Olive trees (Olea europaea L.) and grapevine (Vitis vinifera subsp. vinifera L.) cultivations spread during the 4th and 3rd millennia BC in Near East (Tengberg 2012). Their importance into local agricultural economies during more recent times, although known, remains poorly understood.

**Production Infrastructures**

Archaeological findings of wine and oil-producing infrastructures suggest local grapevine and olive cultivations. They are regularly found during Classical and early Islamic periods. Some features such as the presence of a pressing mechanism, vats and receptacles are common to both types of infrastructures which make their distinction sometimes difficult. Nevertheless, rotary crushing mills clearly indicate oil making whereas large treading areas are generally designed for wine production (Brun 2004, Zerbinì 2012).

**Palynology indicator**

The first centuries AD are marked by an increase of anthropogenic indicators (Olea, Vitis, Juglans) in the pollen sequences in the Golan Heights (Neumann et al. 2007) and around the Dead Sea (Neumann et al. 2010). It could be linked with an increase of agricultural activities and more humid conditions.

**What are the place and role of fruit trees production and use into local economy during Nabataean, Roman and early Islamic periods in Southern Near East?**

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Nature of the site</th>
<th>Soil</th>
<th>Topography</th>
<th>Mean annual rainfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosra</td>
<td>City</td>
<td>Clay on basalt</td>
<td></td>
<td>250-300 mm</td>
</tr>
<tr>
<td>Khirbet edh-Dharî</td>
<td>Rural habitat</td>
<td>Limestone &amp; Fersalitic</td>
<td></td>
<td>200 mm</td>
</tr>
<tr>
<td>Petra</td>
<td>City</td>
<td>Sandstone &amp; limestone</td>
<td></td>
<td>100-400 mm</td>
</tr>
</tbody>
</table>

**BOSRA AD 2nd-4th c.**

- Seed analysis (carbonized)
  - 31 samples, NM=4623

**Dhârih AD 2nd-4th c.**

- Fragmentation ratio
  - 100% olive (NM=157)

- Charcoal analysis
  - 18 samples, NR=251

**Infrastuctures**

- Wine-Press (Rock-cut vats and treading floor, Dentzey-Floyd et al. 2007:231)
- Oil Mill (Crusher and olive-press, Villeneuve 1990, Piraud-Fournet & Sedky 2012)

**Irrigation system**

- Aqueduct and reservoir channels (Dentzey-Floyd et al. 2007)

**Text**

- Epigraphic mention of fig from Beidha (Sans 1962, Jilani, Ian-XI, Ins.949)

**PETRA - Ez Zantur mid. 1st BC-AD 1st c.**

- Presence of gardens in the city but olive tree is not cultivated in Petra (Strahm, Casula 2011, 4.24)

**AD 4th c.**

- Olive and grape vine cultivations are well integrated to agricultural system in Southern Near East during Antiquity and early Islamic time and probably mainly devoted to oil and wine making.

- Presence of charred seeds and charcoal in the archaeobotanical assemblages underlines their use as fuel.

- Further investigations are needed in order to know if these crops benefit from irrigation systems / favorable climatic conditions.

**Bibliography:**


Charlène Bouchaud, Ph.D., UMR 7209, Archéologie et Archéobotanique, 55 rue Buffon - CP 56 75005 Paris, France charlène.bouchaud@gmail.com