

Rhythmic Structure in Islamic Architecture

Dr. Abdullah Y. Al-Tayib
Assistant Professor

Wissam M. Y. Al-Shaikh Essa
Master in Architecture

Department of Architecture
University of Mosul

Abstract

The study defines the research problem as a reconsideration or reformulation of a scientific approach to study of the dimensions of rhythm in Islamic Architecture, depending on rhythmic polyphonic and harmonic relations in Islamic architecture, as well as on rhythmic in Arabic poetry and music. To fulfill such as objective a scale for rhythmic dimension is being laid down. The hypothesis postulates that the aesthetic taste constituting the dimensions of rhythm in Islamic architecture is itself the force behind Arabic poetry and music.

So that the characteristics of rhythm in Arabic poetry and music are defined and clarified going back to their roots as they were founded by Al-Khalil Bin Ahmad, Al-Farabi, Ekhwan Al-Safa and Al-Armani. A graphic model for musical and poetic rhythm is devised so as to project the distinctive features descriptive of the Islamic character and how they may apply to Islamic architecture in eclectic samples. Periods, beats and paces between music and poetry on the hand and their architectural counterparts on the others are being rigorously compared. The results project similarity and continuity of the expressive aspects in Islamic architecture and Arabic music and poetry for both reflect the slow, monotonous and infinite nature of the Muslim mind. The groupings, spaces and modulation in both arts are almost identical. In both arts the shape and the rhythm are but reflections and an embodiment of the same cultural tempo and spirit... infinite, colorless and monotonous.

Ô . Ô Ø
(cadences) Ô Ô Ô Ô Ø
 Ô Ô . **(polyphony)** .
 .(Tonna P.195)

Ô Ø Ô Ô
 " Ô Ô Ø " " " "

.(èèè . Ô Ô)
 Ô . **(Nims P.253,252)**
 Ô Ô . Ô Ø .
 .(éèç .)
 Ô .

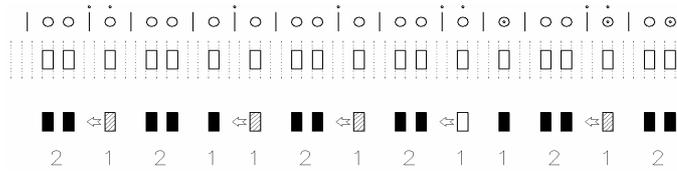
meter) Ø .
 (~ -/~ - /~ -/~ - /~ - . Ø) Ø **(measure**
(flow Ô Ô Ô Ô **rhythm)** Ø .
 . Ô Ô Ô
 .(NimsP.268.254) Ø

Ø Ô Ô Ø

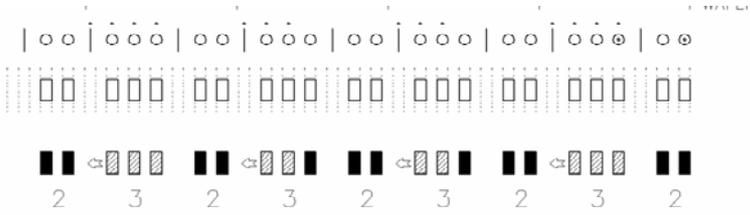
Ô Ô Ø .
 Ø . Ø .
 :(i è .) Ø
 . Ø :Ø
 Ø :

Ô .
 Ô Ô .(èèí .)
 . Ô Ô
 Ô Ô Ô **(Westrue)** Ô . (13 .)
 : . **(Westrue P.456)**

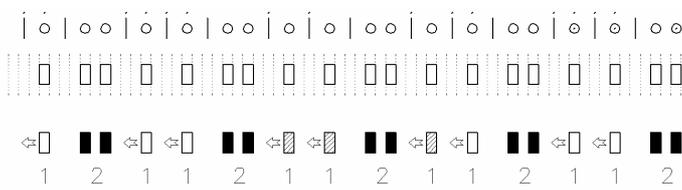
.Ø Ø **(plainsong)** .
 .(measured notation) (measured) .



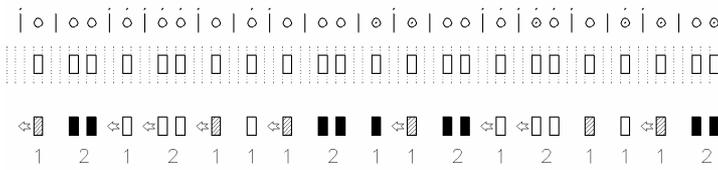
$\tilde{\omega} \tilde{\omega} :(\acute{e})\emptyset\tilde{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 \emptyset
 .()



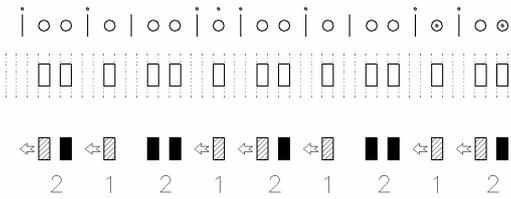
$\tilde{\omega} \tilde{\omega} :(\acute{e})\emptyset\tilde{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 \emptyset
 .()



$\tilde{\omega} \tilde{\omega} :(\acute{e})\emptyset\tilde{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 \emptyset
 $\hat{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 .()

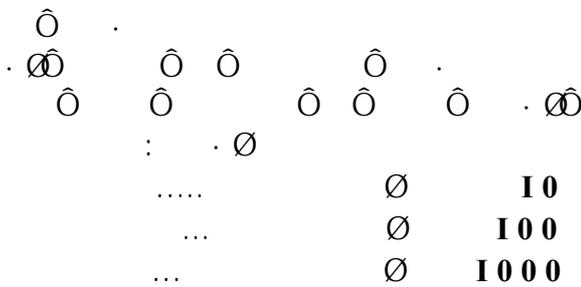


$\tilde{\omega} \tilde{\omega} :(\acute{i})\emptyset\tilde{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 \emptyset
 .()



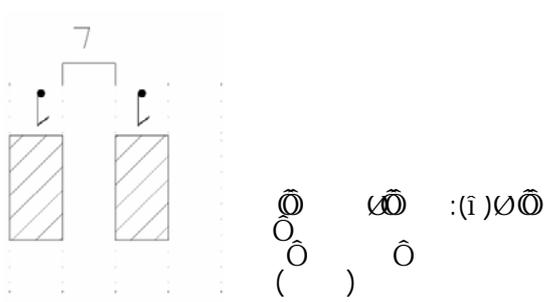
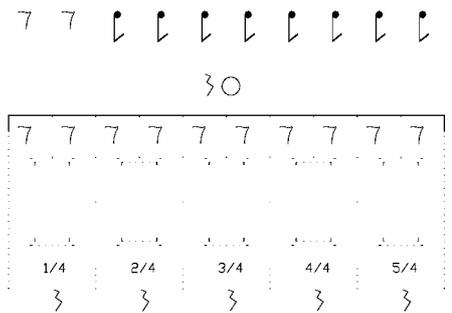
$\tilde{\omega} \tilde{\omega} :(\acute{i})\emptyset\tilde{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 \emptyset
 .()

.í



$\tilde{\omega} \tilde{\omega} :(\acute{e}\acute{e}\acute{e})\emptyset\tilde{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 $\hat{\omega}$
 \emptyset
 .()
 .è
 .é
 .ê

: . () .è,í
 Ô Ô Ø . (èèí)
 Ô Ô Ø Ô Ø (èèí)
 Ô Ô Ô Ø .
 Ø Ø (èèð)
 Ô Ô Ô Ø
 Ô (444)
 Ô Ô Ø



Ô Ô . Ô .î
 Ô Ø
 Ô (ðí)
 Ô (èèí) Ø
 Ô Ô Ô Ô
 Ô Ô
 .(Wright P.375)
 Ô Ø
 Ô Ô Ø

(\hat{O} \hat{O} \hat{O} .) .(\hat{i} \hat{i} \hat{e}) . \hat{e}

(Kettaneh P.149-151)

.(\hat{i} \hat{d} \hat{e}) . \hat{e}

.(\hat{e} \hat{c} \hat{d} \hat{i}) . \hat{e}

.(\hat{e} \hat{e} \hat{i} \hat{i}) . \hat{e}

. \hat{i}

\emptyset .

: \emptyset . (\hat{i} . \hat{e} . \hat{e} . \hat{e}) \emptyset

\emptyset : \emptyset .

. (\emptyset) () .

\hat{O} \emptyset \emptyset \emptyset \emptyset \emptyset .

\hat{O} \hat{O} \hat{O} \hat{O} \hat{O} \emptyset \emptyset .

\hat{O} .

\emptyset .

\hat{O} \hat{O} \hat{O} \hat{O} . \hat{O} .

\hat{O} \hat{O} \hat{O} .

\emptyset .

. \hat{O}

•

•

•

•

•

•

•

•

•

	()	
∅		—
∅		~
∅		○
		⊙
∅		○ ○
∅		∣ ○
∅		—
∅		○ ∣ ○
∅ ∅		○
∅ ∅		○ ○
∅		•
∅ ∅		•
" "		⌋

.(:)

:(è) ∅

		∅	.(īīè)
() ∅	(è)	-	:∅
()	(è)	-	:
()		-	:
()	(è)	-	:

∅ : (è) ∅

		∅	.(ī ðè)
∅ ∅ ()	-	:	:∅
(-) ∅ ∅		-	:
()	(è)	-	:∅

∅ : (è) ∅

		∅	.(èçðī)
()	(è)	-	:∅
()	(è)	-	:
(∅ ∅ -)	(-)	-	:
(-∅)	(è)	-	∅ :
()	(è)	-	:
(∅ ∅ -∅)	(è)	-	:∅

∅ : (è) ∅

		∅	.(èèīī)
()	-	-	:∅
() ∅	-∅	-	:
()	-	-	:∅

∅ : (ī) ∅