

The inscriptions on an astrolabe in the possession of John Allan, Edinburgh

1. Kursi

Front

Cartouche with inscription in *naskh* reading المنطقه البروجات *al-mantaqat al-boruğāt* which can be translated as 'the zodiac'; the actual term used in Persian is منطقہ البروج *mantaqat ol-boruğ*, this is combined here with Arabic plural endings; all other signs are either diacritical marks or used to fill the space.

Back

Cartouche with inscription in *nash*, tentatively reading: کلیات مجمع ... و ستارات المشتري *kolliyāt-i majma' ... wa setārāt ol-moshtarī (?)* which might mean a chart of the stars (?); all other signs are either diacritical marks or used to fill the space.

2. Mater

The rim of the front is graduated into 206 (?) parts, each of which is assigned one or two letters (= number).

Based on the degree scale but meaningless, the degrees of the quadrant above left:

5/ 50/ 40/ 30/ 20/ 10/ 5/ 80/ 91/ 90/ 81/ 80/ 75/ 70/ 61/ 60/ 51/ 50/ 41/ 40 ... 30 35 20 ... 10

The second, inner circle is filled with a tendril offlowers and leaves instead another circle with degree scale.

In the recess in the front there are ten concentric bands , centre following two bands of flowers and leaves, 48 sections with names of planets and stars; one of the fields belonging to Capricorn with two names; starting from Aries they are given as follows:

الدنب المشتري / الشمس القمر / الزهره الشمس / الزحل الدنب / العطارد المريخ /
 المشتري الشمس / القمر الزهره / الزحل الدنب / العطارد المريخ / الشمس المشتري / الزهره
 القمر / الزحل الدنب / العطارد المريخ / الشمس المشتري / الزحل الزهره / القمر الدنب / العطارد
 المريخ / المشتري الشمس / الزهره القمر الدنب / الزحل العطارد / المريخ المشتري / الشمس
 القمر / الزهره الزحل / الدنب العطارد /

Deneb Jupiter / Sun Moon / Venus Sun / Saturn Deneb / Mercury Mars / Jupiter Sun / Moon
 Venus / Saturn Deneb / Mercury Mars / Sun Jupiter / Venus Moon / Saturn Deneb / Mercury
 Mars / Sun Jupiter / Saturn Venus / Moon Deneb / Mercury Mars / Jupiter Sun / Venus Moon
 Deneb / Saturn Mercury / Mars Jupiter / Sun Moon / Venus Saturn / Deneb Mercury /

The next band contains 24 sections, each with two letters or one single letter and a combinations of two letters. Again, one field contains two single letters and one combination of two letters. The first ten fields are repeated twice.

5 10 15 10 20 30 40 50 60 70 80 85 90 95 5 10
 ی ه / صه ص / فه ف / عه ع / سه س / نه ن / مه م / له ل / كه ك / ی یه / ی ه / قه ق /
 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95
 صه ص / فه ف / عه ع / سه س / نه ن / مه م / له ل / كه ك / ی یه / ی ه / له ل / كه ك

y h / sad-h sad / f-h f / ain-h ain / sin-h sin / n-h n / m-h m / l-h l / k-j k / y y-h / q-h q / sad-h
 sad / f-h f / ain-h ain / sin-h sin / n-h n / m-h m / l-h l / k-j k / y w y-h / y h / l-h l / k-j k /

The outer band gives the signs of the zodiac, first the Arabic term, then the Persian term.

الحمل گوسفند / الثور گاو / الجوزا دختر / السرطان خرچنگ / الاسد شیر / السنله گندم
الميزان ترازو / العقرب كژدم / القوس تيركمان / الجدى بزغاله / الدلو ظرف آب / الحوت ماهی

Aries / Taurus / Gemini / Cancer / Leo / Virgin / Libra / Scorpio / Sagittarius / Capricorn /
Aquarius / Pisces

There are two bands with inscriptions along the rim. The inner one is composed of 69 fields with single letters and combinations of two letters following the same rule as shown above. The outer band lists names of towns, provinces and countries. Starting at '12' and moving clockwise they read (not completely legible from the photographs) geographical table

Give Persian original

Esfahan, Kashan, Demavand, Saveh, Tehran, Qazvin, Zandjan, ..., Zemnan, ..., ...,
Nishabur, ..., Bastam, Bojnurd, Tus, Tabas, ..., ..., ..., ..., Yazd, Tabriz, Qucan,
Tabaristan, Sistan, Balucistan, Rafsandjan, Kerman, Djiroft, Abarquh, ..., Abadeh, ..., ..., ...,
Firuzabad, ..., ..., Rezajeh, Shahreza, Kermanshah, Golpeigan, Gorgan, Hamadan, Rasht,
Chorasan, Beirut (?), ..., Nahawand, Fariab (?), Damascus (sham), Aleppo, Mosul, Multan,
Baghdad, Karbala, Nadjaf, Cairo, Jordan, Damascus (damashq), Pakistan, Afghanistan,
India, Arak, Sanandadj, Shiraz

There are squares with single letters and combinations of two letters according to the scheme of the inner bands on the rim of the mater.

3. Back of mater

The back is divided up in four quadrants.
Above left a grid with 30 cells each cell diagonally divided into two fields containing

Conclusion

Signature: not signed, on other astrolabes a field below the shadow square
Similar to one of the 'Fake astrolabes' signed Muhammad Amin on the back of the kursî

This astrolabe has not been made as a scientific instrument. It also does not seem to have been made for astrological use.

Craftsmanship: good quality, division not always precise, not master piece

Production place: Starting place names with Esfahan might be a hint to production place.

Dating:

From mentioning the town Shahreza it is evident that the astrolabe was made during the time of the Pahlavi dynasty (1926-1978). ~~Shahreza~~ was named after Reza Shah Pahlavi, reigning from 1926-1941. The mentioning of Pakistan gives a further *terminus post quem* as Pakistan was founded on 14th August 1947. It cannot be made later than 1978 as Shahreza was renamed after the Islamic Revolution 1978/79. Stylistic reasons: Safavid turban face similar to painted boxes made in Esfahan ... Three dimensional impression – 1950er/60er Jahre?
Similar astrolabe in Pingree acquired 1947

06/12/2010

