



Beauty, Form and Function in Typography

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Democracy in Default?

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Abstract: Using the widely publicised example of Google’s multi-script typeface Noto as a central example, this paper explores how democracy might be represented through typographic form. The legacy of the ‘universal typographic form’, first dreamed up by modernist designers in Europe in the 1920s, is identified as a precursor for Google’s attempt to provide ‘beautiful and free fonts for all languages’ through Noto. The paper draws on Victor Papanek’s ‘function-complex’ as a means of criticising Google’s objectives, and questions whether the Noto designs, which are likely to become default for languages that have previously lacked typographic representation, are ill-founded in their attempt to visually harmonise the world’s typographic scripts.

Key words: *democracy, default typeface, universality, modernism, ‘function-complex’, Google, multi-script typefaces*

Introduction

Last year’s official launch of Google’s Noto project, an open source multi-script typeface family comprising more than 100 writing systems and 800 languages, appears to have realised the near century old European modernist dream of the universal typographic

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Betreff: Neukonzeption des visuellen Erscheinungsbildes

Lieber Eike König,

Die aktuelle Brisanz des Bauhauses liegt in seinen Formen, sondern in seiner Programmatik. Genau genommen müssen wir hierbei vom P und nicht dem Bauhaus. Soweit sich das in klassischen Moderne heraushebt und viel ist, so deshalb, weil es dem historischen 'Vielfältigkeit und Widersprüchlichkeit' im Rahmen eines Projektes zu bündeln, w ungenie fruchtbare lag nicht zuletzt di Maler, Grafiker, Architekten, Typografen Städtebauer, Produktdesigner und auch Ingenieure zusammenschlossen, sich austausch gemeinsam Projekte realisierten.

Wir haben geordnete Vorstellungen von der modernen Sachlichkeit, der abstrakten K usw. Doch das Eigenwillige des Bauhauses Kategorien überwand und die heterogene Avantgarde nicht nur akzeptierte, sondern mit den letztendlich unausgeglichenen Stil: Es gab am Bauhaus Expressionismus, Konstruktivismus, Neue Sachlichkeit, ja auch Dada in den einzelnen Phasen der Bauhausgeschichte ist der eigentliche Befund, dass diese gleichzeitig präsent waren.

Wesentlich für die Aktualität des Bauhauses der Bauhausprogrammatik. Eben gerade we Anspruch und Wirklichkeit des historischen und Praxis erzeugt das unausgeglichene Verhältnis zur Fortführung. Die Nichterfüllung bzw Widersprüche des Bauhauses, andererseits Experimente Bauhaus.

Der Hang zum Gesamtkunstwerk, die Suche neuen Welt war nur die eine (und problematische) andere war die Individualität der Bauhäusler der Personen, die zu dem vermeintlichen

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in unaufgelösten Widerspruch stand. Diese beiden Pole erzeugten ein einzigartiges Spannungsfeld, welches eben unterschiedliche Ideen von Modernität und Avantgarde zusammenführte, wie sie sich wohl sonst in keiner der Kunstbewegungen oder -verbände - vom CIAM bis zum Dadalismus - wiederfinden lassen. Darin spiegelt sich die rastlose Suche und eben keine Gewissheit, Experiment und eben keine gefestigte Ideologie. All das ist im heutigen Kulturleben üblich, in gewisser Weise auch zur Attitüde geworden und wäre nicht mehr besonders erwähnenswert, wenn nicht etwas wesentliches hinzukäme: Die Rückbindung an den Gebrauch, das Verständnis von Gestaltung als gesellschaftliche Aufgabe, als gesellschaftliche Praxis.

Hiermit gewinnt Interdisziplinarität und die Suche nach neuen Wegen eine Ausrichtung, eine Fundierung, einen Sinn. Für das Bauhaus war wichtiges Ziel der Gestaltung die Verbesserung des Alltagslebens in der Gegenwart, nicht nur für jeden erschwinglich. Der ungeheure Anspruch war, als radikale Avantgarde mit Innovationen die breiten Massen zu erreichen und damit die Hierarchie von Hoch- und Massenkultur aufzulösen. Experimente waren kein Selbstzweck, sondern dienten der Emanzipation der Menschen, der Suche nach Möglichkeiten für eine bessere Gegenwart. Auch wenn die Erfolge nur ausgesprochen punktuell waren, so war dieser gesellschaftliche Anspruch nicht nur Theorie, sondern auch Praxis, soweit es dem Bauhaus gelang, für die Stadt Dessau, einzelne Industriefirmen, Genossenschaften und Gewerkschaften Produkte und Bauten zu realisieren und damit unter ganz realen Bedingungen prototypische Lösungen zu verwirklichen.

Die klassische Moderne ist längst Geschichte geworden, und gleichwohl leben wir nach wie vor in der Epoche der Moderne und einer fortwährenden Auseinandersetzung über unterschiedliche Moderniskonzeptionen. Während der Bauhausstil und seine Produkte historisches Erbe sind, sind viele der heterogenen Moderniskonzeptionen, die das Bauhaus hervorgebracht hat, weiterhin aktuell. Aber eben nicht in einer einfachen Fortschreibung, sondern in einer kritischen Revision, welche nicht nur die tiefgreifenden Weiterentwicklung und stete Aktualisierung der Moderne in den letzten 75 Jahren realisiert, sondern auch in einer kritischen Selbstreflexion, die im Sinne einer reflexiven Moderne Schlussfolgerungen aus den Krisen, Sackgassen und Irrtümern der Entfaltung der Moderne zieht, ebenso wie aus sich neu eröffnenden Potenzialen. Zu experimentieren heißt auch gerade scheitern zu können.

Nicht selten war die Bauhauskritik berechtigt, und einige der schärfsten Kritiker waren selber Bauhäusler wie Hannes Meyer und Ernst Kallai. Der Tod des Bauhauses ist seine unkritische Verherrlichung, und so hat gerade die Instrumentalisierung des Bauhauses im kalten Krieg zur Lähmung von Bauhausideen beigetragen. Wenn hier eine fortwährende Aktualität von Bauhausideen behauptet wird, so heißt dies, dass sie in einen völlig veränderten gesellschaftlichen Kontext zu übersetzen und damit ganz andere Praktiken zu formulieren sind: Wir leben in den entwickelten Industrieländern nicht mehr in einer Wachstumsepoche, sondern in einer Alterungs- und Schrumpfungsepoche. An Stelle der fordistisch geprägten Industriegesellschaften sind postfordistisch geprägte Dienstleistungsgesellschaften getreten. Politische und wirtschaftliche Strukturen haben sich grundlegend verändert, neben der sozialen Fragen haben ökologische Themen Brisanz entwickelt, immaterielle Güter und das Individuum haben eine kaum vorstellbare Aufwertung erfahren.

mit freundlichen Grüßen,
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form. Noto has a strong claim to being considered an example of democratic type design - it's freely available to anyone with access to the internet and aims 'to provide digital representation to all scripts in the Unicode standard' (Monotype, no date), some of which have no existing digital representation at all. The design has already become default for some of these scripts on various display devices (Cadson Demak, 2017), and the project looks set to be a success for Google. But the world is a place much changed since modernist designers first developed their utopian proposals for universal forms of communication, and our increasingly globalised and networked environment continues to complicate our understanding what democratic design might look like. This paper considers how the concept of 'democracy' might be represented through typographic form, discussing default typefaces as one commonly accepted, though problematic, means. Furthermore, it shall question how the democratic in type design can be assessed in relation to more commonly established evaluative criteria such as the themes of this conference: beauty, form and function.

Figure.1 Hort's letterhead design for the Bauhaus Dessau Foundation, 2011

1. 'That's democracy'

As a way into the discussion today, I want to begin by looking at the example of the German graphic design studio Hort's redesign of the Bauhaus Dessau Foundation's visual

identity from 2011 (Fig. 1). Hort employed two default typefaces - Courier and Arial - as a central feature within their design, and selected them on the basis that, as some of the most commonly used typefaces in Western society, they represented an authentic expression of the Bauhaus vision of mass-produced democratic design (Walker Art Center). The project's association with the original Bauhaus school situates this rationale squarely within discourse surrounding the universal typographic form, as manifested by various modernist type designs during the twentieth century - most famously Herbert Bayer's Universal Alphabet, which, according to Ellen Lupton (2006), embodied 'the notion that a single typeface, reduced to its minimal components, could most efficiently meet the needs of a universal culture'. I'm interested in this project as a popular contemporary example of the continued equation of mass produced design - or here we might say mass-*dispersed* design - with the concept of democracy, albeit here with a twist. The original Bauhaus application of this equation implied that the mass produced design that would enrich the lives of the general public would also be 'Good Design', however, while speaking about the project in 2013, Hort founder Eike König, justified the choice of Courier in far plainer terms: 'it's on every computer in the world, it's for free: that's democracy' (Walker Art Center). Similarly, the complementary typeface selected for the project was Arial, also on the basis of it being freely available to use by anyone with a computer. In Hort's view then, it is primarily the ubiquitous and default nature of these typefaces that mark them as democratic, rather than any of the particular qualities of the designs themselves necessarily being suited to widespread use.

Many default latin typefaces are viewed by professional designers in the West as ugly, generic, and derivative designs - not fit for the widespread use which they have acquired. Indeed, one suspects that it is this perception of default typefaces that lies at the root of Hort's decision - as Arial, in particular, is widely regarded along with designs like Comic Sans, as a 'typographic *bête noire*' (McNeil, 2017, p. 447), and the idea of associating an esteemed bastion of high culture like the Bauhaus with such lowly typographic forms no doubt held some provocative appeal. It may be that some designers are uncomfortable with typography being produced by non-professionals, and default typefaces - many of which are simultaneously considered design classics - have simply become tarnished in these designers minds through what they perceive as misuse. In any case, these default typefaces have proliferated and shaped the typographic landscape in many parts of the world to become a contributing factor in which 'the exclusive and valuable identity of design and the designer of the past century is replaced by a creative mass who uses the

free design tools and worldwide networks to be part of the designed world' (Lovink and Gerritzen, 2010, p. 27). Over the years a rift has emerged, which has become more pronounced as global brands seek to differentiate themselves using type: commercial companies have their expensive bespoke designs, the masses have whatever comes packaged with their computers - or whatever is given away for free. These designs then become universalised by accident, by default.

2. The dream of the universal

In the article ‘Universal faces, ideal characters’, Robin Kinross (2002) traces the development of the modernist dream of the universal typeface, one ‘that meets all needs: of composing and printing technology, of legibility, of aesthetics, of phonetic and semantic representation’ (Kinross, 2002, p. 233), from the early experiments of Joost Schmdit, and Bayer (Fig . 2) at the Bauhaus, through to Adrian Fruitiger’s Univers and OCR-B and beyond. Of all these designs, the systematically conceived Univers is singled out as the one that had the greatest, if still an unrealistic claim to universality, it having been published in the 1950s in the context of ‘post-war recovery and technological and social optimism’ (Kinross, 2002, p. 241), and growing to incorporate non-latin versions over time. And though Kinross argues that Univers ‘seemed to the typeface of that moment, when international agencies and multinational companies were still bathed in [the] glow of [that] optimism’ (Kinross, 2002, p. 241), as is well known, it was Univers’ contemporaneous rival Helvetica, that went on to supersede it as the typeface of international capitalism as that optimism began to fade, and globalisation gathered



increasingly frenetic pace.

Figure.2 Herbert Bayer’s ‘Universal alphabet’ (as it became known), 1926

In 'Univers Strikes Back', a paper first delivered at the ATypl conference of 2006 and subsequently revised and published in Helen Armstrong's 'Graphic Design Theory' (2009), Ellen Lupton attempted to uncouple the notion of 'universal design' from its strictly modernist heritage. She holds that postmodernism

'exposed the ideal of universal communication as naively utopian at best and oppressively colonial at worst... [and that] universal design as it is emerging now, after postmodernism, is not a generic, neutral mode of communication. Rather, it is a visual language enmeshed in a technologically evolving communications environment stretched and tested by an unprecedented range of people. Individuals can engage this language on their own terms, infusing it with their own energy and sensibilities in order to create communications that are appropriate to particular publics and purposes' (Lupton and Lupton, 2009).

Her original paper contained a proposal, apparently ill-received at the time (Lupton, 2006), for the world's type designers to each offer one design to the world for free, so as to improve the diversity of quality type designs available for use by the general public - for designers and non-designers alike. She argues that typography is a 'vast public resource' (Lupton, 2006) that ought to be developed consciously by designers who understand its value outside of its immediate commercial context, and who are aware of its ability to shape culture at large.

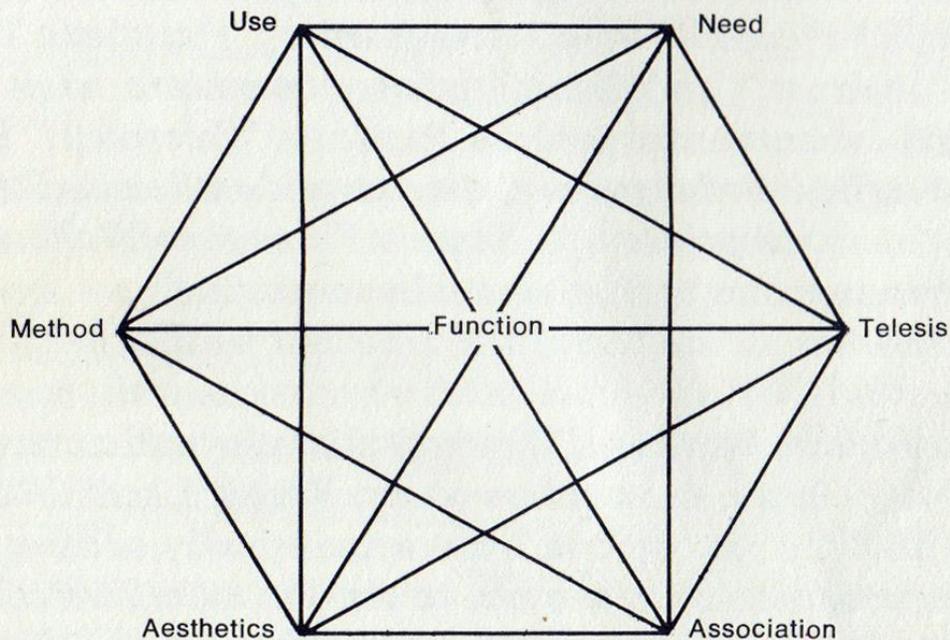
3. A free design

Lupton's argument that the typographic needs of the many could be met by designers willing to give up their time for this greater good, shares much in common with the ideas of the environmental designer and theorist Victor Papanek, who believed that 'the genuine needs of [humankind] have often been neglected by the designer' (1985, p. 15). Papanek advocated for designers to give up 10% of their working time to pursue non-profit projects (1985, p. 15), and his book 'Design for the Real World: Human Ecology and Social Change' (1985) had a significant impact on the development of environmental and sustainable design practice and theory. While many of the specific examples outlined in

the book, which was originally published in 1971, now feel outdated, some of the more theoretical dimensions of Papanek's writing have endured the passage of time more robustly. And I would argue that the 'Function Complex' in particular (Fig. 3), outlined in the first chapter, is one such theoretical formulation that could be considered important in relation to the present discussion. The themes for this conference are 'beauty, form and function' in typography - which, as criteria with which to address the broadly sociopolitical basis of this discussion, require further unpacking - though it must also be said, these are not uncommon as criteria that might be used to assess the quality of type design and typography in general. After all, the isolation of form and function as determining categories is one of the most enduring legacies that modernism has gifted to the practice of design, or saddled it with, depending on your view. Our conference themes also appear to take a cue from Max Bill (1949, p. 34) who stated that beauty ought to be added to the mix of evaluative criteria, arguing that 'the demand for beauty has to be set on the same level as a functional demand, since it is a function too'.

Figure.3 Victor Papanek's 'Function-complex', 1971

Figure 1: THE FUNCTION COMPLEX



Papanek instead proposed that the quality of design should *only* be measured in terms of function, but that the notion of what function means ought to be expanded to include six criteria (some of which also relate to beauty and form): method, use, need, telesis, association, and aesthetics. Whether or not a design could be regarded as truly 'functional' depends on how well it satisfies each of the six criteria, rather than us only being able to enquire whether it 'works' or 'looks good'. For the purposes of this discussion, I'm particularly interested here in his integration of the slightly obscure concept of 'telesis' within the function complex. The current dictionary definition identifies it as 'the purposeful use of natural and social processes to obtain specific social goals' (Collins English Dictionary, no date). In the context with which Papanek applies it, this means that the telesic quality of a design is an expression of how that design relates to the culture that it operates within, and how its meaning is derived from its location within that culture. Within respect to type design, this concept takes on important dimensions once we begin to consider the rapidly expanding multilingual and multicultural environment within which type design is produced today - in which the exponentially scaling internet forms the basis of the 'processes driving the globalization of culture and communication at large' (Terranova, 2004, p. 42). John Hudson (2002, p. 25) has argued that if

‘type design is going through a truly international renaissance at the beginning of the 21st century, it is in large part enabled by the desire of the computer industry to sell hardware and software to people who speak other languages than English... Type and typography are now intimately involved - they are implicated - in the internationalisation of computing and so in the cultural and economic developments that this process supports’.

Negotiating the complex paths of global cultural interaction through typography, and thinking about the telescopic qualities of design, are one of the key challenges presented to type designers today.

Noto	Armenian	Georgian Serif	Malayalam	Syriac Eastern
	Armenian Serif	Glagolitic	Malayalam Serif	Syriac Estrangela
	Avestan	Gothic	Mandaic	Syriac Western
	Balinese	Greek	Meetei Mayek	Tagalog
	Bamum	Greek Serif	Mongolian	Tagbanwa
	Batak	Gujarati	Mono	Tai Le
	Bengali	Gujarati Serif	Myanmar	Tai Tham
	Bengali Serif	Gurmukhi	Naskh Arabic	Tai Viet
	Brahmi	Hanunoo	Nastaliq Urdu	Tamil
	Buginese	Hebrew	New Tai Lue	Tamil Serif
	Buhid	Imperial Aramaic	NKo	Telugu
	Canadian Aboriginal	Inscriptional Pahlavi	Ogham	Telugu Serif
	Carian	Inscriptional Parthian	Ol Chiki	Thaana
	Cham	Javanese	Old Italic	Thai
	Cherokee	Kaithi	Old Persian	Thai Serif
	CJK JP by Adobe	Kannada	Old South Arabian	Tibetan
	CJK KR by Adobe	Kannada Serif	Old Turkic	Tifinagh
	CJK SC by Adobe	Kayah Li	Oriya	Ugaritic
	CJK TC by Adobe	Kharoshthi	Osmanya	Vai
	Color Emoji	Khmer	Phags Pa	Vietnamese
	Coptic	Khmer Serif	Phoenician	Vietnamese Serif
	Cuneiform	Kufi Arabic	Phonetics	Yi
	Cypriot	Lao	Phonetics Serif	
	Cyrillic	Lao Serif	Rejang	
	Cyrillic Serif	Latin	Runic	
	Deseret	Latin Serif	Samaritan	
	Devanagari	Lepcha	Saurashtra	
	Devanagari Serif	Limbu	Shavian	
	Egyptian Hieroglyphs	Linear B	Sinhala	
	Emoji	Lisu	Sundanese	
	Ethiopic	Lycian	Syloiti Nagri	
	Georgian	Lydian	Symbols	

4. Pan-language harmony

Figure.4 Google’s ‘Noto’ typeface family, 2017

This leads me back to Google’s multi-script typeface Noto (Fig. 4), which has been produced in collaboration with Monotype. Google’s stated aim with the project is to

eliminate ‘tofu’, the empty graphic blocks that appear when a computer or device does not have font support to display a particular character, so named after an alleged visual likeness to the food. The word ‘Noto’ is an abbreviation of ‘No Tofu’, and by designing a typeface family that houses all the world’s languages, Google hopes that this typographic problem can be eradicated for good. According to Monotype’s publicity ‘the Noto typeface is a truly universal method of communication for billions of people around the world accessing digital content’ (Monotype, no date), a claim supported by Noto’s inclusion of more than 100 writing systems and 800 languages, and the fact that project is open source, meaning that anyone with a computer and an internet connection can download and use the designs for free. The project is a significant achievement on many levels - an advanced expression of collectively coordinated intelligence, not to mention hard work, five years in the making and with more work set to continue. I believe that Noto - in any sense that this might *actually* be possible - represents the full realisation of that early modernist dream of a universal typeface, which, prior to the emergence of the internet, had appeared hopelessly naive. I submit, however, that its creation raises a number of problematic concerns.

Google’s manifesto statement is to ‘Organise the world’s information and make it universally accessible and useful’ (Google, no date, a). In the past, this idea referred to primarily to Search technology, and this organisation of information, took the form of gathering, sorting and presenting. Here, organisation takes a very different form, that of a very particular visualisation of language and by extension, of culture. If some of these scripts are being represented digitally for the first time through Noto, what is the rationale for designing them so that they all share a ‘harmonious look and feel’ (Google, no date, b) with one another? If the aim is that these designs are a gift to the different language communities of the world, shouldn’t these scripts be designed with distinctive representation that references self-determined and specific points of origin, rather than attempting to link each design to a mythical visual essence shared by all languages? Indeed, this project really explodes the whole notion of what a typeface ‘family’ means - given the impossibility of there being any logical purpose to bind all these scripts together - beyond it being a branding strategy for Google. We might usefully compare Noto here with Dalton Maag’s Nokia Pure design, which at least had a clearly stated commercial objective behind its visual unification of such a wide range of scripts. The intended users of Noto, on the other hand, are not necessarily all Google customers, but nevertheless

their languages are being brought into the typographic world in harmonised Googlified form, as part of a marketing initiative for Google products.

Toshi Omagari, one of the lead designers on the Noto project, echoed Lupton's argument of typography as a public resource, a human right even, when he expressed his view that 'just like water, everybody should have basic access to digital typography' (Cadson Demak, 2017). As mentioned at the beginning of this talk, Noto looks set to become the default typeface for many of its languages, and this brings us back to that starting point. If democracy in typography is about widespread use and ease of access, is Noto a democratic design? It is free to use, and appears to offer a typographic expression to some language communities who lack that. And yet this expression, wherever its point of global origin, will be funnelled through a thoroughly western conception of what constitutes good design. In her aforementioned talk Lupton (2006) refers to Pierre Levy's (2001) theorisation that the internet has given birth to a new 'universal without totality' - a universal where it is the multiplicity of our voices communicating with one another online, that defines our collective experience as human beings: 'whereas the old modernist mode of universality dreamed of neatness, completeness, and closure, the new universality becomes more diverse and chaotic the bigger it gets.' (Lupton, 2006). Conversely now, I would argue that Noto brings us right back once again to exactly that old modernist mode of universality - it is the universal *with* totality once again restored as the ideal. The existence of different languages and culture is acknowledged, but the differences between them are then visually minimised through design. Despite its stated intentions, Noto appears to be as much about erasing cultural difference, as it is about preserving and extending the use of language.

Conclusion

Reflecting on his own experience as a designer of multi-script typefaces, John Hudson (who is also credited with contributing to Noto) has written that as the

'living artifacts of distinct cultures encounter and interact with the global culture of computer technology, mass communication and international capital, they are unlikely to remain unaffected by the experience. If the rich traditions of these scripts are to survive and enhance the common future of a globally connected world, they will

need to find vibrant expression in the context of today's technology'
(Hudson, 2000, p. 17).

This point is very well articulated, and in critiquing the Noto project as I have done here, I do not want to disparage the efforts of individuals involved with it, and who have elsewhere spoken about the care taken to respect the cultural traditions of the different scripts incorporated within the project. It is Noto's overarching rationale - its totalising aspiration - that I take issue with. It would have been possible to fund type design work on the world's languages and eliminate 'tofu' in a more diverse, and thus truly democratic and universal manner. The project is freely available to all to use, and it is precisely because of this that I believe it should not have been conceived with 'pan-language harmony' (Google, no date, c) as an objective, an objective which only makes sense from commercial perspective. Type design shapes culture, and is part of culture. Should the world's typographic voices then not be as distinctive and diverse as the cultures that speak through them?

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Fig. 1.

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Fig. 2.

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Fig. 3.

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Fig 4.

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