The new york subway system building history series Ebook

The New York Subway System Building History Series: An In-Depth Exploration of Its Evolution

The New York City subway system is one of the most iconic and extensive public transportation networks in the world. Its history is a testament to urban innovation, engineering prowess, and the city's relentless drive to connect its diverse neighborhoods. The **New York subway system building history series** offers an insightful journey through the development, expansion, and modernization of this vital infrastructure. This article delves into the detailed timeline, key milestones, architectural innovations, and the challenges faced throughout the subway's storied history.

Origins of the New York Subway System

Early Transportation Challenges in New York City

Before the subway's inception, New Yorkers relied heavily on horse-drawn carriages, ferries, and elevated trains. These modes, however, were often insufficient to meet the city's growing population and increasing demand for efficient urban transit.

The Birth of the Subway Idea

By the late 19th century, urban planners and entrepreneurs recognized the need for a subterranean rail network. Several private companies proposed initial plans, but it was the vision of consolidating these efforts into a comprehensive, city-funded system that set the stage for the subway's construction.

Construction and Early Development (1890s - 1910s)

The First Subway Line: Opening and Impact

The first section of the New York City subway opened on October 27, 1904, stretching from City Hall to 145th Street in Harlem. This groundbreaking event marked the beginning of rapid transit in the city.

Key facts about the first line:

- Length: Approximately 9 miles
- Stations: 28
- Cost: Around $35 million (equivalent to roughly $1 billion today)
- Initial ridership: Over 150,000 passengers on opening day

Engineering Innovations and Construction Techniques

Constructing the early subway involved significant engineering feats:

- Use of tunnel boring machines and cut-and-cover methods
- Innovations in station design, including large, subway-wide platforms
- Implementation of safety features like fireproof materials and ventilation systems

Expansion in the Early 20th Century

Following the success of the initial line, the system rapidly expanded:

- The Interborough Rapid Transit Company (IRT) was established to operate the lines.
- New routes were added to serve Brooklyn, Queens, and the Bronx.
- The system grew to encompass over 100 miles of track by 1918.

Growth and Consolidation (1920s - 1930s)

Unification of Different Subway Companies

During the 1920s, multiple private companies operated separate lines. The city took steps toward unification:

- The city government began acquiring lines from private operators.
- The 1930s saw the consolidation of the system under the New York City Transit Authority.

Architectural and Design Developments

The era saw the emergence of distinctive station architecture:

- Use of decorative tile work, mosaics, and artwork
- Art Deco influences in station design

- Introduction of standardized station signage

Technological Advancements

The period also introduced technological improvements:

- Electric trains replaced steam-powered engines
- Signal systems became more sophisticated
- Implementation of safety features such as emergency brakes

Post-War Expansion and Modernization (1940s - 1970s)

Expansion Post-World War II

After WWII, the system continued to grow:

- New lines and extensions added to serve suburban communities.
- The 1950s saw the opening of the IND Sixth Avenue Line, improving east-west connectivity.

Challenges of the 1960s and 1970s

This period was marked by significant challenges:

- Aging infrastructure and financial difficulties
- Increased crime and vandalism
- Decline in station maintenance and cleanliness

Major Modernization Projects

In response, the system underwent modernization:

- Introduction of automated fare collection systems
- Upgrades to signaling and track infrastructure
- Station renovations and aesthetic improvements

The Revival and Technological Advances (1980s - 2000s)

Restoration and Investment

The 1980s and 1990s saw renewed investment:

- Federal funding for infrastructure repairs
- Implementation of new subway cars with modern features
- Enhanced safety and security measures

Introduction of New Technologies

Key technological milestones included:

- Implementation of real-time service updates
- Deployment of surveillance cameras
- Introduction of Wi-Fi and digital information displays in stations

Expansion of the System

New lines and extensions, such as the 7 train extension to Hudson Yards (2015), increased coverage and accessibility.

Recent Developments and Future Plans

Modernization Efforts in the 21st Century

Recent initiatives focus on modernization, including:

- Signal system upgrades to Communications-Based Train Control (CBTC)
- Accessibility improvements with elevators and ramps
- Station renovations for flood resilience and climate adaptation

Major Projects in Progress

Current and planned projects include:

- Second Avenue Subway Phase 2 and 3
- 7 Line Extension to New Jersey

- East Side Access to connect Long Island Rail Road to Grand Central Terminal

Looking Toward the Future

Future plans emphasize:

- Increased automation and digital ticketing
- Sustainable infrastructure with green technologies
- Expanding capacity to accommodate New York City?s growing population

Architectural and Cultural Significance

Iconic Station Designs

Many stations are celebrated for their architectural beauty:

- The ornate tile mosaics of 72nd Street
- The Art Deco grandeur of 34th Street-Penn Station
- Unique station motifs representing local neighborhoods

Art and Public Space Integration

The system?s stations serve as canvases for public art:

- The MTA Arts & Design program commissions murals, sculptures, and installations
- Promoting cultural engagement within daily commutes

Challenges and Resilience in Building the System

Engineering and Logistical Challenges

Constructing a subway beneath a bustling metropolis involved:

- Navigating existing underground utilities
- Managing traffic disruptions during construction
- Ensuring safety amid complex operations

Financial and Political Hurdles

Funding the system?s development required:

- Public-private partnerships
- Federal and state grants
- Political will to prioritize transit infrastructure

Adapting to Urban Changes and Disasters

The subway has faced and adapted to:

- Superstorm Sandy?s impact and subsequent flood mitigation measures
- Urban growth and changing transportation needs
- Technological disruptions and innovations

Conclusion: The Ever-Evolving Subway System

The **New York subway system building history series** chronicles a remarkable story of innovation, resilience, and continuous growth. From its modest beginnings in the early 1900s to its current status as a sprawling transit network, the subway has played a crucial role in shaping New York City?s identity. Its architecture, technological advancements, and ongoing modernization efforts reflect the city?s dynamic spirit. As the subway system continues to evolve, future expansions and innovations promise to keep it at the forefront of urban transit worldwide, ensuring that New York remains connected and accessible for generations to come.

The New York Subway System Building History Series: A Deep Dive into the Evolution of an American Icon

The New York subway system building history series offers a fascinating exploration into one of the most complex and expansive urban transit networks in the world. From its humble beginnings in the late 19th century to the sprawling, multi-layered system of today, this series uncovers the engineering marvels, political battles, technological innovations, and societal shifts that have shaped the subway?s development over more than a century. For transit enthusiasts, urban historians, and casual commuters alike, understanding the history behind the New York subway system enriches appreciation for its role in shaping the city?s identity and growth.

Early Beginnings: The Birth of an Underground Vision

The Origins of Transit in New York City

Before the subway, New Yorkers relied on horse-drawn carriages, elevated trains (the "El"), and ferries to navigate the city. As the city?s population boomed in the late 19th century, congestion and inefficiency prompted visionary engineers and civic leaders to consider underground transit options.

Key milestones:

- 1880s: Initial proposals for underground railways surface, inspired by European models like London's underground.
- 1894: The Rapid Transit Act is passed, establishing the legal framework for constructing an underground system.
- 1894-1895: The Interborough Rapid Transit Company (IRT) is formed, and plans for a comprehensive subway network begin to take shape.

The First Subway Line: A Pioneering Feat

Construction of the first subway line, the IRT, officially started in 1900, making it the first major underground subway in the United States.

Highlights:

- The route connected City Hall in Manhattan with South Ferry, covering approximately 9 miles and opening on October 27, 1904.
- Designed to be a modern, efficient alternative to surface transit, it featured electric trains, underground stations, and innovative engineering techniques.
- The opening was a monumental event, symbolizing progress and modernity, and set the stage for rapid expansion.

Expansion and Consolidation: Building a Network

The 1910s-1920s: Rapid Growth and Private Investment

Following the initial success, private companies continued to expand lines, often overlapping and competing.

Major developments:

- Dual Contracts (1913 & 1916): An agreement between the City of New York and private transit companies to expand the subway system, leading to the construction of new lines and extensions.
- Line Diversification: The system grew to include multiple operators, including the BRT (Brooklyn Rapid Transit) and the IRT, which eventually led to fragmentation.

The Unification Era: 1940s and Beyond

By the mid-20th century, financial difficulties and competition led to the consolidation of transit operations.

- 1940: The city takes control of the subway system, unifying previously separate companies under city ownership.
- Post-war expansion: Focus shifts to modernization, with new rolling stock, station renovations, and system improvements.

Technological Innovations and Challenges

Engineering Marvels

Building the subway involved overcoming significant engineering obstacles:

- Tunneling Techniques: From cut-and-cover methods to deep-bore tunnels, engineers adapted to different geological conditions.
- Station Design: Iconic stations like City Hall and Grand Central showcase architectural grandeur, with elaborate tiling, skylights, and decorative elements.
- Signal and Safety Systems: Upgrades over the decades to improve efficiency and safety, including automatic signaling and modern control centers.

Infrastructure Maintenance and Modernization

As the system aged, maintaining and upgrading infrastructure became vital:

- Electrification: Early trains used electric motors, a pioneering approach at the time.
- Track and Signal Upgrades: Continuous efforts to modernize tracks, switches, and signaling systems to handle increased traffic.
- Accessibility and Renovations: Recent decades saw efforts to make stations ADA-compliant, improve lighting, and enhance passenger experience.

The Role of Politics and Public Policy

The history of the New York subway is deeply intertwined with political decisions and public policy.

- Funding Challenges: From private investments to public funding, balancing budgets has always been complex.
- Expansion Decisions: Political priorities influenced where lines were built, often favoring affluent neighborhoods over underserved areas.
- Labor Movements: Strikes and labor disputes have periodically halted or delayed projects, reflecting broader social dynamics.

The Modern Era: Challenges and Innovations

The Post-1970s Crisis

By the 1970s, the system faced decline:

- Declining ridership and financial insolvency.
- Vandalism and neglect led to deteriorated infrastructure.
- The city and MTA launched initiatives for modernization, including station renovations and new rolling stock.

Recent Developments

In the 21st century, focus shifts to resilience, technology, and sustainability:

- Signal Modernization: Implementation of Communications-Based Train Control (CBTC) for increased capacity.
- Station Renovations: Upgrades to improve accessibility, safety, and aesthetics.
- Expansion Projects: New lines like the Second Avenue Subway and plans for extensions to underserved areas.
- Smart Technologies: Contactless fare payments, real-time tracking apps, and digital information displays.

Key Themes in the Building History Series

- Engineering Ingenuity: Overcoming geological and urban obstacles through innovative tunneling

and station design.

- Political and Economic Forces: How government policies, economic conditions, and private enterprise shaped expansion.
- Cultural Impact: The subway as a symbol of New York?s modernity, resilience, and diversity.
- Societal Challenges: Addressing issues of accessibility, equity, and safety over decades.
- Future Prospects: Integrating new technologies, expanding coverage, and ensuring sustainability in a changing urban landscape.

Conclusion: The Living Legacy

The New York subway system building history series demonstrates that the subway is more than just transportation?it is a living testament to human ingenuity, civic ambition, and the unyielding spirit of New York City. Its development reflects broader themes of technological progress, social change, and urban planning. As the system continues to evolve, understanding its history provides invaluable insights into how cities grow, adapt, and thrive amidst challenges.

Whether you?re a transit professional, urban historian, or daily commuter, delving into the history of the New York subway system reveals a story of relentless innovation and resilience?a story still being written today.

QuestionAnswer What is the focus of the 'New York Subway System Building History Series'? The series explores the historical development, construction milestones, and engineering challenges involved in building New York City's subway system over the years. Who are the main experts featured in the series? The series features historians, engineers, and transportation professionals who have studied or contributed to the subway's development. How does the series highlight the technological innovations used in building the subway? It showcases pioneering engineering techniques, modern construction methods, and technological advancements that made subway expansion possible. Are there episodes dedicated to specific subway lines or stations? Yes, the series includes detailed episodes focusing on iconic lines, stations, and their unique architectural or engineering features. How does the series address the challenges faced during the construction of the subway system? It discusses issues like underground geology, urban density, funding, and logistical hurdles encountered during construction phases. Is the series available on any specific platforms or channels? The series is available on streaming platforms such as PBS, YouTube, and other documentary-focused channels. Does the series cover recent expansions or only historical construction? While it primarily focuses on the historical building phases, it also covers recent expansions and ongoing projects. What can viewers learn about the impact of the subway system's construction on New York City? Viewers gain insights into how the subway's development shaped the city's growth, urban landscape, and daily life over the decades.

Related keywords: New York City transit history, subway construction timeline, NYC subway architecture, underground rail development, transit system evolution, subway station design, urban

infrastructure projects, subway expansion history, NYC transportation planning, subway engineering milestones

History As A System And Other Essays Toward A Phil

History as a system and other essays toward a phil is a thought-provoking collection of writings that delve into the nature of history, its interpretative frameworks, and its philosophical underpinnings. This compilation explores how history functions as a structured, systematic discipline and offers insights into the philosophical questions that arise from our understanding of past events. In this article, we will examine the core themes of the essays, analyze their significance in contemporary historiography, and discuss their contributions to philosophical debates about history and knowledge.

Understanding "History as a System"

Defining History as a System

The phrase "history as a system" refers to the conceptualization of history not merely as a chronological record of events but as an interconnected, coherent framework that explains the development of human societies. This approach emphasizes the pattern, structure, and underlying logic that can be discerned in historical processes.

Historically, many thinkers have sought to understand history as a systematic process, aiming to uncover laws or principles that govern historical change. This perspective aligns with the desire for a scientific understanding of history, seeking objectivity and generality in explaining how societies evolve over time.

The Significance of Viewing History as a System

Viewing history as a system offers several advantages:

- **Predictive Power:** Recognizing patterns allows some historians to forecast potential future developments.
- **Unified Explanation:** It provides a comprehensive framework that connects diverse historical events and phenomena.
- **Clarity and Coherence:** Systematic approaches help organize complex historical data into understandable models.

However, critics argue that this perspective may oversimplify the complexities and contingencies inherent in human history.

Key Themes in "Other Essays Toward a Phil"

The collection presents a series of essays that collectively aim to develop a philosophical understanding of history, knowledge, and human existence. These essays grapple with fundamental questions such as whether history can be truly understood through systematic methods and what the limits of historical knowledge might be.

Historical Knowledge and Its Limits

One recurring theme is the nature and scope of historical knowledge. The essays explore whether history can be reduced to objective facts or if it is inherently interpretative and subjective.

Main points include:

- Historiography involves interpretation, which inevitably introduces bias.
- Complete objectivity in history may be unattainable, emphasizing the importance of critical analysis.
- Understanding history requires recognizing the limits of our knowledge and the role of perspective.

Philosophical Foundations of History

The essays also delve into the philosophical assumptions that underpin historical inquiry, such as causality, change, and human agency.

Key discussions involve:

- The debate between deterministic and voluntarist views of history.
- The role of teleology?whether history has an ultimate purpose or direction.
- The importance of understanding human motives and consciousness in interpreting historical events.

Historical Systems and Philosophical Perspectives

Hegel?s Dialectical Method

One influential philosophical approach discussed in the essays is Georg Wilhelm Friedrich Hegel?s dialectical method, which sees history as a rational process unfolding through contradictions and their resolutions.

Core ideas include:

- History as the realization of human freedom.
- Progress occurs through conflicts and their synthesis.
- Historical development follows a logical, almost teleological pattern.

This view positions history as a systematic and rational process, aligning with the idea of history as a system.

Marx?s Historical Materialism

Karl Marx?s theory offers another systematic perspective, emphasizing economic structures and class struggles as driving forces of history.

Main features:

- History as a series of stages dictated by material conditions.
- Class conflict as the engine of social change.
- Historical development as progressing toward a classless society.

Marx?s approach positions history within a scientific framework, aiming to uncover laws governing societal change.

Contemporary Implications and Critiques

Postmodern Challenges to Systematic History

In recent decades, postmodern thinkers have challenged the notion of history as a coherent system, emphasizing the subjective, narrative, and fragmented nature of historical knowledge.

Key critiques include:

- The impossibility of objective history due to inherent biases.
- The importance of multiple perspectives and narratives.

- The rejection of grand narratives or totalizing theories of history.

These critiques emphasize the contingent and constructed aspects of historical understanding.

Integrating Systematic and Interpretative Approaches

Many contemporary historians advocate for a balanced approach that recognizes the value of systematic methods while acknowledging interpretative complexities. This synthesis aims to produce more nuanced and comprehensive histories.

Strategies include:

- Using data-driven methods alongside critical analysis.
- Recognizing the role of narrative and storytelling in conveying historical insights.
- Engaging with multiple perspectives to enrich understanding.

Conclusion: The Future of History as a System

The essays in "History as a system and other essays toward a phil" invite us to reflect on the nature and limits of historical knowledge. While systematic approaches offer clarity and coherence, they must be tempered with philosophical awareness of subjectivity and complexity. As historiography continues to evolve, integrating diverse methodologies and perspectives will be essential for a richer understanding of our past.

By examining the philosophical debates and theoretical frameworks presented in these essays, readers gain a deeper appreciation of how history functions both as a discipline and as a reflection of human striving to understand itself. Whether as a scientific system or a narrative craft, history remains a vital, dynamic field that challenges us to think critically about the stories we tell and the truths we seek.

Meta Description:

Explore the concepts of "History as a system" and "Other essays toward a phil," examining how systematic and philosophical approaches shape our understanding of history, its limitations, and its future directions.

History as a System and Other Essays Toward a Philosophy of History is a thought-provoking collection of essays that delves into the philosophical underpinnings of history, examining how history can be understood as a coherent, interconnected system. Edited and largely authored by the distinguished historian and philosopher Georg Wilhelm Friedrich Hegel, this work has significantly

influenced the way scholars conceptualize historical development, causality, and the nature of historical truth. Its rich, complex ideas continue to resonate in contemporary debates about the philosophy of history, making it a cornerstone text for students and scholars alike.

Overview of the Book

History as a System and Other Essays Toward a Philosophy of History is a compilation that explores the idea that history is not merely a sequence of isolated events but rather an interconnected and rational process. Hegel argues that history unfolds according to a rational plan, driven by the realization of human freedom and self-awareness. The essays examine various aspects of this thesis, from the nature of historical change to the role of human consciousness in shaping historical events.

The book is divided into several essays, each addressing different facets of the overarching theme. These include discussions on the dialectical method, the concept of world history, the role of civilizations, and the development of human consciousness. Throughout, Hegel emphasizes the importance of understanding history as a meaningful, systematic process rather than a random accumulation of facts.

Historical System as a Philosophical Concept

Understanding History as a System

Hegel's central idea is that history operates as a rational system. Unlike viewings of history as chaotic or merely descriptive, Hegel sees it as a logical progression toward freedom and self-awareness. This perspective posits that:

- History reflects a divine or universal plan: Hegel believed that history is guided by an absolute spirit working through human institutions and actions.
- Progression through dialectics: The development of history is driven by dialectical processes?thesis, antithesis, synthesis?that resolve contradictions and propel humanity forward.
- End goal of history: According to Hegel, the culmination of history is the realization of absolute freedom, often associated with the modern state and rational self-consciousness.

Features of Hegel?s historical system include:

- A teleological view: history has a purpose and direction.
- Recognition of contradiction and conflict as drivers of progress.
- Emphasis on rationality: historical events are meaningful steps toward human self-realization.

Pros:

- Provides a comprehensive framework linking past, present, and future.
- Emphasizes the importance of rational development and human agency.
- Offers a unifying vision of history as meaningful and purposeful.

Cons:

- Can be perceived as overly idealistic or deterministic.
- Difficult to empirically verify the notion of a guiding absolute spirit.
- May overlook the randomness and chaos inherent in historical events.

Critiques and Debates

While influential, Hegel?s idea of history as a rational system has faced substantial critique. Critics argue that:

- It risks imposing a philosophical narrative onto history that may distort complex realities.
- It underestimates the influence of chance, power struggles, and individual agency.
- Its teleological nature can lead to a form of historical optimism or justification of certain political regimes.

Despite these critiques, the concept of history as a system remains a powerful heuristic for understanding the interconnectedness of historical phenomena.

Key Essays and Their Contributions

"The Actuality of Philosophy"

In this essay, Hegel emphasizes that philosophy is not merely theoretical but actively engaged with the actual world. He asserts that philosophical ideas are realized through historical development, reinforcing the idea that history and philosophy are intertwined.

Main points:

- Philosophy reflects the unfolding of the Absolute Spirit.
- The realization of philosophical truths occurs through historical processes.

- History serves as the living expression of philosophical ideas.

Significance:

This essay underscores the importance of viewing history as a dynamic, philosophical process rather than a static record.

"The Philosophy of History"

Perhaps the most famous essay from the collection, "The Philosophy of History" elaborates on the idea that history is a rational process directed toward human freedom.

Key features:

- The concept of 'world-historical individuals' who embody the spirit of their age.
- The idea that history develops through the conflicts and resolutions of different civilizations.
- The recognition that Western civilization, especially, plays a central role in the realization of freedom.

Features:

- Emphasizes the importance of recognizing the universal and particular aspects of history.
- Suggests that history is a process of self-discovery for humanity.

Pros:

- Offers a compelling narrative of progress.
- Connects philosophical ideas directly to historical events.

Cons:

- The Eurocentric perspective can be critiqued for neglecting other civilizations.
- The deterministic tone may oversimplify complex historical processes.

Philosophical Significance and Influence

Impact on Historical and Philosophical Thought

Hegel?s conception of history as a systematic and rational process has profoundly influenced subsequent philosophical and historical theories. It inspired:

- The development of Marxist historical materialism, where history progresses through class struggles.
- The existentialist critique of teleological histories.
- The ideas of modern philosophy of history, emphasizing understanding history as a meaningful, connected whole.

Features:

- Encourages viewing history as a process of human emancipation.
- Promotes the idea that understanding historical development is essential for shaping the future.

Pros:

- Provides a comprehensive framework for understanding societal change.
- Bridges philosophy and history in a meaningful way.

Cons:

- The teleological approach can justify current power structures.
- May lead to deterministic interpretations that overlook agency and contingency.

Conclusion: Reflections and Relevance Today

History as a system and other essays toward a philosophy of history remains a foundational text that challenges readers to think about history beyond mere chronology. Its emphasis on rational development, dialectical progress, and the interconnectedness of human events offers a compelling vision of history as a meaningful pursuit.

Pros:

- Offers a unifying, philosophical framework for understanding the flow of history.
- Inspires ongoing debate about the nature of historical truth and progress.
- Encourages viewing history as an active, dynamic process.

Cons:

- Its abstract nature can be difficult to apply empirically.
- Potential for deterministic or Eurocentric biases.
- May oversimplify the complexity and chaos inherent in historical processes.

Today, Hegel?s ideas continue to influence debates in philosophy, history, political theory, and social sciences. While not without criticism, their enduring relevance lies in their challenge to see history as an active, purposeful journey?a perspective that remains vital in understanding our past and shaping our future.

In sum, History as a System and Other Essays Toward a Philosophy of History is a monumental work that pushes readers to reconsider the nature of history itself. Its philosophical insights have left an indelible mark on how we conceptualize human development, offering both inspiration and caution in our quest to understand the past's complexity and meaning.

QuestionAnswer What is the central thesis of 'History as a System' in the context of the essays toward a philosophy? The central thesis suggests that history can be understood as a coherent, interconnected system where events and developments are part of a larger, rational order that reflects underlying philosophical principles. How does the essay 'History as a System' challenge traditional views of historical narrative? It challenges traditional linear or episodic narratives by proposing that history functions as an integrated system, emphasizing patterns, underlying structures, and the interconnectedness of historical phenomena. In what ways do the essays 'Toward a Philosophy of History' contribute to contemporary philosophical debates? They contribute by offering a systematic approach to understanding history's role in human existence, emphasizing rationality, progress, and the search for universal principles, thereby influencing debates on historicism and philosophical realism. What philosophical influences are evident in the essays 'History as a System' and related works? Influences include Hegel's dialectical method, Kantian ideas of reason and universality, and Enlightenment ideals of progress, all of which underpin the view of history as a rational, systematic process. How do the essays address the relationship between history and human consciousness? They explore how history shapes and is shaped by human consciousness, suggesting that understanding history as a system helps humans grasp their place in a rational universe and develop self-awareness. What are some critiques of viewing history as a system presented in these essays? Critiques include the risk of oversimplification, determinism, and neglecting contingency or the role of individual agency, which some argue reduces history to a mechanical process rather than a complex, dynamic system. Why are these essays considered significant in the development of philosophical approaches to history? Because they offer a comprehensive framework that integrates historical analysis with philosophical inquiry, influencing subsequent theories of historicism, systemic thinking, and the philosophy of history.

Related keywords: history as a system, philosophical essays, historiography, systematic history, philosophy of history, historical methodology, epistemology of history, theory of history, historical consciousness, historiographical analysis

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