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# Archaic and innovative Islamic prayer names around the Sahara

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## Abstract:

Berber in the Sahara and southern Morocco, and several West African languages including Soninké, Mandinka, and Songhay, all refer to the five Islamic daily prayers using terms not derived from their usual Arabic names, and showing striking mutual similarities. These names' motivation has not hitherto been explained. An examination of Islamic sources reveals that many correspond to terms attested within Arabic from an early period which have passed out of use elsewhere. Others, with a more limited distribution, reflect transfer from a time-keeping system widely attested among Berber-speaking oases of the northern Sahara. These results demonstrate that the variant prayer terminologies attested in the hadith reflect popular usages that were still commonplace at the time when North Africa was conquered, and underscore the conservatism of non-Arabic Islamic religious terminology in and around the Sahara.

**Keywords:** Arabic, Berber, Sahel, etymology, prayer, early Islam

## 1. Introduction

North Africa occupies a special position in the history of Islam, as the first region to be separated politically from the caliphate while maintaining the religion. By the early Abbasid period, the coast had passed out of effective Abbasid control, while the fringes of the Sahara were dominated by Ibādī and Ṣufrī states which rejected not only the rule of the Abbasids but also their Sunnī orthodoxy, and were hence rather reserved in their attitude towards the works of the most influential religious scholars of the Abbasid era. This position is reflected in the religious terminology of the non-Arabic languages of the region, which preserve reflexes of variant forms attested in early Islamic traditions but obsolete in most other parts of the Islamic world.<sup>1</sup>

A significant number of Berber languages, along with some of their neighbours, refer to the five daily prayers of Islam using words that cannot be derived from their usual Arabic names; most of these are internal formations, briefly discussed by Naït-Zerrad (1998), while others are Arabic loans. Van den Boogert and Kossmann (1997) give Berber-internal etymologies for these forms, and argue that their consistent use by both Sunnī and Ibādī groups indicates that they must have been produced by a single centre of Islamisation, probably Ibādī, at a period before the Sunnī-Ibādī split became a significant factor in the region, ie no later than the Umayyad era. Comparable forms which have attracted less comment are also found in a number of west African languages – notably Soninké and

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<sup>1</sup> Most, but not all; shortly after this article was accepted for publication, François de Blois (p.c.) pointed out that some of the names discussed here have close Persian parallels, which must be taken into account in future work.

Songhay, the languages of the first major Sahelian states to come into direct contact with Islam, as well as their neighbours to the south, such as Mandinka and Pular. This paper's appendix tabulates all available prayer names in languages for which data was available, along with references.

In this paper, I will show that some of these unexpected forms can be traced directly back to variants attested in the early hadith literature, via borrowing or calquing. While modern Islamic literature consistently refers to the prayers by the names *Fajr* / *Ṣubḥ* (in the morning), *Ḍuhr*<sup>2</sup> (at noon), *ʿAṣr* (in the afternoon), *Maghrib* (at sunset), and *Ishā*' (at nightfall), mainly derived from terms referring to the time of day, authoritative earlier sources including Ṣaḥīḥ al-Bukhārī attest to the existence and wide usage within Arabic of alternative names for several of these prayers, as noted briefly in Wensinck (1987). These names have long since disappeared from Arabic usage, but reflexes of them continue to be used across much of North and West Africa. Their ubiquity throughout the Sahara constitutes compelling evidence that the first Arabs to introduce Islam to the region habitually used these alternative terms in their speech, and not the ones that have become usual. In this particular instance, seemingly non-standard traditions of Islam in the Sahara do not reflect local innovation, but rather provide information on the distribution of variation that was accepted within early Islam and only later came to be levelled out.

Other Berber forms that are almost as widespread, however, cannot be derived from Arabic through calquing or otherwise: they are rather derivations based on Berber numerals, with 'Aṣr = four, Maghrib = five, and 'Ishā' = six. The reasons for the choice of these numbers have not been convincingly explained. I will argue below that these forms reflect a system of time-keeping widespread among Saharan oases, and still used within living memory. The wide usage of these forms suggests that this time-keeping system too dates back at least to the Umayyad period.

## 2. Early prayer names in Arabic

An obvious starting point for the early variation in prayer names is the hadith literature: convenient sources include Mālik (d. 795), 'Abd al-Razzāq (d. 826), al-Bukhārī (d. 870), and Muslim (d. 875). For the most part, these all use the familiar names mentioned above; however, they also faithfully record variants that do not correspond to the preferred terminology. Of several hadith reflecting these variations, the following (Bukhārī #547 (2001:114)) is particularly revealing:

... عن سيار بن سلامة، قال دخلت أنا وأبي، على أبي برزة الأسلمي، فقال له أبي كيف كان رسول الله صلى الله عليه وسلم يصلي المكتوبة فقال كان يصلي الهجير التي تدعونها الأولى حين تدحض الشمس ويصلي العصر ثم يرجع أحدنا إلى رحله في أقصى المدينة والشمس حية ونسيت ما قال في المغرب وكان يستحب أن يؤخر العشاء التي تدعونها العتمة وكان يكره النوم قبلها والحديث بعدها وكان ينقل من صلاة الغداة حين يعرف الرجل جليسه ويقراً بالسنتين إلى المائة .

2 The transcription followed in this paper for both Arabic and non-Arabic data uses the following digraphs: sh for [ʃ], th for [θ], dh for [ð], kh for [x] / [χ], gh for [ɣ]. This transcription follows this journal's usual practice except in the case of ḍ [ðˤ] for ظ, chosen since Berber phonology makes extensive use of ẓ [zˤ]. The author thanks anonymous reviewers and Maarten Kossmann for helpful comments on earlier drafts.

“... from Sayyār b. Salama: “My father and I entered into the presence of Abū Barza al-ʿAslamī. My father asked him: “How did the Messenger of God, blessings and peace be upon him, pray the prescribed (prayers)?” He replied: “He used to pray *al-hajīr*, which you (pl.) call *al-ʿūlā*, when the sun declines (from the meridian), and pray *al-ʿaṣr* such that one of us could return to his home at the far end of Medina while the sun was still lively.” I forget what he said about *al-maghrib*. “And he used to prefer to delay *al-ʿishāʾ*, which you (pl.) call *al-ʿatama*, and he used to hate sleeping before it or speaking after it. And he used to return from the *ghadāt* prayer when a person could recognise the one sitting next to him, and read sixty to a hundred (*ʿāyāt*.)””

The people in this conversation were most likely living in Basra in the early 8<sup>th</sup> century, but this hadith presents them not only as not using the set of prayer names familiar to modern Arabic speakers, but as each using a slightly different set of names. The familiarity of Abū Barza with the set he attributes to “you (pl.)”, however, suggests that the latter rather than the former was prevalent in contemporary Basra. By implication, the terms for which he does not give an alternative were presumably common to both groups.

A similar usage combining features of both sets – possibly with reference to the times rather than to the associated prayers – is attributed to the Prophet himself in Mālik 3.3 (1985:78) = Bukhārī #652 (2001:132):

... عن أبي هريرة أن رسول الله صلى الله عليه وسلم قال لو يعلم الناس ما في النداء والصف الأول ثم لم يجدوا إلا أن يستهموا عليه لاستهموا ولو يعلمون ما في التهجير لاستبقوا إليه ولو يعلمون ما في العتمة والصبح لأتوهما ولو حبوا .

... from Abū Hurayra, that the Messenger of God, blessings and peace be upon him, said: “If people knew what is in the call and the first row, and found no (alternative) but to draw lots for it, they would draw lots. If they knew what is in *al-tahjīr* they would race each other to it. If they knew what was in *al-ʿatama* and *al-ṣubḥ*, they would come to it even crawling.”

Outside the hadith literature, the book *Al-Kāmil* by al-Mubarrad (d. 898), from Basra, mentions all three of the relevant terms, in a discussion of genitive constructions (Mubarrad 1864:128):

وعتمة اسم للوقت، فذلك سميت الصلاة بذلك الوقت، وكل صلاة مضافة إلى وقتها، تقول: صلاة الغداة، وصلاة الظهر، وصلاة العصر. وما قولك: الصلاة الأولى، فالأولى نعت لها إذا كانت أول ما صلي، وقيل أول ما أظهر .

And *ʿatama* is the name of a time, and the prayer at that time was named after it; every prayer is *muḍāf* (annexed) to its time, so you say: *ṣalāt al-ghadāt*, *ṣalāt al-ḍuhr*, *ṣalāt al-ʿaṣr*. As for your saying: *al-ṣalāt al-ʿūlā*, “first” (*ʿūlā*) is an adjective modifying it, it being the first to have been prayed, and some say the first to be made known.

A practically isolated term nevertheless attested quite early is *ṣalāt al-nawm*, reported in ‘Abd al-Razzāq #2136 (Ṣan‘ānī 1970:562):

عن يحيى بن العلاء ، عن الأعمش ، عن أبي وائل قال : طلبت حذيفة ، فقال : لم طلبتني ؟ قال : قلت : للحديث ، فقال : إن عمر بن الخطاب رضي الله عنه ، كان يحذر بالحديث بعد صلاة النوم .

“From Yaḥyā b. al-‘Alā’, from al-A‘mash, from Abū Wā’il who said: I asked for Ḥuḍayfa, and he said: Why have you asked for me? I said: For conversation. He said: “Umar b. al-Khaṭṭāb, may God be pleased with him, used to warn against conversation after *ṣalāt al-nawm*.”

A further dimension of variation applies to the meaning of *al-‘ishā’*. Some speakers used this term to refer, not to ‘Ishā’, but to Maghrib – a usage condemned as a Bedouin solecism in the following hadith, Bukhārī #563 (2001:117):

حدثنا أبو معمر - هو عبد الله بن عمرو - قال حدثنا عبد الوارث، عن الحسين، قال حدثنا عبد الله بن بريدة، قال حدثني عبد الله المزني، أن النبي صلى الله عليه وسلم قال ” لا تغلبنكم الأعراب على اسم صلاتكم المغرب ” . قال الأعراب وتقول هي العشاء .

... ‘Abd Allāh al-Māzinī told us that the Prophet, blessings and peace be upon him, said: “Do not let the Bedouin prevail over you in the name of your prayer *al-maghrib*.” He said the Bedouin, and they call it *al-‘ishā’*’.

This confusion might be avoided by referring to ‘Ishā’ as *al-‘ishā’ al-‘ākhira*, as in Muslim 465c (2006:215):

... عن جابر بن عبد الله، أن معاذ بن جبل، كان يصلي مع رسول الله صلى الله عليه وسلم العشاء الآخرة ثم يرجع إلى قومه فيصلون بهم تلك الصلاة .

... from Jābir b. ‘Abd Allāh that Mu‘ādh b. Jabal would pray *al-‘ishā’ al-‘ākhira* with the Messenger of God, peace and blessings be upon him, then go back to his people and lead them in that prayer.

We can conclude that at least the following variants were current in Arabic in the Umayyad era:

Table 1: Variant prayer names in Arabic.

	“Standard”	“Basran”	Other
Ṣubḥ	<i>al-ṣubḥ</i>	<i>al-ghadāt</i>	
Ḍuḥr	<i>al-ḍuḥr</i>	<i>al-‘ulā</i>	<i>al-hajīr, al-tahjīr</i>
‘Aṣr	<i>al-‘aṣr</i>		
Maghrib	<i>al-maghrib</i>		<i>al-‘ishā’</i>
‘Ishā’	<i>al-‘ishā’</i>	<i>al-‘atama</i>	<i>al-‘ishā’ al-‘ākhira, al-nawm</i>

A study of narrators might indicate whether these variants can be associated with particular regions or tribes, but that would take us beyond the scope of this paper. However, the same sources that indicate these variants also help explain their disappearance. The emergence of these hadith compilations reflects a wider move to codify the religion in writing, which in itself gave the preferred variants cross-regional prestige; on top of this, the main variant names of Maghrib and ‘Ishā’ were explicitly condemned as improper in several hadith. The example above is considered *ṣaḥīḥ*, as is what looks rather like a variant of it in Muslim #644a:

وحدثني زهير بن حرب، وابن أبي عمر، قال زهير حدثنا سفيان بن عيينة، عن ابن أبي ليبيد، عن أبي سلمة، عن عبد الله بن عمر، قال سمعت رسول الله صلى الله عليه وسلم يقول " لا تغلبنكم الأعراب على اسم صلاتكم ألا إنها العشاء وهم يعتمون بالإبل " .

[...] From ‘Abd Allāh b. ‘Umar, who said: I heard the Messenger of God, blessings and peace be upon him, say: “Let the Bedouin not prevail over you in the name of your prayer, for it is *al-‘ishā*”; (they call it *‘atama* because) they stay late (*‘tm*) with their camels.”

But some less well-supported hadith object in much more extreme terms, such as Ibn ‘Abī Shayba #36971 (2006:537), narrating from the same source:

حدثنا وكيع قال ثنا شريك عن أبي فزارة العبسي عن ميمون بن مهران قال قلت لعبد الله بن عمر من أول من سماها العتمة؟ قال : الشيطان .

... from Maymūn b. Mihrān, who said: I asked ‘Abd Allāh b. ‘Umar “Who first called it *al-‘atama*?” He replied: “The Devil!”

The end result, observable today, is that Muslims’ prayer terminology is broadly uniform, in the Maghreb as elsewhere, and the variant oral traditions to which these hadith attest are known only to scholars. However, at the time of these compilations, most of North Africa was outside of Abbasid control, and much of it, particularly the northern Sahara, was non-Sunnī. Mālikī Sunnism, though already present locally, would not begin to attain its current overwhelming preponderance until centuries later. This left ample time for the prayer names based on alternative oral traditions to become fixed in the region’s languages, and the evidence below suggests that this is precisely what happened.

### 3. Variants in the Western Islamic world

#### 3.1. *Ṣalāt al-‘Ūlā* (Ḍuhr)

The term literally means “the first (f.)”, *‘ūlā* being the feminine form of *‘awwal*. A rather later authority, the Andalusian scholar al-Qurṭubī (d. 1273), offers an explanation for the name in his commentary on Koran 12:109 (2006:411):

ومن قال صلاة الأولى فمعناه: عند صلاة الفريضة الأولى؛ وإنما سميت الأولى لأنها أول ما صلي حين فرضت الصلاة، وأول ما أظهر؛ فلذلك قيل لها أيضا الظهر .

“Whoever says *ṣalāt al-ʔūlā*, its meaning is “the first among the obligatory prayers”, called “first” because it was the first prayer to be prayed when prayer was made obligatory, and the first to appear; that is why it is also called *al-ḏuhr*.”

At an early period, this name must have been rather widespread in the western half of the Islamic world; the only part of North Africa where it is consistently absent is the Mediterranean coast and its mountains. Even within Arabic, some Moroccan varieties still use *luwli* (Harrell & Sobelman 2004:73). As a loan, it survives in scattered points stretching from southern Syria to the Niger bend: Western Neo-Aramaic *ʾalūla* “Mittag” (Arnold 1990:333); in two eastern Berber languages – Sīwa *luli* “Ḍuhr” (western Egypt), Awjila *alūli* “Ḍuhr” (eastern Libya); and in Songhay *aluula* “Ḍuhr” (eastern Mali, western Niger). (See Appendix for sources and tables.) The *i* in the Berber forms reflects final imāla, echoed in Arabic dialects of the Egyptian oases (Woidich & Behnstedt 1982:49).

As a calque, it survives in an area even larger and even more distant from the Middle Eastern heartland of early Islam. Within Berber, the commonest form for “Ḍuhr”, excluding loanwords, is one reconstructible as *ti-zwar-(nin)*, a feminine plural derived from the Berber root  $\sqrt{zwr}$  “be first, precede” (Tashelḥiyt *zwur*, Zenaga *āḏbār*, Tamasheq *āzzar*). The post-consonantal *w* regularly corresponds to *b* in Zenaga, while many varieties replace *zw* with *zz*. Such forms are used to mean “Ḍuhr” across an enormous area including Tashelḥiyt and Tamazight in southern Morocco; the Zenati Berber-speaking oases stretching across the northern Algerian Sahara, including the Gūrāra and Mzāb; Northwestern Libya, including the Nafūsa mountains and Zuwāra; Tuareg in the central Sahara; and Zenaga in Mauritania. Wolof (Senegal) and Korandjé (Algeria) have borrowed the Zenaga form: *tisbar*, *təzbəṛən* respectively.

The relevant Berber root has both the senses of “be first” and “precede”, and Naït-Zerrad (1998:63) rendered these forms with the latter sense, as “celles qui précèdent”, suggesting tentatively that it was so named because it was followed by additional recitations, as Lanfry noted for Ghadames. However, the Arabic loans exemplified above indicate that the relevant sense is not “precede”, but rather “be first”.

Soninké, the language of the early Sahelian state of Ghāna, has calqued rather than borrowed the term, whether directly from Arabic or from Berber, yielding *sállì-fànà* “prayer-first”. This term has in turn been borrowed into West African languages to its south, such as Mandinka and Pular. In Bambara, it has been reinterpreted as based on *fàná* “meal” (Bailleul 1981), but the order indicates that this is a folk etymology, since the Bambara possessive construction is head-final.

### 3.2. \**Ṣalāt al-Fiṭr* (Maghrib)

Unlike the other terms discussed here, this term, literally “prayer of fast-breaking” (*fiṭr* being a deverbal noun from *fatar*<sup>a</sup> “break apart; break (fast)”), appears to be non-classical in the appropriate sense; the normal sense of the phrase is “(congregational) prayer on ʿĪd al-Fiṭr (the fast-breaking festival after Ramadan)”. The semantic shift is natural, given that in Ramadan one breaks one’s fast each day at the time of Maghrib. No Arabic attestations

of this usage have so far been found. However, their existence is implied by a series of West African terms for Maghrib which appear to be direct loans: Soninké *fūtūrò*, Mandinka *fitiri*, Timbuktu Songhay *fitirow / futurow*, etc. The vowels of the Soninké form suggest a possible alternative derivation from another form of the same root, *futūr* “breakfast, fast-breaking meal”; however, the absence of a long vowel and the other West African forms make this less probable.

This form was calqued into Berber at an early period, yielding *ti-n-wučči* “that (f.) of eating”. It survives mainly in the westernmost Berber varieties – Tashelḥiyt, Tamazight in southern Morocco, and Zenaga in Mauritania – but also in Zuwāra in northwestern Libya. It was loaned into Korandjé (Algeria) as *tsyunās*; the Wolof form *timis* may also derive from this, assuming assimilation *\*nw > m*.

This form is not attested in Tuareg, which consistently uses *alməz* “twilight”, presumably a not very literal translation of *maghrib* based on a pre-existing time period. The predominant Zenati forms will be discussed below.

### 3.3. *Ṣalāt al-‘Ishā’* (‘Ishā’ / Maghrib)

In the sense of ‘Ishā’, this form is dominant throughout modern Arabic, so its presence as a loan hardly merits comment. However, it is also present in one case as a calque within Berber: Nafusi *ti-n-mənsi* “that (f.) of supper”. Since the homonymy of reflexes of ‘*ishā*’ (“evening”, from the root *ʕashiy<sup>a</sup>* “be night-blind”) and ‘*ashā*’ is historically secondary, resulting from the weakening or loss of short vowels, this is probably a late development; comparison to Medieval Eastern Berber, which used *ti-n-iḍas* like most other Saharan Berber varieties (see below), would appear to confirm this.

A potentially more interesting calque based on this word is provided by Awjila *mnishiw* “p. del tramonto”, to be derived by metathesis from *\*n-mishiw*, cp. *n* “of”, *amishiw* “cena [supper]”. Available data on this form is ambiguous; Mauri (2011, ms) indicates that this refers to ‘Ishā’, but Paradisi’s gloss rather suggests Maghrib. If the latter is correct, this usage would seem to reflect the confusing dialectal practice, mentioned and specifically condemned in Bukhārī, of calling Maghrib *al-‘ishā’*.

### 3.4. *Ṣalāt al-‘Atama* (‘Ishā’)

Several hadith suggest that, in principle, the difference in name here corresponds with a difference in timing: *al-‘atama* (“first third of the night”, from the same root as ‘*atam<sup>a</sup>* “be late, become dark”) refers to the late end of the time in which ‘Ishā’ should be prayed, whereas *al-‘ishā’* refers to the early end. This form is rather less widely attested in North Africa than those seen so far, and no obvious calques are attested, but it occurs as a loan at opposite ends of the region. Alongside *luli < al-‘ulā* for Ḍuhr, it is still used in Siwi for ‘Ishā’: *l’ətmət*. This is likewise the source for Morisco Spanish *alatamo*. However, reflexes of both *al-‘ishā’* and *al-‘atama* were adopted by the Church for translating canonical hours, confirming that the original semantic distinction between the two times was preserved in at least some registers of Andalusī Arabic: Alcalá (1883:329) renders Complines as *al āyxī*, and Matins as *al ââte-me*.



While not a calque, the widespread Tuareg name of ‘Ishā’, *aḏuḏag* “milking”, may be indirectly associated with this name. Some of the hadith cited as condemning the term ‘*atama*’ explain its usage as the result of a Bedouin practice of praying it after milking the camels after nightfall, cf. Musnad Aḥmad #4688 (Ibn Ḥanbal 1995:315) (apparently a variant of the hadith from Muslim cited above):

(حديث مرفوع) حدثنا يحيى ، عن سفيان ، حدثني عبد الله بن أبي ليبيد ، عن أبي سلمة ، عن ابن عمر ، عن النبي صلى الله عليه وسلم قال : ” لا يغلبنكم الأعراب على اسم صلاتكم ، فإنها العشاء ، إنما يدعونها العتمة ، لإعتامهم بالإبل لحلابها ” .

[...] From Ibn ‘Umar, from the Prophet, blessings and peace be upon him, who said: “Let the Bedouins not prevail over you in the name of your prayer, for it is *al-‘ishā*”; they (the Bedouins) call it *al-‘atama* because they keep the camels out late to milk them.”

### 3.5. *Ṣalāt al-Nawm* (‘Ishā’)

This form, literally “prayer of sleep”, is very marginal in the hadith literature, but its rarity in Arabic contrasts with the overwhelming frequency in Berber of its calque, *ti-n-iḏas* “that (f.) of sleep”. This form is used in Tashelḥiyt and Tamazight in southern Morocco; the Zenati Berber-speaking oases stretching across the northern Algerian Sahara, including the Gūrāra and Mzāb; Western Libya, including Zuwāra, Ghadames, and Al-Fuqahā’; and Zenaga in Mauritania. It has been borrowed into Korandjé (Algeria), as *tsyaḏas*.

The same calque was made in Soninké, whether directly from Arabic or from Berber: *sákhú-fó* (“sleep-thing”). From Soninké this form was borrowed, with regular loss of *kh* and compensatory vowel lengthening, into many other West African languages: Mandinka *sáafu*, Songhay *saafu*, Pular *saf’i*, etc. The Songhay form is explained by Prost (1977:637), following a suggestion by Marty (1920:228) for Peul, as deriving from Arabic *shafaq* “twilight”, but if that were the case we would expect a short vowel: *\*safoo* rather than *saafu*. Nor would this explain the vowels and the position of the *kh* in the Soninké form. To make matters worse, ‘Ishā’ cannot be prayed until after *shafaq* has passed (Monnot 1995:960); *shafaq* is in fact the time of the Maghrib prayer. The Peul form cited by Marty, *safako*, clearly is based on *shafaq*, but given its meaning, it is better viewed as the result of a folk-etymological reinterpretation (among Arabic-literate scholars) of a term originally based on *sákhú-fó*. Marty (1920:70) links the Songhay form itself to *shaf’*, the name of the optional prayer immediately following ‘Ishā’; this fits the Pular form, but otherwise again fails to account for the long *aa* and the other regional forms.

### 3.6. *Ṣalāt al-Ghadāt* (Ṣubḥ)

This form has already been exemplified above. Medieval eastern Berber used what I take to be a calque of *ghadāt* (properly “early morning”), folk-etymologised as based on *ghad* “tomorrow”: *ti-n-uzəčča* “that (f.) of tomorrow”. This term, however, has not survived into any reported modern variety. Some of the Tuareg forms are ambiguous between *ṣubḥ* and *ghadāt*: *tufat* means both “morning” and “tomorrow”, like Spanish *mañana*. Other Berber

terms for the morning prayer show far more variation than the other four prayers; where they are not Arabic loans, they may be calques of *ṣubḥ* “(early) morning” (Tamasheq, Zenaga, Sīwa), or just terms meaning “early” (Zuwāra, Nafūsa).

### 3.7. *Ṣalāt al-Ghabasha* (Ṣubḥ)

Within North Africa, borrowed reflexes of this form are reported only in the Berber languages of the Mzāb and Ouargla, two of the last strongholds of Ibāḍism, and Awjila (Paradisi glosses it only as “morning”, but Mauri (2011, ms) confirms the prayer time sense). No early authority for this form as a prayer name has yet been found, but it is in current use in colloquial Arabic in the other main region where Ibāḍism has been maintained, eastern Arabia. Examples from Oman in a highly colloquial register can readily be found online, eg:

جاينكم بقوة بس تو اذن معنا . صلاة الغبشة قصدي الفجر

Coming in force but now the aḍān is with us.. the Ghubsha, I mean Fajr, prayer.<sup>3</sup>

سحور حال إيش !! نص الشعب من بعد صلاة الغبشة ، [...]

Suḥūr like what!! Half the people after Ghubsha prayer, [...]<sup>4</sup>

While the name itself seems absent from the hadith literature, its motivation can readily be found there; cf. Mālik #1.9 (1985:8):

[...] أنه سأل أبا هريرة عن وقت الصلاة فقال أبو هريرة أنا أخبرك صل الظهر إذا كان ظلك مثلك والعصر إذا كان ظلك مثلك والمغرب إذا غربت الشمس والعشاء ما بينك وبين ثلث الليل وصل الصبح بغبش يعني الغلس

[...] he asked Abū Hurayra about the time of prayer. Abū Hurayra replied: “I will tell you. Pray Ḍuḥr when your shadow is your size, and ‘Aṣr when it is twice your size, and Maghrib when the sun sets, and ‘Ishā’ within the (first) third of the night, and pray Ṣubḥ in *ghabash*, meaning *ghalas* (just before daybreak).”

## 4. Berber-internal innovations

### 4.1. Prayer names based on calling

In several varieties spoken in or around southwestern Libya, Ḍuḥr is called *imāghri*, a verbal noun from *ghar* “to call”. The same term is found in a Tuareg variety further from Libya, Tamasheq, but with reference to Ṣubḥ. A probably independent development of the

3 <http://www.s-oman.net/avb/showthread.php?t=570770&page=7>

4 <http://www.omanlover.org/vb/showthread.php?t=169981&page=7>

same kind is Ayt Hdidou *tighurīwin*, a feminine plural based on the same root, for Maghrib.

## 4.2. Prayer names based on numerals

While most Berber languages have borrowed most of their numerals from Arabic, several preserve the original system, as exemplified by the following table:

Table 2: Some numerals in Berber

		four	five	six
Zenaga	(Taine-Cheikh 2008)	<i>akkuẓ</i>	<i>shämmush</i>	<i>shuḍish</i>
Tashelhiyt	(Destaing 1920)	<i>kkuz</i>	<i>smmus</i>	<i>sḍiṣ</i>
Tamasheq	(Heath 2005)	<i>ākkoz</i>	<i>sämmos</i>	<i>sḍiṣ</i>

As noted by van den Boogert and Kossmann (1997), these seem to provide the sources for some Berber prayer names. Throughout a wide area roughly coinciding with the distribution of *ti-zwar(-nin)* above – including Tashelhiyt and Tamazight in southern Morocco; the Zenati Berber-speaking oases stretching across the northern Algerian Sahara, including the Gūrāra and Mzāb; Northwestern Libya, including the Nafūsa mountains and Zuwāra; Tuareg in the central Sahara; and Zenaga in Mauritania – ‘*aṣr*’ is referred to as *t-akk<sup>w</sup>z-in*, a feminine plural based on *kkuz* “four”. Beyond Berber, this form has been borrowed from Zenaga into Wolof, as *tàkkusaan*, and Korandjé, as *tsak<sup>w</sup>zzən*.

In a rather smaller area, including most of the Zenati Berber-speaking oases of the northern Algerian Sahara, along with Nafūsa and Al-Fuqahā’ in western Libya, the *maghrib* prayer is referred to as *ti-səmmis-in*, a feminine plural based on *səmmus* “five”. The term is also attested with a vaguer meaning “afternoon” in Tamezret (southern Tunisia).

In many Tuareg varieties, the ‘*ishā*’ prayer is *ti-suḍs-en*, an etymologically ambiguous feminine plural. Naït-Zerrad (1998) derives it from the causative verb *suḍəs* “to make sleep” (Foucauld 1951), thus fitting it with the *tin-iḍəs* forms seen above. However, van den Boogert and Kossmann (1997) note that a derivation from *sḍiṣ* “six” cannot be excluded. In light of the other two numerical forms, this derivation seems plausible.

Naït-Zerrad (1998:63) explained the forms for ‘*Aṣr*’ and *Maghrib* on the basis that the (24-hour) day starts after sunset, making *Maghrib* the 5<sup>th</sup> and last prayer within it. This view is reasonable in itself; such a definition of the day was commonplace in the Islamic world, and is supported by the Morisco Spanish form *alajere* “*Maghrib*” < *al-’ākhira* (cp. Alcalá’s (1883:329) *al aḳirī*, given as “Nones” but probably transposed from “Vespers”). However, this does not sit well with the fact that, in all the languages which use these numerical forms, *Ḍuhr* is consistently named as “the first”. If *Maghrib* is the fifth prayer, then *Ḍuhr* should be third; or, conversely, if speakers who view *Ḍuhr* as “first” are naming prayers ordinally, we expect ‘*Aṣr*’ to be “second”, and *Maghrib* “third”. Moreover, we would have to dismiss the otherwise promising similarity between the Tuareg terms for ‘*Ishā*’ and “six” as a coincidence: there is no sixth obligatory prayer! Nor are there three prayers between

Ḍuhr and ‘Aṣr. For an explanation to fit the numerical forms for Ḍuhr, ‘Aṣr, and Maghrib all at once, let alone ‘Ishā’, we must abandon the idea of ordinally named prayers.

Happily, an alternative solution is available. Let us take the numerals to represent, not an ordering of prayers, but rather the times of the prayers, as measured by some numerical time-keeping system. The average time between Ḍuhr and Maghrib is 6 hours; in fact, if we use seasonal rather than equinoctial hours, as medieval sources commonly do, the time between them is always six seasonal hours by definition. Thus, if the interval between Ḍuhr and Maghrib is  $(5 - 1) = 4$  units, the unit in question must equal  $(6 / 4)$  hours, ie 1 hour 30 minutes. The day would be made up of 8 such units, and the night of another 8 such units.

Such a unit is not a mere artefact of imaginative reconstruction; it is well-attested in Saharan Berber culture. In the desert, irrigation water is frequently too scarce to allow everyone unlimited use, and measurement by volume is rarely practical. Most Saharan oases instead handle water rights through time measurement: for any particular spring or canal, each owner has the right to irrigate from it for a specific time-span each day, determined contractually. In order to measure this time-span, they divide the day into a fixed number of units, just as modern society does. In Ouargla, Ghadames, and Sīwa, the day was divided into 8 units of 1 hour 30 minutes each, called *ttmān* at Sīwa and Ouargla (< Arabic *tumn* “one-eighth”; Souag (2013:119) for Sīwa, Delheure (1988:196) for Ouargla), and *anattam* at Ghadames (< Berber, cp. *tam* “eight”; Lanfry (1973:273)).

This would yield, on average, the following times for prayers:

1 <sup>st</sup> anattam	Ḍuhr	12:00 (normalised; add or subtract depending on time zone)
2 <sup>nd</sup> anattam	–	13:30
3 <sup>rd</sup> anattam	–	15:00
4 <sup>th</sup> anattam	‘Aṣr	16:30
5 <sup>th</sup> anattam	Maghrib	18:00
6 <sup>th</sup> anattam	‘Ishā’	19:30

The time given here for ‘Aṣr will strike most modern North Africans as a little too late. Contrast the actual spring equinox times for Ghadames as calculated by IslamicFinder.org<sup>5</sup>, subtracting 30 minutes to normalise for the time zone:

Ḍuhr	12:00
‘Aṣr	15:27
Maghrib	18:05
‘Ishā’	19:22

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[http://www.islamicfinder.org/prayerPrintable.php?city2=Ghadames&state=&id=11837&longi=9.5000&lati=30.1333&country2=Libya&zipcode=&today\\_date\\_flag=2013-3-23&changeTime=16&pmethod=2&HanfiShafi=1&DhuhrInterval=1&MaghribInterval=1&dayLight=0&dayLight\\_self\\_change=&prayerCustomize=1&lang=&fajrTwilight=0&ishaTwilight=0&shaInterval=0&month=3&year=2013](http://www.islamicfinder.org/prayerPrintable.php?city2=Ghadames&state=&id=11837&longi=9.5000&lati=30.1333&country2=Libya&zipcode=&today_date_flag=2013-3-23&changeTime=16&pmethod=2&HanfiShafi=1&DhuhrInterval=1&MaghribInterval=1&dayLight=0&dayLight_self_change=&prayerCustomize=1&lang=&fajrTwilight=0&ishaTwilight=0&shaInterval=0&month=3&year=2013)

According to this calculation, Maghrib and ‘Ishā’ are correct to within less than 10 minutes. However, ‘Aṣr comes out off by an hour. This, however, can easily be remedied. ‘Aṣr has not one recognised time, but two: while most schools prefer to pray it when the shadow of an object is longer than at noon by the same length as its height, the Ḥanafī school instead prays it when it is longer by twice its height, and both alternatives are supported by hadith (King 1990). If we change the calculation method to Ḥanafī on the same site, and again subtract 30 minutes, then we get the following:

Ḍuhr	12:00
‘Aṣr	16:22
Maghrib	18:05
‘Ishā’	19:22

On the simple assumption that the twice-height method was followed, the anomaly thus disappears, and the implied timing is almost exactly correct.

Archeological investigations of Garamantian settlements have made it clear that irrigation-based oasis agriculture was already practiced by the Berbers of central Libya centuries before Islam (Wilson 2005). Such irrigation is hardly practicable without some means of dividing up time in order to divide water appropriately. It is therefore probable that, at the arrival of Islam, the settled Berbers of the Sahara and its fringes already had a time-telling system corresponding to the *anattam* of Ghadames and the *ttmān* of Sīwa and Ouargla. They adopted noon as “the first” based on the prayer’s alternative Arabic name, and named the following prayers based on the number of *anattams* elapsed counting from noon.

## 5. Conclusion

Saharan and Moroccan Berber, Soninké, and Songhay have all preserved, and transmitted to their neighbours, traces of Islamic religious terminology found in the hadith literature but largely obliterated elsewhere by pressures towards standardisation which can already be seen in that very literature. Indeed, Siwi Berber preserves the variant system labelled “Basran” above almost in its entirety. The terminology *al-’ūlā* for Ḍuhr and *al-nawm / al-’atama* for ‘Ishā’ must have been dominant among the Muslims that reached the region in the Umayyad period. These variants’ distribution correlates well with the fact that, at the time when what would come to be accepted as the key hadith collections and Sunni madhhabs were emerging, the trans-Saharan trade was largely in the hands of Muslims who did not accept the political authority of the Abbasid empire or the religious authority of its scholars. In addition to calquing Arabic terminology, Berber also coined new terms based on pre-existing Berber time-keeping systems, whose relative antiquity this fact confirms.

### 6. Data: Names of prayer times in languages of the Western Islamic world

Tables 3 and 4 summarize the data used in this paper. A few Berber languages also have attested native terms for *tarawīh*, the long supererogatory prayers of Ramadan: Ouargla *tizgrarin*, Zenaga *təžəgrārən*. The etymology is transparent in both cases, being the feminine plural of the Berber adjective “long” in Ouargla (though Zenaga uses a different root for the adjective).

Table 3: Variant prayer names in Berber.

		Ṣubḥ	Ḍuhr	‘Aṣr	Maghrib	‘Ishā’
Zenaga	(Taine-Cheikh 2008)	<i>t(ä)näzzäT</i>	<i>təžbarən</i>	<i>takkūžən</i>	<i>tnuʷshaʔn</i>	<i>təNʷuḏashshən</i>
<b>Moroccan Atlas:</b>						
Old Tashelḥiyt	(Ibn Tūnirt, via Boogert & Kossmann 1997)		<i>tizwarn</i>	<i>takkzin</i>	<i>tiwwutshi</i>	<i>tiyyiṭs</i>
Tashelḥiyt	(Destaing 1920)	<i>(šṣbah)</i>	<i>tizwarən</i>	<i>takʷzin</i>	<i>tiwutsh</i>	<i>tiyiḏəs</i>
Ait Hdiddou Tamazight	(Azdoud 2011)	<i>(ləfžər)</i> <i>(šṣubḥ)</i>	<i>tizwarrin, (dḏuhr)</i>	<i>(l‘aṣr)</i>	<i>tighuriwin,</i> <i>(lməghrəb)</i>	<i>tin yiṭṭs, (l‘isha)</i>
Ait Atta Tamazight	(Amaniss 1980)		<i>tizwarnin</i>		<i>tin-wittshi</i>	<i>tin-yiṭs</i>
Ait Khebbach Tamazight	(author’s field data)	<i>(šbah)</i>	<i>tizwarnin, tuzwarin</i>	<i>(l‘aṣər)</i>	<i>tinwučč’in,</i> <i>tawučč’i</i>	<i>tinyaṭs</i>
<b>Tuareg:</b>						
Tamasheq	(Heath 2006)	<i>tifawt, eməghārr</i>	<i>tézzar</i>	<i>tákkəṣt</i>	<i>álməz</i>	<i>tisóḏsen</i>
Ahaggar Tamahaq	(Foucauld 1951:1157)	<i>tufat</i>	<i>tezzar, eməghri</i>	<i>takkəṣt</i>	<i>alməz</i>	<i>ažuzəğ, tisutsin</i>
Ghāṭ Tamahaq	(Nehilil 1909:193)	<i>tufat</i>	<i>iməghri</i>	<i>takəst</i>	<i>alməz</i>	<i>tadəğğat</i>
Taitoq Tamajeq	(Masqueray 1893:266)	<i>tufat</i>	<i>tizzar</i>	<i>takkost</i>	<i>aləmož</i>	<i>ažozəğ</i>

		Şubḥ	Ḍuhr	‘Aşr	Maghrib	‘Ishā’
<b>Zenati:</b>						
Figuig	(Sahli 2008, Kossmann p.c.)	<i>ləfžər</i>	<i>tizzarnin</i>	<i>l‘aşər</i>	<i>lməghrəb</i>	<i>tinyiṭ</i>
Igli	<a href="http://www.igli08.com/vb/showthread.php?t=941">http://www.igli08.com/vb/showthread.php?t=941</a>		<i>tizzarnin</i>	<i>(l‘aşr)</i>	<i>tisəmsin</i>	<i>tiniṭs</i>
Timimoun	(Boudot-Lamotte 1964)		<i>tizza ‘nin</i>	<i>takzin</i>	<i>tisəmsin</i>	<i>tinnist</i>
Ouargla	(Delheure 1987)	<i>(ghabəshsha)</i>	<i>tazzarnin</i>	<i>takkʷzin</i>	<i>tisəmməsin</i>	<i>tinniḍəs</i>
Mzāb	(Brahim Abdessalam & Bekir Abdessalam 1996:47)	<i>(ghbəshsha)</i>	<i>tizzarnin</i>	<i>takʷzin</i>	<i>tisəmsin</i>	<i>tinniḍəs</i>
<b>“Eastern”:</b>						
Tamezret	(Ben Mamou 2005)				<i>tisəmsin</i> “après-midi”	
Zuwāra	(Mitchell 2009:327–327)	<i>talži</i>	<i>tizzarnin</i>	<i>tuqzin</i>	<i>timutshu</i>	<i>tiniḍəs</i>
Nafūsa	(Calassanti-Motyliniski 1898:36)	<i>afəllaḥ n taji</i>	<i>tizzarnin</i>	<i>tuqzin</i>	<i>tisəmsin</i>	<i>tinmənsi</i>
Old Eastern Berber	(Calassanti-Motyliniski 1898:36)	<i>tinuzəčča</i>	<i>tizzarnin</i>	<i>tuqzin</i>	<i>tinučču</i>	<i>tiniḍəs</i>
Sawkna	(Sarnelli 1924:21)		<i>iməghri</i>			
Al-Fuqahā’	(Paradisi 1963:118)	<i>(əlfəžər)</i>	<i>mghári</i>	<i>(əl‘aşar)</i>	<i>tsəmsín</i>	<i>tniaṭəst</i>
Ghadames	(Lanfry 1973:194)	<i>(əşşāla) / məddēn</i>	<i>ama ‘ri</i>	<i>(əl‘aşər)</i>	<i>aβənnəβən</i>	<i>tənēḍəs</i>
Awjila	(Paradisi 1960; Paradisi 1961)	<i>(əlghábəsh</i> “mattino presto”)	<i>(alúli)</i>	<i>(l‘aşar)</i>	<i>mnishíw</i>	
Sīwa	(author’s field data)	<i>tənnaddan / sra</i>	<i>(luli)</i>	<i>(la‘şar)</i>	<i>(mməghrəb)</i>	<i>(l‘ətmət)</i>

Table 4: Variant prayer names in non-Berber languages.

		Ṣubḥ	Ḍuhr	‘Aṣr	Maghrib	‘Ishā’
Morisco Spanish (16 <sup>th</sup> cent.)	(Dadson 2012; Gredilla 1874)	( <i>alcobh, cofe</i> )	( <i>doar, dohar</i> )	( <i>hazar, alaçare</i> )	( <i>elegin, alajere</i> )	( <i>hatamay, alatamo</i> )
Wolof	(Diouf 2003)	<i>njël, (fajar)</i>	<i>tisbar</i>	<i>tàkkusaan</i>	<i>timis</i>	<i>geewe</i>
Korandjé	(author’s field data)	( <i>l)məndər</i>	<i>təzbərrən</i>	<i>tsak<sup>w</sup>zzən</i>	<i>tsyunəs</i>	<i>tsyadəs</i>
Gao Songhay	(Heath 1998)	( <i>subbaahi</i> )	( <i>aluula</i> )	( <i>alaasar</i> )	( <i>almaari</i> )	<i>assaafoo</i>
Timbuktu Songhay	(Heath 1998)	( <i>alfajar</i> )	( <i>aluula</i> )	( <i>alaasara</i> )	( <i>fitirow, futurow, fitrow</i> )	<i>assaafoo, saafoo</i>
Soninké	(Diagana 2011)	( <i>fājiri</i> )	<i>sállì-fànà</i> (“prayer-first”)	( <i>làxáasàrà</i> )	( <i>fütúró</i> )	<i>sákhú-fó</i> (“sleep-thing”)
Bozo of Mopti	(Daget, Konipo & Sanankoua 1953)	( <i>alfadyiri, fadyiri</i> )	<i>salifana</i>			<i>saà pó</i> (“sleep thing”)
Mandinka	(Creissels 2011)	( <i>súbaa</i> )	<i>sálifanaa</i>	( <i>alánsara</i> )	( <i>fitiri</i> )	<i>sáafu</i>
Bambara	(Bailleul 1981)		<i>selifána</i>	( <i>làansàra</i> )	( <i>fitiri</i> )	<i>saafu</i>
Futa Jalon Pular	(Bah 2012)	<i>subaka</i>	<i>fanaa</i>	<i>alansaraa</i>	<i>futuroo</i>	<i>saf’i, geeyé</i>
Macina Peul	(Marty 1920:228)	<i>fadyiri</i>	<i>sallifana</i>	<i>lassara</i>	<i>fitiri</i>	<i>safako, guédié</i>



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