

RAMLA, TRAIN STATION, AREA D1: RADIOCARBON DATES

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Four samples for radiocarbon dating were taken from the Early Islamic Stratum in Area D1 in the excavation at the train station in Ramla (see Haddad 2018).¹ Two samples were taken from Phase IIIC and two from Phase IIIA, the latest Early Islamic phase, which was destroyed in a conflagration (Table 1).

The Samples were pretreated to eliminate any environmental contamination by following the Acid-Base-Acid protocol. They were then measured in the Accelerator Mass Spectrometry technique. All ¹⁴C ages have been corrected for fractionation to assure that results are equivalent with the standard $\delta^{13}\text{C}$ value of -25‰ in wood, and are reported in conventional radiocarbon years (before present = before 1950) in accordance with the international convention (Stuiver and Polach 1977). Calibrated ages in calendar years were obtained from the calibration table of Reimer et al. (2004) by means of the 2005 version OxCal v. 3.10 of Bronk-Ramsey (1995; 2001; 2013).

The ages obtained from the samples (Table 1; Fig. 1) seem to represent two different time periods, with Sample No. 1 providing a later date than the three other samples.

Table 1. Results of Radiocarbon Dating from the Stratum III in Area D1 (Sq 31)

No.	Sample No.	Sample Provenance	Type	¹⁴ C Age ± 1 σ Year BP	Calibrated Age (CE)		$\delta^{13}\text{C}$ ‰ PDB
1	RTT 5361	L5137, B4165 (Phase IIIA)	Charcoal from ash	875 ± 40	1051 (16.5%) 1082 1128 (2.9%) 1135 1151 (48.8%) 1219	1040 (27.1%) 1110 1115 (68.3%) 1250	-22.9
2	RTT 5360	W5215, B4164 (Phase IIIC)	Charcoal from plaster	1035 ± 40	970 (68.2%) 1030	895 (9.6%) 930 940 (81.6%) 1045 1095 (3.6%) 1120 1140 (0.6%) 1150	-23.9
3	RTT 5362	W5220, B4168 (Phase IIIC)	Charcoal from plaster	1020 ± 40	975 (68.2%) 1040	900 (4.2%) 925 950 (76.5%) 1050 1080 (11.4%) 1130 1135 (3.4%) 1150	-22.9
4	RTD 7900	(Phase IIIA)	Horse bone	1029 ± 18	995 (68.2%) 1020	985 (95.4%) 1025	

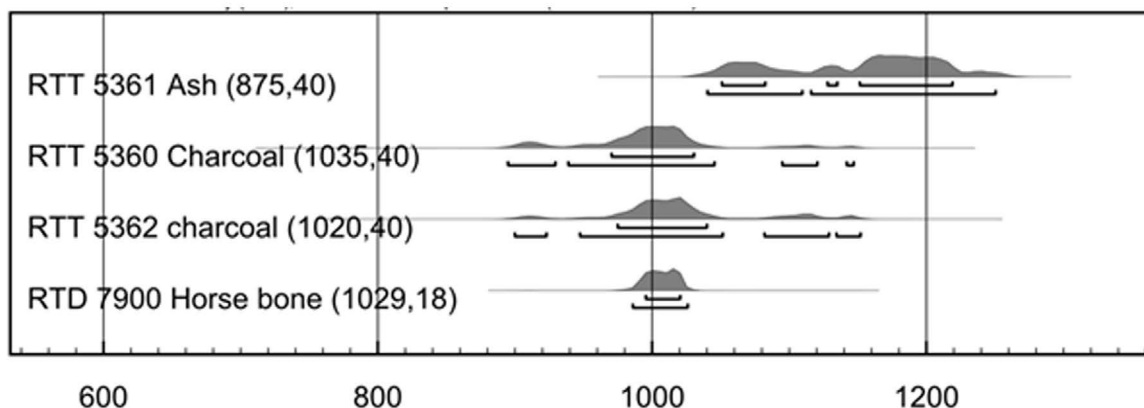


Fig. 1. Combined calibrated radiocarbon dates (CE; oxCal v4 2.4 [Bronk-Ramsey 2013]; r:5 IntCal13 atmospheric curve [Reimer et al. 2013])

NOTE

¹ The samples were analyzed at the Radiocarbon and Cosmogenic Isotopes Laboratory, Weizmann Institute of Science, Rehovot.

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