

Rudolf Modley and the Americanization of Isotype

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Abstract | *Rudolf Modley was an associate at Otto Neurath's Social and Economic Museum in interwar Vienna, where the Vienna Method of Pictorial Statistics was developed. It became Isotype (International System of Typographic Picture Education) from the mid-1930s. Modley went to the United States as early as 1930 and founded Pictorial Statistics, Inc., in New York in 1934 and Pictograph Corporation in 1940. In the decades after 1945 Modley's activity profile fanned out, but he continued to be active in the field of information design. In his last twelve years, he codesigned the Glyphs Project with cultural anthropologist Margaret Mead, which aimed to create a limited number of universally understood symbols. Although Modley was strongly influenced by his early professional experiences with Otto Neurath, he evolved in the United States away from the visual education work practiced in Vienna. His work was therefore not a linear continuation of Isotype, but an attempt to adapt the visual language to American conditions.*

Keywords | *Pictorial Statistics, visual education, Isotype, Rudolf Modley, Otto Neurath*

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How Isotype Came to the United States

“Neurath’s method Americanized” was the slogan used to promote the book *Rich Man, Poor Man* in an advertisement in the American magazine *Survey Graphic* in 1935.¹ A few years later, *A Genetic Approach to Modern European History* appeared and already informed its readership on the book cover with the title addendum “with Isotype Illustrations.”² The author, Rudolf Modley, according to one reviewer in 1938, did an “effective job of Americanization” of a visual language originating in Vienna with his book *How to Use Pictorial Statistics*.³

Such references to Otto Neurath (1882–1945), the Vienna Method of Pictorial Statistics (1925–35), and the International System of Typographic Picture Education (Isotype, since 1935) were not always appropriate, but they were not arbitrary either. As a former employee of Otto Neurath’s Social and Economic Museum (SEM) in Vienna, Rudolf Modley (1906–76) had contributed to the second of the books mentioned. That the methodically correct design of information graphics and quantity diagrams in the tradition of Isotype was controversial, on the other hand, is proven by the first example. For it was Modley who explicitly criticized the graphics in *Rich Man, Poor Man*. A chart from the book showing pictorial-statistically the replacement of human labor by machines (titled “Technological Displacement”) is presented by Modley as a negative example: The chart, he pointed out, “contains numerous incorrect usages,” such as symbols that are not equally spaced, different numbers of symbols covering almost equal lengths, symbols that differ too much and show too much, and other points of criticism.⁴ Disputes such as these have been constant in the history of information graphics. The methodological precision with which the work was assessed leads back to Modley’s Viennese beginnings.

Economist and philosopher Otto Neurath developed the Vienna Method of Pictorial Statistics together with a team in which mathematician Marie Reidemeister and artist Gerd Arntz (both from Germany) were the key players. The Vienna Method of Pictorial Statistics did not work with abstract symbols but with pictograms, that is, “speaking signs.” These are symbols whose meanings are self-evident by virtue of their visual resemblance to their referent.

1. Ryllis Alexander Goslin and Omar Pancoast Goslin, *Rich Man, Poor Man: Pictures of a Paradox* (New York: Harper and Brothers, 1935). Advertisement in: *Survey Graphic* 24, no. 6 (June 1935): 308.

2. J. Alexis Friedman and Jack Foner, *A Genetic Approach to Modern European History* (New York: College Entrance Book Company, 1938).

3. Evert G. Routzahn, review of *How to Use Pictorial Statistics* by Rudolf Modley, *American Journal of Public Health* 6 (June 1938): 785–86.

4. Rudolf Modley, *How to Use Pictorial Statistics* (New York: Harper and Brothers, 1937), 57.

Illustration V/2

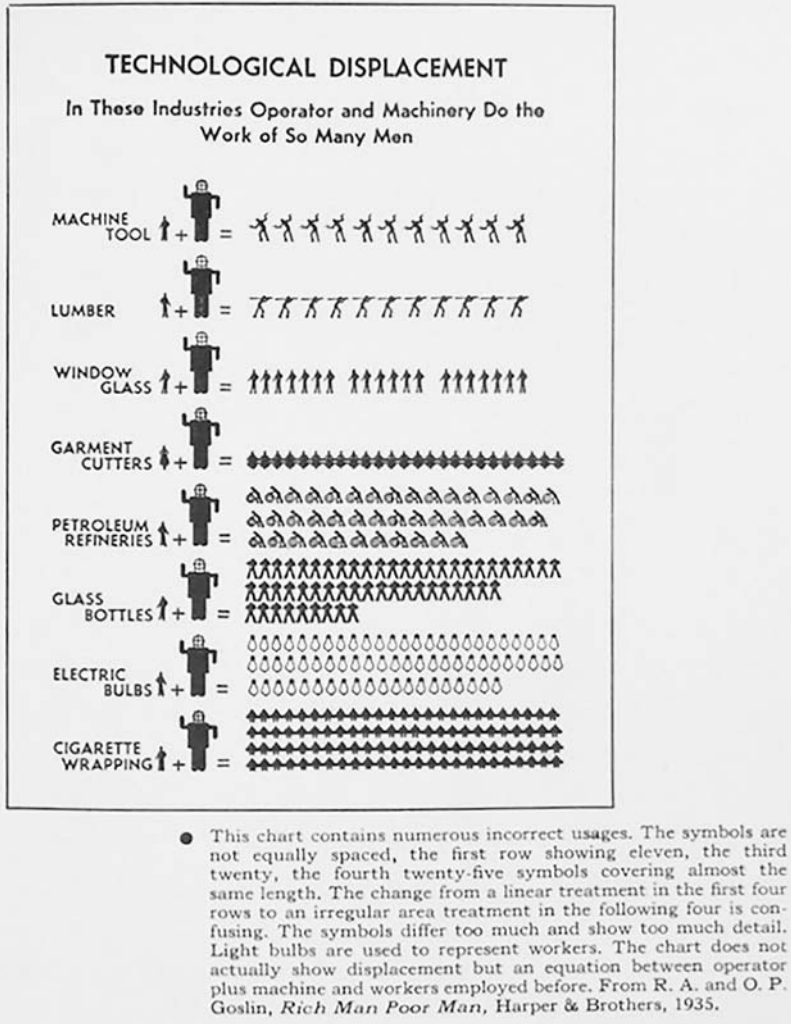


Figure 1 | “Technological Displacement.”

Source: Rudolf Modley, *How to Use Pictorial Statistics* (New York: Harper and Brothers, 1937), 57.

Pictorial statistics meant that graphics were used to show social and economic relationships. These included, for example, comparative rates of unemployment in different countries or the connection between place of residence and infant mortality. The production of such graphics had certain rules, for example, that differences in quantity should never be represented by symbols of different

sizes, but always by a different number of symbols of the same size. The Vienna Method emerged from an interdisciplinary teamwork of scientists, educators, and graphic artists in which at least some key positions were continuously held by the same people. Strictly speaking, the Vienna Method produced not only statistical graphics but also educational or, for example, accident prevention pictures. Their fields of application were extremely diverse, including exhibitions, worker and adult education, publications, and school projects.⁵

In 1930 Otto Neurath arranged for Rudolf Modley to work at the nascent Museum of Science and Industry (MSI) in Chicago as a kind of go-between for the Social and Economic Museum. While Neurath and his closest colleagues had to flee Austria in 1934 for political reasons to The Hague (The Netherlands), where they transformed the Vienna Method into an International System of Typographic Picture Education (Isotype), Modley departed both institutionally and intellectually from the Viennese origins: he founded an agency in the United States and developed his own pictograms and statistical charts, which at least partially moved away from the Viennese tradition. This was not the only reason why Neurath and Modley eventually became competitors in the United States.

Yet Rudolf Modley was influenced not only by his involvement in Otto Neurath's Social and Economic Museum, but also by the political and cultural climate of 1920s Vienna. How did this influence play out in his decades of work in the United States? What was Modley's relationship to the visual education tradition that originated in Vienna? And finally, what did "Americanization" of Isotype mean? Let's first take a look at Rudolf Modley's Viennese years.

Rudolf Modley in Vienna

Rudolf Modley was born in Vienna on November 3, 1906. His father, Alfred Modley, worked as an accountant for the electrical company Siemens, his mother Elsa Modley (née Hoffmann) was a Social Democratic district councilor in a bourgeois Viennese residential district, where the family also lived. As a Jewish family the Modleys were strongly affected by the anti-Semitism of the interwar period and by the rise of National Socialism. Alfred Modley died in December 1937, about three months before the National Socialists came to power in Austria. Elsa Modley was able to flee to America and lived with relatives in San Francisco until her death.⁶

5. Christopher Burke, "The Gesellschafts- und Wirtschaftsmuseum in Wien (Social and economic museum of Vienna) 1925–34," in *Isotype: Design and Contexts, 1925–1971*, ed. Christopher Burke, Eric Kindel, and Sue Walker (London: Hyphen Press, 2013), 21–106.

6. Peter Modley, emails to Günther Sandner, November 3 and 18, 2020.

Their son Rudolf Modley became a Social Democrat and atheist as a teenager, refusing the bar mitzvah as a thirteen-year-old.⁷ After high school he studied law at the University of Vienna from 1925/26. On his enrollment sheet, “German” is given as “ethnicity” and “non-denominational” as religion. He took exams under “right-wing” professors such as Alfons Dopsch, Othmar Spann, and Wenzeslaus von Gleispach, among others, but also the Austro-Marxist Max Adler, whom he heard lecture on social policy and Marxism. On December 18, 1929, he received his doctorate in law.⁸

During the Viennese years, Modley was romantically involved with Elisabeth Scheu, the sister of Social Democrat lawyer and journalist Friedrich Scheu.⁹ Later, in the United States, now Elisabeth Scheu Close, an architect who had moved to the United States in the early 1930s and married there, designed the Modleys’ house in Kent, Connecticut.¹⁰

With his friend Fritz Jahnel, Modley lectured for the Social Democratic Party in the Austrian province of Burgenland in the early 1920s.¹¹ Even as a teenager, he was interested in political developments in the Soviet Union and traveled to Moscow. Friedrich Scheu recalled:

But enterprising young Social Democrats who visited Moscow without being influenced by Communism also found developments in the Soviet Union interesting, though not applicable to Austria. Among them were Rudolf Modley (later Otto Neurath’s assistant at the Social and Economic Museum in Vienna) . . . and Fritz Jahnel.¹²

Modley’s attitude toward the Soviet Union was not atypical for Social Democrats at that time. The party’s leading theoretician, Otto Bauer, recognized the world-historical significance of Bolshevism, as he once pointed out, but the Austro-Marxist strategy of seizing power through free elections clearly contradicted the Soviet way. By criticizing Soviet policies, the Social Democratic Party also distanced itself from the Austrian Communist Party, which it successfully

7. Modley, email to Sandner, November 18, 2020.

8. Enrollment Sheet (“Nationale”) Rudolf Modley, 1925/26–1929, University Archive, University of Vienna.

9. For Elisabeth Scheu see Jane King Hession, *Elizabeth Scheu Close: A Life in Modern Architecture* (Minneapolis: University of Minnesota Press, 2020).

10. Albert D. Biderman, “Rudolf Modley, 1906–1976,” a memorial sketch prepared for the 1st Conference of Social Graphics, Leesburg, Virginia, October 22–24, 1978 (private archive, Peter Modley).

11. Friedrich Scheu to Helen Post Modley, June 16, 1978 (private archive, Peter Modley).

12. Friedrich Scheu, *Ein Band der Freundschaft. Schwarzwald-Kreis und Entstehung der Vereinigung Sozialistischer Mittelschüler* (Wien: Böhlau, 1985), 164.

marginalized in the First Austrian Republic (1918–33). Modley was also marked by this ambivalence: Fascination on the one hand, criticism on the other. In any case, according to Friedrich Scheu's assessment, he was never a communist.¹³

Nevertheless, Modley was interested in Soviet developments there and published a paper on Soviet agricultural policy in 1930.¹⁴ After a critical overview of the development of prerevolutionary Russian agriculture, there follows a relatively sober and objective assessment of the various phases of Soviet agricultural policy since the October Revolution. But he also came to critical conclusions and did not consider the success of socialism in this policy field to be at all certain. His interest in the Soviet Union surfaced again later in his life: while living in the United States, he claimed to have a (admittedly rather limited) knowledge of Russian.¹⁵

On the occasion of the opening of a permanent exhibition in the Volkshalle of the New Vienna City Hall, Modley wrote an article on pictorial statistics, without identifying himself as an employee of the museum. In it he shows how much he interpreted the work of the Social Museum in political categories during the Vienna years. The visual method, he believed, was a central instrument of enlightenment in the liberation struggle of the proletariat; it would be of great political importance to promote "the understanding of the broad masses" through "new methods of popularizing contexts that are in themselves difficult to understand."¹⁶ According to Otto Neurath, pictorial statistics were particularly well suited for this task. But why did the class struggle need this popularization? The proletariat had long been involved in the public administration of cities, states, and municipalities and for this, according to Modley, it needed a certain knowledge. In this essay, Modley explained the basic rules and exemplified the advantages of the Vienna Method of pictorial statistics. But he also formulated his political credo:

The ultimate aim of all proletarian parties and organizations is socialism. The establishment of a proletarian state in Russia, the annihilation of the great monarchies in Europe, the progressive concentration and smothering of industry are bringing us steadily closer to this final goal.¹⁷

13. Friedrich Scheu to Helen Post, June 16, 1978 (private archive, Peter Modley).

14. Rudolf Modley, "Die Agrarpolitik der Sowjetunion," *Arbeit und Wirtschaft* 8, no. 4 (February 15, 1930): 145–48.

15. Rudolf Modley, OSS Archives, RG 226, Entry 224, Box 531, National Archives, Maryland.

16. Rudolf Modley, "Das Gesellschafts- und Wirtschaftsmuseum" *Arbeit und Wirtschaft* 6 (January 15, 1928): 57–60.

17. Ibid.

He continued:

For three reasons, then, the proletariat must concern itself with social and economic events: first, in order to be able to wage the class struggle as effectively as possible; secondly, in order to be able to exploit as far as possible the positions of power already won; and thirdly, in order to be able to meet all the requirements at the moment of the seizure of power.¹⁸

The Soviet way was not that of Austrian social democracy, but both worked to overcome capitalism. Modley concluded by emphasizing the international significance of the museum's educational work and referred to its new, additional challenges—in particular, the rationalization of agriculture.

In his opening speech at the Fourth Annual Communications Conference of the Art Directors Club of New York in 1959, Modley looked back on his years in Vienna: “When I was still in high school, I became acquainted with Otto Neurath's isotypes. I went all out for them. Through high school and university years, I spent all my spare time working for him and with him.”¹⁹ In his book *How to Use Pictorial Statistics* he wrote: “The author of this book has also worked there since 1923 joining the permanent staff in 1928.”²⁰ By this account, he had already worked as a student with Otto Neurath at the Siedlungsmuseum (Museum of Settlement), which was founded in 1923 and was a precursor institution of the Social and Economic Museum (SEM), which opened in 1925.

Regarding Modley's activities in the SEM, Marie Neurath noted that in Vienna he was not part of the team that produced pictorial statistics and graphics.²¹ According to his own account, he guided visitors through the museum, among them American philanthropist Eduard Filene, for whom Modley was later to work. Otto Neurath, in turn, referred to him in a letter as “assistant to the director,” and Modley himself repeatedly cited this in later CVs as well.²²

18. *Ibid.*, 58.

19. Rudolf Modley, *The Challenge of Symbology* (New York: Fund for the Advancement of Education, 1959).

20. Modley, *How to Use Pictorial Statistics*, 128.

21. Marie Neurath to Helen Post Modley, May 22, 1978 (private archive, Peter Modley).

22. Waldemar Kaempffert to Otto Neurath, April 7, 1930; Otto Neurath to Waldemar Kaempffert, July 22, 1930; and Otto Neurath to Waldemar Kaempffert, February 27, 1930, Gesellschafts- und Wirtschaftsmuseum Correspondence, Archive of the Museum of Science and Industry (MSI), Chicago. Resumé of Rudolf Modley (private archive, Peter Modley).

The Museum of Science and Industry in Chicago

Waldemar Kaempffert, an American science publicist, visited Europe in 1928 and 1929 to get to know museums that were to serve as models for a planned project in Chicago under his direction: the Museum of Science and Industry (MSI). He met with Le Corbusier and Paul Otlet, among others, but also visited Otto Neurath in Vienna. This encounter was not only obvious because of Neurath's function as director of the internationally renowned Social and Economic Museum: he and Kaempffert were connected by another bond—they were cousins.

While Kaempffert was primarily interested in learning about Neurath's museum work, Neurath also had interests with regard to the United States. He was planning translations of the Vienna Circle manifesto *Wissenschaftliche Weltauffassung* and his *Antike Wirtschaftsgeschichte* into English and hoped for Kaempffert's support. For the planned museum project, Neurath offered illustrated charts on the history of technology, and animated films. The Chicago museum, which was under construction, had about twenty employees at the time, a number expected to grow to as many as sixty-five in the future. In any case, there would be a lot of work to do to ensure that “in two or three years our doors will open,” Kaempffert wrote.²³ The planned opening year was 1932.

Rudolf Modley came to Chicago in the summer of 1930, intending to study sociology and political economy at the university there. At the same time, through Neurath's agency, he was appointed curator of social sciences at MSI. Neurath's intention was to create an interface for the dissemination of his pictorial statistics in the United States. “He is skillful, adaptable, socially adroit,” he praised Modley to the museum director. The collaboration between the two institutions began in 1931 and revolved primarily around the question of what materials and information from the SEM could be used to support the museum's establishment in Chicago. Neurath repeatedly offered animated films, illuminated panels, magnetic maps, and accident prevention pictures, and made thematic suggestions. Modley provided information on the structure of the museum project, enumerated its departments, and described the scope of his department, which was to “pick out what is economically and socially essential from all that has gone before, and present it as interestingly as possible.”²⁴

23. Otto Neurath to Waldemar Kaempffert, September 19, 1929, and Waldemar Kaempffert to Otto Neurath, June 19, 1929, Gesellschafts- und Wirtschaftsmuseum Correspondence.

24. Otto Neurath to Waldemar Kaempffert, February 27, 1930; Otto Neurath to Rudolf Modley, January 10, 1931; and Rudolf Modley to Otto Neurath, January 23, 1931, Gesellschafts- und Wirtschaftsmuseum Correspondence.

By the summer of 1932, Neurath's team had completed thirty-four charts for Chicago.²⁵ However, in the course of the cooperation between Modley and the team in Vienna, differences of opinion became increasingly apparent, not least with regard to the work process and also the division of labor between the two institutions. Otto Neurath wanted to retain control over the Vienna Method and continue to practice the interdisciplinary teamwork that had developed over the years in various personnel constellations in Vienna. Rudolf Modley, on the other hand, planned to organize a faster and, in his opinion, more efficient production of pictorial graphics on site, which was not to be restricted by Neurath's rigid guidelines. The work of the Viennese was simply too slow for him. He wrote to Neurath,

I must confess that I am disappointed that it is not possible to get estimates from you. Moreover, until today we have not received a single proposal for the panels that we ordered from you three months ago. I do not believe that it is possible to do further business on this basis, and I hope that you can speed up your work somewhat.²⁶

But of course it wasn't just about speed. It was also about how the Isotype charts were to be produced and who exercised control over this production process. Neurath's position was weakened when Waldemar Kaempffert resigned his position as museum director at the end of February 1931 and returned to his earlier work as science editor of the *New York Times*. But Modley's role at the Chicago museum was also precarious. Difficult economic conditions during the Depression caused financial problems for the museum project. In the summer of 1932, the social science department was closed and Modley lost his job.²⁷

Pictorial Statistics, Inc., and Pictograph Corporation, 1934–1945

The era of President Franklin D. Roosevelt (1933–45) and the social and economic policy reforms of the New Deal that were in place during his term in office provided Modley with connecting opportunities for his work. In these

25. Hisayasu Ihara, "Isotype in America. Otto Neurath and Rudolf Modley, 1930–9," in *Isotype. Design and Contexts, 1925–1971*, ed. Christopher Burke, Eric Kindel, and Sue Walker (London: Hyphen Press, 2013), 299–341, 304.

26. Rudolf Modley to Otto Neurath, September 29, 1931, Gesellschafts- und Wirtschaftsmuseum Correspondence.

27. Ihara, "Isotype in America," 306.

years, the United States “moved quite markedly to the left.”²⁸ Regulatory government intervention in the economy and a mix of social policy measures implemented during this period suggested certain parallels to the Vienna years, even if the different political structures and cultures should not be overlooked. Rudolf Modley worked for various government agencies as an advisor and education expert from 1934 onward.

In 1933 efforts were launched in the United States to establish an Institute for Visual Education that would serve as an institutional base for Otto Neurath and the Vienna Method of Pictorial Statistics in the United States. The prime mover behind the project was social scientist Mary van Kleeck, an American ally of Neurath’s in New York, who had already invited him to speak at the World Social Economic Congress in Amsterdam two years earlier on behalf of the Industrial Relations Institute together with Mary L. Fleddéus.²⁹ Intriguingly, Rudolf Modley was active for the organizing committee of the planned institute.³⁰ For by this time the rivalries between Neurath and Modley had long become apparent. When Neurath and his close colleagues had to leave Vienna in 1934, the American perspective became visibly unrealistic. As a result of their escape, they had lost numerous employees and, above all, financial support. Their economic situation in the Netherlands was precarious and the working conditions were not nearly comparable to those in Vienna.³¹

In August 1934 Rudolf Modley founded Pictorial Statistics, Inc.³² The initial conditions were different from those Neurath had found in Vienna in the 1920s. When Modley began his work in information design, pictorial graphics and statistics were already widely used in the United States. There were a number of designers and organizations working in this field. With many pictorial graphics in American publications of the 1930s and 1940s, it is also not always clear by whom they were made because—especially in newspapers and magazines—often no authorship is given. Furthermore, information graphics in the same publication were designed by different people or agencies. Hisayasu Ihara lists five other organizations in addition to Modley’s agency that were extensively

28. Eric Hobsbawm, *The Age of Extremes. The Short Twentieth Century, 1914–1991* (London: Abacus, 1995), 105.

29. Günther Sandner, *Otto Neurath: Eine politische Biographie* (Wien: Zsolnay, 2014), 184.

30. He acted as field secretary for the Organizing Committee for the Institute for Visual Education. See, e.g., Rudolf Modley to Arthur Schomburg, June 28, 1933, Reel 4, Microfilm, Jean Blackwell Hutson Research and Reference Division, Archives and Rare Books Division, Schomburg Center for Research in Black Culture, New York.

31. Sandner, *Otto Neurath*, 234–40.

32. Ihara, “Isotype in America,” 307–13.

involved in information design and pictorial graphics during these years.³³ Magazines such as *Survey Graphic* regularly carried infographics and pictorial statistics from a variety of designers and organizations. Despite great competition, however, Modley was able to skillfully exploit the increasing demand and establish Pictorial Statistics, Inc., extremely successfully.

According to the bibliography of Modley's *How to Use Pictorial Statistics*, the first three pictorial graphics he made appeared in the *New York Times* on April 30, 1933 (though he is not named there). In general, the select bibliography presented in this book also provides a good overview of his own work. Pictorial Statistics, Inc., was involved in numerous publications even in its early years, most of which revolved around such subject areas as health, education, social welfare, and public administration.³⁴ Publications on these topics generally played a major role in the New Deal years of the 1930s, and commissions often came from government agencies or departments.

Among these, for example, was the Mississippi Valley Project. Modley had offered his work to Mississippi Valley Committee chairman Morris L. Cooke, referring to his existing network of contacts with government agencies.³⁵ Among other things, the project included the construction of hydroelectric power plants to supply energy. Pictorial Statistics, Inc., eventually contributed to the committee's published report, along with other graphic information design agencies such as Sociographics. Politically interesting, and a notable parallel to Neurath's work, is the positive emphasis the report placed on planning: a separate chapter is devoted to it, supported with pictorial graphics.³⁶

In the 1930s a number of government health campaigns in the United States were supported with pictorial graphics that were at least very similar to Isotype.³⁷ Neurath and his team also designed a traveling exhibit for the National Tuberculosis Association (NTA) called "Fighting Tuberculosis Successfully." It consisted of twenty posters and was distributed in no fewer

33. Hisayasu Ihara, "Rigor and Relevance in the International Picture Language: Rudolf Modley's Criticism against Otto Neurath and His Activity in the Context of the Rise of the 'Americanization of Neurath' Method," *Proceeding of IASDR 2009* (2009), 3–4, <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.922.4265&rep=rep1&type=pdf> (accessed January 25, 2021).

34. Modley, *How to Use Pictorial Statistics*, 161–66.

35. Rudolf Modley to Morris L. Cooke, August 29, 1934, Morris L. Cooke Papers, Box 272, Franklin D. Roosevelt Presidential Library, National Archives and Records, Hyde Park, New York.

36. Report of the Mississippi Valley Committee of the Public Works Administration (Washington, DC: USGPO, 1934), 106, 222–27.

37. Cory Pillen, *WPA Posters in an Aesthetic, Social, and Political Context: A New Deal for Design* (New York: Routledge, 2020), 115–18.

than 5,000 copies. Together with NTA director Harry Edwin Kleinschmidt, Neurath also published the booklet *Health Education by Isotype*.³⁸

Modley's Pictorial Statistics, Inc., in turn, designed graphics for the US Public Health Service and for a well-received article on syphilis by physician Thomas Parran, whose five-point program was instrumental in combating venereal disease in the United States.³⁹ With *The United States—A Graphic History* (1937), he designed a book similar to Neurath's *Modern Man in the Making* (1939), done in a picture-text style. In the same year he published the aforementioned *How to Use Pictorial Statistics*, which was undoubtedly one of his most important books. It offers a methodological guide to making pictorial statistics, but also provides a historical overview that deals relatively extensively with the history of the Vienna Method and Otto Neurath.⁴⁰

Modley's activities during these years were decidedly varied. With *The New York Primer* (1939) he published, together with the social scientist Luther Gulick, a textbook produced as part of efforts to reform public education in New York State. Along with the graphics for the annual report (1939/40) of the Museum of Modern Art (New York City), it is probably one of the most remarkable works for which Modley was responsible. It is carefully designed, extremely informative, and aesthetically attractive.

Modley also submitted a proposal to the management of the 1939 New York World's Fair for exhibitions that used pictorial graphics and pictorial statistics.⁴¹ However, Modley does not seem to have been involved in the final exhibition project.

Of a completely different character, however, was a series of pictorial statistics (Telefacts) that were printed in US daily newspapers between 1938 and 1945. In keeping with the Viennese tradition, they showed social and economic correlations, for example between "race" and infant mortality or the changes in the partisan composition of the US House of Representatives over a certain period of time. Beginning with the entry of the United States into the war, military topics were added. Overall, these many hundreds of works were obviously produced under great time pressure; they often appear less thoughtful and, above all, less carefully crafted than their Viennese counterparts.⁴²

38. Sandner, *Otto Neurath*, 242.

39. Thomas Parran, "The Next Great Plague to Go," *Survey Graphic* 25, no. 7 (July 1936): 405–11.

40. Modley, *How to Use Pictorial Statistics*, 126–37.

41. Rudolf Modley, Now it can be shown. Fact pictures for exhibitors (New York: Pictorial Statistics, 1937), New York World Fair 1939 and 1940, Incorporated Records, NY World Fair Box 323, Manuscripts and Archives Division, New York Public Library.

42. Jason Forrest, "Modley's Isotypes in American Newspapers 1938–1945," *Nightingale*, May 13, 2020, <https://medium.com/nightingale/the-telefacts-of-life-rudolf-modleys-isotypes-in-american-newspapers-1938-1945-d5478faa5647> (accessed January 4, 2021).

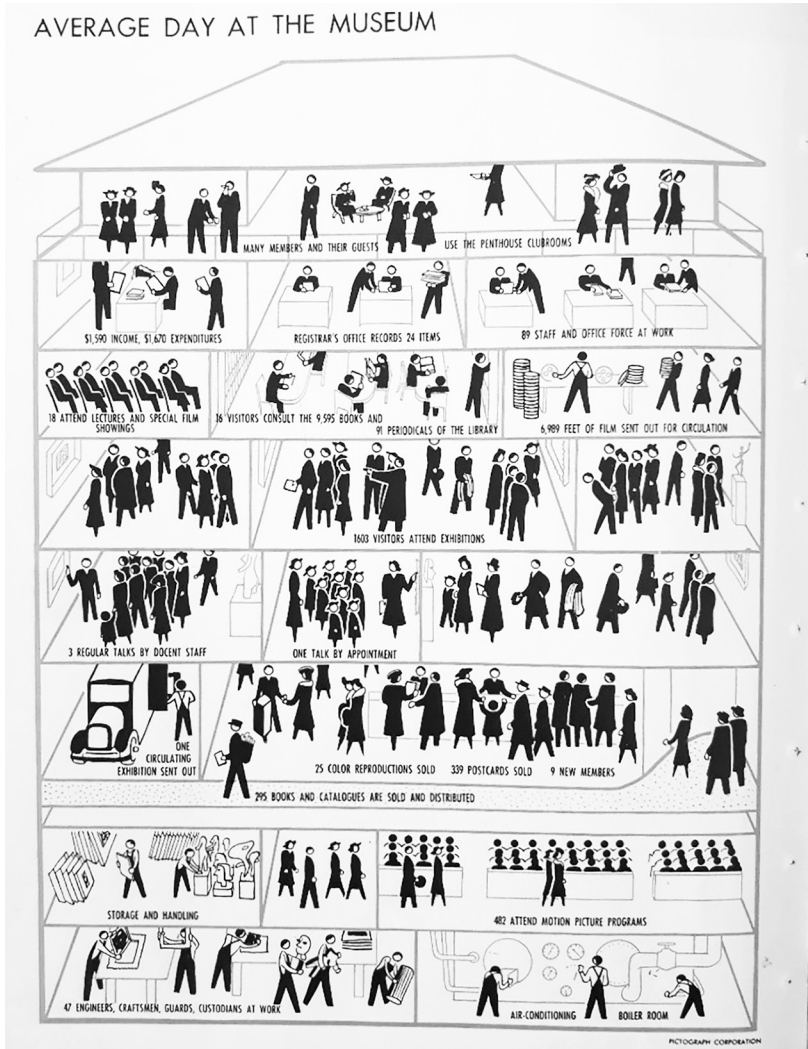


Figure 2 | “Average Day at the Museum.”
 Source: Museum of Modern Art, *Annual Report 1939/40*, 12.

A History of the War also appeared during the Second World War, first published by the War Department (1942) and then by Penguin Books (1943). In it, Modley’s pictorial graphics promoted support for American war aims. From the preface, we learn that some 40,000 copies of the predecessor publication, *A Graphic History of the War*, were distributed to Army units in the summer of

1942.⁴³ Among other contributors, Modley's friend Fritz Jahnel was involved in the graphic work.

In 1940 Pictorial Statistics, Inc., was transformed into the Pictograph Corporation. A somewhat stronger orientation toward commercial clients also seemed to have been responsible for this organizational transformation. Interestingly, Kaempffert also worked with Modley's new agency in the context of a publication.⁴⁴ The Office for Inter-American Affairs commissioned a number of booklets for many of the South and Central American countries, including Chile, Bolivia, Peru, Uruguay, and Colombia, in which Modley's new

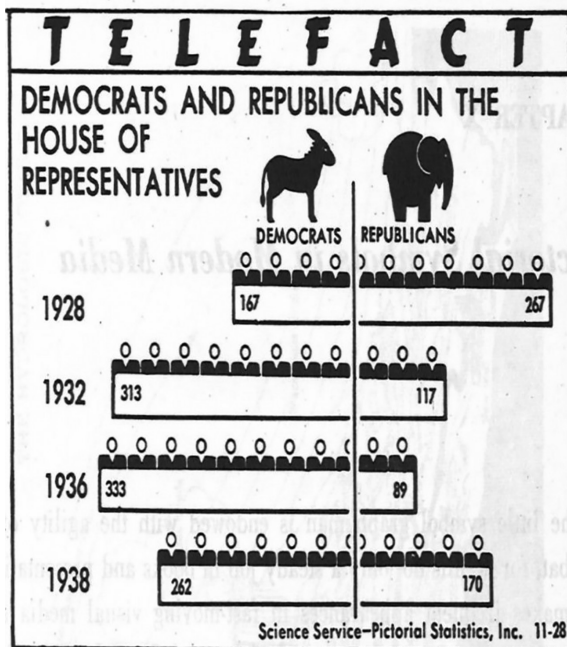


Figure 3 | “Telefact: Democrats and Republicans in the House of Representatives.”

Source: Rudolf Modley and Dyno Lowenstein, *Pictographs and Graphs. How to Make Use of Them* (New York: Harper and Brothers, 1952), 154.

43. Rudolf Modley, *A History of the War* (New York: Penguin, 1943), v.

44. Waldemar Kaempffert, *The Airplane and Tomorrow's World*, Public Affairs Pamphlets, no. 48 (1943).

company was involved.⁴⁵ The publications were part of a strategy that aimed to reduce the influence of the Axis powers (Germany, Italy) in the region, primarily through cultural activities.

Modley had begun his contractual cooperation with the US government even before that. On March 28, 1942, he received an employment contract as a consultant for “Visual Presentation” with the Office of the Coordinator of Information (OCI). The files also record the oath of office that the areligious Modley took: “So help me God.”⁴⁶ The OCI was the predecessor institution of the OSS (Office of Strategic Services), created in June 1942, which became the CIA in 1947. In addition to the American Statistical Association and the Academy of Political Science, he also inquired about membership of a political organization: the Union for Democratic Action (UDA), a liberal association that supported left-wing Democratic candidates and opposed conservatism (but also communism).⁴⁷

We know less about the exact working methods in Modley’s Pictograph Corporation than is the case with the Social and Economic Museum in Vienna. However, Modley seems to have been a skilled draughtsman and sometimes took on the task of transforming figures and data into pictorial designs. It was clearly he who was responsible for designing pictorial statistics and graphs of several books. However, he also always worked with professional graphic artists in a larger team. The Pictograph Corporation probably had an average of around ten employees and Helen Post spoke retrospectively of the “Modley group” (see below).⁴⁸

Modley’s many activities during this period, which can only be referred to here in passing, were extremely successful. “No literate American, and quite a few who were not literate, could escape frequent exposure to the Modley group’s charts during the Thirties and Forties,” is how Post summed up these years.⁴⁹ Rudolf Modley played a decisive role in shaping the American discourse of the New Deal era on social issues, health and education, the economy and society. During the years in which he ran Pictorial Statistics, Inc., and Pictograph Corporation, he increasingly consolidated his leading role in the

45. The booklets were published by the Coordinator of Inter-American Affairs: *Chile—Land of Contrasts* (1944), *Bolivia—Storehouse of Metals* (1945), *Uruguay—Vigorous Democracy* (1943), *Peru—Land of Tradition* (1945), and *Colombia—Land of El Dorado* (1943).

46. Rudolf Modley, OSS Archives, RG 226, Entry 224, Box 531, National Archives Maryland.

47. *Ibid.*

48. *Ibid.*

49. Helen Post Modley, speech at the Conference of the Council on Social Graphics in Leesburg, Virginia, October 22, 1978 (private archive, Peter Modley).

United States from New York, while Otto and Marie Neurath initially pursued their American projects from The Hague and, at the latest after the outbreak of the war and their second flight to Oxford, could no longer be competitors in the United States.

Modley's Information Graphics Work, 1945–1966

In September 1937 Rudolf Modley married Helen Post, who became known among other things for her photographic work on the Native American population in the American West. In the same year, Modley received American citizenship. The two met in the United States but Post also knew Austria and had spent some time in interwar Vienna. She attended courses at the University of Vienna but worked also as a teaching assistant near Salzburg.

However, relations with his country of origin still played a major role for Rudolf Modley. Together with his wife, he helped organize the escape of political émigrés from Nazi Germany, especially from the former Austria. Modley and Post also took in many refugees in their home.⁵⁰

Helen Post was unable to have children. However, adoption for a non-practicing Jew and an atheist woman was not possible in the United States in 1945. So the two decided to adopt two children from Canada, a boy and a girl. "I attribute all of my good luck in life to religious prejudice," his son Peter Modley wrote about it.⁵¹ At the end of the war, the family left New York and henceforth lived in a rural area, in Kent, Connecticut.

After the end of the war, the rather left-liberal social climate of the New Deal also came to an end. Much of Modley's work in the 1930s and 1940s was tied to that period and its themes. With the onset of the Cold War and the McCarthy era, communism replaced Nazism as an adversary and enemy. Perhaps because of these developments, Modley's activities in information graphics receded somewhat into the background. In 1946 Modley sold the Pictograph Corporation to Fritz Jahnel, who had already headed the graphics department before that. Jahnel had already begun working as a draughtsman and economic statistician in the Social and Economic Museum in 1926.⁵² As a Social

50. Mick Gidley, *The Grass Shall Grow. Helen Post Photographs the Native American West* (Lincoln: University of Nebraska Press, 2020), 5–6, 31.

51. Peter Modley, email to Günther Sandner, November 22, 2020.

52. Marie Neurath, "Das Gesellschafts- und Wirtschaftsmuseum in Wien, 1925–1934," in *Arbeiterbildung in der Zwischenkriegszeit. Otto Neurath—Gerd Arntz*, ed. Friedrich Stadler (Wien: Löcker 1982), 246–50, 246.

Democrat he was persecuted during the Austrofascist dictatorship (1934–38).⁵³ He fled Austria when the National Socialists took over in 1938, first to France, then to the United States. Jahnel soon became one of Modley's collaborators and when Modley withdrew from the Pictograph Corporation just after the end of the Second World War, he sold it to his friend from the Vienna period. Jahnel, however, died relatively soon thereafter on July 14, 1952, in New York.

That year (1952) saw the publication of *Pictographs and Graphs: How to Make Use of Them*, which Rudolf Modley wrote together with Dyno Loewenstein. After Jahnel's death Loewenstein took over the Pictograph Corporation.⁵⁴ According to the information on the authors of *Pictographs and Graphs*, he was already its director in 1954. Dyno Loewenstein was the son of the Berlin socialist and educator Kurt Loewenstein. During the Second World War he became an officer in the OSS and came to prominence as the "originator of ideas and inventor" of Operation Greenup, in which two Jewish émigrés and a Wehrmacht deserter were to provide the US Army with information about the Nazis' Alpine fortress in the last months of the war.⁵⁵ After the war, Loewenstein produced "Neurathian statistics" for the Sunday edition of the *New York Times*, as he wrote to Franz Rauscher, director of the Austrian Social and Economic Museum—the successor institution to Neurath's museum from Vienna. In the 1980s he claimed to still own the company he bought from Modley.⁵⁶

Rudolf Modley's activities in the decades after the end of the war were manifold. He continued to publish in and on the subject of graphic information design. These included his involvement in publications about the aircraft industry and in several books about the United States.⁵⁷ As late as the mid-1950s, the author of a book on methods of graphic presentations noted that Modley's Pictograph Corporation "has literally brought this type of chart into

53. Horst Schreiber and Meinrad Ziegler, "Den Tatbestand leugnen, nicht aber die Gesinnung," in *Akteneinsicht. Marie Jahoda in Haft*, ed. Johann Bacher, Waltraud Kannonier-Finster, and Meinrad Ziegler (Innsbruck: Studienverlag 2022), 29–86.

54. Rudolf Modley to Paul Clifton, April 14, 1969, Henry Dreyfuss Archive, Cooper Hewitt, New York.

55. Peter Pirker, *Codename Brooklyn. Jüdische Agenten im Feindesland. Die Operation Greenup 1945* (Innsbruck: Tyrolia 2019), 12, 80–86.

56. Dyno Loewenstein to Franz Rauscher, April 9 and April 15, 1947, Franz Rauscher, Lade 23, Folder 2, Verein für die Geschichte der Arbeiterbewegung (VGA), Vienna.

57. Ben S. Lee, *Aviation, Facts and Figures*, compiled by Rudolf Modley and Thomas J. Cawley (Washington, DC: Lincoln Press, 1955); Thomas R. Carskadon and Rudolf Modley, *USA—Measure of a Nation. A Graphic Presentation of America's Needs and Resources* (New York: Macmillan for the Twentieth Century Fund, 1949); Thomas Carskadon and George Soule, *USA in New Dimensions: The Measure and Promise of America's Resources*, graphics by Rudolf Modley (New York: Macmillan, 1957); Arnold B. Barach and Rudolf Modley, *The USA and Its Economic Future* (New York: Macmillan, 1964).

virtually every American home.”⁵⁸ But Modley also worked in management consulting, was active in organizations concerned with standardization, or prepared statistics and reports for American government agencies.⁵⁹ In addition, he was the founder and for nearly twenty years editor of a monthly credit union journal, *Report on Credit Union*. One obituary said that this journal would be remembered as the “Modley letter.”⁶⁰

Rudolf Modley made repeated efforts to create a universal symbol system. Standardization was already the aim of a project he submitted to the Carnegie Foundation in 1940 with Harold Lasswell for a “Dictionary of Graphic Symbols, Currently Used in America.”⁶¹ In the spring of 1957 he submitted a proposal for a cooperative project to the Ford Foundation’s Fund for the Advancement of Education. It was called “Preparatory Survey for a Study on Communications through Symbols” and can be seen as a prequel to Rudolf Modley’s last major visualization project, “Glyphs” (see below). The “Symbol Project,” as it was often called, was intended to provide an overview of already existing symbols and symbol collections, to test their comprehensibility and impact, and to develop new graphic symbols based on these results. In addition to industrial designer Henry Dreyfuss, collaborators included Marie Neurath of the Isotype Institute, which had been moved from Oxford to London in 1948, and German designer Martin Krampen.⁶² Despite interruptions, Rudolf Modley and Marie Neurath corresponded over a very long period of time. Their correspondence began on June 13, 1956, and lasted until late summer 1975, about a year before Modley’s death.

The two maintained a mostly friendly correspondence, in which they also exchanged information about mutual acquaintances and former colleagues at the Social and Economic Museum, such as Gerd Arntz, Augustin Tschinkel, Walter Pfitzner, and Edith Matzalik. First and foremost, however, it was about Marie Neurath’s collaboration on the “Symbol Project.” Marie Neurath was to become its hub in Europe. However, after the six-month preliminary study

58. Cf. Keith Bresnahan, “An Unused Esperanto: Internationalism and Pictographic Design, 1930-70,” *Design and Culture* 3, no. 1 (2011): 5–24, 13.

59. Modley resumé.

60. Ken Marin, “Rudi: A Very Personal Memoir,” *Report on Credit Unions* 19, no. 10 (October 15, 1976): 74.

61. See the Harold Lasswell Papers, especially the letter of Rudolf Modley to Robert M. Lester, Carnegie Corporation of New York, September 16, 1940, Box 55, Folder 866, Manuscripts and Archives, Sterling Memorial Library, Special Collections at Yale Library.

62. Henry Dreyfuss, *Symbol Sourcebook. An Authoritative Guide to International Graphic Symbols* (New York: McGraw-Hill, 1972).

was carried out in 1958, the application for a subsequent multiyear project was rejected.⁶³

Despite the friendly atmosphere that existed between Modley and Neurath, earlier antagonisms and controversies also repeatedly came up between the two. These related primarily to the role of Otto Neurath. Modley, according to Marie Neurath's criticism, did not sufficiently acknowledge Otto Neurath's importance.

I thought it should not be left unmentioned that some first steps in a scientific treatment of the question of symbols had been made by Otto Neurath without which probably neither you nor I would be in this project. Also many of the designers who are now actually designing symbols have been under his influence as most of them acknowledge.⁶⁴

However, these differences of opinion did not change the fact that Rudolf Modley still wanted Marie Neurath to collaborate with him later, for example, on the Glyphs project.

World Language Without Words: Glyphs, 1966–1976

The idea of a universally understandable symbolic language finally occupied Rudolf Modley until the end of his life. In the course of the preparations for the UN's International Cooperation Year (ICY) 1965, which coincided with the celebrations of the twentieth anniversary of the world organization, anthropologist Margaret Mead submitted the proposal to develop so-called GLYPHS. Artists were invited to send in sketches for the anniversary year and eventually the motif of the clasped hands of the United Nations was chosen.⁶⁵

A memorandum from the Preparatory Committee states:

One of the useful tasks which could be encouraged during the International Cooperation Year would be the development of a new kind of symbol technically known as a glyph. A glyph is a symbol which has

63. Rudolf Modley to Marie Neurath, June 3, 1960, Isotype Collection, IC 1/49, University of Reading.

64. Marie Neurath to Rudolf Modley, June 19, 1959, IC 1/49, Isotype Collection, University of Reading.

65. Kathleen Teltsch, "U.N. to Use Glyph to Inspire Unity," *New York Times*, March 29, 1964, 21.

meaning which is separable and independent from names given to the symbol in different languages.⁶⁶

The committee determined that glyphs were in harmony with the objectives of the ICY, but left it to the individual member-states to choose their own ways of using symbols.

In the summer of the following year, 1966, Glyphs, Inc., was incorporated as a nonprofit corporation. Involved, in addition to the two chairpersons Margaret Mead and Rudolf Modley, were psychologist Lawrence K. Frank, political scientist Harold Lasswell, and UN official Curtis Roosevelt. Emily Otis Barnes was executive director and treasurer, and attorney Lee Epstein was her deputy.⁶⁷

While Mead set the broad outlines of the project and contributed her famous name, Modley was the driving organizational force from the beginning. He wrote the internal reports and memoranda, published a regular newsletter, held countless meetings with key people, and built networks. Similar to the planned Ford Foundation project, symbols of different origins were first to be collected, classified, and tested. On this basis and supported by broad, interdisciplinary expertise, Mead and Modley wanted to clarify what universally understandable symbols might look like, for which areas of public life they would be necessary, and how many of them would ultimately be needed. To do this, they needed to involve relevant people and institutions in the project, gain funders and political support, and, most important, make the project known to a broad public.

The first major activity planned by Glyphs, Inc., was therefore the “Glyphs for World Communications” exhibition. Finding sponsors, inviting international designers and artists to participate with submissions for exhibits, and nominating jurors from several countries to select from these submissions took up a lot of Modley’s work capacity in particular. The exhibition was planned as a worldwide traveling exhibition. It was to begin with the historical development of visual symbols, tell the story of the alphabet and numbers, organize experiments by children with glyphs, and show failed symbols in a “chamber of horrors.” In addition, the comprehensibility of symbols was to be tested interactively with visitors. Since, despite repeated efforts, funding for the project failed, the exhibition planned for 1967 was initially postponed and finally

66. United Nations Memorandum from the I.C.Y. Committee to the General Assembly of March 19, 1964, quoted from Rudolf Modley and Mary C. Bateson, “Symbols, Inc. for Intercultural Communications” (Preliminary Draft), Box K 62, Folder 8, Margaret Mead Papers, Library of Congress.

67. *Glyphs* (newsletter), no. 1 (October 1966), Box K 62, Folder 7, Margaret Mead Papers, Library of Congress.

cancelled in 1968.⁶⁸ Efforts to create a symbol archive also remained stuck in the planning stage.

The UN's International Cooperation Year had been a promising start for Glyphs, but the recommendations of the preparatory committee ultimately remained quite nonbinding and refrained from pushing for international commitment. Nevertheless, the reflections on perspectives for the project published by Modley and Mead are interesting. Together they wrote the article "Communication Among All People, Everywhere" and distinguished three types of glyphs: image-related, concept-related, and arbitrary. On the one hand, there are pictograms, speaking or self-evident signs, then symbols that are conceptually connected to the signified, such as wavy lines for water, and finally those that have no visual relationship to the content, such as numbers or letters. Glyphs should eventually consist of one to two dozen arbitrary symbols and a small number of image- or concept-related symbols, also not yet precisely determined in number.⁶⁹

However, the article by Mead and Modley also made it clear that a considerably larger universal language project was planned. Glyphs formed only the foundation, the first step, so to speak, on the way to universalizing human communication. Standardized glyphs were to provide elementary orientation in areas such as travel, traffic, commerce, and hazard prevention, regardless of language skills. Beyond that, however, Mead and Modley wrote, there is a second need for a spoken language in which people from different countries and regions can communicate with each other.

Here the hope is that we can in some way develop a language in which all the peoples of the earth can really talk with each other, not merely about business of money, schedules, directions, and rules of the road—which are the problems that can be solved by glyphs—but about events, about politics and religion, about memories of the past and hopes of the future. . . . We need, indeed, a language that runs the gamut of human experience, that is redundant in the extreme because it allows for use by the stupid as well as the bright, by the child, the senile, and the disturbed, by the mother singing her child to sleep and the lover shyly importuning the beloved.⁷⁰

68. *Glyphs*, no. 2 (Summer 1968).

69. Margaret Mead and Rudolf Modley, "Communication Among All People, Everywhere," *Natural History* 77, no. 7 (1968): 56–63, 58.

70. *Ibid.*, 59.

They argued for a natural language that had developed over a long period of time and had been shaped by people from different regions and classes. This new world language should not replace mother tongues but should be learned by all as a second language. Mass media developments such as television could promote its spread. The two defined other conditions that would guide language selection: It could not be a European language (and therefore not English) that could not be accepted by the non-European world, nor the language of a powerful state. It could also not have a close connection to certain political and religious positions. Prerequisites were also as few orthographic difficulties as possible and easy translatability and learnability; at the same time it would have to be mastered by a certain number of people who could act as translators and teachers. Which language this could be in concrete terms is left to a process of reflection still to be carried out, but Mead and Modley, interestingly enough, pointed out that Armenian fulfills these criteria.⁷¹

Finally, a third challenge would be the creation of an artificial written language that would have to be developed scientifically, with rigid testing. It should be a tool for efficient communication among educated people.⁷²

In a later paper, Modley defined the prerequisites for establishing a universally understood system of glyphs: crucial was the creation of an accountable organization to serve as a responsible hub, the extensive involvement of expertise, the support of the education sector in disseminating symbols once established, and finally the work of governments and international organizations, without which the necessary commitment could not be established.⁷³ Considering these requirements, it becomes clear that there was a large gap between Modley's aspirations for Glyphs and reality.

But is it at all possible to develop internationally standardized, universal symbols, a universal language with symbols, which are unambiguous and understood in the same way by all people in all language areas, countries, and cultures of the world? Symbols that are recognized by all states and organizations, eliminating competition between versions that have more or less the same meaning? This question must remain open. However, several reasons can be found why the development of Glyphs came to an end before it even really got started.

Glyphs, Inc., was a small organization with few human and financial resources. This was out of proportion to the size of the task. For Mead and Modley, after all, this work was virtually a part-time job; they both had

71. *Ibid.*, 64.

72. *Ibid.*, 62-63.

73. Rudolf Modley, "World Language without Words," *Journal of Communication* 24, no. 4 (1974) 59-66, 64-66.

numerous projects going on in parallel, and all efforts to put the project on a broad financial footing failed. Coordination with other organizations and individuals who had long been involved in the field of symbolic languages and universal languages also proved exceedingly difficult.⁷⁴ Finally, the protagonists of the project died or retired in the late 1960s and in the 1970s. Larry Frank, board member of Glyphs, Inc., and personal friend of Margaret Mead, died in 1968. Mead retired a year later. In the early 1970s and in her seventies, Marie Neurath de facto ended her professional work. In October 1972 Henry Dreyfuss and his wife Doris Marks Dreyfuss committed suicide in California.⁷⁵ On September 28, 1976, Rudolf Modley died, which came as a shock to some: “I am stunned at the death of Rudy Modley. I had no idea that he was closer to the end of the line than the rest of us,” Harold Lasswell wrote to Margaret Mead three days later.⁷⁶ Still in the year of his death the *Handbook of Pictorial Symbols* appeared as his last publication.⁷⁷

The Glyphs project became a failed project of planned rationality. Mead and Modley wanted to define a relatively small set of carefully selected and validated universal symbols that would serve as a world language without words, enabling communication and promoting international understanding in an increasingly mobile world. The development process they envisaged for this purpose—a large symbol archive, the classification and scientific testing of countless symbols—from which globally comprehensible glyphs were ultimately to result, can hardly be estimated in its dimension. What resources would ultimately have had to be mobilized, what expertise would have had to be gained, what political backing would have been necessary? In any case, it would have taken more than was actually available. Was Glyphs a continuation of Isotype? In some respects it does not seem so. As Rudolf Modley had explained, it was a world language without words. Unlike Mead and Modley with Glyphs, the Isotype team developed a picture-text-style; usually there were no Isotype charts without words. Modley’s commitment to the Glyphs project does not seem free of contradictions, for it was Modley who had countered Isotype’s internationalist, universal claim with the argument of differing national receptions. With Glyphs, however, he reconnected with internationalism.

74. For the controversy between Rudolf Modley and the International Council for the Breaking of Language Barriers (ICBLB) see Rudolf Modley to Paul Arthur, April 21, 1966, Box K 62, Folder 7, Margaret Mead Papers, Library of Congress.

75. “Henry Dreyfuss, Noted Designer, Is Found Dead with His Wife,” *New York Times*, October 6, 1972, 46.

76. Harold Lasswell to Margaret Mead, October 1, 1976, Box K 64, Folder 4, Margaret Mead Papers, Library of Congress.

77. Rudolf Modley: *Handbook of Pictorial Symbols. 3,250 Examples of International Sources*, with the assistance of William A. Myers (Mineola: Dover Publications, 1976).

Modley vs. Neurath? Americanization of Isotype

Rudolf Modley's success in spreading an Isotype-related visual language was already clearly apparent by the mid-1930s. In a document of the General Education Board of the Rockefeller Foundation, Larry K. Frank (who later became board member of Glyphs, Inc.) wrote in April 1935 about "these ingenious methods of graphic representations which Neurath developed and which have been improved by Modley."⁷⁸ So it was already stated that Isotype had not only been changed but also improved by Modley.

The New Deal period, in which Modley began his successful career as a communicator and information designer, had similarities in some respects to that of

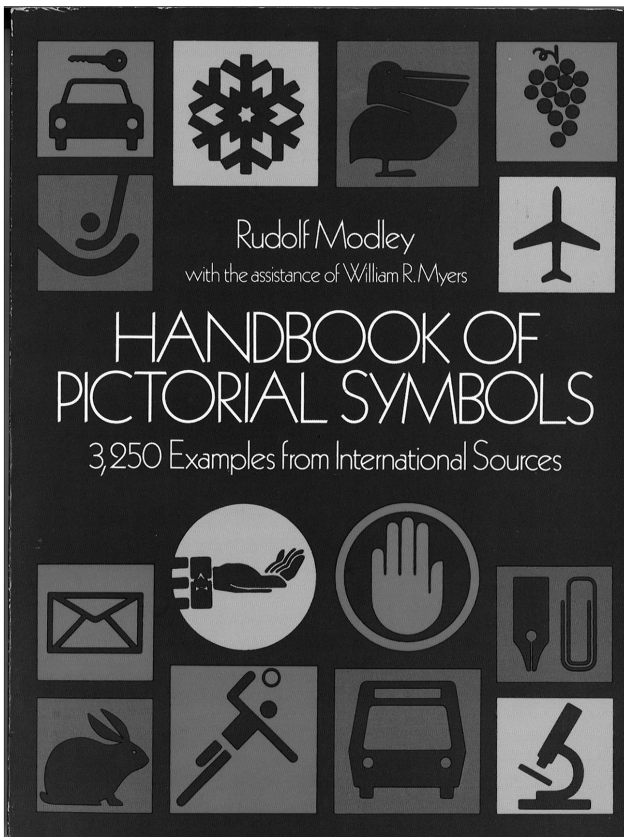


Figure 4 | Cover for Rudolf Modley, *Handbook of Pictorial Symbols*.

78. LK F. (= Larry K. Frank), interview with Mr. Modley, April 2, 1935, General Education Board, Series 1.2 B226 F2167, Rockefeller Archive Center, Sleepy Hollow, NY.

Vienna. Government and public sector information campaigns, a widespread positive attitude toward economic and social planning, and the importance of issues such as housing and social security stand out as parallels in this regard. Like Neurath in Vienna, Modley in New York was able to make use of this political climate for his work. Many experiences and contacts he had made in interwar Vienna were useful to him. These included personal and friendly contacts with people with whom he also worked in the United States (such as Fritz Jahnel), knowledge of the educational activities of a social museum, visual education work in general, but also political experience. Modley's political experiences in Vienna continued to have an impact during his time in the United States. But at the same time, he began to work here as an entrepreneur and thus he also followed a different logic. In addition to government agencies, Modley's client list included business enterprises and law. From 1937 onward, he put it, "commercial organizations began to make extensive use" of his pictographs.⁷⁹

Differences between the approaches of Neurath's team and Modley and his group could not be overlooked from the beginning. For Otto Neurath, Marie Reidemeister, and Gerd Arntz, the production of Isotype charts meant teamwork with high-quality standards. It required sufficient time for conception and reflection, above all also for the act of transformation, that is, the transfer of messages, numbers, and data in graphics. This work and production process could never be fully formalized, standardized, and translated into a manual. It required experience, social engagement, and creativity.

Modley didn't work alone most of the time, but he also didn't work as part of a larger interdisciplinary team. In contrast to the situation in Vienna, there were no other continuously active, strong scientific or artistic personalities who organized the visual education work. In his opinion, the production of infographics and pictorial statistics should not be learnable by working in an Isotype team in the spirit of Neurath alone, but should also be teachable through written instructions. In his view, the quality of the work, however, depended also on the client. If it had to go fast, then less careful work should also be possible.

Can these differences be interpreted as the "Americanization" of Isotype? "Americanization" is at least ambiguous. On the one hand, the term can be understood as an attribution from outside (for example, from Europe), but also as a self-interpretation. From both perspectives, the United States and the American continent are conflated. In the example cited at the beginning, Americanization was evaluated from the perspective of the United States as a

79. Rudolf Modley, "Pictographs Today and Tomorrow," *Public Opinion Quarterly* (October 1938): 659–64, 662.

positively evaluated transformation process that made it possible for the citizens of the United States to benefit from a method developed in Vienna.

The pictograms Modley developed in deliberate contrast to Isotype, such as those for certain professional groups, could be considered as such: here he was explicitly concerned with depicting what he saw as specifically American characteristics. Modley described the difference to Neurath in the preface of his book *How to Use Pictorial Statistics*, although he explicitly acknowledged the role of Neurath's "genius" in the development of the picture-statistical method. But it was unfortunate, he wrote, that Neurath could not follow him on a crucial issue: for Neurath, symbols were international; he wanted to create a kind of pictorial Esperanto. Although he, Modley, agreed in principle with the goal of overcoming language barriers, he considered this approach utopian. Pictures, he continued, are a tool of communication; they must always be developed with a nationally limited group in mind. The picture of an American farmer would have to be different from that of a Chinese farmer, since they also dress differently.⁸⁰ Only such nationally adapted symbols could form the foundation on which a system of international symbols could one day be built. But until then, overly strict rules, as Neurath set them up in his opinion, would only be an obstacle to development.⁸¹

As his later efforts in the Glyphs project showed, even at the end of his career Modley was still convinced (perhaps even more convinced than before) that the time would come for an international visual language. However, he wanted to start with a very limited stock of universal symbols. In a review article from 1975 in which he discussed, among other things, the book *Empiricism and Sociology* edited by Marie Neurath and Robert Cohen, he interpreted his work as a continuity with that of Otto Neurath.⁸² "It is in the direction of a limited number of self-explanatory symbols that Glyphs is trying to continue Neurath's vision," he wrote.⁸³

The two approaches also differed from each other in their working methods, as was already evident from the correspondence between the Viennese team and Modley when the latter was still working in Chicago. Friedrich Bauermeister, one of the team's transformers along with Marie Reidemeister, who translated

80. See, e.g., farmers in: Louis M. Hacker, *The United States. A Graphic History*, pictorial statistics by Rudolf Modley (New York: Modern Age Books, 1937), 97, 107, 169.

81. Modley, *Pictorial Statistics*, xiii–xiv. In fact, Modley exaggerated the "universal" in Isotype, e.g., there were different pictograms designed for Soviet workers.

82. Marie Neurath and Robert S. Cohen, eds., *Otto Neurath: Empiricism and Sociology* (Boston: Reidel, 1973).

83. Rudolf Modley, "Signs and Symbols in Review," *Glyphs*, no. 22 (Autumn 1975): 79–80, 79.

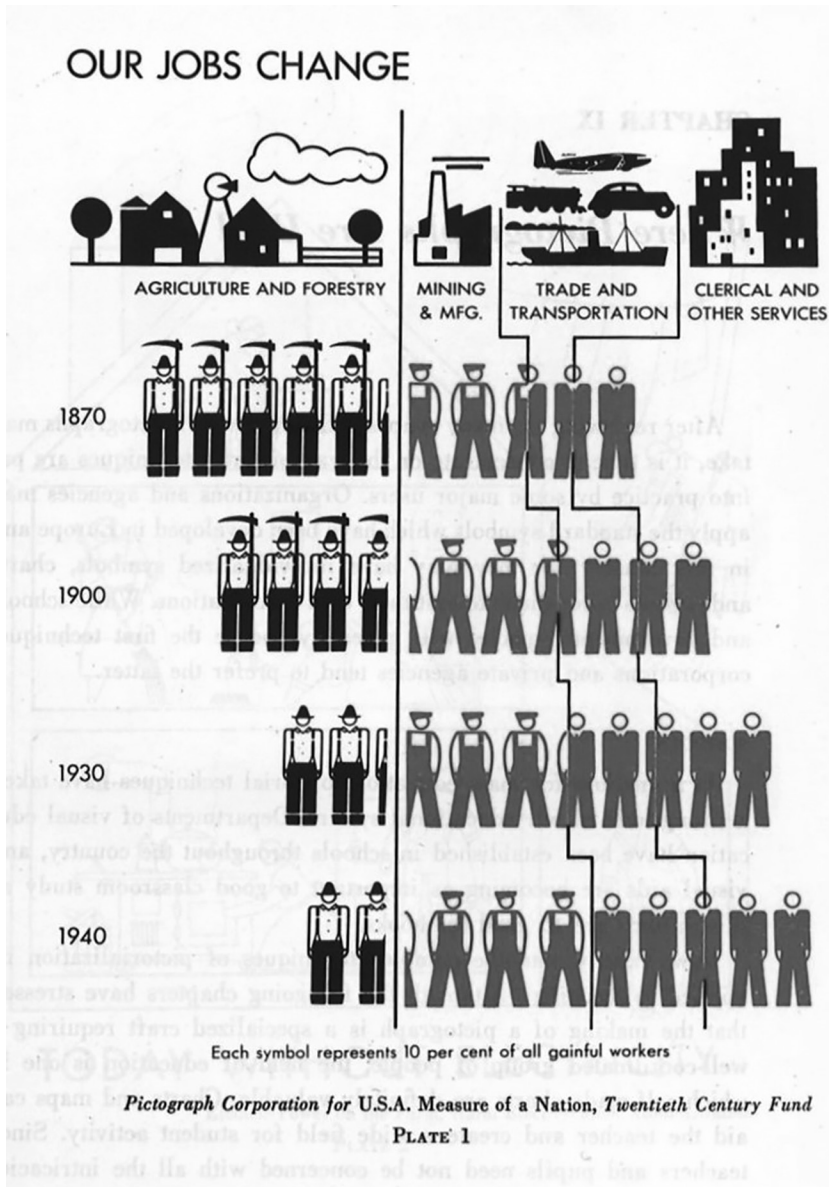


Figure 5 | “Our Jobs Change.”

Source: Rudolf Modley and Dyno Loewenstein, *Pictographs and Graphs. How to Make Use of Them* (New York: Harper and Brothers, 1952), 123.

figures and data into pictorial charts, once wrote to Rudolf Modley that he did not believe Neurath would agree to simply having Modley's preliminary designs worked out by the technical department in Vienna.⁸⁴ For "artistic draft" and "scientific preliminary draft" influenced each other in the working process. The whole thing could still change, which might be a disadvantage financially, but would benefit the work. Bauermeister wrote further:

So we would have to make sure that even if you send us your preliminary draft, we still receive the numerical material, because for us the pedagogical preliminary work of the scientific department is even more essential than the implementation by the technical department. At least, one cannot separate one activity from the other and limit oneself to one half.⁸⁵

This reflected Neurath's understanding of the work: an interdisciplinary, non-linear work process of a team that was attuned to each other, which followed certain rules that had developed over years, but by no means a textbook-like sequence of always the same work steps. Modley objected vehemently.⁸⁶

In his "Remarks made by the Director of the Gesellschafts- und Wirtschaftsmuseum in Vienna in connection with the charts prepared for the Museum of Science and Industry" Neurath explicitly stated: The Viennese method is characterized by the cooperation of science and graphics, between which a permanent process of exchange exists.

The reason why imitations of the "Vienna method" fail so badly is because the "transformation," the cooperation of science and graphics in a group tradition cannot be secured by following rules. A *vital community* [*lebendige Gemeinschaft*] is irreplaceable; the only way of building it up again is by experience in many years of work. Because that requires time and energy, international centres for pictorial statistics are indispensable, not to execute given graphic schema but to design the schema itself graphically.⁸⁷

84. See Marie Neurath and Robin Kinross, *The Transformer: Principles of Making Isotype Charts* (London: Hyphen Press, 2009).

85. Friedrich Bauermeister to Rudolf Modley, January 24, 1931, Gesellschafts- und Wirtschaftsmuseum Correspondence.

86. Modley to Bauermeister, February 17, 1931, Gesellschafts- und Wirtschaftsmuseum Correspondence.

87. Otto Neurath, remarks made by the director of the Gesellschafts- und Wirtschaftsmuseum in Vienna in connection with the charts prepared for the Museum of Science and Industry, February 13, 1932, Gesellschafts- und Wirtschaftsmuseum Correspondence.

Here Rudolf Modley took a different approach, informed by the diversity of graphic information design providers in the United States. He deliberately issued instructions and manuals that provided guidance on how pictorial statistics could be produced.⁸⁸ His approach to quality assurance—an important issue given the ubiquity of pictorial graphics—was to disseminate and make available symbols that were found to be of good quality. He considered central bodies that ensured and coordinated international, universal standardization unrealistic, and he probably did not want them.

Against the background of these opposing approaches, a conflict between Otto Neurath and his son Paul can also be noticed. Paul Neurath told his father in a letter about his first teaching experiences at Columbia University in New York:

I opened the course in graphic presentation with a two-hour lecture on “Modern Man in the making.” Next step was a lecture on the two little volumes (Basic by isotype, international picture language), but then I had to use Modley’s book “How to make pictographs,” because he illustrates a few general technical rules.⁸⁹

The way Paul Neurath referred to Modley’s book (presumably he meant *How to Use Pictorial Statistics*) suggests that he already suspected that he would meet with rejection from his father. In any case, Otto Neurath reacted disappointedly, explained Isotype’s working methods to his son in detail, and finally wrote (also on behalf of Marie Neurath):

“We hope that you are more sincere in your other scientific and educational activities than you are in the field of Visual Education, based partly on material which you may find in our files under the heading COUNTEREXAMPLES.”⁹⁰

Rudolf Modley’s work was on the one hand influenced by the Isotype tradition, as could be shown by many examples. On the other hand, he turned away from some key ideas and the related way of working that Otto and Marie Neurath defined as part of the identity of their visual education work. Ultimately, his Americanized version of the Viennese visual language was a successful enterprise. In the strict sense, however, it was no longer Isotype.

88. Instructions for Chart Makers, published by Pictorial Statistics, Inc., General Education Board. Series 01: Appropriations, Box 226, File 2167, Rockefeller Archive Center.

89. Paul Neurath to Otto Neurath, January 1, 1944, Otto and Marie Neurath Papers, 1222/53-6, Manuscripts and Rare Books, Austrian National Library, Vienna.

90. Otto Neurath to Paul Neurath, February 27, 1944, 1222/55-8, Manuscripts and Rare Books, Austrian National Library.

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