

Founding Mothers of Jewish Communities: Geographically Separated Jewish Groups Were Independently Founded by Very Few Female Ancestors

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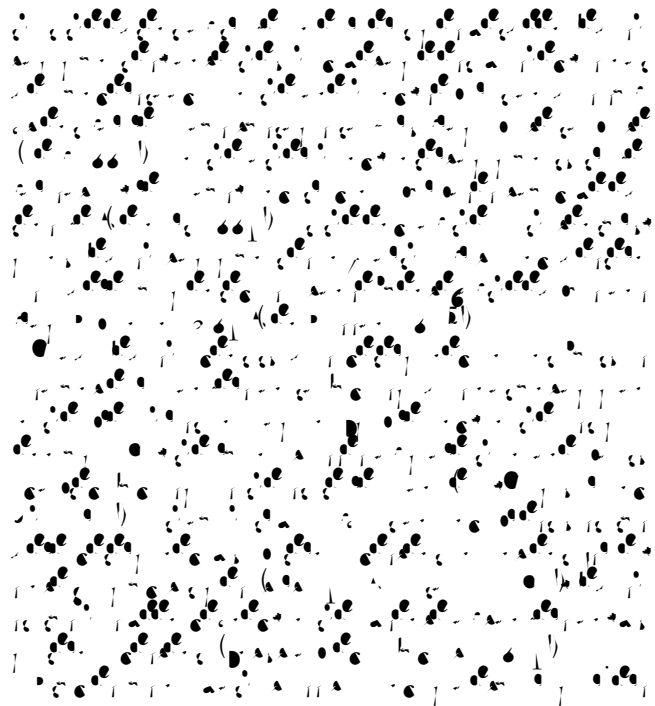
founding of the modern state of Israel (1948), there were many long-standing separate Jewish communities in Europe, North Africa, and Asia. All of them claimed an origin in one or another dispersal from Israel and Judea. However, the origins of small minority communities founded before the 16th century are rarely well documented. For some Jews (e.g., the Babylonian Jews and modern Iraqi Jews), evidence exists of ancient Jewish communities in the same locations as in present times, but gaps often exist in the records of intervening centuries (Rejwan 1985, p. 143). In no case is there clear evidence of unbroken genetic continuity from early dispersal events to the present (de Lange 1984, p. 15; Encyclopaedia Judaica 1972).

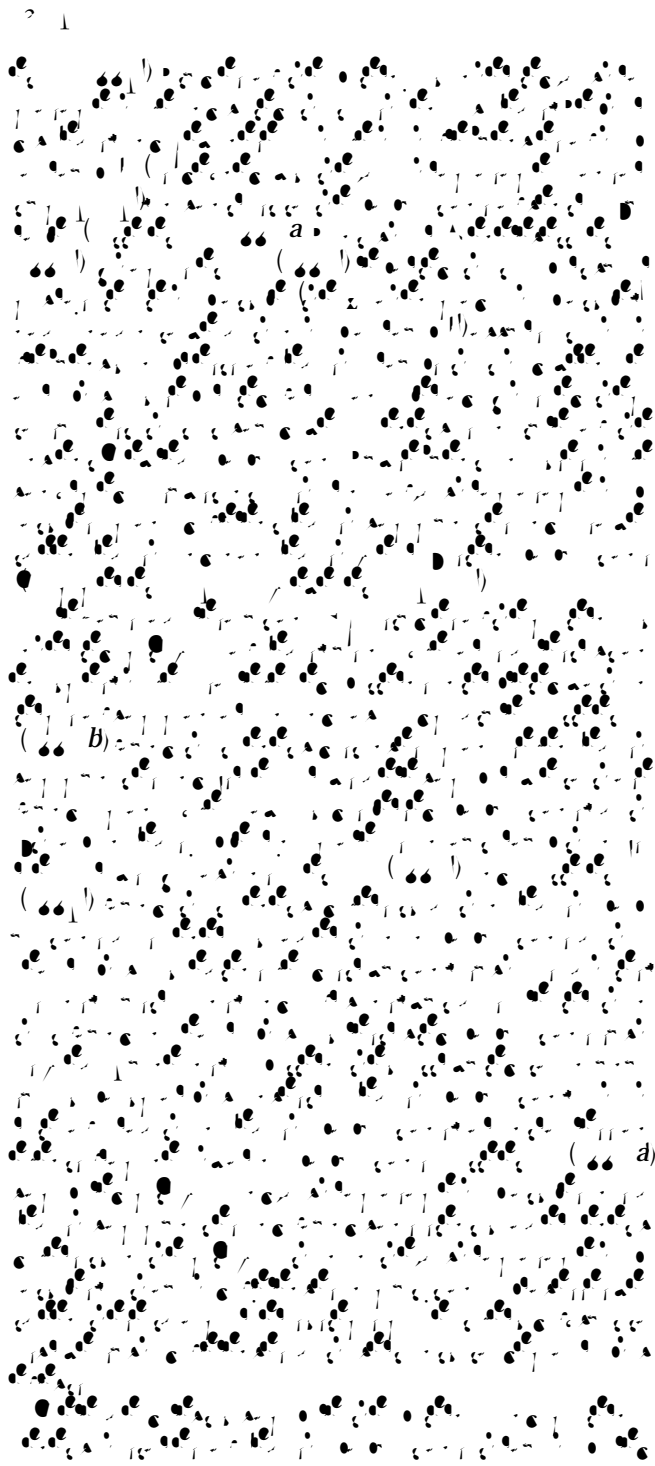
A further difficulty in reconstructing past events is

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This image shows a page of musical notation, likely a score for a string ensemble or orchestra. The page is filled with multiple staves of music, each containing a variety of notes, rests, and other musical symbols. The notation is dense and complex, with many notes beamed together. There are several instances of the word "Taqa" written above the staves, which is a common musical instruction in Arabic music. Additionally, there are several instances of the Greek letter mu (μ) used as a dynamic marking. The overall appearance is that of a highly detailed and technically demanding musical score.

Table 1

Y Chromosome Diversity within 18 Jewish and Non-Jewish Populations

! " # \$ % & ' () * + , - . / : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ¨ ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾ ¿ À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã ä å æ ç è é ê ë ì í î ï ð ñ ò ó ô õ ö ÷ ø ù ú û ü ý þ ÿ

Table 2

mtDNA Diversity within 18 Jewish and Non-Jewish Populations

Population	n	h (s.d.)	Population	n	h (s.d.)

Table 3

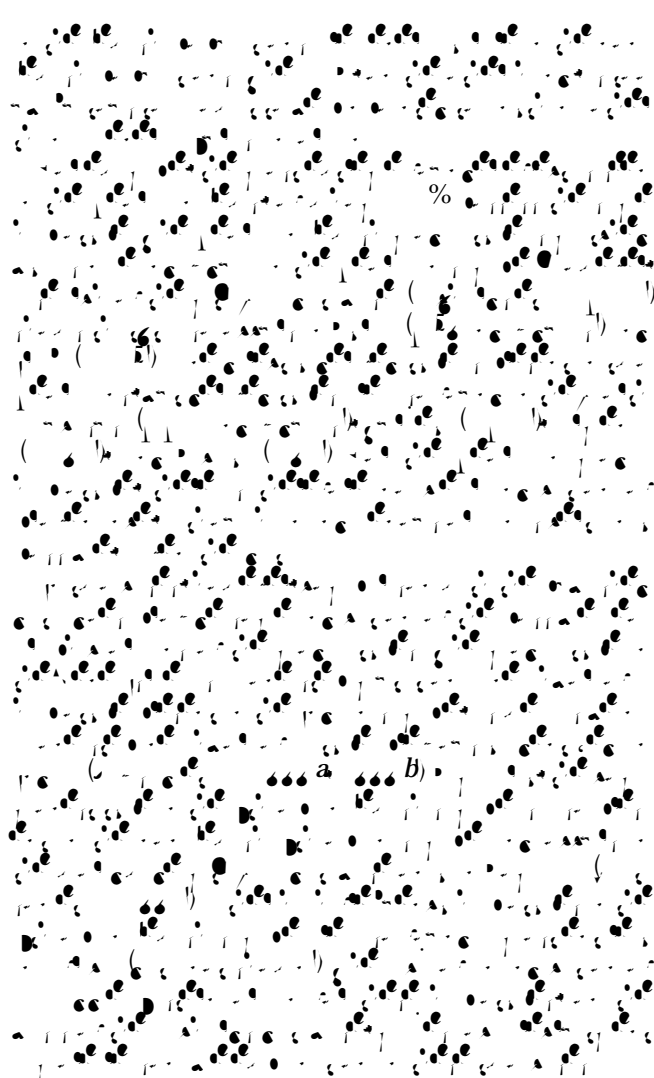
Frequently Encountered mtDNA Haplotypes

Haplotype	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. 16162G 16223T 16311T 16362T 16449T 16519G 16562A 16562G 16616T 16719G 16766T 16809C 16835T 16915T 16991T 17034C 17091T 17123T 17191A 17348G 17407G 17412A 17444G 17449C 17538T 17634G 17644G 17709G 17760G 17809G 17835T 17928G 17985T 18009G 18049C 18112T 18191G 18209G 18249T 18289G 18311T 18351T 18407G 18449G 18489G 18511T 18551G 18591G 18631G 18671G 18711G 18751G 18791G 18831G 18871G 18911G 18951G 18991G 19031G 19071G 19111G 19151G 19191G 19231G 19271G 19311G 19351G 19391G 19431G 19471G 19511G 19551G 19591G 19631G 19671G 19711G 19751G 19791G 19831G 19871G 19911G 19951G 19991G 20031G 20071G 20111G 20151G 20191G 20231G 20271G 20311G 20351G 20391G 20431G 20471G 20511G 20551G 20591G 20631G 20671G 20711G 20751G 20791G 20831G 20871G 20911G 20951G 20991G 21031G 21071G 21111G 21151G 21191G 21231G 21271G 21311G 21351G 21391G 21431G 21471G 21511G 21551G 21591G 21631G 21671G 21711G 21751G 21791G 21831G 21871G 21911G 21951G 21991G 22031G 22071G 22111G 22151G 22191G 22231G 22271G 22311G 22351G 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Table 4
Mean F_{ST} Values in mtDNA and Y Chromosome Data

	F_{ST}	
mtDNA	0.000	0.000
Y Chromosome	0.000	0.000

($P < 0.05$) = ...



Discussion

...

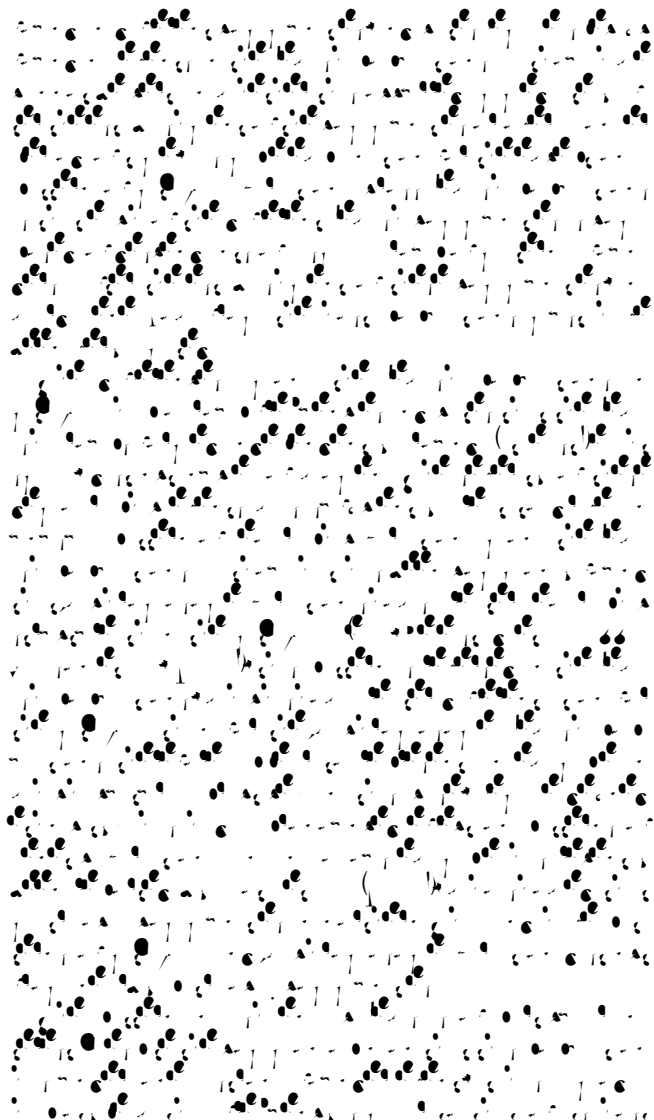


Table 5
Comparison of X Chromosome LD among Georgian Jews and non-Jewish British Men

	$r^2 \geq 0.2$	$r^2 \geq 0.1$	$r^2 \geq 0.05$	$r^2 \geq 0.01$	$r^2 \geq 0.001$
Georgian Jews	0.000	0.000	0.000	0.000	0.000
non-Jewish British Men	0.000	0.000	0.000	0.000	0.000

...

The image shows a musical score with several staves of music. The notation includes notes, rests, and various symbols. There are several annotations in parentheses, such as (b) , (\dots) , and (\dots) . The score is dense with musical notation, including stems, beams, and note heads. The overall appearance is that of a complex musical composition or a technical exercise.

