

THE STUDY OF ISLAMIC ASTRONOMY IN INDONESIA

(An Analysis Study of Study of Islamic Astronomy's Model Applied
by Concentration of Islamic Astronomy of Family Law Major
of Shariah Faculty of Walisongo State Institute
for Islamic Studies)

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MOTTO

الْعِلْمُ زَيْنٌ بِالْعَمَلِ لَا بِالتَّبَاهِي وَالْأَمَلِ
فَمَنْ أَفَادَ عِلْمَهُ بِالْقَوْلِ وَالْفِعْلِ اكْتَمَلَ¹

Knowledge is embellished with act; it is not embellished
with arrogance and escapism

Therefore, who makes use of his knowledge with word
and act he will be perfect.

¹ ‘Umar ‘Abduljabbār, *al-Muntakhabāt fī al-Maḥfūḍāt*, First Section, Surabaya: al-Maktabah al-‘Aṣriyyah, p.26

DEDICATION

This thesis is dedicated to:

My beloved Parents who introduce me everything

Asātdz and Ustādzāt in Al-Isti'nas Boarding School

and Darul Falah Boarding School

All of teachers who have taught me everything

A big family of Islamic Astronomy Concentration 08 (TOGETHER)

and

Everybody who appreciates my work

THESIS STATEMENT

I certify that this thesis is definitely my own work. I am completely responsible for content of this thesis. Other writer's opinions or findings included in the thesis are quoted or cited in accordance with ethical standards.

Semarang, June 24, 2012

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ABSTRACT

The study of Islamic Astronomy applied by Walisongo State Institute for Islamic Studies (IAIN Walisongo) is the most interesting study among all studies of Islamic Astronomy in Indonesia. The reason is that it is organized in the concentration form (Concentration of Islamic Astronomy / KIF), which is the only one in Southeast Asian. In addition, Prof. Nazaruddin Umar who was Director General of Islamic Society Guidance expected in order that IAIN Walisongo can be the development beacon of Islamic Astronomy in Indonesia. This research wants to express the study of Islamic Astronomy's model applied by IAIN Walisongo through two problem focuses, which are how IAIN Walisongo establishes the epistemology of study of Islamic Astronomy and how the praxis of the study of Islamic Astronomy at IAIN Walisongo is.

The category of this research is a *qualitative research*. The main source and the data input of this research is some information of people who are involved directly with the activity observed, so this research is also called *field research*, which has two data source types, which are primary data source and secondary data source. The primary data source of this research is interview results with the founders of KIF. The secondary data sources of this research are books, newspapers, magazines, working papers and Concentration of Islamic Astronomy's documents related to this research. Next, these data are analyzed by descriptive analysis method.

The results of this research are, *first*, Epistemology applied by Walisongo State Institute for Islamic Astronomy to organize the study of Islamic Astronomy is combinative epistemology, which combines the epistemology of astronomical science and Islamic law epistemology. As an observational science, Islamic Astronomy is a science to know the positions of celestial objects by calculation and observation. Therefore, the observation data is the primary data that can annul the Ephemeris data. Many mathematical sciences are originally developed to facilitate the astronomical research, such as observation. In addition, Islamic Astronomy also related to the Islamic worship, such as *ṣalāt*, *ḥajji*, fasting, etc. In Holly Quran, Allah commands Muslims to perform Islamic worships in the certain times. The natural phenomena are as indication of these times. Therefore, Islamic astronomy is part of Islamic law. *Second*, Practically, IAIN Walisongo has the high commitment to organize the study of Islamic Astronomy as the epistemology of Islamic Astronomy. This is based on three considerations, which are the curriculum framework covering not only the substantive courses, but also the supporting courses, such as Mathematics, Methodology of Science, Astronomy, Computing, and Instrumentations, teaching staff structure involving the internal lecturers and the external lecturers of Shariah Faculty of IAIN Walisongo, and (3) some discussions held by Shariah Faculty and scientific works. Both of them discuss about the subjects of *'Ilm al-Falak* (*Qibla*, prayer times, *Qamariyyah* months, and eclipses) from not only jurisprudence perspective but also scientific perspective.

Keywords: Islamic Astronomy, Model, Epistemology, Praxis

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Glory to God who created all, to man He gave special place in His creation. He honored man to be His agent, and to that end, endued him with understanding, purified his affections and gave him spiritual insight. So that man should understand nature, understand him, and know God through His wondrous Signs. Glory Him in truth, reverence, and unity. The Glorious God who sent Muhammad (PBUH) as Messenger, preaching and working in the dim twilight of history. He stood for all humanity, orphans, women, slaves, and whom the world neglected or oppressed. He comes to me, bringing the light to lighten the shadow, disclosing the cover of my indecision and inspiring me with his love to keep struggling, to win God's gifts.

This final assignment entitled THE STUDY OF ISLAMIC ASTRONOMY IN INDONESIA (AN ANALYSIS STUDY OF STUDY OF ISLAMIC ASTRONOMY'S MODEL APPLIED BY CONCENTRATION OF ISLAMIC ASTRONOMY OF FAMILY LAW MAJOR OF SHARIAH FACULTY OF WALISONGO STATE INSTITUTE FOR ISLAMIC STUDIES) will not be finished on time if not with the help and encouragement of those who always take their time to help me accomplishing this final task:

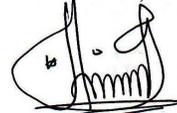
1. My dear parents who always struggle and do their best to support the writer with everything they can do and they have.

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Semarang, June 24, 2012

The writer,



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ENGLISH TRANSLITERATION SYSTEM*

1. Consonant

| Arabic | Latin | Arabic | Latin |
|--------|-------|--------|-------|
| ء | a | ض | ẓ |
| ب | b | ط | ṭ |
| ت | t | ظ | ḍ |
| ث | th | ع | ‘ |
| ج | j | غ | g |
| ح | ḥ | ف | f |
| خ | kh | ق | q |
| د | d | ك | k |
| ذ | dz | ل | l |
| ر | r | م | m |
| ز | z | ن | n |
| س | s | و | w |
| ش | sh | ه | h |
| ص | ṣ | ي | y |

2. Vowel

| Short | | Long | |
|-------|---|------|---|
| َ | a | ا | ā |
| ُ | u | و | ū |
| ِ | i | ي | ī |

3. Double and Diphthong

| Double | | Diphthong | |
|--------|---------------------------|-----------|------------------------|
| يَ | <i>iiy</i> (final form i) | أُو | <i>au</i> or <i>aw</i> |
| وَ | <i>uww</i> (final form u) | أَي | <i>ai</i> or <i>ay</i> |

All *al ta'rīf* (ال تعريف) are written with “al-” except if related with the word *dīn* or *al-asmā' al-ḥusnā*. For example, *shihābuddīn*, *uṣūluddīn*, *abdullāh*, etc.

* Quoted from *Pedoman Penulisan Skripsi*, Fakultas Ushuluddin IAIN Walisongo, Semarang, 2007, p 120-121.

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