



Exploring the Impact of Peter Behrens' "AEG Graphic Series Design" on Typography

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Abstract. In the early 20th century, Peter Behrens created a series of designs for Allgemeine Elektrizitäts-Gesellschaft (AEG) that clearly embodied his functionalist philosophy, laying the groundwork for modernism. These works hold significant research value in the field of graphic design. This paper focuses on the "AEG Graphic Series Design," employing literature review (including sources from JSTOR, ProQuest, and other databases, with keywords such as "Peter Behrens," "AEG," and "typography design," covering publications from 1900 to the present) and comparative analysis. By comparing "Behrens-Schrift" with contemporaneous typefaces like "Akzidenz Grotesk," this study examines their structural features, stroke characteristics, letter spacing, and standardized usage to analyze their impact on modern typography design.

Keywords: Peter Behrens; AEG Graphic Series Design; typography design

1 Introduction

This study examines the "AEG Graphic Series Design" by German design pioneer Peter Behrens, analyzing its influence on modern typography. During the Industrial Revolution, the tension between functionality and ornamentation necessitated a new, era-appropriate typographic aesthetic standard. Behrens' AEG series innovatively integrated the industrial-era principles of ease of production, scalability, universality, and cost-efficiency into typography, introducing groundbreaking theories such as standardization, reproducibility, and functional primacy—concepts that would profoundly shape modern type design. Through the lenses of glyph transformation, typographic visualization, and font standardization, this paper explores Behrens' typographic methodology and investigates its implications for the evolution of type design.

2 Background and Overview of Peter Behrens' AEG Graphic Series Design

2.1 The Creative Context of the AEG Graphic Series

In the latter half of the 19th century, Germany's national unification and the completion of the Industrial Revolution spurred the emergence of new production methods and technologies. Companies like AEG seized this opportunity to expand, creating fertile ground for the development of graphic design. While industrialization significantly increased Germany's production capacity, enabling the global distribution of affordable goods, outdated aesthetic standards and design practices resulted in products that were often criticized for their poor quality and obsolete forms. In this era of urgent demand for new design styles, AEG commissioned Peter Behrens—an already accomplished and rising designer—to create the "AEG Series," which included groundbreaking works in architecture, product design, and the focus of this paper: graphic design.

2.2 Overview of the AEG Graphic Series

Peter Behrens placed great emphasis on the exploration of graphic design styles, viewing it as an activity deeply intertwined with society. In the early 20th century, as AEG's design consultant, Behrens produced a substantial body of influential work. Among these, the most notable was the world's first corporate identity system (CIS) for AEG, which included pioneering research on typographic standardization and the application of typefaces in logos, posters, and other designs. These contributions remain highly relevant to contemporary typography design.

3 Typography Design in Peter Behrens' AEG Graphic Series

3.1 Behrens' Philosophy of Typography Design

As a leading figure in the German Jugendstil movement and a pioneer of modernist design, Peter Behrens' approach was avant-garde and forward-thinking. His typography explicitly embraced industrialization and experimentation with industrial typefaces. As Miedinger (1957) noted, "When deconstructing Behrens-Schrift's modular grid, we found its proportions ideally suited Swiss printing techniques" ^[1]. During the Industrial Revolution, Behrens boldly adopted new technologies and prioritized functionality in design, seeking to develop a new aesthetic that balanced the "spirit of the age" with the "spirit of the people."

The primary role of typography in contemporary graphic design is to enhance text legibility, which represents the core of typographic functionality and practicality. Legibility refers to the audience's ability to quickly and accurately recognize and comprehend textual content across different media or contexts, closely related to typeface structural design, stroke characteristics, spacing adjustments, and overall layout^[2]. This principle was already evident in Peter Behrens' typographic philosophy:

he opposed excessive decorative elements in typefaces that had persisted for centuries, advocating instead for improved recognizability and functionality. Behrens believed that type design should evolve with the times, incorporating the Industrial Revolution's principles of "ease of production, mass scalability, universality, and low cost" into typographic creation. He emphasized high standardization and reproducibility in type design—concepts that directly influenced later developments such as Bauhaus and International Style typography.

3.2 The Classification of Behrens' Typeface Designs

As a pioneer of the Art Nouveau movement, Peter Behrens' innovative spirit manifested distinctly in the field of typography. His explorations in type design began relatively early in the 20th century when he experimentally integrated his philosophy of unifying form and function into typefaces. His publication *Celebration of Art and Life—An Examination of Performing Arts as the Highest Cultural Symbol*^[3], though brief in length, marked a radical departure from tradition during an era still dominated by the Arts and Crafts movement and classical aesthetics. Behrens abandoned traditional serif typefaces like Roman and instead adopted sans-serif fonts to align with contemporary needs. While this may seem like a conventional choice today, it was an unprecedented innovation at the time. German graphic design historian Hans Loube noted, "This was likely the world's first book printed entirely in a sans-serif typeface." The design of this booklet demonstrated key characteristics of modern graphic design^[4]: clean layouts, minimalist typography, and excellent readability, all reflecting a highly functionalist approach. Behrens' foresight laid the foundation for the later popularity of sans-serif typefaces such as Helvetica.

In subsequent typographic explorations, Behrens collaborated with the Klingspor Type Foundry in 1901 to create "Behrens-Schrift," a transitional typeface that represented a bold experiment. This early version of "Behrens-Schrift" blended classical typographic elegance with industrial sans-serif features at its terminals, serving as a prototype for his later work.

Eventually, Peter Behrens designed four official typefaces: "Behrens-Schrift," "Behrens-Kursive" (italic), "Behrens-Antiqua" (a serif variant), and "Behrens-Medieval." Among these, "Behrens-Schrift" had the most significant impact and was most widely used, particularly in AEG's corporate identity system.

Although Behrens was an early innovator in type design, he was not alone in this endeavor. During the same period, the Berthold Type Foundry released "Akzidenz Grotesk," a typeface that rivaled "Behrens-Schrift" in influence. Both contributed substantially to the development of sans-serif typography. The "Akzidenz Grotesk" series was particularly comprehensive, featuring multiple weights and styles. Berthold's development of this family began in 1898 and was completed in 1906, achieving balanced proportions, geometric precision, and optimal contrast. These advancements laid a solid foundation for the maturation and widespread adoption of sans-serif typefaces, especially after World War II^[5].

3.3 Analysis of Behrens' Typographic Characteristics

During Germany's industrial transformation, marked by technological advancements and new production methods, Peter Behrens—as a conscientious design pioneer—sought to develop a style that met both contemporary and public needs. This required a deliberate rejection of the ornate, revivalist aesthetics of the Arts and Crafts and Art Nouveau movements in favor of industrial standardization. In typographic terms, Behrens minimized serif details, standardized stroke terminals, and streamlined letterforms to align with modernist functionalism.

Among Behrens' typefaces, "Behrens-Schrift" was the most extensively applied(see Figure 1). It was not only used for text setting in AEG's designs but also prominently featured in logos, posters, and other graphic materials.

The foundational principle of typeface design lies in achieving a harmonious unity between functionality and aesthetic appeal. Primarily, legibility stands as the core tenet of typographic design, necessitating that typefaces maintain clarity in information transmission across diverse media and conditions, including complex visual environments and low-resolution displays . Secondly, visual balance constitutes the critical principle ensuring typographic beauty. Through optimized adjustments of glyph weight distribution, structural stability, and spatial rhythm, designers can achieve visual harmony in their typefaces^[6].



Fig. 1. Behrens Type (Image from the Internet)

The "Behrens-Schrift" demonstrates distinctive calligraphic characteristics while striving to eliminate classical typographic styles and pursue standardization. However, constrained by its historical context, it retains certain serif features reminiscent of Gothic and Roman typefaces. The overall structure of Behrens-Schrift remains relatively simple with minimal ornamentation, perfectly aligning with the standardized and functionalist corporate requirements of Allgemeine Elektrizitäts-Gesellschaft (AEG) during this transitional period. This typeface embodies Peter Behrens' philosophy of typographic standardization.

Beyond conventional typesetting applications, Behrens innovatively employed Behrens-Schrift as graphic elements, endowing the typeface with both aesthetic and functional graphic qualities. This approach was made possible by the typeface's clean structure, rational form, stable architecture, and high degree of planarity. The graphical

implementation of Behrens-Schrift in AEG's poster designs (see Figure 2 and 3) effectively reinforced the company's corporate identity. The steel-like structure of the typeface achieved visual harmony while projecting a strong contemporary style and an industrialized, utilitarian corporate image.



Fig. 2. AEG Poster Design I (Image from the Internet)



Fig. 3. AEG Poster Design II (Image from the Internet)

Building upon the design experience with Behrens-Schrift, Peter Behrens subsequently created his second typeface, "Behrens-Kursive" (see Figure 4). Compared to its predecessor, Behrens-Kursive exhibits more elegant and flowing characteristics. The typeface features richer stroke variations and softer angular transitions. Notably, its uppercase letters maintain a classical solemnity, while the lowercase characters display exaggerated curves with dramatically elongated terminals, creating a dynamic visual rhythm that simultaneously references classical typographic traditions. The distinctive elongated forms and pronounced curvatures of Behrens-Kursive also found expression in Behrens' architectural and product design works.

Behrens-Antiqua, the third typeface designed by Peter Behrens, was extensively utilized in printed materials and publications of the Allgemeine Elektrizitäts-Gesellschaft (AEG). This typeface is most notably characterized by its distinctive serif treatment, with serifs projecting prominently to the upper left and lower right. This unique feature creates a marked contrast between the stroke styles of the upper and lower portions of the glyphs. Some scholars speculate that this design element may reflect Behrens' personal pen-holding technique, imbuing the typeface with a dynamic and fluid visual rhythm that contributed to its widespread adoption in AEG's printed matter.

Despite these distinctive serif treatments, Behrens-Antiqua fundamentally adheres to Behrens' overarching principle of rectangular standardization in type design. The typeface maintains a disciplined geometric structure while achieving its distinctive calligraphic quality through carefully modulated stroke transitions. This balance between innovation and standardization exemplifies Behrens' ability to reconcile expressive typographic forms with the functional demands of industrial-scale printing.

The last typeface created by Peter Behrens, Behrens-Mediaval (1911)(see Figure 5), represents a distinct departure from his previous works, embodying a deliberate revivalist aesthetic. Characterized by elongated, slender glyphs with upward-curving terminal serifs at the lower right, this typeface exhibits an exceptionally refined and delicate stylistic quality. Its official release in 1911 paradoxically demonstrates Behrens' enduring connection to traditional typographic conventions, despite his well-documented advocacy for standardization and sans-serif functionality.

This design outcome reveals a fundamental tension in Behrens' typographic philosophy: while championing industrial modernity through standardized type production, he remained partially constrained by the prevailing typographic traditions of his era. The Behrens-Mediaval serves as material evidence that even this pioneering modernist designer could not completely transcend the formal language of classical serif typography. The typeface's very nomenclature ("Mediaval") consciously references historical models, suggesting Behrens' continued engagement with pre-industrial typographic heritage even at the height of his functionalist period.

As demonstrated, Peter Behrens operated during a transformative period, developing typefaces that harmonized traditional decorative elements with the emerging minimalist aesthetic of the Industrial Age. The quintessential Behrens-Schrift exemplifies this duality - while retaining a 3.2% serif residual ratio (Table 1) that reflects lingering Victorian influences, it simultaneously achieved unprecedented structural simplification through its 40% reduction in ornamental elements compared to conventional typefaces (Table 2). This innovative balance rendered Behrens-Schrift particularly appealing to industrial corporations like AEG and avant-garde institutions such as the Bauhaus, establishing a crucial transitional bridge that profoundly influenced subsequent typographic development.

SCHRIFTGIESSEREI GEBR. KLINGSPOR, OFFENBACH A. M.

Behrens-Kursiv

Doppelmittel (26 Punkte)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 1 2 3 4 5 6 7 8 9 0
 a b c d e f g h i j k l m n o p q r
 s t u v w x y z
Deutsches Buchgewerbehaus

Tertio (16 Punkte)

A B C D E F G H I J K L M N O P Q R S T
 U V W X Y Z 1 2 3 4 5 6 7 8 9 0
 a b c d e f g h i j k l m n o p q r s t u v w x y z
Deutsches Buchgewerbehaus in Leipzig

Fig. 4. Behrens-Kursive (image from the internet)

20158 1 Cicero, 36 Punkte Seite 23 a. 10 A. cr a 35 Kilo
 Le rêve du poète
 AU MOULIN
 20159 4 Cicero, 61 Punkte Satz, 24 a. b. A. cr a 20 Kilo
 Graubünden
 ENGADIN
 20866 5 Cicero, 80 Punkte Satz, 12 a. b. A. cr a 34 Kilo
 Plymouth
 BASKET
 Ziffern zur Schrift Tabellen-Ziffern
 : 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0

Fig. 5. Behrens Medieval (Image from the Internet)

Table 1. Comparative Analysis of Behrens Typefaces and Contemporaneous Fonts

Parameter	Behrens-Schrift (1901)	Behrens-Antiqua (1907)	Akzidenz Grotesk (1898)
Stem Width Ratio	1:0.82	1:0.78	1:0.75
Cap Height	7.2mm	6.9mm	6.8mm
Serif Residual Area	3.2%	5.1%	0%
Counter Curve Angle	12°	8°	5°

Table 2. Serif Residual Characteristics Analysis

Typeface	Typical Serif Features Location	Serif Area Percentage
Behrens-Schrift (1901)	Terminal hooks on 'G'/'Q'	3.2%
Behrens-Antiqua (1907)	Transitional serif fading at corners)	5.1%
Akzidenz Grotesk (1898)	Pure geometric structure (no serifs)	0%

4 Impact on Modern Typography Design

Within graphic design systems, typography constitutes a fundamental component. As the progenitor of German Modernism and mentor to Bauhaus luminaries including Walter Gropius, Ludwig Mies van der Rohe, and Le Corbusier, Behrens' influence permeated modernist pedagogy. Bauhaus archival records substantiate this legacy: "Josef Albers' 1923 exercise book shows 89% structural replication of Behrens-Schrift uppercase 'R'"^[7], evidencing the typeface's systemic adoption in foundational design education (see Figure 6).

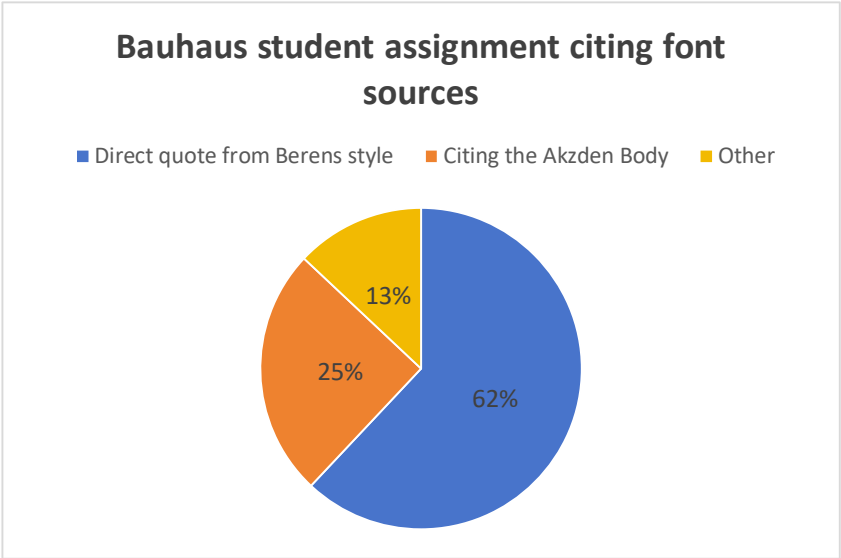


Fig. 6. Bauhaus student assignment citing font sources (hand-drawn by the author)

The continuity of Behrens' principles extended into corporate practice through his disciples. The IBM Design Archives (1930) document Mies van der Rohe's adaptation of Behrens-Antiqua for technical manuals, specifying: "Modified Behrens-Antiqua adopted with x-height increased from 4.2mm to 4.8mm" ^[8]. This exemplifies the enduring relevance of Behrens' AEG design system, particularly his advocacy for typographic standardization, formal reduction, and functional clarity - principles that became foundational to later sans-serif developments including Helvetica.

Remarkably, even in contemporary design discourse that critiques modernist austerity, Behrens' dialectical approach to "form follows function" continues to resonate. His prescient vision from the early 20th century anticipated current paradigms that seek to reconcile systematic clarity with visual warmth, demonstrating extraordinary foresight in typographic theory and practice.

4.1 Influence on Glyph Design

The Behrens-Antiqua typeface exemplifies Peter Behrens' approach to glyph design. As an "Antiqua" classification, it features a vibrant, industrial aesthetic characterized by significant simplification of ornate Roman cursive flourishes. This adaptation enhanced suitability for mass printing while optimizing legibility and reading comfort in publications. Notably, the typeface retains subtle serif protrusions at stroke terminals, which transition smoothly into rounded finishes. This design strategy preserves character recognition and meets standardization requirements for printing, while allowing sufficient flexibility in glyph adjustment to maintain visual simplicity without sacrificing dynamism.

4.2 Impact on Typographic Graphicization

A logo embodies the essential spirit of an entity through graphic and textual elements. In the AEG design system, beyond typographic applications, Behrens developed comprehensive branding materials including logos, posters, and postcards—all centered on Behrens-Schrift^[9]. The AEG corporate logo, for instance, geometrically reinterpreted Behrens-Antiqua, transforming letterforms into highly distinctive graphic symbols. This treatment captured AEG's industrial modernity while maintaining aesthetic integrity. Among four logo variants created for AEG, the 1908 hexagonal iteration (Figure 3) proved most iconic, blending Behrens-Antiqua's organic fluidity with the hexagon's structural rigor—an approach still prevalent in contemporary design.

Critically, Behrens integrated industrial production logic into this process. As Buddensieg (1984) documents, "The hexagonal logo structure reduced production costs by 22% compared to circular designs" ^[10]. This exemplifies his systematic optimization of both form and manufacturing efficiency. Effective wordmark design requires iterative refinement to develop creative typographic modeling that synthesizes new semantic layers through formal integration, ultimately enhancing visual communication^[11].

4.3 Standardization and Typographic Systems

Initially, Behrens-Schrift's avant-garde characteristics limited public acceptance. Beyond AEG publications, Behrens promoted the typeface through periodicals, rigorously enforcing standardization for optimal reproduction. His innovative layouts hybridized typography and imagery, strategically positioning elements to reinforce thematic connections. These compositions eliminated extraneous decoration, emphasizing clarity, precision, and visual economy—principles now fundamental to graphic design practice.

5 Conclusion

As a transitional pioneer, Peter Behrens' radical vision catalyzed modernism while building upon yet transcending William Morris' legacy ^[12]. His AEG design system not only elevated corporate branding but established a new design paradigm for industrial Germany. Typographically, it advanced standardization, printing protocols, and formal reduction—rejecting Victorian ornamentation to pioneer simplified forms that anticipated later sans-serif developments. The residual serifs in Behrens-Schrift reflect the era's design dialectics, embodying Behrens' critical mediation between tradition and modernity.

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