

Computer Aided Plating

By Martin Lovegrove

I am sure that the question being asked is: Why?

The answer is simply: *Sometimes it helps.*

Background

Let me explain. In 1924, the Hejaz government was under attack and fled from Mecca to Jeddah (Saudi Arabia), taking with them as much of the stock of stamps as they could carry, but leaving behind the printing plates and machinery. In order to invalidate the stamps remaining in Mecca, the stamps in their possession as well as stock (including part sheets) from post offices under the government's control, were overprinted locally in Jeddah sometime in early 1925. So far, no problem. At that time, Hejaz stamps were listed in the British Commonwealth Stanley Gibbons catalogue and had a large following; the genuine stamps produced could not satisfy the demand and a large scale forgery market appeared. When these stamps arrive for certification, it is usual to plate the stamp and all of the overprints; some of the overprint forgeries are very good. The basic stamps can be plated, but some values are harder than others, and because of plate wear, several reference sheets are required. Plating can take a long time!



This is an example of a Jeddah provisional overprint in blue on a stamp already having an overprint in gold dust on black ink. The stamp is a 3pi brown, SG 141, and is one of those that are not always easy to plate.

The stamp and overprints were printed from plates of 36 clichés (6 x 6).

A Possible Solution

Help is at hand in the form of a book where the absence or presence of dots in the design of the top, left, right and bottom (value) panels is listed. The book is *The Postal Issues of Hejaz, Jeddah and Nejd*, by Daisy F. Warin, published by D. Field in 1927. That makes it easy; just note the dots in the panels and check with the book. Unfortunately, some dots go missing because of poor printing and there are 32 pages of information about these dots in the book!

An example of a page in the book is shown on the next sheet.

So we have the data, but a lot of it. That sounds like an excuse to use a computer to help.

SIDE PANELS



EH. 10. 11. R. 12. K. 13. M.

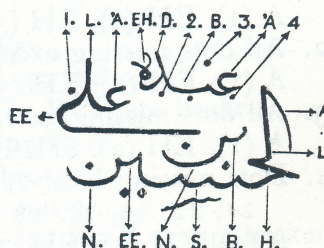
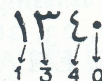
Left Panel



EH. 9. K. 10. M.

Right Panel

TOP OF CENTRAL PANEL



ONE-EIGHTH PIASTRE CHESTNUT TOP PANEL

No.

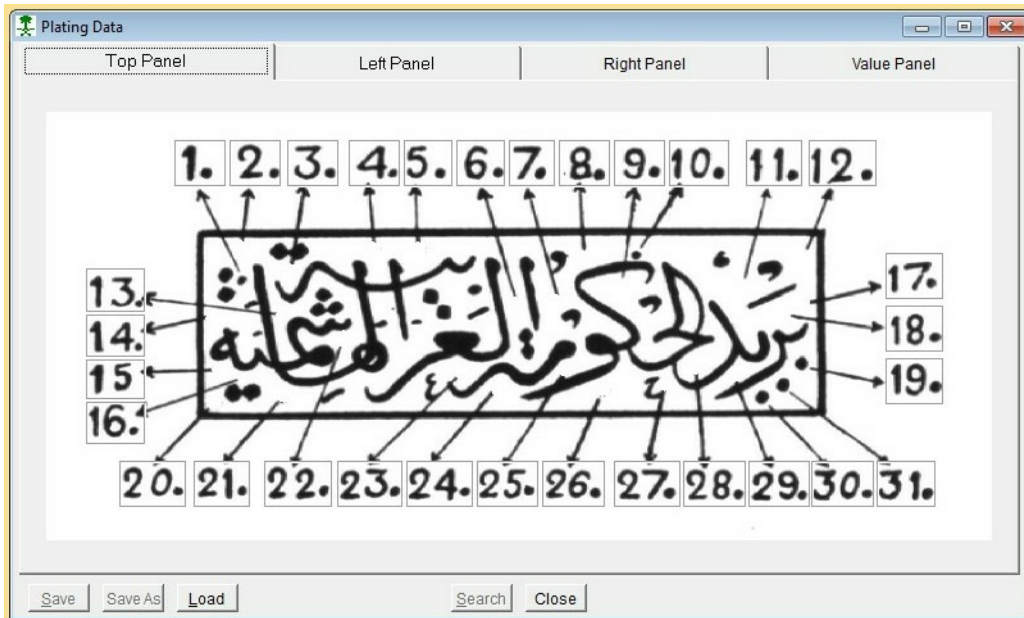
1. All dots missing except Nos. 14, 19, 24, 25, 30 and 31.
A (1), EH (2), L (2), EH (3), M (2), U, L (3) and R (2) are broken.
2. Dots missing Nos. 1, 3, 4, 5, 6, 8, 10, 12, 13, 16, 17, 23, 26, 27, 28, 29.
A (1), EH (2), EH (3), M (2) are broken.
3. Dots missing Nos. 1, 3, 4, 6, 16, 18, 21, 23, 27, 28, 29.
M (2), R (2) are broken.
4. Dots missing Nos. 1, 2, 3, 4, 5, 6, 12, 13, 15, 16, 20, 21, 23, 26, 27, 28 and 29.
A (1), EH (2), EH (3), U and R (2) are broken.
5. Dots missing Nos. 1, 4, 5, 6, 7, 8, 12, 13, 15, 16, 17, 18, 23, 27, 28, 29.
A (1), EH (2), EH (3), M (2), U, L (3) and R (2) are broken.
6. All dots missing except Nos. 9, 19, 20, 25, 30, 31.
A (1), EH (2), EH (3), M (2), R (2) are broken.
7. All dots missing except Nos. 11, 19, 20, 30, 31.
A (1), EH (2), EH (3), M (2), R (2) are broken.
8. Dots missing Nos. 1, 3, 4, 5, 6, 13, 15, 16, 17, 18, 20, 21, 22, 23, 26, 27, 28 and 29.
A (1), EH (2), M (2) and U are broken.

A page from Warin's book

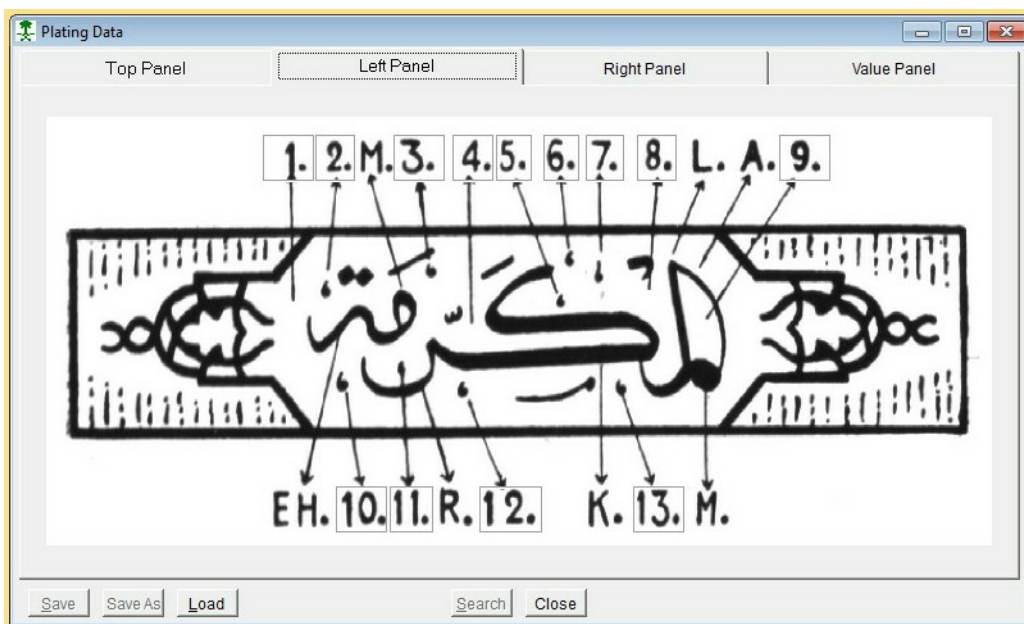
The Computer Project

One aim was to keep the project as simple as possible, so the data went into a single file, entered manually without the need for data capture software. I am sure that would not satisfy the purists, but it worked.

The user interface for capturing the information about the status of the dots on the actual stamp was designed to mimic Warin's illustrations of the panels (some shown above). The user just has to click on the dot number to toggle the dot's visibility on or off.



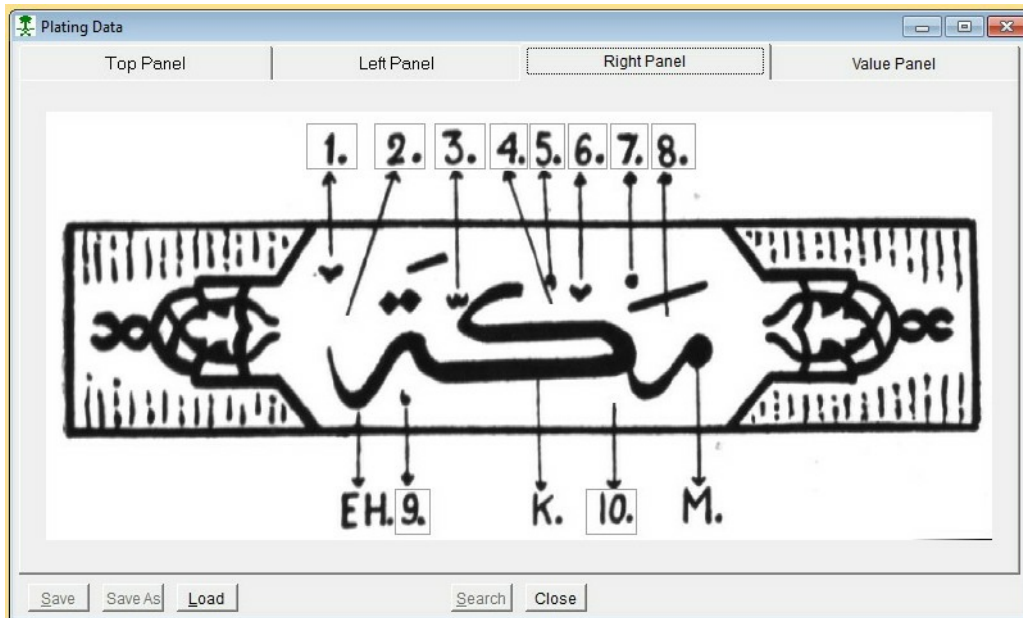
The dot visibility set for the top panel of the subject stamp.



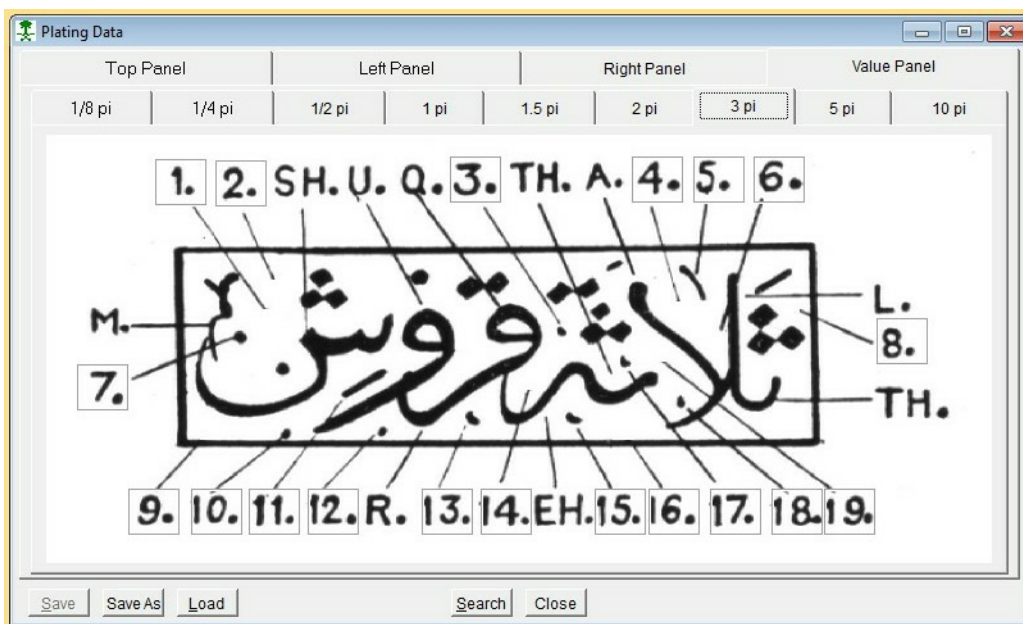
The dot visibility set for the left side panel of the subject stamp.

The problem with the left panel of the subject stamp was that the gold overprint obscured areas where dots should have been. The computer program would have to be able to handle this.





The dot visibility set for the right side panel of the subject stamp.



The dot visibility set for the 3pi value panel of the subject stamp.

At this point we are ready to let the computer find the best match for the data we have entered. Just in case incorrect data had been entered, I added the facility to save the current state so that it could be re-loaded for subsequent correction rather than start again. Guess who learnt that from bitter experience!

The Results

The results are shown below. The best fit is indicated by the red arrow, but other likely plate positions are shown in case actual inspection of a sheet shows the suggested plate position to be incorrect. There is also the facility to remove a panel from the search should it be obscured by a heavy postmark.

The screenshot shows a software window titled "Plating Data for 3 pi". It contains a table with four columns: "Top Panel", "Left Panel", "Right Panel", and "Value Panel". Each column has two sub-columns: "Position" and "% Fit". A red arrow points to the first row of the table, where the Top Panel position is 20 and the fit is 92%.

Top Panel		Left Panel		Right Panel		Value Panel	
Position	% Fit	Position	% Fit	Position	% Fit	Position	% Fit
20	94	20	85	20	100	20	89
21	94	30	85	26	100	19	89
27	94	22	85	31	100	28	84
23	94	18	85	32	100	21	84
32	94	24	77	33	90	22	79
15	94	6	77	21	90	26	79
26	90	7	77	19	90	27	79
33	90	8	77	25	80	33	79
9	90	4	77	27	80	18	79

Below the table, there is a section titled "The best fit for panel(s):". It contains a table with columns "Order", "Stamp Position", and "% Fit". A red arrow points to the first row of this table, where the Stamp Position is 20 and the fit is 92%.

	Order	Stamp Position	% Fit
<input checked="" type="checkbox"/> Top panel	1	20	92
<input checked="" type="checkbox"/> Left panel	2	21	86
<input checked="" type="checkbox"/> Right panel	3	22	85
<input checked="" type="checkbox"/> Value panel	4	28	85
	5	33	85
	6	19	85

To the right of this table is a "Results" section with radio buttons for "Top", "Left", "Right", and "Value". The "Top" panel is selected. Below the radio buttons, the text reads: "TOP PANEL: M(2) and U are both broken."

Finally

Checking the result against several sheets of the 3pi stamp showed that the suggested position of 20 was correct.

However, for the certificate, there is more to the story. The blue overprint is actually from plate position 26 and was therefore (for a 6 x 6 plate) misaligned vertically by one row. This could be explained by the accidental misalignment of the sheet of stamps in the printing press or a deliberate misalignment in order to overprint a partial sheet retrieved from a post office.

The stamp description :

3pi brown from plate position 20 with 1924 Caliph overprint in gold on black further overprinted in blue with a 16mm Jeddah 3-line overprint from plate position 26, SG 141.