

## From Sacred to the Possibility of Re-visioning: Arabic Simplification Proposals as Educational Typefaces in Learning Books.

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Abstract: There are special typefaces used for persons with dyslexia, created to learn Katakana, or help children learn to read and write in English. In the process of preliminary research for this paper, no inclusive academic studies were found that have been conducted on the subject of 'educational typefaces' for visual Arabic learning or pre-made Arabic typefaces that could meet most of the learning requirements for the adult beginner level. It is acknowledged that while 'regular' typefaces cannot fully simplify the learning content or provide appealing learning material with a variety of engaging activities and creative and challenging exercises, they can still help make learning significantly easier in certain parts of the learning unit. Therefore, there is a need for typefaces that can communicate educationally and culturally to a specific audience - basic Arabic learners in the beginner level.

Key words: Arabic Typography, Typography, Educational Typefaces, Arabic Learning, Visual Pedagogy, Visual Design.

### Introduction

In light of this educational and cultural imperative, prioritizing the development and promotion of more simplified typefaces is essential. These typefaces should be intentionally designed to meet the specific needs of Arabic learners at the beginner level, focusing on aspects such as legibility, bilingual functionality, and incorporating both cursive and noncursive features. These typefaces should also feature a reduction of characters and disconnected letters to fulfil certain requirements of basic language-learning. Therefore, this research is an attempt to consider the possibility of re-visioning - reassigning 'simplified' twentieth-century Arabic typefaces, as linguistic pedagogic learning tools in basic, beginner-level Arabic learning. It emerges from the limitations of Arabic learning tools dedicated to facilitating language learning. This is to help bring efficient improvements to the learning material provided in the course of teaching Arabic for beginners.

Typography Day 202

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### Possibility to Re-vision

To establish a possibility to re-vision the earlier simplified typefaces, the paper will firstly review the literature concerning the few early "sacred" script reform attempts and typefaces created; whether to simplify Arabic script, propose printing solutions or facilitate language learning. This requires a clear understanding of the distinction between the sacred script's religious significance in one aspect and its aesthetic and functional roles within the language learning process for prospective students in the other aspect. The latter research necessitates the study of the twentieth-century typefaces; the purpose of their creation, concept, design features and structure, to arisen future research and enable the proper classification of each typeface within the context of learning for further studies.

### **Arabic Complexity**

In what ways can one simplify the language and its script further to beginners? This demands an exploration of historic reformation and simplification attempts, since this paper argues that the issue of Arabic learning complexity has existed for many centuries. Thus, the research traces the history of script complexity and explains the need to understand what simplified techniques and methods were used to execute the major early script reforms (mainly established for scholarly and religious purposes). A number of momentous reform attempts were made, responding to the nature of the Arabic script; a few have successfully resolved such complexity, even though there have been a small number of proposed ideas and solutions to facilitate language learning and fight illiteracy.

### Limitation of Typefaces due to Script Complexity

Due to the cursive nature of the script, the design features of regular typefaces can limit the creation of a variety of learning material and exercises that can aid learners and ease their language learning experience. Therefore, the purpose of the historic exploration discussed above is to compare the work of a few selected typefaces and acknowledge the link between them and this paper.

There are valuable key insights that stress on how the Arabic script has confronted similar language learning complexity challenges in the past, and how the reformation and simplification attempts helped propose, tackle and resolve script and language issues. This also contributes to a future methodology; by examining the techniques and processes that have been used during the execution of these reformation attempts and historic typefaces, and appropriating them into current practice. The purpose is to see the historic simplified typefaces being used in the form and with the objective for which they were conceived. This

methodology is envisioned as a point of reference for the creation of Arabic simplified educational typefaces in the future.

After careful review, it has been acknowledged that these historic typefaces have distinctive design features that could help produce more engaging teaching-learning material. Their historic and theoretical settings aim to inform practice and help develop a structured methodology. This is carried by reassigning them knowledgeably as learning tools to help restructure, simplify and develop future learning material.

### History of Arabic Complexity and Script Reform

Since the beginning of its existence, the Arabic script, including Qur'an had no e'jam (dots) or tashkeel (Figure 1, Figure 2). Therefore, the script was too complex for many Arabs and Muslim converts, who had difficulty distinguishing between different sounds of the letters (including foreign sounds).

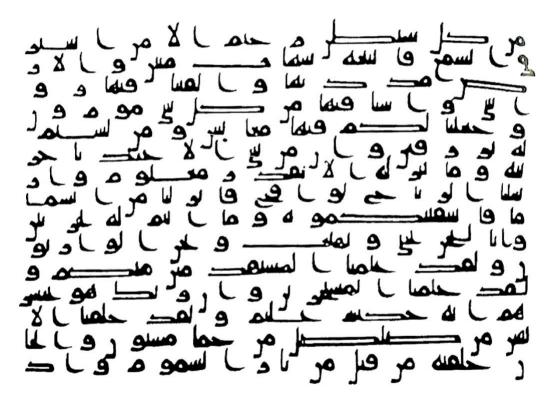


Figure 1 First Qur'anic script written in Kufic without dots and marks (from Moginet, 2009, p.26).

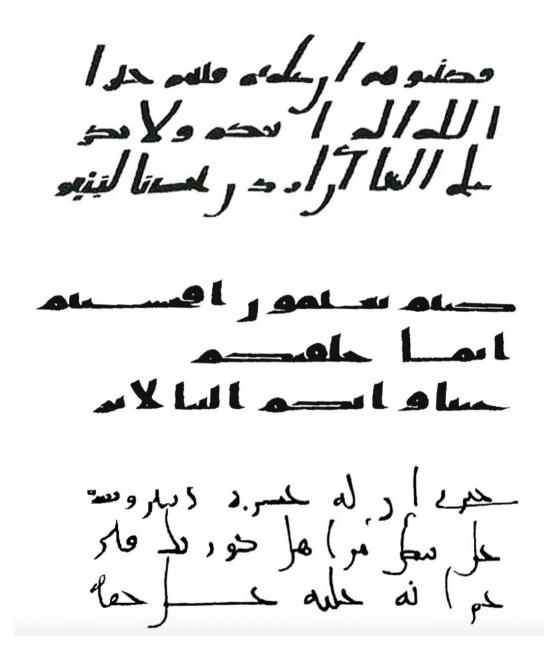


Figure 2 Different early calligraphic styles featuring no dots. Examples of 7th Century archaic Ma'il style [top], 7th Century Archaic Mashq style [middle] and 7th Century archaic Naskh style [bottom] (after AbiFarès, 2001, p.30).

### **Early Script Reform Attempts**

Muslim converts found it challenging to correctly recite passages from the Qur'an. In order to make it more accessible to them, the script underwent early changes during the 7th and 8th century. Therefore, the reformation attempts were successfully executed to break the complexity of the script in Qur'an learning.

In the book *The Arabic Language: Its Role in History*, Anwar Chejne (1969) states that the early reformers proposed literary solutions that benefited the script in three major ways: first, by standardizing the script and foundation of the language, second, by making the Qu'ran more accessible to many Muslim converts and third, by further facilitating reading and writing. This shows that linguistic simplification can in many ways promote cultural, religious and educational literacy.

### First Reform Attempt: Addition of vocalization dots - mid 7th century.

Calligrapher Dr Ibrahim Al-Eid (2010) states that the first reformation attempt was by the early grammarian, Abi Aswad Al-Du'ali. He added reading rules (Arabic vowels or vocalization marks) to prevent the Qur'an from being misunderstood, distorted, or recited incorrectly (Othman, 2014) (Figure 3).

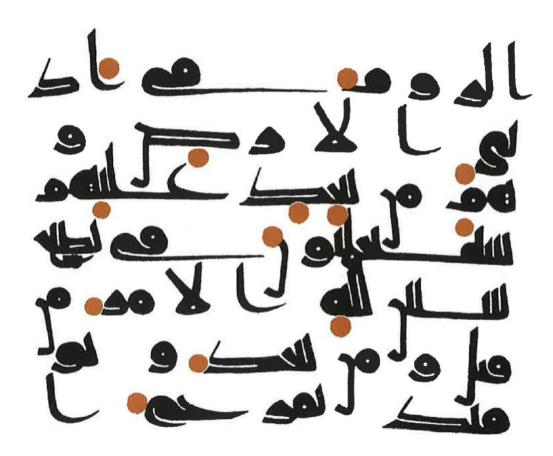


Figure 3 Early addition of dots to Kufic script to represent short vowels (vocalization marks) (from Moginet, 2009, p.26).

### Second Reform: Addition of dots to distinguish letters - 7th - 8th Century

The Arabic alphabet had only 18 original shapes representing the entire alphabet (total of 28 letters). Before the addition of dots, Arabic readers used to be confused between most of the letters due to their identical shapes. Therefore, two calligraphers of Al-Du'ali came up with a differentiation rule between the letters for further clarity and recognition (Al-Eid, 2014). They added dots as part of the individual letters.

### Third Reform: Separating diacritic dots from vocalization marks - 8th century

More reform was needed to avoid further confusion and hence an Arab lexicographer and philologist, Khalil Bin Ahmed Al-Farhidi replaced the tashkeel dots with signs to enlighten the reader (Figure 4). This gave further clarity to the script and raised literacy among the Muslim community. Muslims were very happy after this reformation; poets started writing expressive poems about the new reform (Al-Eid, 2014) (Figure 5).



Figure 4 Eastern Kufic script showing Al-Khalil system - the replacement of vowel marks (few vocalization marks) with shapes to distinguish between the diacritical dots and vocalization marks (from Moginet, 2009, p.29).

للونين من المداد، فاستبدل الفراهيدى نقط الشكل بالحركات المعروفة، وهو ما يسير عليه الناس إلى الآن، وفرح المسلمون بهذا، واعتبر ذلك (الإصلاح الثالث) في الخط، وتغنى به الشعراء:

وكأن أحرف خطه شجر ××××× والشكل في أغصانه ثمر

Figure 5 An example of one of the poems describing the third reform. The poet envisioned the letters as trees and the vocalization marks as branches filled with dates (from Al-Eid, 2014, p.26).

The three early script reforms have defined the dominant role of diacritic dots and marks as aesthetic and phonetic techniques in the distinguishing of characters within reading and writing. They confirmed the significant role of *simplification* in the elevation of literacy within a broader context.

These script changes may have led to the evidential schools of reform: (a) simplification and (b) Latinization (the conversion of writing from a different writing system to the Latin script). The aim here is to emphasize the script's traditional linguistic defects, including an inconsistent vowel system, varied letter forms, and numerous dots above and below the letters. These later schools had various intentions: some wanting to simplify the script further without breaking its integrity, while others wanted to completely Latinize it with the aim to replace it with a more modern script like Latin. Both had a similar purpose - to influence Arab literature and culture as well as propose change of attitude for future Arab generations.

### Reformation & Simplification Purposes.

After the few successful reformation attempts, there were more reform and simplification proposals made during the twentieth century. Meanwhile, other individual efforts worked separately, promoting their own simplification concepts. These typefaces were originally established either (a) to propose solutions and help overcome the technical issues that the Arabic script encountered during the twentieth century (before the advancement of computer technology) or (b) they were initially executed for educational purposes, i.e., to ease the learning of how to read and write Arabic.

These attempts have proposed technical solutions to the linguistic problems that remained active during the evolution of the script, whether for literacy or printing purposes. Also, one can strongly argue that the simplification techniques and tools used back then can still be utilized today in the designing of modern educational learning materials to facilitate language learning further and promote literacy.

### Academy of the Arabic Language in Cairo

As indicated earlier, the reason for the early reform attempts was to facilitate reading and writing for non-Arab and Muslim converts. In a similar vein, in 1934, the Academy of the Arabic Language (also known as Cairo Academy) was established in Cairo to oversee script development. The Academy's main intention was to add foreign letters due to the misrepresentation of foreign sounds. Haralambous (2006) states that in 1944, two projects

were presented: one suggested a complete switch to the Latin alphabet - Romanization - while preserving a few Arabic letters. The other one featured the simplification of the script by preserving the original shapes of consonants and adding new letters shapes for short vowels and grammar rules. This reflected the ongoing debate between *simplification* and *reformation*. The plan's failure prompted the academy to explore a new, effective, and standardized system through a 1945 worldwide contest, with a financial prize for the best method to simplify the Arabic writing system. About two hundred submissions were received, aimed at promoting literacy through simplification proposals.

One proposal by Architect Nasri Khattar included non-cursive Arabic letters and the reduction of characters to one form per letter (Figure 6), aiming to simplify the script and promote literacy. Another proposal by Mahmoud Taymour also featured character reduction (Figure 7). Abdulaziz Fahmi proposed Latinization, using Latin shapes to represent Arabic sounds and establish a visual relationship between Arabic and Latin characters (Figure 8, Figure 9), employing various typographic styles and upper and lowercase characters.

هذا الاسلوب المطبعي الجديد هو نتيجة دراسات وابحاث واسعة، ومجهود سنوات من العمل المتواصل في سبيال تسهيا وتقدم الطباعة العربية.

تسمى هذه الحروف "الابجدية الموحدة" لانها موحدة الشكل، اي ان لكل حرف جديد شكلا واحدا لا يتغير بحسب موقعه في اول الكلمة او وسطها او آخرها او بقائه منفردا. ولهذا فقد اصبحت مجموعة الحروف الكاملة عهدوا مطبعيا بدلا من ۲۸۳. وهي تامتاز بحمالها ودقة صنعها.

Figure 6 A proposal submitted by Nasri Khattar featuring detached Arabic letters and reduction of variation forms (from Al-Saggar, 1998, p.81).

# حكماً بنترافر للرحكتابة غنم مذ تعديم المختط بلا عَناه

Figure 7 A proposal submitted by Mahmoud Taymour that features the reduction of characters (one form per letter) (from Al-Saggar, 1998, p.81).



مشروع عبد العزيز فهمي ، سكرتير مجمع اللغة العربية في القاهرة ، للشكل اللاتيني للحروف العربية

Figure 8 Another proposal is the Latinized Arabic letters submitted by Abdulaziz Fahmi; it proposes one sign per letter with vowels following consonants (from Al-Saggar, 1998, p.82).

Several academy submissions proposed vocalization and grammatical solutions. Four of them shared concepts like character reduction, separating marks and dots from letters, or placing marks separately on a kashida (Figure 9). Mahmoud Taymour's proposal included non-cursive letters with distant vocalization marks and character reduction. K.B El Farag used smaller

vocalization marks placed on the kashida, along with a standing mark behind the final letter - for word closure.

Mohammed Lakhdar-Ghazal's proposal shares El-Farag's concept of placing marks on the kashida, but with larger and more legible characters and marks (Figure 9, Figure 12). This separation of marks from letters helps present Arabic text more legibly. Ghazal retains the script's original appearance while proposing simplification. Ghazal maintained the original look of the script but proposed a simplification solution. S. Ouaida's proposal includes the reduction of characters; the letters are non-cursive whereas the dots are placed directly above or below the letters. Vocalization marks are placed in a standardized position either directly above, below or beside the dots.

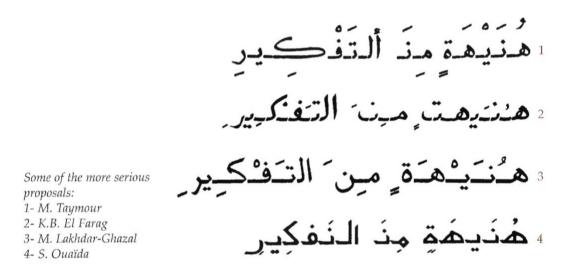


Figure 9 Four projects proposing vocalization and grammatical solutions. Two of them propose a reduction of letter variation forms [(1) and (4)] (from Moginet, 2009, p.93)

Several unclear proposals lacked detailed explanations for their motives (Figure 10). For example, Ali Al-Gharim's proposal integrated vocalization marks as extra letters within the text but did not explain the reason for this change (Al-Saggar, 1998) (Figure 11). Unlike Ghazal, who provided a detailed explanation for his proposal (Figure 12), Al-Gharim did not support or explain the remodelling of the marks.

Mahfouz Bin Habeels submitted three proposals (Figure 13). The first two featured the integration of vocalization marks as extra letters within the text, with the second proposal strongly influenced by the Greek alphabet. In the third proposal, he added the original Arabic characters above his proposed characters to aid recognition. The proposals featured

additional characters for vocalization marks, but the illegible handwriting and the lack of explanations made their purposes unclear.

نماذج من عشرات المشاريم الغريبة التي طرحت كمشاريم إصلام للكتابة العربية. إن حسن النية وحده لا يقود دائماً إلى الحلول ، فالمسألة ليست مزاجية لأنها مرتبطة بالذاكرة البصرية لأبناء الأمة .

مرتبطة بالذاكرة البصرية لأبناء الأمة .

مرتبطة بالذاكرة المعلى العطيم المعطيم المعربية!!

مشروع السيد يوسف اوغسطين مشروع السيد يوسف اوغسطين الشكال بقصد التبسيط!!

ويلاحظ فيها عدم اكتفائه بالفتحة فأضاف إليها هذه الأشكال بقصد التبسيط!!

Figure 10 More reform proposals that feature different concepts and additions of shapes. Different characters added in each proposal through unrecognized handwriting (from Al-Saggar, 1998, pp. 82).

افتراح على الجارم : الحركات والتنوين

مشروع الشاعر علي الجارم (مصر) ، لربط الحركات بالحروف ، وكان

- ١ إبقاء الحروف العربية كما هي .
- ٢ لا علامة للفتحة باستثناء يَ وَ ، في وسط الكلمة .
- ٣ الضمة قوس تتصل بالحرف المضموم .
   ٤ الكسرة خط مائل يتصل بالحرف المكسور من تحت .
  - ٥ السكون حلقة تتصل بالحرف الساكن .
    - ٦ ثلاث علامات للتنوين .

Figure 11 A proposal submitted by Al-Gharim; he replaces the shapes of vocalization marks with other shapes and integrates them within the text as additional letters [top] and a short explanation of the proposal written by Al-Saggar [bottom] (from Al-Saggar, 1998, pp. 82)

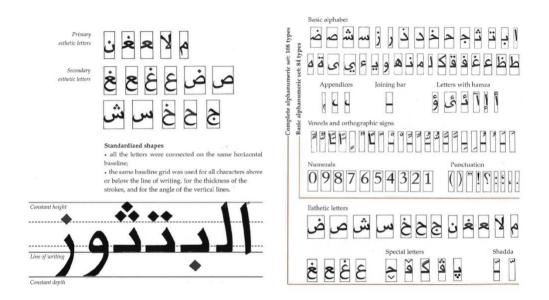


Figure 12 Mohammed Lakhdar-Ghazal's proposal in 1958 (from Moginet, 2009, pp. 98-99).

فارّله على اللهنات المعالّلهات المعالّلهات المعالّلهات المعاللهات المعميرات العميرات العائلها معمد التاعيما على العائلها العالم العائلها العائلها

صَرَّحَ أَعْضَاءُ اللَّجْنَةِ المُؤلَّفَةِ لِمُكَافَحَةِ الْأُمَّيَّةِ بِأَنَّهُمْ سَيَنْ شُرُونَ لَتَا يُجَ أَعْمَالِهِمُ الْأَحِيرَةِ لِأَنَّهَا مُهِمَّةً جِدًّا.

 $\mathbf{Q}_1$ רַנדָּגַּז פּרַספּס װנְדָּגָּטִיּפּׁגַ וּנְסָפּפּטִּד טִּדְפּטָּד נוסף פּוֹמָדְּגַדָּפֿגַ וּנפּף. בּטַבְּאָדְפָּגַ בּיַבְסוּנופּוסף וּנפּדַ בּצַעַדְפָּגַ בּיַבְיּאָ בּיִבְיּאָ בּיִבְיּאָ בּיִבְיּאָ בּיִּאָ בּיִבְיּאָ בּיִּאָ בּיִּאָ בּיִבְּאָ בּיִּאָ בּיִיאָ בּיִּאָ בּיִּאָ בּיִּאָּ בּיִיאָ בּיִּאָ בּיִיאָ בּיִּאָ בּיִיאָ בּיִּאָ בּיִּאָ בּיִיאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִיאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִיאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּיאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּאָּ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּאָ בּיִּאָּ בּיִּאָּ בּיִּאָ בּיִּאָ בּיִּיּ בּיִּיּיִ בּיּיִייִ בּיּיִ בּיּיִייִ בּיּיִ בּיִּייִ בּיּיִ בּיּיִי בּיִּייִ בּיּיִי בּיּיִי בּיִּייִ בּיּיִי בּיּיִי בּיִּייִי בּיּיִּי בּיּיִי בּיּיִי בּיּיִי בּיּיִי בּיּיִי בּיּיי בּיּיִי בּיּיִי בּיּיִי בּיּיִי בּיּיִי בּיּיי בּיּייי בּיּיי בּיּיי בּיּיי בּייִיי בּיּייי בּיייי בּייִי בּייִי בּייִיי בּיּיי בּייִיי בּיייי בּייִיי בּייִיי בּיייי בּייִיי בּיייי בּייִיי בּייִיי בּיייי בּיייי בּייי בּיייי בּייי בּיייי בּיייי בּיייי בּייייי בּייייי בּיייי בּיייי בּיייייי בּיייי בּיייי בּיייי בּיייי בּיייי בּייייי בּיייי בּיייי בּיייי בּייייי בּייייי בּיייי בּיייי בּייייי בּייייי בּייייי בּייייי בּיייי בּייייי בּיייי בּייייי בּיייייי בּייייי בּיייייי בּייייי בּיייי בּייייי בּייייי בּייייי בּייייי בּייייי בּיייייי

ثلاثة نماذج من مشاريع السيد محفوظ بن حبيلس (الجزائر) .

Figure 13 Three proposals submitted to the academy by Mahfouz Bin Hebeels with original Arabic translation on the side as guidance (from Al-Saggar, 1998, p.84).

In another proposal, Ibrahim Sadili aimed to standardize the Arabic alphabet; he altered some letter shapes, abolished the cursive feature, and reduced the number of characters (Figure 14). He standardized the vocalization mark width and placed them in equal position either above or below the appendices of each character; one mark per letter.

Taysir Zubyan submitted a non-cursive proposal that integrated vocalization marks as additional letters (Figure 15). However, no explanation or translation was provided, making it challenging to recognize some letters and signs, and it's unclear if the proposal featured the reduction of characters. Similar to the proposals of Fahmi and Habeels, another interesting resemblance proposal was submitted by Yahya Boutimene (Figure 16) which aimed to create a visual relationship between Arabic and Latin characters by drawing Arabic letters resembling lowercase Latin and Greek alphabet letters (Haralambous, 2006).

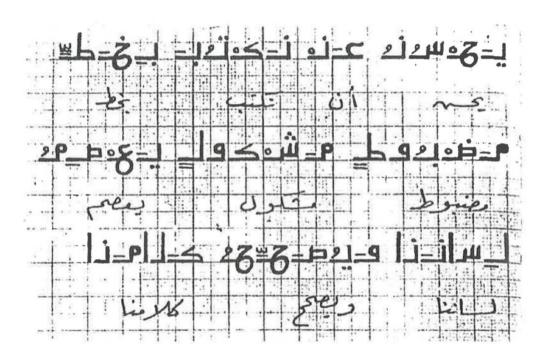


Figure 14 Ibrahim Sadili's proposal: one sign per letter. Also, consonants are followed by vowels with a standard width (from Moginet, 2009, p.92).

### الغبآء واعاوآدع

Meigre Marasy

أس ت قب الداوم عد صرب المالد لله فا عقد من المالد العضائل العاوم عن المالا المالد العضائل العضائل المالا ا



Figure 15 Taysir Zubyan's proposal features disconnected letters and integrates vocalization marks as extra letters (from Moginet, 2009, p.92).

Figure 16 Yahya Boutmene's proposal: Lowercase Latin and Greek characters are integrated to establish visual connections with Arabic characters (from Haralambous, 2006, p. 11).

Arabic calligrapher Mamoun Sakkal (2008) categorizes these proposals into three main purposes: (a) Simplifying Arabic reading by adding vowels and vocalization sounds as extra letters; aiming for script simplification. (b) Enhancing typesetting and Arabic writing for faster and more accessible text transmission; minimizing letterform variations for cost-effective publishing. (c) Modernizing Arabic by suggesting graphic solutions that deviate from traditional Arabic writing; including the incorporation of Latin letters (Moginet, 2009).

The discussed proposals primarily aimed to modify or eliminate certain elements of the traditional script, such as variations in single letters, vocalization marks, or the cursive feature. These aspects were often seen as complex or problematic, driving the inventors to seek significant script refinements rather than simplifications. However, none of these proposals gained approval from the academy, as they were perceived as departing from the traditional script and potentially undermining its integrity (Moginet, 2009).

### Reformation vs. Simplification

A reason for reviewing the academy proposals is to clarify the interpretations and intentions of the reformers and the simplifiers in solving the technical issues of the script. This has ultimately been done to direct the research toward simplification methods and processes rather than reformation - when reassigning the learning tools and developing the simplified learning content. Simplification focuses on promoting literacy and addressing technical script issues. In contrast, the conversion of Arabic characters to another language's characters (Romanization) and any change aimed at redesigning Arabic alphabet structure and shapes represent comprehensive reform attempts aimed at replacing the traditional script. To clarify this further with an example, the simplification concept can be linked to the repositioning of vocalization marks, like Ghazal's project (Figure 12), while the reformation concept can be referred to as an intention of entirely abolishing the marks or integrating them with the text like Al-Gharim's project (Figure 11). Furthermore, the reviewed proposals are categorized in the following paragraph to clearly distinguish between simplification and reformation intentions.

The projects that proposed a major script reform are: Abulaziz Fahmi, Al-Gharim, Sulaiman Mohammed Sulaiman, Yousif Augustine, Abdulatif Afifi, Mahfouz Bin Habeels, Taysir Zubyan, and Yahya Boutmene. Whereas the projects that proposed the simplification of the script are: Nasri Khattar, Mahmoud Taymour, K.B. El Farag. Mohammed Lakhdar-Ghazal. S. Ouaida, and Ibrahim Muhammad Sadili. It is important to note that the steps of reformation derived from the purpose of simplification in language learning for non-Arabs, meaning that the simplification efforts in making the script more accessible have given rise to the proposals of reformation attempts.

### Integrating Simplified Projects into Future Arabic Learning Materials

The earlier academy proposals were reviewed for two main reasons. The first reason was to study their purposes and their pragmatic and aesthetic features and incorporate their thinking and help develop the simplified learning tools. It was important to learn about the

execution of the typefaces as well as understand the design process and the design features of each. The second reason is to inform future practice and use it as a point of reference for research, and help categorize each typeface in the best context within the different learning levels (Figure 17).

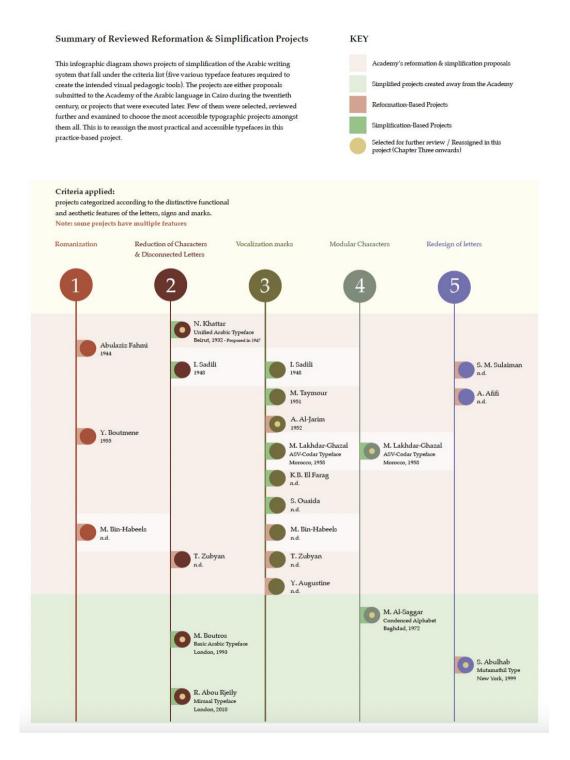


Figure 17 Summary of a selection of academy proposals and simplification projects reviewed and/or reassigned in this study.

Contemporary bilingual typefaces, with simplified characters, can represent *Romanization* for transliterating Arabic sounds and teaching word formation. Typefaces with *Reduced Characters & Disconnected Letters* can aid beginners in mastering individual letter shapes and forming simple non-cursive words. *Typefaces with Redesigned Letters* and *Modular Characters* can be chosen by instructors to challenge learners in letter and word recognition and anatomy. These typefaces are suitable for advanced levels of a learning unit to push and challenge learners in constructing letters and words.

### Re-envisioning for Future Research.

Future practice should reinstate the significance of educational typefaces as well as continue the use of simplification techniques implicitly or explicitly to help overcome the complexity of Arabic learning. The absence of educational typefaces and reliance on regular typefaces have limited the production of creative learning material. Interestingly, this has prompted experimentation with historic simplified typefaces, examining their design characteristics, research contexts, resources, simplification techniques, and tools. Therefore, further research is essential to gain a comprehensive understanding of how to effectively utilize these typefaces to enhance the learning experience within specific learning units. Exploring these possibilities will not only contribute to improved pedagogic outcomes but also pave the way for the development of effective instructional strategies and tools in Arabic language education.

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