

ABSTRACT

The rise of pictograms in the 1960s is usually associated with the Olympic games (Tokyo 1964, Mexico City 1968, München 1972) or world exhibitions (Montréal 1967). It is often suggested that the designers of the symbols for these events, played a pioneering role in their development. Remarkably the role of international organizations that contributed to the development of pictograms in these years has seldom been researched. An organization that was most active in this area was the International Council of Graphic Design Associations (Icograda) as it was then known. President Willy de Majo and his close collaborator Peter Kneebone held the opinion that a standardized and tested pictogram set for general traveller information should be developed. Through its activities Icograda eventually contributed to raising awareness about the necessity of standards for public information symbols. By using the archives of Icograda and researching the organizations and individuals it was dealing with including the ICBLB, UIC, Glyphs Inc., Henry Dreyfuss, and ISO, a more balanced picture of the development of pictograms begins to emerge. This study provides a new, more institutional twist to the history of a popular design theme within the graphic design profession.

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FULL PAPER**Icograda and Student project nr. 1: Designing an International Symbol Language**

The International Council of Graphic Design Associations (Icograda), was established in London in 1963 by a small British working committee. It was the first graphic design organization that represented graphic designers worldwide, and soon counted over a dozen graphic design organizations amongst its members. Icograda strove 'to encourage the better use of graphic design as a means towards the advancement of humanity, regardless of race or creed.' More tangibly, Icograda wanted to 'raise the standards of graphic design and the professional status of graphic designers' (Middleton, 1963: 12). To this end it organized conferences and set up working groups for certain issues. It also sought to improve graphic design education. That is why it organized so-called 'student projects' in which graphic design students from all over the world could participate.

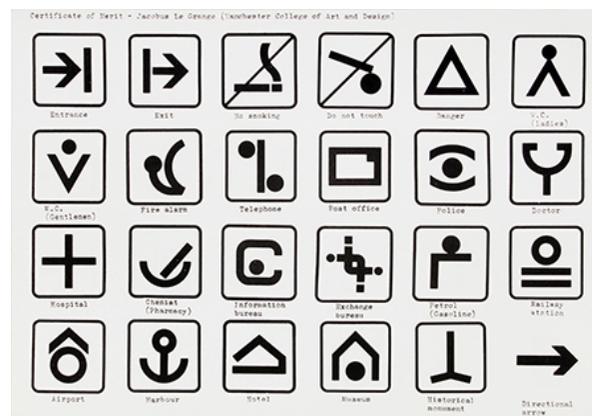
For 'student project nr. 1' Icograda-president Willy de Majo (1917-1993) suggested the development of a 'Symbol language for directional signs in-doors and out' (Icograda, 1963). This was a new idea, since the only other known symbol system for public space was that of the international road signs (Froshaug, 1963). In the design and business worlds at the time, there was a general interest in trademarks and symbols. Scientific research had recently discovered that abstract and

pictorial symbols – as exemplified by their use in visual identities – were important carriers of meaning and could transcend language barriers. It was to be expected that in an increasingly internationally-orientated world, visual symbols would become core elements of communication (Bakker, 2011: 13-29). Icograda later renamed the project ‘Designing an International Symbol Language’. By adding ‘international’ and leaving out ‘signs in-doors and out’, the title alluded to historical examples of artificial ‘languages’ that were intended for universal use such as with Esperanto or Isotype.

Chairman of ‘student project nr. 1’ was designer Peter Kneebone (1923-1990), a close collaborator of de Majo in establishing Icograda. He announced the project at the first Icograda congress in Zurich (1964). A few months later, entry forms were sent to over 600 design schools worldwide ([letter] Kneebone to principal, December 1964). Despite the projects’ ambitious title students would have to develop a limited integrated set of 24 symbols for verbal concepts such as telephone, toilet and emergency exit; that is, stand alone symbols that catered to immediate needs of international travellers. Since it was an educational effort it was not Icograda’s intention for their first student project to deliver a pictogram set for real world application. Eventually at the second Icograda congress in Bled (1966), over one hundred entries for ‘student project nr.1’ could be assessed by a jury of known designers such as Josef Müller-Brockmann, Paul Rand and Masaru Katsumie, the art director of the pictograms for the Tokyo Olympics from 1964 (Kneebone, 1966).

Typically, for the prize-winning entries was that they showed a high degree of abstraction that ensured a clear visual coherence [Figure 1]. Interestingly the jury thought that eventually a figurative pictogram system would work best. Their mixed judgment reflected the increased knowledge that the jury had gained about pictograms since the start of the project. By then Icograda had gotten to know dozens of organizations that started working on similar pictogram design projects. According to Icograda these projects were not coordinated and missed a scientific foundation that guaranteed a successful design process and application. The results of their own student project were no exception to this. In hindsight ‘Student project no. 1’ was the main impetus for Icograda’s involvement with the development of pictograms worldwide. So how did this involvement develop? And more importantly, what does it say about the history of pictograms and Icograda?

Figure 1. Entry for the Icograda ‘Student project nr. 1’ by Jacobus Le Grange (Manchester College of Art and Design), awarded with a ‘Certificate of Merit’, 1966.



According to Kneebone the situation called for ‘immediate action by Icograda (...) International symbols are the most basic graphic problem that we, as an organization, can be concerned with’ ([letter] Kneebone to de Majo, June 1965).

Figure 3. UIC-symbol selection as sent to the Dutch Railways, 1965



That is why in October 1965, Icograda set up a ‘Commission on International Signs and Symbols’ (CISS):

The purpose of the Icograda Commission is to act as a dispassionate, professional, co-ordinating and advisory body (...) the commission will endeavour to prevent duplication and ensure that official organizations concerned with international signs and symbols will be able to carry out their work with full knowledge of what is happening in this field in other parts in the world. All official signs and symbols suggested for international use could then be established with the assistance of professional expert designers rather than only by administrators, and be based on valid principals and a coherent vocabulary’ (Kneebone, 1965).

To aid in the collection and dissemination of information on symbols, Icograda envisioned the establishment of ‘international signs and symbols’ centers in Europe, Africa, India, the Far East and Central America.

Although the committee counted almost a dozen designers and scientists amongst its members, in fact Kneebone and de Majo took care of all most all correspondence and activities of the CISS. They soon became aware that the UIC-conference had not only pressed Icograda into action but also aviation organizations like the Western European Airport Corporation (WEAC), the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA), the equivalent of the UIC for air transport. They instated working groups that started developing their own pictogram systems. Nevertheless, some of the organizations de Majo’s and Kneebone met at the UIC-meeting did lend their ears towards their active lobby for a coordinated symbol effort, like the WEAC, the International Chamber of Commerce (ICC), the World Touring and Automobile Organization (OTA)

and the International Union of Official Travel Organizations (IUOTO) ([Letter] de Majo to Lax, 10 March 1966).

Organizations like the ICC and IUOTO supported Icograda because they represented organizations or travellers who would benefit from effective and standardized symbols worldwide. This is in contrast to transport organizations, which were much less dependent on symbol systems of others for their services. Knowing this, it might come as no surprise that also a second UIC-conference in January 1966, was a disappointment to Icograda. To circumvent the UIC, Icograda now managed – backed by the ICC – to secure a ‘travel signs and symbols’ session at the IUOTO World Conference on Transport and Tourism in April 1966 (Icograda, 1966). Icograda carefully prepared the session and even convinced the UIC to take part. Moreover, for the first time they were able to present a proposal for the scientific research needed to develop pictograms.

The Icograda-Ulm research project

Although Kneebone and de Majo regularly emphasized the need for a scientific approach to symbol development, they had only a vague idea of how this should be carried out. This weakened their negotiating position with other organizations: although they criticized existing symbol developments, they could not offer an alternative approach. This changed in the end of 1965 when Kneebone came in touch with the German scientist Martin Krampen (1928-). Earlier on Krampen had studied Visual Communication at the Hochschule für Gestaltung (HfG) in Ulm. Now he was an assistant professor in design and communication at the University of Waterloo, Canada. There, he was also involved with the design works for the world exhibition in Montreal, called Expo '67.

He wanted to use this event to test a scientific method that spelled out – as he wrote to Kneebone – ‘step by step the operations a designer or non-designer should go through, today and 200 years from now, to produce elements of a self-renewing pictorial language which has maximum cross-cultural and international impact’ ([letter] Krampen to Kneebone, 3 November 1965). He assumed that communication only took place if ‘sender’ and ‘receiver’ shared a ‘common stock of signs’. To discover this ‘stock’, visitors at the Expo '67 would be asked to produce symbols based on verbal expressions, a method also known as the ‘production method’. The image contents of the symbols that were produced most often for a certain expression, would potentially also be the ones best understood.

Icograda was quick to recognize the value of Krampens’ method. It became the first step in an extensive proposal for symbol development that Kneebone – together with the ICBLB – presented at the IUOTO World Conference. Further steps consisted of several (re)designs and (re)tests of symbols involving designers and psychologists. To carry out this proposal 400.000 dollars were needed, some of which would also be used for the earlier mentioned symbols centers (Icograda, 1966). However, the participants in the ‘travel signs and symbols’ session were hardly aware that there was a symbol problem, let alone that money and serious research were needed to solve it ([Letter de Majo to Kling, 6 June

1966). Some of them were even under the impression that Icograda was just representing craftsman who wanted to earn money for some ‘pretty designs’, thus providing the quick fix they wanted. Of course this was exactly the kind of attitude towards the design profession that Icograda intended to change.

Icograda saw graphic designers as problem solvers who – using scientific insights – were able to meet the challenges of the new burgeoning era of ‘visual communication’. As Kneebone wrote to one of the CISS-members: ‘One of the greatest misconceptions that one has to contend with is that the designers’ role is a purely visual or, indeed, purely ‘aesthetic’. [...] In his role of problem solver he is usually acting as a coordinator of the various stages and processes which culminate in a visual solution and application. [...] Many of us, in design education, are stressing the fundamental and equal part played in all this by non-visual disciplines’ ([Letter] Kneebone to Modley, 17 February 1966).

Icograda’s proposal was rejected. At the time such a long-term functionalist approach to graphic design was new, even to the business world, let alone the bureaucratic organizations that Icograda dealt with. Nevertheless, Icograda did manage to convince a dozen non-governmental organizations like the ICC, IUOTO and the UIC to establish an International Committee for Travel Signs and Symbols (ICTSS) that should strive for a coordinated development of pictograms. Icograda took part as an expert body in a consultative capacity. Much to their frustration the outcome of later meetings of the ICTSS proved to be a repetition of the earlier efforts of the ICBLB and the UIC to come to a symbol system: collecting and inventorying symbols, and officials choosing what they thought best. That is why Icograda decided in 1966 to carry out a limited version of the research it had proposed earlier. The ICTSS agreed to view the results as a possible symbol development method (ICTSS, 1969).

Icograda referred to this research as the Icograda-Ulm project. It was the largest research project in the development of symbols yet and was carried out by Krampen – by then, a member of the Commission on International Signs and Symbols’ (CISS) – after his return to the HfG Ulm. He designed questionnaires for the WEAC that tested 63 verbal expressions with 3000 international air travellers in 1968. Additional tests were carried out with university students and military men in Germany (Krampen, 1969). However, during the project Krampen increasingly steered his own course, bringing in the United Nations’ International Civil Aviation Organization (ICAO) as a partner besides the ICTSS. When Krampen finally presented his report to the ICTSS in April 1969 it read ‘ICAO/ICTSS’. References to an Icograda-Ulm project were almost non-existent (ICTSS, 1969). At the same time the ICTSS ceased its activities: after three years they still had no symbol set. The efforts of Icograda to coordinate and steer the development of pictograms with transport and tourism organizations halted.

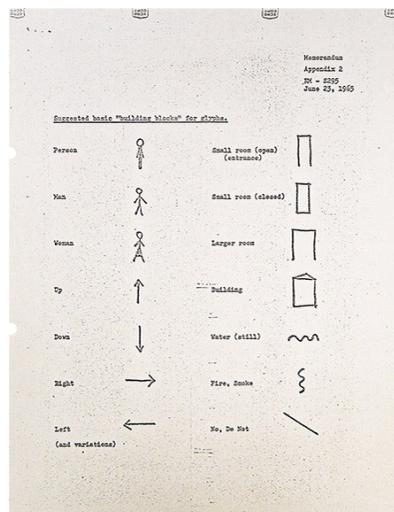
International language and machine instructions: Glyphs Inc and Henry Dreyfuss

By this time Icograda’s interest in pictograms had diminished considerably. De Majo’s ‘student project nr. 1’ was concluded in Bled in

1966. At the congress, Norge designer, Knut Yran, was appointed Icoграда president. Kneebone had collaborated closely with de Majo in matters regarding the CISS, the both of them taking turns in meeting people and writing letters. Yran on the other hand was not as involved as de Majo was. Kneebone now carried on with the CISS practically on his own, initially hoping that the Icoграда-Ulm project would be successful, and later hoping that new funding opportunities would arise. One of the few successes was that Kneebone became a guest editor of a 'signs and symbols' special of *Print* in 1969. It was the main American magazine for graphic design. In addition to an expose dedicated to the CISS, the issue also carried articles from several other organizations and individuals that Icoграда had come to know like Glyphs Inc. and Henry Dreyfuss.

Glyphs Inc. was established in 1965. This American organization was co-chaired by the cultural anthropologist Margaret Mead (1901-1978) and Rudolf Modley (1906-1976) – a symbol consultant who had once worked with Otto Neurath during his development of Isotype. According to Mead, Western culture threatened other cultures, leading to a possible 'monoculture'. To counter this threat a culturally neutral language should be developed that enabled communication between cultures on an equal basis: 'a set of glyphs which (...) will, instead form a system of visual signs with universally recognized referents' (Mead, 1965:146-147). Glyphs Inc. invited proposals for a basic and extendable system of a dozen 'Glyphs' [Figure 4] (Modley, 1965). These were to be shown at a large exhibition about the history and use of symbols Glyphs Inc. wanted to organize. This was its main focus for several years. Unfortunately the exhibition was never realized due to a lack of funding.

Figure 4. Glyphs' 'building blocks'- suggestions drawn by Modley, 1965



Henry Dreyfuss (1904-1972) was one of America's foremost industrial designers. He approached Icoграда in 1968 asking for their help in developing a symbol dictionary ([letter] Dreyfus to Brattinga, 21 October 1968). Interestingly, over a decade earlier he had initiated a similar project – led by Modley – which halted in its infancy (Krampen, 1965: 22-23, 30). Dreyfuss became interested in symbols in the 1940s when his design agency started making symbols for the operation of machinery. They took less space than descriptions and made it unnecessary to translate 'legends and directions in other languages for the international

market' (Dreyfuss, 1968). This was of particular interest to the United States since it exported large amounts of highly evolved machinery and electronics. In the end Dreyfuss carried out his project alone, publishing his now famous Symbol Sourcebook in 1972. Sadly, his suicide in the same year made further cooperation impossible.

What Icograda, Glyphs Inc. and Dreyfuss had in common was that they were all interested in educating and informing the world at large about effective symbol communication. The main question between them was 'who would be the first to secure a large fund or cooperative framework that could be used to realize design methods, symbol centers, exhibitions and conferences?'. Glyphs Inc. was well positioned to obtain American funds but missed contacts outside America. For Icograda, it was the other way around. From 1966 onwards Icograda and Glyphs Inc. regularly worked together, for example representing each other at conferences. On a more general level they all vied for the attention of the United Nations (UN) in New York, or the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in Paris. In fact de Majo and Kneebone were of the opinion that ideally it was the UN that should provide an institutional framework for the development of international traveller symbols.

International organizations for an international standard: UN and ISO

In 1964 the UN had issued a resolution demanding 'cooperation in expanding the use of symbols' in connection with their upcoming 'International Cooperation Year 1965' (UN:GA: Committee for the International Co-operation Year, 1964). Interestingly, this resolution was proposed to the UN by Mead. Shortly afterwards, the ICBLB used this same resolution as a pretext to send the survey that landed on the desk of Icograda, and that motivated its involvement with pictogram development worldwide. Icograda subsequently asked the UN to support their symbol project but their request was rejected ([letter] de Majo to Kato, 1 April 1964). Another reason to expect the UN to involve itself was that it and its forerunner – the League of Nations – had been instrumental in setting world-wide standards for the most successful standardized symbol system yet: that of the international road signs (Schipper, 2009). However, in the mind of the UN officials, public information signs might have seemed less urgent than the road signs. These last signs had a direct link with road safety and traffic deaths: in the 1960s a few hundreds of thousands of people died in traffic each year.

Apart from the UN there was only one other party fit for setting worldwide standards: the International Standardization Organization. As early as 1965, Icograda had asked ISO for help, but had received no for an answer. ISO could only negotiate standards once a considerable percentage of its national members had voted to do so. For a long time this was not the case. It was only in 1971 that ISO established a Technical Committee (TC) 145 for 'Graphical Symbols' (ISO/TC 145, 1972-1974). Its Sub Committee (SC 1) 'public information symbols' started in 1975 and introduced ISO 7001 in 1980 [Figure 5]. The standard is textual in nature, describing the image contents, although visual examples are also given. It is a copyrighted standard that has to be bought from ISO. Its current

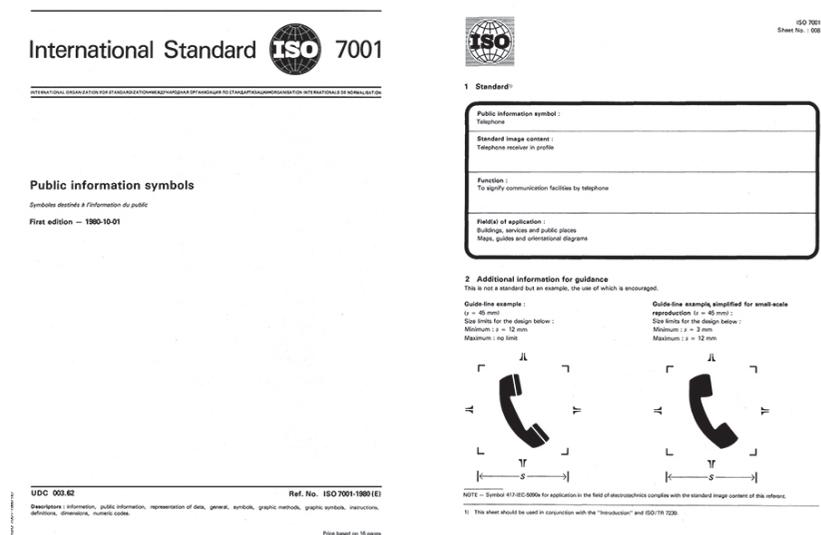
incarnation covers the image contents for 79 public information symbols. The procedure for developing new symbols was based upon the work of the psychologists Ronald Easterby and Harm Zwaga, and was published in 1989: ISO 9186. Since then this standard has been updated several times, keeping up with new scientific insights.

Peter Kneebone was involved in TC 145 almost from the beginning. It is likely he had heard about the ISO-initiative by way of Icoagrada's 'Unification of Typographic Measurements Commission' that had been in close liaison with ISO for some time (Boag, 1996). When in 1975 SC 1 finally came up to steam it was quick to recognize the important role of Icoagrada. In a memorandum it sent to Icoagrada's Edugraphic Conference in 1975 it wrote: 'Icoagrada (...) has participated through experts from the very beginning of the endeavors of SC1. Close collaboration with Icoagrada is essential also in further stages of this pilot work of standardizing graphic symbols.' SC 1 specifically asked for the cooperation of designers in critically following its activities, designing test symbols and motivating national ISO-members in participating in its work (ISO, 1975).

Around this time Kneebone's role as the main motivator of Icoagrada's involvement in symbol standardization was taken over by the graphic designer Jorge Frascara. Disappointed in the quality of symbols used for the tests leading up to the ISO 7001:1980 standard, Frascara set up the Icoagrada student project 'Graphic Symbols for Public Information: Design of Test Symbols'. The project was approved at the Icoagrada congress in Lausanne in 1977 and was a successor to Icoagrada's 'student project nr. 1'. Remarkably one of the few persons who objected was de Majo because he thought students would not deliver symbols of sufficient quality (Frascara, 2011).

The new student project produced over 1200 symbols. A considerable amount of symbol descriptions that ended up in ISO 7001:1980, originated in this project. All in all the development and introduction of ISO 7001 and ISO 9186 should be considered as a triumph for Icoagrada. The big question is whether the development of a symbol standard had come in time for a design world that they – one way or another – represented. After all designers had designed hundreds of pictogram systems by then.

Figures 5 a & b. Cover and page of ISO 7001:1980 'Public information symbols', 1980



Conclusion

The 1960s were a formative period in the development of pictogram systems. Icograda caught on early with their ‘student project nr. 1’: ‘Designing an International Symbol Language’. Noticing the introduction of various pictogram systems of doubtful merit, Icograda became convinced that a standard for effective public information symbols was needed. To contribute to the development of such a standard de Majo and Kneebone sent carefully written opinions, plans, and articles about symbol developments, to parties involved with symbols, acting as intermediaries and lobbyists. It was British diplomacy at its finest and led to the establishment of the Commission on International Signs and Symbols (CISS) (1965) and the International Committee for Travel Signs and Symbols (ICTSS) (1966).

Although these committees were not successful in fulfilling Icograda’s main goal of developing a standard, they did lead to an information exchange and cooperation between design, transport and travel organizations and NGO’s in general, which without Icograda would not have existed. By fostering these bonds, Icograda tried to prove its value as an association to its members and the world at large. It concentrated its efforts on transport and tourism organizations like the UIC, ICAO, WEAC etc. However, most of these organizations did not understand why painting images on signs necessitated thorough scientific research.

Icograda never addressed the fact that many graphic designers developed their own pictogram sets and ideas about symbol design. The other way around, the design world hardly acknowledged the symbols developed by the organisations Icograda was dealing with either. In fact during the 1960s there seem to have been two strains of symbol set development: the first strain is that of the pictograms of transport organisations, developed anonymously and not acknowledged in design history, starting with UIC set (1963); while the second strain is that of ‘designed’ symbol sets for world fairs and Olympic Games, starting with the Tokyo Olympics symbols (1964). Further research might show that the image contents for public information symbols in these strains influenced each other to a large degree.

On a closing note the Icograda archive shows an almost encyclopaedic overview of persons and organisations involved with symbols in the 1960s, making it an important source of information for the history of semiotics, and design and communication in general. It unearths figures and organisations like the ICBLB, Margaret Mead of Glyphs Inc, Henry Dreyfuss and Martin Krampen, who was an early pioneer in symbol development connecting many important figures and institutions.

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Wibo Bakker (1974) studied graphic design at the Artez Institute of the Arts in Arnhem and worked for some years as a designer. In 2009 he obtained a PhD at Utrecht University for his study on the development of visual identity in the Netherlands called *Droom van helderheid: huisstijlen, modernisme en ontwerpbureaus in Nederland: 1960-1975*. It was published in 2011 by O10 Publishers (Rotterdam) as the third volume in the prestigious Prince Bernhard Fund for Culture 'Visual Culture in the Netherlands'-series. Bakker is based in Utrecht and works as an educator, researcher and consultant with a special interest in design history, standardisation, information design, branding. Since 2011 he is part-time affiliated with the Research Group Visual Rhetoric of AKV|St. Joost.