

SUPPLEMENTARY MATERIALS

Suppl. Mat. 1

Molecules detected in Phoenician dental calculus by GC-MS, excluding *n*-alkanes and *n*-alkenes.

Burial 3			
Sugars		Lactose	
Amino acids		Asparagine	
Fatty acids	Saturated		Dodecanoic acid; Tridecanoic acid; Hexadecanoic acid; Heneicosanoic acid; Triacontanoic acid
	Unsaturated	omega-3	Eicosapentaenoic acid
		omega-6	9,12-Octadecadienoic acid
Alcohols		Decanol; Tetradecenol; Tricosanol	
Terpens and terpenoids	Monoterpenes and derivatives		Levomenthol; Citronellol

Burial 4			
Sugars		Mannose	
Amino acids		Serine	
Fatty acids	Saturated		Dodecanoic acid; Hexadecanoic acid; Octadecanoic acid; Heneicosanoic acid; Pentacosanoic acid
	Unsaturated	omega-6	9,12-Octadecadienoic acid; 8,11,14-Eicosatrienoic acid
Alcohols		Decanol; Methyl dodecanol; Tetradecanol	
Terpens and terpenoids	Monoterpenes and derivatives		Levomenthol

Burial 8			
Amino acids		Serine	
Fatty acids	Saturated		Dodecanoic acid; Hexadecanoic acid; Octadecanoic acid; Pentacosanoic acid
Alcohols		Dodecanol; Tetradecanol; 9-Octadecanol; Heptacosanol; Triacontanol	
Terpens and terpenoids	Monoterpenes and derivatives		alpha-Pinene

Burial 9			
Sugars		Lactose	
Fatty acids	Saturated		Hexadecanoic acid; Octadecanoic acid
	Unsaturated	omega-9	9-Octadecenoic acid
Terpens and terpenoids	Monoterpenes and derivatives		Levomenthol
	Sesquiterpenes and derivatives		Carotol

Burial 10			
Amino acids		Serine	
Fatty acids	Saturated		Butanoic acid; Hexadecanoic acid; Octadecanoic acid

	Unsaturated	omega-9	7-Hexadecenoic acid
Alcohols			Dodecanol

Burial 11		
Amino acids		Serine
Fatty acids	Saturated	Butanoic acid; Hexadecanoic acid; Octadecanoic acid; Docosanoic acid
	Unsaturated	3-Octenoic acid
Alcohols		Dodecanol; Methyl dodecanol
Terpens and terpenoids	Monoterpenes and derivatives	beta-Ocimene
Phenolic compounds and derivatives		Anisole

Burial 12		
Amino acids		Alanine; Serine
Fatty acids	Saturated	Dodecanoic acid; Hexadecanoic acid; Octadecanoic acid
Alcohols		Decanol; Methyl dodecanol
Terpens and terpenoids	Monoterpenes and derivatives	alpha-Pinene
	Diterpenes and derivatives	Abietic acid
	Sesquiterpenes and derivatives	alpha-Cedrene; Junenol; Salvialenone

Burial 16			
Sugars			Glucose
Amino acids			Serine
Fatty acids	Saturated		Pentanoic acid; Hexadecanoic acid; Octadecanoic acid; Tetracosanoic acid
	Unsaturated	omega-3	Docosahexaenoic acid
		omega-6	9,12-Octadecadienoic acid
Alcohols			Dodecanol; Tetracosanol
Terpens and terpenoids	Monoterpenes and derivatives		Citronellol; alpha-Pinene; Limonenol
Other markers			Sesamin

Burial 18			
Amino acids			Lysine
Fatty acids	Saturated		Butanoic acid; Hexadecanoic acid; Triacontanoic acid
	Unsaturated	omega-6	9,12-Octadecadienoic acid
Alcohols			Nonanol; Dodecanol
Terpens and terpenoids	Monoterpenes and derivatives		delta-Carene; beta-Ocimene
	Sesquiterpenes and derivatives		Spirojatamol
Other plant markers			Tartaric acid; Thiocyanic acid

Burial 20			
Fatty acids	Saturated		Hexadecanoic acid; Octadecanoic acid
Terpens and terpenoids	Monoterpenes and derivatives		Sabinol; alpha-Pinene

	Diterpenes and derivatives	Dehydroabietic acid
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Burial 21			
Sugars			Lactose
Amino acids			Serine
Fatty acids	Saturated		Butanoic acid; Hexadecanoic acid; Octadecanoic acid; Tetracosanoic acid
	Unsaturated	omega-3	Docosahexaenoic acid
		omega-6	5,8,11,14-Eicosatetraenoic acid
		omega-9	9-Octadecenoic acid
Alcohols			Decanol
Terpens and terpenoids	Monoterpenes and derivatives		alpha-Pinene; Citronellol
	Sesquiterpenes and derivatives		Spirojatamol

Burial 23			
Fatty acids	Saturated		Hexanoic acid; Dodecanoic acid; Hexadecanoic acid; Octadecanoic acid
	Unsaturated	Omega-3	Docosahexaenoic acid
		omega-9	7-Hexadecenoic acid
Alcohols			Tetradecanol
Terpens and terpenoids	Monoterpenes and derivatives		Citronellol; alpha-Pinene
	Sesquiterpenes and derivatives		Cedrol

Burial 24			
Sugars		Glucose	
Amino acids		Serine	
Fatty acids	Saturated		Butanoic acid; Tridecanoic acid; Hexadecanoic acid; Octadecanoic acid
	Unsaturated	omega-9	9-Octadecenoic acid
Terpens and terpenoids	Monoterpenes and derivatives		alpha-Pinene; Citronellol
Other plant markers			Tartaric acid

Burial 25			
Amino acids			Serine
Fatty acids	Saturated		Nonanoic acid; Hexadecanoic acid; Triacontanoic acid
	Unsaturated	omega-3	Eicosapentaenoic acid
		omega-9	9-Octadecenoic acid
Terpens and terpenoids	Monoterpenes and derivatives		Citronellol; alpha-Pinene

Burial 30.02		
Sugars		Galactose; Lactose
Amino acids		Serine

Fatty acids	Saturated		Dodecanoic acid; Hexadecanoic acid; Octadecanoic acid; Eicosanoic acid; Heneicosanoic acid; Docosanoic acid; Tetracosanoic acid; Hexacosanoic acid; Heptacosanoic acid; Octacosanoic acid; Triacontanoic acid
	Unsaturated	omega-3	Docosahexaenoic acid
		omega-6	9,12-Octadecadienoic acid
		omega-7	9-Hexadecenoic acid; 11-Hexadecenoic acid
omega-9		7-Hexadecenoic acid; 9-Octadecenoic acid	
Alcohols			Decanol
Terpens and terpenoids	Monoterpenes and derivatives		Isomenthol; delta-Carene
	Sesquiterpenes and derivatives		Curdione

Burial 30			
Sugars			Galactose
Fatty acids	Saturated		Butanoic acid; Dodecanoic acid; Hexadecanoic acid; Octadecanoic acid
	Unsaturated	omega-9	7-Hexadecenoic acid
Alcohols			1-Decanol
Terpens and terpenoids	Monoterpenes and derivatives		alpha-Pinene; Citronellol
Other plant markers			Tartaric acid

Burial 31			
Amino acids			Alanine
Fatty acids	Saturated		Hexadecanoic acid; Octadecanoic acid; Tetracosanoic acid
	Unsaturated	omega-3	Eicosapentaenoic acid
		omega-6	9,12-Octadecadienoic acid
		omega-9	9-Octadecenoic acid
Alcohols			Dodecanol
Terpens and terpenoids	Monoterpenes and derivatives		alpha-Pinene
	Sesquiterpenes and derivatives		alpha-Acoradiene

Burial 32			
Sugars			Glucose
Amino acids			Serine
Fatty acids	Saturated		Dodecanoic acid; Hexadecanoic acid; Octadecanoic acid; Triacontanoic acid
	Unsaturated	omega-3	Docosahexaenoic acid
		omega-9	9-Octadecenoic acid
Alcohols			Undecanol
Terpens and terpenoids	Monoterpenes and derivatives		delta-Carene
Phenolic compounds and derivatives			6-Methyloctahydrocoumarin

Burial 33			
Amino acids			Serine
Fatty acids	Saturated		Butanoic acid; Octadecanoic acid

	Unsaturated	omega-9	7-Hexadecenoic acid
		omega-12	6-Octadecenoic acid
Terpens and terpenoids	Monoterpenes and derivatives		Citronellol; alpha-Pinene
	Sesquiterpenes and derivatives		Sesquicineole
Other markers			Orotic acid; Tartaric acid

Supp. Mat. 2

Results of lab contamination tests by horizontal slide trap (others: fibres, hairs, dust residues).

Context	Location of traps (number)	Starches	Pollen grains	Others	Total
Workday	workbench (10)	1	2	0	3
	floor (10)	5	3	2	10
	shelf (5)	2	1	0	3
	hood (5)	0	0	0	0
After decontamination	workbench (10)	0	0	0	0
	floor (10)	1	0	0	1
	shelf (5)	1	0	0	1
	hood (5)	0	0	0	0

Suppl. Mat. 3

Optic microscopy results of the washing water applied on ancient dental calculus before the cleaning procedure.

Burial	Polyhedral starches	Partially gelatinized starches	Indeterminate particle	Lamiaceae pollen grains	Rosaceae pollen grains	Fungal spores/hyphae	Plant fibres	Hairs
8	2	1		1			1	
11			1			1		1
21							2	
31	1		3				2	
32		1			1			
38								