

Mitochondrial DNA analysis reveals diverse histories of tribal populations from India



¹Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany; ²Department of Pediatrics, National University of Singapore, Singapore; ³Department of Anthropology, University College London, UK; ⁴Department of Biological Anthropology, Cambridge, UK; ⁵Anthropological Society of India, Mysore, Karnataka, India

We analyzed 370 bp of the first hypervariable region of the mitochondrial DNA (mtDNA) control region in

Table 1 χ^2 p n N χ^2 p n N

Ethnic groups	Sample size	Linguistic affiliation	Population size \times	Reference
Tribals				
North India				<i>et al</i> <i>et al</i>
Northeast India				<i>et al</i>
East India				<i>et al</i> <i>et al</i> <i>et al</i>
Central India				<i>et al</i>
South India				

M p e al n N χ^2 p n N

Results
 Diversity indices and demographic parameters
 n N χ^2 p n N

Handwritten musical notation on a staff, including notes, rests, and clefs.

1. $\text{M} = \begin{pmatrix} 1 & 2 & 3 \\ 2 & 1 & 4 \\ 3 & 4 & 1 \end{pmatrix}$

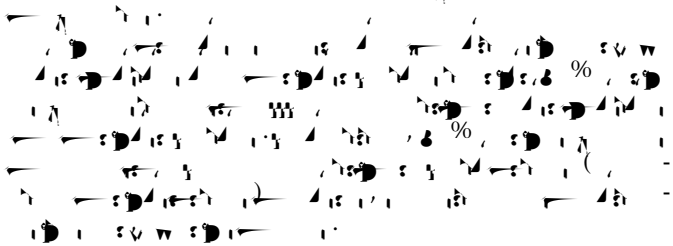
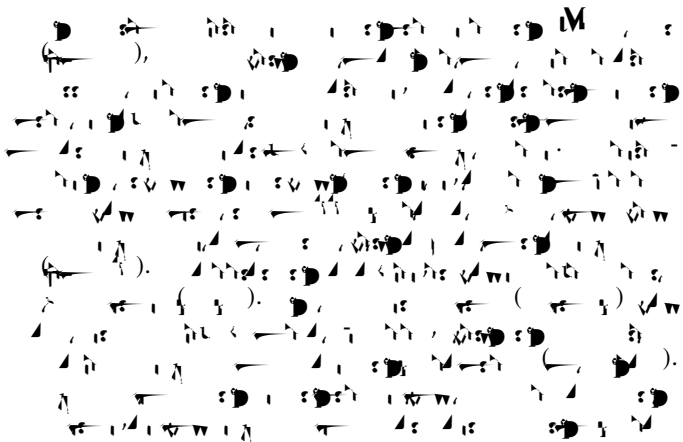
MDS analysis

$\text{M} = \begin{pmatrix} 1 & 2 & 3 \\ 2 & 1 & 4 \\ 3 & 4 & 1 \end{pmatrix}$

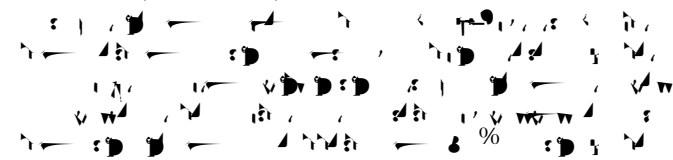
1 (0.7), 2 (0.7), 3 (0.7), 4 (0.7), 5 (0.7), 6 (0.7), 7 (0.7), 8 (0.7), 9 (0.7), 10 (0.7), 11 (0.7), 12 (0.7), 13 (0.7), 14 (0.7), 15 (0.7), 16 (0.7), 17 (0.7), 18 (0.7), 19 (0.7), 20 (0.7), 21 (0.7), 22 (0.7), 23 (0.7), 24 (0.7), 25 (0.7), 26 (0.7), 27 (0.7), 28 (0.7), 29 (0.7), 30 (0.7), 31 (0.7), 32 (0.7), 33 (0.7), 34 (0.7), 35 (0.7), 36 (0.7), 37 (0.7), 38 (0.7), 39 (0.7), 40 (0.7), 41 (0.7), 42 (0.7), 43 (0.7), 44 (0.7), 45 (0.7), 46 (0.7), 47 (0.7), 48 (0.7), 49 (0.7), 50 (0.7), 51 (0.7), 52 (0.7), 53 (0.7), 54 (0.7), 55 (0.7), 56 (0.7), 57 (0.7), 58 (0.7), 59 (0.7), 60 (0.7), 61 (0.7), 62 (0.7), 63 (0.7), 64 (0.7), 65 (0.7), 66 (0.7), 67 (0.7), 68 (0.7), 69 (0.7), 70 (0.7), 71 (0.7), 72 (0.7), 73 (0.7), 74 (0.7), 75 (0.7), 76 (0.7), 77 (0.7), 78 (0.7), 79 (0.7), 80 (0.7), 81 (0.7), 82 (0.7), 83 (0.7), 84 (0.7), 85 (0.7), 86 (0.7), 87 (0.7), 88 (0.7), 89 (0.7), 90 (0.7), 91 (0.7), 92 (0.7), 93 (0.7), 94 (0.7), 95 (0.7), 96 (0.7), 97 (0.7), 98 (0.7), 99 (0.7), 100 (0.7).

1 (0.7), 2 (0.7), 3 (0.7), 4 (0.7), 5 (0.7), 6 (0.7), 7 (0.7), 8 (0.7), 9 (0.7), 10 (0.7), 11 (0.7), 12 (0.7), 13 (0.7), 14 (0.7), 15 (0.7), 16 (0.7), 17 (0.7), 18 (0.7), 19 (0.7), 20 (0.7), 21 (0.7), 22 (0.7), 23 (0.7), 24 (0.7), 25 (0.7), 26 (0.7), 27 (0.7), 28 (0.7), 29 (0.7), 30 (0.7), 31 (0.7), 32 (0.7), 33 (0.7), 34 (0.7), 35 (0.7), 36 (0.7), 37 (0.7), 38 (0.7), 39 (0.7), 40 (0.7), 41 (0.7), 42 (0.7), 43 (0.7), 44 (0.7), 45 (0.7), 46 (0.7), 47 (0.7), 48 (0.7), 49 (0.7), 50 (0.7), 51 (0.7), 52 (0.7), 53 (0.7), 54 (0.7), 55 (0.7), 56 (0.7), 57 (0.7), 58 (0.7), 59 (0.7), 60 (0.7), 61 (0.7), 62 (0.7), 63 (0.7), 64 (0.7), 65 (0.7), 66 (0.7), 67 (0.7), 68 (0.7), 69 (0.7), 70 (0.7), 71 (0.7), 72 (0.7), 73 (0.7), 74 (0.7), 75 (0.7), 76 (0.7), 77 (0.7), 78 (0.7), 79 (0.7), 80 (0.7), 81 (0.7), 82 (0.7), 83 (0.7), 84 (0.7), 85 (0.7), 86 (0.7), 87 (0.7), 88 (0.7), 89 (0.7), 90 (0.7), 91 (0.7), 92 (0.7), 93 (0.7), 94 (0.7), 95 (0.7), 96 (0.7), 97 (0.7), 98 (0.7), 99 (0.7), 100 (0.7).

Gene tree



mtDNA haplogroup affiliation



This block contains a complex arrangement of musical notation. It features several staves with notes, rests, and various symbols. Key elements include:

- Staff 1: A series of notes and rests, followed by a large 'M'.
- Staff 2: A series of notes and rests, followed by '(~ %)'.
- Staff 3: A series of notes and rests, followed by '(~ %)'.
- Staff 4: A series of notes and rests, followed by '(~ %)'.
- Staff 5: A series of notes and rests, followed by '(~ %)'.
- Staff 6: A series of notes and rests, followed by '(~ %)'.
- Staff 7: A series of notes and rests, followed by '(~ %)'.
- Staff 8: A series of notes and rests, followed by '(~ %)'.
- Staff 9: A series of notes and rests, followed by '(~ %)'.
- Staff 10: A series of notes and rests, followed by '(~ %)'.

This block contains a complex arrangement of musical notation. It features multiple staves with various note values, rests, and symbols. The notation is dense and appears to be a detailed score or a specific musical exercise. The symbols include various note heads, stems, and rests, along with some unusual characters that might be specific to a particular musical style or notation system. The overall appearance is that of a highly detailed and intricate musical composition.

7 () = () 4 4 4 4



