Supplemental Data

Genome-wide Insights into the Patterns and Determinants of Fine-Scale Population Structure in Humans

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Figure S1 Intra-continental differentiation within Americas. The 64 samples are represented as filled circles. The top five PCs are plotted with each panel representing a biplot of consecutive PCs.

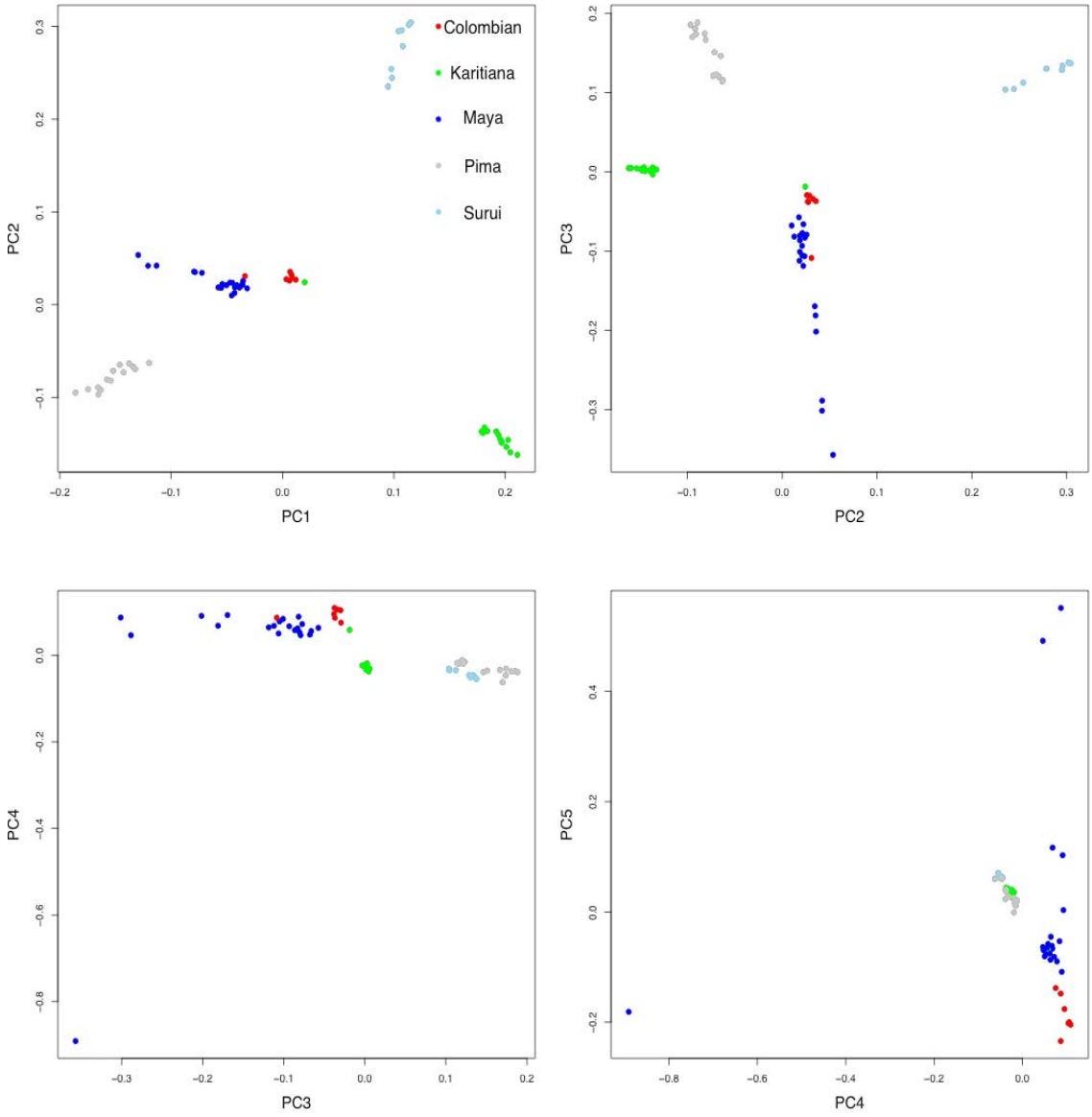

Figure S2 Intra-continental differentiation within Central/South Asia. The 201 samples are represented as filled circles. The top five PCs are plotted with each panel representing a biplot of consecutive PCs.

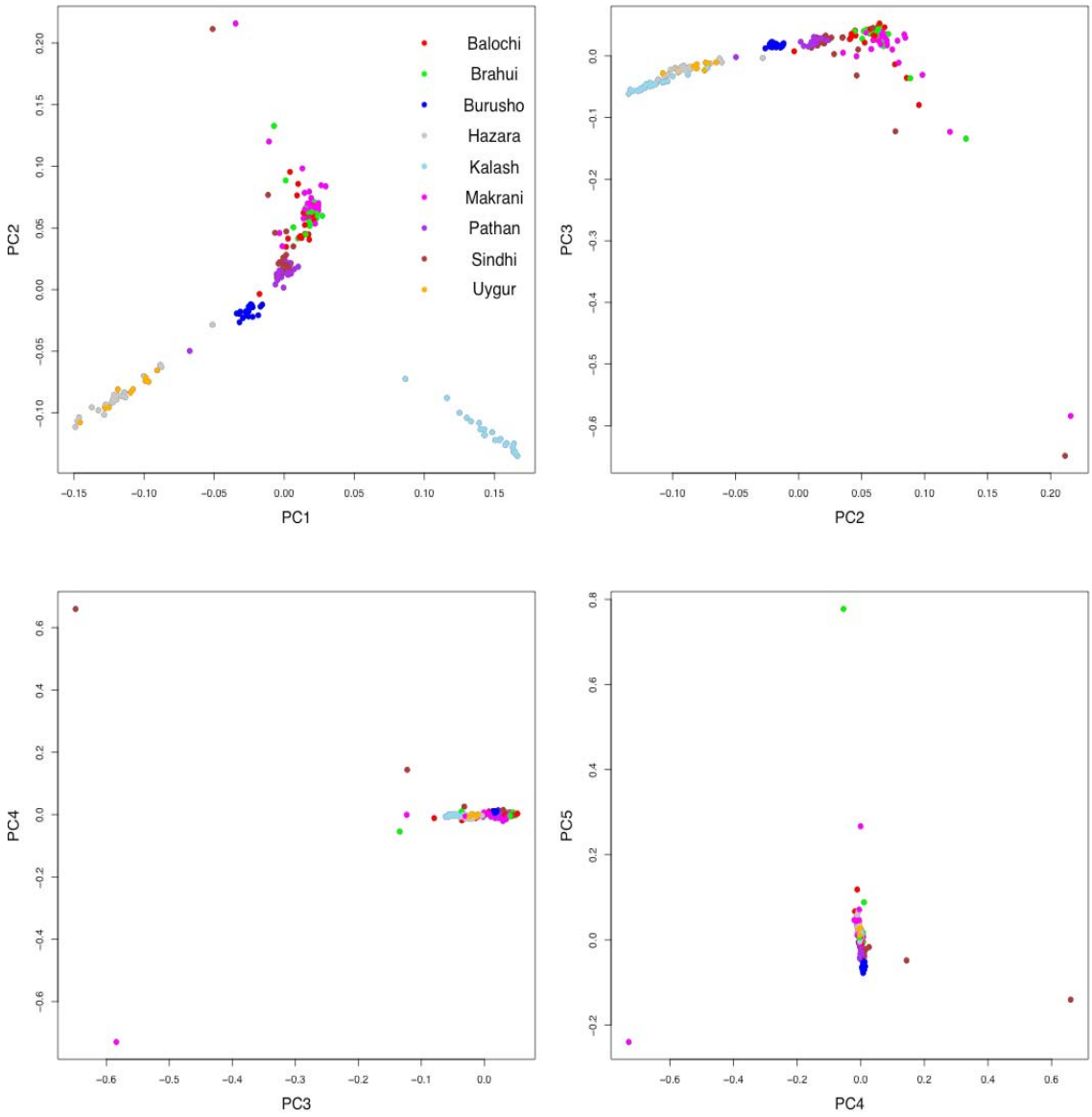

Figure S3 Intra-continental differentiation within East Asia. The 229 samples are represented as filled triangles. The top five PCs are plotted with each panel representing a biplot of consecutive PCs.

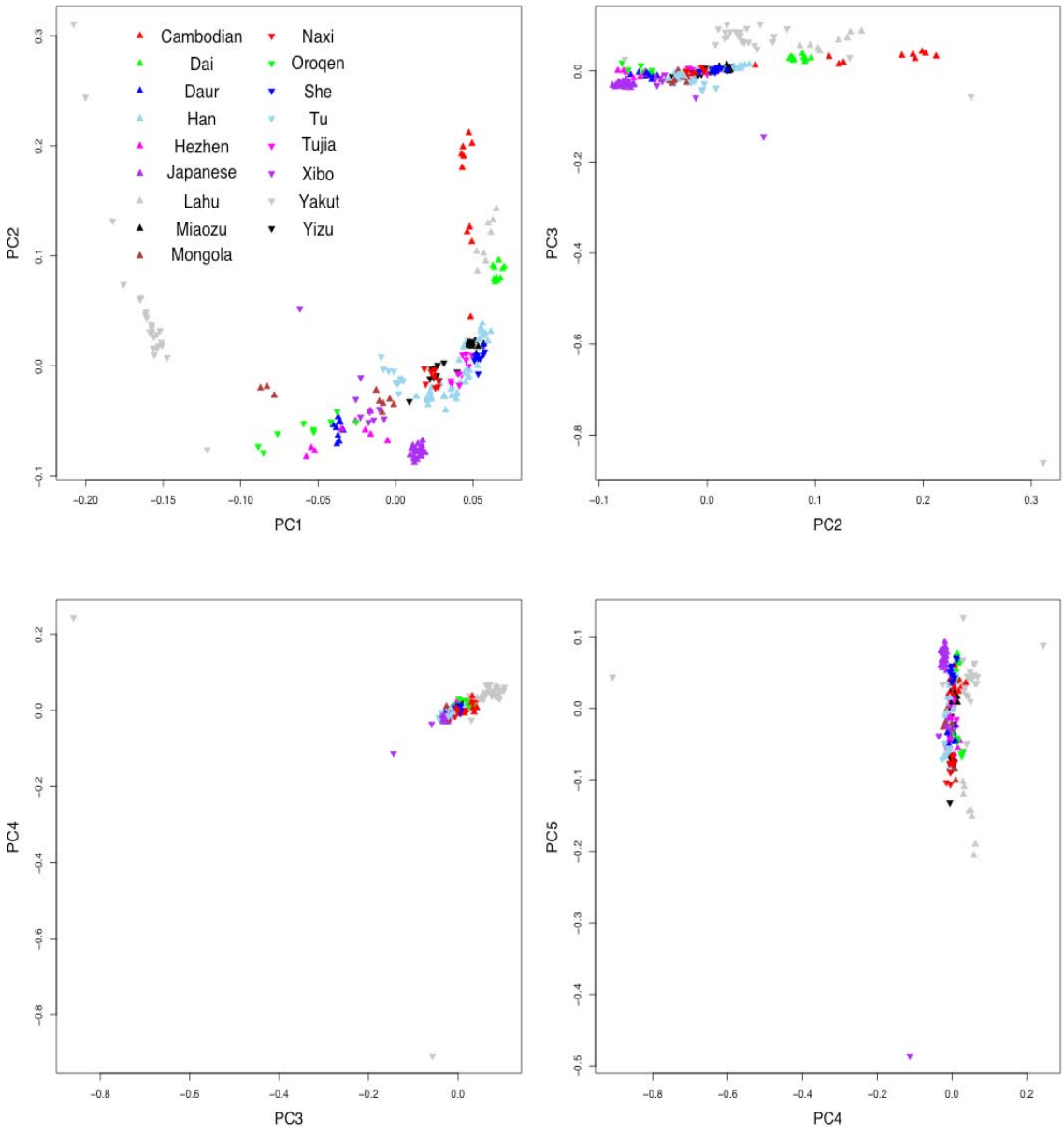

Figure S4 Intra-continental differentiation within Europe. The 158 samples are represented as filled circles. The top five PCs are plotted with each panel representing a biplot of consecutive PCs.

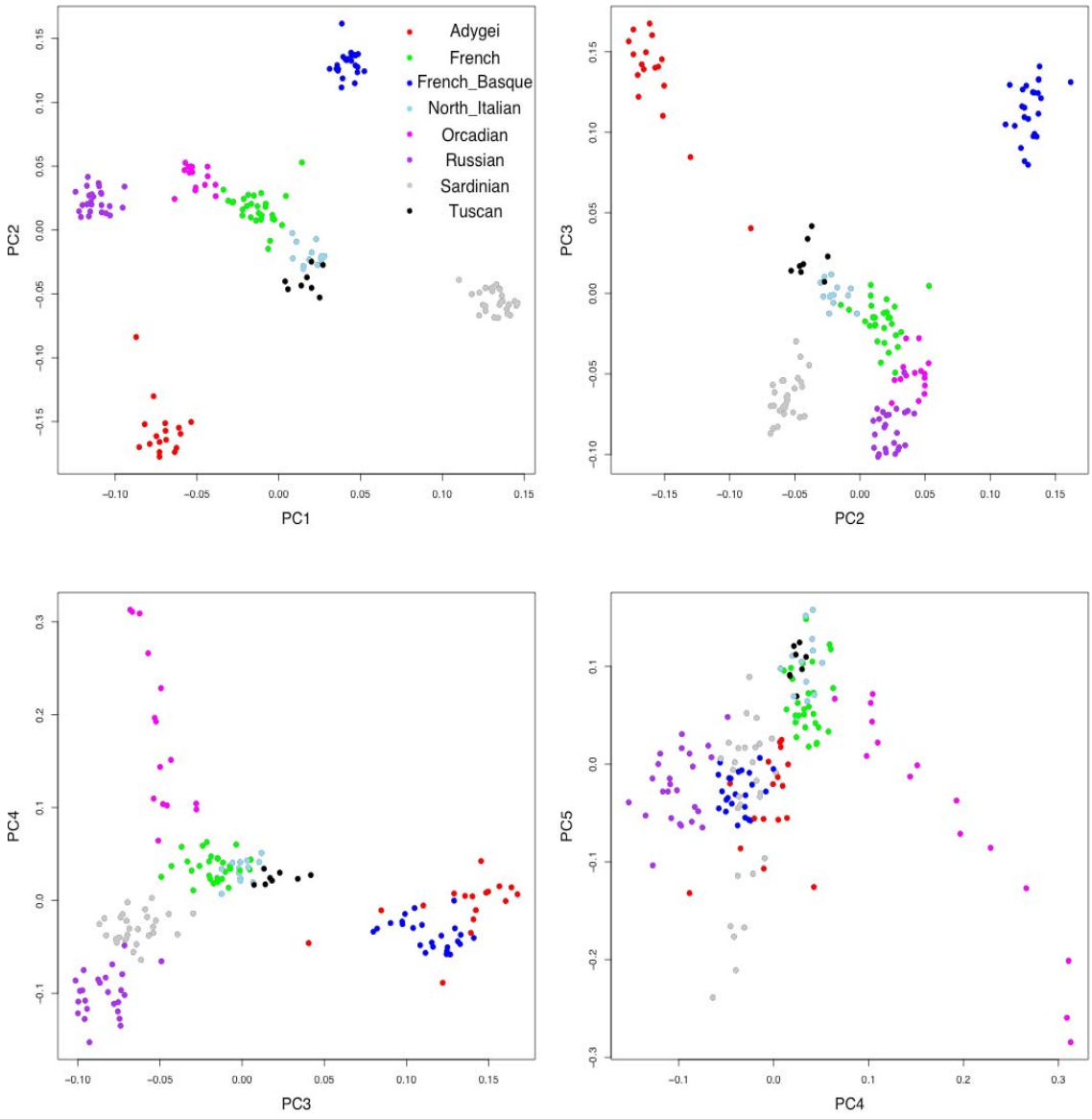

Figure S5 Intra-continental differentiation within Middle East. The 162 samples are represented as filled circles. The top five PCs are plotted with each panel representing a biplot of consecutive PCs.

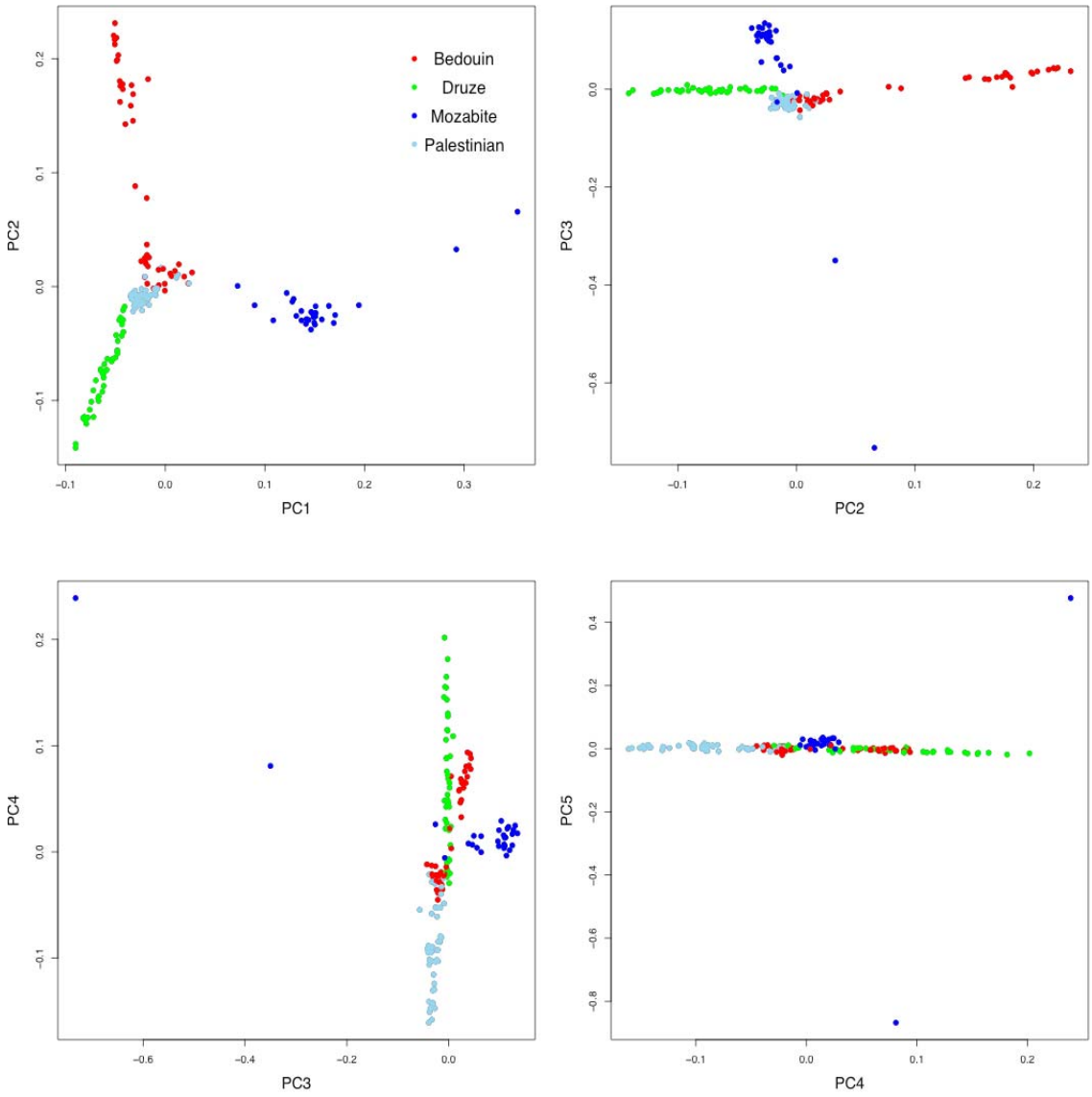

Figure S6 Intra-continental differentiation within Oceania. The 28 samples are represented as filled circles. The top five PCs are plotted with each panel representing a biplot of consecutive PCs.

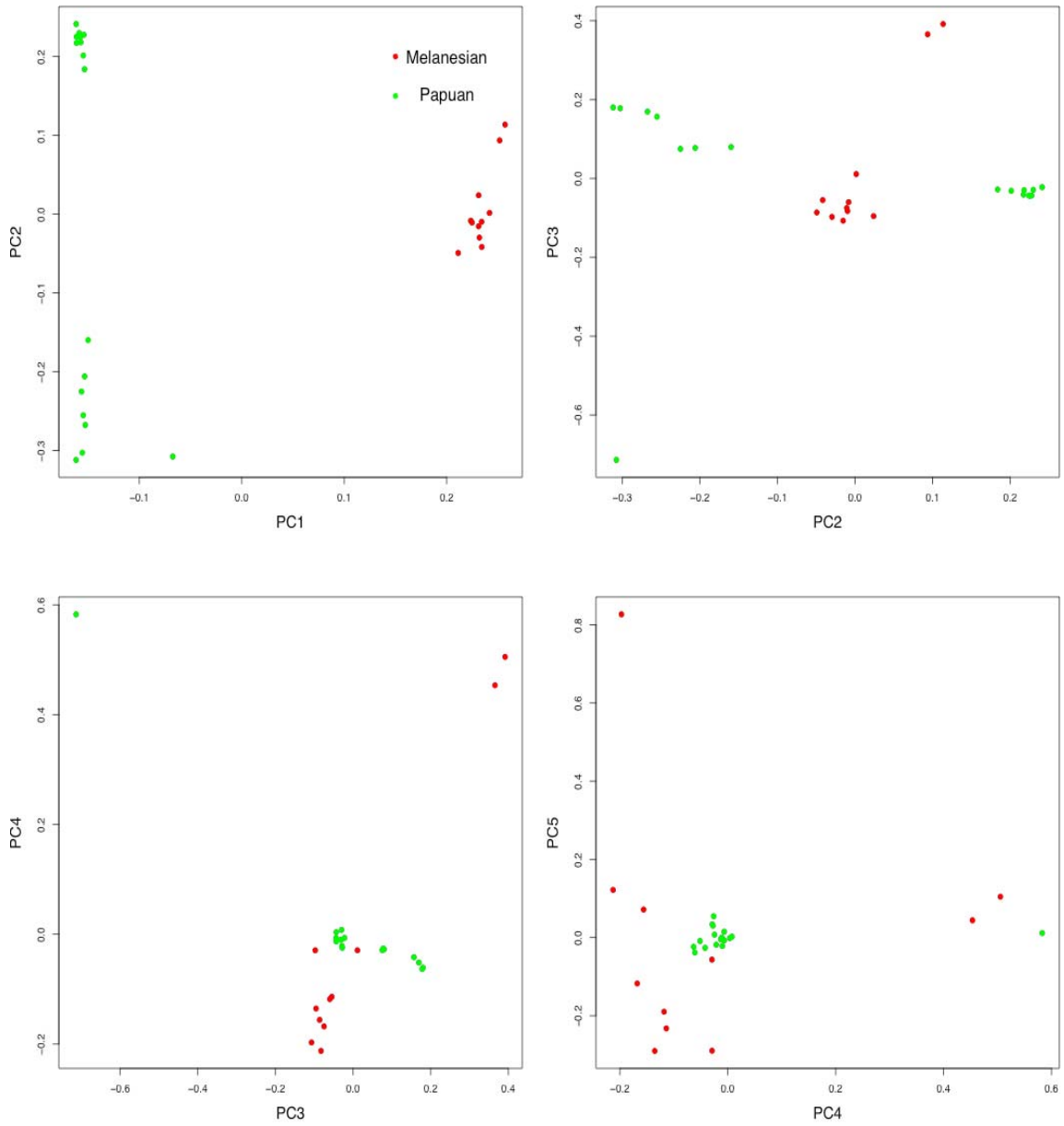

Figure S7 Cluster analysis of PC1 correlated markers in Africa. Structure was used to cluster samples into two groups (K=2). 11, 811 correlated markers were used. Red and blue represent the two cluster proportions.

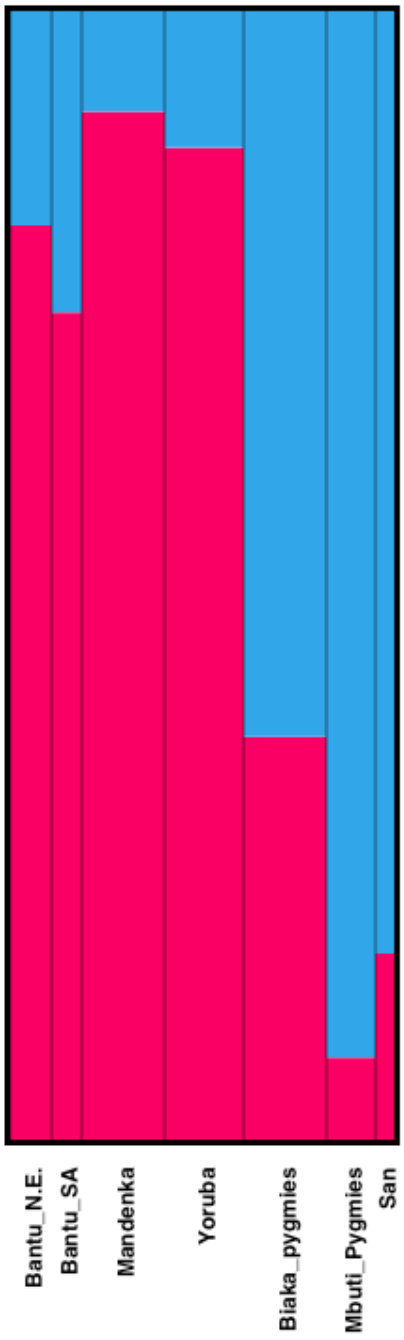

Figure S8 Cluster analysis of PC2 correlated markers in Africa. Structure was used to cluster samples into three groups (K=3). 1,446 correlated markers were used. Red, blue and green represent the three cluster proportions.

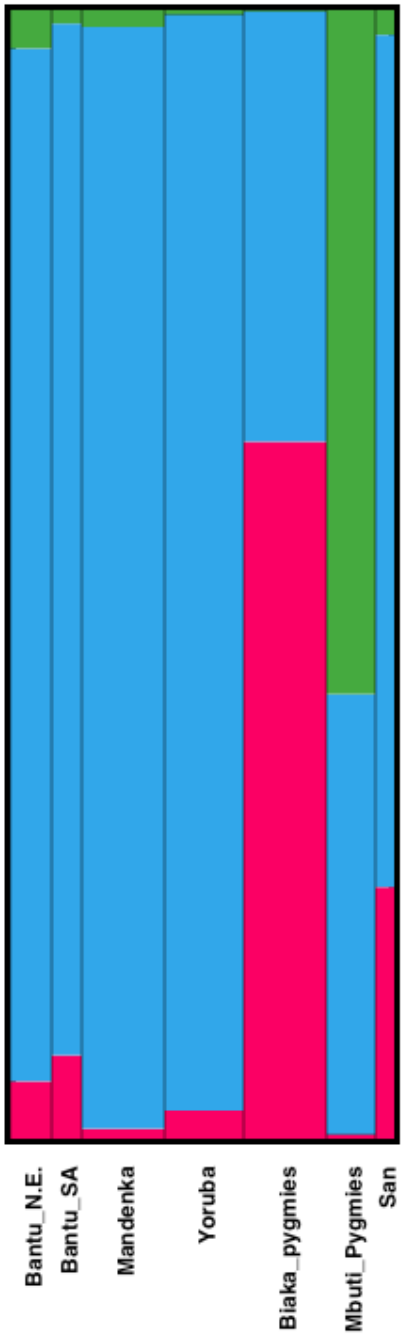

Table S1. HGDP-CEPH Populations Details about the sample sizes and population membership of individuals that were included in the analysis.

Region	Population	# Chr
Africa	Bantu_N.E.	22
	Bantu_SA	16
	Biaka_pygmies	44
	Mandenka	44
	Mbuti_Pygmies	26
	San	10
	Yoruba	42
Middle East	Bedouin	90
	Druze	84
	Mozabite	58
	Palestinian	92
Europe	Adygei	34
	French	56
	French_Basque	48
	North_Italian	26
	Orcadian	30
	Russian	50
	Sardinian	56
	Tuscan	16
Central/South Asia	Balochi	48
	Brahui	50
	Burusho	50
	Hazara	44
	Kalash	46
	Makrani	50
	Pathan	46
	Sindhi	48
	Uygur	20
East Asia	Cambodian	20
	Dai	20
	Daur	18
	Han	88
	Hezhen	18
	Japanese	56
	Lahu	16
	Miaozu	20
	Mongola	20

	Naxi	16
	Oroqen	18
	She	20
	Tu	20
	Tujia	20
	Xibo	18
	Yakut	50
	Yizu	20
America	Colombian	14
	Karitiana	28
	Maya	42
	Pima	28
	Surui	16
Oceania	Melanesian	22
	Papuan	34

Table S2. Significance Analysis of PCs Number of significant PCs ($p < 0.001$) using two different methods

Continent	Populations	Method	
		Permutation	ANOVA
All	52	12	22
Africa	7	4	5
America	5	7	4
C/S Asia	9	5	4
East Asia	17	5	7
Europe	8	3	4
Middle East	4	5	4
Oceania	2	3	1