

PRELIMINARY ARCHAEOBOTANICAL RESULTS FROM TELL ASWAD: AN EARLY NEOLITHIC SITE IN SOUTHERN SYRIA

Excavations 2001-2007

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Atriplex sp.

The site

- 1971 and 1972 : Small scale sounding carried out by H. de Contenson

Plant remains studied by W. van Zeist and J. A. H. Bakker-Heeres (1982)

- 2001 to 2007 : Large Scale Excavation (with radiocarbon dating and systematic recovery of animal and plant remains) directed by D. Stordeur and B. Jammous (Stordeur *et al.*, 2010).

Aims : Gain a better understanding of the PPN period in the Damascus area of southern Syria, through large-scale excavations.

431 archaeobotanical samples, obtained through the flotation of ashy sediments from a vast array of contexts (occupation levels, pits, fireplaces, burials) is helping to reconstruct the plant economy of a village community from the Early to the Recent PPNB (8,700-7,000 cal BC); this being a key period for agricultural transition in the whole Levantine area.



Tell Aswad (Stordeur *et al.*, 2010)

Aswad is situated in a dry steppe.

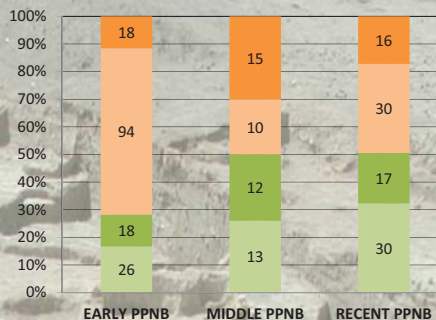
Annual Rainfall : less than 200 mm

Charcoal analysis : Riparian and marshy vegetation (Pessin, 2004).



Map of the Damascus area with PPNB sites of Aswad, Ramad and Ghoraiéf (van Zeist and Bakker Heeres, 1982)

The PPNB of Aswad shows important changes in architecture (building technics) and animal husbandry occurs in the earliest levels. Funeral practices include plastered skulls.



Hordeum vulgare rachis



DOMESTIC WHEAT
WILD WHEAT
DOMESTIC BARLEY
WILD BARLEY

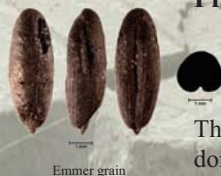
Hordeum spontaneum rachis



Preliminary results

Remains number	Taxa number	Samples number
31,729	114	98

The major cereal crops were emmer wheat and barley ; wild and domesticated morphotypes were identified from charred spikelet bases.



Emmer grain

Cultivated pulses include lentils, peas, broad beans and flax.

Wild pulses such as *Trigonella astroites*, *Medicago radiata* or *Melilotus* sp. were common.



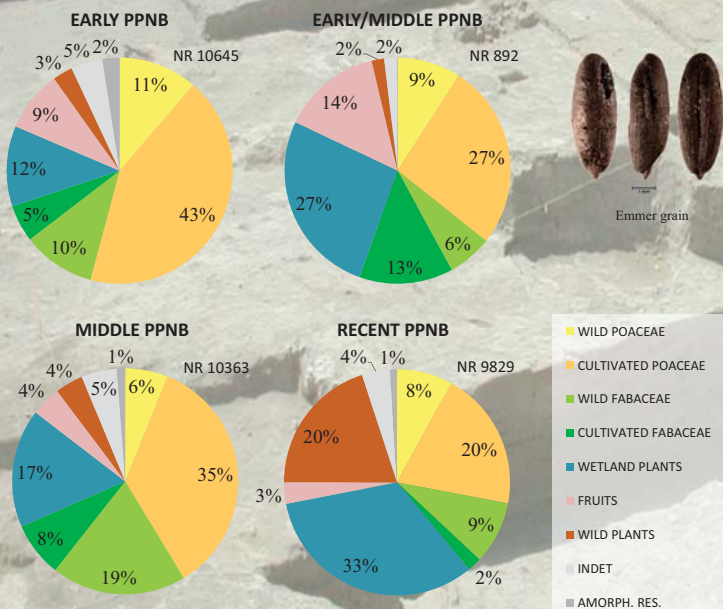
Trigonella astroites

Fruits such as *Pistacia cf atlantica*, *Ficus carica* and *Capparis* sp. were gathered. This activity appears to decrease in later levels.

High frequencies wetland plants such as *Scirpus maritimus/glaucus*, *Carex cf divisa* occur at Aswad.



Bolboschoenus maritimus



Conclusion

Comparison with Tell Ramad and Tell Ghoraiéf : similar plant assemblages, except for *Triticum durum/aestivum* (van Zeist and Bakker-Heeres 1982) present in the Middle PPNB levels of Ghoraiéf and in the Recent PPNB levels of Ramad but absent at Aswad.

The emmer/barley association at Aswad is typical of the southern Levant. In the northern Levant einkorn is frequent and rye occurs at some sites.

The increase of wild/weed plants in the later levels at Aswad suggests an intensification of agricultural practises. The high frequencies of wetland plants reflects the local environment Aswad being on the edge of the lake and near the rivers.

References

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STORDEUR D., HELMER D., JAMMOUS B., KHAWAM R., MOLIST M. and WILLCOX G. (2010) « Le PPNB de Syrie du Sud à travers les découvertes récentes à Tell Aswad », in AL-MAQDISSIM., BRAEMER F. et DENTZER J.-D. (Dir.), *La Syrie du sud du Néolithique à l'Antiquité tardive, Hauran V*, pp. 41-69.

VAN ZEIST W. and BAKKER-HEERES J.A.H. (1982) "Archaeobotanical studies in the Levant", in BALKEMAA, A. A. *Palaeohistoria* 24. Acta et communicationes instituti bio-archaeologici universitatis groninganae, pp. 165-256.

	EPPNB 34 samples	E/MPPNB 11 samples	MPPNB 26 samples	RPPNB 27 samples	TOTAL FREQUENCY
Bromus sp.	4	1	7	6	18
Phalaris sp.	3	2	3	4	12
Hordeum murinum	12	2	7	6	27
Lolium sp.	1	0	1	1	3
Stipa sp.	1	0	1	1	3
Astragalus sp.	12	1	8	11	32
Medicago sp.	3	0	3	5	11
Melilotus sp.	10	0	4	13	27
Onobrychis sp.	2	0	0	1	3
Medicago radiata	3	0	11	13	27
Trigonella sp.	23	3	15	15	56
Trigonella astroites	23	7	16	15	61
Adonis sp.	6	0	1	3	10
Azizoon Hispanica	0	0	2	2	4
Androsace maxima	1	0	4	2	7
Malva sp.	2	0	0	1	3
Thymelea sp.	2	0	0	0	2
Chenopodium Glaucum	1	0	0	0	1
Galium sp.	5	0	6	4	15
Eriboerpermum tenuiflorum	18	3	11	19	51
Silene galica	2	0	2	2	6
Trifolium sp.	0	0	1	1	2
Viscaria pycnantha	2	0	4	5	11
TOTAL	136	19	107	130	392

Potential Weeds Frequencies