CIÊNCIAS SOCIALMENTE APLICÁVEIS E HUMANIDADES:

SABERES, PRÁTICAS E HORIZONTES DE INVESTIGAÇÃO

JESÚS RIVAS GUTIÉRREZ
CHRISTIAN STARLIGHT FRANCO TREJO
(ORGANIZADORES)

VOL VI

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C569 Ciências Socialmente Aplicáveis e Humanidades [livro eletrônico] : Saberes, Práticas e Horizontes de Investigação VI / Organizadores Jesús Rivas Gutiérrez, Christian Starlight Franco Trejo. – 1. ed. – Curitiba, PR: Editora Artemis, 2026.

Formato: PDF
Requisitos de sistema: Adobe Acrobat Reader
Modo de acesso: World Wide Web
Edição bilíngue.
Inclui bibliografia.
ISBN 978-65-82858-27-7
DOI 10.37572/EdArt_280926277

1. Ciências sociais. 2. Humanidades. I. Rivas Gutiérrez, Jesús. II. Franco Trejo, Christian Starlight

CDD 300

Elaborado por Maurício Amormino Júnior – CRB6/2422

EDITORA ARTEMIS
2026

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PRÓLOGO

Las Ciencias Socialmente Aplicadas y las Humanidades constituyen campos privilegiados para la comprensión de las relaciones que se establecen entre sociedades, territorios, instituciones, culturas y sujetos. Al reunir diferentes perspectivas teóricas y metodológicas, permiten observar los fenómenos contemporáneos en múltiples escalas, desde grandes disputas geopolíticas y procesos de desarrollo territorial hasta experiencias particulares de vulnerabilidad, formación humana y producción cultural.

El sexto volumen de ***Ciências Socialmente Aplicáveis e Humanidades: Saberes, Práticas e Horizontes de Investigação*** reúne dieciséis capítulos organizados en cuatro ejes temáticos: **Geopolítica, Territorio y Desarrollo Sostenible; Derechos, Género, Vulnerabilidad y Relaciones Sociales; Formación Humana, Ciencia y Responsabilidad Social; y Cultura, Historia e Interpretación del Conocimiento.** Esta estructura propone un recorrido que parte de cuestiones de alcance internacional y territorial y, progresivamente, dirige la mirada hacia las relaciones sociales, los sujetos y las formas mediante las cuales el conocimiento y la cultura son construidos, transmitidos e interpretados.

El primer eje aborda temas relacionados con la gestión y disputa de recursos estratégicos, la soberanía, el comercio internacional, la sostenibilidad urbana, la seguridad alimentaria, el desarrollo socioeconómico y la participación comunitaria. En diferentes contextos geográficos, los estudios evidencian cómo las cuestiones ambientales, económicas y políticas se articulan con la organización de los territorios y con las posibilidades de desarrollo sostenible.

El segundo eje aproxima el análisis a las relaciones sociales y a los desafíos vinculados con los derechos humanos, las desigualdades de género y las situaciones de vulnerabilidad. La violencia, la discriminación, la maternidad y la paternidad, el acceso a la justicia y la convivencia escolar son abordados desde perspectivas que ponen de relieve las tensiones presentes en las relaciones sociales y la importancia de las instituciones, los mecanismos de mediación y las políticas de protección en la construcción de sociedades más equitativas.

En el tercer eje, la atención se dirige hacia la formación humana, la producción científica y la responsabilidad social. Los capítulos discuten la formación de científicos y profesionales, la necesidad de prácticas más reflexivas, sostenibles e inclusivas y la valorización de concepciones educativas capaces de reconocer al sujeto en su integralidad. Más que centrarse exclusivamente en los procesos de enseñanza, los trabajos reflexionan sobre la función social de la formación y sobre las responsabilidades éticas inherentes a la producción y aplicación del conocimiento.

Finalmente, el cuarto eje reúne estudios que exploran las relaciones entre historia, cultura, conocimiento e interpretación. La estandarización tipográfica en el contexto soviético y las controversias arqueológicas relacionadas con los relieves del antiguo Egipto muestran, desde perspectivas distintas, que la producción y transmisión del conocimiento se encuentran vinculadas a contextos históricos, evidencias y sistemas de interpretación que requieren un examen crítico. Esta reflexión se amplía hacia el diálogo intercultural entre diferentes tradiciones de conocimiento, particularmente a partir de las relaciones entre la biología cultural y los saberes mapuche. Desde esta perspectiva, el reconocimiento del otro, la reciprocidad y el cuidado de las relaciones entre comunidades, naturaleza y territorio permiten explorar el amor como condición de resistencia y regeneración, así como el Buen Vivir como horizonte ético y político de convivencia.

Al reunir investigaciones provenientes de diferentes áreas y realidades, este volumen reafirma el carácter plural de las Ciencias Socialmente Aplicadas y las Humanidades. En común, los trabajos aquí presentados demuestran que comprender las transformaciones sociales contemporáneas exige articular escalas, reconocer la complejidad de los fenómenos y mantener abierto el diálogo entre distintos saberes, métodos y perspectivas. Esta pluralidad invita también a reflexionar sobre las formas en que las sociedades producen, legitiman y transmiten conocimientos, así como sobre las responsabilidades que acompañan nuestras maneras de comprender, transformar y habitar el mundo.

¡Buena lectura!

Jesús Rivas Gutiérrez

Christian Starlight Franco Trejo

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CAPÍTULO 13

FROM OST-1337 TO GOST 3489: SOVIET TYPE STANDARDIZATION AND THE FORMATION OF MODERN TYPOGRAPHIC INFRASTRUCTURE

Data de submissão: 13/07/2026
Data de aceite: 29/07/2026

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ABSTRACT: This study examines OST-1337, a standard promulgated in the Soviet Union in 1930, from the perspective of modern typographic history and visual standardization. Rather than viewing OST-1337 as a mere technical regulation, the article interprets it as a system through which type was institutionalized within mass printing, public reading environments, and the state's visual order. It first analyzes the historical background of OST-1337 and its criteria for typeface selection, demonstrating how the standard regulated typefounding and manual composition in Soviet printing. It then considers how GOST 3489 expanded this framework by classifying typefaces according to formal characteristics, functional use, indexing system, compositional application, method of composition, and technical conditions. By tracing the transition from metal type and letterpress to machine typesetting, phototypesetting, electronic typesetting, and digital fonts, the study argues that type standardization was continually reconfigured as media environments evolved. Ultimately, the article presents OST-1337 and GOST 3489 as significant historical design cases that shaped the visual order, information organization, and public communication infrastructure of modern typography.
KEYWORDS: OST-1337; GOST 3489; Soviet type standardization; typographic history; visual infrastructure; design history.

1. INTRODUCTION

Typography is not merely the arrangement of letters; it is a visual infrastructure through which knowledge is transmitted, authority is made visible, and social order becomes legible. The form, size, weight, spacing, and typesetting of type not only influence how readers process information but also shape how society organizes public language.

This article examines OST-1337, the Soviet standard for typefaces promulgated in 1930, from this perspective. Although OST-1337 defined the range of typefaces for hand composition, its significance extended beyond that of a mere technical catalog. It standardized Soviet print production, mass-reading environments, and the state's visual

order. In doing so, it integrated typography into the institutional framework of public communication.

The article also examines how the later GOST 3489 system classified and institutionalized typefaces according to formal characteristics, functional use, compositional method, and technical specifications. By tracing the transition from metal type and letterpress printing to phototypesetting, electronic typesetting, and digital fonts, the study demonstrates how Soviet type standardization was continually redefined as media environments evolved.

The central question, therefore, is not only what OST-1337 prescribed but also how this type became an infrastructure of visual order at the intersection of technology, the state, industrial production, and public communication. Reconsidered in this way, OST-1337 and GOST 3489 are not merely internal regulations within Soviet printing history but also important historical cases for understanding the standardization of modern typography and the organization of information.

1.1. REVIEW OF PREVIOUS RESEARCH

Previous research on Soviet-type standardization and typography can be categorized into two main strands. The first strand focuses on the history of Russian and Soviet typefaces and their standardization. Shitsgal (1985) provides a significant account of Russian type history and practice, demonstrating how the typographic environment of Imperial Russia was later integrated into Soviet state standardization. In this context, OST-1337 and GOST 3489 serve as key primary sources. OST-1337, adopted in 1930 and implemented in 1932, defined the range of typefaces permitted for manual typesetting in Soviet typefounding. GOST 3489-46 subsequently expanded this framework by classifying typefaces according to form, index, typesetting, and principal use.

The second strand addresses modern typography, graphic design, legibility, and visual order. Meggs and Purvis (2016) explain how type, printing technology, layout, and visual hierarchy became central to modern graphic design. Heller and Vienne (2012) view typography as a means of organizing information and facilitating communication rather than as mere decoration. Hollis (2001) and Müller-Brockmann (1981) further demonstrate that standardization, functionality, and visual order were fundamental concerns in modern typography and the International Typographic Style.

Although these studies have explored Russian and Soviet history, modern graphic design, and international typography, few have examined OST-1337 and GOST 3489 in the context of the media-historical transition from metal type and letterpress

to phototypesetting, electronic typesetting, and digital fonts. This study, therefore, reconsiders Soviet-type standardization not merely as a technical regulation but as a process that shaped visual order and information infrastructure.

1.2. RESEARCH OBJECTIVES

This study repositions OST-1337 not merely as a narrow technical regulation of Soviet printing but as a pivotal episode in the history of modern typographic standardization. It explores how OST-1337 emerged, how typefaces were selected and regulated, how this framework evolved into the GOST 3489 system, and how its underlying principles were adapted across subsequent media, from metal type to phototypesetting and digital fonts.

The study pursues four objectives. First, it clarifies the historical and technical significance of OST-1337. Second, it analyzes the selection and subsequent classification of the typefaces included in the standard. Third, it examines how the GOST 3489 systematizes typefaces by form, function, usage, typesetting, and technical specifications. Fourth, it situates Soviet type standardization within the broader media history of typography.

In doing so, the article argues that OST-1337 and GOST 3489 were not merely internal printing standards but instruments through which type became an integral part of the visual infrastructure of modern communication.

1.3. RESEARCH METHODS

This study integrates primary-source analysis, standard-system analysis, and media-historical comparison. It considers OST-1337 and the GOST 3489 series as primary sources and examines how they define type selection, classification, function, typesetting, and technical specifications (Golovchenko, 2014; GOST 3489-46, 1946; GOST 3489-57; GOST 3489.1-71). OST-1337 is analyzed as an early standard for manual typesetting, while GOST 3489 is evaluated as a more systematic framework for typographic classification and production control (Shitsgal, 1985; ParaType, 2021).

To situate these standards historically, this study draws on scholarship concerning Soviet literacy campaigns, mass mobilization, and cultural modernization following the Revolution (Kenez, 1985; Fitzpatrick, 1999). It also references studies of the First Five-Year Plan and Soviet industrialization to examine how printing and publishing were reorganized in line with the principles of planned production. Additionally, research on Russian Constructivism and avant-garde graphic design helps clarify the typographic context that preceded state standardization (Lodder, 1983; Milner, 1979; Lissitzky, 1923).

The study also traces the media transition from metal type and machine typesetting to phototypesetting, electronic typesetting, and digital fonts. This comparison illustrates how standardization, legibility, and public communication were continually redefined as type evolved from physical objects to optical images and digital data (Tolchinskaya, 2024; Meggs & Purvis, 2016; Müller-Brockmann, 1981).

Finally, PostScript, Unicode, OpenType, and PT Sans/PT Serif are used as comparative references for the digital era. They are not presented as direct successors of Soviet standards but rather as examples of how typographic standardization evolved into challenges related to encoding, font formats, platform compatibility, multiscript support, and public visual infrastructure (Adobe Systems, 1990; Unicode Consortium, 2023; Microsoft Typography, n.d.; Google Fonts, n.d.-a; Google Fonts, n.d.-b).

2. OST-1337 AND THE STANDARDIZATION OF SOVIET TYPOGRAPHY

2.1. HISTORICAL BACKGROUND OF SOVIET PRINT STANDARDIZATION

OST-1337 emerged during the Soviet drive toward modernization in the late 1920s and early 1930s (Hunter, 1973; Davies, 1980; Stone, 2005).

After the 1917 Revolution, writing and print became central instruments of mass education, political mobilization, and administrative integration (Kenez, 1985). The literacy campaigns launched after 1919 established reading as a fundamental prerequisite for socialist state-building (Fitzpatrick, 1999).

Print culture was therefore not only a medium for transmitting knowledge but also a means of shaping new social subjects.

With the implementation of the First Five-Year Plan in 1928, printing and publishing were integrated into the framework of industrial production (Hunter, 1973; Davies, 1980). Newspapers, textbooks, political literature, technical manuals, and propaganda materials needed to be produced on a mass scale. This necessitated consistency in typeface, format, and typesetting. Without standardized type materials and printing procedures, mass production remained inefficient, and maintaining visual coherence was challenging (Lodder, 1983; Milner, 1979).

In this context, OST-1337 functioned as a state response to typographic disorder. It transformed a dispersed, craft-based environment into a regulated system of industrial production. Type standardization thus became part of the Soviet project to rationalize culture, production, and communication through efficiency, repeatability, and collective order (GOST 3489-46, 1946; Shitsgal, 1985).

2.2. STRUCTURE AND TYPOGRAPHIC LOGIC OF OST-1337

The significance of OST-1337 lies in its attempt to organize type as a systematic framework. The standard included thirty-one approved typefaces; however, it was not a comprehensive classification scheme. Instead, it primarily served as a list of authorized typefaces, while a more systematic official classification was introduced later in GOST 3489-46 (Golovchenko, 2014; Shitsgal, 1985).

Even so, the typefaces included in OST-1337 reveal a clear typographic logic. Subsequent studies have grouped them by function and visual characteristics. Following G. G. Gillio's classification, the thirty-one typefaces can be arranged into seven series, with three typefaces remaining outside these groups. This suggests that Soviet typography was already moving toward functional and formal classification, even before such classification was fully codified (Golovchenko, 2014; ParaType, 2021).

The typefaces served different purposes: body text, titles, display use, and specialized publishing. Text faces require legibility, stability, and reliable reproduction under uneven printing conditions. Titling and display faces demand visual impact and immediate recognition. Therefore, OST-1337 treated type not as a collection of aesthetic forms but as a functional system organized by use.

The standard also defined a type as an industrial object. Type was evaluated not only by its form but also by its capacity for consistent reproduction across machines, materials, and formats. Consequently, typography was directly linked to production, distribution, and public communication (see Figure 1).

2.3. TYPE STANDARDIZATION AS VISUAL INFRASTRUCTURE

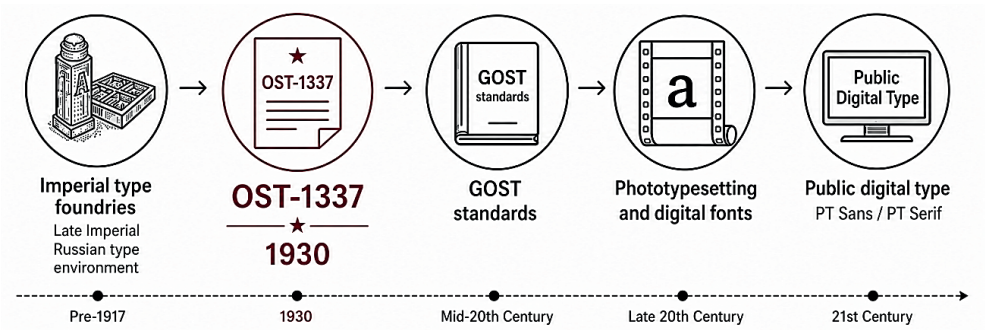
OST-1337 became an integral part of the Soviet visual infrastructure. A type of standard does more than regulate letter form; it shapes how texts are composed, how information is organized, how printed materials gain authority, and how readers engage with public language.

Through standardization, the Soviet state created a more coherent visual environment. Newspapers, textbooks, official bulletins, popular literature, and propaganda materials consistently employed similar or regulated letterforms. This repetition established a recognizable visual rhythm in public communication and reinforced the relationship between printed language and state authority.

Typography thus functioned as a technology of order. It organized the printed surface, enhanced readability, and made information repeatable, manageable, and

governable. OST-1337 should therefore be understood not merely as a technical regulation but as a mechanism through which the state shaped the visual conditions of reading.

Figure 1. Analytical Structure of the Article. This figure illustrates the article's analytical framework. The discussion begins with the historical background of Soviet-style standardization, then explores the development of OST-1337, its type-selection criteria, the institutionalization of the GOST system, and the media transition from metal type to phototypesetting and digital fonts. OST-1337 is presented not merely as a technical standard but as a pivotal historical milestone in the formation of modern visual order. (Source: Author's own work.).



3. FROM OST-1337 TO GOST: TYPOGRAPHIC TRANSFORMATIONS IN SOVIET TYPE STANDARDIZATION

3.1. STANDARDIZING METAL TYPE AND LETTERPRESS PRINTING IN THE 1930S

OST-1337 was developed within the material constraints of metal type and letterpress printing. In the 1930s, type existed as a physical object: it was cast, stored, transported, composed, printed, and reused. Consequently, the standardization of type was inherently linked to the standardization of the printing process itself.

Soviet print culture demanded typefaces that could endure repeated use, low-quality paper, high-speed printing, and mass circulation. Letterforms needed to remain legible despite these material constraints. Consequently, OST-1337 approached type not as a decorative element but as a functional component of the production process.

This marks the first media-historical stage of OST-1337. Type was standardized as a unit of measurement. Its value lay in reproducibility, durability, and compatibility with industrial printing. In this sense, OST-1337 represents the moment when Soviet typography embraced the logic of industrial standardization (Golovchenko, 2014; Shitsgal, 1985) (see Table 1).

Table 1. Typeface Selection Criteria in OST-1337 and Their Later Classification Standards. Source: Author's own work.

Criterion	Typographic Basis	Design-Historical Significance
Legibility	Readability under poor paper quality, uneven impression, and rapid printing.	Stabilization of mass reading environments and support for public literacy.
Functionality	Use-based selection for body text, headings, newspapers, textbooks, official documents, and posters.	Classification of type by communicative function rather than stylistic appearance.
Reproducibility	Repeatable casting, distribution, and printing across foundries and printing houses.	Establishment of type as an industrially standardized object.
Visual Consistency	Shared printed tone across state publications through repeated use of approved typefaces.	Formation of a unified public visual language.
Ideological Suitability	Exclusion of illegible, accidental, overly ornamental, or stylistically excessive forms.	Reinforcement of socialist clarity, functionalism, and typographic discipline.

3.2. THE TYPEFACE CLASSIFICATION PROCESS AND SELECTION CRITERIA OF OST-1337

The historical significance of OST-1337 lies not merely in compiling a list of typefaces but in its role as a Soviet effort to select, restrict, and standardize typefaces for state printing and public communication. Promulgated in 1930, OST-1337 included thirty-one officially approved typefaces.

For analytical clarity, OST-1337 should not be regarded as a comprehensive official classification system. Rather, it functioned more as a standard list of hand-composed typefaces that domestic type foundries could produce. According to *Type Journal*, the All-Union Committee for Standardization adopted OST-1337 in February 1930; it came into effect in 1932 and regulated the permitted range of manual typefaces. A unified official classification system was later introduced in GOST 3489–46 (Golovchenko, 2014).

Thus, the "classification" of OST-1337 should be understood on two levels. The first is the administrative level: the selection, numbering, and approval of typefaces under the 1930 standard. The second is the analytical level: the subsequent reclassification of the thirty-one typefaces by later researchers according to their form and function. According to *Type Journal*, G. G. Gillio grouped these typefaces into seven series, while three remained unassigned to any series (Golovchenko, 2014).

3.2.1. The Selection Process of OST-1337 Typefaces

The typeface selection process for OST-1337 can be summarized in three stages.

First, typefaces distributed across printing houses and type foundries were surveyed, and those suitable for mass printing were selected. The criteria were not primarily aesthetic; greater importance was placed on legibility under poor paper quality and rapid printing conditions, reliability in books, newspapers, textbooks, and children's publications, as well as the potential for repeated reproduction and distribution.

Second, the selected typefaces were evaluated based on their function and application. Body text, headlines, display settings, educational materials, and propaganda printing each demanded distinct typographic roles. The Type Journal notes that the first OST-1337 series, known as the "ordinary typefaces," included seven typefaces widely used in book and periodical typesetting up to the early twentieth century (Golovchenko, 2014).

Third, each typeface was assigned a number and name and incorporated into a standardized system of size, form, and printing conditions. Through this process, type was transformed from a local printing-house resource into a standardized component of the state publishing system. Typefaces excluded from OST-1337 were withdrawn and designated for melting down, demonstrating that the standard functioned not merely as a recommendation but as an administrative measure that reorganized Soviet type usage (Golovchenko, K., 2014).

3.2.2. Selection Criteria of OST-1337 Typefaces

OST-1337 selected typefaces based on five primary criteria: legibility, functionality, reproducibility, visual consistency, and ideological suitability. In the Soviet mass-printing environment, typefaces needed to remain readable under varied printing conditions, serve specific media such as books, newspapers, textbooks, posters, and advertisements, and be reproducible across different printing houses and type foundries. Additionally, they had to support a unified public typographic language throughout the Soviet Union. Typefaces deemed overly decorative, illegible, or formally disorderly were excluded from the standard system.

This selection logic differed from conventional type classification, which typically focuses on formal features such as serifs, sans serifs, weight, contrast, and ornamentation. OST-1337 linked form to state use: the key issue was not only how a typeface looked, but also where, for whom, and for what social function it would be used. In this sense, type was treated as a functional unit of information rather than merely an aesthetic style.

The standard had mixed effects. It enhanced legibility, productivity, and visual coherence in Soviet print culture but also diminished typographic diversity. Type Journal notes that this reduction attracted criticism from the 1930s onward. However, some

observers argued that eliminating “accidental, difficult-to-read, and anti-artistic” typefaces improved publication design and conserved metal (Golovchenko, 2014).

Ultimately, OST-1337 was integrated into a state-controlled printing infrastructure. Typography became a standardized unit of public communication, ensuring legibility, productivity, visual order, and ideological clarity.

Table 2. Six Major Typeface Categories in GOST 3489-46. Source: Author’s own work.

Russian original	English term	Korean term	Main features	Typical use
шрифты старого стиля	Old-style typefaces	Old-style serif	Soft stroke contrast; stable proportions; traditional serifs	Long-form reading; literary books; body text
шрифты нового стиля	New-style typefaces	New-style serif	More refined contrast; clearer serif structure	Modern book typography; general body text
современные шрифты	Modern typefaces	Modern serif	Strong contrast; precise structure; high visual clarity	Body text, headings, emphasis
египетские шрифты	Egyptian / slab serif typefaces	Slab serif	Heavy, block-like serifs; strong horizontal emphasis	Posters, advertisements, display type
готессковые шрифты	Grotesque typefaces	Grotesque sans serif	Sans serif forms; simple structure; functional appearance	Signage, headlines, modern information design
рукописные шрифты	Script typefaces	Script / handwritten typefaces	Handwritten rhythm; flowing strokes; expressive forms	Invitations, decorative titles, special emphasis

3.3. FROM OST-1337 TO GOST: INSTITUTIONALIZING SOVIET TYPOGRAPHIC STANDARDS

After OST-1337, Soviet type standardization moved into the GOST system. Whereas OST-1337 primarily defined a restricted list of typefaces for hand typesetting, the GOST 3489 series established a more systematic state framework. This shift was not merely terminological. It expanded type regulation from a list of permissible faces to a system based on classification, indexation, assortment, use, graphic features, and typesetting methods.

GOST 3489, first introduced in 1946 and later revised in 1952, 1957, and 1971–1972, replaced the earlier OST framework. It defined the structure of typefaces and type families used in Soviet printing, including size, graphic characteristics, serif forms, contrast, and letterform features. Its institutional authority was explicit: GOST documents stated that noncompliance with the standard was punishable by law.

Table 3. Historical Changes in the GOST 3489 System, 1946–1972. Source: Author's own work.

Typeface family	English term	Main characteristics	Typical use
Литературная	Literaturnaya	Representative Soviet body-text typeface family	Literary books, general monographs, body text composition
Заголовочная газетная	Zagolovochnaya gazetnaya	Typeface for newspaper headlines	Newspaper headlines, title composition
Банниковская	Bannikovskaya	Serif family for body text	General publications, long-form reading
Табличная	Tablitsnaya	Typeface for tabular composition	Tables, statistics, technical materials
Обыкновенная	Obyknovennaya	General-purpose body-text typeface	Books, magazines, general printed matter
Елизаветинская	Elizabethan	Typeface with a traditional serif character	Literary and classic-style publications
Академическая	Academic	Stable body-text typeface family	Scholarly books, dictionaries, educational publications
Журнальная	Journal	Typeface for magazines	Magazine body text, periodicals
Новая газетная	New Newspaper	Typeface for newspapers	Newspaper body text, newspaper composition
Балтика	Baltika	Typeface family with a relatively modern impression	Publication body text and titles
Реклама	Reklama	Typeface for advertising	Advertisements, promotional printed matter
Рубленая	Rublenaya	Sans-serif family	Titles, covers, public information
ПЛАКАТНАЯ	Plakatnaya	Typeface for posters	Posters, propaganda materials, slogans

The official title of GOST 3489-46 – *Typographic Type: Typefaces Based on Russian and Latin Scripts; Classification, Indexation, Assortment, and Main Applications* – shows the new logic of the system. Unlike OST-1337, which mainly listed permitted typefaces, GOST 3489-46 organized typefaces by classification, indexing, assortment, and use (see Table 2).

The significance of this transition lies in its redefinition of type. Type was no longer treated simply as printing material or visual style. It became a standardized unit defined by graphic structure, script base, production conditions, typesetting method, and communicative function. In this sense, Soviet typography shifted from the question of which typefaces could be used to how, where, and for what purpose they should be used.

3.4. TYPOGRAPHIC CLASSIFICATION AND CHARACTERISTICS OF THE GOST SYSTEM

The key change introduced by GOST 3489 was the institutionalization of type classification. While OST-1337 had functioned largely as a list of approved typefaces, GOST 3489 classified type according to form, function, indexation, typesetting method, and production conditions.

GOST 3489-46 divided typefaces into six main groups and one supplementary group. Later revisions in 1957 and 1971–1972 expanded the range of type families, typesetting methods, and printing media covered by the standard. This classification did not simply arrange typefaces by name. It organized them according to stroke contrast, serif form, proportion, visual weight, and intended use (see Table 3).

Thus, GOST 3489-46 treated type not as an aesthetic category but as a functional unit for printing and public communication. The GOST system gave Soviet typography a more precise institutional structure, linking letterform design to production, media, and state communication (see Table 4).

Table 4. Classification Criteria and Typographic Significance of the GOST 3489 System. Source: Author's own work.

Classification criterion	Specific content	Typographic significance
Presence and form of serifs	Serif, slab serif, sans serif, low-serif, etc.	Distinguishes visual character and reading modes
Stroke contrast	High contrast, low contrast, uniform strokes	Determines legibility, emphasis, and print stability
Letter proportion and structure	Wide or narrow set; stable proportions; vertical/horizontal	Differentiates long reading, headlines, and tabular setting
Purpose of use	Body text, headlines, newspapers, magazines,	Connects typefaces directly to publishing environments
Composition method	Manual, machine, line-casting, and phototypesetting	Links type standards with production technologies
Media conditions	Metal type, machine composition, phototypesetting	Shows standardization expanding with media change

3.5. THE DESIGN-HISTORICAL SIGNIFICANCE OF THE GOST CLASSIFICATION

The design-historical significance of the GOST system can be summarized in four key points.

First, GOST transformed the type from a mere list of names into a comprehensive classification system. While OST-1337 served as an early standard for selecting and restricting usable typefaces, GOST organized typefaces according to form, function, and technical specifications.

Second, GOST links formal characteristics with their intended use. Serif structure, stroke contrast, proportions, weight, and letterform character were not treated merely as aesthetic qualities; rather, they were connected to specific media contexts such as body text, headlines, newspapers, dictionaries, posters, and educational publications.

Third, GOST linked the type to modes of production. From the 1950s onward, the system encompassed not only manual typesetting but also machine typesetting, line-casting systems such as Monotype and Linotype, and later phototypesetting. In this way, GOST standardized not only the visual form of type but also the conditions under which it was produced.

Fourth, GOST institutionalized Soviet typography as a system of visual order. Typography was no longer merely a material selected by individual designers or printing houses; it became a visually classified, numbered, and assigned unit for specific uses, as defined by state-mandated technical standards.

Thus, while GOST continued the principles established by OST-1337, it represented a more advanced stage of institutional standardization. OST-1337 specified which typefaces could be used, whereas GOST 3489 addressed how typefaces should be classified, where they should be applied, and under what technical conditions they should be reproduced. This shift marked a transition in Soviet typography from a simple catalog of typefaces to a state-administered visual system.

3.6. PHOTOTYPESETTING AND THE DEMATERIALIZATION OF TYPE

The GOST system expanded the early standardization principles of OST-1337 into a more formal framework encompassing classification, indexing, usage, and technical specifications. After the 1950s, GOST covered not only manual typesetting but also mechanical typesetting; the 1971–1972 revisions explicitly incorporated phototypesetting. GOST 3489.1-71 specified that the standard applied to hand composition, machine composition, line casting, and phototypesetting. Thus, GOST was not confined to the era of metal type but institutionally embraced typography's transition into mechanical and optical systems.

From the mid-twentieth century onward, typography entered a new technological phase with the advent of phototypesetting. Unlike metal type, phototypesetting did not require each character to exist as a cast physical object. Instead, letterforms were stored as optical images and composed using light, film, and photosensitive media. Typography began to transition from a material form to a visual image.

This shift altered the ontology of type. In the metal type era, letters had weight, depth, and a tangible mechanical presence. In the era of phototypesetting, typefaces were transformed into images mediated by light and film. This transformation enabled greater flexibility in scaling, spacing, and page typesetting, while also accelerating the typesetting process.

For Soviet typography, the significance of this change extended beyond the mere adoption of new technology. More importantly, it reflected the persistence of standardization across evolving media. While the material form of type changed, the requirements for legibility, consistency, and institutional control remained constant. The principles embedded in OST-1337 and GOST were thus translated into the optical logic of phototypesetting.

3.7. ELECTRONIC TYPESETTING AND THE EARLY DIGITAL TRANSITION

The rise of electronic typesetting in the late twentieth century brought about another major transformation. Type was no longer solely a cast object or an optical image; it gradually became data – information that could be stored, edited, scaled, and output through electronic systems.

This transition transformed the relationship between type design, production, and distribution. Earlier technologies relied on physical casting or optical matrices. In the digital era, type existed as files, coordinates, outlines, and data structures. Letterforms were no longer confined to a single material medium; they could seamlessly move across devices, software environments, and output systems.

Under these conditions, the Soviet typographic legacy entered a new phase. Historical typefaces could be digitally restored, redrawn, and redistributed. The authority of state standards gradually gave way to the flexibility of digital font production. However, the central questions raised by OST-1337 and GOST did not disappear, including how to ensure legibility, consistency, reproducibility, and public accessibility. These questions remain fundamental to digital typography today.

3.8. POST-SOVIET DIGITAL FONTS AND THE REINTERPRETATION OF THE SOVIET TYPOGRAPHIC LEGACY

After the collapse of the Soviet Union, typographic culture transitioned from state-centered standardization to a more pluralistic digital font culture. Soviet typefaces and typographic traditions were no longer preserved solely through official specifications. Instead, digital type designers, font foundries, software systems, and international platforms reinterpreted and revitalized them.

This process involved not merely preservation but remediation. Letterforms originally designed for metal type or phototypesetting had to be adapted for screen display, vector outlines, digital output, and multilingual encoding systems. Curves, spacing, weight, contrast, and rendering all required reevaluation in the new technical environment (Adobe Systems, 1990; Microsoft Typography, n.d.; Unicode Consortium, 2023).

Literaturnaya provides a representative example. *Fonts in Use* describes it as a modification of Latinskaya, a typeface produced by the Berthold foundry in St. Petersburg in 1901. Latinskaya itself was adapted from Berthold Berlin's *Lateinisch* of 1899 for the Cyrillic typographic environment. *Fonts In Use* further identifies Literaturnaya as a typeface designed around 1940 by Polygraphmash, a Soviet institute for printing machinery with an associated type-design bureau, also referred to as the NII OGIZ type-design bureau. Other sources, however, date it to 1937 and attribute it to A. Shchukin, T. Breyev, and G. Bannikova. It later became one of the most widely used Soviet body-text typefaces (Fonts In Use, n.d.; Rentafont, n.d.).

Since 2009–2010, public digital font projects have gained new significance within the Russian Cyrillic sphere. Google Fonts describes PT Sans as a typeface developed for the "Public Types of the Russian Federation" project, with PT Serif following as the project's second major family. Here, the concept of standardization evolves once again. Whereas OST-1337 aimed to regulate metal type and printing-house practices in the 1930s, post-Soviet public digital fonts are shaped by Unicode, screen rendering, electronic documents, web fonts, multilingual support, and accessibility (Google Fonts, n.d.-a, n.d.-b; Unicode Consortium, 2023).

Post-Soviet digitalization, therefore, reveals the enduring legacy of OST-1337 and GOST. OST-1337 originated in the era of metal type, while GOST institutionalized its principles through classification and technical regulation. However, the challenges they addressed – standardization, legibility, reproducibility, and public communication – persisted in the digital font era (Golovchenko, 2014; GOST 3489-46, 1946; Shitsgal, 1985).

4. CONCLUSION

This study examines OST-1337 and GOST 3489 from the perspectives of modern typographic history, visual standardization, and media transition. Issued in 1930, OST-1337 was not merely a technical regulation for printing; it was an institutional tool designed to rationalize visual communication within the broader context of state-led modernization following the 1917 Revolution, the campaign against illiteracy, industrialization after 1928, and the expansion of mass print culture.

This article interprets OST-1337 as the starting point of Soviet-style standardization and as a key element in the development of visual infrastructure. By standardizing typefaces and typesetting practices, OST-1337 helped establish a shared reading environment and ensured visual consistency and reproducibility in printed materials. Typography, in this context, functioned not merely as a form of expression but as a technology of order that organized the public presentation of communication and guaranteed the authority and reliability of information.

A central focus of this study has been the institutional transition from OST-1337 to GOST 3489. OST-1337 resembled a list of typefaces for manual typesetting rather than a fully developed classification system. Formal type classification was later institutionalized in GOST 3489-46. This standard categorizes typefaces into old-style, new-style, modern, Egyptian or slab-serif, grotesque or sans-serif, poster, and other groups. It defines graphic characteristics, uses, sizes, typesetting methods, and technical specifications. Through this system, Soviet typography evolved from a mere list of available typefaces into an institutional framework establishing a national visual order.

The historical significance of OST-1337 and GOST becomes particularly clear when examined through the lens of media evolution. OST-1337 originated under the conditions of metal type and letterpress printing. However, after 1946, the GOST system institutionalized the classification, usage, and production standards of typefaces. In the 1950s, it expanded to encompass machine typesetting, and during the 1971–1972 revisions, it incorporated phototypesetting. Later, with the advent of electronic typesetting and digital fonts, type transitioned from a physical object to an optical image and eventually to data. Despite these technological shifts, core challenges – such as standardization, legibility, reproducibility, and effective public communication – remained central.OST-1337 and GOST 3489 should therefore not be understood only as technical standards in Soviet printing history. They mark a crucial historical transition in which the selection, classification, functional assignment, and technical regulation of type turned typography into a national visual system and an information infrastructure. This study has shown that when type is standardized and systematized, it becomes more than a set of signs. It has become a foundation for organizing social communication and designing modernity.

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EDITORA ARTEMIS
2026