musée de l'imprimerie et de la communication graphique

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Bienvenue,
Welcome,
환영 !

Susan Kare is one of those graphic artists whose icons and digital typefaces are familiar to all, but whose name and face are unknown.

Having joined Apple in 1982 to "humanise" the first personal computer, the Macintosh, Susan Kare continued her career with Steve Jobs at NeXT, especially working on the graphic interface for Microsoft's Windows 3.0 operating system. A pioneer of pixel art, she moved on to Facebook, designing the first virtual gifts, emojis before their time; then, more recently, she joined Pinterest, still in California, in San Francisco.

The exhibition we are presenting in 2022 is the first international retrospective of her work; it looks back at all facets of her output and at how she sees the way in which design serves technology and society.

Within the walls of this exhibition you will be taken on a veritable world tour of icons, with images from Lisbon to Seoul by way of Japanese coats of arms and video games, together with an illuminating account of women's place in the graphic industries from the 1950s to the present day.

Welcome to our kaleidoscope dedicated to Susan Kare and her visual influence on our digital life, for a journey through time, past, present and future. We wish you an pleasant visit.

Joseph Belletante, Director,
and all the team
of the Museum of Printing
and Graphic Communication

The icon factory

When Andy Hertzfeld, a friend from high school in Philadelphia, called her about an interview with Apple, Susan Kare immediately got out her pad of squared paper and her pens. Using a grid of 32 x 32 small squares, she began to give shapes and faces to the keywords and commands of the prototype of the computer built by Apple. Doctor of Arts from New York University (her home town), specialist in sculpture and 19th century French caricatures, Susan Kare had a very definite idea of the effect she wanted to create: clear type-style and icons, expressive enough to make an impact but not so dominant as to distract, rather like motorway signs or a viewpoint indicator. And so she used her artistic background to develop a universal, playful, joyful grammar and vocabulary, no doubt unaware of the extent of the impact which this language, this sign language, was to have on the period and on the history of design.

The Happy Mac

This icon created for Apple, many times reused and adapted right up to the present day, is one of Susan Kare's favourite projects.
The image, which appeared at start-up of the Macintosh, follows Steve Jobs's injunction to "make the computer smile" while at the same time being careful to ensure that the symbol is "memorable", the most important quality for the artist of an icon. To make the transition from paper to computer screen, Susan Kare used revolutionary tools developed by Andy Hertzfeld, the applications Icon Editor and Font Editor, the latter being used to create typefaces. The term "icon", which comes from religious art, has only been used since 1970 for computer graphical interfaces. The first icons and icon files appeared at the research centre of the Xerox corporation in Palo Alto, California but the term icon only became generally accepted and used in the data processing community following the scientific work of Dr. David Canfield Smith. These icons are images, pictograms or ideograms which represent an object or an action, allowing the user to navigate more easily around a graphical interface. The symbols and images can be stored and exchanged in a classical format (JPEG, PNG) or in a more restricted proprietary format (.ico for Windows, .icons for Mac, .info for Amiga).

Influences

In 2015 the MoMa of New York acquired Susan Kare's drawing pad and a number of her sketches. This made it possible to relate her graphical work to the gigantic collections of that museum, to trace artistic links, and to see her icons in the wider context of the history of the graphic arts.
Three major influences can be perceived in relation to Susan Kare's drawings. Firstly, the prehistory of comics, from the first half of the 19th century, with caricatures by Rodolphe Töpffer in Switzerland and Gustave Doré and Honoré Daumier in France. Next, the typographic creations of the major foundries in the 1920s and 1930s, from companies such as Brüder Butter in Dresden, or the Fonderie Typographique Française and Deberny et Peignot in Paris, who sometimes drew inspiration from alphabets created in cross-stitch, arguably the ancestors of digital pixels. Finally, Susan Kare has learned a great deal from three contemporary mentors: the graphic artist Paul Rand who has created logos for IBM, NeXT and ABC, the comic books theorist Scott McCloud with his best-known book *Understanding comics* (1993) and the Swedish pop art sculptor Claes Oldenberg.

Icons made to measure

In 2021, at the age of 67, Susan Kare left her position of responsibility for product design with the American website Pinterest in order to join Niantic Labs, a company specialising in augmented reality which produced the mobile video game *Pokemon Go*. This move, while surprising at first sight, makes complete sense considering the way Susan Kare sees her career as a graphic artist and iconographer, always at the forefront of technological research and development. While working at Steve Jobs's company NeXT, between 1985 and 1997, she responded to commissions from IBM (for OS/2) and above all from Microsoft, to create icons for the Windows 3.0 operating system, notably including the playing-cards for Solitaire. When Jobs returned to head up Apple in 1997, Susan Kare set up her own graphic design studio and continued her pursuit of innovation, leading her to create hundreds of icons for Facebook between 2006 and 2010, to illustrate their virtual gifts to exchange across the social network. All Susan Kare's icons reflect her quest for the maximum of clarity and simplicity for users, and echo the monumental, pop art representations of everyday objects

(a spoon, an apple, a horseshoe) by the sculptor Claes Oldenberg, whose ideas and artistic approach she has studied assiduously.

From Byzantine icon to desktop icon

Religious icons, which first appeared at the beginning of the 6th century, put the faithful in direct touch with the face of a saint, of Christ or of the Virgin. A real face-to-face, in the words of Raphaëlle Ziadé, head of the Byzantine department of the Petit Palais – Musée des Beaux-Arts in Paris. There is neither landscape nor still-life in these icons, just the close-up of a facial expression. An icon is like a reliquary in that it proves and bears witness to the presence of the idol, even after death. The Egyptian Fayum portraits, dating from the 1st to the 4th century, idealised representations of dead members of the community, are precursors of icons as we know them.

There is also an important link between icons as works of religious art and the official portraits of the Byzantine emperors, at least up until the 8th century when the great iconoclastic crisis, the image struggle ordered by Leo III the Isaurian, began. The art of painting icons on a piece of wood (called a *doska* or *dska* in Russian), still practised today, left Constantinople and travelled through Syria, Russia and the Balkans during the Middle Ages, gradually leaving that medium and becoming part of Western popular symbolic and mythological culture. Since the 19th century the word icon has evolved into a non-religious term meaning the representation of outstanding personalities in photographs, films, and the news media.

Oksana Chatchko's anti-icons

Oksana Chatchko, born in 1987 in Khmelnytskyi, a medium-sized town in the West of the Ukraine, declared as a child that she wanted to become a nun. As a result, around ten, she entered a school of painting, normally restricted to adults, devoted to icons. Later she continued her education with a course in philosophy at the university of Khmelnytskyi before taking part in the founding of the feminist group "New ethics" which became "Femen" in 2008. On 24 August 2009, the anniversary of the independence of Ukraine, topless members of Femen carried out their first militant operation.

Their battles against domestic violence, sexual crimes and gender pay gap earned them many arrests and sentences, forcing them into exile far from their homeland.
After having found refuge in Paris, Oksana Chatchko distanced herself increasingly from Femen and resumed her work in religious art, but adapting it to target all forms of totalitarian power in Russia and in Europe. Deeply affected by her exclusion from Femen in 2014, Oksana Chatchko kept painting and exhibiting her icons, but her angst, aggravated by exile, drove her to commit suicide in 2018 at the age of only 31.

Women in Type

Typeface design plays a fundamental role in visual communication: it is crucial to the textual representation of languages and to provide voices for diverse communities.
Yet design histories have largely overlooked the activities of those who contributed to the production of typefaces throughout the industrial era. It is frequently assumed that typefaces are the work of a single designer whereas, as most industrial objects, they result from a series of processes involving multiple skills often carried out by numerous people.

Type-manufacturers employed women as part of departments that were variously known as 'drawing studios', 'type drawing offices', or 'departments of typographic development'. These women worked daily on developing and producing typefaces that were, eventually, almost always attributed to male designers. They merit attention as key contributors to the design process of many renowned typefaces that emerged throughout the 20th century.

Women in Type is a research project highlighting the work of these women. It focuses on their roles and responsibilities between 1910 and 1990 within two major British companies: the Monotype Corporation and Linotype Limited (formerly Linotype-Paul Ltd and Linotype-Hell Ltd).

The machine-room

Apple was created on April 1st 1976 by Steve Jobs, in his own garage in Los Altos, California, with the data processing expert Steve Wozniak and the businessman Ronald Wayne. A year later the name was changed to Apple Computer in order to become a commercial company. That is when the firm's logo was designed by the graphic artist Rob Janoff. The trademark apple with a bite taken out of it came, according to Janoff, from a play on words between "bite" and "byte", the basic unit of computer storage.

On 24th January 1984 Apple launched with a great fanfare the brand's first personal computer, the Macintosh, at a price of $ 2,495, in a resounding publicity spot inspired by George Orwell and created by the film director Ridley Scott, screened at half-time of the Super-Bowl, the final of the American football championship.

For almost five years, between 1979 and 1984, a series of managers, engineers and designers took part in the epic project of building the computer, eventually achieving sales figures which were satisfactory, but not high enough to satisfy Apple, which ended

Steve Jobs's contract in 1985 on the grounds of a relative failure. It was at this time and in this machine-room that a very strong professional relationship between Susan Kare and Steve Jobs had established, leading her to leave Apple and follow Jobs when he set out to breathe new life into his career with his company NeXT.

The Macintosh

While Steve Jobs and Steve Wozniak were concentrating on the launch of the first Apple I, Apple II and Apple Lisa machines, the engineer Jef Raskin conceived a model which would be less expensive and more innovative in terms of graphics. Raskin put together his ideal team to build the Macintosh, named after his favourite variety of apple; he poached computer experts Bill Atkinson, Burrell Smith and Andy Hertzfeld from other Apple projects, offering them the opportunity to work together in producing the most "friendly" computer possible, quite unlike the huge, cold, overpriced computers which were on the market at the time. Steve Jobs, ousted from the Apple Lisa project officially for personal incompatibility, joined the Macintosh team in 1981. Raskin and Jobs vied for leadership of the group but Jobs took advantage of the absence of Steve Wozniak, wounded in a plane crash, to take control of the project. Raskin left Apple in 1982, hence leaving Jobs to impose his ideas, for example adding a mouse to move the cursor and interact with the machine. It was also Steve Jobs who opened the door to Susan Kare, on Hertzfeld's recommendation, recognising in her an inspired, creative person capable of adding an artistic touch to the Graphical User Interface (GUI), thus widening the target market for the Macintosh.

The watch and the paintbrush

During the first six months of 1983 Susan Kare spent all her time designing icons for the Macintosh and for the drawing application MacPaint. The declared aim of the development team was to put just as much care into the graphic interface and the software which enable the user to interact with the operating system as into the various hardware elements of the computer. For all the icons that were needed, Susan Kare started by creating a dozen prototypes or variants, trying every time to find the best visual metaphors to represent the required word or action. She would then offer these

prototypes to the development team for their opinions, with Steve Jobs having the final say. Out of this process emerged the icons representing a watch (to indicate "wait"), a dustbin (for the destruction of a file), a diskette (for a folder). Susan Kare also made a major contribution to the MacPaint package designed by Bill Atkinson, the predecessor of Photoshop, well known today and first developed by Adobe for Apple in 1990. The icon she designed to represent MacPaint, of a hand holding a paintbrush, is one of her most successful, together with the paint pot about to tip up representing fill, a significant challenge for graphic artists of all levels of experience.

Typographic cities

When users of the Macintosh discovered the MacWrite application they had a huge surprise. Instead of a single representation of the letters of the alphabet on the screen, as with other graphical interfaces in the early 1980s, this package offered them seven different ones. Seven typefaces which could be mixed in the same word, on the same page, a window into the history of printing and typography. In choosing these seven families, Susan Kare and Bill Atkinson aimed to avoid the cold, intimidating quality of the typefaces used by their direct competitors, concentrating on fonts which could be easily read on the screen, and constructing them using bitmaps. Susan Kare was the first to succeed in composing a modern, highly legible character-set, initially called *Elefont* but later known as *Chicago* and becoming the main font used on the Macintosh for fifteen years. Starting with this model, Susan Kare developed others inspired by the historical evolution of European typography: serif and sans-serif, gothic, fixed-space, manuscript and symbol-based. Following exchanges with her friend Andy Hertzfeld, Susan Kare decided to name her creations after the districts of the suburbs of Philadelphia which she had known as a child, such as Ardmore, Overbrook and Rosemont. Steve Jobs however found these names too "American" and suggested instead using names of international capitals, hence *Monaco*, *Geneva*, *San Francisco*, *Toronto*, *London*, *New York* and *Chicago*. Susan Kare proposed an eighth, *Cairo*, a font of icons and pictograms, the first alphabet of digital emojis.

The emergence of pixel art

The term pixel art was also coined at the Xerox Research Centre in Palo Alto. It indicates a form of art which uses the basic elements of digitally produced images, the tiny dots known as pixels. Pixels played an essential role in the development of early video games, one of the best known being *Pong*, a tennis game marketed to the general public by Atari in 1972. A configuration of pixels in a computer-produced image is known as a bitmap, which artists create either by plotting drawings from paper to the screen or by using software packages. The first recognised practitioners of pixel art were the Swedish artist Charlotte Johannesson, whose first retrospective exhibition was held in Madrid in 2021, and the Americans Laurence Gartel and Bert Monroy. Although pixel art reached a peak in the 1980s, with the increased storage capacity of computer chips (16 bits instead of 8), it went into decline in the 1990s and was neglected until it made an unexpected reappearance in 2005-2006, bringing a touch of retro nostalgia to the design of Nintendo's video games for its DS and Switch consoles.

The Utopia Station project

The playful and joyful atmosphere which seems to have surrounded the Macintosh development team at Apple seems strange to us today, when our social and digital environment is dominated by the oligarchic GAFAM (Google, Apple, Facebook, Amazon and Microsoft). As a challenge to the utopian, playground spirit of the engineers at Apple in the early 1980s, we see here side by side Susan Kare's icons and posters created for the Utopia Station project at the 50th Venice Biennial in 2003. The architects of that space were Rirkrit Tiravanija from Thailand, Molly Nesbit from the USA and Hans Ulrich Obrist from Switzerland; it was designed as a meeting-place for a hundred or so contemporary artists who had to put together an international programme of actions, installations and performances on the theme of Utopia. Questioning ideologies and the future, the project started in Venice and continued in other major cities throughout the world. As a starting-point for debate, the organisers of the project took the affirmation made by Theodor Adorno in a televised debate with the philosopher Ernst Bloch in 1964, when he declared that the search for Utopia could only lead

to disappointment, boredom and the repetition of all that had gone before.

Aheneah

Aheneah (b.1996) is a Portuguese artist. An improbable match happened when, during her bachelor's, she combined her design knowledge with her grandmothers' precious embroidery teachings. Since then, her artistic journey has turned into an exploration of connections between digital and analog mediums. Seeking to deconstruct and transform a traditional technique into contemporary graphics, her work connects cultures and generations. Her work can be found all over Portugal, but also in Spain, France and the United Kingdom.

The life of icons

The icons designed by Susan Kare have become part of our intangible heritage; easy to print, draw and imitate, they have captivated millions of people and appeared over and over again in public and private spaces. It is difficult to see the screen of a video game without thinking of Susan Kare's "Heart" icon, hearts which often indicate the length and level of characters' lives. The same can be said of "Bomb", which also appears on console screens, in the adventures of *Zelda* or of *Mario Bros* or in the contagious *Minecraft*. When she wanted to create an icon for the very important "Command" key on the Macintosh, Susan Kare searched in an encyclopædia of symbols so as to draw inspiration from the history of signs and she hit upon a pictogram used on the Swedish roads to indicate outstanding heritage sites. One of the animal pictograms she designed for Cairo, her alphabet of icons (also known as Dingbats), has become a digital star used on many derivative products. This is the famous "Dogcow", which has become a meme, a motif copied and repeated hundreds of times on the internet. The nickname "Dogcow" comes from jokes within the Apple organisation, where certain staff

members tended to confuse the dog with a cow. The animal was later christened *Clarus* after one of Apple's affiliated companies Claris, and its cry was called "Moof", a mixture of "Moo" and "Woof".

MifaMosa

This artist from Orléans, France, transposes into colored pixels and in pictures the names of the streets he visits, plays with both the plate, the letters which composes it and the diverted direction that can sometimes take the words in their immediate urban context. He thus dedicated his first attempts in arts in 2017 to his grandmother, in order to provide her opportunities to get out of her house and of her difficult daily life. Expert in visual translation, MifaMosa extends his playground to all the cities of France. MifaMosa joins the nocturnal practice of street art, to stick squares and pixels where you don't expect it, playing on the surprise effect of pedestrians and the humor of his creations. These are very present in Lyon. You can admire the Popeye icon above the plate from rue des Forces, very close to the museum. Works of MifaMosa were exhibited for the first time at La Boîte Noire, in Tours, in April 2021.

Roads paved with icons

Graphic designer Jean Widmer, born in Switzerland in 1929, devoted most of his professional life to build visual identities for public services. If his most famous achievement is the logo in waves and stairs created for the Centre Pompidou in 1974, another of his projects is visible every day, at any time, by a large majority of the French: the motorway signs displayed along the road, representing the distinctive aspects of each city or region. Widmer thus developed nearly 500 pictograms between 1972 and 1978 with significant constraints: carrying out panels with the most minimal language possible, to make different graphic choices from road signs to avoid accidents, and to use a playful style, able to talk about all the specialties of the places crossed without highlighting one place rather than another.

The graphic designer is then very interested in the efficiency of hieroglyphs and is inspired by it to build his first pictograms. He chose to use the (Swiss) character Frutiger, well suited to signage with its very readable lowercase letters. Since 2019, new panels sometimes replace his pictograms, bearing the signature of recognized designers,

such as Jacques de Loustal, for panels now visible on motorways serving Haute-Savoie. Director Seb Coupy, a former student of École Nationale Supérieure des Beaux-Arts de Lyon, has also ben fited from these new projects, including active participation from local citizens, to make a powerful documentary, *L'image qu'on s'en fait*, released in 2019, and produced by Silk Drum Films.

A pinpoint of light

The American social network Pinterest, launched in 2010, offers its members the opportunity to share inspiring photographs. Created by Paul Sciarra, Evan Sharp and Ben Silbermann, Pinterest highlights the possibility of pinning the images, to constitute visual herbariums and personal lists displayed on each member's profiles. This network immediately raised important copyright issues, on one hand allowing photographers or graphic designers to see their creations strongly circulate online, and to benefit from this overexposure, but on the other hand they are most often being deprived of the rights to use their work, downloadable sometimes in high resolution. Pinterest is not the first social network to be accused to bypass artists' copyrights by sharing their views, and the debate is still raging, reviving the controversies of the beginning 2000s around the streaming site Naspter, founded in 1999.

Growing with word-of-mouth, Pinterest counts today more than 400 million users worldwide. To diversify and internationalize its image, it called on Susan Kare, who became product design manager of the network from 2015 until 2021. Susan Kare notably highlighted the pin icon, which she declined on objects, like clothes, and on physical places, as for the cafe *The Point* in San Francisco, whose image was designed by the graphic designer down to the smallest detail.

Writing in images

When asked about her personal philosophy, Susan Kare often replies that she tries to find the greatest possible "economy of expression", that is to say to design images and icons which can be understood immediately, whatever the purpose of the action. From this point of view, her way of writing in images is similar to that of another specialist in forms of writing, the German graphic artist Hermann Zapf (1918-2005), who produced over 10,000 glyphs in the 1970s. A glyph is a visual, figurative representation of a character, symbol or ornament (also known as a dingbat; examples are ☎-♠-✞-☆-✐-➳-④-❄-✧).
A large proportion of non-Latin languages are built up of images in order to enable members of a community to communicate easily and efficiently. The disappearance of many of these languages, some of them highly developed, such as Maya with 800 glyphs, has impeded the development of a universal language, a fact regretted particularly by the Austrian sociologist and economist Otto Neurath (1882-1945). He and his wife Marie Neurath invented in the 1930s ISOTYPE, an international system of education using typographical images. Their method, a precursor of pictograms, enabled images and words to be combined in order to provide simplified representations of very complex industrial, demographic, political or economic information.

From hieroglyphs to emojis

There is a striking resemblance between emojis, which make up a significant part of our exchanges by telephone and email, and Egyptian hieroglyphs. The word emoji, Japanese in origin, means the pictograms/icons which are used in digital messages. Some of the icons used as emojis, such as the dog, are similar to ancient hieroglyphs, whereas others are used quite differently: for example the emoji which signifies "crocodile" is closer to the hieroglyph for "scarab beetle". Furthermore, hieroglyphic writings were controlled strictlier than emojis are, since Egyptian ideograms were considered sacred and therefore subject to rules and norms of graphical composition. Another important difference is that a hieroglyph, unlike an emoji, is not complete in itself; it needs to be accompanied by other images to form a group which, when seen and read, produces phonetically the desired words. Susan Kare holds an important place in the history

of the development of emojis, but it was the Japanese desgner Shigetaka Kurita who produced the first digital alphabets of emojis for the mobile phone network operator NTT DoCoMo in 1998. Finally, we must point out the difference between emojis and emoticons, which are images made up of punctuation marks, invented in 1648 by the English poet Robert Herrick in his poem *To Fortune*, which included the first smiley :).

Hangul (한글), pride of Korea

The Korean alphabet, the Hangul, appeared around 1443 under the reign of king Sejong the Great as part of a move to make the population literate. As a writing system it is therefore as easy as possible to use, being made of 40 glyphs or jamos, "mother" characters. While the letters for the consonants reflect the shape of the mouth and tongue used to pronounce them, the vowels are based on three everyday images: the sky, the earth and a human being. This language was however outlawed in 1504 by king Yeonsangung, who considered it vulgar and offensive, and because of alternating Chinese and Japanese invasions of Korea it did not resume its position until 1894, later becoming the main language after the defeat of Japan in World War II. The division into South and North Korea resulted in the use of two different names for the alphabet, Hangul in the South but Chosongul in the North in reference to the period of the dynasty of king Joseon, regarded as a golden age, between 1644 and 1800. It was not until 1995 that Korean newspapers finally abandoned Chinese characters (sinograms) in their columns. Hangul, a highly visual alphabet, is seen everywhere in the streets of the capital, Seoul, in the neon signs of shops, in food markets and on the tarmac of roads where it is used for direction signs for buses and cars.

32×32

Ten students from the École supérieure de design de Villefontaine were invited as part of the exhibition to design digital applications inspired by the Icon Editor. This software was developed for Susan Kare by Andy Hertzfeld for the first Macintosh system. It included a 32 x 32 square grid that Susan Kare used to finalize on screen the icons initially created on her squared sketchbook.

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