, to act as a state to design the dreams of citizens is an inherently unstable condition. As we have seen, the technologies of the future and their imagined designs and effects change with time, as the technologies and desires of the present change. That the dreams of past thinkers would exactly map onto the present is thereby an impossibility. No human can exactly foretell the future, no human could thereby design the perfect future state.

Thus, each utopian imaginary, be it the scientific monarchy of Bacon or the technocratic party state of the GDR, is the product of imperfect human thought. In the

\textsuperscript{562} Ibid, 81.
words of Kristian Williams, when discussing George Orwell’s allergy to utopia: “The problem, as Orwell saw it, is that Utopias, by definition, are perfect and that human beings – also by definition – are not. Always the realist, he concludes that the fault lies with Utopia: that these dreams of a perfect society are not only impossible, but inhuman and therefore, by human standards, undesirable. Were they realized, the practical result could only be the narrowing of the scope of human life.”\(^{563}\) Utopia, therefore, the imagination of a perfect world, is always designed by imperfect creators, and thereby always doomed to imperfection itself.

6.1.4. Conclusion: Utopia as a Place to Be

The idea of perfection is stifling. True perfection, something completely unflawed, would require the exact control of every conceivable element. Any movement outside the parameters of perfection immediately invalidates the entire endeavor. A single flaw changes the binary from 1 to 0. Furthermore, perfection is defined by time and space. What is considered perfect in one moment may lose that valuation in the next. Perfection, if it ever could exist in the first place, would only ever be infinitesimally fleeting. A monad frozen in time. As such, defining perfection in the future is even more difficult than in the present. It demands the question: what \textit{will} we want? However, as Fredric Jameson noted in \textit{Archaeologies of the Future}, the future is a disruption of the present, it is a destabilization.\(^{564}\) It is the process of making different. The inexorable future comes at the cost of the present, changing the present in the process, and thereby the image of the future itself.

But to say that the GDR was enterally deluded by an impossibility would be an injustice to the managerial aspect of East German future orientation. Precisely because perfectly predicting the future was an impossibility, the GDR was able to maintain a state of “real-existing” utopia. The concept of utopia in the GDR was a negotiation. As future continuously became present, utopia remained repeatedly unachieved. New parameters for perfection were therefore repeatedly invented to manage expectations as the technologies and desires of the present changed. The actual advent of utopia was always thereby delayed, keeping the state in control for an eternal ‘in the meantime.’ As a result of this management, the GDR was what Ursula K. Le Guin called a “rationalist utopia,” which, according to her, “[…] is a power trip. It is a monotheocracy, declared by executive decree, and maintained by will power; as its premise is progress, not process, it has no habitable present, and speaks only in the future tense.”

The maintenance of a ‘real-existing’ utopia required not only speaking past the present, but also the general management of the past. As we have seen above, East Germany sought to define itself as the inheritor of the utopian impulses of the past. However, the embrace of these thinkers was only partial, ignoring or glossing over the undesirable realities of thought or figure. But beyond explicit utopianism, East Germany also positioned itself as the child of the greatest thinkers of Germany, while trying to totally forget its recent Nazi past. The result, as Le Guin again defined, was a wholesale forgetting of the past. “When a future-oriented culture impinges upon a present-centered one, the method becomes a compulsion. Things are forgotten wholesale.” Indeed,

Bloch argues that any notion of hope has two components: an affective (opposite of fear) and cognitive (opposite of remembrance) component. East Germany operated heavily on this second condition of hope, the opposite of remembrance.

The process of technological utopianism in East Germany indeed demanded a certain level of wholesale forgetting. Activating the ‘scientific-technological revolution’ that would bring on utopia required not only forgetting the Nazi period, but also forgetting the current moment where reality held East Germany the lesser Germany in the face of the West’s prosperity. It also required the wholesale erasure of physical locations, as Eli Rubin’s study of the Marzahn housing projects detailed. The goal, of course, was not total erasure of the past, but rather like the history curricula of the GDR, a recasting of the past into something carefully managed. Only when both the future and the past were accounted for, caged by state approved rhetoric, then could the present moment make sense.

As Jameson rightly acknowledges, thinking about utopia requires thinking past the actual mechanics of getting there. Revolution, one easily forgets, is not the state that comes after; it is the process itself. Thinking in terms of utopia defines the state already perfected, glossing over the real work needed to get there. However, the “real-existing” utopianism of the GDR was the lived reality of the actual process toward utopia. In order to exist, it needed the management of the past, the wholesale forgetting of histories that countered the linearity of materialist progress. It also needed the future, talking always, as Le Guin stated, in the future tense, talking past the inadequacies of the

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567 Rubin, Amnesiopolis.
568 Jameson, Archaeologies of the Future.
present to be solved at a later date. Finally, the continued usage of the concept of the scientific-technological revolution as a unifying feature of East German culture also required the constant redefinition of perfection. Each new technology left its promise unfulfilled. Just as nuclear power failed to unshackle humanity from nature, so too did the arrival of humans to space. Each unkept promise shifted focus to a new messianic technology. The perfect future was always in flux.

The lived reality of “real-existing” utopia in the GDR therefore only existed as a paradox. It was a promise of reaching an unreachable moment, but in that promise, it was the lived process. “Real-existing” utopianism, then, was not a place. It was the process of managing expectations of the present by managing the myth of both past and future. In doing so, the state sought to manage society itself, past, present, and future alike.

6.2. Hope Disappointed

6.2.1. Ernst Bloch: Hope Disappointed

The lived effect of “real-existing” utopia, paradoxically, took seriously the roots of utopia; it was a non-place. It was, as we have learned, a continuous process of becoming a place. But such a continuum begs the question: what effect did the process of constantly becoming, the state of noch-nicht-geworden, have on the hope of citizens? Did the constant disappointment of hope cause a degradation of hope for those who lived in East Germany? Full answers to these questions are of course impossible. They would require a review of the population, as much of it as possible, in the moments of these transformations of the idea of the future. It would require delving their own imaginations of the future. We can, however, take the preeminent philosopher of hope himself as a case study. Ernst Bloch, author of both The Spirit of Utopia and The Principle of Hope,
saw his own hope in the future of the GDR disappointed by its own inability to bring about the future it promised and its intolerance toward other ideas of what the future could look like.

In a 1964 joint interview with Theodor Adorno, Ernst Bloch stated, “Hope is not confidence. If it could not be disappointed it would not be hope. [...] Otherwise, it would be cast in an image. It would let itself be bargained down. It would capitulate and say, ‘that is what I had hoped for.’”

This interview came only seven years after Bloch was forced to retire from his chair at the University of Leipzig, and only three after Bloch chose not to return to East Germany in the face of the Berlin Wall. Once a vocal advocate of the East German system and a showpiece for the legitimization of the regime, Bloch’s hope, it seemed, had been disappointed.

The life and work of Ernst Bloch serves to underscore both the unitary vision of the GDR’s idea of the future and how that future failed those it promised to redeem. Bloch’s philosophy stood out not only in its content, but in its juxtaposition of hope in the face of atrocity heretofore unimaginable. In the aftermath of the First World War, origin of poison gas warfare and machine gun butchery, when Otto Dix was painting the skulls of soldiers infested with maggots and concepts of Lustmord haunted visual art generally, Bloch wrote The Spirit of Utopia. Similarly, self-exiled from his home in the face of Nazism simply due to his Jewish upbringing, Bloch found the internal hope to begin work in the United States on his magnum opus: the three volume Principle of Hope.

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Bloch’s own philosophy orbited somewhere close to the critical theory of the Frankfurter School, however ever tinged with a tenacious Christianity. Himself good friends with Walter Benjamin, Bloch maintained a similar crypto-Judeo-Christian entangling of messianic power with concepts of hope and utopia.

Bloch’s entire life trajectory was testament to the tenacity of his hope. Forced to flee the onslaught of Nazism, snubbed by academia, subject to years of stateless wandering, eventually forced to leave East Germany, the one place he was seemingly accepted, Bloch amazingly maintained a leitmotif of hope in both humanism and in hope itself to bring about utopia. Bloch also maintained his ardent hope in Marxism, albeit a Marxism much in opposition to the prevailing Eastern Bloc. However, before his break with the GDR, it was precisely his philosophy of hope that East Germany hoped to recruit and harness in their invitation for him to serve as chair of Philosophy at the University of Leipzig in 1948.

The ascension of Ernst Bloch to chair of the department of philosophy at the University of Leipzig lent an air of legitimacy to the fledgling East German government. Although skeptical, Bloch felt obliged to paint the both East Germany and the Soviet Union positively, as they represented real-existing victories against fascism. In his view, although not perfect, they at least set the conditions for building full communism in the future. However, in the face of the brutal suppression of the Hungarian uprising in 1956, Bloch changed his opinion of the structures of state socialism and began to admit that maybe the party state was not the correct way to bring about the utopia he imagined. As Bloch voiced his criticisms against the state, Ulbricht ordered an investigation of Bloch and his circle, and by 1957 was banned from giving lectures and was forced to retire.
Finally, in the face of the construction of the Berlin wall in 1961, Bloch chose to abandon the GDR and live out his final years in Tübingen.

Both Bloch’s life and philosophy represented the clash between the hopes of an individual for the future and the rigidity of the East German state plans for what the future should mean. For Bloch, “the relative historical gains, revolutionary transformations and formations, what Bloch called ‘concrete utopias,’ were stepping stones and indications of what the human individual and the world could become.” However, rather than a mere stepping stone, the GDR maintained an eternal state of becoming, leaving no room for different interpretations of how the future should form. Thus, Bloch’s interpretation of becoming utopia was incompatible with the East German state apparatus.

For Bloch, the lived experience of the world was the result of the clash between messianic ideas that sought utopia against a so-called “rationalism” that counter-sought to temper and extinguish hopes for a better future in order to maintain the halls of power. This, he believed, was the fundamental differential between fascism (and the liberalism that begets fascism) and revolutionary communism. Bloch emphasized this clash through the lens of technology; his study of fascism emphasized the failure of the left to recognize the huge gaps that modern technologies and industrial change had created in the everyday lives of the masses. The masses, he believed, did indeed hope for a better world, however, they need to contend with the “not-yet-conscious as they take shape in

571 Ibid, xviii.
daydreams, wish-landscapes, and religious, scientific, political, and artistic events of signification.” Powerful institutions of the “rationalist” status quo sought always to grab hold of the “not-yet-conscious” so as to bend it toward their own ideals of the future. Thus far, such forces had always been successful. However, as Zipes distilled Bloch’s thought, “the world process has not yet been won anywhere, but it has not been thwarted anywhere… Hercules says: ‘Whoever does not hope for the unhoped-for will not find it.’” In other words, just because hope for the future, for utopia, had always thus far been disappointed, hope for a better future always remained possible.

For Bloch, technology and science were the primary vessels for hope in the future. According to Zipes, “Bloch believed that the relativistic thinking elaborated in the work of Ernst Mach and other leading physicists would provide some sparks for the revolutionary political action as well as the radical advancement of technology and the natural sciences.” Bloch exclaimed: “May great technique dominate, an unburdening, cool, indigenous, democratic “luxury” for all, a reconstruction of this star the earth with the goal of the abolition of poverty, delegation of toil to machines, centralized automation of the inessential, and thereby the possibility of idleness; and may great expression rule, moving ornamentation into the depths again and granting pure signs of understanding, pure ornaments of resolution to the sounding of our inner care above the silence of the outer.” With the advent of emancipatory technology, art and literature could become

573 Zipes, “Introduction.” xxv
574 Ibid, xxviii.
the primary foci of human endeavor, spaces where humans could discover themselves not as workers, but as free humans living amongst other free humans. This was utopia for Bloch.

The concept of technology in Bloch’s philosophy of utopia was always mushy and unrefined. Bloch’s adherence to Hegel’s systemics left his conception of technology generalized and amorphous. Much like Heidegger, although for extremely different reasons, Bloch treated technology as something almost beyond humanity. For Heidegger, technology was the collected force of individual machines and technics that had grown totally beyond human control. This spirit of technology saw the world not in terms of nature or humanity, but as ‘standing reserves,’ as the potential energy stored in natural resources. Heidegger’s ultimate fear, from which “only a god could save us,” was that this concept of technology would begin to see humanity in terms of standing reserves, that each human’s worth would only be in terms of how well that individual could serve the machine.576 Bloch shared this basic framework of technology, and this fear, however without Heidegger’s deep pessimism. Indeed, Bloch believed that Heidegger’s world of exploitative technology would only be a product of capitalist technology. Communist technology would instead be emancipatory.

For Bloch, emancipatory technology meant forces of production that were not only collectively owned, but also did not produce commodities simply for the droll sense of consumption. “An entirely different, in other words, a humanistic technology would have to come, and not for profit, and would have to be invented for entirely different, for

purely functional ends, without any amateurishness in the production of commodities or in the replacement of goods once made with artistic intention: if relief is to come, but the limit as well, the transformation of the mechanical spirit’s functional form, the appearance of free, purely expressive color and fullness liberated from adornment, from the old luxury. […] But as far as technology goes, that applies only to the machine as a functional alleviation, and not to the factories’ craven mass junk, let alone to the frightful desolation of a total automation of the world.”

This *humanistic* technology, as Bloch defined it, would not spew out consumer goods for the masses. Instead, it would rest upon the masses freed from drudgery, where former workers could return to artisan crafts for their own enjoyment, and where discarded trinkets reproduced endlessly in factories did not litter the earth. In other words, while Bloch did indeed share the central belief that technology was the driver of utopia, his notion of technology clashed directly with the technology of “real-existing” utopia. The desire for more consumer goods in the face of the perceived cornucopia of the West drove Honecker era production towards a socialist replica of capitalist goods production. Creating more items to fill East German homes, while workers continued to toil away in factories directly opposed Bloch’s conception of socialist technology. In this production of consumer goods lay a disappointment of Bloch’s hope for humanistic technology.

Bloch’s concept of humanistic technology and its failure to surface in East Germany abuts another point of contestation between Bloch’s utopianism and the lived experience of the GDR. As mentioned above, despite the eternal promise to the contrary,

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work in East German factories never lost its component of drudgery. Workers remained workers who labored for pay, rather than the free managers of machines who’s lives focused on creative endeavors. Bloch, in his imagination of the future state, foresaw the worker cut loose from the tether of the factory. “Certainly we will no longer work out of necessity, indeed we will work much better and more productively, our boredom and wretchedness is sufficient guarantee of that, and there – as is already true for the teacher, official, politician, artist, and scientist – pleasure in one’s own ability will replace the profit motive as sufficient motivation, at least for practical occupations.” 578 Much like the Klausian model of the future worker, Bloch’s concept of work relies on the human desire to create, rather than the antiquated need to survive. Work was to become something to inhabit the mind, rather than something to simply fill the belly.

Another main point of contention between Bloch and the East German state was the question of the state itself. As we have discussed, the GDR maintained the rhetorical ideal of the withering away of the state in favor of full communism, however, the maintenance of the noch-nicht-geworden “real-existing” utopia allowed the state to act, in reality, in an eternal mode of self-preservation. Bloch, on the other hand, took seriously the withering away of the state: “Everything else in which the state oppresses or lulls us should finally fall away, and it must hand back everything but the organization of dreary matters. If fear and lies depart, it will become difficult for the state to exist, let alone arouse greater respect.” 579 Indeed, “May it have a Bolshevistic function for a time as a transitionally necessary evil, but the truth of the state is really still beneath an socialist

578 Ibid, 245.
579 Ibid, 238.
perspective: it withers away, it transforms itself into an international regulation of consumption and production, into a great instrumental organization for the control of the *inessential*, which no longer contains or can attract any meaning, and whose purely administrative Esperanto is beneath the different national cultures that should be the next valid category of social cohesion.”

However, Bloch didn’t expect the future, stateless world to exist without some higher guidance. In the place of the party, a new, yet unbelievably ancient guide would arise: the eternal human soul. Unlike the main purveyors of communism as it existed, Bloch did not see religion simply as an opiate of the masses. Rather, religion, at least Bloch’s permutation of Christianity, contained the power to emancipate well beyond what state socialism could offer. For Bloch, the continuation of a religious presence in socialism or communism served a twofold function. First, it offered citizens under socialism a realm *beyond* the state to exist in. In his words, “only in this way will the community, freely electing itself, have space *above* a society.” This, of course, was heretical to the GDR’s conception of state: the state was already the collective of human will; anything beyond it would mean that it was not a total fusion of all wants and needs of the people. Furthermore, the continued existence of a church meant the growth and development of a different idea of utopia, an idea that would divide the population. The East German ideal of the future only worked if it included everyone.

Secondly, the religious idea of the eternal soul was, for Bloch, the only thing that made the concept of the future make sense for the present. Bloch saw the human soul as

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580 Ibid, 239-240.
581 Ibid, 246.
capable of something akin to reincarnation: the same soul existed across different
generations. In that soul’s longevity, it created a larger idea of a human project, that there
is a collective striving, almost in the Zoroastrian mode.\textsuperscript{582} In Bloch’s terms, we exist
across time, in the past as well as the future as a “dispersal of our self across all of
history, an intermittence to the soul’s various historical existences.”\textsuperscript{583} This longevity of
the soul, its eternal existence across humanity, was the ultimate idea of the collective
articulation of the self, that the self is eventually represented across a collective. This, for
Bloch, solved one of the most intractable questions of communism: how to reconcile the
want for one’s own individualism in the face of collectivization? As inheritor of the
collective of souls, each individual was already imbued with the collective. Each life was
a collective. But more than that, it also addressed the selfishness that attends the
privileging of the short term rather than the long term. Why would I want the lives of
future generations to be better when mine is unbearable now? If the self and the soul are
eternal, building a better future will also privilege the future iteration of the now-self. It
made selfish sense to build a better future.

In all, it seemed that Bloch was always doomed to be forsaken by the East
German state. Bloch always rejected the simplistic Marxist-Leninist conception of
progress and the inevitability of that progress. He saw the present as much a part of the
future as the future itself, and the need to work on them both in tandem: “And the present
rules together with the horizon within it, which is the horizon of the future, and which

\textsuperscript{582} The Zoroastrians, when the descriptions of Marx reached them, saw him as a
reincarnation or reinterpretation of their long dead mobed, Mazdak, who was famous for
advocating for the redistribution of wealth.
\textsuperscript{583} Bloch, \textit{The Spirit of Utopia}, 264.
gives specific space to the flow of the present, the space of new, feasibly better present.”\textsuperscript{584} Much like Caldwell articulated, “Without the spark of hope for social emancipation that went beyond sustaining a bureaucratic apparatus, state socialism would have to find other sources of legitimacy,” Bloch knew that a bureaucratic institution could not forever maintain the hope needed to fuel utopian change.\textsuperscript{585} He believed in the power of technology to activate utopia, but knew it had to be divorced from bureaucracy: “There will still come the inevitable emancipation of humanity by technology, and its now irresistible consecration of life, namely the potential abolition of poverty and the emancipation, compelled by the revolutionary proletariat, from all questions of economics.”\textsuperscript{586} But none of these hopes were to come to pass. Bloch’s hopes were disappointed.

6.3. Conclusion

6.3.1. Zusammenfassung

The comparison of the German Democratic Republic against the utopias it claimed to inherit highlights the lived reality of East Germany as it existed. It was, as Irrliz claimed, an idea of the future backed entirely by the state. In that way, it was different than the utopian imaginaries of the dreamers of old. However, East Germany never did achieve its primary two promises: the conquering of nature and the freedom from drudgery. These two realities create a paradox: how was East Germany both a utopian achievement and failure? This paradox can be understood through the idea of

\textsuperscript{585} Peter C. Caldwell, \textit{Dictatorship, State Planning, and Social Theory in the German Democratic Republic}, Digital pr (Cambridge: Cambridge Univ. Pr, 2006), 140.
\textsuperscript{586} Bloch, \textit{The Spirit of Utopia}, 267.
‘real-existing’ utopia. A real existing utopia is not a place, but a process. It is the joining of material realities and the lofty promises of a better future. Finally, it is the constant management of expectations of the future in order to control the present moment.

Throughout this dissertation, we have explored both how the East German state crafted an official vision of the future, and how it sought to render that vision into action; in other words, we have explored the GDR was a ‘real-existing’ utopia.

In the second chapter, I elucidated how history education and the Jugendweihe became the central locations for the mythmaking of the state and the central centers of impartation of the state idea of the future. History education in the GDR followed the Marxist-Leninist idea of a materialist view of history. Under the aegis of materialism, history was to be viewed as primarily driven by material conditions: the allocation of resources and the control of the methods of production. In this view, the linear drive of history toward progress was therefore a result of the development and control of technology. Marxist-Leninism held that history was indeed progressive, that less equitable systems of government (such as capitalism) would logically give way to communism as technology developed. As a result, technology was enshrined in East German doctrine as one of the most important elements of modern society.

Both history education and the process of the Jugendweihe served to stress the importance of technology in a budding comrade’s life. History education in the GDR was largely a history of technology that was meant to both point towards the importance of controlling the methods of production and to show that the GDR was the logical endpoint of the progress of history. In a similar vein, the Jugendweihe replaced Christian conformation with a pledge towards an adherence to science. This commitment through
the Jugendweihe redoubled the idea of “faith” in the future, as the idea of a technological future stood in for a formerly religious ceremony.

In chapter three, I explained how toys and hobbies served to bridge the gap between free time and education and the skills needed to make the future. While education and the Jugendweihe represented the state’s hold on most of a child’s time, the GDR attempted to expand its hold by creating and promoting state-sanctioned “productive” toys and hobbies. Most exemplary of these toys were both construction kits and model trains. Both exceptionally popular in the GDR, both types of toys allowed the child to build out their own ideas of what the landscape of the GDR could look like. However, as was the case with Bloch, the individual ideal of the future would quite possibly not align with the state ideal. The solution was twofold. First, the state encouraged hobbies to be done as a collective: either with youth groups or in the clubhouses of state industries. This way, industry or ideological leaders could guide the hand of the child at play, while also reinforcing the collectivist ideals of communism more generally. Secondly, educational toys in the GDR came packaged with preset parameters as designed by state industry, and with instruction booklets that stressed state ideas of a better future. This way, the state could attempt to guide children along “productive” ideological lines during free time as well as school.

Hobbies also acted as demonstrative sites for the larger gender politics of the German Democratic Republic. One of the primary stated goals of state communism was the equality of men and women. This, be it for practical reasons of a small workforce, or true dedication to the cause, was something the GDR actively stood to correct. Coming out of the legendarily repressive Nazi regime, the GDR constitution stated the importance
of gender equality in the new Germany. As a result, the state both rhetorically and monetarily supported the study of science and technology among young women and girls. As toys and hobbies reflected the larger politics of the state, so too did they reflect the gender politics of the GDR. Advertisements and packaging of educational toys prominently featured girls and boys playing together in harmony, instruction booklets used both gender pronouns, and youth groups welcomed all. Thus, in totality, toys and hobbies both reflected the larger utopian goals of the state while also seeking to impart technical skills during otherwise free, “unproductive” time.

Chapter four continued the trend of tracking free time in the GDR, this time through the lens of sports. Sport in the GDR primarily fell into two categories: mass sport and elite sport. While indeed two distinct methodologies of sport, both conceptions of sport served larger state techno-utopian aims. The first of the two, mass sport, focused on the recreation of the everyday worker. The physical fitness of workers was indeed a high priority of the state, for a fit and healthy worker would perform better at work, and be less prone to workplace accidents. Furthermore, industry-organized sports were seen as a way to build comradery between workers as well as a symbol of the benevolence of state industry. Industry organized sports teams were named for the objects of their production, a nomenclatural tactic used in the hopes that young children would come to associate their favorite sports with technical industry, that they might someday join the workforce. Mass sport, then, operated to both appease and entice workers to technical fields in the hopes of building a better future.

Elite sport, on the other hand, served a different element of technological utopianism. Athletes trained to compete at the highest levels have always received
dedicated training and observation by their coaches. However, in the GDR, state medical and sport institutions conducted research on athletes to better engineer the ideal athlete. Training methods for elite athletes were scientifically derived: researchers measured strain and output of the human body to create best practices and hard benchmarks for performance. Eventually, the quest to create a better athlete culminated in a clandestine doping program to push athletes beyond the normal parameters of nature. Doing so allowed demonstrated the tangible success of East German techno-science: the huge medal count amassed by GDR athletes proved the value of meddling with the human body.

However, as this chapter has shown, the actual practical state endeavors did not entirely align with the rhetoric the state used to speak about utopia. The rhetoric of the future of the GDR promised that the coming East German state would be the realization of the utopian dreams of past European socialist thinkers. It would, by way of technological progress, bring about a future free of human drudgery and untethered from the parameters of nature. Yet, as we now know, such a future never came. What then was the real result of this gap between rhetorical promise and practical existence?

The actual lived experience within this utopian gap is best exemplified by two East German thinkers: Georg Klaus and Ernst Bloch. Klaus, the premiere cybernetician of the GDR, saw the East German state as the perfect host upon which to graft a cybernetic system. For Klaus, for any cybernetic system to work, the system needed strong, immutable laws so that more complicated processes could be bracketed out (or in cybernetic terms, black boxed). In order to do that bracketing, a system had to be constant so that its function could be assumed. The East German economy, controlled as it was by
a central regulator, was for Klaus a perfect closed system. Therefore, technology, coupled with the GDR as it existed, could bring about a cybernetic state.

For Klaus, the advent of such a state would, in a roundabout way, make true the promise to eliminate drudgery. Cybernetics would beget automation which would eliminate the need for human toil. What would remain for humans to do would be simply a question of management: management of the machines, of the economic goals, and of cybernetic parameters. The rest of human life could be spent pursuing art, sports, games, what have you. Thus, Klaus believed that the managerial construction of the GDR as it existed was indeed utopian inherently. One needed only add technologies of control.

On the other hand, Bloch’s life and philosophy represented the repressive aspect of a state idea of the future. Himself a philosopher of utopia, Bloch came to the GDR with high hopes for a better world. However, Bloch’s own, private imagination of what a future utopia would mean did not align with the state. Bloch imagined future human freedom through the lens of the eternity of the human soul, a union of communist and Christian thought. However, the rigidity of the state imaginary had no room for such “heretical” thinking, and Bloch was slowly stripped of power and eventually cast into exile. His experience served to demonstrate how state ideology left little room for alternative futures.

Taken together, my case studies have explored how the East German state sought to construct a utopian vision of the future in order to inspire technological development and innovation in the present. Through the vehicles of sports, education, the Jugendweihe, and hobbies, the party apparatus sought to control the vision of its own
future, and to make as much free time as productive as possible. It was, as this
dissertation has detailed, a ‘real-existing’ utopia.

6.3.2. ‘Real-Existing’ Utopia Revisited

In all, the East German state’s existence was an experiment. It was a living
test at creating a utopia on earth, with all the contradictions that entails. The result
was indeed a contradiction. Casting itself as dedicated to a stateless society, it actively
worked against true statelessness. Instead, in its quest to manage the expectations of the
future, the GDR reiterated and upheld the status-quo. It was, in other words, a ‘real-
existing’ utopia.

The case of East German technological utopianism serves as an ideal example of
‘real-existing’ utopianism. A term derived from Honecker himself, ‘real-existing’ utopia
is by no means limited to East Germany. Rather, I would argue that any state that sees
itself as the realization of some wish image invites a state of ‘real-existing’ utopianism.

One of the most important elements of ‘real-existing’ utopianism is its status not
as a place, but as a process. Utopia, like its Greek root suggests, is a non-place. This is
especially true when claiming that a place approaching perfection already exists on earth.
Perfection, by its very nature, is unstable. One slight flaw and the binary switches from
perfect to imperfect. Thus, for the idea of perfection to exist, it must constantly evolve.
This is true for any ‘real-existing’ utopia. A real-existing’ utopia must always be in a
state of becoming, of existing, yes, but constantly improving. When a ‘real-existing’
utopia is seen as a process, the paradox of its existence is resolved. The utopia exists, just
not in its utopian form.
As such, another key aspect of the notion of ‘real-existing’ utopianism is the perpetual state of noch-nicht-geworden (not-yet-being). While a ‘real-existing’ utopia is not a place, but a process, it too must always remain in that process of not-yet-being a utopia. Each new utopian signifier of the future carries with it the imbued hope of a better life. Yet, for that signifier to be capable of being a vessel of hope, it must also be conceivably attainable. Take, for example, nuclear power. Before its adaptation, it was rhetorically capable of creating unlimited energy. And, in the wake of atomic weaponry, it was also seen as technically possible. However, as nuclear energy was both created and implemented, it did not eliminate other sources of power. It was not the clean, limitless source it was promised to be. In other words, upon its creation, its utopian potential was eliminated. Thus, in order for a ‘real-existing’ utopia to continue to exist, it must shift its utopian focus to a different, not yet realized technology. A ‘real-existing’ utopia requires a utopian signifier in a state of noch-nicht-geworden so that it may pin future hopes upon it. It is, therefore, always changing.

Finally, ‘real-existing’ utopias are, at their core, cases of management. Through the usage of noch-nicht-geworden utopian signifiers, and as themselves eternal processes of becoming, ‘real-existing’ utopias seek to use the image of the future to control the present. Wielding the power of the idea of a better future can be used to unify the population, move criticism of the current state into the future, and act as inspiration for large state goals, such as “catching up to and surpassing the West.” The future, therefore, is created by the present to control the present.

East Germany did indeed wield the idea of a better future to control its present. Coming from the ashes of Nazi Germany, itself half of a bifurcated state, East Germany
relied on the concept of a technologically great future to create a sense of unity among its ideologically disparate population. If, for example, a former Nazi couldn’t believe in a communist Germany, perhaps they could believe in a future, drudgery-free Germany. Furthermore, East Germany used the idea of a better future to reposition criticism of the current state to the future. Factory workers, forced to work long, arduous hours need not worry. The future of automated mass production was just around the corner. Finally, as this dissertation has covered in detail, the concept of the future was invoked to inspire new technological developments for the state that would be capable of helping the East win final victory over the West. In this way, the future defined the present.

This all is not to say, however, that ‘real-existing’ utopias are simply methods of control. They are, in my estimation, more ad hoc than purposeful, more side effect than goal. ‘Real-existing’ utopias crop up in the space between rhetorical promise and everyday life. They are a response to the real desires to human beings against even good intentions by state actors. They are an imperfect result in the quest for perfection. ‘Real-existing’ utopias, then, are human: they are imperfect, mutable, hopeful, and often wrong. So long as states claim their own legitimacy, ‘real-existing’ utopias will proliferate, each in their own state of becoming.
Chapter 7: Afterword: Hope in the Age of Pessimism

“At the Alexanderplatz fountain, summer after summer, humankind appeared to be in fine fettle and content—the sort of condition generally promised only for the future, for that distant age of utter contentment known as Communism that mankind would eventually make its way to via a sort of staircase of progress leading into dazzling, astonishing heights, a state to be achieved in the next hundred, two hundred, or at the very most three hundred years. But then, defying all expectations, the East German government that had commissioned this fountain suddenly disappeared after a mere forty years of existence along with all its promises for the future, leaving behind the staircase-shaped fountain to bubble away on its own, and bubble it did, summer after summer, reaching to dazzling, astonishing heights while adventurous children continued to balance their way across, admired by their laughing, proud parents. What can a picture like this that’s lost its story tell us? What vision are these happy people advertising now? Has time come to a standstill? Is there anything left to wish for?”587

- Jenny Erpenbeck

Go, Went, Gone (Gehen, ging, gegangen)

7.1. Technological Utopianism as Warning: The Case Against Capitalist Environmentalism

Jenny Erpenbeck’s narrator asks a fundamental question. Now that the German Democratic Republic is gone and all of its futures with it, what indeed is left to hope for? What future is there for those left futureless? And, what, now that the main alternative to capitalism is gone, is the alternative? These questions beg the larger story of the Cold War. When Fukuyama dared to smugly declare the end of history, he bumbled into a half-truth. History was not at its end, for history always has a way of showing back up. No, something more intangible ended with the crumbling of the Eastern Bloc. The collective imagining of a different future outside of capitalism, of a utopia of shared resources and drudgery eliminated suffered a mass extinction with the fall of the wall. Whatever criticisms can or should be levied against the Soviet Union and its adherents, it did exist as an avatar of a different world. Capitalism, so long as state socialism existed,

was not the only path forward. However, when the market invaded what was formally red, the spirit of alternative quickly faded away. Capitalism had won, there would be no alternative, only capital’s eternal maintenance.

Our world today once again requires that spirit of alternative. Massive climate catastrophe looms heavy against all human action. Tropical storms rend and raze cities the world over, seas rise and heat up, while the Gulf Stream’s pathways are rewritten by human behavior. All the while, a global pandemic travels from breath to breath, asking global capitalism to make the Devil’s choice: halt the markets or let the workers die. So far, the choice has been death. Even beyond the environment, the so called ‘eternal’ victory of capitalism has failed to usher in an age of prosperity and peace. Global poverty continues to expand as corporate power makes the nation state obsolete, yet all the while strong senses of nationalism stir fascism from its resting place. If there truly is no alternative to capitalism, then there is no future at all. No wonder utopia has been forgotten.

This loss of faith is not entirely new. Like all things, it has its own context and history. Robert Elliott, writing when the Soviet Union still existed argued, “Of course the reason for this radical shift is painfully obvious: to have faith in the possibility of utopia, one must believe in progress; but one looks back at our two great wars, our mass bombings, our attempts at genocide – our collective plunge into barbarism; one hears the Geiger counters of the world clicking away – and it is next to impossible for a rational man to believe in progress. To believe in utopia one must believe that through the exercise of their reason men can control and in major ways alter for the better their social environment; faith in the power of reason to bring about desired political ends of large
magnitude. To believe in utopia one must have faith of a kind that our history has made nearly inaccessible. This is one major form of the crisis of faith under which Western culture reels." In other words, faith in progress always required a selective forgetting of the evils wrought by human hand. Yet, countries like the GDR promised that such misuses of technology were relics of the past, as such nations saw themselves as fundamentally breaking with what came before. Socialism, in the Marxist-Leninist sense, was a progression of human development; it would not repeat the same faults of the past. Leninism acknowledged that the West had always been responsible for devastation of the outlands in favor of its own development. However, Lenin argued that the problem was not with development *an sich*, but rather the imperialist structures of capitalism. Under socialism, he argued, a new way forward was possible. Technology would be used to lift the world’s proletariat out from drudgery, not just to funnel all resources towards the center. Socialism argued that technology could serve the many. However, with the fall of state socialism, that rhetoric too has been taken away.

The mass loss of a socio-technical utopia also comes from the failure of the twentieth century to produce any lasting utopia. Susan Buck-Morss elucidated how the dreams of utopia were not just confined to the East, but rather a defining feature of the twentieth century. She writes, “the construction of mass utopia was the dream of the twentieth century. It was the driving ideological force of industrial modernization in both capitalist and socialist forms. The dream was itself an immense material power that transformed the natural world, investing industrially produced objects and built environments with collective, political desire. Whereas the night dreams of individuals express desires

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thwarted by the social order and pushed backward into regressive childhood forms, this collective dream dared to imagine a social world in alliance with personal happiness, and promised to adults that its realization would be in harmony with the overcoming of scarcity for all.”\(^{589}\) The result of these utopian ideas was, as McKenzie Wark stated in *Molecular Red*, a total reshaping of the world, a world that the twenty-first century inherited. “It is not too much of an exaggeration to say that the dominate forms of power, economy, even of human life, owe their existence to what Donna Haraway calls the *techno-science* that issued from a handful of research universities in the Cold War years.”\(^{590}\) However, while these grand ideas of the future did indeed reshape the world, they did not bring about lasting peace, a harmony with nature, or any alleviation of drudgery. In fact, the techno-science of the Cold War seems to have only worsened these conditions.

We, the children of the Cold War, do gather our inheritance. The scars of the twentieth century are stretched all across our present moment. We are left the constructions of Cold War techno-science with their seemingly unstoppable momentum, the world doomed to climate death. What is conspicuously absent is the alternative, the hope for a better world. However, the study of East Germany offers hope in the face of impotence. By examining how East Germany was able to create a culture that fixated itself toward a better world, we may too salvage hope that things do not need to be like they are, that a better world is possible. At the same time, East Germany offers us a warning, one particularly important against the backdrop of climate collapse. The GDR’s


overreliance on future technology, the promise that something would come to save them, excused the GDR from ever changing its behavior. The prevailing attitude of ‘real-existing’ utopianism was one of “one need not worry about the problems of now, for they will be solved in the future.” And while this could be applied to many aspects of GDR culture, perhaps its most dangerous aspect was energy and the environment.

The GDR’s sustained usage of brown lignite coal with the promise of a future clean energy wrought massive environmental damage. The messianic future technology of clean energy never came to redeem past destruction. Indeed, our current world seems poised to make this same mistake. We need not change our behavior, for some miraculous future clean technology has been foretold.

7.2. The Search for a New Energy

The study of East Germany as a failed future teaches us the importance of the present for the future. East Germany spoke mostly in the future tense: the problems of now were fixable only by vaguely defined possibilities of the future. East Germany’s environment exemplifies the danger in such thinking. In order to save our own future, we need both to build towards a better future and to change our own behavior now. We cannot rely solely on the promise of a future technological savior.

East Germany’s bargaining of their environment on the hopes that some future technology, currently undefined, would be able to save them smacks of current dialogs of climate change and impending climate disaster. Through the increasing heat and global pandemic, nothing is slated to change. Those filled with fear are asked to dream of a future technology, some unnamed carbon capture device, to find solace. Even those who know better are still left incapable of action for one, the adage goes, cannot stop progress.
But what is progress if it comes at the price of existence? As Ursula K. Le Guin warned, “technology only promises more technology.”\textsuperscript{591} Maintaining a hope that a messianic technology will eventually come along is nothing more than an act of obfuscation meant to maintain the status quo.

As this dissertation has explored, the end result of East Germany’s ‘real-existing’ utopianism was actually an eternal perpetuation of the status quo, too afraid of letting go of state power to actually advance towards the real utopia it promised. It was in that perpetuation of the status quo that the GDR generated its own destruction. In it we can see the result of allowing the hope of technology to guide environmental policy. As we know, the massive industrial projects of the Eastern Bloc came at huge environmental cost. In the Soviet Union, massive irrigation projects dried up the Aral Sea. This, however, was not an unforeseen consequence; it was a cost. According to Wark, the soviet engineers knew that the Aral Sea would disappear.\textsuperscript{592} Soviet heretics such as Alexander Bogdanov were able to foresee how massive landscape projects would change the climate and cause environmental damage, however their pleas were ignored.\textsuperscript{593} Progress could not be stopped.

In the case of the GDR, environmental damage lacked the grandeur of a shriveled sea, but the result was real and long-lasting. Itself a resource poor country, the GDR had few choices in energy generation. One resource, however, was extremely plentiful: lignite coal. Fairly inefficient, burning lignite coal produced a thick smog and distinct smell, coating GDR cities in layers of grey-blacks as well as filling the air with sulfur dioxide.

\textsuperscript{591} More, Le Guin, and Miéville, \textit{Utopia}, 190.
\textsuperscript{592} Wark, \textit{Molecular Red}, xiii.
\textsuperscript{593} Wark, 12.
But lignite coal was never considered a permanent solution. As we have seen, the GDR turned its hopes towards nuclear energy as a clean and limitless energy source. However, the Soviet Union kept a grasp on GDR uranium deposits and nuclear energy never came to power the GDR. Additionally, the GDR came to rely on Soviet oil as a more efficient fuel, that, while not the clean energy of the future, could indeed power the GDR for the time being. However, during the oil crisis, the Soviet Union withheld oil from the GDR, trading it instead for the hard currency of the West, leaving the GDR to once again put stock into short term solutions such as brown coal and deeply harm the environment.594

Starting with the declarations of SMAD that demanded that the GDR build up its technological base in response to the lack of natural resources, the dream of a large technological fix to a problem of energy remained a specter over East Germany. Furthermore, East Germany was also a successor state to Nazi Germany. Elements of Nazi obsession with self-sufficiency surely contributed to this fantasy of limitless energy. Nazi hopes of autarky reached a head during the war, as oil and rubber grew more difficult to procure. Entire research budgets were allocated to inventing ersatz rubber.595 Thus, it was in the DNA of the GDR to seek some technology that would make up for their lack of resources; it was part of the founding condition of the country that it should inherit the historical way of dealing with such a deficit.

The result of the industrial projects and coal usage in the GDR is one of lasting environmental damage. Sulfur dioxide levels reached dangerous levels in the air, forests around Leipzig and Halle shrunk and died. Smog coated buildings black, drinking water was poisoned by industrial runoff, and the mass burning of coal contributed to the warming of the planet. However, East Germany always maintained that the usage of coal was temporary, a necessary evil of the present. In a 1984 article from Christian Science Monitor concerning East Germany’s environmental damage, East Germany insisted that nuclear power would still come to replace coal as the primary energy production for the country. “A second East German measure entails some decrease in the share of brown coal power generation, primarily by increasing nuclear production, which now accounts for some 12 percent of electricity generation here.”596 However, despite the utopian promise of nuclear energy, lignite coal remained the primary energy source of the GDR. Nuclear energy never came to replace coal as the power source of the GDR.

The disappointment of the promise of nuclear energy was but one of the unfulfilled utopian promises of the GDR. Like the other ideas of the future of the GDR, the promise of nuclear energy was used as a rhetorical device to attempt to delay real criticisms of the present off to some distant future.597 Those who disapproved of the use of coal were assured it was only temporary. It was, in other words, a way of maintaining the status quo in exchange for freedoms in the future.

597 Franziska Becker et al., eds., Das Kollektiv bin Ich: Utopie und Alltag in Der DDR (Köln: Böhlau, 2000).
Now, faced with our own questions of environmental destruction, we are presented with the same situation. One need only think of Elon Musk’s now infamous tweet “Am donating $100M towards a prize for best carbon capture technology,” and the equally famous response “A Tree,” to highlight the entire dialectic. Given the now undeniable climate catastrophe facing us, the powerful can no longer claim that climate change is simply a hoax. The strategy has instead shifted toward the future, with promises of some messianic technology that will erase the damage we have caused. However, no matter if packaged as total denial of climate change or a refocusing on a technology of the future, the result is the same. There is nothing to be done at the moment, no behavior should change in the present.

We cannot wait for a future technology to save us. The solution already exists: the earth possesses nature technologies to absorb the excess carbon. However, late-stage capitalism cannot abide such a solution because it requires that we massively change our consumption patterns, and in the process move away from capitalism. Billionaires like Musk, whose existence only make sense in the context of capitalism, fight tooth and nail to keep the current system in place. However, they know that the fight to preserve capitalism cannot be won on force alone. Instead, they offer the same trick: capitalism breeds innovation, and that innovation will heal the wounds that capitalism itself created. The prophecy of a future clean technology once again asks the world to put their hope in capitalism. Rather than admit that the current structures of the world, the inherited momentums of Cold War techno-science, have and continue to cause massive destruction of the planet, the global citizen is asked instead to hope that this time, it will be different.
That the structures of capitalism sew environmental destruction is no new idea. Indeed, a chorus of utopian theorists have rang the same alarm. Susan Buck-Morss warned: “to continue the same dream into the future, impervious to the ecological dangers, would be nothing less than suicidal.”598 Ursula K. Le Guin: "But if this enrichment of one type of civilization occurs only at the cost of the destruction of the planet, then it seems fairly clear to me that to count on technological advance for anything but technological advance is a mistake."599 And finally Murry Bookchin had long since extolled the need for a global ecology: “According to Bookchin, science, technology, universal reason all “potentially offer the hope of a rational and emancipatory dispensation of social affairs.” […] This potentially has been around for several thousand years, without the necessity for twentieth century “post-scarcity” technology – or even for social ecology.”600 In other words, technology has long since held the potential to be used to help the environment, yet has never been truly utilized to do so. It seems that capitalism, even given every opportunity, has no incentive to do so. What then is different this time?

The study of the GDR offers us a real, bounded case study of what happens when the promise for a future technology overrides any need to change the present. Rather than pure theoretical argumentations of what could or will happen to us, East Germany’s collapse and environmental damage serves as living proof of the dangers of shifting all environmental responsibility to the future. We can see that the promised clean technology

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599 Le Guin, “A Non-Euclidean View of California as a Cold Place to Be,” 190.
never arrived, that the environment of East Germany is permanently damaged and that the society itself, partially due to its failure to make good on these promises, no longer exists.

Given the East German case, we know that any true hope for the future requires not only change in the future, but in the present and past as well. It means speaking in all tenses at once. It means that we must find a way to alter our consumptive behaviors now, not just hope some technology will come to save us. But it also means that we cannot forget the past. Much like Walter Benjamin argued in the Theses on the Philosophy of History, we, as dwellers of someone else’s future, are granted some messianic power. We owe those who died for a better future redemption by achieving their wishes. Thus, in order to avoid the fate of East Germany, we must think of the past, the present, and the future. We must imagine a better world and work now, in this moment, to create it.

Our current environmentalism is far from enough. The performative measures of reducing usage of plastic straws or even post-consumer recycling plays into the billionaire narrative that preaches no change in consumption. It keeps the illusory narrative of infinite growth that undergirds the arguments of capitalism. But as the environmental consequences of this narrative begin to crop up, that narrative proves itself ever more untrue. The earth itself is finite, capitalism’s utopia of infinite growth is impossible. The billionaires offer only off-world expansion to continue the consumption beyond our world.

This also means a change from the same consumptive behaviors of socialism as well. So long as socialism seeks to fill the proverbial shelves a market, it too is guilty of environmental destruction. Indeed, Žižek in *Living in the End Times* argued that the state
socialism of the Eastern Bloc left in place the general structures of consumption that made up capitalism.\textsuperscript{601} As Norman O. Brown warned, “Marx’s psychology is unable to emancipate socialism or any economy whatsoever from the motive of accumulation, and therefore it is unable to guide mankind to enjoyment. From this nightmare of infinitely expanding technological progress and human needs, only a science of enjoyment can deliver us.” \textsuperscript{602}

Furthermore, both socialism (at least in the Eastern Bloc) and capitalism are guilty of large-scale forgetting. East Germany sought to forget its roots in Nazism, and its own perception of its environment as a \textit{tabula rasa} granted the rhetorical space for massive new industrial cities that altered the entire landscape. Capitalism too forgets its past and its own enrichment through mass imperialism and war and all the devastation that has wrought. To forget is to repeat. The past is integral to any concept of the future.

Finally, we need to think of the future as well. In face of the loss of the alternative to capitalism as embodied by the Eastern Bloc, we are hard pressed to imagine a future that is different. What we need, then, is something entirely new, yet informed by what has come before. We need to learn from countries like East Germany that were able to direct culture toward dreams of emancipated humanity, but coupled with present action and past awareness. In other words, we need a new sociotechnical imaginary, a new utopia.

7.3. \textbf{Technological Utopianism as Hope: The Need for a New Utopia}

\textsuperscript{602} Norman Oliver Brown, \textit{Life against Death: The Psychoanalytical Meaning of History}, (Middletown, Conn.: Scranton, Pa: Wesleyan University Press; Distributed by Harper & Row, 1985), 259-60.
In his work *The Shape of Utopia*, Robert Elliott asks us to “consider H.G. Wells. After the cosmic gloom of some of the early romances, he issued a flood of utopian speculations founded on the assumptions shared by leaders of the Soviet Union and most social scientists: by analyzing scientifically the process of the present, man can bring the conditions of the future within the range of his knowledge, so that he can control the form of that future.”\(^{603}\) Wells, bearing witness to the scientific achievements of his day, foresaw a great future for mankind. Technology and science, guided by the rational will of humanity, would turn human to god. Evolution would no longer belong to nature; it would become mere whim of the scientifically powerful. However, by the end of his life, Wells rescinded such glorious proclamations, concluding instead that “the attempt to trace a pattern of any sort is absolutely futile.”\(^{604}\) In other words, Wells hope, much like that of Bloch, was disappointed.

However, the disappointment of hope presents us with a question regarding its very nature. Namely, what happens to hope when disappointed? Should it be abandoned? Should it be cast off in frustrated disappointment and written off as mere naiveté? Or is hope regenerative? Should it, in its disappointment, simply be relocated? This was certainly the case in the German Democratic Republic. Each time hope was disappointed, each time a named technology that was anointed as utopian by the state failed to bring about utopia, the technology simply changed. Nuclear power, plastics, space travel, cybernetics, and computers all failed to usher in the fully automated post-state. However,


\(^{604}\) Ibid.
with each failure, the state simply re-fixed its gaze. Hope, then, was a renewable resource.

We, the children of the Cold War, live in a hopeless world. In a moment such as ours, losing faith seems like the most rational response. All the world’s major alternatives to capitalism have disappeared, and we are left with an earth wheezing its last dying breaths. What is perhaps worse than that impending death is the knowledge that we were not incapable of stopping it. We are instead helpless in the face of the power of global capitalism. Atomized individuals the world over look on, impotently watching as scientists sputter, red-faced against the power of the petrodollar. We, an endless sea of individuals, stand helpless against the maniac whim of the very few. Our collective hopes have been disappointed, ground to nothing, awaiting only the inevitable final moments. That is, unless we remember that we as a collective of individuals are more collective than individual.

We, a global community untitled by a desire to reverse the damage to the earth, can refocus hope back into a dream of a better world. We can rebuild the future, turn back towards the dream of drudgery eliminated and nature contained. On the precipice of automation, we can speak seriously of the alleviation of work, and, armed with decades of research into the changing climate, we can also speak of green energy. We can, in other words, learn from the mistakes of the GDR. We, having seen the destruction of the East German state, can instead create a future that simultaneously reconstructs the past, present, and the future.

There have been glimmers of this hope. Despite the damages of Covid-19, the virus activated something not seen in the modern era of capitalism: a brief break from
work. That break allowed people a moment to rest, to collect their thoughts without having to spend all of their waking energy on work or worrying about survival. It was during those moments that people saw that life doesn’t need to be the way that it is. It was also in those moments where the US saw the largest civil unrest since the Civil Rights movement. People took to the streets to protest the same injustices that have been that the root of capitalist exploitation from the very beginning. However, this time there was no job to miss, nothing to lose. Only direct action.

Furthermore, the realities of the pandemic laid bare the contradictions of capitalism. In the face of such large-scale danger, capitalism, especially in its epicenter the United States, was presented with a paradox. If workers were going to be able to go back to work, they needed to have access to testing, and eventually, a vaccine. But in order to ensure everyone was able to access those, they were made free. It is not much of a leap of logic to then wonder why it was argued that no one should die in a pandemic when they couldn’t afford healthcare, but that death from cancer for the same reason was perfectly acceptable, why a worker could not be punished for calling out sick with Covid, but was often forced to come in sick to work for any other illness, and finally why, when almost everyone was working less than ever, society went on without much disruption. Society, it seems, has outgrown whatever need it ever had for capitalists.

Of course, the capitalists are also attempting to regain control. Their central mouthpieces such as the *Washington Post* and *The Wallstreet Journal* claim that workers who don’t have to travel to work any longer should work more hours for free or that rising wages for those so recently called “essential” workers would be a drag on the economy. The same old tricks. But capitalism’s only answer to the pandemic was that it
had no answer. The capitalist response to Covid-19, that getting back to work was the only thing that mattered, has pulled back Oz’s curtain. Behind it, not the towering god-man we thought was there, but rather a scared, hunched, wizened thing. Capitalism’s non-response to the pandemic has accidently shown its mortality. To once again quote Le Guin, “We live in capitalism. Its power seems inescapable. So did the divine right of kings. Any human power can be resisted and changed by human beings.” The threads of immortality have been severed; the pandemic has given us a chance to act.

But the chance to act can be easily squandered. Without hope, there is nothing to push us forward. Without a shared vision of utopia, our actions are nothing more than collective flailing. In short, we once again need Utopia. As Anatole France elegantly distilled it: “Without the utopians of other times, men would still live in caves, miserable and naked; … utopia is the principle of all progress, and the essay into a better world.”

It is important to note that the type of utopia we need is not just the dream of an individual. The individualist utopia is the billionaire’s dream, the reason we are here to begin with. No, individuals are only capable of producing a utopia in the lowercase. Only a sociotechnical imaginary, a shared experience and the collective vision of response can create a utopia. We need a utopia that is supranational, unitive, and equitable. It is this we can salvage from East Germany: a culture wide image of a better future, an environmentally sound world of little work.

Of course, the GDR’s utopia was not these things. It was self-contained, state based, and rarely actually equitable. However, like any salvage, we will fix what did not work, we will take what we need and leave the rest. The story of the GDR shows us that a

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605 Elliott, The Shape of Utopia, 64.
culture can indeed be directed toward the future through hope of a better world. It shows us that hope can make real world impact even if that future does not come to pass. East Germany was able to produce functional technologies of their own devising even when embargoed off from the rest of the world. It was able to take seriously the goal of gender equality and greatly increase the number of women scientists. It was also able to experiment with truly different modes of living and being as a human. It was in these ways a triumph that we would do well to salvage.

The GDR also showed us that activities of leisure can have real value to the human condition. While sports under capitalism are seen largely as a frivolous, non-productive activity, the GDR found deeper meaning in the human body in motion. State organizers saw the value in team building that sport offered. They also saw the importance of physical health for happy individuals. Furthermore, the GDR saw the realms of play as places where real technical skills could be taught. Play, in the GDR, could also be productive. The state producers of educational toys realized that human enjoyment could be the greatest driver of invention and innovation. The halls of the Fair of the Masters of Tomorrow filled with young comrades wanting to improve the technology around them, not simply as blind adherence to ideology, but simply because doing so was fun.

What the GDR also did was show us what will not work. It showed us that the overreliance on the hope of the future can destroy the present, and, thereby that very future. It showed us that technology alone cannot save us, that we as humans are also responsible for our own behavior. It also showed us that utopia cannot just be contained within a single nation. Science and technology rely on the international exchange of
thoughts, ideas, devices, know-how, and perspectives. If technology is going to bring us any utopia at all, it must be built by all and for all. There is no other option.

In order to avoid the mistakes of the GDR, we must build a technological future in the present. If we do not, we do nothing other than excuse the present moment in the hope of a better future, exactly as the East German state did. If we are to have any hope that we will have a future at all, we must immediately change in our behavior. Much like the GDR’s dreams of creating a “new socialist human,” we must create a new concept of how humanity exists on this earth. We must leave behind consumption for the sake of markets, and take only what we need. We must put an end to the massive exploits of corporations who are, by their very nature, constructions to exploit every last resource on earth. We must instead redistribute our riches, create a true global community so that patches of the earth do not grow gangrenous and die, only to spread out from the wounds.

We must also learn to live with nature, rather than against it. The GDR dreams of control over nature were misguided. All human attempts to master nature have proved impossible. Nature is not something that can be tamed. In the hubris of our attempt, nature lashes back at us, whipping terrible storms against our shores. Indeed, climate change itself is the result of our attempt to control nature. Rather, we need both a new humanity and a new technology that works in harmony with nature. Capitalism (as well as state-socialism as it existed) has always been built on the power of nature’s destruction. Oil, the distilled death of countless once-living beings, has long outlived its usefulness. Oil, in addition to destroying the atmosphere, has allowed global capitalism to forgo the local in favor of the universal market. What is grown or made locally is shipped to the other side of the planet if the price is low enough. Our chains of production have
lost all logic other than the logic of prices. In our new utopia, the local will inform the global, and the new logic will be as local as possible while still sharing resources the world over.

Our new utopian technologies must also work in tandem with nature. We need new energy sources that do not consume the planet. We need technologies that harness the power of the sun, that don’t spew carbon all across the atmosphere. But we also need technologies to heal the damage we have already done. To speak against carbon capture technology is not to dismiss its usefulness or even necessity, rather, it is to warn that technology cannot be our only solution. We need the earth, the environment, and its natural technologies. We need to replant forests and regrow fields. We need indigenous farming schemas that avoid crop singularities and rather plant diverse species to keep the soil healthy. And finally, we need our ecosystems to keep the entire earth alive. We cannot be as hubristic as to think that technologies will replace the death of bees or the extinction of entire reefs. They never have before, they never will in the future.

Thus, in our new utopia, we must refrain from seeing technology as messianic. Any criticism of technology does not mean casting it aside. Instead, as David Watson phrased it, “of course, the problem isn’t that people are questioning technology (which they are), but the massive, if dysfunctional, resignation to runaway technics, market forces and the corporate state evident in phenomena like the rapidly manufactured consent to the Persian Gulf Massacre, and in the ubiquitous sigh of oppressed and oppressor alike, that “you can’t stop progress.”606 Our new utopia will always ask “progress for whom?” The technology of the future, provided it is green, mutual, and

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606 Watson, Beyond Bookchin, 87.
automated, does indeed contain the possibility of utopia. But in that possibly grows the temptation to see technology as the savior itself. This was the greatest mistake of the GDR. In the pursuit of the purely technical future, the GDR forgot its humanity. It was able to oversee the secretive doping of athletes, the destruction of the environment in the short term, and the invasive spying of its citizens to ensure they all maintained the same faith in the technological future. It privileged future technological happiness at the expense of present human happiness. Lost in the future, it ignored the present and forgot the past. We would do well to remember this for our utopia.

In sum, our new utopia is of course technological, but it is tempered with the privileging of human happiness, harmony with nature, and mutual availability. If done properly, it will make good on the primary promise of the GDR: that humanity was meant to do more than toil. We live now on the edge of that possibility. As Marx promised, capitalism has finally built the technology of its own destruction: automation. The total replacement of humans by machines for menial work has always been the final dream of communism. However, under capitalism, automation is wielded as a threat rather than a blessing. Capitalists gleefully demand lower labor value from the working class, reminding them that they will be replaced by machines. However, their implementation is agnostic to the value of labor. To the capitalists, machines drop salary costs to nothing; automation is coming no matter what. But what I believe that the capitalists fail to realize is that once all the machines are switched on, and the massive underclass that makes capitalist accumulation possible in the first place lose their jobs en mass, capitalism will immediately cease to make any functional sense. The huge swaths of unemployed will have no buying power with no income, scarcity will cease to exist, and those left jobless
will seek new meaning in their lives. The upheaval it will create will be heretofore unfathomable.

In the wake of automation, humans will be faced with a choice. On the one hand, neo-tyranny: billionaires as god-kings, seated atop mechanical overabundance like avaricious dragons. On the other, the final promise of the GDR: that automation will provide for all, drudgery eliminated, and the means of production truly owned by all.

The elimination of work under fully automated luxury communism does not mean we will do nothing, but rather as Berardi claimed, we can focus on education, affection, and environmental detoxification. This again was a promise of the GDR. Humans, turning the keys over to the machines, will finally be able to rest. And after they are sated, they will reconstruct the very meaning of existence. Freed finally from drudgery, they will throw up canvases, carve statues from gnarled oak, reimagine bridges, perform plays, run in fields, dedicate their lives to medicine, learn their neighbors’ names. They will live unperturbed, with full bellies and empty inboxes. They will, in our new utopia, finally able to achieve the dream of the GDR.

We, in other words, have little to lose. The worst-case scenario is already well under way. The earth is careering towards a new extinction. Automation is on the horizon, yet left in the hands of those least capable of its implementation. Nationalism, neo-fascism, scarcity, and pandemic coil around our throats. Of course, we, the purposely-separated children of the Cold War, can all lay down individually to die. Or we can remember our

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brotherhood, our sisterhood. We can dream together of a better world, and in that dream find action. We have no other choice.
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