Abilities of Persian Typefaces & Persian Calligraphy in Stencil Type Design
Stencil type and Persian type dialectic; abilities and debilities

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Abstract: Stencil as an ancient technique in type and image publication has a remarkable use in Iran and has a dialectical affect in Persian type as it is used in other cultures.

This research is presented in 2 sections. Each section starts by a principal question and had been tried to ask it subsequently. First section Regards abilities of Persian alphabet form, reed pen usage in different calligraphy styles and geometric forms in Persian decorative scripts. (Especially in Square Kufic). All found and obtained results, have been examined, and have been visualized in a new stencil type as a practical project.

In return, second section Regards abilities of stenciling to prevail over Persian alphabet difficulties in typesetting, during a new practical project that evolved from the first project. So it had been tried to intuiting Persian alphabet for Latin type system.

Key words: stencil, type design, persian calligraphy, ornamental scripts, geometric type, square Kufic.

Introduction
In today’s society, publication design is influenced by revolution in editorial industry and its issues (Like digital editorial design and electronic version of books) because communication is all-important and the power of print has never been stronger. (KINDLING (Victor Margolin, 2011)) In this modern situation, some social phenomenon like graffiti uses ancient styles.

Graffiti is the intellectual pub philosophy scrawled on the walls by a section of society which does not reach a media and use stenciling as a fast and simple technique for one’s illegal publication (Graffiti (Jaine Sharratt, 2000)).
Three years ago when I was a senior in Visual Art Department, Fine Art Faculty at University of Tehran; I chose graffiti art as the subject of my dissertation. So I began to search about it and its related cultures, techniques and styles. After a while I found stencil as an interesting technique because I had different experiences in silk screen printing and it seemed that stencil is a simpler version which was used in Far East many years ago on silks for clothes.

When I started searching I found different forms of stencil type in Latin works. But Persian stencils were so flat in type designing. So I decided to focus on Persian stencil type design.

Stencil type had a remarkable use in Iran as it was used in other countries. So designers tried to change and adapt the available Persian typefaces for stencil and in some efforts they reached noticeable results. But their efforts were not enough to explain all abilities of Persian typefaces and Persian calligraphy in stencil type design.

Also stencils gave the designers the possibility unlike metal types-to alter the types while setting the titles. For example, a designer could change the distance between letters or place the dots of the individual letters differently. Designers also enjoyed stencils for the possibility of writing outlined types. ((Farsi Display Types (Ali Haghighi, 2007))

This means that stencil types had a notable role in publication design and is usable to eliminate special limitations of Persian letterforms in typesetting and its anatomy (like: cursive form and connections, many scattering dots, different forms for different place in words, lack of a fixed baseline etc) to access easier system in editorial design.

1. Which abilities & debilities in characteristics of different Persian calligraphy styles are usable in stencil type design?

There are many different styles in Persian calligraphy and ornamental writing. In this section I represent three styles the most different; Nastaliq, a beautiful style that with the most Iranian characteristic than had ever been seen in other calligraphy styles, Naskh, a simple and balanced writing that had been out spread in all Islamic countries for publications and Square Kufik, an old ornamental script in modular system. (Atlas e Khat (Habibolah Fazaeli, 1985))

Nastaliq
As a symbol of Persian calligraphy Nastaliq has a sophisticated form. Nastaliq lettering that named Persian calligraphy bride, with all its beauty; due to its lack of a fixed baseline, and impossibility of separating letters and presence of various compositions, is not suitable for
type design at all. Before the application of metal type, *Nastaliq* and *Nastaliq* slanted were used for scribing letters, documents and marriage certificates.

**Figure.1**

*Nastaliq* has a special form in some rounded letters like *Mim* (*M*), *Vav* (*V*), *Fe’* (*F*, for the first & end), *Ghaf* (*Gh*, for the first & end), *Ein* (*E*, for the middle), *Ghein* (*Gh*, for the middle) which help in stencil design process because these are filled and their counters are deleted.

**Figure.2**

However, if close areas in counters were filled, stencil design is an easier work, because there is not necessary to create bridges and save island. Also in other closed letters like *Sad* (*S*), *Zad* (*Z*), *Ta* (*T*), *Za* (*Z*) with elevating ascender, and in *He’* (*H*, for the separated end) with shorten terminal and a distance that is natural in slanted *Nastaliq*, we can make a little bridge and save islands.
He’ (H, for beginning and middle) has 2 forms. The later form has Two Eyes that is Original form in Persian alphabet and is used in all calligraphy styles. The former form is special for Nastaliq and manuscript handwriting which was designed for easier and faster writing and this is simplest form for stencil.

Fe’ (F, for the middle), Ghaf (Gh, for the middle) and some combinations have completely trapped holes. This problem was removed many years ago in Pochoir stencil type.
*Pochoir*, as a sweet stencil typeface with round and thick serifs appeared in Paris in the 1980s. Its letters have strong writing contrast and its bridges are positioned at the thinnest points of the letter, following the natural contrast axis of the letter and thus keeping destruction down and legibility up. So it automatically gets a very calligraphic appeal.

This tested method is suitable for stenciling by every calligraphic typeface. So this is not a special ability for *Nastaliq* or other Persian calligraphy styles. But it is more useful in *Nastaliq* because it has much greater contrast between thick and thin than had ever seen in other calligraphy styles. There are many soft curves in Nastaliq. So writer must change pen angle to make great contrast. (*Talim e Khat* (Habibollah Fazaeli, 1984))

*Naskh*

*Naskh* writing is resembled from *Sols, Mohaghegh* and *Reihan*. Its letters are evolved from these styles. *Naskh* lettering was used for writing books before the application of metal type. (*Atlas e Khat* (Habibolah Fazaeli, 1985))
In comparison with Nastaliq, Naskh lettering has a fixed baseline, fewer compositions and most importantly the capability of having separate letters. Also, the letters could be extended; making it possible to have justified columns for any given text. In addition, this style throughout the evolution of Persian calligraphy became simpler, more fluent and legible. So the first set of lead types were produced by a calligraphic method copied from Naskh writing. Samples of these types can be seen in newspapers of the 1940's and 50's. ((Farsi Display Types (Ali Haghighi, 2007))

In Naskh lettering resemble Nastaliq; there were many letters designed in three forms: for the beginning, for the middle, and for the end of the word and some other were designed in two forms to be attached or be separated.
In Naskh there is not strong writing contrast but a special characteristic in Naskh letters is convenient in stenciling like Pochoir method. Reed pen usage in Naskh lettering in comparison with Nastaliq is episodic because there are oblique angles in its individual letters and writer does not change pen angle frequently. These oblique angles make suitable places for resonate calligraphic appeal by intentional bridges. (Talim e Khat (Habibollah Fazaeli, 1984))

Square Kufic

Square Kufic is a simple but sophisticated script of decorative arts used in Persian traditional architecture. It has a simple form because it was created for masonry, brickwork or tile work and formed in modular system by squares as its units.

It has a sophisticated form because designers must design legible Persian or Arabic phrases in this system and they must adapt all angles and curves of varietal forms, to right angles hardly.
But this limitation makes many chances for stenciling. If a modular system divides to its units many boundaries appear which are usable as bridges position. Also in corners there is a diagonal contrast which makes 45 angles equally suitable for bridges position.

After this research I intuited my foundings in 5 abilities. Filled letters and Greater contrast, from Nastaliq, Oblique angles from Naskh, same connections and separable details to equal details from square kufic.

As a practical termination I tried to use this combined perspective and I created a Persian stencil typeface. I selected triangle as a good unit in modular system for this purpose. It helped me to use results of my research in my design; save contrast between thickness and make oblique angles in a modular system.

Figure.11

To bring my project to an end I designed an ornamental composition using my stencil typeface and made a large format stencil sheet and did graffiti piece in the yard of my faculty. But it finally didn’t convince me.

Figure.12
2. Which abilities and debilities in stenciling technique help us to prevail over Persian alphabet difficulties in typesetting?

When I looked closer to my inconclusive project, I found succeeded results in some letters. I developed this to bring off my new typeface. For example Ta(T) and Za(T) were summarized to just one form for beginning, middle and end of the word and related connections were deleted.

What was the result? What was the difference between Ta(T) and other letterforms? I turned to gaze at my typeface with a comparison between letterforms and found cause. Rutted baseline and posture changing were original reasons because rounded counter leaned to right and rotated 45° clockwise and baseline was broken for adapting rounded part for square forms and saving its island.

![Figure.13](image)

I generalized these results instead of evolving new version of my stencil type carefully. During this effort, I found a similarity in angles between some letters which were met baseline. Also I found out that all connections are summarized to meeting points. In fact all connections were deleted but acute angles led my eyes to lateral letters and persuaded me that there were connections in sides.
Of course, what I reached looked like a new alphabet and was illegible for readers in first attempt. It was a Persian stencil typeface with letters which had single form for beginning, middle and end of words. I thought it may need redesigning because I believe that reading experience is very important for every typeface but it is not a disappointing result because for most of the readers single letterforms was readable and after some explanation about letters separating they read phrases better and better.

However there was a subtle but important point about reading problems. These problems almost may be evolved from stenciling method in its design. If I get away these restrictions and use this experience as a guideline in a grid system, I can design regular letterforms in different forms. It was easy because my geometric letterform was based in grid system. Therefore I tested this idea in simple variations. And it is another project for me.
This means that I redefined a new Persian type system with one form for every character that is usable in two type systems; cursive system (like regular Persian types with attached letters) and creative separated system (like Latin types with definable spacing between letters). Double dots and triple dots summarized and replaced by one little horizontal or vertical line. Also this simple typeface is examinable in Latin type anatomy easily.
A great change happened between regular Persian type and my stencil type also made major change to this new type system. So it must be tested by different readers carefully and it should be corrected more absolutely.

At last, I hope it be a useful experience for everyone who wants to prevail over Persian alphabet difficulties in typesetting and who wants to adapt it to Latin type system.

References
Pochoir A Stencil Typeface. Available at <http://www.yanone.de/typedesign/pochoir>