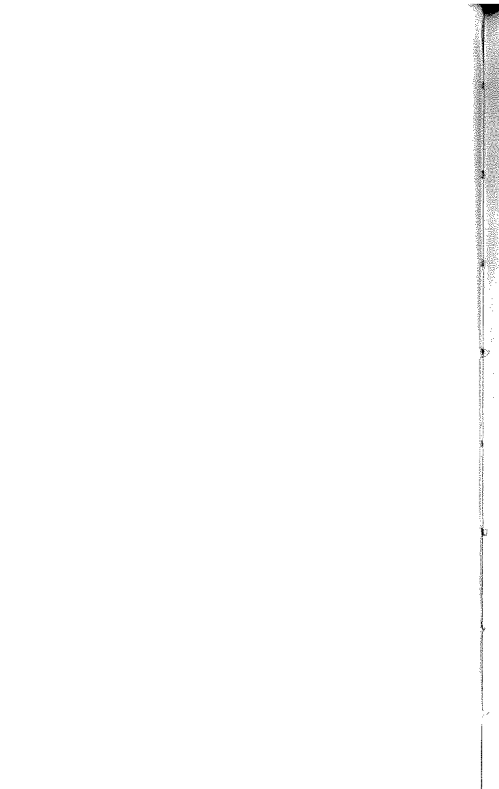




The Correct Date of the Trengganu Inscription:

Friday, 4th *Rajab*, 702 A.H./Friday,

22nd February, 1303 A.C.



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by

PROF. DR. SYED NAGUIB AL-ATTAS, M.A. (McGill), Ph.D. (Lond).



MUZIUM NEGARA, KUALA LUMPUR, MALAYSIA

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STATES OF MALAYA
KUALA LUMPUR
1970

1589

Pelaksanaan Negara
Malaysia

The correct date of the Trengganu Inscription:

Friday, 4th. Rajab, 702 A.H./Friday, 22nd. February, 1303 A.C.

Historical scepticism, not to be equated with general philosophical scepticism, is an old disease. It is by no means a product of modern learning or of the critical method, neither did it spring from ancient Pyrrhonism. It seems to arise whenever a powerful new trend of thought forces a period to redefine its point of view with regard to history...

The more refined form of scepticism does not *a priori* deny the authenticity of sources, but denies the possibility that factual evidence, even that of contemporaries and eye-witnesses can be correct. This is the substance of the story told of Sir Walter Raleigh, who watched a tumult in the courtyard of his prison and afterwards heard the affair described by the jailer who brought him food, and who then, troubled by the discrepancies between his own observation and that of another eye-witness, is said to have flung his newly-finished *History of the World* into the fire.

There is sufficient reason for doubt of this kind. We know that psychology, especially in the service of the courts, amazingly confirms Raleigh's experience every day. If one stages a disturbance, planned in advance, in a lecture-hall and asks the eye-witnesses, each quite unaware that it is planned, to write down their versions of the affair, it turns out that their observations are hopelessly divergent. The conclusion is obvious: if the untrust-

worthiness of every witness' evidence can so easily be demonstrated in simple cases of everyday life, how far can we trust the indirect, often partisan, often embroidered accounts of the past?—The man who permits himself to be misled by this basic historical scepticism usually forgets the following: first, that modern critical historical scholarship does not by preference draw its information from deliberately biased narrative sources but rather from direct survivals of the past, material or literary; and moreover, that its method has taught it to examine historical sources critically. Furthermore, the laboratory of the courtroom that demonstrated the limited value of each witness at the same time offers the counterproof. When the contradictory evidence was placed in the hands of an experienced judge, he was usually able to reconstruct the actual event, as previously recorded, from the faulty materials.

The following, too, must be noted. It is just the hypercritical historical scholar, the sceptic *par excellence*, who is usually forced into fantastic constructions for his own aberrant presentation of the facts; and who having started from critical doubt, thus ends up by falling into the profoundest credulity. The strongest argument against historical scepticism, however, is this: the man who doubts the possibility of correct historical evidence and tradition cannot then accept his own evidence, judgement, combination and interpretation. He cannot limit his doubt to his historical scepticism, but is required to let it operate on his own life. He discovers at once that he not only lacks conclusive evidence in all sorts of aspects of his own life that he had quite taken for granted, but also that there is no evidence whatever. In short, he finds himself forced to accept a general philosophical scepticism along with his historical scepticism. And general philosophical scepticism is a nice intellectual game, but one cannot live by it. . .

Reliance upon authentic documents, the comparative

method, systematic criticism, have all decreased the danger of sceptical despondency. Careful observation, able to reject the false and unreliable on the basis of experience and comparison, raises the value and certainty of things proved true and correct. The trained historian feels sure enough in his use of criteria; only the untrained are inclined now to accept flagrantly false versions, now to reject the most authenticated. The critical historical faculty makes three demands: common sense, practice, and above all an historical sense, a high form of that discrimination by which a connoisseur knows a true work of art from a false one, knows one style from another.

Huizinga—*The Idea of History*

It is now almost half a century since the first notifications purporting to give important details on the Trengganu stone inscription were published. These are two articles in English which appeared in the *Journal of the Malayan Branch of the Royal Asiatic Society* dated 1924: one by Major H.S. Paterson, a Malayan Civil Service officer who was serving in Trengganu, and the other by Dr. C.O. Blagden, the noted scholar of Malay then living in London.¹ The two articles have been the unaltered and unquestioned foundation on which other scholars who wrote on the history of Islam in the Malay-Indonesian Archipelago in general, and in the Malay Peninsula in particular, have based their writings on the subject. There were other brief, sporadic notices, but these have either merely repeated what is already stated in the two earlier articles, or have failed to set forth alternative, convincing arguments against Blagden's scepticism in order to establish the correct date, or even the date most reasonably acceptable on the testimony of the given facts.² Apart from the two articles, then, no new article which casts new

¹ See vol. 2, pt. 3, December, 1924, pp. 252-263.

² See for these, Engku Pengiran Anum, "How the Trengganu Stone was found," *Malaya in History*, vol. VII, no. 1, September 1961, pp. 30-3; S.Q. Fatimi, *Islam comes to Malaysia*, Malaysian Sociological Research Institute, Singapore, 1963, pp. 60-4; S.H. Alatas, "Archaeology, History and the Social Sciences in Southeast Asia," *Federation Museums Journal*, vol. IX, new series for 1964, p. 22.

light on the main 'problematic' question regarding the authenticity of the date inscribed in the stone has ever appeared. The present article is the third one to deal with the problem of the stone inscription seriously, and it is the first one ever to attempt to settle once and for all the controversy about the authenticity of the date inscribed, which is—on the testimony of the deciphered data—given as a certain Friday in the month of *Rajab* in the *Saraṭān* (Cancer) year of 702 A.H., which apparently corresponds to one of the Fridays in the months of February or March 1303 A.C.³

Paterson's article, though most useful in that it gives a deciphered account of the inscription, is merely descriptive. No attempt was made on his part to go beyond description into the difficult domain of interpretation, or analysis insofar as the date is concerned if that date is subject to doubt. It was Blagden who attempted that; who perhaps relying on his authority as a scholar of Malay, took it upon himself to analyse that part of the inscription in particular which gives its date, and who in so doing also attempted to insinuate his own sceptical interpretation casting doubt on what ought to have been taken—as I will here demonstrate—on its face value as clearly authentic. Blagden spun a web of doubt around the authenticity of the date of the year inscribed (702 A.H.), and supported his doubt by demonstrating the *general* and *theoretical* possibility of multiplying the reading of the date to 21 alternative series: 702, or 708, 720–729, and 780–789. Because of the given month (*Rajab*), however, he had to reduce the number of alternatives considerably,⁴ and after ingeniously juggling further in accordance with the requirements to meet the given month and what was considered as the given Cancer (*Saraṭān*) year, he finally settled on 788 A.H. (1386 A.C.) as the possible and most probable date of the stone inscription.⁵ Forty-four years later in 1968 G.W.J. Drewes, a noted Dutch orientalist scholar who lives in Noordwijk, seems to have been infected by Blagden's pestilential doubt, and observed, with reference to those who would accept among others the authenticity of the date of the year of the stone inscription as 702 A.H., that too many uncertainties

³ In this article the abbreviations A.H. and A.C. stand for 'After Hijrah' and 'After Christ' respectively.

⁴ Blagden, *op. cit.*, p. 259.

⁵ *Op. cit.*, p. 261.

have been taken as firm facts.⁶ Drewes remarked that he agreed with Blagden that the words *tujuh ratus dua* (702) could very easily be a *fragment* of a date, and that they thus by no means guarantee that the stone was erected in 702 A.H. He further echoed Blagden's observation that other words giving numbers could easily have followed the word *dua* (2) there, and that every scholar of Malay will confirm this possibility as true.⁷ It is indeed true that every scholar of Malay will confirm as true the fact that the word *dua* (2) can be made to denote the numbers 8 and 20 if two other words were added after it such as *lapan* (*dua-lapan*: 8) and *puluh* (*dua-puluh*: 20) respectively; and that out of these combinations 19 other numbers can arise. But this is true only in general, not necessarily in particular; in a hypothetical case, not necessarily in a given context. Therefore the major and minor premises with reference to the word *dua* (2) and the words giving the date *tujuh ratus dua* (702) respectively should not lead one to the conclusion that the words *tujuh ratus dua* (702) by no means guarantee that the stone was erected in 702 A.H. unless it is established that the word *dua* there is incomplete. The syllogism adopted by Blagden and those who agree with him in this connection is fallacious as the conclusion can be demonstrated to be *non sequitur*. That the word *dua* (2) is incomplete has never been established or even demonstrated. The arguments set forth to show that the word *dua* (2) inscribed on the stone is incomplete or susceptible of other readings are very weak, grounded as they are upon shaky conjecture and mere speculation. This will be demonstrated in what follows, in which I propose to deal first with Drewes' assumption as to why the date of the inscription is not established.

Drewes says that the date is not established because "the stone is damaged at that spot."⁸ Where does the word 'spot' refer to? The correct connotation would be that it refers to that place immediately after the word *dua* on the stone. Drewes' observation is not true as the spot or place immediately after the word *dua* is not in the least damaged. This reveals, it seems to me, that Drewes did not examine the stone himself, but rather made his observation based on photographic evi-

⁶ See his "New light on the coming of Islam to Indonesia?", *Bijdragen tot de Taal-, Land- en Volkenkunde*, deel 124, 4e aflevering, 's-Gravenhage, 1968, p. 455.

⁷ Drewes, *loc. cit.*

⁸ *Loc. cit.*

ence, which can in fact and does in this case mislead. If we examine the stone itself, which is now exhibited in the Muzium Negara in Kuala Lumpur, we will see no damaged spot there. If he did not make his observation from photographs, then he could only have arrived at such conclusion based upon hearsay and, if so, again, Drewes has not faithfully reported on the description of the stone and the 'problem' connected with the words *tujoh ratus dua* as stated by Paterson and Blagden. The latter was referring to the possibility that the date conjectured, which comprises the last word or words of the statement of the date given, could have run over onto *the next face*, the upper part of which is lost. So it is not because the stone is damaged at that spot after the word *dua*, but that the upper part of the stone, on which more words could have been inscribed, is lost—this was and is the main reason for doubting the date given (702 A.H.). In order to proceed with our critical analysis and evaluation of the doubts set forth we will now deal with Paterson and Blagden.

First of all, what has Blagden himself got to say in defence of his arguments?

All this is very inconclusive, but it seems worthwhile to state the elements of the problem, so far as I understand them, in the hope that something may turn up some day which will help us to decide between all these conceivable alternatives. On general grounds I am inclined to lean towards the latest possible date. But I am free to confess that this feeling, for it is nothing more, is based on our ignorance of the condition of the Malay Peninsula in the 14th century coupled with the relatively late 13th century evidence for the establishment of Islam as a state religion in Northern Sumatra. That, however, is not tantamount to proof, it is merely calculated to raise some degree of presumption; and if anybody prefers to accept one of the possible earlier dates for the Islamization of Trengganu, it appears to me that on the evidence as it stands at present, it cannot be shown that his view is wrong. Whatever the date may have been, I think the record was made at no long interval after it and there is,

therefore, no reason to doubt that it gives a true date, if only we could be sure what that true date really is.⁹

Blagden's account, which raises the problem of the Trengganu inscription, and his computations as to the correct date and how this has influenced theoretical formulations on the history of Islam in the Malay-Indonesian Archipelago, once again proves that hypercritical historical scholarship which forces itself into constructions for its own aberrant presentation of the facts is most misleading. Indeed many have been so misled, and for almost half a century now the fact that no advancement has ever been attained in increasing our knowledge on the subject is clear proof of the fact that stagnant scepticism has served no pragmatic purpose. Doubt is not knowledge—the more so when it is “inconclusive”; when acceptance of its belief is based on articulate vagueness pretending to clothe itself in the garb of reasoned “general grounds”; when it is led towards the precipitous abyss of falsehood by blind “feeling”; when it contradicts itself that there is no reason to doubt and yet still doubts; when in fact it does so not because of the problematic nature of the historical situation, which it invariably makes out as a scapegoat for failure to achieve positive knowledge, but because of the scholar's own ignorance of the limits of his own knowledge of the subject. Were ignorance of the condition of the Malay Peninsula in the 14th century coupled with the relatively late 13th century evidence for the establishment of Islam as a state religion in Northern Sumatra really the reason for not being able to be positive about the date of the Trengganu inscription, then we will still not be able to present that positive solution, for we still are in a state of such ignorance, and perhaps will continue so for a long time to come. But this paper will demonstrate that such ignorance is not the necessary cause of failure to be more positive of the date of the inscription, for in spite of such ignorance on my part, I am still able to produce a positive solution to the created problem.

Before coming to that solution, however, I would like to draw attention, as an eye-witness of the factual evidence of the inscription itself, to a few preliminary points concerning certain relevant peculiarities of the *Jawi* (Malay-Arabic) script, with which I am myself professionally familiar not only in reading it, but in writing it in its cursive and calli-

⁹ Blagden, *op. cit.* p. 261.

graphic forms. The script is flexible and dynamic in that it can be shortened or lengthened or made to form all manner of shapes depending upon the nature of the material on which it is written or inscribed and the space available thereon as well as the artistic gifts and ingenuity of the writer, scribe, or calligrapher. Letters forming words to make sentences may be formed after, above, and below words in the beginning to achieve harmony and symmetry. Consistency in application and adherence to a particular form, either of the writing or of the layout, is generally strictly maintained. Spaces meant to be filled are filled, in accordance with symmetrical requirements, and not left blank, so that if a word were to appear in the last line which should contain many words, that word would not be written at the line of indention on the right hand side, where the script begins, but in the middle between the right and left hand lines of indention. If the word were written at the line of indention on the right hand side, then its letters would be lengthened appropriately so that it fills the whole line, thus achieving harmony with the text above it. Sometimes embellishments are put in appropriate spaces to maintain harmony and symmetry and to achieve decorative effects.

To return to the Trengganu inscription, Paterson's description will suffice for our purpose:

The stone itself is a roughly squared stele of gneissic granite of which the top portion has been lost. The fragment in our possession stands 33 inches in height, with a maximum breadth at the top of 21 inches tapering to 10½ inches at the foot, and an average depth from front to back of 9½ inches. It weighs between 400 and 500 lbs. The inscription covers all four faces for a distance of 18 inches from the top; the remaining space of 15 inches at the bottom has been left clear with the obvious intention of allowing the stone to be planted upright in the ground.¹⁰ The characters appear to have been engraved with a pointed instrument to an average depth of 1/16th of an inch, and are for the most part easy to trace, having

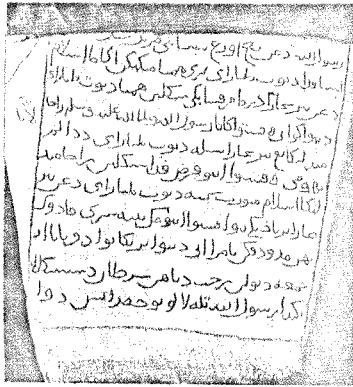
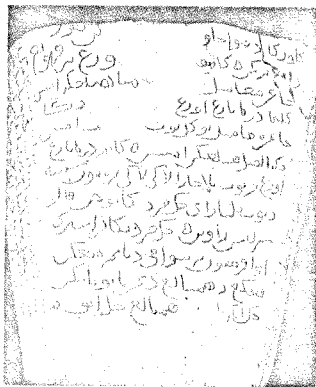
¹⁰ This need not be necessarily so, it could have been so cut to enable it to be planted upright in a raised stone base or pedestal.

suffered little from weathering, and this in spite of the fact that the stone is fissile and will not easily withstand rough handling. As it is, the surface has flaked off in two places, the larger of which has left a lacuna of several words not easily supplied by conjecture.

The photographs show that the workmanship is distinctly crude. No attempt has been made to reproduce the formal and decorative effect to which the Arabic script lends itself; the spelling is unorthodox as compared with later usage, and in addition to a few definite blunders, the task of deciphering has been rendered more difficult by the absence of nearly all the diacritical points which in Arabic script serve to distinguish one letter from another. The order of the faces is clearly ascertainable—Starting from the front or broadest face which is marked A, the inscription continues on the back, marked B, whence it curves without a break round the left hand bottom corner onto the left side C where the writing runs lengthways up the stone, and it concludes on the right side D running lengthways from top to bottom. Thus, as we have only the bottom portion of the stone; the top portions of A and B, the ends of the lines of C, and the beginnings of the lines of D are missing. It is hard to say what is the relative amount of the missing material, though it may be as much as one half of the whole record.¹¹

Having been briefed on a description of the stone and the inscription as above, consulting the photographic prints here provided as the occasion demands, we will now proceed with observation and consideration of a few facts. Starting with the front face marked A, where the 'problematic' crucial words denoting the date occur at the left hand side of the last line: *tujoh ratus dua*, the word *dua*, we will notice at once, is engraved having comparatively wide spaces between each letter from the last letter *sin* (س) of *ratus*. The scribe could have engraved these letters forming the word *dua* more closely together as there is ample space for him to do so. But he did not do so and there was a reason why this

¹¹ Paterson, *op. cit.*, p. 253. See above pp. 10-11 for photographic prints.



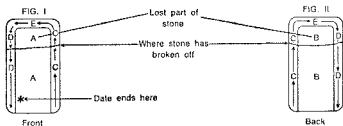
was so. Bearing in mind what I have said about the art of writing the Arabic script, the scribe obviously wanted the last line to fit into the whole face of the stone as an oblong shape and intended that it fit into the lines of indentation on the right and left hand sides. The front face is the most important since it proclaims the edict and contains the date, and hence it is enclosed or framed by lines on the right and left hand margins as well as the bottom, and presumably also at the top on the lost portion of the stone, forming a clear oblong or rectangle. The fact that the letters forming the word *dua* are spaced comparatively widely shows that the scribe intended that they fill the space to coincide with the left hand indentation, clearly showing that he had completed the sentence and meant that it ended there. If the words *lapan* (eight) or *puloh* (tens) are intended, the scribe would have had ample space to include either of them after *dua* (two) there, and the fact that this is not so reveals that the word *dua* ends the sentence. This fact is further emphasized by the only lines forming a rectangular frame around the text of the inscription on the face of the stone, showing enclosure of the text there as complete. If we merely examine the photographic print of A, the part in question appears to give the impression that the space after the word *dua* and the left hand side of the lines and the bottom one does not meet, thus giving one the false impression that the spot is damaged there. In fact, however, the spot there is not damaged and the lines on the left and the bottom do meet neatly. Such impression is created, particularly on the photographic print, because of the rounded nature of the sides of the stone.

The next point of observation is to show that if there are other words after the word *dua* meant to give numbers completing a hypothetical date, then the manner in which this particular scribe would have done it, in accordance with the rule of consistency, is to carry on engraving them, in spite of the line or left side of the rectangle, onto side D at the bottom right hand corner, in the manner he had done in the case of the back of the stone B, where the word *mandalika* is carried on to the word *bujan* on side C in a continuous line. But this is impossible as on the side D the words run from top to bottom vertically and not the other way round. Even so, there is still some space there if the word *dua* on A is incomplete and the scribe could have engraved the word or words missing in that manner. Clearly, then, the word *dua* on A is complete.

A third point of observation will show at once that Blagden's presumption on the possibility of other dates is false. Blagden says:

If, however, the statement of the date ran over onto the next face, the upper part of which is unfortunately lost, various possibilities arise.¹²

It is this "if" that was productive of 21 different alternative dates from which Blagden created a veritable maze out of which historians till now have not been able to escape! Drewes' remark, directed against those who would accept among others the authenticity of the date of the inscription as 702 A.H., that "too many uncertainties have been taken as firm facts" should in fact be controverted to refer to those who, like him, have taken the too many uncertainties in Blagden's presumption as firm facts. The proof that Blagden has succeeded in implanting the fertile seed of doubt, which has now itself been taken as firm fact, is the fact that for almost half a century now, no one has been able to establish the date. In reality, however, the statement of the date, contrary to Blagden's supposition which is based entirely on speculation, *cannot* run onto the next face, the upper part of which is lost, so that the "various possibilities" cannot really arise. A mere glance at the stone itself will show that the lost upper part, which completes the next face referred to and the inscription as a whole, would contain not the inscription carried on from face A, but the remainder of face D continued from the top part of the stone (face E) and that part which would be the remainder of face C. In other words what is on face D is a continuation from face C, running vertically from right to left at the bottom of face C to the top face of the lost part (E) across and on to face D downwards. The diagram below will simplify the explanation further:



¹² *Op. cit.* p. 259.

The weak arguments Blagden has put forth to support his presumption, which not only betrays his lack of the rational approach, but also his lack of diligent study of the stone itself and familiarity with the rules of Arabic calligraphy and Muslim tradition, makes me conclude—I think rightly—that such arguments are not the *initial* and *real* ‘reason’ for his doubt, as I will show in the following lines. What was the *real* problem that plagued him? It was in fact the term *Sarafān*, which is supposed to record the year of the inscription, which is an Arabic word for crab or crayfish and denotes, in medicine, the disease cancer; in astronomy, the fourth Zodiacal sign Cancer—the Crab. According to his computations based on the solar system of calculating the years, he misled himself further by resorting, as was and still is the fashion among western orientalist scholars of Malay and Indonesian studies when confronted with historical perplexities, to the Hindu past and to Indian tradition for a “conceivable explanation” of the riddle—for indeed riddle it was till the present day, since the sign Cancer to designate the year of the Muslim date does not tally with the month and year given in the inscription. *Here lies his basic error*, and even Muslim scholars such as Fatimi and others have been misled in this and have not even attempted to show that computations based on the solar cycle are not applicable to the Muslim Calendar, which is based entirely on the lunar system of calculation. Blagden’s “conceivable explanation” is based on the implication that the Muslim Malays were still influenced by the Indian tradition of the Hindus in their application of the Muslim Calendar—an explanation which is not only inconceivable in this case, but also ridiculous. I am not saying that there were and are absolutely no Hindu or Indian influences in the life of the Muslim Malays, but that where Qur’anic injunctions pertaining to doctrine are concerned, Muslims must adhere to and have always abided by them the moment they embraced Islam, although with respect to other matters not clearly and absolutely connected with doctrine, they might still tolerate or allow themselves to continue to be influenced by past customs and traditions. Now the computation of time and the calculation of years and months is a matter regarded by Muslims as clearly and absolutely connected with doctrine, and this is evident even to this day where Muslims the world over continue to abide by their Lunar Calendar in spite of their concurrent use of the Solar Calendar of the West—especially where

religious and Muslim events are concerned. In fact the Muslim Calendar is a religious calendar, and based solely on the Moon's changes. The Holy Prophet is reported to have said at his Farewell Pilgrimage:

"A year is twelve months, as at the time of Creation". Verse 36 in *Sūrah IX* of the Holy Qur'ān says:

*Inna 'iddata'l-shuhūri 'inda'llāhi ithnā 'ashara shahran
fī kitābi'llāhi yawma khalafa'l-samāwāti wa'l-arḍa...*

The number of months in the sight of Allāh is twelve (in a year)—so ordained in the Book of Allāh the day He created the Heavens and the Earth...

The above verse and the one following condemn the irregularities that were arbitrarily taken advantage of by the Pagan Arabs in their calculation of their months based on a roughly luni-solar year like the Hindu year. After they had become Muslims, the Arabs and all other Muslim peoples adopted the Muslim Lunar Calendar in its entirety. It is clear that the Malay Muslims would never have continued to adopt the Hindu year, if at all they knew it, when the Qur'ān expressly tells them that only the Lunar year is permissible in Allāh's sight. It is therefore futile to try to solve the riddle of the Cancer Year deciphered from the inscription by speculation on a host of obscurities such as attempted by Blagden. What is astonishing is the fact that to this day since Paterson first published the deciphered details of the inscription no one has ever doubted Paterson's or Blagden's *reading* of the inscription, in particular with respect to the reading where it gives the date. Indeed the solution to the riddle of the year given as the Cancer Year (*Saraṭān*) depends not in juggling with the Zodiac and the obscurities of Hindu astronomy, but in pointing out the decipherer's astronomical error in deciphering the word which is given as *Saraṭān* or Cancer, and in giving instead the correct reading. I am suggesting that the reading *Saraṭān* is an error.

Beginning where Blagden asks, with reference to the 'Cancer Year' of the date of the inscription: 'What does this mean?', I now answer: 'The question does not arise, as the word does not denote Cancer.' If we examine the inscription again closely, we will notice at once that all instances where the Arabic letter *sīn* (س) occurs are inscribed clearly to represent the letter *sīn*, i.e. with the 'head' of the letter sectioned or having 'teeth' thus: (س). The same appearance would have been engraved if *Saraṭān* or Cancer is meant since the word begins with a *sīn*.

Now the engraving shows the inscription to give a word beginning with a letter like the *sīn* although it shows that its 'head' has no 'teeth', but curves like a shallow bowl to join the second letter *rā'* thus: (س). It is very obvious that the first letter in question is meant to signify a *shīn* (ش) which comes next after *sīn* in the Arabic alphabet. In early inscriptions the dots are not given and the *shīn* is generally then written as a shallow curving line. The word *Saraṭān*, then, is an erroneous reading; the correct reading should be: *Sharaṭān*.

Sharaṭān, from the original form *sharaṭ*, which means a sign or portent, is the dual form of the latter. It refers in Arabian astronomy to two asterisms in the constellation Aries or the Ram, a sign of the Zodiac which the Arabs refer to as *al-Ḥamal*, the Sheep. In Arabia the Zodiac was known as *al-Miṭṭaqatu'l-Burūj*, the Girdle of the Signs or Stars forming Shapes or Figures (*al-Ṣuwar*). The Latinized version for the Girdle of the Signs is *Almantica seu Nitae*. More indefinitely it is called by the Arabs *al-Falak*, the Expanse of the Sky. The Qur'an makes reference to the Zodiac thus:

Wa laqad ja'aluḥā fī'l-samā'i burūjjan wa zayyannāhā li'l-nāẓirīn...¹³

It is We Who have set out the Zodiacal Signs in the Heavens and made them fair-seeming to all beholders...

Sharaṭān refers to two stars which are the two horns of Aries, the Ram, the brighter of which is called *al-Nāṭiq*—the Horn of the Butting One, and the other *al-Naṭṭ*.¹⁴ Lane says that *Sharaṭān* refers to the two stars *alpha* and *beta* of Aries, but a more recent authority says it refers to *beta* and *gamma* of Aries, the latter being the third star in the head of Aries.¹⁵ *Alpha* has a magnitude of 2.3 and its colour is yellow; *beta*, 2.9, pearly white; and *gamma*—a double star—4.5 and 5, bright white and gray respectively. In the days of the Greek astronomer Hipparchos (circa 160–120 B.C.), who is credited with having first scientifically divided the ecliptic circle of the Zodiacal constellations into twelve equal spaces of 30° each, Aries led the Heavenly Flock, as it were, and *Sharaṭān* (*beta*) marked the Vernal Equinox (the constellation Libra marked the Au-

¹³ XV:16. See also LXXXV:1.

¹⁴ See E.W. Lane's *Arabic-English Lexicon*, 8 pts. London and Edinburgh, 1863–1893; Book I, pt. 4 (1872), p. 1533 under *sharaṭan*.

¹⁵ See R.H. Allen, *Star Names, their lore and meaning*, New York, 1963, p. 81.

tumnal Equinox). From about 1730 B.C. the Vernal and Autumnal Equinoctial points were situated in the constellations of Aries and Libra, whence they were called the First Point of Aries and the First Point of Libra. Their positions are very slowly varying, but the old names are still retained. Thus by about 420 A.C. the leading position of Aries was transferred to the constellation Pisces. Since Hipparchos' time the constellations of the Zodiac have retrograded about 33° on the sphere. The Sun passes through the First Point of Aries on March 21st, but owing mainly to the fact that the solar year is not an integral number of days, such dates vary from year to year; it can also be said that the Sun now passes through Aries from the 16th of April to the 13th of May. The term *Sharaṭān* appears in its Latinized form as *Sartai* or *Scartai*. The *alpha* of Aries mentioned earlier, *al-Naḥḥ* from *al-Nāḥiḥ*, the Horn of the Butting one, in our day is given to *beta* Tauri, not *alpha* Aries; but we know on the authority of Zakariyyā ibn Muḥammad ibn Maḥmūd al-Qazwīnī, the thirteenth century Persian astronomical writer who in 1270 A.C. collaborated with Naṣrū'l-Dīn al-Tūsī in compiling the *Ilkhanian Tables*, Ulugh Beg, the Tartar prince and astronomer grandson of Tīmūr, who published his *Tables* in Samarqand in 1437 A.C., Muḥammad ibn Abī Bakr al-Tizīnī al-Muwaqqit the sixteenth century Arabian astronomer who published his *Catalogue* in Damascus in 1533 A.C., that *al-Naḥḥ* then was given to *alpha* Aries. Moreover, even the fourteenth century English poet, Chaucer, wrote in 1374 A.C. showing that *al-Naḥḥ* belonged to Aries:

He knew ful wel how fer Alnath was shove
 Ffro the heed of thilke fixe Aries above.

As we have said earlier, the Muslim Calendar is an entirely religious one, based on the Moon's changes. That the Moon is regarded as the correct and consistent measurer of years is based on the authority of the Qur'ān which says in *Sūrah* X, verse 5:

*Huwa'l-ladhi ja'ala'l-shamsa diyā'an wa'l-qamara nūran
 wa qaddarahu manāzila li ta'lamū 'adada'l-sinīna wa'l-
 ḥisāb—.*

It is He Who made the Sun to be a shining glory and the Moon to be a light, and appointed her Stations, that ye might know the number of years, and the computation of time—.

The Qur'ān again speaks of the Moon traversing through 'Stations' or 'Mansions' (*manāzil*, plural form of *manzil*: a halting place) in another verse:

*Wa'l-qamara qaddarnāhu manāzila ḥatta 'ādaka'l-'urjūni'l-qadīm.*¹⁶

And the Moon,—We have appointed her mansions (to traverse) till she returns like the old (and withered) lower part of the date-stalk.

In Arabian and Muslim astronomy the Mansions of the Moon are referred to as the *Manāzilu'l-Qamar*. These are 28 in number each represented by a star or stars in the constellations of the Zodiac. The stars representing each of the Lunar Mansions are called the *Nujūmu'l-Akhḍi*—The Stars of the Entering [of the Moon]. Sometimes they are referred to as *al-Ribāṭat* or Roadside Inns or Resting-Places. The Hindus called them *Nakshatras* and consulted them in connection with their worship and for the purpose of divination. Hence also, in that connection, al-Bīrūnī, the celebrated ninth century native of Khwārizm who wrote on astronomy in Arabic and whose authoritative works *Vestiges of Past Generations* and *India* still command great respect, called them the *Jufūr*.

We have said before that the Muslim computation of time is based on the Moon's phases. The Moon revolves around the Earth in 29½ days, but since the Earth itself is in motion, the Moon's revolution in fact takes 29½ days. This period of the Moon's revolution relative to the Earth is called in astronomical terminology the Synodic Month, which is the same as a Lunation, or when the Moon is again in conjunction with the Sun, i.e. it has the same longitude as the Sun. When the Moon is in conjunction it is called New Moon. The Moon describes among the stars a great circle of the celestial sphere and this revolution is completed in about 27½ days. This period of the Moon's revolution relative to the stars is called the Sidereal Month, and it is to this that the 28 Lunar Mansions refer. The Muslim month begins with New Moon, or more strictly when the Moon's thin crescent could first be seen in the west after sunset.¹⁷ But since the months have to be taken as an exact

¹⁶ XXXVI:39.

¹⁷ This practice is still in force today, and is widely known, particularly in connection with the beginning and ending of the fasting month of *Ramadhān*.

number of days, the usual plan is to make them alternately 29 and 30 days long, so that 12 Muslim months or a Muslim year make 354 days, 11 days less than the Christian solar year.

In the famous *Maqāmāt* or *Assemblies* of the celebrated Arab poet al-Ḥarīrī (1054—1122 A.C.) of Baṣrah, allusion was made to the Mansions of the Moon in the *Fifth Assembly*. Al-Suyūṭī has given us a list of the 28 Mansions in his Commentary of the Qurʾān, and Chenery, who translated the first twenty-six *Assemblies* from the Arabic, has given us a similar list of the 28 Mansions in his Notes.¹⁸ Their names are as follows:

<i>Al-Sharaṭān</i>	— The two horns of the Ram (1st <i>manzil</i>)
<i>Al-Buṭayn</i>	— the Ram's belly (28th <i>manzil</i>)
<i>Al-Thurayyā</i>	— the Pleiads
<i>Al-Dabarān</i>	— Aldebaran (2nd <i>manzil</i>)
<i>Al-Haḡʾah</i>	— three stars in the head of Orion (3rd <i>manzil</i>)
<i>Al-Hanʾah</i>	— five stars in Orion's shoulder (4th <i>manzil</i>)
<i>Al-Dhīrāʾ</i>	— two stars above the Twins (5th <i>manzil</i>)
<i>Al-Nathrah</i>	— nose of the Lion (6th <i>manzil</i>)
<i>Al-Zarf</i>	— eye of the Lion (7th <i>manzil</i>)
<i>Al-Jabhah</i>	— forehead of the Lion (8th <i>manzil</i>)
<i>Al-Zubrah</i>	— mane of the Lion (9th <i>manzil</i>)
<i>Al-Ṣarfah</i>	— heart of the Lion (10th <i>manzil</i>)
<i>Al-ʿAwwāʾ</i>	— the Dog, five stars in the Virgin (11th <i>manzil</i>)
<i>Al-Simāk</i>	— Spica Virginis (12th <i>manzil</i>)
<i>Al-Ghafr</i>	— the stars <i>phi</i> , <i>iota</i> , <i>kappa</i> , in the foot of the Virgin (13th <i>manzil</i>)

¹⁸ See *The Assemblies of al-Ḥarīrī*, translated from the Arabic with an introduction and notes by T. Chenery, vol. I, London and Edinburgh, 1867, pp. 313-4, 443-5. I have compared the list with Allen (*op. cit.*) and added the 27th *manzil*. Al-Suyūṭī in his Commentary of the Qurʾān called *Al-Durrat al-Manthūr* (Teherān, Irān, and Kāzimiyyah, Irāq, 5 vols. 1314 A.H. [1896-7 A.C.], vol. 5, p. 264) has given a list of the Mansions of the Moon when commenting on verse XXXVI:30 previously cited.

<i>Al-Zubānā</i>	— the horns of the Scorpion (14th <i>manzil</i>)
<i>Al-Iklīl</i>	— the Crown (15th <i>manzil</i>)
<i>Al-Qalb</i>	— the heart of the Scorpion (16th <i>manzil</i>)
<i>Al-Shawlah</i>	— the Scorpion's tail (17th <i>manzil</i>)
<i>Al-Na'ā'im</i>	— stars in Pegasus (18th <i>manzil</i>)
<i>Al-Baldah</i>	— the Fox's Kennel, the City, a place where no constellation appears (19th <i>manzil</i>)
<i>Al-Sa'du'l-Dhābih</i>	— the Slaughterer's Luck, in Capricorn (20th <i>manzil</i>)
<i>Al-Sa'du'l-Bul'a'a</i>	— the Glutton's Luck (21st <i>manzil</i>)
<i>Al-Sa'du'l-Su'ūd</i>	— the Luck of Lucks, stars in Aquarius (22nd <i>manzil</i>)
<i>Al-Sa'du'l-Akhbiyah</i>	— the Luck of the Tents, stars in Aquarius (23rd <i>manzil</i>)
<i>Al-Farghu'l-Muqaddam</i>	— the forelip or spout of the Urn (24th <i>manzil</i>)
<i>Al-Farghu'l-Mu'akhkhar</i>	— the hind lip of the Urn (25th <i>manzil</i>)
<i>Al-Baṭnu'l-Hūt</i>	— the Fish's belly (26th <i>manzil</i>)
<i>Al-Nāṭiq</i>	— the Butting Horn of the Bull (27th <i>manzil</i>)

These 28 Mansions of the Moon are divided by the Arab astronomers into four, seven each, each representing the four seasons. Thus *Sharatān* is the first station or mansion of spring, the First Point of Aries which marked the Vernal Equinox; *Nathrah*, the first mansion of summer, and so on. The Moon in her monthly course is supposed to pass through each of the *manāzil* and remain in each for a day and a night. *Sharatān* used to be the 27th *manzil*, and at the time of Hipparchos it used to mark the Vernal Equinox. But by the time al-Bīrūnī was writing in the ninth century, it was already listed by him as the 1st *manzil* as it is to this day. The 1st *manzil* or Mansion need not, according to obvious astronomical circumstances, necessarily coincide with the 1st day of the month, but it is clear that it 'houses' the Moon in its earliest or nearly earliest phase—the New Moon. The Qur'ān, in *Sūrah XXXVI*, verse 39 quoted earlier, compares the appearance of the Moon in her monthly course

waxing and waning from New Moon to New Moon with the thin sickle-like shape of the old, withered, lower part of the date-stalk (*al-'urjūnī' l-qadīm*). In astronomy the Moon is called New Moon when she is in conjunction and only the dark part is towards the Earth. This phase, which the English poet Shelley described as the 'inter-lunar swoon', is not strictly speaking considered as the New Moon in the computations of the Muslim Calendar; the New Moon is announced when the Moon's thin crescent can first be seen in the west after sunset. The age of the Moon, from the astronomical New Moon to the dichotomized half of the disc called the First Quarter, is $7\frac{1}{2}$ days. It is possible, therefore, that from the 1st of the lunar month to the 4th the Moon can be found in her 1st *manzil* or Mansion. This possibility is not only true in fact, but is indeed confirmed by the Arab astronomers who observed that the Moon, in her daily course through each of the 28 Mansions, will be found consistently to be at 2 Mansions coinciding with 2 fixed dates in the Christian Year: the Moon will be in *al-Han'ah* (the 4th *manzil*) on the 1st of January, and in *al-Na'ā'im* (the 18th *manzil*) on the 1st of July. This fixing the consistency of the 2 lunar stations to coincide with 2 fixed dates in the solar year is presumably made for agricultural convenience, and the above fact is also well known among the people of Southern Arabia (*Ḥaḍramaut*).

With regard to the Mansions of the Moon, it is of interest also to note—as Allen has pointed out—that when Antonio Pigafetta, the Italian navigator and writer who was also Magellan's chronicler was writing in 1521 A.C., he found them familiarly known in the Malay Archipelago, and their astrological influence well recognized.

To return now to the date of the Trengganu inscription, the significant lines of the edict containing the date, which Paterson deciphered

as:

8. bichara berbajiki benua penentua itu maka titah Seri Paduka
9. Tuhan medudokkan tamra ini di benua Trengganu adi-per-tama ada
10. Juma'at dibulan Rajab di tahun saraṭān disasanakala
11. Baginda Rasul Allah telah lalu tujuh ratus dua

i.e.:

8. regard for the setting in order, for the country, of such ex-position; and when Seri Paduka Tuhan

9. first ordered the setting up of this record in the country of Trengganu it was
10. a Friday in the month of Rajab, in the year "Cancer", in the religious era
11. of our Lord the Apostle of God, after the passing (in that era) of seven hundred and (?) (years). . .

should now be correctly reformulated to read in fact thus:

[8]. . .Maka titah Seri Paduka [9] Tuhan medudukkan tamra ini dibenua Trengganu adi pertama ada [10] Juma'at dibulan Rajab ditahun Sharaṭān disasanakala [11] Baginda Rasūl Allāh telah lalu tujuh ratus dua.

i.e.:

[8]. . .Thus commanded Seri Paduka [9] Tuhan, who ordered the setting up of this Edict in the land of Trengganu on the first Friday of the Month of *Rajab*, in the Year *Sharaṭān*, Seven Hundred and Two (years) after the sacred Era of our Lord the Messenger of Allāh.

It must be noted that the phrase *adi-pertama ada* could be a part of the full sentence joining it with *Juma'at dibulan Rajab*, so that it denotes *the first Friday of the month of Rajab*. This reading is in fact confirmed by the designation of the year which is given as *Sharaṭān*, as will presently be shown, for *Sharaṭān* indicates in this case the first Friday of the month.

The inscription then dates from the first Friday of the month of *Rajab* in the Muslim Lunar Year when the Moon was at the 1st *manzil* or Mansion *Sharaṭān*, in the constellation Aries, in the year 702 after the *Hijrah*. No other year in the conceivable seven hundreds fulfil the above conditions in all respects. Now the year 702 A.H. began on the 26th of August 1302 A.C. The day on which the Christian Year began for that Muslim year was a Monday (i.e. the 1st of January 1302 A.C. was a Monday), and 237 days had elapsed in the Christian year when the Muslim year began on the 1st of *Muharram* (i.e. the 26th of August 1302 A.C.). *Rajab* is the 7th month of the Muslim year, and since the year 702 A.H. began in August 1302 A.C., it therefore occurred in the month of February 1303 A.C., which Christian Year began on a Tuesday. Bearing in mind that the Christian Year began on a Tuesday, it is found that only the 4th day of *Rajab*, which was the 181st day of the

Muslim Year 702 A.H., agrees with our computation of the date. Moreover, the 4th of *Rajab* confirms our computation because it was a *Friday*.¹⁹ The following formula explains the method of computing the above date:

Rajab 702 A.H.

702 A.H. began 26th August 1302 (Monday) = 237 [days
elapsd in the Christian Year]

4 *Rajab* = 181 [days
elapsd in the Muslim Year] = $\frac{181}{418}$

Deduct the number of days in 1302 A.C. = 365 [it was not a
Leap Year]

53
53 days after and including 1st January 1303 = 31 + 22
A.C. = 22nd February 1303
A.C., Friday.

The other three Fridays in *Rajab* 702 A.H. were on the 11th (1st March 1303 A.C.), 18th (8th March 1303 A.C.) and 25th (15th March 1303 A.C.). The 1st *manzil* (*Sharaṭān*) could hardly have been in either of these. It has been stated earlier that 2 lunar stations, *al-Han'ah* and *al-Na'a'im*, invariably coincide with the 1st of January and the 1st of July respectively, and that the Moon is supposed to traverse daily through each of her 28 Mansions or Stations. This means that if *al-Han'ah*, which is the 4th *manzil*, coincides with the 1st of January, then *al-Dhirā'*, the 5th *manzil*, will coincide with the 2nd of January; *al-Nathrah*, the 6th *manzil*, will coincide with the 3rd of January, and so on. Thus in the 10th of January the Moon will be in *al-Ghafr*, the 13th *manzil*; on the 20th of January the Moon will be in *al-Sa'du'l-Akhhbiyah*, the 23rd *manzil*, and between the 22nd and the 23rd of February the Moon will be in *al-Sharaṭān*. Since the Muslim day begins at Sunset, time being reckoned in 12-hourly periods from 6 p.m. to 6 a.m., and again from 6 a.m. to 6 p.m., the Moon will according to the above computation be in fact in her 1st *manzil*, *al-Sharaṭān*, on the 22nd of February. The date on the Trengganu inscription, which is now established, is therefore

¹⁹ For the following method of computation, see G.S.P. Freeman Grenville's *The Muslim and Christian Calendars*, London-New York-Toronto, 1963.

Friday, the 4th of *Rajab*, 702 A.H./Friday, 22nd February 1303 A.C.

The Edict was officially publicized at no long interval after the date of completion of the inscription, and it seems to me most likely, due to the nature of the contents of the Edict, that Friday the 25th *Rajab* 702 A.H. (15th March 1303 A.C.) was the auspicious day for such official publicization. The month of *Rajab* according to the Qur'an is one of the four Sacred Months.²⁰ It was during this Sacred Month that the Holy Prophet ascended to the Highest Heaven and received the Commandment, among others, to make the five daily prayers obligatory. This Journey by Night is known as the *Mi'rāj* (Ascension) and Muslims the world over celebrate this Event on the night before the 27th of *Rajab*, a date also significant in the history of Makkah, which is called the *Laylat al-Mi'rāj*, Night of the Ascension.

Syed Naguib Al-Attas,
The National University of Malaysia,
Kuala Lumpur, August 1970.

²⁰ *Sūrah IX*: 36. The other three are: *Dhū'l-Qa'dah*, *Dhū'l-Hijjah*, and *Muharram*.

