

HISTORY OF GEOMETRY TEACHING IN THE EARLY YEARS: Brazil, 19th and 20th century

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In Brazil, projects on geometry teaching history in the early years developed by a collective of researchers resulted in the construction of a representation about geometry teaching for primary schools and its organization and consolidation throughout the 19th century to the mid-20th century. (Leme da Silva, 2021).

After the Independence of Brazil (1822) the first public instructions for primary schools were prepared with the translation/adaptation into Portuguese from foreign textbooks¹. Francœur's textbook was one of the first references for teaching geometry in Brazil. Only at the end of the 19th century, after the Proclamation of the Brazilian Republic (1889) and the creation of more structured educational models (curricular organization in subjects and by grades), we identified the circulation of geometry textbooks produced in Brazil, as well as publications in pedagogical journals, pedagogical missions by teachers who were sent to Europe. The circulation and appropriation of textbooks and foreign proposals defined the first programs for teaching geometry at the turn of the 19th century to the 20th century. Reports of international events and universal exhibitions in pedagogical journals, the foundation of a pedagogical museum in Rio de Janeiro, made it possible to infer the insertion of Brazil which Matasci (2015) called the first globalization.

The teaching of geometry in Brazil was developed over a long process of interactions and appropriations with different cultures, bringing together diversity of knowledge, coming from practical activities and the need to measuring, drawing, and building manually. Three structuring axes were identified throughout the period – design, handwork and measurements – which, despite revealing numerous transformations, constituted pillars of permanence during the period in question.

For discussion and analysis, three contexts of Brazilian appropriations from Europe and America will be taken: (1) the proposal of freehand drawing, from Francœur (France) and later reiterated by Calkins (USA), (2) the proposal of Fröbel (Germany) with the experience conveyed by the course of handwork in the school of Nääs (Sweden) and (3) the proposal of the tachymetric method of Lagout and Dalsème (France).

References

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¹ Textbooks are used in this context as a guide with orientations to teachers.

- Francœur, L. B. (1819). *Le dessin lineaire d'apres la methode de l'enseignement mutuel*. L. Colas.
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