Architecture journals

Big data

Creative process

Critical design

Cultural analytics

Curricular revision

Digital publishing

Digital revolution

Digital signage

Domus

Driver assistance systems

Editorial design

Global positioning system

Graphic design

Information design

Information visualisation

Innovation

Intangible support

Interaction

Interaction design

Internet

(In)visible design

Multidisciplinarity

Narrative artifact

Neuromarketing

Paper

Perception

Remediation

Road signage

Sensoriality

Strategic vision

Multi-script
Multiculturalism
Multilingualism
Type design
Typography

Andreu Balius

"Designing multi-script type families is the task type designers will face in the future"

Andreu Balius is a typographic designer who obtained his BA (Hons) from the University of Southampton. He runs his own studio in Barcelona where he set up the TypeRepublic digital type foundry. On several occasions he has received a Certificate of Excellence in Type Design, and other distinctions include the ADOBE Power of Design Award. He lectures at Barcelona's Universitat Pompeu Fabra and has been invited to take part in a range of design events, both in Spain and abroad.

The Value of Typography in a Global Multilingual World

In her well known essay *The Crystal Goblet*, Beatrice Warde defended the need for printing to be invisible to ensure absolute transparency of text and comprehension of message. As a tool in the service of visual communication, however, typography transcends this utilitarian vision and furnishes the values and attributes that result in the personality or character of a brand, a product or service.

A Culturally Diverse Contemplation of the World

One of the challenges faced by society today is multiculturalism, particularly as it is expressed in written communication, i.e. multilingualism, by which we refer to the ability that societies, organisations, groups and individuals have to ordinarily use or come into contact with more than one language in their everyday lives. We live halfway between a real and a represented world, a world based on a simplified approximation to reality. Our vision of the world depends to a great extent on the tools we have designed to measure, represent and govern it, and it is therefore a distorted vision, or at least a tailor-made vision. In recent centuries the Western vision of the

Through graphic interfaces that are represented world has subordinated other possible gazes and culas an accessible space, our increasingly global world tures. Yet the world can't be summed up in a single is smaller and more domestic. From a comfortable vision. Ours isn't a unitary culture-multiculturalsettee we can travel through satellite images offered ism is a fact that creates a melting pot of expressions by applications such as Google Earth and visit the in which languages play a key role, not only because different countries that configure our diversified they are a way of articulating thought but because planet. The globalism that is visually explained they are a powerful tool forsocial cohesion and relathrough such programs doesn't contemplate the sotions within a given community. As stated by Dicial and cultural reality present in the real world: rector General of UNESCO, Koïchiro Matsuura, in the variety of languages, cultures, customs, faiths, 2003 '[L]anguages constitute an irreducible expression of human creativity in all its diversity. Tools of communication, perception and reflection, they also shape the way we view the world and provide a link 1 A. Ouane, 'Towards a Multilingual Culture of Education' between past, present and future.'1

Visual catalogue

Visual impact

etc., an extremely rich and complex reality that eludes all globalising visions.

A. Ouane, 'Towards a Multilingual Culture of Education' [online]. Unesco Institute for Education. 2003. [Accessed: 15 June 2010]. Available at: http://www.unesco.org/ education/uie/pdf/uiestud41.pdf.

So-called globalisation has not only triggered greater interaction between countries and their cultures, but necessarily produces a disposition to mingle. Notwithstanding its reductionist and unitary vision of the world, globalisation entails a growing awareness of 'other' cultures. Rather than obliging others to behave as we do in the name of equality, it is simply a question of treating them as equals. This is an important change in the way in which we approach the reality of our contemporary world. Postmodernism's non-centrist vision has furthered our understanding of this principle in the field of culture, philosophy and the plastic arts.

Towards Social and Technological Multiculturalism

Languages are usually the first barrier we encounter when we have to communicate with or relate to other cultural realities. Being able to express ourselves in one language is insufficient nowadays. Economic globalisation compels us to treat markets with respect, so if a product hopes to successfully survive it must position itself respecting local idiosyncrasies, just as any expression that aspires to be cultural (a publishing product, for instance) and hopes to transcend its local context will have to address multilingualism as a true necessity. Many are the publications (digital and on paper) that convey their textual contents in two or more languages. Co-existence in multicultural space may pose a series of problems in which design can play a key role to facilitate human relations in all senses: providing signage in spaces shared by people of diverse origin, labelling foodstuff before it is placed on the market, packaging cosmetics or making a drug pamphlet. Difficulties posed in terms of design can in part be solved by typography, which brings valid answers not only to problems of composition but also to issues concerning multilingualism, such as designing typographical characters for composing multilingual texts.

In the last decades of the twentieth century the technological industry was galvanised by social and economic changes, and emerging markets enabled it to further its business.

In the field of computer science, the writing systems of some of these emerging countries were a barrier restricting access to technology, preventing computer tools from being used in the way of those who generally expressed themselves in English or in any other language with a Latin alphabet. Until recently, the huge number of characters that exist in some systems (such as Arabic or Chinese) was one of the main obstacles to the expansion of digital technology to other areas of the globalised world.

"Designing for a global world implies taking into consideration cultural diversity and the various different writing systems used for communication"

Any kind of textual information introduced into a computer is expressed in a specific language. Many computer technicians have considered the 'problem' of multilingualism as that of the availability of special characters. If this were the case the problem could be solved by simply having available all the characters required for the languages to be represented, on screen and on a printed support. However, this could not be achieved with MS-DOS environments or with the operative systems that preceded Mac OSX, where the entire range of available characters was reduced to a set of 256, the number of characters in standard formats (Postscript or TrueType) in which the data from digital sources was stored. It was too small a number for composing texts in most of the world's languages, as many writing systems require more than 256 characters.

The last few years of the twentieth century and particularly the first decade of the twenty-first witnessed how software and hardware developers have graphical design at the turn of the millennium is been striving to implement multilingualism in experiencing an international revival, this is partly computer environments. An early success story was due to the computer industry's desire to position its the development of a standard for character codiproducts in societies that speak other languages.⁴ fication, so-called Unicode, established following the foundation of the Unicode Consortium,² a nonprofit-making organisation to promote the develop-**Designing for a Global World:** ment of a standard model (the Unicode standard) Multilingualism and Typography intended to specify the representation of texts in all Designing for a global world implies taking into kinds of software and products. One of its objectives consideration cultural diversity and the various is to enable the exchange of multilingual documents different writing systems used for communication. among users. The Unicode Consortium has made a According to Hudson, typographical design today great effort to design a universal map of characters is closely related to the internationalisation of inthat will identify all existing writing systems and formation technology and, in this sense, typeface signs, in order to establish a standard codification designers, being as they are directly implied in recognised by all software manufacturers.³ the economic, social and cultural development of

A further turning point was the development and recent marketing of the OpenType format, paraphrase Hudson, globalisation must be more which is called to be the new standard for digital than just a business opportunity for software manfonts. OpenType allows for up to 65,536 glyphs or ufacturers (including the design of digital fonts), and must also involve a meeting between cultures, symbols in a single font archive, as a result of which the coexistence of several writing systems with comdialogue between civilisations and respect for culmon stylistic traits is now a reality. Another of the tural heritage, the rights and aspirations of citizens huge advantages of the new format born at the onset around the world.5 of the new millennium is its compatibility with the In short, over the course of its history, type demost common operative systems (Macintosh and sign has been an activity in the service of culture PC Windows), which was one of the main demands and, ultimately, of written communication. The demade by users, especially in the graphic industry. signers of new fonts therefore play a key role in the We could therefore consider that the OpenType fordevelopment of written culture, providing commumat was created to fulfil a specific need in an innication tools. creasingly global world in which the introduction The need for multi-script fonts, i.e., fonts conof new languages and writing systems has become taining symbols from more than one writing sysa 'moral' condition for market expansion, in spite tem, has led a few designers to study in depth other of the fact that English is still the lingua franca of non-Latin alphabets in order to meet the demands technology. of an increasingly global world. The most important Designer and expert in multilingual environcompanies devoted to creating and distributing digments John Hudson holds the opinion that if typoital fonts have endeavoured to update typographic

globalisation, assume a specific responsibility. To

5 Ibidem

² For more information on the Unicode project, see http:// www.unicode.org/history/summary.html

³ We should point out, however, that some characters belonging to languages such as Guaraní, which has joint official status in Paraguay, haven't yet been incorporated into the Unicode standard

⁴ J. Hudson, 'Unicode from text to type', in John Berry (Ed.), Language Culture Type. International Type Design in the age of Unicode, Association Typographique Internationale / Graphis, New York, 2002, pp. 24-44.

Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world, whereas disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been pro-claimed as the highest aspiration of the common people, whereas it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that hu-man rights should be protected by the rule of law, whereas it is essential to promote the development of friendly relations between nations, whereas the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have determined to promote social prog ress and better standards of life in larger freedom, whereas Men her States have pledged themselves to achieve, in co-operation with rights and fundamental freedoms, whereas a common un-derstanding of these the United Nations, the promotion of universal respect for and observance of human rights and freedoms is of the greatest importance for the full realization of this pledge.

English

Принимая во внимание, что признание достоинства, при шего всем членам человеческой семьи, и равных и неотъ сущето всем членым челове често ставит, и развледатив емлемых прав их является основой свободы, справедлив сти и всеобщего мира; и принимая во внимание, что прен брежение и презрение к правам человека привели к вар орожение и презрение к провытелото применя человече-верским актам, которые возмущают совесть человече-ства, и что создание такого мира, в котором люди будут иметь свободу слова и убеждений и будут свободны от стра-ха и иужды, провозглащено как высокое стремление пюпей: и принимая во внимание, что необходимо, чтобы права ден, и принимая во внимание, что всоходнамо, чточы права человека схранялись властью закона в целях обеспечения того, чтобы человек не был вынужден прибетать, в качестве последнего средства, к восставнию против тирании и утнете-ния; и принимая во вшимаще, что необходимо содействония, и принимая во внимание, что народы Объединеных вать развитию дружественных отношений между народа-ми; и принимая во внимание, что народы Объединенных Наций подтвердили в Уставе свою неру в основные права человека, в постоинство и ценность человеческой личности чие мужчин и женшин и решили содействовата и в равноправие мужчин и женщии и решили содействовать социальному прогрессу и мучиненно условий жизни при большей свободе; и принимая во внимание, что государ-ства-чисны обязанись содействовать, в сотрудничестве с Организацией Объединенных Наций, всеобщему разжению и соблюдению прав человека и основных свобод; и прини мая во внимание, что всеобщее понимание характера этих прав и свобод имеет огромное значение для полного выпол нения этого обязательства.

Russian

बुंकि मानव परिवार के सभी सदस्यों के जन्मजात गौरब और समान तथा अविचिद्रन्न अधिकार की स्वीकृति ही विश्व-शान्ति, न्याय और स्वतंत्रता की बनियाद है, चैूकि मानब अधिकारों के प्रति उपेक्षा और घृणा के फलस्वरूप ही ऐसे बबेर कार्य हुए जिनसे मनुष्य की आत्मा पर अत्याचार किया गया, चुंकि ऐसी विश्व-व्यवस्था की उस स्थापना को (जिसमें लोगों को भाषण और धर्म की एसा विश्व ज्यदस्या के उत्तर सामा के लिए सर्वोच्च आजादी तथा भय और अभाव से मनित मिलेगी) सर्वसाधारण के लिए सर्वोच्च आजावा (14) मेथ जोर जेगा है, चुंकि अगर अन्याययुक्त शासन और जुल्म के बाकवंक्षा चोषित किया गया है, चुंकि अगर अन्याययुक्त शासन और जुल्म के बिरद्ध लोगों को बिब्रोड करने के लिए — उसे ही अन्तिम उपाय समझ कर — । भुरत या भाषा सम्मार के स्वार्थ के साम क मजबूर नहीं हो जाना है, तो के नुन द्वारा नियम बनाकर मानव अधिकारों की रक्षा करना अनिवार्य है, चैंकि राष्ट्रा के बीच मैत्रीपूर्ण सम्बन्धों को बढ़ाना जरूरी रका करना जानपान हु, युन-प्रेन्ट्रेन है, चूंकि संयुक्त राष्ट्रों के सदस्य देशों की जनताओं ने बुनियादी मानव अधिकारों में मानव व्यक्तित्व के गौरव और योग्यता में और नर-नारियों के समान अधिकारों में अपने विश्वास को अधिकार-पत्र में दुहराया है और यह निश्चय किया है कि अधिक व्यापक स्वतन्त्रता के अन्तर्गत सामाजिक प्रगति एवं जीव ाक्या हा के आवश्व प्याप्य प्याप्य प्याप्य प्राप्त के बेहतर स्तर को ऊंचा किया जाय, चैंकि सदस्य देशों ने यह प्रतिज्ञा की है किवे मंग्रेक्त राष्ट्रों के सहयोग से मानव अधिकारों और बनियाबी आजाबियों के प्रति सार्वभौम सम्मान की वृद्धि करेंगे, चैूकि इस प्रतिज्ञा को पूरी तरह रे निभाने के लिए इन अधिकारों और आज़ादियों का स्वरूप ठीक ठीक समझना सब से अधिक जरूरी है । इसलिए, अब.

Kun ihmiskunnan kaikkien jäsenten luonnollisen arvon ja heidän yhtäläisten ja luovuttamattomien oikeuksiensa tunnustamine vapauden, oikeudenmukaisuuden ja rauhan perustana maail sa, kun ihmisoikeuksia on väheksytty tai ne on jätetty huomiota vaille, on tapahtunut raakalaistekoja, jotka ovat järkyttäneet ihmiskunnan omaatuntoa, ja kun kansojen korkeimmaksi päämääräksi on julistettu sellaisen maailman luominen, missä ihmiset voivat vapaasti nauttia sanan ja uskon vapautta sekä elää vapaina pelosta ja puutteesta, kun on välttämätöntä, että ihmiso keudet turvataan oikeusjärjestyksellä, jotta ihmisten ei olisi pakko viimeisenä keinona nousta kapinaan pakkovaltaa ja sortoa vastaan, kun on tähdellistä edistää ystävällisten suhteiden kehittymistä kansojen välille, kun Yhdistyneiden Kansakuntien kansat ovat peruskirjassa vahvistaneet uskonsa ihmisten perusoi-keuksiin, ihmisyksilön arvoon ja merkitykseen sekä miesten ja naisten vhtäläisiin oikeuksiin ja kun ne ovat ilmaisseet vakaan tahtonsa edistää sosiaalista kehitystä ja parempien elämisen nissa oloissa, kun jäse ehtojen aikaansaamista vapaamm ovat sitoutuneet edistämään, yhteistoiminnassa Yhdistyneet Kansakunnat-järjestön kanssa, ihmisoikeuksien ja perusva-pauksien yleistä kunnioittamista ja noudattamista, ja, kun yhteinen käsitys näiden oikeuksien ja vapauksien sisällöstä on mitä Sekain tämän sitoumuksen täudelliselle toteuttamiselle

Finnish

Έπειδὴ ἡ ἀναγνώρισις τῆς ἐνυπαρχοῦσης εἰς πάντα τὰ μέλη τῆς ἀνθρωπίνὴς οἰχογενείας ἀξιοπρεπείας καὶ δικαιωμά της ανοφοπινης σκαιγεναις τις μουιόρεταις και συσωσματών Ιων καί άναταλλοτομότων, άποτελεί τό θιμέλων της δευθε οίας, της διοκαιοσίνης και της είρηνης έν το κόσμω. Έπειδή η παραγνώφοιος καί η περιφόνησις τών διοκαιομόταν του διοθούπου ώδητησαν είς πράξεις βαιβοφότητος, αίτινες έξεγείρουν την συνείδησιν της άνθρωπότητος, και έπειδη ή δη ιουργία ένος κόσμου όπου τὰ ἀνθρώπινα ὄντα θὰ ἔχουν τή μουργαι ένας ποριού σται της πίστεως, ἀπηλλαγμένα φόβου καί άθλιότητος, διεχηρύχθη ὡς ἡ ἀνωτέρα ἐπιδίωξις τοῦ ἀνθρώπου. Ἐπειδὴ είναι οὐσιῶδες ὅπως τὰ ἀνθρώπινα διανται ύπὸ χαθεστῶτος δικαίου εις τρόπον ώστε ὁ ἄνθρωπος μὴ ἐξαναγκάζηται, ἐν ἐσχάτῃ κατ αυνή είς την ξένεραιν χατά της τυραγγίας χαι της χαταπιέ λαοί τῶν Ήνωμένων Ἐθνῶν διεχήρυξαν ἐχ νέου τήν πίστι τῶν ποὸς τὰ θεμ ιστα τοῦ ἀνθοώπου, ποὸς τὴν άξιοπρέπειαν και τῆν ἀξίαν τοῦ ἀνθρώπου, τὴν ἰσότητα τ ομάτων άνδρῶν χαὶ γυναικῶν, χαὶ ἀπεφάσισαν ὅπως τὰ Κράτη μέλη ἀνέλαβον τήν ὑποχρέωσιν ὅπως ἐξασφα λίσωσιν, έν συνεργασία μετά τοῦ Όργανισμού Ήνωμένω Έθνῶν, τὸν παγχόσμιον καὶ ἀποτελεσματικὸν σεβασμὸ ών άνθοιοπίνων διναιωμάτων και θεμελιωδών έλευθεοιών των ανοξιωτικών οι διατωρίατων και σεμελιώσου του του Έπειδή ή χοινή άντίληψες των τοιούτων δικαιωμάτων χαί διευθεοιών κέχτητα μεγίστην οπουδαιότητα διά την έχπλήρωσιν τῆς ὑποχρεώσεως ταύτης.

Greek

لماكان الاعتراف بالكرامة المتأصلة في جميع أعضاء الأسرة البشرية وبحقوقهم المتساوية الثابية هو أساس الحرية والعدل والسلام في العالم، ولماكان تناسب حقوق الإسان وازدراؤها قد أفضيا إلى أعمال همجية أذت الضمير الإساني، وكان غاية ما يونو إليه عامة البشر انباق عالم يسمَّع فيه الفرد بحرية ألقول والعقيدة ويتحرر من الفزع والفاقة، ولما كان مِن الضروري أن يتولى القانون حماية حقوق الإنسان لكيلا يضطر المرء آخر الأمر إلى السرد على الاستبداد والظلم، ولما كان من الجوهري تعزيز يَنمية العلاقات الودية بين الدول، ولما كانت شعوب الأم المتحدة قد حدت في الميثاق من جديد إيمانها بحقوق الإسان الأساسية وبكرامة الفرد وقدرة وبما للرجال والنساء من حقوق متساوية وحزمت أمرها على أن تدفع بالرقي الاجتماعي قدماً وأن ترفع مستوى الحياة في جو من الحرية أفسح، ولما كانت الدول الأعضاء قد تعهدت بالتعاون مبع الأم المتحدة على ضمان اطراد مراعاة حقوق الإنسان والحريات الأساسية واحترامها ، ولما كان للإدراك العام لهذه الحقوق والحريات الأهمية الكبري للوفاء التام بهذا التعهد . U vědomí toho, že uznání přirozené důstoinosti a rovných a nezcizitelných práv členů lidské rodiny je základem svobody, spravedlnosti a míru ve světě, že zneuznání lidských práv a pohrdán iimi vedlo k harbarským činům, urážejícím svědomí lidstva, a te vybudování světa, ve kterém lidé, zbavení strachu a nouze budou se těšiti svobodě projevu a přesvědčení, bylo prohlášeno za nejvyšší cíl lidu, že je nutné, aby lidská práva byla chráněna zákonem, nemá-li býti člověk donucen uchylovatí se, když vši ostatní selhalo, k odboji proti tyranii a útlaku, že je nutné podpo wati se, kdvž vše rovati rozvoj přátelských vztahů mezi národy, že lid Spojených národů zdůraznil v Chartě znovu svou víru v základní lidská prá va, v důstojnost a hodnotu lidské osobnosti, v rovná práva muži i žen a že se rozhodl podporovati sociální pokrok a vytvořiti lep ší životní podmínky ve větší svobodě, že členské státy převzaly závazek zajistiti ve spolupráci s organisací Spojených národů všeobecné uznávání a zachovávání lidských práv a základních svobod a že stejné chápání těchto práv a svobod má nesnírný význam pro dokonalé splnění tohoto závazku, Valné Shromáž džní vyhlašuje tuto všeobecnou deklaraci lidských práv jakožto společný cíl pro všechny národy a všechny státy za tím účelem, aby se každý jednotlivec a každý orgán společnosti, maje tuto deklaraci stále na mysli, snažil vyučováním a výchovou rozšífit úctu k těmto právům a svobodám a zajistit postupnými opatřeními nitrostátními i mezinárodními jejich všeobecné a účinné uzna vání a zachovávání jak mezi lidem členských států samých, tak mezi lidem území, jež jsou pod jejich pravomocí.

Czech

הואיל והכרה בכבוד הטבעי אשר לכל בני משפחת האדם ובזכויותיהם השוות והבלתי נפקעות הוא יסוד החופש הצדק השלום בעולם. הואיל והזלוו לבזכויות האדם וביוון הבשילו מעשים פראיים שפגעו קשה במצפונה של האנושות, ובנין עולם, מעשים פראיים שפגעו קשה במצפונה של האנושות, ובנין עולם, שבו ייהנו כל יצורי אנוש מחירות הדיבור והאמונה ומן החירות מפחד וממחסור, הוכרז כראש שאיפותיו של כל האדם. הואיל והכרח חיוני הוא שזכויות האדם תהיינה מוגנות בכוח שלטונו של החוק, שלא יהא האדם אנוס, כמפלט אחרון, להשליד את יהבו על מרידה בעריצות ובדיכרי. הואיל והכרת חיוני הוא לקדם את התפתחותם של יחסי ידידות בין האומות. הואיל והנסים המאוגדים בארגון האומות המאוחדות חזרו ואישרו במגילה את אמונתם בזכויות היסוד של האדם, בישר אדשור בחוד אישרו במגילה את אמונתם בזכויות היסוד של האדם, בכוש על אישרת ובזכות שווה לגבר ולאשה; ומנוי וגמור אתם לסייע לקדמה תברתית ולהעלאת רמת רמת החיים בתוך יתר חירות. הואיל והמדינות החברות התחייבו לפעול, בשיתוף עם ארגון האומות המאוחדות, לטיפוח יחס כבוד כללי אל זכויות האדם ואל חירויות היסוד והקפדה על קיומן. הואיל והבנה משותפת במהותן של זכויות וחירויות אלה הוא תנאי חשוב לקיומה השלח של התחייבות זו.

Hebrew

鉴于对人类家庭所有成员的固有尊严及其平等的和不移的权利的承 认,乃是世界自由、正义与和平的基础,鉴于对人权的无视和侮蔑 已发展为野蛮暴行,这些暴行玷污了人类的良心,而一个人人享有 言论和信仰自由并免于恐惧和匮乏的世界的未临,已被宣布为普通 人民的最高愿望,鉴于为使人类不致迫不得已铤而走险对暴政和圧 追进行反叛,有必要使人权受法治的保护,鉴于有必要促进各国间 友好关系的发展,鉴于各联合国家的人民已在联合国宪章中重申他 们对基本人权、人格尊严和价值以及男女平等权利的信念,并决心 促成较大自由中的社会进步和生活水平的改善,鉴于各会员国业已 營愿同联合国合作以促进对人权和基本自由的普遍尊重和遵行,鉴 于对这些权利和自由的普遍了解对于这个誓愿的充分实现具有很大 的重要性。

I anguages affect our vision of texts their specific colour and the amount of space we need for a given volume of text (its length) The Latin alphabet can present different textures. according to the language used for writing. Even so, changes in texture and colour are much more obvious when different writing systems are employed. Examples taken from G. Sadek and M. Zhukov, Typographia polyglotta, ATypl / The Cooper Union, New York 1997

catalogues and include fonts containing characters belonging to other writing systems-not only from those that are recognised as work tools within the European Union, such as Greek or Cyrillic, but also from others belonging to cultures that are now exerting an influence on the global economy, such as Arabic, Devanagari, Chinese and Japanese, to name but a few.

In the mid-nineties the demand for multilingual fonts within the Latin alphabet made type designers and large distributors aware of the need to extend the set of characters and incorporate all the characters required for composing texts in other languages in the European context. How often had we been challenged by a lack of signs for composing texts in Catalan or Spanish, where the lack of an accent or and its users.

Understanding and getting used to a new system of a virgule prevented us from using a specific type? meaning based on new forms is the main difficulty Sometimes, careless spacing of diacritical characters posed by the creation of a multi-script font. Regard-(not usually employed in English) resulted in uglyless of the writing system, type design must take looking texts. By the turn of the millennium, this into consideration a few important aspects, convenawareness would be strengthened by the introductional, technical and cultural. According to designtion of new writing systems in typographic reperer Gerard Unger, some aspects have barely changed toires. Technological progress has enabled type deover long periods of time and can be considered sign to the needs imposed today by graphic design constants. The forms and proportions of letters are based on conventions, and the tools used to design Interest in the design of multi-script fonts has them have become consolidated over the course of been reinforced by the possibilities offered by techhistory. At the end of the day, letters represent lannology. However, the technical and cultural knowlguage, which is a convention. Phil Baines upholds that it is 'vitally important that typographers should edge required by such activity makes this kind of begin to understand the features of language while at the same time learning the conventions for its notation and the technical processes for its repro-6 D. Březina, 'Challenges in multilingual type design', in duction.'7

Hindi

Arabic

Chinese

design an extremely unique practice. Type designers have embraced multilingualism relatively recently, as proven by the debates on the subject produced over the past decade in specialised areas within the profession and the academic world.

In a recent article published in Codex, designer David Březina has pointed out some of the problems posed when designing multilingual families of type. He believes that type designers work 'on the crossroads of linguistics, typography, and computer science.'6 At present these professionals face significant challenges when it comes to adapting different scripts to typographic systems or to the limitations of certain supports.

Not many lines of thought or studies have attempted to establish connections between type design (in general terms) and its social impact. In my opinion, working in the field of multilingual typography and developing multi-script fonts is a good way of coming into direct contact with the more social side of design.

Multi-Script Typography

Codex: the Journal of Letterforms, No. 2 (2012), p. 24.

⁷ P. Baines & A. Haslam, Type and Typography, Laurence King Publishers, London, 2005, p. 10.

In spite of the changes brought about by the move from paper to screen, we have gradually developed new reading habits, related to the workings of eves and brain when we read and write. Unger believes that the configuration of habits has a considerable effect on typography, which strongly influences the shapes of letters. On the contrary, the types most frequently read are reinforced by readers' own habits.⁸ There are no rules, but the conventions (or constants, as they are defined by Unger) that derive from tradition must be taken into account in all typographical design projects. History is a loyal guide when it comes to finding references or examples to examine how this tradition has shaped conventions and habits and how all this has affected type design and its use. For Stanley Morison, the notion of tradition is another way of expressing unanimity in certain basic and age-old aspects established through trial and error: *experientia docet*.⁹

Gerrit Noordzij says that 'shapes that do not conform to convention are just not writing.'10 Writing is affected by different directions of reading, the motion of the tool and even the shapes of the letters. Typography has a direct connection with writing and not so much with calligraphy, which is its most artistic expression. As the shapes of letters are based on writing, they follow the conventions derived from its evolution over the centuries. Moreover, languages determine the way we see texts, their particular hues and the amount of space we need for a certain amount of text (its length). Some specific combinations of letters appear more frequently in one language than in another, so each language defines its own visual conventions that affect the reading process.

Writing and its formal variations have been influenced by the instrument employed (chisel, quill, brush, pen, etc.). The choice of angle and direction produce differences in size, weight, slant, breadth and other more formal aspects that characterise the qualities of letters. Different tools give rise to different shapes, even if the letters are the same. Furthermore, the type of surface used (stone, wood, paper, parchment, screen) also determines the results obtained. Technology defines both the limitations and the possibilities of the ensuing shapes. All design processes imply sufficient technological knowledge to meet the various challenges. In typographical design, this technological knowledge must also be combined with cultural and linguistic knowledge.

"Typography has a direct connection with writing and not so much with calligraphy, which is its most artistic expression"

Every writing system, be it alphabetic or not, is the result of a specific evolution and has its own structure and system of proportions. Thus, when two or more alphabets are combined in the same font, each one must preserve its proportions, for this affects its legibility and cultural idiosyncrasy. It is important that this principle be respected, despite the difficulty of making the different systems harmoniously compatible.

Typographical designers in the Latin alphabet use a small number of guides to define proportions when designing new types of letters. To force this alphabet's proportions in other scripts would be a mistake, unless they adapt naturally (as in the combination of the Latin and Cyrillic alphabets). Arabic script, for instance, will require other proportions that are completely foreign to our alphabet, and the same goes for other systems such as Greek, Chinese

C E CONOCE como *al-Ándalus* al terri-**O** torio de la Península Ibérica y de la Septimania bajo poder musulmán durante la Edad Media, entre los años 711 y 1492. Entre los años 711 y 715, los musulmanes ocuparon una parte de la Península Ibérica, aunque sin ningún tipo de dominio efectivo al norte del Sistema Central. La invasión

AL-ANDALUS was the Arabic name given to a nation and territorial region also commonly referred to as Moorish Iberia. The name describes parts of the Iberian Peninsula and Septimania governed by Muslims, at various times in the period between 711 and 1492, although the territorial boundaries underwent constant changes

or Devanagari. When designing multi-script types An example of multi-script application. Pradell type, combining texts in the Latin writing system (Pradell Roman) and the Arab that combine two or more systems we must preserve writing system (Pradell Al-Andalus). The optimal harmonisation their proportions, while endeavouring to harmonise of both writing systems is only possible if we respect the features that define each alphabet system individually them in the text.

Colour, Proportion, Texture

ter how superficially different in form.'11 The actual Two important elements we must bear in mind writing system influences the colour and texture of when combining different writing systems are the texts, but so does the language used to compose it. colour and texture they give the text. When design-Aspointed outby Březina, languages define the aping types of letters for textual composition, the appearance of the composition of the set of characters, pearance of the paragraph is critical. Any small dethe frequency of the letters, certain combinations of tail in letter design may influence the general hue. letters and the use of diacritical signs.¹² The Latin As Robert Bringhurst has said speaking of mixing alphabet can present different textures, according alphabets, the closer texts are composed in differto the language we are using-Spanish doesn't work ent alphabets, the more important it becomes 'that like English or German. Even so, changes in texthey should be close in color and in size, no matture and hue are much more obvious when different writing systems are in use.

الأندلس التسمية التي تعطى لما يسمى اليوم شبه الجزيرة الايبيرية ["]جزيرة الأندلس) في الفترة ما بين أعوام 711 و 1492 التي حكمها المسلمون. تختلف الأندلس عن أندلسيا التي تضم حاليا ثمانية اقاليم في جنوب إسبانيا ۵ تأسست في البداية كإمارة في ظل الدولة الأموية في الشَّام، التي بدأت بنَّجاح من قبل الوليد بن عبد الملك (711–750)، بعدها تولتها دولة بني أمية في الأندلس عبد الرحمن الداخل وبعد سقوط دولة بني أمية تولت الأندلس مالك غير موحدة عرفوا علوك الطوائف، ثم وحدها المرابطون والموحدون قبل أن تنقسم إلى ملوك طوائف مرة أخرى وزالت بصورة نهائية بدخول فرناندو الثاني ملك الإسبان مملكة غرناطة في 2 يناير 1492 @

Colour is influenced by the thickness of stroke and the degree of lightness of characters, i.e. their weight. Weight is distributed differently in Arabic

⁸ G. Unger. While vou're reading. Mark Batty Publisher. New York, 2007, p. 84

⁹ S. Morison, 'Postscript', in First Principles of Typography Cambridge University Press, Cambridge, 1967.

¹⁰ G. Noordzii. The stroke. Theory of writing, translated into English by Peter Enneson, Hyphen Press, London, 2005, p. 9.

¹¹ R. Bringhurst, The elements of typographic style. Hartley & Marks, Vancouver, 1996, pp. 106-107.

¹² D. Březina, General Issues of Multi-Script Typography. MA Dissertation, Reading University, Reading, 2007, p. 12.

وف ينقل الفك برشلونة هي مدينة كاملة من الضوء والفرح نجد الجمال في كل الأشياء التي تحيط بنا والتي هي جزء من الكون يست كل حركة الرقص الخط العربي هو واحد من أرقى فنون

A sample of a Pradell Al-Andalus letter. Andreu Balius, 2009-2013.

and in Latin: the former, with its connected letters, presents a clearer horizontal baseline for the weight falls on the horizontal strokes, whereas in the Latin alphabet it falls on the vertical strokes. The countershapes and spaces between letters also affect the colour of texts.

Examining the design of non-Latin typography is certainly a complex issue, and perhaps one of the first questions that arises is how to design type for a writing system that is different to one's own. Drawing characters for composing texts in Polish, Czech or even Turkish is a simple exercise if we compare it

to designing the characters of a Cyrillic or Greek alphabet, not to mention Chinese or Arabic script. In my opinion we should approach these systems with respect and with sufficient knowledge.

Fiona Ross believes that 'Best practice is built upon sound research.'13 As I have said earlier, when designing type, regardless of the chosen writing system, we should be familiar with conventions, and good grounding in the tools and the evolution of shapes over the course of its history will provide greater insight into the specificities of the system.

Pilar Cano, type designer at Dalton Maag, says we should look at letters with other eyes, we should understand how we read and what is truly important in order to preserve legibility.14 According to Ross, 'Whether a native reader or not, however, close

observation of how harmonization and yet differencorporate different writing systems within one and tiation can be achieved within a new typeface design the same type family. This indeed implies a signifiis effected by analyzing all modes of textual comcant change that obliges type designers to acquire munication, whether past or current, and whether a much higher level of knowledge, as demanded by by hand with a pen, stylus or brush, or by means today's global world. of digital technology. In so doing, the designer can The availability of multi-script fonts that will enacquire a keen sense of the letterform proportionsable us to compose multilingual texts characterised and how far one can deviate from them; develop an by an ideal aesthetic and formal unity is a growing eve to perceive which elements are key to letterform need. But, as I have argued before, multi-script type identification-and which treatments can lead to design does not only meet practical needs-the posambiguities; and become sufficiently informed to sibility of representing other languages and cultures judge which letterform features are shared and thus through typography is at once a powerful tool for can be treated in a similar manner to provide texobtaining social cohesion and building bridges of tual cohesion.'15 Ross goes on to add that 'an awaredialogue between the different cultures that shape ness of cultural sensitivities naturally forms an esthe human environment. sential ingredient to the design process.'16

While it is surprising that most non-Latin alphabets created over the course of history were developed by designers from Latin backgrounds, we must not forget that the printing press and most of the technology related to the design and making of types of letters are indeed Western inventions. The teaching of typography is also concentrated in a few countries in the Western world, although designers from other cultures are increasingly working with their own writing systems, thereby expanding the offer of quality fonts.

Conclusion

Designing multi-script type families is the task type designers will face in the future. If the first challenge in the late twentieth century was to apply multilingualism to the Latin alphabet, and consequently introduce characters for other less common languages into text composition (character extensions for Eastern European languages), the second important challenge in the twenty-first century is to in-

16 Ibidem.

¹³ F. Ross & G. Shaw, Non-Latin Scripts. From Metal to Digital Type, St. Bride Foundation, London, 2012, p. 151.

¹⁴ Pilar Cano in an interview with the author, November 2012.

¹⁵ F. Ross & G. Shaw, Non-Latin Scripts, From Metal to Digital *Type*, op. cit., p. 151.