Emotion is now a consideration for industrial design within the health sphere to help speed the recovery of patients. Communication design however, lags behind other design disciplines in this regard. This paper demonstrates the historical reasons for this: That the health and pharmaceutical graphic aesthetic is the embodiment of the Neue Schweizer Grafik. I will firstly establish that there is a general aesthetic in this genre of graphic design, and secondly that it comes from post-war Switzerland. This mid-century modernist approach to graphics which held designers in thrall into the 1980s still has a stranglehold in those industries where its aseptic appearance seems to be appropriate: medicine, pharmaceuticals, chemistry. This paper explains some of the flaws in the modernist graphic approach, specifically in its rejection of illustration and humour, and argues for design based on psychology and emotion rather than flawed and outdated manifestos.

Introduction
Human emotion has begun to appear as one of the considerations of design for health. It is not uncommon, for example, to see surgical ‘scrubs’ in a range of colours, and worn specifically to lift the mood of patients and hospital staff. Furthermore, these considerations of patient well-being appear to be working. A recent article in the Journal of Clinical Nursing reports that ‘Children’s perception of nurses was significantly improved by the use of multi-coloured attire’. Attempts to improve relations between health-care professionals and their charges have extended into industrial design, interior design and architecture through, among other things, the use of brightly coloured stethoscopes (Fig. 1), wall murals, and wards lit by natural light. However, a browse through pharmaceutical packaging in the local Chemist will reveal a far more conservative approach to design for medicine. A wide range of colour and packaging may be on display but closer inspection will show, not only an absence of the kind of visual levity rising in other spheres of health design, but a weighty oeuvre heavy with common visual motifs. Particular approaches to layout, image types, graphic devices (such as arcs and rectangles) and typography (especially the use of well-established sans-serif typefaces) are repeated, from shelf to shelf, in a display of homogenous visual communication (Figs. 2, 3 & 4).

Abstract
Emotion is now a consideration for industrial design within the health sphere to help speed the recovery of patients. Communication design however, lags behind other design disciplines in this regard. This paper demonstrates the historical reasons for this: That the health and pharmaceutical graphic aesthetic is the embodiment of the Neue Schweizer Grafik. I will firstly establish that there is a general aesthetic in this genre of graphic design, and secondly that it comes from post-war Switzerland. This mid-century modernist approach to graphics which held designers in thrall into the 1980s still has a stranglehold in those industries where its aseptic appearance seems to be appropriate: medicine, pharmaceuticals, chemistry. This paper explains some of the flaws in the modernist graphic approach, specifically in its rejection of illustration and humour, and argues for design based on psychology and emotion rather than flawed and outdated manifestos.

In conclusion, communication design appears to lag behind other design disciplines in its regard for health customer satisfaction. The principle reason is, that unlike the other design disciplines concerned with health, graphic design has an enormous obstacle to overcome. Namely, the health and pharmaceutical graphic aesthetic is the embodiment of the central Modernist aesthetic: The credo for communication design laid down in the twentieth century was established and developed by those working for the pharmaceutical industry. There is an Internationalist aesthetic in graphic design that has spread throughout the world since the Bauhaus of the 1920s. This school of design reached its zenith in post-war Switzerland where it developed under the patronage of pharmaceutical companies. While its grip has been loosened elsewhere, this ‘Swiss Style’ maintains a stranglehold on the visual identity of that industry.

The feeling’s neutral for pharmaceutical packaging: how the pharmaceutical aesthetic equals the Modernist aesthetic.
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The narrow aesthetic range of contemporary pharmaceutical design has its origins in 1950s Swiss design.

The clinical aesthetic
The typical ingredients of Swiss graphics (Figs. 5, 6 & 7) are sans-serif typefaces (Akzidenz Grotesk, Univers and Helvetica are most popular) a sophisticated consideration of space within a composition (based on ‘grids’: non-printing frameworks upon which each piece of Swiss design was built) and the use of photography and/or simple geometric shapes usually of a solid colour. The approach has been described by various critics as rational\(^2\), scientific\(^3\), neutral\(^4\), and cold\(^5\). Its properties were intended to make it an approach that could be used without needing to defer to local sensibilities: The graphic equivalent of Mies van der Rohe’s International Style of architecture. Indeed it is referred to as the International Typographic Style\(^6\) as often as it is called the Swiss style or Neue Schweizer Grafik.

While this aesthetic pre-existed its adoption by the pharmaceutical industry (I will explain its Bauhaus origins below) it was mostly developed through work for this Swiss industry and then carried over into all genres of publicity, including the arts. As Hollis, in *Swiss Graphic Design\(^7\)* explains, in the postwar era:

> Chemical and pharmaceutical companies were a significant part of the Swiss economy. Ciba, Geigy, Hoffman-La Roche, Sandoz—then international names—were based in Basel … they expected objective advertising, clear information on products … the ‘anonymous’ style was perfectly fitted to meet these demands.

This objectivity of form seemed appropriate for pharmaceutical graphics since the Swiss Style ‘used the language of science as much as art\(^8\). The company that quickly came to embody this style, through its in-house design team, was Geigy. A formula of sans-serif type, photographs or stylized mechanical drawings with a single thickness of line was adopted and applied to all products\(^7\). The foundations for this style come from the School of Design in Basel\(^6\), and many of the students received their industry-placement training at the in-house studio of Geigy ‘Between 1941 and 1970, more than 50 designers worked for Geigy […] on staff or as commissioned freelance graphic designers\(^9\).

Exporting the ‘International Style’
The vectors by which this graphic aesthetic reached all corners of the Earth are worth mapping out. The Swiss Style may have had some global success in and of itself via the ubiquity of chemical and pharmaceutical products—The visual stylings of Geigy A.G. were disseminated through the company’s subsidiaries in the US and the UK, and through their publicity departments in Spain, Italy, Canada and Australia\(^9\). To further consolidate this relationship between commercial work and education as it pertained to pharmaceutical graphics, several of the designers at Geigy returned to the Basel School of Design to teach. The school itself is central in the history of 20\(^\text{th}\) Century communication design\(^1\). In addition, as if providing early career opportunities to design graduates and providing teachers back to the School of Design was not enough to inculcate a style into the growing discipline of graphic design, Geigy also manufactured many of the printing and reprographic chemicals necessary for design production—But, it was the Swiss Style’s consolidation of the Bauhaus principles laid down decades before, and the network of design schools and studios set up by Bauhaus teachers throughout the world that guaranteed a sanguine international uptake of the Swiss graphic themes. It was the Bauhaus that had begun concerted efforts to make designs (industrial, architectural, typographical) that were functional, that dispensed with...
decoration and emotion in favour of a technical and rational approach its teachers argued would suit anyone, anywhere. For the Bauhaus, the significance of the geometric, unadorned approach to design lay in its affinity to machine replication and a technical aesthetic: ‘trained in the language of form, Bauhaus designers set about developing prototypes for the mass-production of definitive, standard forms for the objects of everyday life, basing their approach on the premise that people’s practical needs are largely identical’10. The Bauhaus pre-war template is seen as providing a model for art and design schools around the world since World War II. However, it is less widely known that Bauhaus ideals also travelled through the mainstream commercial channels of its day:

This work had an enormous influence on the German advertising industry, and its importance was immediately recognized. In 1927, for instance, the Association of German Advertising Specialists held its training course at the Dessau Bauhaus. 11

In addition, this influence soon became a global one with the “forced emigration of progressive designers from Germany” under the rule of the Nazis11. Many of these designers found their way into the British and American mainstreams of advertising design while others, such as Moholy-Nagy worked in London (in documentary film-making) and went on to establish courses in eminent design schools in the U.S., such as the ‘New Bauhaus’ at the Chicago Institute.

Neue Schweizer Grafik or Swiss Style is the natural progression from the Bauhaus design programs. The Neue Schweizer Grafik movement developed in post-war Switzerland and Germany clinging to the Bauhaus’ graphic design methods, not least because its principle practitioners and teachers had been Bauhaus students. In Germany, Otl Aicher founded the Ulm design school choosing Max Bill (an ex-Bauhaus student and Swiss Typographer) as its Head. According to Aicher’s biographer, Marcus Rathgeb12, the invitation to Bill to be head of the school was at least in part to get the New Bauhaus of Chicago on side and to encourage U.S. funding for the school. At least some of the school’s approach was designed to appease its potential sponsors, also ex-Bauhaus staff now enconced at the Chicago Institute. From Ulm, as well as from the Swiss pharmaceutical companies detailed above, the formulaic use of sans serif type, gridded layouts and geometric designs spread throughout the western world; even into the design schools of South America3. Its anonymity and disregard of local visualities may well have assured its widespread uptake outside of Switzerland and Germany. Regardless, through the latter half of the last century ‘its objective clarity won converts throughout the world’10.

There were some alternative approaches during the late 20th Century, and indeed there were exceptions to this aesthetically clinical rule even within the pharmaceutical industry: Andy Warhol, for example, in his pre pop-art days as a commercial artist, produced loose and expressive hand-drawn illustrations for several pharmaceutical companies during the 50s, including Ciba-Geigy and Upjohn13. Even some outposts of the Geigy empire itself, especially in Spain (Fig. 11) managed to escape the edicts of head office for a time. These departures were in the minority. In any case, among the adherents to the Swiss approach was a particular temperament ready to criticize any wanderings from the narrow path of prescribed graphic choices. Josef Müller-Brockmann, a once gifted and expressive artist who had put his hand-drawing skills to commercial use felt it necessary to denigrate illustration in his text-books and lectures for students, eventually denying even himself the creative outlet of the drawn image:

This comparison will show that the drawing is a subjective expression of the artist’s mind and is restricted to the moment of its creation. It depicts an object or a theme as he experienced it at a specific moment whereas photography shows what the camera could objectively record when the shot was taken. The photographer simply points the lens of his camera at whatever it is he wants to photograph. The drawing conveys to us the feeling of the artist whereas the camera reproduces solely material facts and events. 14

Richard Hollis in his history, Swiss Graphic Design, asks, ‘Was this a conscious re-orientation, or was Müller-Brockmann swept into the Modernist stream by the powerful personalities of the diehards, Lohse and Vivarelli?’ 7. Either way, Müller-Brockmann is now regarded as a personification of the Swiss method5, his dedication to the style clear whether he was designing for headache powders or the opera [Fig. 8]. It is this poster series more than any other of his works that demonstrates a dedication that, for adherents of the Swiss Style, became a slavish devotion. The angular graphics, bold no-nonsense machine typography and flat colour may seem appropriate for the pharmaceutical industry, but for the passionate and theatrical world of opera they are out of place. Several design critics have stated that the Geigy designers such as Müller-Brockmann were targeting a highly educated technical class with their pharmaceutical designs: The packaging speaks to the consumer6,13. However, the adherence to the Swiss Style no matter the intended audience, as can be seen in these opera posters, suggests that the approach was prescribed for all possible products and publicity.

In the west, most of the few canonical texts we have devoted to graphic design education were penned by Swiss Typographers. This has had the function of limiting possibilities for design educators ever since because of the absolute claims these authors made about type, grid and image. ‘Modernism in Switzerland became a crusade in the years following the Second World War. Its assumptions became matters of faith’ argued for in terms of objectivity and the language of science15.
Figure 8. Josef Müller-Brockmann designs (1964-69) for the Zürich Opera House productions of Rigoletto, et al, reveal an approach that would look at home on pharmaceutical labels or chemical containers.

Psych/Emotion & A Way Forward

So, what other objective methods might there be to approach graphic communication for particular users? Especially in the field of medicine, where human recovery and well-being should be paramount, designers might reasonably enquire whether this Swiss style even suits pharmaceutical packaging, let alone the promotion of the arts. By what means might designers examine whether this Swiss, one-size-fits-all approach can be improved upon? Recent research in the field of synaesthesia might be helpful. It suggests there is a strong correlation between senses, between sound and vision for example, which shows that most of us have the ability to understand a stimulus for one sense as analogous to a stimulus for another. Ramachandran and Hubbard, in *Synaesthesia: A window into perception, thought and language*, surveyed thousands of people of both English and Tamil language backgrounds to test what is known as the ‘Bouba/Kiki effect’:

If you show fig. [9] (left and right) to people and say ‘In Martian language, one of these two figures is a “bouba” and the other is a “kiki”, try to guess which is which’, 95% of people pick the left as kiki and the right as bouba, even though they have never seen these stimuli before. The reason is that the sharp changes in visual direction of the lines in the left-hand figure mimics the sharp phonemic inflections of the sound kiki, as well as the sharp inflection of the tongue on the palate.16

Figure 9. “Demonstration of kiki and bouba. Because of the sharp inflection of the visual shape, subjects tend to map the name kiki onto the figure on the left, while the rounded contours of the figure on the right make it more like the rounded auditory inflection of bouba.” from Ramachandran & Hubbard, 2001.

By this same reasoning, a circle might appear more relaxing than a triangle for example, because the circle has no sharp corners on which, in the physical world, we might catch ourselves; the jagged line might appear potentially dangerous and unpleasant. Furthermore, a gestural line drawing made with a pen held by a human hand might suggest an immediate and personal connection with another human being. And by this same reasoning the crisp geometry of the Swiss appears as neutral and objective as it was intended to be.

Neutrality is a catch-cry of the Swiss Internationalists, but does the drug taker want to feel neutral? After all, a synonym for ‘neutral’ might as easily be ‘unfeeling’ or ‘numb’. Patients and prescription drug users might reasonably want well-being above and beyond an unfeeling state, and pharmaceutical packaging might reasonably be asked to reflect this expectation. The author edits a blog which seeks, via reader commentary, feedback on the effectiveness of graphic design. A recent comparison of two pharmaceutical designs for the same product elicited some interesting responses. Readers were shown two designs for the same product [Figs. 10 & 11]. The designs were chosen from Spain allowing English speakers to concentrate more on the difference in graphics and less on the written information. Readers of the blog were asked:

What kind of words would you use to describe each design? Is one more appealing than the other? If so, why? Does one seem more or less likely to work? If you had to choose between these two packages based on their visual design, which would you reach for at the chemist’s?
It will never be easy for graphic designers or their industry patrons to break the habits of 50-plus years: There are only a handful of very large corporates involved in the production of pharmaceuticals. Part of the problem may be a reluctance on behalf of these brands to establish sub-brands which break the graphic mould, especially when existing visual modes seem to be selling well. Even the production side of this equation, is in very few hands (Alcan Packaging, a business unit of Rio Tinto Alcan, and Procter & Gamble for example, is the ‘UK’s leading supplier of primary flexible packaging to the pharmaceutical and healthcare industries’[19]). Also, currently, a graphic designer charged with producing a new design can refer to a substantial body of previous work in the area of pharmaceutical packaging and publicity. Celebrated designers such as Karl Gerstner, Josef Müller-Brockmann, and Armin Hofmann each have substantial bodies of work located within this pharmaceutical field. In the back of the mind of every tertiary educated graphic designer exist the Swiss exemplars shown to them by their teachers, further ingraining and perpetuating this style. In the economically driven practice of graphic design it is easiest to stick to established motifs. Especially when those motifs obtain seductive and sophisticated packaging for an industry that has been highly profitable. On the other hand, economic imperatives can be the very drivers that deliver a designer to new aesthetic destinations which mark a clear point of difference between their client’s products and those of their client’s competitors. What’s required is a field of research which explores the importance of such packaging and instructional design (dosages, etc.) to the end user. The research must give due deference to local pharmaceutical regulations and involve input from all stakeholders, including the pharmaceautical companies and medical professionals. The quick Figuresmag survey above shows at least that non-medical people do have a response to the different packaging and would consider using or not using a product on that basis alone. To return to the survey on scrubs cited at the beginning of this article, it might be assumed that children would naturally gravitate towards colourfully dressed staff: it is a cliché of all kinds of design for children (toys, playground equipment, etc.) that products should be rendered in saturated and bright colours. However, it was found in the nursing survey that the coloured uniforms also improve the parents’ perception about the reliability of the nurse.

If neutrality is the status quo for a body, is its equilibrium point or a place of balance and poise, perhaps the aesthetic pursuit of such neutrality is a good thing as it pertains to human well-being. However, if neutrality equates to numbness, a state of unfeeling existence rather than ‘living’, graphic designers and their clients might do well to consider their role in hastening a patient’s return to a full and pleasant life. If laughter is the best medicine, the humourless Swiss designs seem to diagnose a delayed recovery.

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