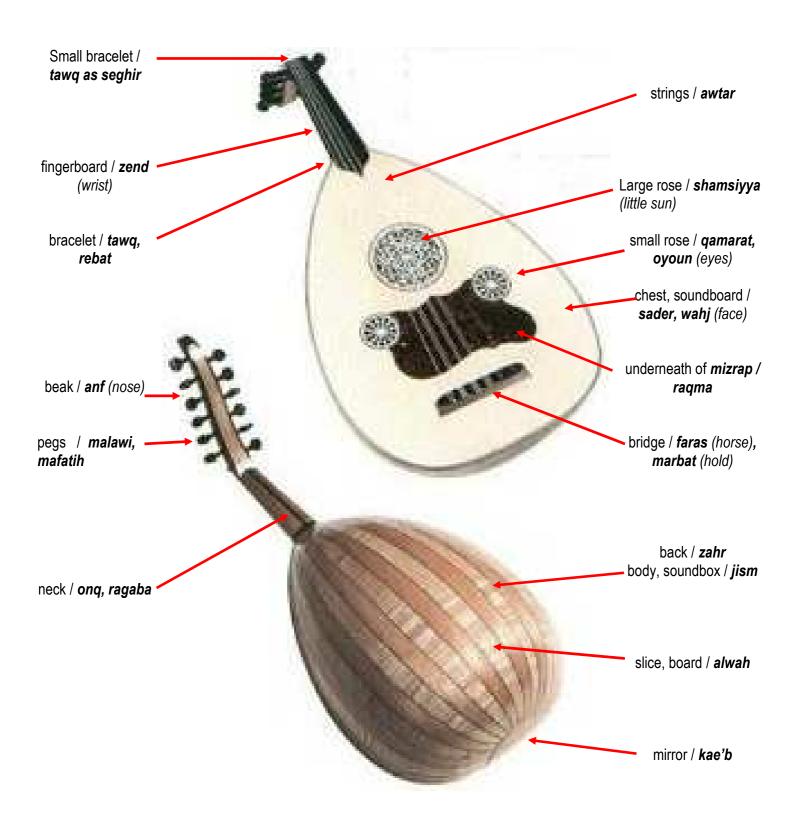
OUD LUTE CONSTRUCTION



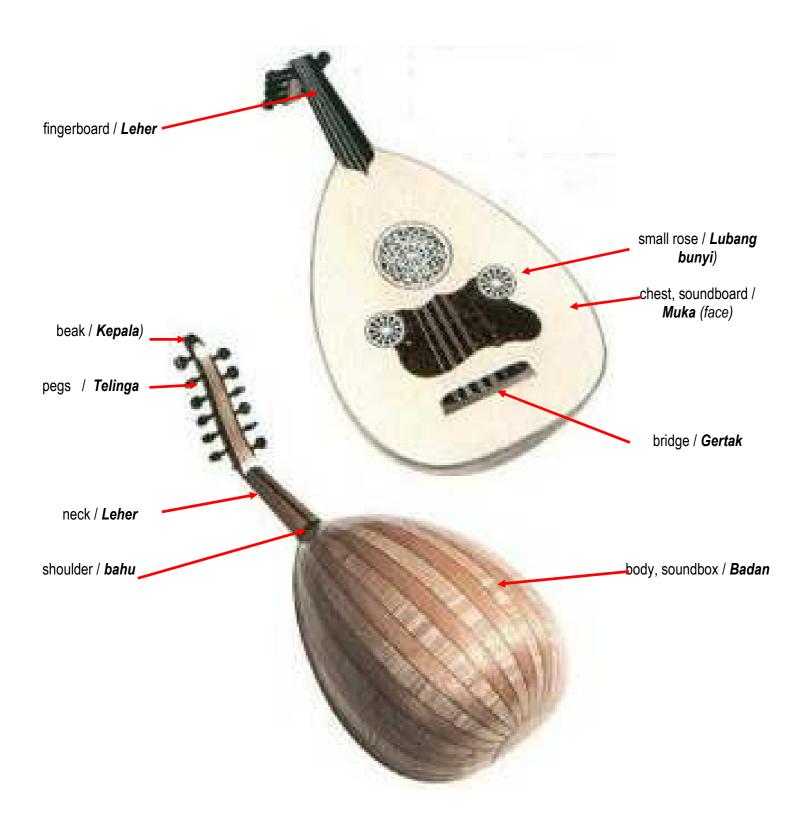
Version	Date	On line	Updates	
V0.0	Aug. 2007	yes	Creation	P. dHerouville
V1.0	Oct. 2007	yes	Organology & Neck assembly sheet	P. dHerouville
V2.0	May. 2008	yes	Biblio update + advices by www.Khalafoud.com	P. dHerouville
V3.0	Apr. 2009	yes	Biblio update + turkish design making of	P. dHerouville
V4.0	Mar. 2011	yes	Hatch soundbox	P. dHerouville
V5.0	Mar. 2012	yes	Maker Pourshaghaghi, Iran	P. dHerouville
V6.0	Jun. 2012	yes	Maker Nehmeh, Lebanon	P. dHerouville

ORGANOLOGY - VERNACULAR NAMES (MASHREK)



Mashreki name of the components, according to syrian-born lutenist Seifedin Shehadeh ABDOUN

ORGANOLOGY - VERNACULAR NAMES (MALAYSIA)



 $\underline{\text{Malay name of the components}}$, according to Larry Francis HILARIAN

DRAWING THE RIBS



Rib Masters of the lutemaker ASHARI, Bandar Qeshm, Hormuz straits.

SOUNDBOARD RIBS



Left: Patterns of the Lutemaker ASHARI, bazar Ferdowsi, Bandar Qeshm, Hormuz Straits

Right: clamping ribs on the pattern, by amateur homebuilt makers in Europe.

CUTTING THE RIBS



ASHARI used to cut the shaped ribs with an electrical cutter. Lutemaker ASHARI, bazar Ferdowsi, Bandar Qeshm, Hormuz Straits.

SHAPING THE RIBS



Left: An alternate technic is observed in Europe. Ribs are ironed after bath, then bended on the pattern by clamps or nails.

Right: ASHARI manufactured this shape pattern / heater. Each wet rib is shaped after 45 minutes. Lutemaker ASHARI, bazar Ferdowsi, Bandar Qeshm, Hormuz Straits.

SOUNDBOX ASSEMBLY (CLAMP)





Clamp

SOUNDBOX ASSEMBLY (ALTERNATE TECHNIC)



Oud soundbox pattern. Thanks to his efficient shaper / heater, Lutemaker "ASHARI doesn't use any clamp.

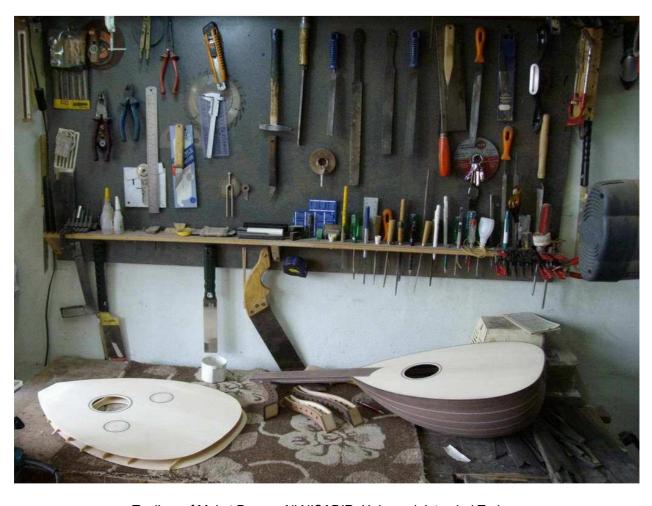


Assembly of the ribs. Maker ASHARI, Qeshm Isl.

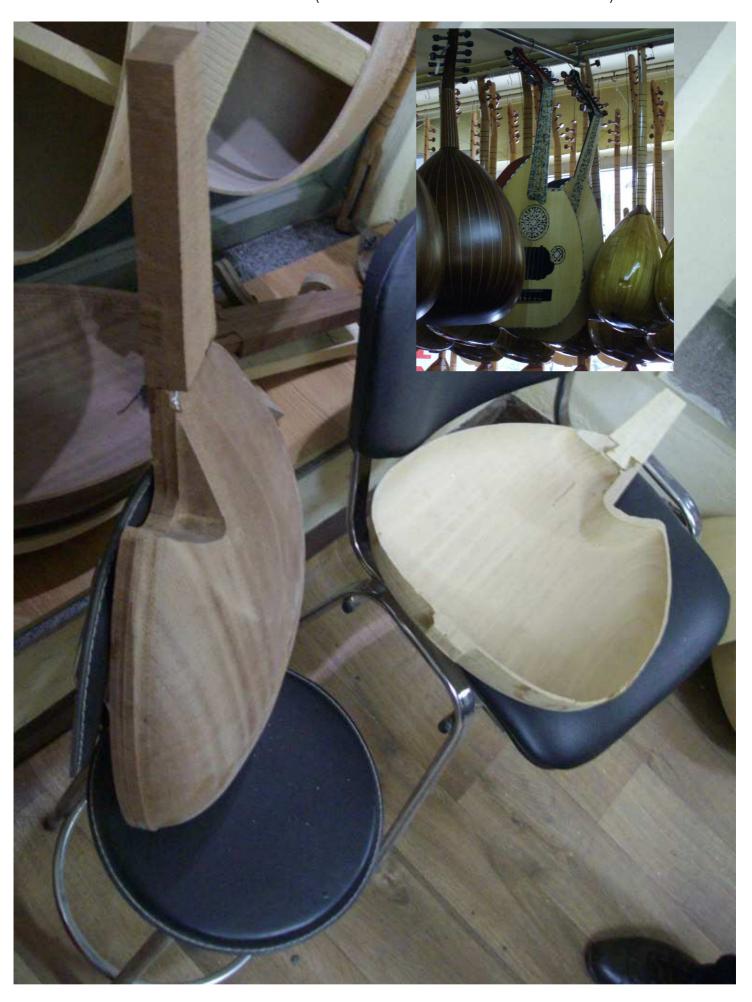
FINIHING SOUNDBOX



Polishing the ribs after glued.



Toolbox of Maket Dursun Ali NISADIR, Unkapani, Istambul Turkey.



For the hatch back ud body, the back of the oud is machined from plain wood with a 5 axis digital machinery. Lutemaker Inan KARAKIS, Tunel, Beyoglu, Istambul.



The soundboard is made of two glued ribs of pinewood. Maker Dursun Ali NISADIR, Istambul, Turkey.

SOUNDBOARD SHAPING – ISTAMBULI DESIGN (2)



The soundboard is polished so that thickness doesn't exceed 2 mm. Dursun Ali NISADIR, Istambul, Turkey.



The soundboard is polished so that thickness doesn't exceed 2 mm. Dursun Ali NISADIR, Istambul, Turkey.

SOUNDBOARD STRENGHTENING (1)



Glued ribs are spaced and strengthen the soundboard. . (www.khalafoud.com)



Clamps are needed, so that the inner ribs to be glued tightly. (www.khalafoud.com)

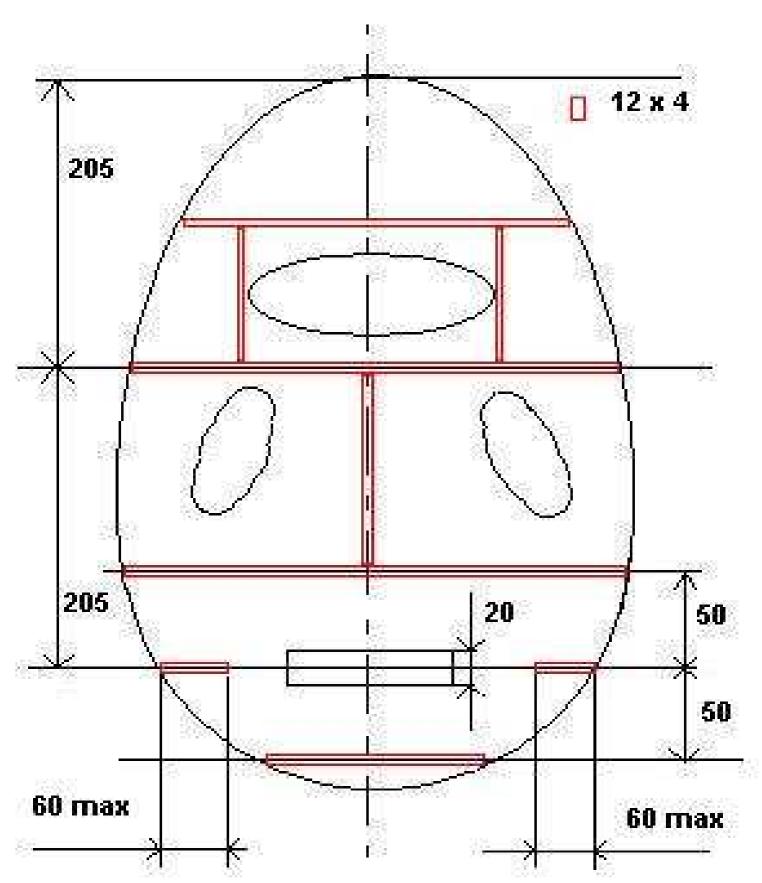
SOUNDBOARD STRENGHTENING -KUMETHRA VARIANT(2)



Shaping the soundboard (Kumethra variant, maker Mofid Nehmeh, Lebanon)



Strengthening a soundboard (*Kumethra* variant, maker Mofid Nehmeh, Lebanon)



Strenghtening the soundboard with pinewood bars, according to ASHARI. Free area dimensions around string holder are very important for accoustic rendering.



Strenghtening the soundboard with pinewood bars, according to Dursun Ali NISADIR, Istambul, Turkey. Former advices by ASHARI in the holder area are not applied here.

PEGBOX ASSEMBLY



Assemblying the Neck. Lutemaker in Doha, Qatar.



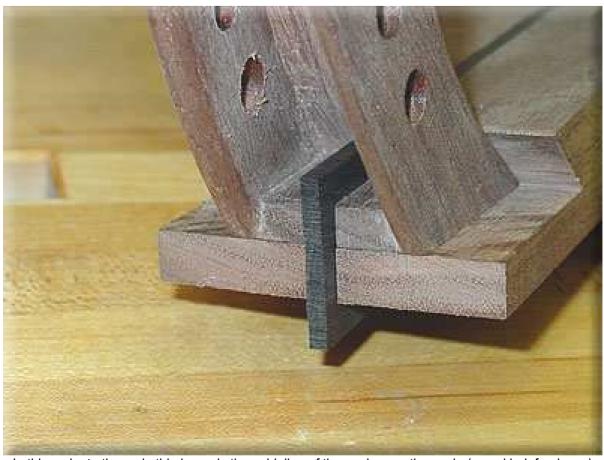
ASSEMBLING PEGBOX WITH NECK (1)



Cutting the Neck Head . Flat variant of the dovetail from Iran (maker POURSHAGHAGHI, Iran).



ASSEMBLING PEGBOX WITH NECK (2)



In this variant: the main thin beam is the guideline of the pegbox on the neck (www.khalafoud.com)



ASSEMBLING PEGBOX WITH NECK (3)



Assemblying the pegbox on Neck. Flat variant of the dovetail from Iran (maker POURSHAGHAGHI, Iran).



Adjusting the peg hloles with a conical gauge (maker POURSHAGHAGHI, Iran).

ASSEMBLING PEGBOX WITH NECK (4)



Assemblying the Neck. Cylindrical variant of the dovetail from San'a, Yemen.



Thin variant of the dovetail. The main board is inserted in the central groove. (www.khalafoud.com)



Wooden incrustations are made by inserting glued layers of rose wood and pine wood. Maker Dursun Ali NISADIR, Deniz Müzik, Unkapani, Istambul, Turkey

NECK ORNAMENTATION -ISTAMBULI DESIGN (2)



Design patterns for fingerboard. Maker uses to shape a pallssander wood made fingerboard, and this is adjusted then on the neck.

Maker Dursun Ali NISADIR, Deniz Müzik, Unkapani, Istambul, Turkey

NECK ASSEMBLY



Assemblying the Neck (glued dovetail). (www.khalafoud.com)



ASSEMBLING NECK WITH BODY (1)

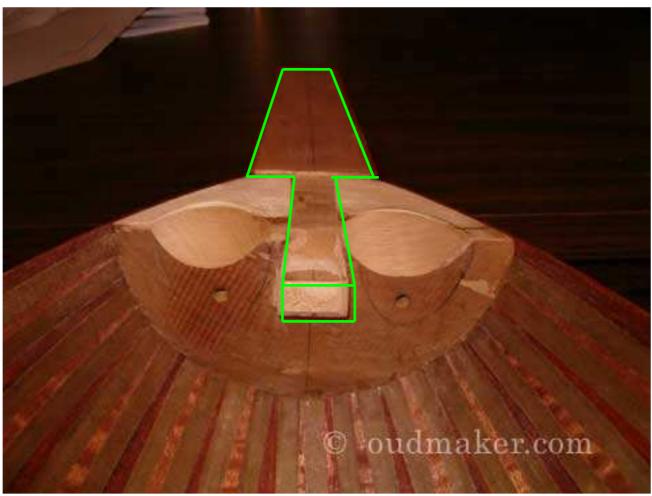


Shaping the Neck dovetail according the geometry of the soundbox. Maker POUSHAGHAGHI, Iran.

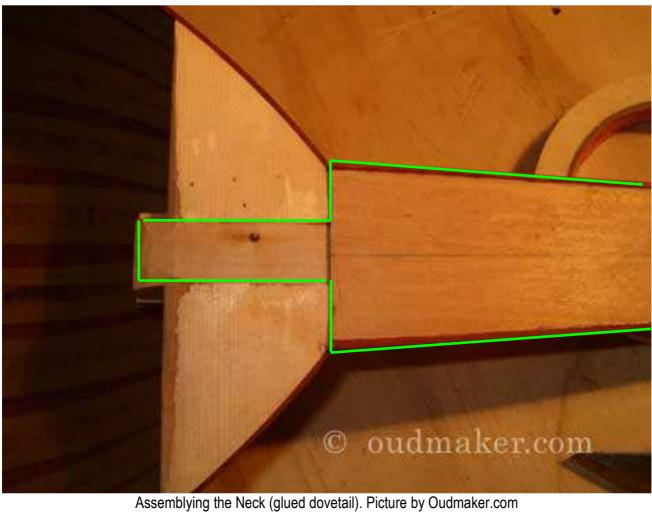


Shaping the Neck dovetail according the geometry of the soundbox. Maker POUSHAGHAGHI, Iran.

ASSEMBLING NECK WITH BODY (2)



Assemblying the Neck (glued dovetail). Picture by Oudmaker.com.



ASSEMBLING NECK WITH BODY (3)



Adjusting the Neck on the soundbox. Maker POUSHAGHAGHI, Iran.

ASSEMBLING NECK WITH BODY (4)



Adjusting the Neck dovetail. Maker Mofid NEHMEH, Lebanon.



Adjusting the Neck dovetail. Maker Mofid NEHMEH, Lebanon.



Assemblying the Neck (glued dovetail). The picture shows off the step for soundboard.

Maker Dursun Ali NISADIR, Deniz Müzik, Unkapani, Istambul, Turkey

ASSEMBLING NECK WITH BODY (6)



Original handmade fixture. (www.khalafoud.com)



ASSEMBLING NECK WITH BODY (7)



Maker is adjusting the gap between neck and body (Maker POURSHAGHAGHI, Iran)



Maker is adjusting the gap between neck and body (Maker POURSHAGHAGHI, Iran)



Strengthening a *Kumethra*-like body (Maker NEHMEH, Lebanon)

ASSEMBLING SOUNBOARD WITH BODY - ASHARI DESIGN (1)



Lutemaker ASHARI, Qeshm Isl, Hormuzgan, Iran.

ASSEMBLING SOUNBOARD WITH BODY (2)

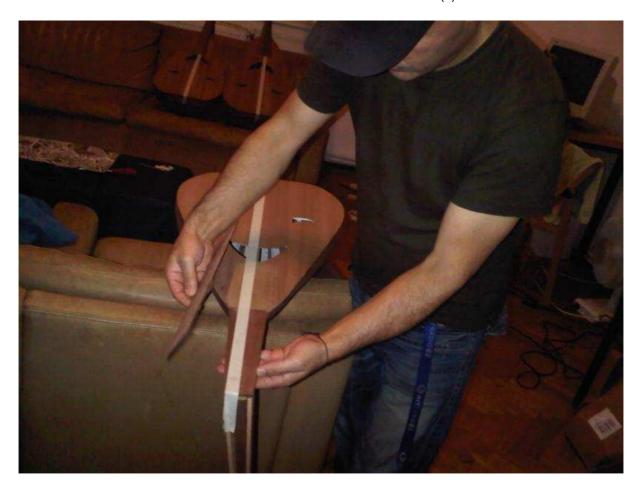


Adjusting sound board on body . (Maker Dursun Ali NISADIR, Deniz Müzik, Unkapani, Istambul, Turkey).

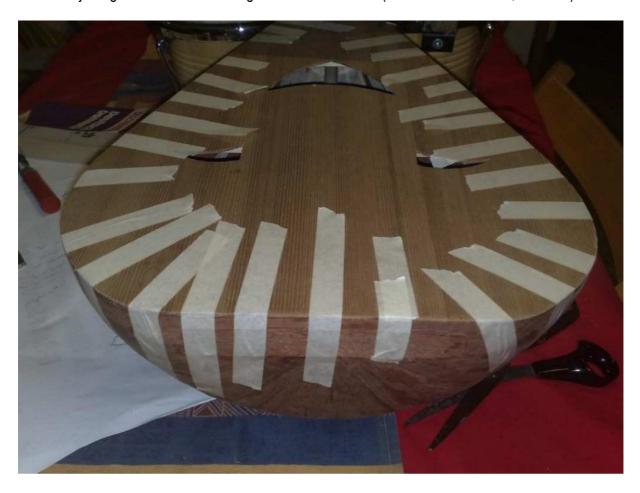


Adjusting sound board on body . (Maker Dursun Ali NISADIR, Deniz Müzik, Unkapani, Istambul, Turkey).

ASSEMBLING SOUNBOARD WITH BODY (2)



Adjusting a rose wood made fingerboard on the neck (Maker Mofid Nehmeh, Lebanon).



Adjusting sound board on body . (Maker Mofid Nehmeh, Lebanon).

FINISHING THE SOUNBOARD (1)



Glued ornamentations occult the glue seal. (www.khalafoud.com)



FINISHING THE SOUNBOARD (2)



Shaping the rose by string-like saw. Maker POURSHAGHAGHI, Iran $\,$



Ironing the finisher. (www.khalafoud.com)

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