

**Supplemental Data**

**The Comoros Show the Earliest Austronesian  
Gene Flow into the Swahili Corridor**

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## Supplemental data



Figure S1. Location of the sampled groups. 1: Kenyan Swahili from Lamu (n=31); 2: Kenyan Swahili from Kilifi (n=37); 3: Kenyan Swahili from Mombasa (n=23); 4: Comorians from Anjouan island (n=16); 5: Comorians from Grande Comore island (n=18); 6: Comorians from Moheli island (n=15).

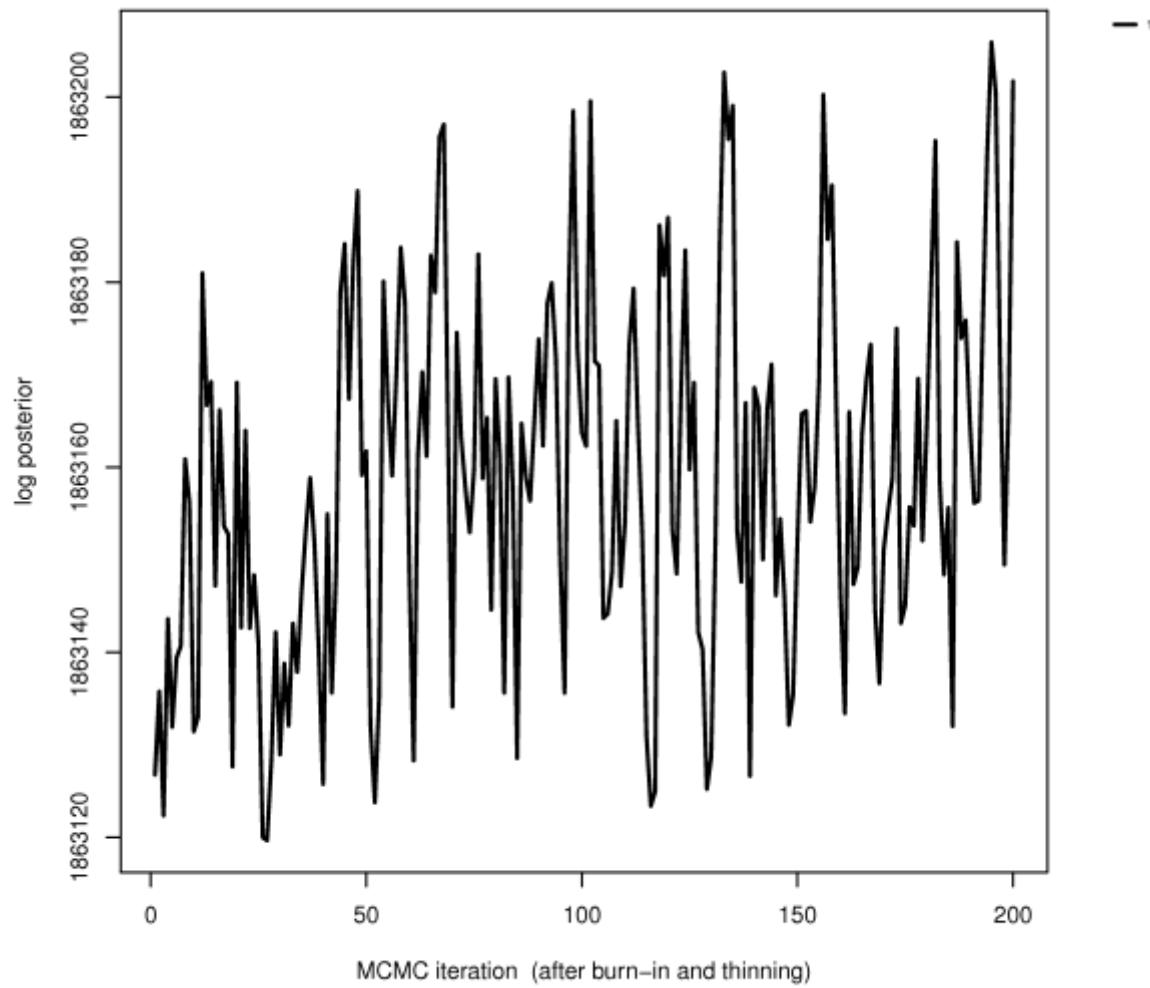


Figure S2. EEMS<sup>1</sup> posterior probability plot obtained after  $3 \times 10^6$  MCMC iterations.

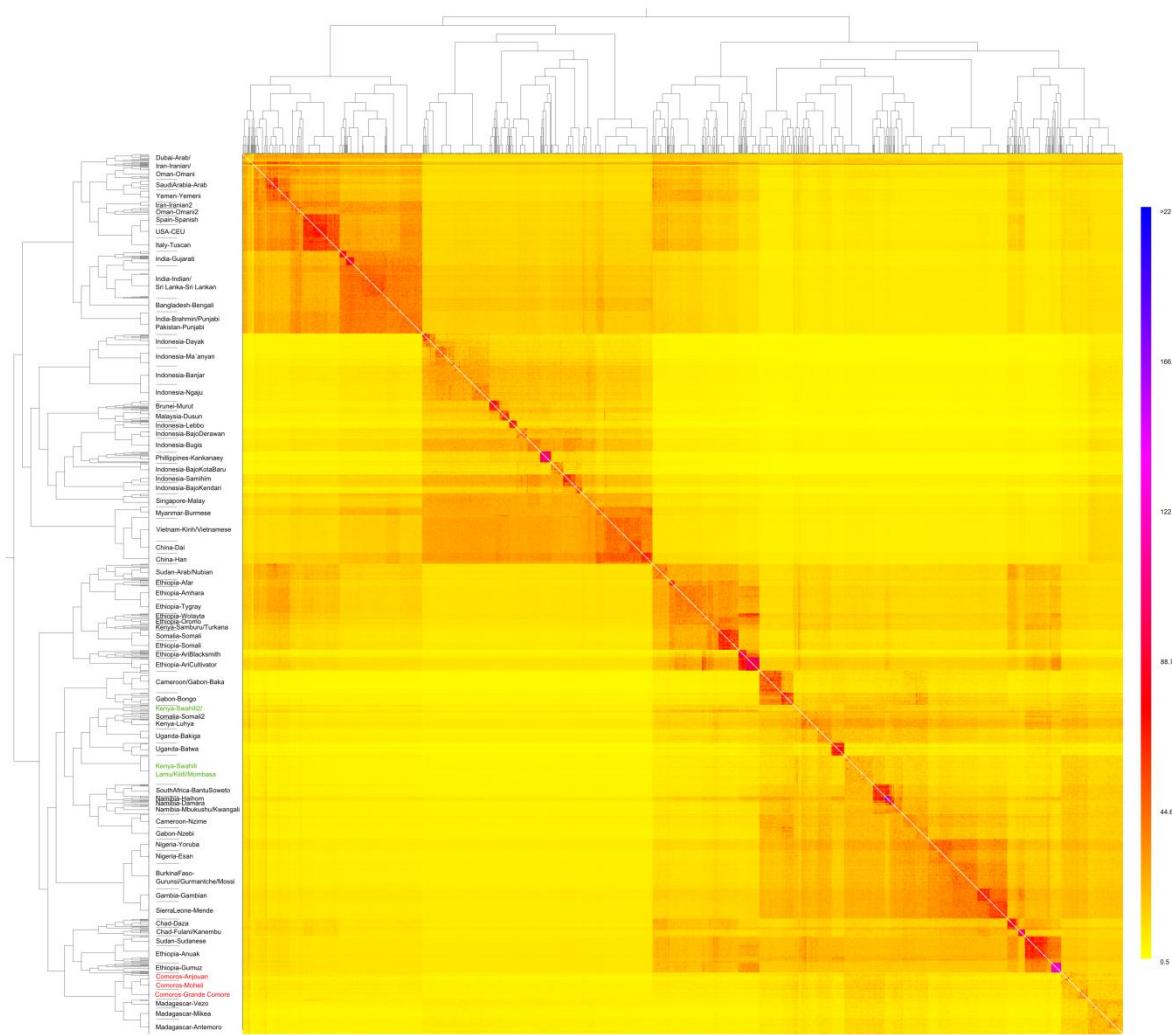


Figure S3. Coancestry heat map generated by fineSTRUCTURE<sup>2</sup> of the individuals included in the high SNP density dataset. The color scale indicates the chunk counts between each pair of individuals calculated by CHROMOPAINTER<sup>2</sup>. Red lettering highlights the Comoros clusters and green the Swahili clusters.

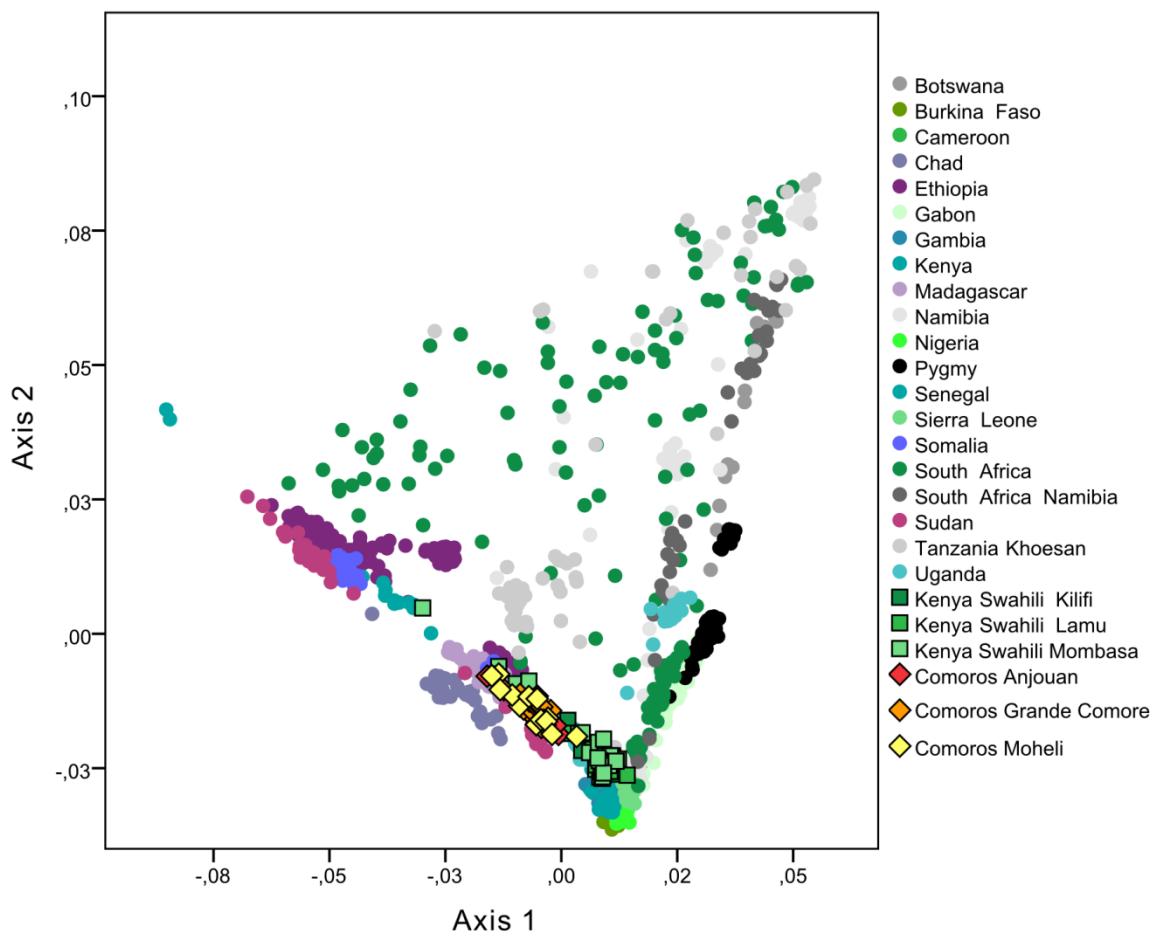
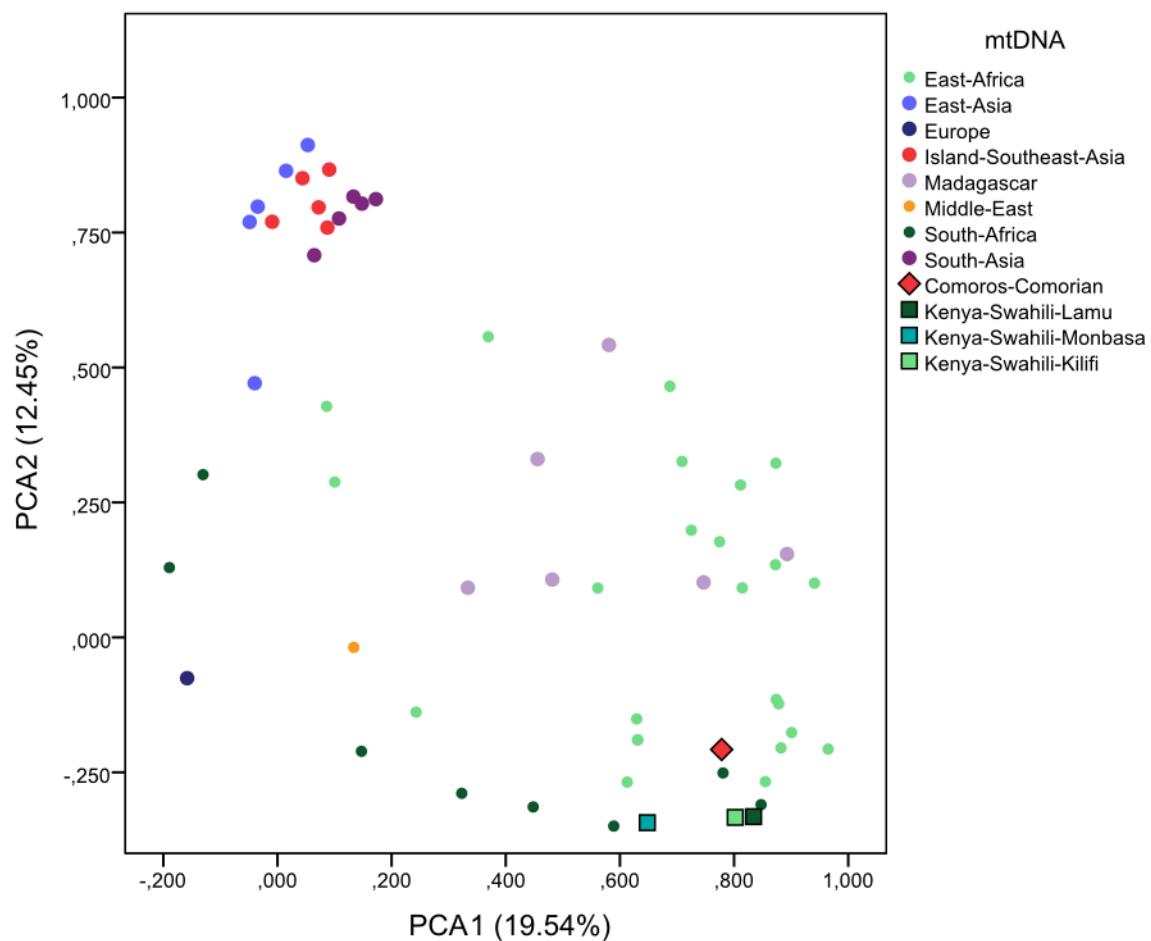


Figure S4. Principal Components Analysis of the African individuals in the 170K dataset using EIGENSOFT<sup>3</sup>. Swahili individuals are represented by squares; Comoros individuals by diamonds; all other African individuals from the 170K dataset by circles.

A



B

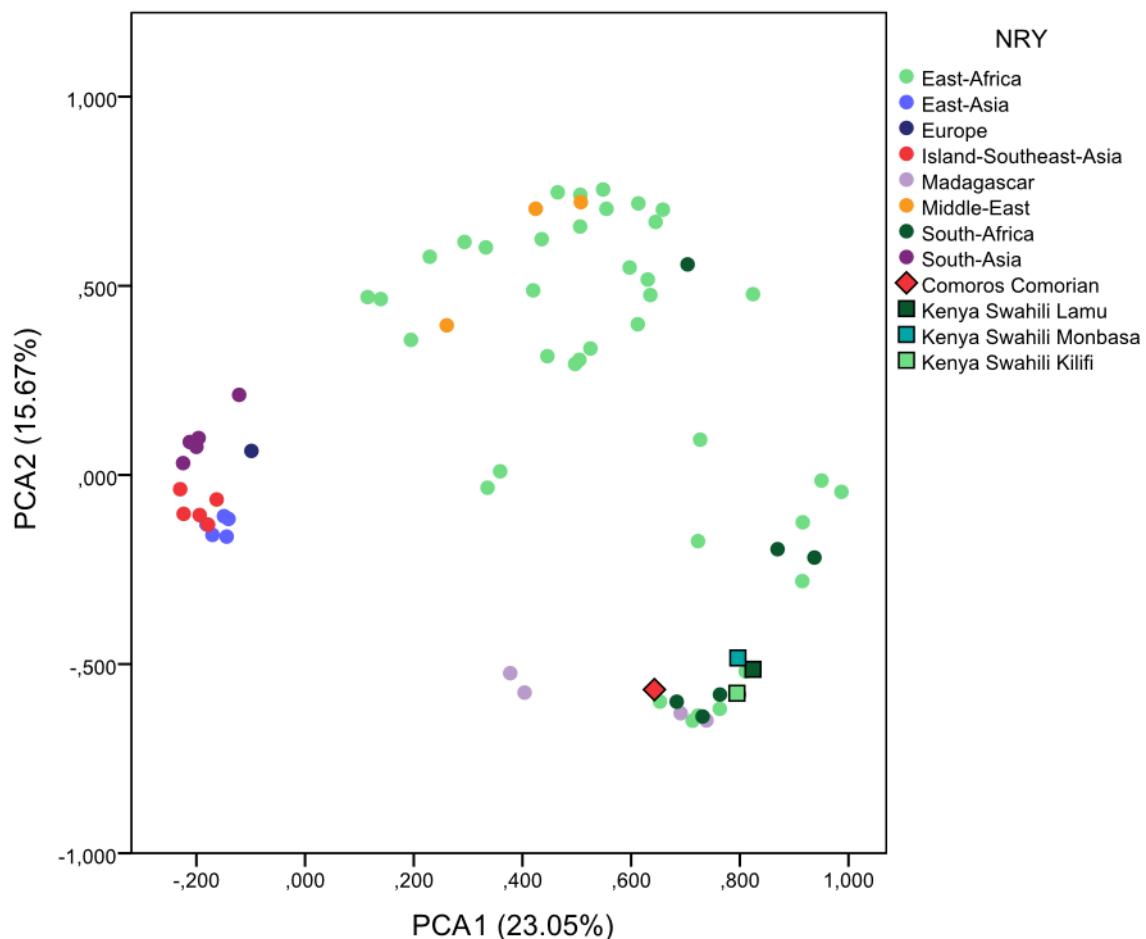


Figure S5. Principal Components Analyses of the uniparental datasets using SPSS<sup>3</sup>. (A) Scatterplot representing PCA 1 and 2 of the mtDNA data. (B) Scatterplot representing PCA 1 and 2 of the NRY data. Swahili populations are represented by squares; Comoros population from previously published data<sup>4</sup> by a diamond; all other groups by circles.

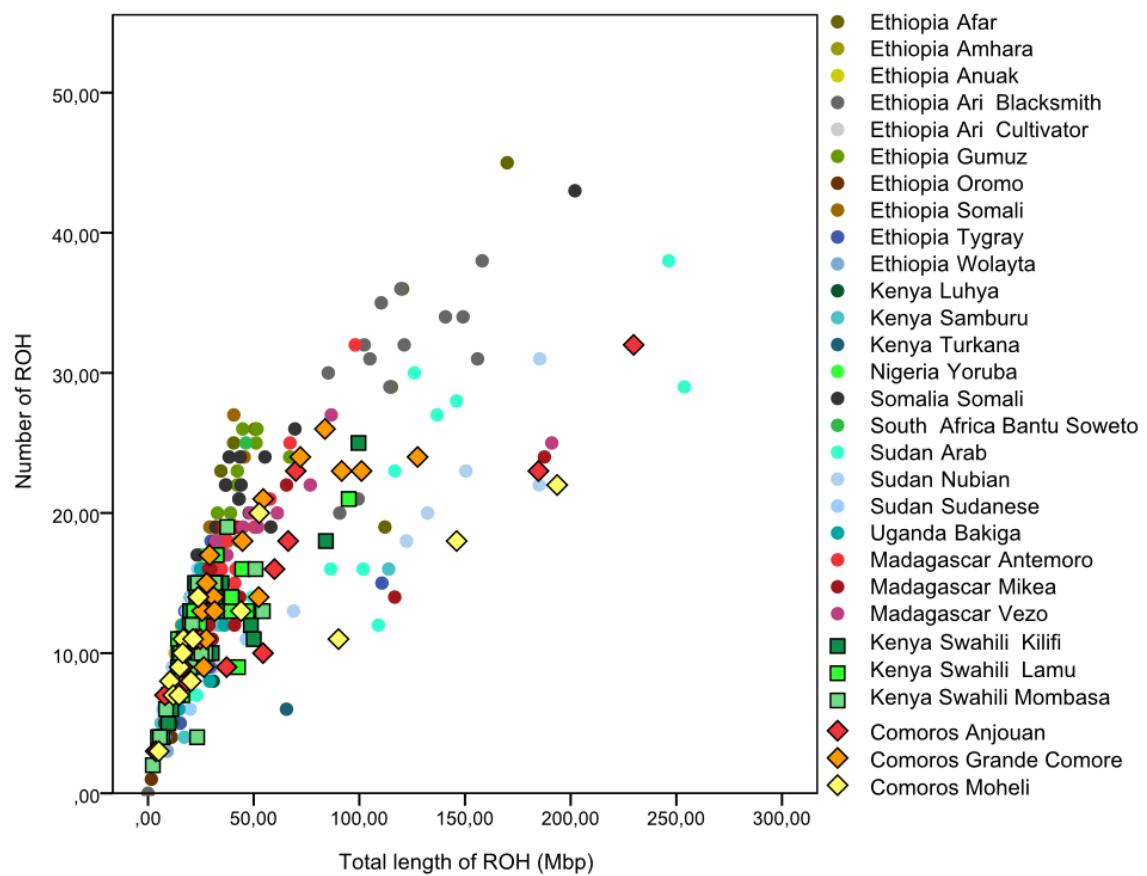
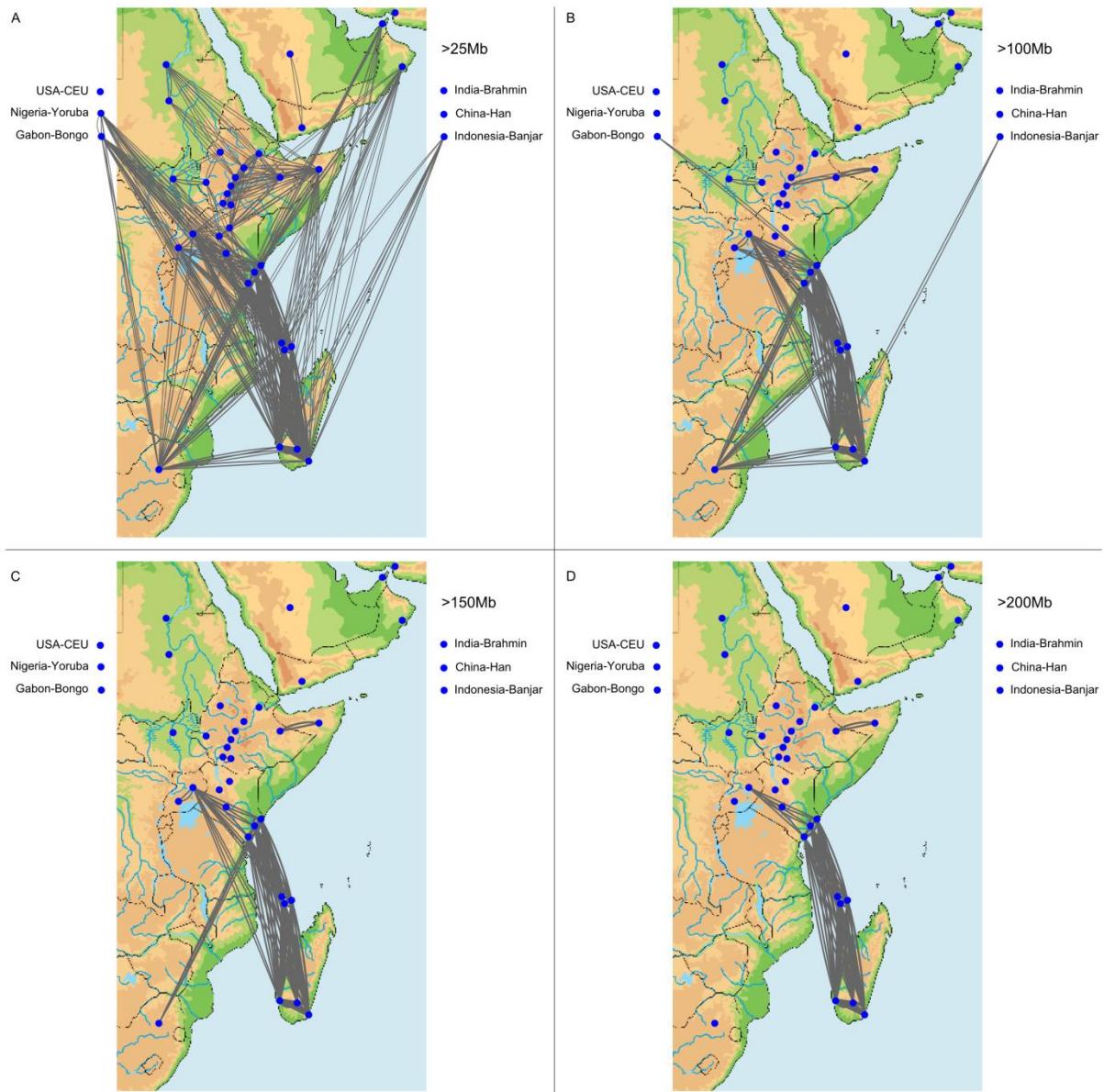


Figure S6. Scatterplot of Runs of Homozygosity (ROH) of East African individuals in the high SNP density dataset. Swahili individuals are represented by squares; Comoros individuals by diamonds; all East and South African individuals by circles.



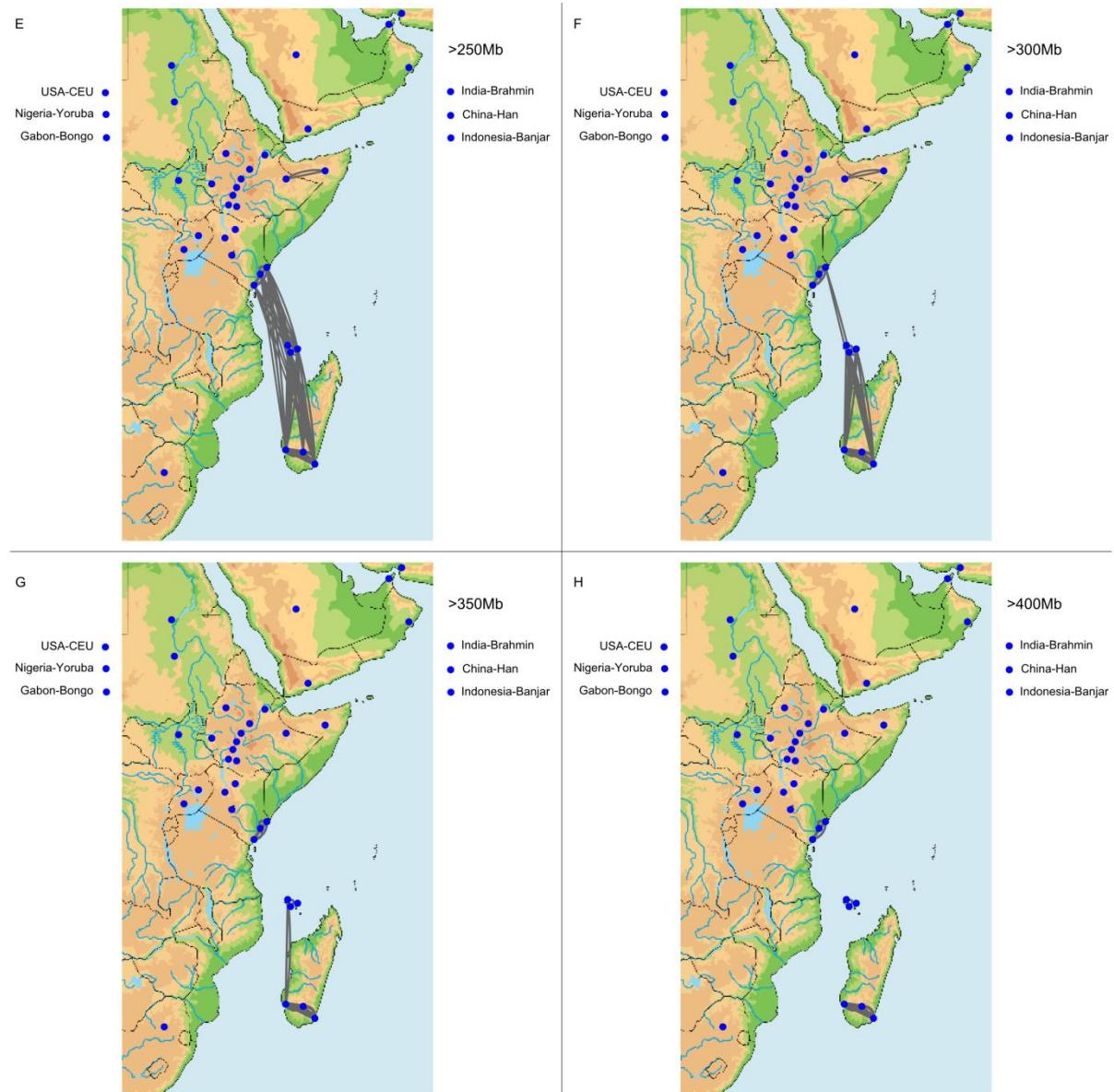
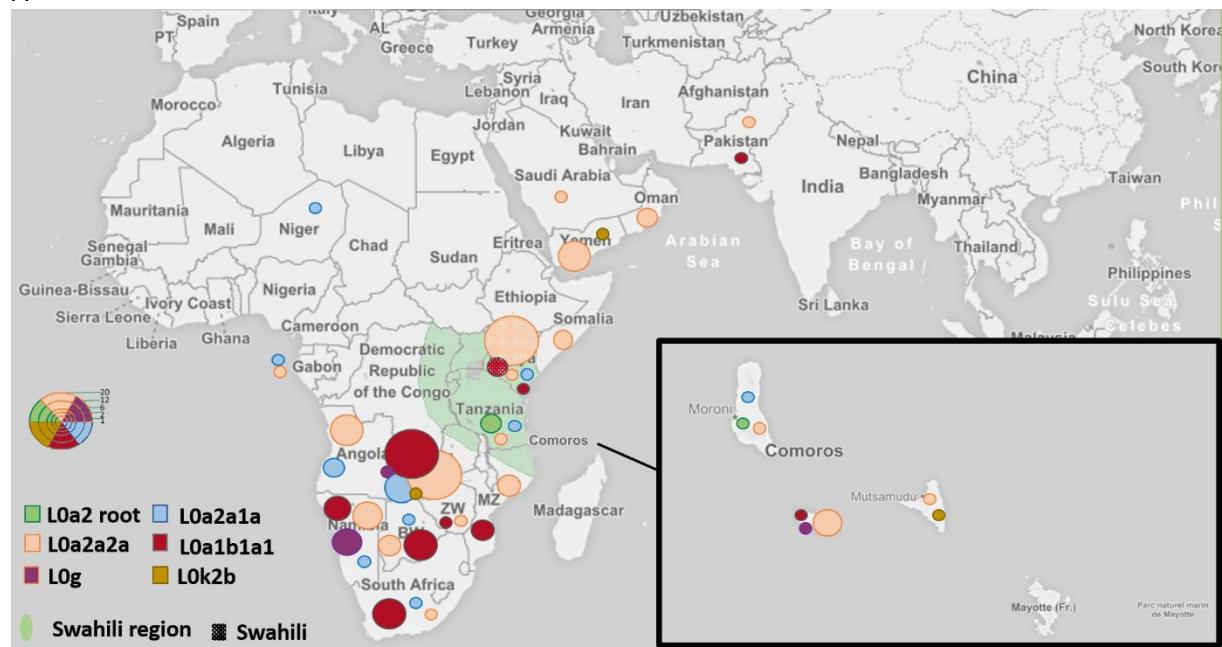
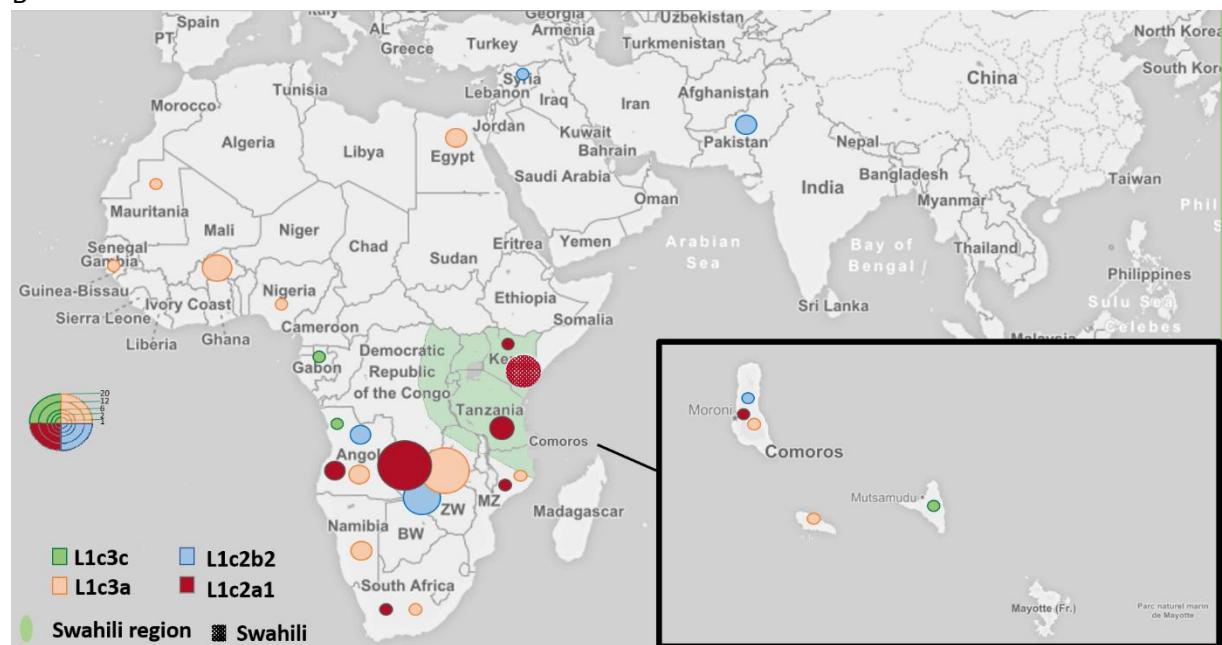


Figure S7. Map of the normalized sum of shared IBD fragments between East African populations and Middle Eastern populations and other populations of interest as estimated by RefinedIBD<sup>5,6</sup>. The width of each edge is proportional to the normalized sum of shared IBD. Each map represents the normalized sum of shared IBD according to different thresholds: A: >25Mb; B: >100Mb; C: >150Mb; D: >200Mb; E: >250Mb; F: >300Mb; G: >350Mb; H: >400Mb.

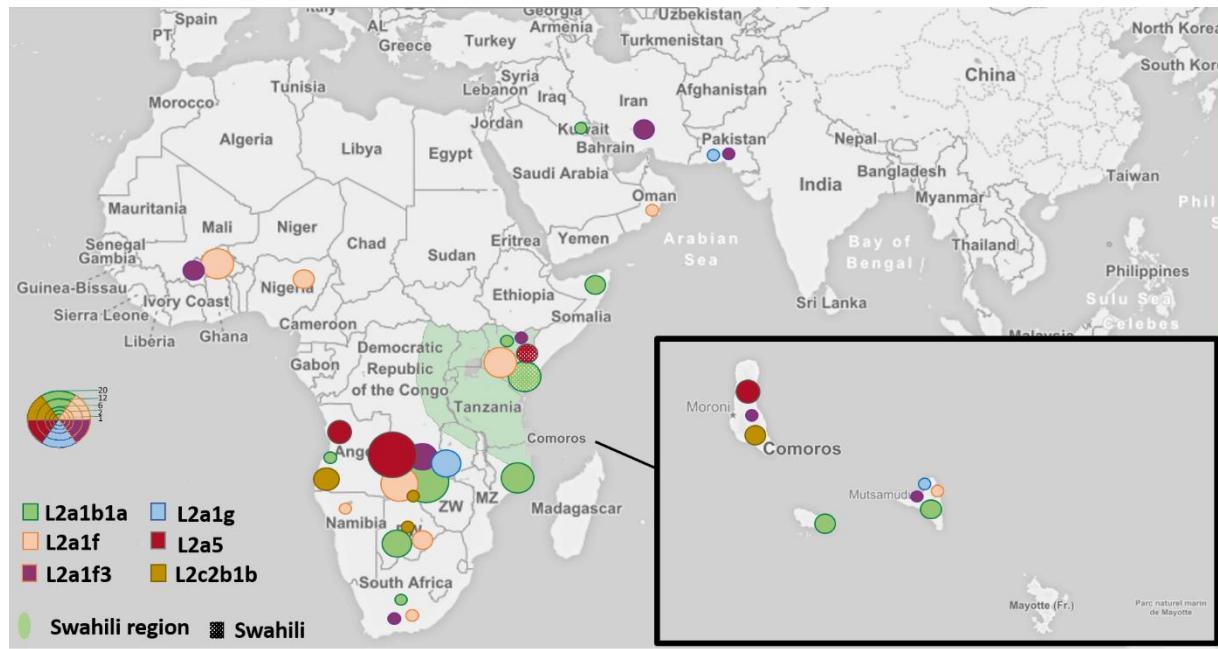
A



B



C



D

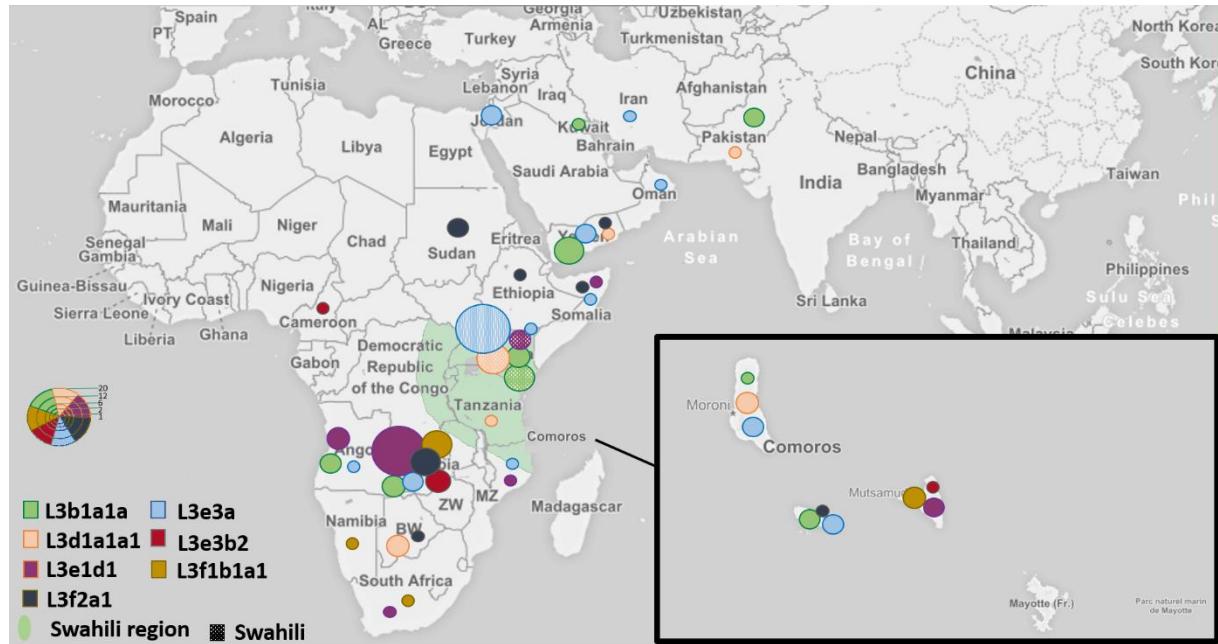
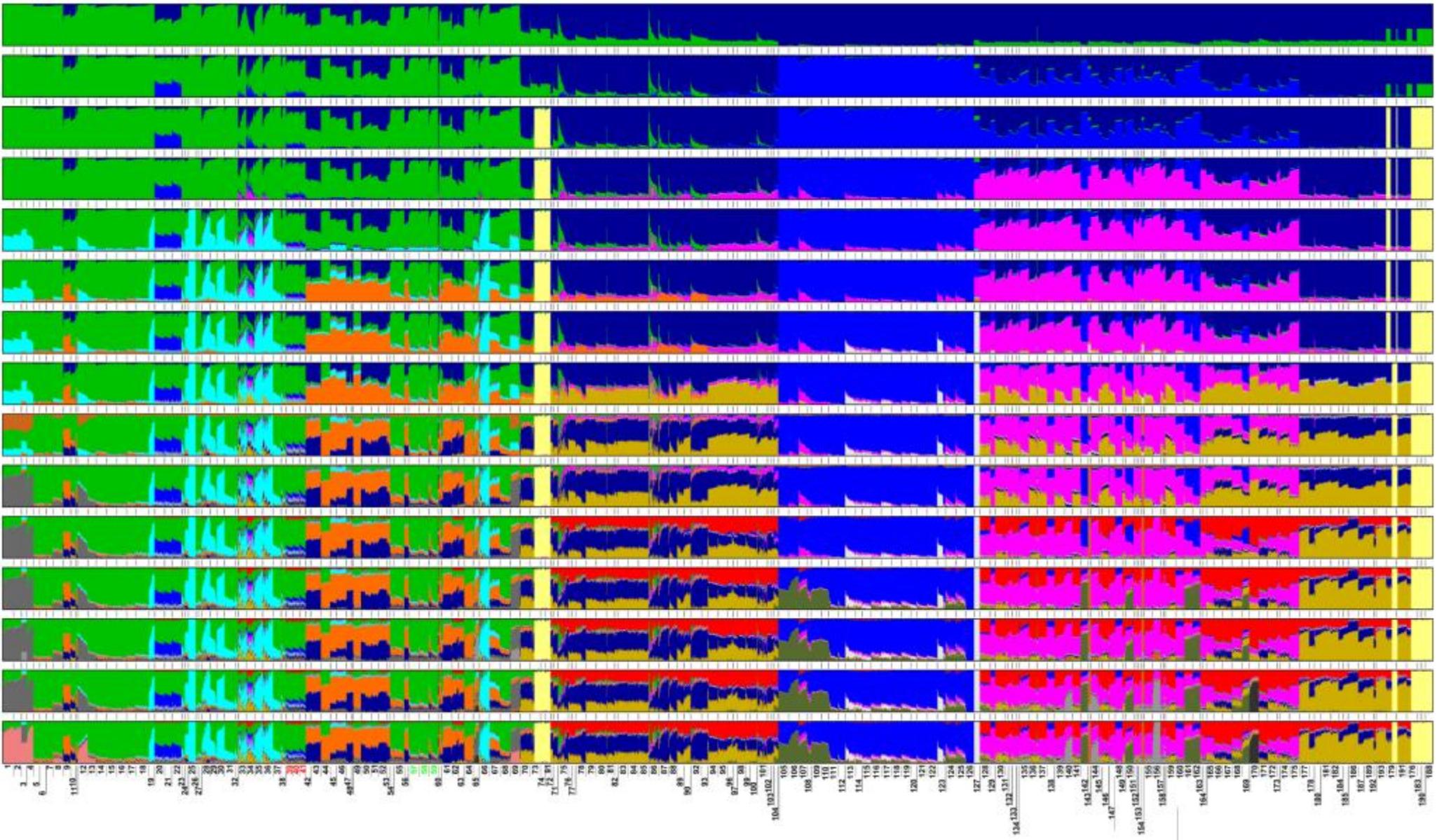


Figure S8. Geographic distribution of haplotype sharing of the most recent common ancestor with the Comorian haplotypes, separated by (A) L0 (B)L1 (C) L2 and (D) L3 haplogroups. The sizes of circles are proportional to the number of individuals.



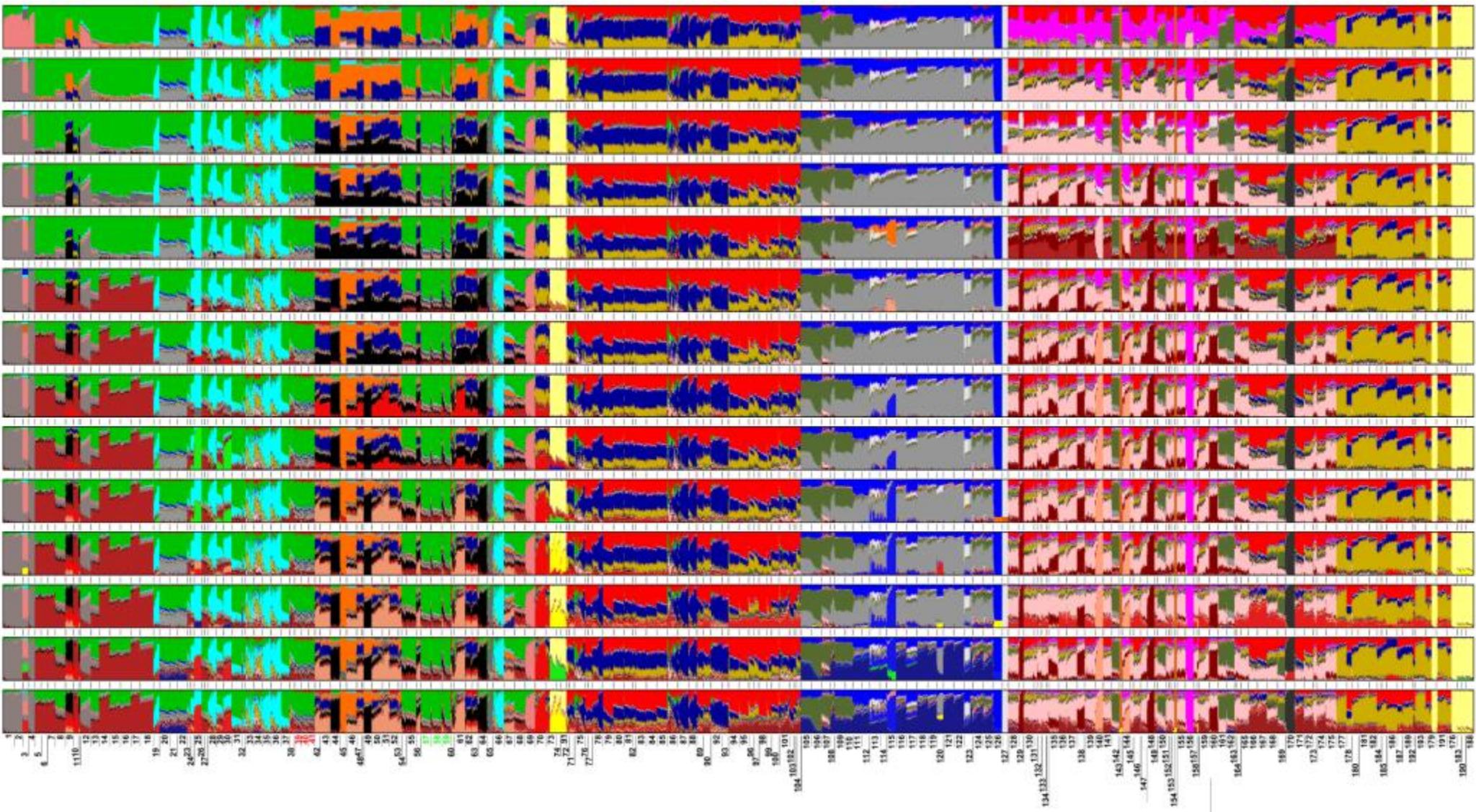


Figure S9. ADMIXTURE<sup>7</sup> plots obtained with CLUMPAK<sup>8</sup> (major modes) from K=2 to K=30 and visualized with Genesis<sup>9</sup>. Each colored line is an individual whose genetic background can be decomposed into K genetic components. Populations are coded as follows: 1: Cameroon Baka; 2: CAR Biaka Pygmy; 3: DR Congo Mbuti Pygmy; 4: Gabon Baka; 5: Burkina Faso Gurmantche; 6: Burkina Faso Gurunsi; 7: Burkina Faso Mossi; 8: Cameroon Nzime; 9: Chad Daza; 10: Chad Fulani; 11: Chad Kanembu; 12: Gabon Bongo; 13: Gabon Nzebi; 14: Gambia Gambian; 15: Nigeria Esan; 16: Nigeria Yoruba; 17: Senegal Mandenka; 18: Sierra Leone Mende; 19: Botswana GuiGhanaKgal; 20: Madagascar Antemoro; 21: Madagascar Mikea; 22: Madagascar Vezo; 23: Namibia Damara; 24: Namibia Haihom; 25: Namibia Juhoansi; 26: Namibia Kwangali; 27: Namibia Mbukushu; 28: Namibia Nama; 29: South Africa Namibia Khwe; 30: South Africa Namibia Xun; 31: South Africa Bantu Soweto; 32: South Africa BantuSA; 33: South Africa ColouredColesberg; 34: South Africa ColouredWellington; 35: South Africa Karretjie; 36: South Africa Khomani; 37: South Africa SEBantu; 38: South Africa SWBantu; 39: Comoros Anjouan; 40: Comoros Grande Comore; 41: Comoros Moheli; 42: Ethiopia Afar; 43: Ethiopia Amhara; 44: Ethiopia Anuak; 45: Ethiopia Ari Blacksmith; 46: Ethiopia Ari Cultivator; 47: Ethiopia Ethiopian Jews; 48: Ethiopia Ethiopians; 49: Ethiopia Gumuz; 50: Ethiopia Oromo; 51: Ethiopia Somali; 52: Ethiopia Tygray; 53: Ethiopia Wolayta; 54: Kenya BantuKenya; 55: Kenya Luhya; 56: Kenya Samburu; 57: Kenya Swahili Kilifi; 58: Kenya Swahili Lamu; 59: Kenya Swahili Mombasa; 60: Kenya Turkana; 61: Somalia Somali; 62: Sudan Arab; 63: Sudan Nubian; 64: Sudan Sudanese; 65: Tanzania Hazda; 66: Tanzania San; 67: Tanzania Sandawe; 68: Uganda Bakiga; 69: Uganda Batwa; 70: Algeria Mozabite; 71: Egypt Egyptian; 72: Lybia Lybian Jew; 73: Morocco Moroccan; 74: Tunisia Tunisian; 75: Dubai Arab; 76: Irak Kurd Jew; 77: Iraq Iraqi Jews; 78: Israel Bedouin; 79: Israel Druze; 80: Israel Palestinian; 81: Jordania Jordanian; 82: Lebanon Lebanese; 83: Lebanon Lebanese Christian; 84: Lebanon Lebanese Druze; 85: Lebanon Lebanese Muslim; 86: Oman Omani; 87: Saudi Arabia Arab; 88: Saudi Arabia Saudi; 89: Syria Syrians; 90: Turkey Turks; 91: UAE Arab; 92: Yemen Yemeni; 93: Yemen Yemenite Jews; 94: Armenia Armenian; 95: Georgia Abkhasian; 96: Georgia Balkar; 97: Georgia Chechen; 98: Georgia Georgian; 99: Iran Azeri; 100: Iran Iranian; 101: Iran Iranian Jew; 102: Kazakhstan Kurd; 103: Turkmenistan Turkmen; 104: China Dai; 105: China Han; 106: Burma Burmese; 107: Cambodia Cambodian; 108: Vietnam Kinh; 109: Vietnam Vietnamese; 110: Brunei Dusun; 111: Brunei Murut; 112: Indonesia Bajo; 113: Indonesia Bajo Derawan; 114: Indonesia Bajo Kotabaru; 115: Indonesia Banjar; 116: Indonesia Bugis; 117: Indonesia Dayak; 118: Indonesia Dayak Ngaju; 119: Indonesia Lebbo; 120: Indonesia Ma'anyan; 121: Indonesia Samihim; 122: Indonesia Warukin; 123: Malaysia Malay; 124: Philippines Igorot; 125: Singapore Malay; 126: Papua New Guinea Papuan; 127: Bangladesh Bengali; 128: India Birhor; 129: India Brahmin; 130: India Brahmims from; 131: Uttar Pradesh; 132: India Chamar; 133: India Dharkar; 134: India Dusadh; 135: India Gond; 136: India Gujarat Brahmin; 137: India Gujarati; 138: India Ho; 139: India Indian; 140: India Irula; 141: India Iyer; 142: India Jamatia; 143: India Jarawa; 144: India Kadar; 145: India Kanjars; 146: India Khatri; 147: India Kol; 148: India Korva; 149: India Kshatriya; 150: India Manipuri Brahmin; 151: India Maratha; 152: India Muslim; 153: India North Kannadi; 154: India Onge; 155: India Palian; 156: India Paniya; 157: India Piramalai Kallar; 158: India Pulliyar; 159: India Punjabi; 160: India Santal; 161: India Tharu; 162: India Tripuri; 163: India Uttar Pradesh; 164: Scheduled Caste; 165: India Velama; 166: India West Bengal Brahmin; 167: Pakistan Balochi; 168: Pakistan Brahui; 169: Pakistan Burusho; 170: Pakistan Hazara; 171: Pakistan Kalash; 172: Pakistan Makrani; 173: Pakistan Pathan; 174: Pakistan Punjabi; 175: Pakistan Sindhi; 176: Sri Lanka Sri Lankan; 177: Bulgaria Bulgarian; 178: Croatia Croatian; 179: Cyprus Cypriot; 180: Greece Greek; 181: Romania Romanian; 182: France French; 183: Hungary Hungarian; 184: Italy East Sicilian; 185: Italy Italian Abruzzo; 186: Italy Italian Bergamo; 187: Italy Sardinian; 188: Italy Sicilian; 189: Italy South Italian; 190: Italy Tuscan; 191: Italy West Sicilian; 192: Spain Spanish; 193: Russia Azeri; 194: USA CEU

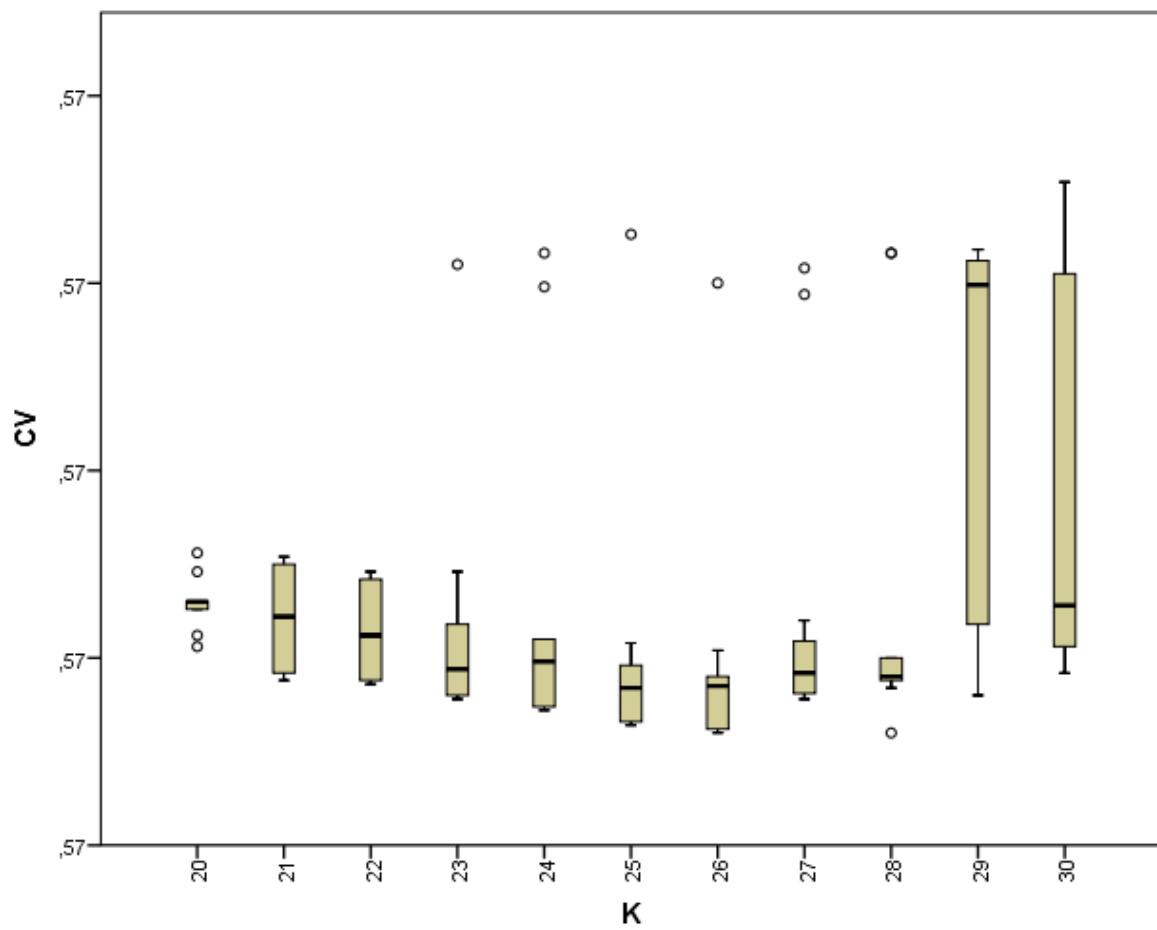


Figure S10. Box plots of cross-validation values obtained with ADMIXTURE<sup>7</sup> runs from K=20 to K=30 after 10 iterations.

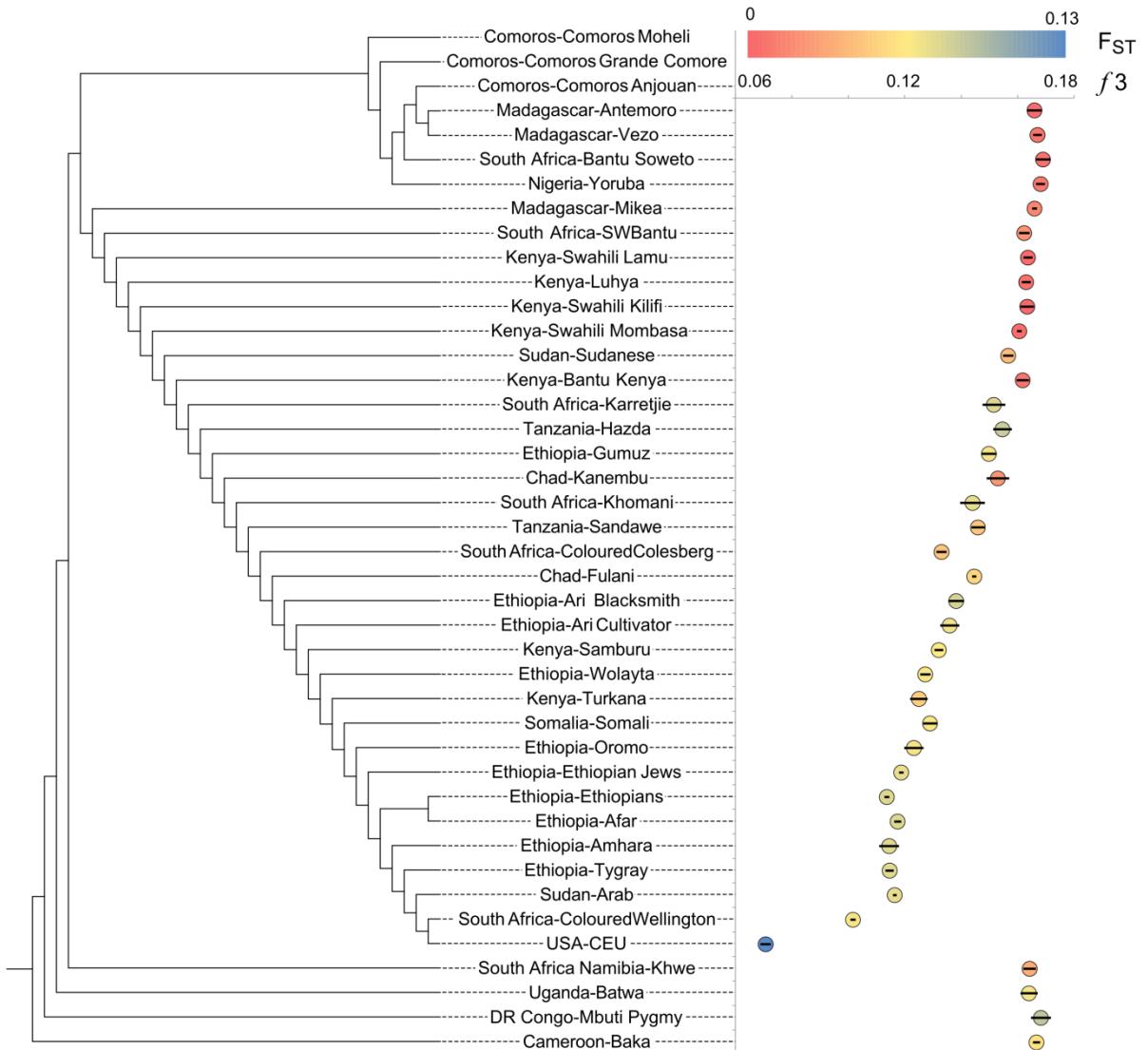


Figure S11. Comparison of the African genetic ancestry of the Comoros by a TREEMIX dendrogram<sup>10</sup>,  $F_{ST}$  distances and  $f_3$  statistics, all based on the African-SNP dataset generated with PCAdmix<sup>11</sup>. The TreeMix dendrogram was inferred imposing no a priori assumptions of migration, displaying only the tree topology. (B) Values of the  $f_3$ (African-SNP: Comoros-Anjouan, X; China-Han) statistics are represented by dots with standard error bars. The color of each dot corresponds to the  $F_{ST}$  distances between the African ancestry in the Comoros-Anjouan and each African population using a blue-yellow-red color scale from the highest (0.125) to the lowest values (0.006). All those values are provided in Table S10.

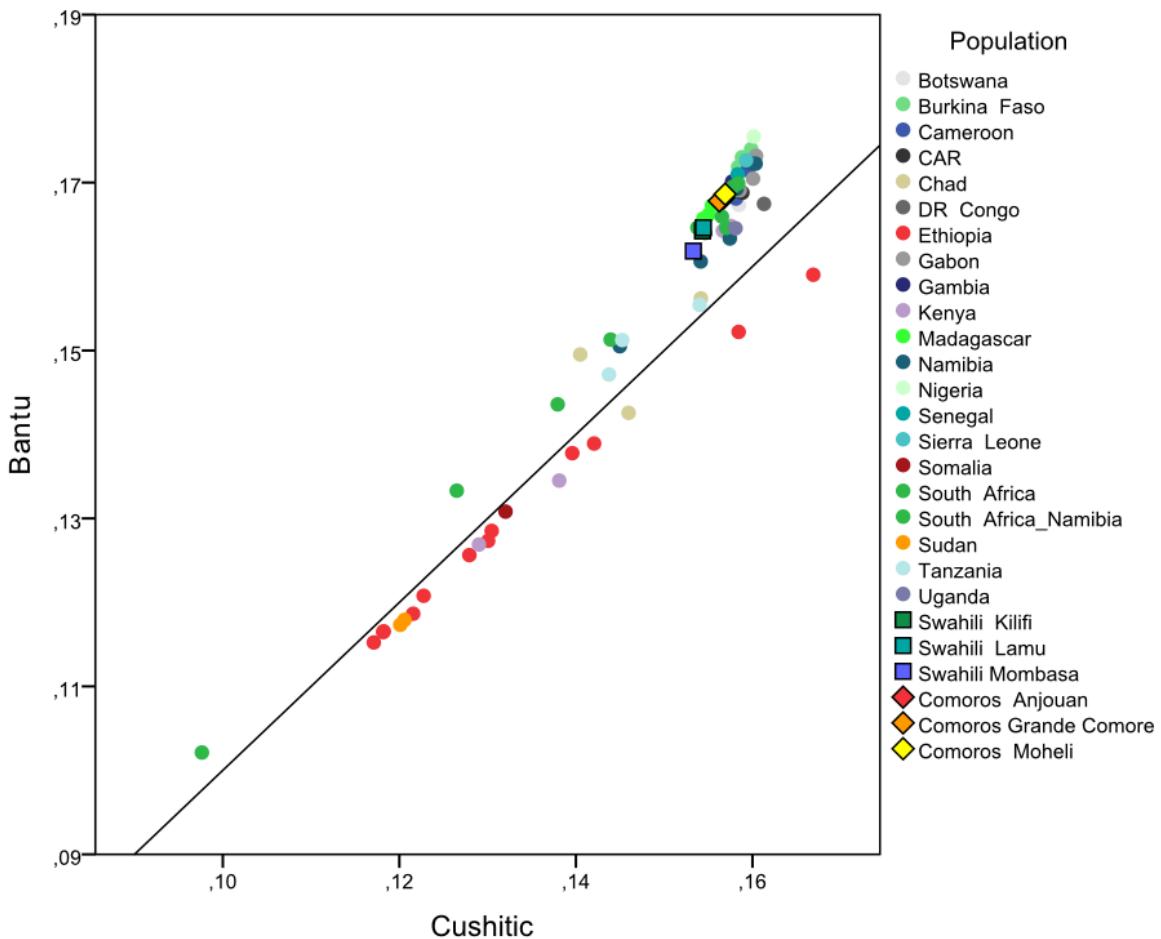
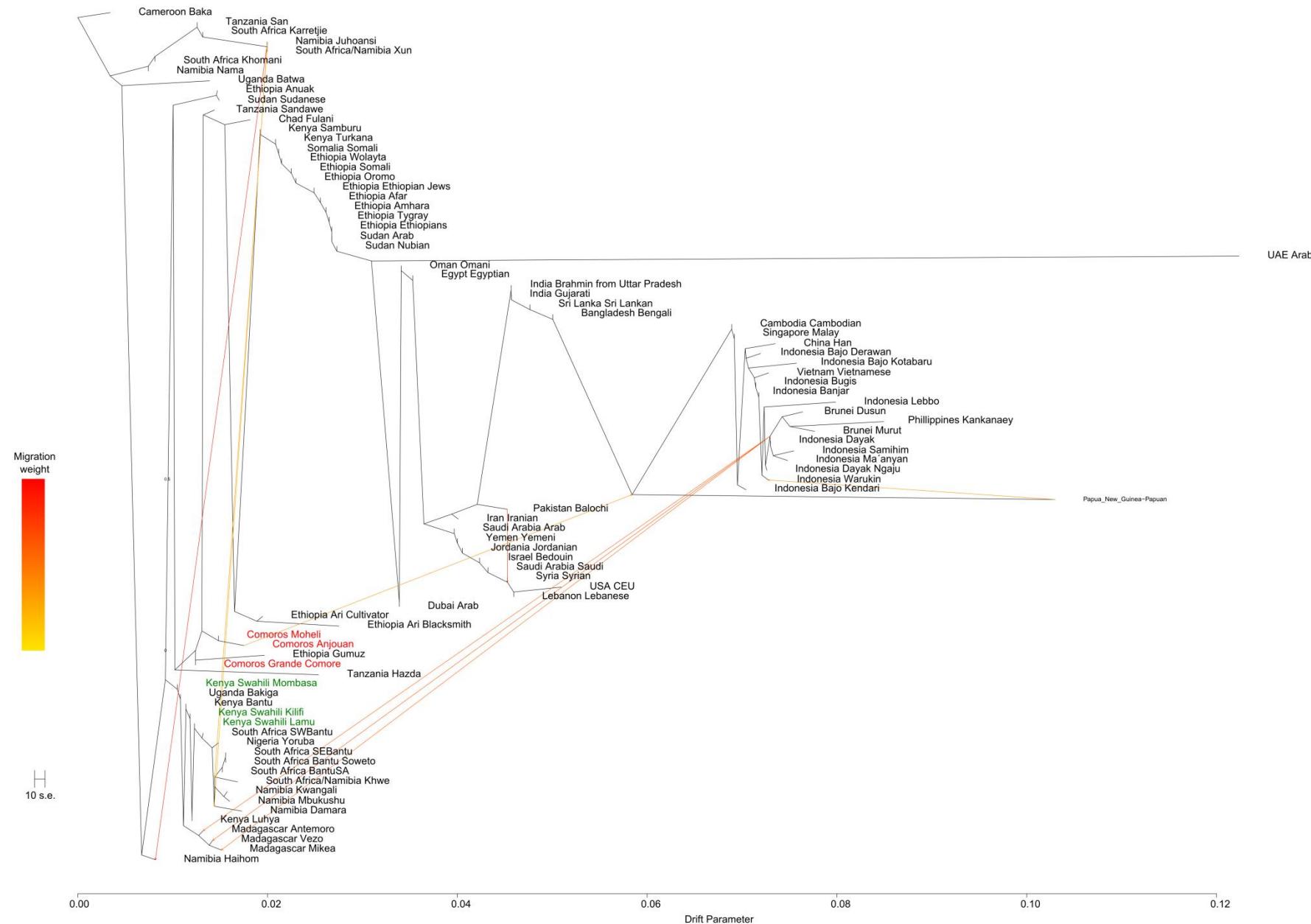


Figure S12. Scatterplot of the  $f_3$ -outgroup statistics on the African-SNP dataset generated with PCAdmix<sup>11</sup>. The x-axis shows the values of  $f_3(\text{African-SNP: Sudan-Sudanese}, X; \text{China-Han})$ , representing a Cushitic genetic ancestry. The y-axis shows the values of  $f_3(\text{African-SNP: Nigeria-Yoruba}, X; \text{China-Han})$ , representing a Bantu genetic ancestry. Swahili populations are represented by a square; Comoros populations by a diamond; all other African population from the low SNP-density dataset by a circle.

A.



B.

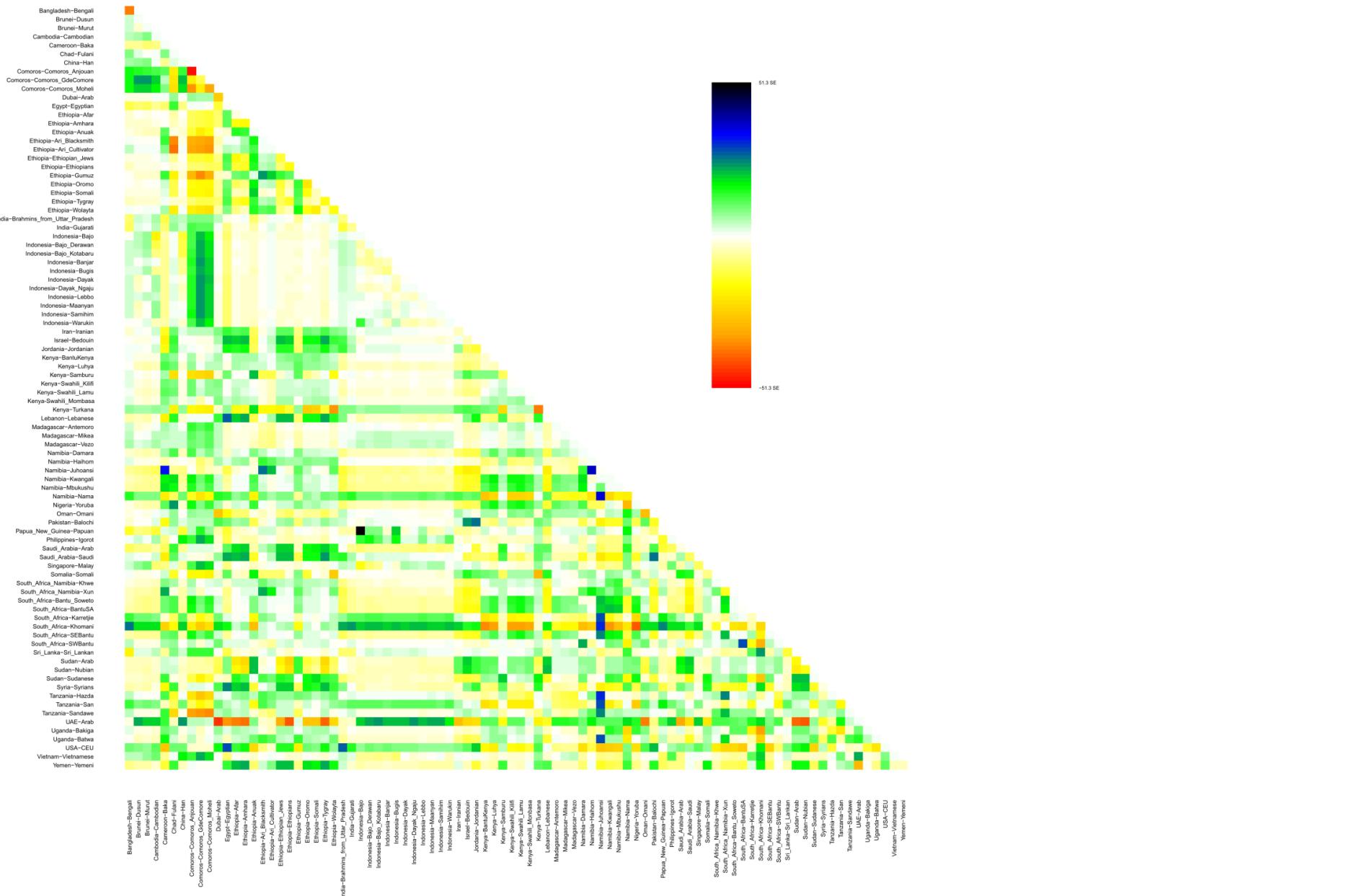


Figure S13. TREEMIX<sup>10</sup> plot of African and Asian populations in the low SNP-density dataset on 9 migration nodes (A), and its residual triangular matrix (B). Comorian populations are highlighted in red and Kenyan Swahili communities in green.

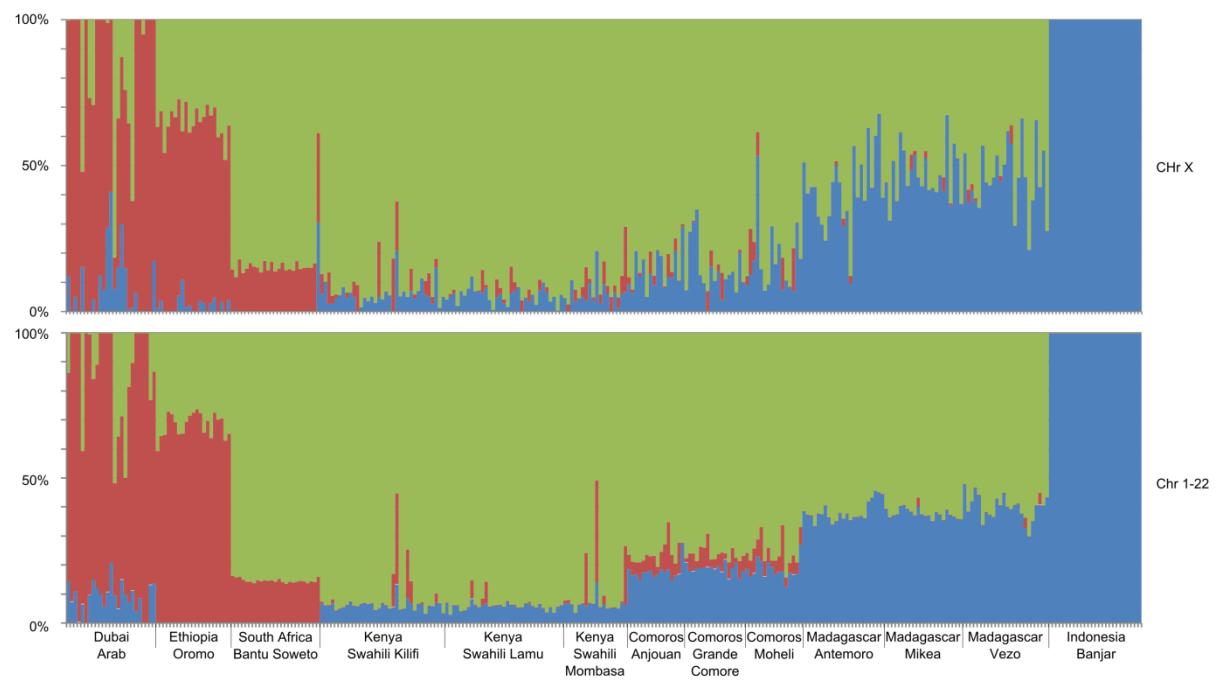


Figure S14. ADMIXTURE<sup>7</sup> plots obtained for chromosome X and autosomes at K=3. Each colored line is an individual whose genetic background can be decomposed into K genetic components.

	Swahili Kilifi	Swahili Lamu	Swahili Mombasa
B2A	6	4	0
B2B	3	1	0
BT	2	7	0
C	0	1	0
E	0	3	0
E1b1a1	1	0	0
E1b1a7a	25	9	2
E1b1a8a1a	1	1	0
E1b1a8a	16	16	2
E1b1b1	2	1	1
E2b	1	0	0
G2a	1	0	0
O2a	1	0	0
R1b	1	0	0

Table S1. NRY haplogroups found in Swahili communities.

	Kenya Swahili Lamu	Kenya Swahili Kilifi	Kenya Swahili Mombasa	Comoros Grande Comore	Comoros Moheli	Comoros Anjouan
F3b1b				1		
H2a2a1			1			
Loa		3	1			
Loa1'4	1	1	1			
Loa1a1	1					
Loa1b1a1				1		
Loa1b1a1a		1	1			
Loa1d			2			
Loa2		2	1	1		
Loa2a1a				2		
Loa2a1b			2			
Loa2a2a	14	10	4		5	1
Loa2d	1					
Loa3		1				
L0d1c	1					
L0d3	1					
L0f	4		2			
L0f1			2			
L0f2a	5	2				
L0f2a1		1				
L0g				1		
L0k2b					1	
L1b1a	7	3				
L1b1a3		2				
L1b2a		1				
L1c1	1		1			
L1c2a1		8				
L1c2a1a	2			1		
L1c2a3		1	1			
L1c2b2				1		
L1c3a				1	1	
L1c3c						1
L2a1	1					

L2a1+143		2			
L2a1+143+@16309	1				
L2a1a	1				
L2a1a2		2			
L2a1b1a	4	3		2	2
L2a1c4a1	1				
L2a1f	2	5			1
L2a1f1		1			
L2a1f3			1		1
L2a1g					1
L2a1h	3	3			
L2a5	2		3		
L2b2a		1			
L2c2b1			1		
L2c2b1b				1	
L2d1a			1		
L3a1		1			
L3a2	1				
L3b1a11			1		
L3b1a1a	5		2	1	2
L3b1a2	2				
L3d1a1a	9	5	1		
L3d1a1a1	3	5		3	
L3d1d		1			
L3e1a2	3				
L3e1d1		2			2
L3e1e	1	1			
L3e1e1	1	1			
L3e2b	1	1			
L3e3a	6	10	4	2	2
L3e3b2					1
L3e5		1			
L3f	1				
L3f1b1a1					3
L3f1b4a1	2				
L3f2a1				1	
L3h1a2a1	3	1			
L3h1b2	1				
L3h2		1			
L3x1a2	3	2			
L4b2a2	1	8			
L4b2a2c	1				
L5a1	1				
L5b2	1				
M			1		
M1a1	1				
M1a1b		1			
M1a1f	2	1			
M1a5	1				
RO+16189	1				

Table S2. mtDNA haplogroups found in Swahili and Comorian communities.

Population	N LSD	N HSD	Reference
Cameroon Baka	25	25	<sup>12</sup>
CAR Biaka Pygmy	20	-	<sup>13</sup>
DR Congo Mbuti Pygmy	13	-	<sup>13; 14</sup>
Gabon Baka	16	16	<sup>12</sup>
Burkina Faso Gurmantche	15	15	<sup>15</sup>
Burkina Faso Gurunsi	16	16	<sup>15</sup>
Burkina Faso Mossi	17	17	<sup>15</sup>
Cameroon Nzime	25	25	<sup>12</sup>
Chad Daza	18	18	<sup>15</sup>
Chad Fulani	13	13	<sup>15</sup>
Chad Kanembu	4	4	<sup>15</sup>
Gabon Bongo	25	25	<sup>12</sup>
Gabon Nzebi	20	20	<sup>12</sup>
Gambia Gambian	25	25	<sup>16</sup>
Nigeria Esan	25	25	<sup>14; 16</sup>
Nigeria Yoruba	25	19	<sup>13; 16</sup>
Senegal Mandenka	22	-	<sup>13</sup>
Sierra Leone Mende	25	25	<sup>13; 16</sup>
Botswana GuiGhanaKgal	14	-	<sup>17</sup>
Madagascar Antemoro	24	24	<sup>18</sup>
Madagascar Mikea	18	18	<sup>18</sup>
Madagascar Vezo	24	24	<sup>18</sup>
Namibia Damara	8	8	<sup>19</sup>
Namibia Haihom	8	8	<sup>19</sup>
Namibia Juhoansi	18	-	<sup>17</sup>
Namibia Kwangali	7	7	<sup>19</sup>
Namibia Mbukushu	8	8	<sup>19</sup>
Namibia Nama	20	-	<sup>17</sup>
South Africa Namibia Khwe	17	-	<sup>17</sup>
South Africa Namibia Xun	19	-	<sup>17</sup>
South Africa Bantu Soweto	25	25	<sup>20</sup>
South Africa BantuSA	8	-	<sup>13</sup>
South Africa ColouredColesberg	20	-	<sup>17</sup>
South Africa ColouredWellington	20	-	<sup>17</sup>
South Africa Karretjie	20	-	<sup>17</sup>
South Africa Khomani	25	-	<sup>17</sup>
South Africa SEBantu	20	-	<sup>17</sup>
South Africa SWBantu	12	-	<sup>17</sup>
Comoros Anjouan	16	16	<i>Present study</i>
Comoros Grande Comore	17	17	<i>Present study</i>
Comoros Moheli	15	15	<i>Present study</i>
Ethiopia Afar	12	12	<sup>21</sup>
Ethiopia Amhara	25	19	<sup>22</sup>

Ethiopia Anuak	23	23	<sup>21</sup>
Ethiopia Ari Blacksmith	15	15	<sup>21</sup>
Ethiopia Ari Cultivator	24	24	<sup>21</sup>
Ethiopia Ethiopian Jews	12	-	<sup>22</sup>
Ethiopia Ethiopians	5	-	<sup>22</sup>
Ethiopia Gumuz	19	19	<sup>21</sup>
Ethiopia Oromo	25	20	<sup>15; 21; 22</sup>
Ethiopia Somali	17	17	<sup>21</sup>
Ethiopia Tygray	21	21	<sup>21</sup>
Ethiopia Wolayta	8	8	<sup>21</sup>
Kenya BantuKenya	10	-	<sup>13; 14</sup>
Kenya Luhya	25	25	<sup>13; 16</sup>
Kenya Samburu	10	10	<sup>15</sup>
Kenya Swahili Kilifi	25	25	<i>Present study</i>
Kenya Swahili Lamu	25	25	<i>Present study</i>
Kenya Swahili Mombasa	22	22	<i>Present study</i>
Kenya Turkana	8	8	<sup>15</sup>
Somalia Somali	26	26	<sup>15; 21</sup>
Sudan Arab	16	16	<sup>15</sup>
Sudan Nubian	14	14	<sup>15</sup>
Sudan Sudanese	22	22	<sup>21</sup>
Tanzania Hazda	14	-	<sup>14</sup>
Tanzania San	26	-	<sup>14</sup>
Tanzania Sandawe	25	-	<sup>14</sup>
Uganda Bakiga	25	25	<sup>12</sup>
Uganda Batwa	24	24	<sup>12</sup>
Algeria Mozabite	25	-	<sup>13</sup>
Egypt Egyptian	12	-	<sup>22</sup>
Lybia Lybian Jew	6	-	<sup>23</sup>
Morocco Moroccan	25	-	<sup>22; 24</sup>
Tunisia Tunisian	11	-	<sup>24</sup>
UAE Dubai Arab	25	25	Fernandes et al., unpublished
Iraq Kurd Jew	8	-	<sup>23</sup>
Iraq Iraqi Jews	10	-	<sup>22</sup>
Israel Bedouin	25	-	<sup>13</sup>
Israel Druze	25	-	<sup>13</sup>
Israel Palestinian	25	-	<sup>13</sup>
Jordania Jordanian	20	-	<sup>13</sup>
Lebanon Lebanese	8	-	<sup>22</sup>
Lebanon Lebanese Christian	25	-	<sup>25</sup>
Lebanon Lebanese Druze	25	-	<sup>25</sup>
Lebanon Lebanese Muslim	25	-	<sup>25</sup>
Oman Omani	25	25	Fernandes et al., unpublished
Saudi Arabia Arab	25	25	Fernandes et al., unpublished
Saudi Arabia Saudi	20	-	<sup>22</sup>

Syria Syrians	16	-	<sup>22</sup>
Turkey Turks	17	-	<sup>22</sup>
UAE Arab	14	-	<sup>24</sup>
Yemen Yemeni	26	25	Fernandes et al., unpublished
Yemen Yemenite Jews	15	-	<sup>22</sup>
Armenia Armenian	25	-	<sup>13; 22; 26</sup>
Georgia Abkhazian	23	-	<sup>23</sup>
Georgia Balkar	13	-	<sup>23</sup>
Georgia Chechen	11	-	<sup>26</sup>
Georgia Georgian	25	-	<sup>13; 22</sup>
Iran Azeri	18	-	<sup>26</sup>
Iran Iranian	25	20	<sup>13; 22</sup> , Fernandes et al., unpublished
Iran Iranian Jew	10	-	<sup>23</sup>
Kazakhstan Kurd	6	-	<sup>26</sup>
Turkmenistan Turkmen	11	-	<sup>26</sup>
China Dai	25	22	<sup>16</sup>
China Han	25	17	<sup>13; 16</sup>
Burma Burmese	20	20	<sup>27</sup>
Cambodia Cambodian	10	-	<sup>13</sup>
Vietnam Kinh	25	25	<sup>16</sup>
Vietnam Vietnamese	18	18	<sup>27</sup>
Brunei Dusun	22	22	<sup>27</sup>
Brunei Murut	18	18	<sup>27</sup>
Indonesia Bajo	25	25	<sup>27</sup>
Indonesia Bajo Derawan	16	16	<sup>28</sup>
Indonesia Bajo Kotabaru	22	22	<sup>28</sup>
Indonesia Banjar	25	25	<sup>28; 29</sup>
Indonesia Bugis	25	25	<sup>28</sup>
Indonesia Dayak	25	25	<sup>30</sup>
Indonesia Dayak Ngaju	22	22	<sup>29</sup>
Indonesia Lebbo	15	15	<sup>27</sup>
Indonesia Ma'anyan	25	25	<sup>30</sup>
Indonesia Samihim	25	25	<sup>28</sup>
Indonesia Warukin	20	20	<sup>28</sup>
Malaysia Malay	24	-	<sup>27</sup>
Philippines Igorot	21	21	<sup>27</sup>
Singapore Malay	25	25	<sup>31</sup>
Papua New Guinea Papuan	14	-	<sup>13</sup>
Bangladesh Bengali	25	25	<sup>16</sup>
India Birhor	12	-	<sup>32</sup>
India Brahmin	25	25	<sup>27</sup>
India Brahmins from Uttar Pradesh	7	-	<sup>33</sup>
India Chamar	10	-	<sup>33</sup>

India Dharkar	11	-	33
India Dusadh	6	-	33
India Gond	24	-	33
India Gujarat Brahmin	19	-	32
India Gujarati	25	25	16
India Ho	18	-	32
India Indian	25	25	16
India Irula	19	-	32
India Iyer	20	-	32
India Jamatia	18	-	32
India Jarawa	7	-	32
India Kadar	19	-	32
India Kanjars	8	-	33
India Khatri	17	-	32
India Kol	15	-	33
India Korva	18	-	32
India Kshatriya	7	-	33
India Manipuri Brahmin	20	-	32
India Maratha	7	-	32
India Muslim	5	-	33
India North Kannadi	8	-	22
India Onge	6	-	32
India Palian	20	-	32
India Paniya	20	-	22
India Piramalai Kallar	8	-	33
India Pulliyar	4	-	33
India Punjabi	25	25	16
India Santal	20	-	32
India Tharu	21	-	33
India Tripuri	19	-	32
India Uttar Pradesh Scheduled Caste	5	-	33
India Velama	10	-	33
India West Bengal Brahmin	18	-	32
Pakistan Balochi	21	-	13
Pakistan Brahui	23	-	13
Pakistan Burusho	25	-	13
Pakistan Hazara	18	-	13
Pakistan Kalash	23	-	13
Pakistan Makrani	22	-	13
Pakistan Pathan	22	-	13
Pakistan Punjabi	8	8	13
Pakistan Sindhi	22	-	13
Sri Lanka Sri Lankan	25	25	16
Bulgaria Bulgarian	25	-	24

Croatia Croatian	24	-	<sup>23</sup>
Cyprus Cypriot	12	-	<sup>22</sup>
Greece Greek	25	-	<sup>23; 24</sup>
Romania Romanian	16	-	<sup>22</sup>
France French	25	-	<sup>13</sup>
Hungary Hungarian	19	-	<sup>22</sup>
Italy East Sicilian	10	-	<sup>24</sup>
Italy Italian Abruzzo	11	-	<sup>23</sup>
Italy Italian Bergamo	12	-	<sup>13</sup>
Italy Sardinian	25	-	<sup>13</sup>
Italy Sicilian	13	-	<sup>23</sup>
Italy South Italian	18	-	<sup>24</sup>
Italy Tuscan	25	25	<sup>16</sup>
Italy West Sicilian	10	-	<sup>24</sup>
Spain Spanish	25	25	<sup>16; 22; 24</sup>
Russia Azeri	5	-	<sup>26</sup>
USA CEU	25	25	<sup>16</sup>
Total	3477	1664	

Table S3. Datasets used in the present study. LSD: Low SNP-density database HSD: High SNP-density database.

Population	N	Reference
Bangladesh Bengali	86	<sup>16</sup>
China Dai	99	<sup>16</sup>
China Han Beijing	103	<sup>16</sup>
China Han South	108	<sup>16</sup>
Comoros Comorian	577	<sup>4</sup>
Egypt Arab	74	<sup>34</sup>
Ethiopia Amharic	190	<sup>35</sup>
Ethiopia Misc.	20	<sup>35</sup>
Ethiopia Somali	3	<sup>36</sup>
India Gujarati	103	<sup>16</sup>
India Punjab	97	<sup>16</sup>
India Telugu	103	<sup>16</sup>
Indonesia Bajo	27	<sup>37</sup>
Indonesia Bali	487	<sup>37; 38</sup>
Indonesia Java	51	<sup>37; 38</sup>
Indonesia Ma'anyan	159	<sup>37</sup>
Indonesia Dayak	64	<sup>37</sup>
Japan Japanese	104	<sup>16</sup>
Kenya Swahili Kilifi	95	<i>present study</i>
Kenya Swahili Lamu	107	<i>present study</i>
Kenya Swahili Mombasa	33	<i>present study</i>
Kenya Kenya Misc.	3	<sup>39</sup>
Kenya Kikuyu	23	<sup>36</sup>
Kenya Somali	14	<sup>36</sup>
Kenya Swahili (2)	174	<sup>40</sup>
Kenya Turkana	34	<sup>36</sup>
Madagascar Antaisakaa	5	<sup>41</sup>
Madagascar Antandroya	19	<sup>41</sup>
Madagascar Antanosya	21	<sup>41</sup>
Madagascar Madagascar Misc.	33	<sup>42</sup>
Madagascar Merinaa	6	<sup>41</sup>
Madagascar Sihanaka Merina Betsileo		
Bezanozanob	19	<sup>41</sup>
Mozambique Misc.	258	<sup>43</sup>
Rwanda Bantu	40	<sup>44</sup>
Rwanda Hutu	97	<sup>45</sup>
Somalia Somali	1	<sup>36</sup>
South Africa !Xun Khwe	25	<sup>46</sup>
South Africa bantu	2	<sup>47</sup>
South Africa khoisan	2	<sup>47</sup>
South Africa Khwe	10	<sup>48</sup>
South Africa Kung	57	<sup>48</sup>
South Africa Misc.	3	<sup>49</sup>
Sri Lanka Tamil	102	<sup>16</sup>

Sudan Dinka	36	<sup>34</sup>
Sudan Nubia	76	<sup>34</sup>
Sudan Nuer	8	<sup>34</sup>
Sudan Shilluk	6	<sup>34</sup>
Tanzania Burunge	36	<sup>46</sup>
Tanzania Datog	35	<sup>46</sup>
Tanzania Datoga	17	<sup>50</sup>
Tanzania Hadza	24	<sup>46</sup>
Tanzania Hadzabe	13	<sup>50</sup>
Tanzania Iraqw	10	<sup>50</sup>
Tanzania Sandawe	80	<sup>46</sup>
Tanzania Sukuma	29	<sup>46</sup>
Tanzania Turu	28	<sup>46</sup>
USA European	99	<sup>16</sup>
Vietnam Kinh	101	<sup>16</sup>
Zimbabwe Shona	45	<sup>45</sup>

Table S4. mtDNA haplogroup dataset, based on the D-loop, used in the present study.

Population	N	Reference
Bangladesh Bengali	40	<sup>16</sup>
China Dai	40	<sup>16</sup>
China Han Beijing	41	<sup>16</sup>
China Han South	50	<sup>16</sup>
Comoros Comorian	370	<sup>4</sup>
Egypt Arab	97	<sup>51</sup>
Egypt Misc.	94	<sup>52</sup>
Ethiopia Amhara	48	<sup>53</sup>
Ethiopia Jew	101	<sup>54</sup>
Ethiopia Oromo	78	<sup>53</sup>
Ethiopia South Semitic	20	<sup>52</sup>
India Gujarati	58	<sup>16</sup>
India Punjab	48	<sup>16</sup>
India Telugu	60	<sup>16</sup>
Indonesia Bajo	27	<sup>37</sup>
Indonesia Bali	634	<sup>37; 38</sup>
Indonesia Java	61	<sup>37; 38</sup>
Indonesia Ma'anyan	159	<sup>37</sup>
Indonesia Dayak	85	<sup>37</sup>
Japan Japanese	56	<sup>16</sup>
Kenya Bantu	81	<sup>51</sup>
Kenya Kikuyu Kamba	44	<sup>52</sup>
Kenya Luo	9	<sup>52</sup>
Kenya Masai	26	<sup>52</sup>
Kenya Swahili Kilifi	60	<i>present study</i>
Kenya Swahili Lamu	44	<i>present study</i>
Kenya Swahili Mombasa	5	<i>present study</i>
Madagascar Antaisaka	8	<sup>41</sup>
Madagascar Antandroy	46	<sup>41</sup>
Madagascar Antanosy	46	<sup>41</sup>
Madagascar Merina	9	<sup>41</sup>
Mozambique Misc.	43	<sup>55</sup>
Oman Arab	91	<sup>51</sup>
Rwanda Hutu	98	<sup>51</sup>
Rwanda Tutsi	100	<sup>51</sup>
Somalia Misc.Danish	196	<sup>56</sup>
South Africa !Kung	100	<sup>54</sup>
South Africa Khwe	101	<sup>54</sup>
South Africa Sotho-Tswana	29	<sup>52</sup>
South Africa Xhosa	79	<sup>52</sup>
South Africa Zulu	29	<sup>52</sup>
Sri Lanka Tamil	55	<sup>16</sup>
Sudan Arakien	24	<sup>57</sup>
Sudan Beja	42	<sup>57</sup>

Sudan Borgu	26	<sup>57</sup>
Sudan Copte	33	<sup>57</sup>
Sudan Dinka	26	<sup>57</sup>
Sudan Fulani	26	<sup>57</sup>
Sudan Fur	32	<sup>57</sup>
Sudan Gaalien	50	<sup>57</sup>
Sudan Hausa	32	<sup>57</sup>
Sudan Masalit	32	<sup>57</sup>
Sudan Meseria	28	<sup>57</sup>
Sudan Nuba	28	<sup>57</sup>
Sudan Nubian	39	<sup>57</sup>
Sudan Nuer	12	<sup>57</sup>
Sudan Shilluk	15	<sup>57</sup>
Tanzania Burunge	31	<sup>46</sup>
Tanzania Datog	31	<sup>46</sup>
Tanzania Datoga	101	<sup>50</sup>
Tanzania Hadza	54	<sup>46</sup>
Tanzania Hadzabe	99	<sup>50</sup>
Tanzania Iraqw	100	<sup>50</sup>
Tanzania Mbugwe	14	<sup>46</sup>
Tanzania Sandawe	75	<sup>46</sup>
Tanzania Sukuma	130	<sup>46</sup>
Tanzania Turu	17	<sup>46</sup>
Tanzania Wairak	100	<sup>51</sup>
Uganda Ganda	26	<sup>52</sup>
USA European	49	<sup>16</sup>
Vietnam Kinh	44	<sup>16</sup>
Zimbabwe Shona	49	<sup>52</sup>

Table S5. NRY haplogroup dataset used in the present study.

	Comoros Comorian		Kenya Swahili Kilifi		Kenya Swahili Lamu		Kenya Swahili Mombasa	
	FST	P	FST	P	FST	P	FST	P
Egypt Arab	0.12212	0.00000 +- 0.0000	0.10684	0.00000 +- 0.0000	0.13284	0.00000 +- 0.0000	0.16927	0.00000 +- 0.0000
Ethiopia Amharic	0.09309	0.00000 +- 0.0000	0.08001	0.00000 +- 0.0000	0.09664	0.00000 +- 0.0000	0.13876	0.00000 +- 0.0000
Ethiopia Misc.	0.22634	0.00000 +- 0.0000	0.22338	0.00000 +- 0.0000	0.25987	0.00000 +- 0.0000	0.31933	0.00000 +- 0.0000
Somalia Ethiopia Somali	-0.02083	0.50450 +- 0.0433	-0.06107	0.74775 +- 0.0305	-0.07578	0.65766 +- 0.0451	-0.06837	0.63964 +- 0.0317
Kenya KenyaMisc.	-0.02083	0.48649 +- 0.0364	-0.06107	0.77477 +- 0.0454	-0.07578	0.62162 +- 0.0394	-0.06837	0.68468 +- 0.0364
Kenya Kikuyu	0.07339	0.00000 +- 0.0000	0.06142	0.00000 +- 0.0000	0.07216	0.02703 +- 0.0194	0.13688	0.00000 +- 0.0000
Kenya Somali	0.12860	0.00000 +- 0.0000	0.10814	0.00000 +- 0.0000	0.14358	0.00000 +- 0.0000	0.21749	0.00000 +- 0.0000
Kenya Swahili 2	0.04753	0.00000 +- 0.0000	0.03326	0.00000 +- 0.0000	0.03056	0.00000 +- 0.0000	0.09027	0.00000 +- 0.0000
Kenya Turkana	0.06750	0.00000 +- 0.0000	0.05485	0.00000 +- 0.0000	0.06324	0.00000 +- 0.0000	0.13269	0.00000 +- 0.0000
Madagascar Antaisakaa	0.19879	0.00000 +- 0.0000	0.21567	0.00901 +- 0.0091	0.25067	0.00901 +- 0.0091	0.32215	0.00000 +- 0.0000
Madagascar Antandroya	0.02861	0.11712 +- 0.0194	0.03617	0.05405 +- 0.0201	0.03522	0.06306 +- 0.0194	0.11984	0.00000 +- 0.0000
Madagascar Antanosy	0.12282	0.00000 +- 0.0000	0.14376	0.00000 +- 0.0000	0.16905	0.00000 +- 0.0000	0.23863	0.00000 +- 0.0000
Madagascar Madagascar Misc.	0.03439	0.00000 +- 0.0000	0.06631	0.00000 +- 0.0000	0.07984	0.00000 +- 0.0000	0.18291	0.00000 +- 0.0000
Madagascar Merinaa	0.05683	0.10811 +- 0.0264	0.11265	0.01802 +- 0.0121	0.14599	0.03604 +- 0.0201	0.24839	0.01802 +- 0.0121
Madagascar Sihanaka Merina Betsileo Bezanozano	0.06955	0.01802 +- 0.0121	0.12519	0.00000 +- 0.0000	0.15322	0.00000 +- 0.0000	0.25399	0.00000 +- 0.0000
Mozambique Mozambique Misc.	0.13048	0.00000 +- 0.0000	0.12762	0.00000 +- 0.0000	0.12916	0.00000 +- 0.0000	0.18369	0.00000 +- 0.0000
Rwanda Bantu	0.01669	0.06306 +- 0.0194	0.02937	0.02703 +- 0.0139	0.04494	0.00000 +- 0.0000	0.12748	0.00000 +- 0.0000
Rwanda Hutu	0.02870	0.00000 +- 0.0000	0.01835	0.05405 +- 0.0242	0.02153	0.03604 +- 0.0148	0.04946	0.00000 +- 0.0000
SouthAfrica !XunKhwe	0.30937	0.00000 +- 0.0000	0.32025	0.00000 +- 0.0000	0.34563	0.00000 +- 0.0000	0.41410	0.00000 +- 0.0000
SouthAfrica bantu	0.13482	0.13514 +- 0.0412	0.16206	0.09009 +- 0.0303	0.20652	0.03604 +- 0.0148	0.28251	0.00901 +- 0.0091
SouthAfrica khoisan	0.13150	0.09009 +- 0.0192	0.16206	0.10811 +- 0.0297	0.20255	0.03604 +- 0.0201	0.28251	0.00901 +- 0.0091
SouthAfrica Khwe	0.28534	0.00000 +- 0.0000	0.25074	0.00000 +- 0.0000	0.23369	0.00000 +- 0.0000	0.10582	0.00909 +- 0.0235
SouthAfrica Kung	0.16380	0.00000 +- 0.0000	0.15260	0.00000 +- 0.0000	0.15422	0.00000 +- 0.0000	0.19110	0.00000 +- 0.0000
SouthAfrica Misc.	-0.02083	0.49550 +- 0.0434	-0.06107	0.69369 +- 0.0385	-0.07578	0.66667 +- 0.0389	-0.06837	0.65766 +- 0.0490
Sudan Dinka	0.06738	0.00000 +- 0.0000	0.05103	0.00901 +- 0.0091	0.05356	0.00000 +- 0.0000	0.11530	0.00000 +- 0.0000
Sudan Nubia	0.08044	0.00000 +- 0.0000	0.06538	0.00000 +- 0.0000	0.09050	0.00000 +- 0.0000	0.14232	0.00000 +- 0.0000
Sudan Nuer	0.01263	0.31532 +- 0.0654	0.02378	0.19820 +- 0.0466	0.03344	0.21622 +- 0.0309	0.14289	0.00901 +- 0.0091
Sudan Shilluk	0.05621	0.13514 +- 0.0203	0.04814	0.18018 +- 0.0359	0.07037	0.14414 +- 0.0242	0.17692	0.00901 +- 0.0091
Tanzania Burunge	0.09099	0.00000 +- 0.0000	0.05473	0.00000 +- 0.0000	0.06695	0.00901 +- 0.0091	0.06233	0.00000 +- 0.0000
Tanzania Datog	0.15665	0.00000 +- 0.0000	0.14592	0.00000 +- 0.0000	0.16387	0.00000 +- 0.0000	0.22336	0.00000 +- 0.0000
Tanzania Datoga	0.07724	0.00000 +- 0.0000	0.07069	0.02703 +- 0.0139	0.07258	0.00000 +- 0.0000	0.18643	0.00000 +- 0.0000
Tanzania Hadza	0.08148	0.00000 +- 0.0000	0.07875	0.00000 +- 0.0000	0.11482	0.00000 +- 0.0000	0.18562	0.00000 +- 0.0000
Tanzania Hadzabe	0.23082	0.00000 +- 0.0000	0.20826	0.00000 +- 0.0000	0.24851	0.00000 +- 0.0000	0.32232	0.00000 +- 0.0000

Tanzania Iraqw	0.08203	0.04505 +- 0.0203	0.08012	0.03604 +- 0.0201	0.08200	0.02703 +- 0.0139	0.19323	0.00000 +- 0.0000
Tanzania Sandawe	0.11053	0.00000 +- 0.0000	0.10376	0.00000 +- 0.0000	0.09470	0.00000 +- 0.0000	0.20716	0.00000 +- 0.0000
Tanzania Sukuma	0.08115	0.00000 +- 0.0000	0.07576	0.00000 +- 0.0000	0.08318	0.00000 +- 0.0000	0.17356	0.00000 +- 0.0000
Tanzania Turu	0.02446	0.04505 +- 0.0152	0.00625	0.30631 +- 0.0473	0.01873	0.11712 +- 0.0305	0.07053	0.02703 +- 0.0139
Zimbabwe Shona	0.09762	0.00000 +- 0.0000	0.08754	0.00000 +- 0.0000	0.08351	0.00901 +- 0.0091	0.13600	0.00000 +- 0.0000
Comoros Comorian	0.00000	*	0.01284	0.01802 +- 0.0121	0.02147	0.00000 +- 0.0000	0.08640	0.00000 +- 0.0000
Kenya Swahili Kilifi	0.01284	0.01802 +- 0.0121	0.00000	*	-0.00160	0.45045 +- 0.0489	0.04976	0.00000 +- 0.0000
Kenya Swahili Lamu	0.02147	0.00000 +- 0.0000	-0.00160	0.45045 +- 0.0489	0.00000	*	0.02873	0.01802 +- 0.0121
Kenya Swahili Mombasa	0.08640	0.00000 +- 0.0000	0.04976	0.00000 +- 0.0000	0.02873	0.01802 +- 0.0121	0.00000	*
China Dai	0.18206	0.00000 +- 0.0000	0.19785	0.00000 +- 0.0000	0.22294	0.00000 +- 0.0000	0.25758	0.00000 +- 0.0000
China Han Beijing	0.16500	0.00000 +- 0.0000	0.17022	0.00000 +- 0.0000	0.19531	0.00000 +- 0.0000	0.22658	0.00000 +- 0.0000
China Han South	0.16673	0.00000 +- 0.0000	0.17191	0.00000 +- 0.0000	0.19645	0.00000 +- 0.0000	0.22807	0.00000 +- 0.0000
Japan Japanese	0.20145	0.00000 +- 0.0000	0.20366	0.00000 +- 0.0000	0.22793	0.00000 +- 0.0000	0.26183	0.00000 +- 0.0000
Vietnam Kinh	0.19734	0.00000 +- 0.0000	0.21764	0.00000 +- 0.0000	0.24274	0.00000 +- 0.0000	0.27943	0.00000 +- 0.0000
USA European	0.25678	0.00000 +- 0.0000	0.26085	0.00000 +- 0.0000	0.28714	0.00000 +- 0.0000	0.32041	0.00000 +- 0.0000
Bangladesh Bengali	0.30562	0.00000 +- 0.0000	0.34119	0.00000 +- 0.0000	0.36229	0.00000 +- 0.0000	0.42565	0.00000 +- 0.0000
India Gujarati	0.23839	0.00000 +- 0.0000	0.24971	0.00000 +- 0.0000	0.27111	0.00000 +- 0.0000	0.31226	0.00000 +- 0.0000
India Telugu	0.27827	0.00000 +- 0.0000	0.30380	0.00000 +- 0.0000	0.32489	0.00000 +- 0.0000	0.37631	0.00000 +- 0.0000
India Punjab	0.26216	0.00000 +- 0.0000	0.28343	0.00000 +- 0.0000	0.30588	0.00000 +- 0.0000	0.35249	0.00000 +- 0.0000
Sri Lanka Tamil	0.24803	0.00000 +- 0.0000	0.26228	0.00000 +- 0.0000	0.28465	0.00000 +- 0.0000	0.32629	0.00000 +- 0.0000
Indonesia Ma'anyan	0.23512	0.00000 +- 0.0000	0.24875	0.00000 +- 0.0000	0.27672	0.00000 +- 0.0000	0.32811	0.00000 +- 0.0000
Indonesia SK Dayak	0.18114	0.00000 +- 0.0000	0.19856	0.00000 +- 0.0000	0.22854	0.00000 +- 0.0000	0.27229	0.00000 +- 0.0000
Indonesia Java	0.19635	0.00000 +- 0.0000	0.21896	0.00000 +- 0.0000	0.24905	0.00000 +- 0.0000	0.29619	0.00000 +- 0.0000
Indonesia Bali	0.22255	0.00000 +- 0.0000	0.23589	0.00000 +- 0.0000	0.26412	0.00000 +- 0.0000	0.31417	0.00000 +- 0.0000
Indonesia Bajo	0.21308	0.00000 +- 0.0000	0.22987	0.00000 +- 0.0000	0.25870	0.00000 +- 0.0000	0.30641	0.00000 +- 0.0000

Table S6. Pairwise  $F_{ST}$  values obtained for Comoros and Swahili groups and each population using haplogroup mtDNA data. Comorian data were published previously<sup>4</sup>. P: p-value and its standard deviation.

	Comoros Comorian		Kenya Swahili Kilifi		Kenya Swahili Lamu		Kenya Swahili Mombasa	
	FST	P	FST	P	FST	P	FST	P
Madagascar Antaisaka	0.22133	0.01802 +- 0.0121	0.16549	0.00901 +- 0.0091	0.15091	0.11712 +- 0.0273	0.03102	0.16216 +-0.0503
Madagascar Antandroy	-0.00639	0.50450 +- 0.0338	0.02152	0.09009 +- 0.0271	-0.03220	0.45045 +- 0.0525	0.06505	0.00000 +-0.0000
Madagascar Antanosy	0.05773	0.00901 +- 0.0091	0.04603	0.00901 +- 0.0091	0.00624	0.36036 +- 0.0332	0.01709	0.00000 +-0.0000
Egypt Arab	0.36067	0.00000 +- 0.0000	0.30245	0.00000 +- 0.0000	0.29023	0.00000 +- 0.0000	0.18852	0.00000 +-0.0000
Egypt Misc.	0.34917	0.00000 +- 0.0000	0.28957	0.00000 +- 0.0000	0.26889	0.00000 +- 0.0000	0.18947	0.00000 +-0.0000
Ethiopia Amhara	0.38191	0.00000 +- 0.0000	0.30044	0.00000 +- 0.0000	0.31607	0.00000 +- 0.0000	0.19845	0.00000 +-0.0000
Ethiopia Jew	0.35148	0.00000 +- 0.0000	0.26169	0.00000 +- 0.0000	0.33847	0.00000 +- 0.0000	0.24869	0.00000 +-0.0000
Ethiopia Oromo	0.45885	0.00000 +- 0.0000	0.39560	0.00000 +- 0.0000	0.39814	0.00000 +- 0.0000	0.30035	0.00000 +-0.0000
Ethiopia South Semitic	0.43549	0.00000 +- 0.0000	0.34789	0.00000 +- 0.0000	0.33907	0.00000 +- 0.0000	0.23906	0.00000 +-0.0000
Kenya Bantu	0.09131	0.00000 +- 0.0000	0.05072	0.00000 +- 0.0000	0.05055	0.18018 +- 0.0407	0.05653	0.00000 +-0.0000
Kenya Kikuyu Kamba	0.13237	0.00000 +- 0.0000	0.11928	0.00000 +- 0.0000	-0.00898	0.40541 +- 0.0455	0.10652	0.00000 +-0.0000
Kenya Luo	-0.03574	0.74775 +- 0.0385	-0.05623	0.89189 +- 0.0165	0.02477	0.32432 +- 0.0411	0.07027	0.01802 +-0.0121
Kenya Masai	0.34386	0.00000 +- 0.0000	0.24649	0.00000 +- 0.0000	0.28799	0.01802 +- 0.0121	0.22714	0.00000 +-0.0000
Kenya Swahili Kilifi	0.00000	*	0.00952	0.18018 +- 0.0507	-0.03299	0.57658 +- 0.0454	0.08712	0.00000 +-0.0000
Kenya Swahili Lamu	0.00952	0.18018 +- 0.0507	0.00000	*	0.02466	0.25225 +- 0.0466	0.07524	0.00000 +-0.0000
Kenya Swahili Mombasa	-0.03299	0.57658 +- 0.0454	0.02466	0.25225 +- 0.0466	0.00000	*	0.04074	0.18018 +-0.0507
Madagascar Merina	0.27619	0.00000 +- 0.0000	0.22339	0.00000 +- 0.0000	0.24013	0.13514 +- 0.0339	0.11562	0.02703 +-0.0194
Mozambique Misc.	0.46463	0.00000 +- 0.0000	0.39984	0.00000 +- 0.0000	0.41213	0.01802 +- 0.0121	0.30322	0.00000 +-0.0000
Oman Arab	0.35410	0.00000 +- 0.0000	0.29724	0.00000 +- 0.0000	0.30234	0.00000 +- 0.0000	0.15291	0.00000 +-0.0000
Rwanda Hutu	0.04280	0.00901 +- 0.0091	0.13471	0.00000 +- 0.0000	-0.04383	0.61261 +- 0.0446	0.13310	0.00000 +-0.0000
Rwanda Tutsi	-0.00033	0.28829 +- 0.0445	0.05995	0.01802 +- 0.0121	-0.01716	0.62162 +- 0.0252	0.11905	0.00000 +-0.0000
Somalia Misc.Danish	0.62284	0.00000 +- 0.0000	0.59062	0.00000 +- 0.0000	0.59915	0.00000 +- 0.0000	0.42005	0.00000 +-0.0000
South Africa !Kung	0.12598	0.00000 +- 0.0000	0.04914	0.04505 +- 0.0152	0.15879	0.03604 +- 0.0148	0.12848	0.00000 +-0.0000
South Africa Khwe	0.08188	0.00000 +- 0.0000	0.07327	0.00000 +- 0.0000	-0.02456	0.45946 +- 0.0394	0.08779	0.00000 +-0.0000
South Africa Sotho-Tswana	-0.02140	0.97297 +- 0.0125	-0.00652	0.44144 +- 0.0497	-0.04546	0.74775 +- 0.0305	0.06496	0.00000 +-0.0000
South Africa Xhosa	0.08866	0.00000 +- 0.0000	0.08041	0.00901 +- 0.0091	0.06092	0.12613 +- 0.0242	0.04852	0.00000 +-0.0000
South Africa Zulu	0.03821	0.06306 +- 0.0237	0.01385	0.23423 +- 0.0338	0.03785	0.17117 +- 0.0417	0.03979	0.00000 +-0.0000
Sudan Arakien	0.50857	0.00000 +- 0.0000	0.43355	0.00000 +- 0.0000	0.48571	0.00000 +- 0.0000	0.24207	0.00000 +-0.0000
Sudan Beja	0.46732	0.00000 +- 0.0000	0.39763	0.00000 +- 0.0000	0.40065	0.00000 +- 0.0000	0.25567	0.00000 +-0.0000
Sudan Borgu	0.43746	0.00000 +- 0.0000	0.33658	0.00000 +- 0.0000	0.39619	0.00000 +- 0.0000	0.28662	0.00000 +-0.0000
Sudan Copte	0.40387	0.00000 +- 0.0000	0.31621	0.00000 +- 0.0000	0.34840	0.00000 +- 0.0000	0.19083	0.00000 +-0.0000
Sudan Dinka	0.54042	0.00000 +- 0.0000	0.41771	0.00000 +- 0.0000	0.69076	0.00000 +- 0.0000	0.38289	0.00000 +-0.0000
Sudan Fulani	0.47947	0.00000 +- 0.0000	0.40452	0.00000 +- 0.0000	0.41974	0.00000 +- 0.0000	0.27325	0.00000 +-0.0000

Sudan Fur	0.46152	0.00000 +- 0.0000	0.36795	0.00000 +- 0.0000	0.43053	0.00000 +- 0.0000	0.30100	0.00000 +- 0.0000
Sudan Gaalien	0.37250	0.00000 +- 0.0000	0.29725	0.00000 +- 0.0000	0.30816	0.00000 +- 0.0000	0.17020	0.00000 +- 0.0000
Sudan Hausa	0.31504	0.00000 +- 0.0000	0.21682	0.00000 +- 0.0000	0.29703	0.00000 +- 0.0000	0.19687	0.00000 +- 0.0000
Sudan Masalit	0.51606	0.00000 +- 0.0000	0.43749	0.00000 +- 0.0000	0.49377	0.00000 +- 0.0000	0.33334	0.00000 +- 0.0000
Sudan Meseria	0.41778	0.00000 +- 0.0000	0.33750	0.00000 +- 0.0000	0.34647	0.00000 +- 0.0000	0.18777	0.00000 +- 0.0000
Sudan Nuba	0.45964	0.00000 +- 0.0000	0.34225	0.00000 +- 0.0000	0.49133	0.00000 +- 0.0000	0.31958	0.00000 +- 0.0000
Sudan Nubian	0.39674	0.00000 +- 0.0000	0.31737	0.00000 +- 0.0000	0.32903	0.00000 +- 0.0000	0.18439	0.00000 +- 0.0000
Sudan Nuer	0.51236	0.00000 +- 0.0000	0.37588	0.00000 +- 0.0000	0.65383	0.00000 +- 0.0000	0.36358	0.00000 +- 0.0000
Sudan Shilluk	0.50406	0.00000 +- 0.0000	0.37055	0.00000 +- 0.0000	0.62500	0.00000 +- 0.0000	0.35640	0.00000 +- 0.0000
Tanzania Burunge	0.37516	0.00000 +- 0.0000	0.24614	0.00000 +- 0.0000	0.36418	0.00000 +- 0.0000	0.25015	0.00000 +- 0.0000
Tanzania Datog	0.38448	0.00000 +- 0.0000	0.30390	0.00000 +- 0.0000	0.27472	0.00901 +- 0.0091	0.22676	0.00000 +- 0.0000
Tanzania Datoga	0.48584	0.00000 +- 0.0000	0.43183	0.00000 +- 0.0000	0.42421	0.00000 +- 0.0000	0.31845	0.00000 +- 0.0000
Tanzania Hadza	0.30662	0.00000 +- 0.0000	0.18914	0.00000 +- 0.0000	0.366678	0.00000 +- 0.0000	0.24174	0.00000 +- 0.0000
Tanzania Hadzabe	0.39165	0.00000 +- 0.0000	0.29201	0.00000 +- 0.0000	0.42020	0.00000 +- 0.0000	0.28230	0.00000 +- 0.0000
Tanzania Iraqw	0.36505	0.00000 +- 0.0000	0.28104	0.00000 +- 0.0000	0.31874	0.00000 +- 0.0000	0.23815	0.00000 +- 0.0000
Tanzania Mbugwe	0.20190	0.00000 +- 0.0000	0.11269	0.00901 +- 0.0091	0.10026	0.19820 +- 0.0445	0.09437	0.00901 +- 0.0091
Tanzania Sandawe	0.11981	0.00000 +- 0.0000	0.06333	0.00000 +- 0.0000	0.06718	0.23423 +- 0.0511	0.10737	0.00000 +- 0.0000
Tanzania Sukuma	0.31457	0.00000 +- 0.0000	0.24579	0.00000 +- 0.0000	0.29826	0.00000 +- 0.0000	0.20164	0.00000 +- 0.0000
Tanzania Turu	0.08225	0.00901 +- 0.0091	0.04188	0.11712 +- 0.0237	0.02985	0.39640 +- 0.0653	0.06510	0.00000 +- 0.0000
Tanzania Wairak	0.13931	0.00000 +- 0.0000	0.10730	0.00000 +- 0.0000	0.04145	0.29730 +- 0.0508	0.11190	0.00000 +- 0.0000
Uganda Ganda	0.00615	0.27027 +- 0.0359	0.05438	0.02703 +- 0.0194	-0.04457	0.69369 +- 0.0385	0.08516	0.00000 +- 0.0000
Zimbabwe Shona	0.03028	0.06306 +- 0.0139	0.11362	0.00000 +- 0.0000	0.00952	0.19820 +- 0.0297	0.14341	0.00000 +- 0.0000
Comoros Comorian	0.08712	0.00000 +- 0.0000	0.07524	0.00000 +- 0.0000	0.04074	0.18018 +- 0.0507	0.00000	*
China Dai	0.49799	0.00000 +- 0.0000	0.43285	0.00000 +- 0.0000	0.48923	0.00000 +- 0.0000	0.28925	0.00000 +- 0.0000
China Han Beijing	0.45183	0.00000 +- 0.0000	0.38538	0.00000 +- 0.0000	0.42319	0.00000 +- 0.0000	0.27045	0.00000 +- 0.0000
China Han South	0.60733	0.00000 +- 0.0000	0.55936	0.00000 +- 0.0000	0.67531	0.00000 +- 0.0000	0.38534	0.00000 +- 0.0000
Japan Japanese	0.45257	0.00000 +- 0.0000	0.38223	0.00000 +- 0.0000	0.42575	0.00000 +- 0.0000	0.26225	0.00000 +- 0.0000
Vietnam Kinh	0.45933	0.00000 +- 0.0000	0.39451	0.00000 +- 0.0000	0.43410	0.00000 +- 0.0000	0.26924	0.00000 +- 0.0000
USA European	0.48312	0.00000 +- 0.0000	0.41541	0.00000 +- 0.0000	0.47299	0.00000 +- 0.0000	0.29936	0.00000 +- 0.0000
Bangladesh Bengali	0.37850	0.00000 +- 0.0000	0.30633	0.00000 +- 0.0000	0.32001	0.00000 +- 0.0000	0.19014	0.00000 +- 0.0000
India Gujarati	0.35382	0.00000 +- 0.0000	0.28611	0.00000 +- 0.0000	0.30344	0.00000 +- 0.0000	0.18798	0.00000 +- 0.0000
India Telugu	0.36831	0.00000 +- 0.0000	0.30297	0.00000 +- 0.0000	0.31964	0.00000 +- 0.0000	0.20173	0.00000 +- 0.0000
India Punjab	0.39609	0.00000 +- 0.0000	0.32845	0.00000 +- 0.0000	0.34838	0.00000 +- 0.0000	0.18738	0.00000 +- 0.0000
Sri Lanka Tamil	0.37230	0.00000 +- 0.0000	0.30561	0.00000 +- 0.0000	0.32179	0.00000 +- 0.0000	0.19263	0.00000 +- 0.0000
Indonesia Ma'anyan	0.44010	0.00000 +-	0.35350	0.00000 +-	0.38726	0.00000 +-	0.24043	0.00000 +- 0.0000

		0.0000		0.0000		0.0000		
Indonesia SK Dayak	0.41224	0.00000 +- 0.0000	0.32750	0.00000 +- 0.0000	0.34642	0.00000 +- 0.0000	0.22078	0.00000 +- 0.0000
Indonesia Java	0.43097	0.00000 +- 0.0000	0.35376	0.00000 +- 0.0000	0.37793	0.00000 +- 0.0000	0.23117	0.00000 +- 0.0000
Indonesia Bali	0.48353	0.00000 +- 0.0000	0.41079	0.00000 +- 0.0000	0.46152	0.00000 +- 0.0000	0.28300	0.00000 +- 0.0000
Indonesia Bajo	0.37479	0.00000 +- 0.0000	0.28730	0.00000 +- 0.0000	0.29482	0.00000 +- 0.0000	0.17628	0.00000 +- 0.0000

Table S7. Pairwise  $F_{ST}$  values obtained for Comoros and Swahili groups and each population using haplogroup NRY data. Comorian data were published previously<sup>4</sup>.  $P$ : p-value and its standard deviation.

	Comoros Comoros Anjouan		Comoros Comoros Grande Comore		Comoros Comoros Moheli		Kenya Swahili Kilifi		Kenya Swahili Lamu		Kenya Swahili Mombasa	
	F <sub>ST</sub>	S.D	F <sub>ST</sub>	S.D	F <sub>ST</sub>	S.D	F <sub>ST</sub>	S.D	F <sub>ST</sub>	S.D	F <sub>ST</sub>	S.D
Algeria Mozabite	0.056	6.0E-04	0.058	6.2E-04	0.055	6.3E-04	0.073	6.4E-04	0.074	6.3E-04	0.067	6.2E-04
Armenia Armenian	0.08	7.1E-04	0.081	7.1E-04	0.078	7.6E-04	0.103	7.1E-04	0.105	7.4E-04	0.098	6.9E-04
Bangladesh Bengali	0.072	6.5E-04	0.073	6.6E-04	0.07	6.8E-04	0.097	6.4E-04	0.099	6.5E-04	0.093	6.5E-04
Botswana GuiGhanakgal	0.052	6.7E-04	0.054	6.7E-04	0.051	6.9E-04	0.046	6.2E-04	0.047	6.4E-04	0.047	6.2E-04
Brunei Dusun	0.117	9.3E-04	0.117	9.6E-04	0.114	9.7E-04	0.146	9.8E-04	0.148	9.9E-04	0.143	9.6E-04
Brunei Murut	0.121	9.1E-04	0.12	9.6E-04	0.118	9.6E-04	0.15	9.6E-04	0.151	9.7E-04	0.146	9.4E-04
Bulgaria Bulgarian	0.111	7.2E-04	0.112	7.2E-04	0.109	7.4E-04	0.127	7.2E-04	0.128	7.4E-04	0.126	7.2E-04
Burkina Faso Gurmantche	0.014	3.5E-04	0.016	3.6E-04	0.014	3.5E-04	0.008	2.5E-04	0.008	2.4E-04	0.009	2.6E-04
Burkina Faso Gurunsi	0.015	3.4E-04	0.017	3.6E-04	0.014	3.4E-04	0.009	2.5E-04	0.009	2.5E-04	0.009	2.7E-04
Burkina Faso Mossi	0.015	3.5E-04	0.016	3.5E-04	0.014	3.6E-04	0.009	2.4E-04	0.009	2.4E-04	0.009	2.5E-04
Burma Burmese	0.09	8.0E-04	0.09	7.9E-04	0.087	8.2E-04	0.117	8.1E-04	0.118	8.1E-04	0.113	8.1E-04
Cambodia Cambodian	0.099	9.0E-04	0.099	9.4E-04	0.096	9.3E-04	0.127	9.3E-04	0.129	9.5E-04	0.124	9.4E-04
Cameroon Baka	0.038	5.2E-04	0.039	5.1E-04	0.037	5.2E-04	0.031	4.3E-04	0.032	4.4E-04	0.031	4.5E-04
Cameroon Nzime	0.012	3.0E-04	0.014	3.1E-04	0.012	3.1E-04	0.005	1.8E-04	0.006	1.8E-04	0.006	2.0E-04
CAR Biaka Pygmy	0.043	5.8E-04	0.044	5.5E-04	0.042	5.4E-04	0.036	5.1E-04	0.037	5.1E-04	0.037	5.3E-04
Chad Daza	0.025	3.9E-04	0.027	3.7E-04	0.024	4.1E-04	0.027	3.6E-04	0.027	3.6E-04	0.023	3.5E-04
Chad Fulani	0.023	4.5E-04	0.025	4.4E-04	0.022	4.5E-04	0.025	4.3E-04	0.026	4.3E-04	0.023	4.4E-04
Chad Kanembu	0.014	6.3E-04	0.016	6.3E-04	0.013	6.5E-04	0.012	6.0E-04	0.012	6.1E-04	0.01	6.1E-04
China Dai	0.111	8.9E-04	0.111	9.3E-04	0.108	9.1E-04	0.14	9.3E-04	0.141	9.5E-04	0.136	9.1E-04
China Han	0.11	9.0E-04	0.11	9.0E-04	0.107	9.4E-04	0.138	9.2E-04	0.14	9.4E-04	0.135	9.0E-04
Comoros Comoros Anjouan	-	-	0.007	2.9E-04	0.004	2.7E-04	0.008	2.6E-04	0.009	2.7E-04	0.008	2.8E-04
Comoros Comoros GdeComore	0.007	2.9E-04	-	-	0.004	2.7E-04	0.01	2.9E-04	0.01	2.8E-04	0.01	2.9E-04
Comoros Comoros Moheli	0.004	2.7E-04	0.004	2.7E-04	-	-	0.007	2.7E-04	0.008	2.8E-04	0.007	2.8E-04
Croatia Croatian	0.086	7.5E-04	0.087	7.3E-04	0.084	7.8E-04	0.11	7.6E-04	0.112	7.6E-04	0.105	7.5E-04
Cyprus Cypriot	0.081	7.7E-04	0.082	7.5E-04	0.079	8.0E-04	0.104	7.7E-04	0.106	7.8E-04	0.098	7.6E-04
DR Congo Mbuti Pygmy	0.078	8.5E-04	0.079	8.5E-04	0.077	8.6E-04	0.071	7.9E-04	0.072	7.9E-04	0.071	8.0E-04
Dubai Arab	0.04	4.9E-04	0.041	5.2E-04	0.039	5.5E-04	0.057	5.2E-04	0.059	5.3E-04	0.053	5.1E-04
Egypt Egyptian	0.054	6.6E-04	0.056	6.5E-04	0.053	7.1E-04	0.073	7.0E-04	0.074	6.9E-04	0.067	6.7E-04
Ethiopia Afar	0.037	5.3E-04	0.038	5.3E-04	0.035	5.6E-04	0.047	5.6E-04	0.047	5.7E-04	0.041	5.4E-04
Ethiopia Amhara	0.033	4.3E-04	0.035	4.5E-04	0.032	4.6E-04	0.044	4.5E-04	0.045	4.7E-04	0.038	4.4E-04
Ethiopia Anuak	0.026	3.7E-04	0.028	3.9E-04	0.025	3.7E-04	0.021	3.1E-04	0.021	3.1E-04	0.018	2.8E-04
Ethiopia Ari Blacksmith	0.055	6.8E-04	0.056	6.9E-04	0.054	6.8E-04	0.057	6.4E-04	0.058	6.5E-04	0.053	6.4E-04
Ethiopia Ari Cultivator	0.034	4.0E-04	0.035	4.0E-04	0.033	4.0E-04	0.037	3.8E-04	0.037	3.7E-04	0.032	3.6E-04
Ethiopia Ethiopian Jews	0.032	5.0E-04	0.033	5.0E-04	0.031	5.2E-04	0.042	5.1E-04	0.042	5.2E-04	0.036	4.9E-04
Ethiopia Ethiopians	0.035	6.8E-04	0.036	7.0E-04	0.033	6.9E-04	0.045	7.1E-04	0.046	7.2E-04	0.04	7.0E-04
Ethiopia Gumuz	0.037	4.6E-04	0.038	4.6E-04	0.036	4.6E-04	0.035	4.0E-04	0.035	4.2E-04	0.031	3.9E-04
Ethiopia Oromo	0.027	3.6E-04	0.028	3.8E-04	0.026	4.0E-04	0.034	3.6E-04	0.035	3.9E-04	0.029	3.6E-04
Ethiopia Somali	0.031	4.6E-04	0.032	4.5E-04	0.03	4.6E-04	0.038	4.6E-04	0.039	4.7E-04	0.032	4.2E-04
Ethiopia Tygray	0.034	4.4E-04	0.036	4.4E-04	0.032	4.7E-04	0.045	4.5E-04	0.046	4.7E-04	0.039	4.4E-04
Ethiopia Wolayta	0.027	5.2E-04	0.028	5.0E-04	0.025	5.2E-04	0.033	5.2E-04	0.034	5.1E-04	0.028	5.0E-04

France French	0.087	7.6E-04	0.088	7.4E-04	0.085	7.8E-04	0.11	7.5E-04	0.112	7.6E-04	0.105	7.5E-04
Gabon Baka	0.038	5.5E-04	0.04	5.4E-04	0.038	5.4E-04	0.031	4.6E-04	0.032	4.8E-04	0.032	4.7E-04
Gabon Bongo	0.024	3.9E-04	0.026	3.9E-04	0.024	4.1E-04	0.017	2.9E-04	0.017	2.9E-04	0.018	3.1E-04
Gabon Nzebi	0.012	3.0E-04	0.014	3.2E-04	0.011	3.2E-04	0.005	2.0E-04	0.005	2.0E-04	0.006	2.2E-04
Gambia Gambian	0.016	3.3E-04	0.018	3.2E-04	0.016	3.3E-04	0.011	2.2E-04	0.011	2.2E-04	0.011	2.4E-04
Georgia Abkhasian	0.083	7.4E-04	0.084	7.5E-04	0.081	7.9E-04	0.106	7.3E-04	0.108	7.5E-04	0.101	7.2E-04
Georgia Abkhasian	0.082	1.2E-03	0.083	1.2E-03	0.08	1.3E-03	0.105	1.2E-03	0.107	1.2E-03	0.1	1.2E-03
Georgia Balkar	0.079	7.8E-04	0.08	7.5E-04	0.077	8.0E-04	0.102	7.5E-04	0.105	7.9E-04	0.098	7.6E-04
Georgia Chechen	0.084	8.1E-04	0.085	8.2E-04	0.081	8.5E-04	0.107	8.2E-04	0.109	8.2E-04	0.102	8.1E-04
Georgia Georgian	0.084	7.5E-04	0.084	7.4E-04	0.081	7.9E-04	0.107	7.2E-04	0.109	7.5E-04	0.101	7.2E-04
Georgia Georgians	0.084	7.8E-04	0.084	8.0E-04	0.081	8.4E-04	0.107	7.7E-04	0.109	7.9E-04	0.102	7.7E-04
Greece Greek	0.091	6.4E-04	0.092	6.3E-04	0.089	6.7E-04	0.109	6.5E-04	0.11	6.7E-04	0.106	6.4E-04
Hungary Hungarian	0.086	7.6E-04	0.087	7.4E-04	0.084	8.1E-04	0.109	7.8E-04	0.111	8.0E-04	0.105	7.8E-04
India Birhor	0.098	8.9E-04	0.099	9.0E-04	0.096	9.2E-04	0.123	9.2E-04	0.125	9.1E-04	0.119	9.0E-04
India Brahmin	0.072	6.6E-04	0.073	6.6E-04	0.07	6.7E-04	0.096	6.5E-04	0.098	6.5E-04	0.091	6.5E-04
India Brahmins from Uttar Pradesh	0.073	7.9E-04	0.074	7.9E-04	0.071	8.4E-04	0.097	8.2E-04	0.099	8.2E-04	0.093	8.2E-04
India Chamar	0.078	7.4E-04	0.079	7.6E-04	0.076	7.9E-04	0.102	7.7E-04	0.104	7.6E-04	0.098	7.7E-04
India Dharkar	0.078	7.7E-04	0.078	8.0E-04	0.076	7.9E-04	0.102	7.9E-04	0.103	7.9E-04	0.098	8.0E-04
India Dusadh	0.075	8.6E-04	0.076	8.7E-04	0.073	9.0E-04	0.099	8.7E-04	0.101	8.8E-04	0.095	8.6E-04
India Gond	0.079	7.1E-04	0.08	7.1E-04	0.077	7.3E-04	0.103	7.1E-04	0.105	7.1E-04	0.1	7.2E-04
India Gujarat Brahmin	0.072	6.4E-04	0.073	6.6E-04	0.07	6.9E-04	0.096	6.6E-04	0.098	6.7E-04	0.092	6.4E-04
India Gujarati	0.071	6.3E-04	0.073	6.3E-04	0.07	6.9E-04	0.096	6.3E-04	0.097	6.5E-04	0.092	6.3E-04
India Ho	0.085	7.4E-04	0.086	7.6E-04	0.083	7.6E-04	0.111	7.6E-04	0.112	7.7E-04	0.107	7.6E-04
India Indian	0.074	6.6E-04	0.076	6.5E-04	0.073	6.8E-04	0.099	6.4E-04	0.1	6.5E-04	0.095	6.6E-04
India Irula	0.099	8.4E-04	0.1	8.6E-04	0.097	8.7E-04	0.123	8.8E-04	0.125	9.0E-04	0.119	8.7E-04
India Iyer	0.073	6.4E-04	0.073	6.7E-04	0.071	6.9E-04	0.097	6.5E-04	0.098	6.6E-04	0.092	6.5E-04
India Jamatia	0.098	8.5E-04	0.097	8.6E-04	0.095	9.0E-04	0.125	8.6E-04	0.126	8.8E-04	0.121	8.8E-04
India Jarawa	0.164	1.4E-03	0.165	1.4E-03	0.163	1.4E-03	0.187	1.4E-03	0.189	1.4E-03	0.184	1.4E-03
India Kadar	0.091	7.7E-04	0.092	8.1E-04	0.09	8.1E-04	0.115	8.0E-04	0.117	8.1E-04	0.112	8.1E-04
India Kanjars	0.079	8.1E-04	0.08	8.5E-04	0.077	8.7E-04	0.103	8.4E-04	0.104	8.3E-04	0.099	8.5E-04
India Khatri	0.073	6.7E-04	0.074	6.9E-04	0.071	7.2E-04	0.096	6.9E-04	0.099	6.9E-04	0.092	6.7E-04
India Kol	0.076	7.1E-04	0.077	7.2E-04	0.074	7.6E-04	0.1	7.1E-04	0.102	7.3E-04	0.096	7.2E-04
India Korva	0.097	8.5E-04	0.098	8.6E-04	0.095	8.5E-04	0.122	8.3E-04	0.124	8.5E-04	0.119	8.5E-04
India Kshatriya	0.073	7.9E-04	0.074	7.8E-04	0.071	8.0E-04	0.096	7.9E-04	0.098	8.0E-04	0.092	8.1E-04
India Manipuri Brahmin	0.081	7.4E-04	0.081	7.5E-04	0.078	7.6E-04	0.107	7.4E-04	0.109	7.6E-04	0.103	7.6E-04
India Maratha	0.075	8.1E-04	0.076	8.2E-04	0.073	8.6E-04	0.099	8.4E-04	0.101	8.4E-04	0.095	8.5E-04
India Muslim	0.074	8.8E-04	0.075	8.9E-04	0.072	9.1E-04	0.098	9.2E-04	0.1	9.2E-04	0.095	9.2E-04
India North Kannadi	0.083	8.3E-04	0.084	8.3E-04	0.081	8.5E-04	0.107	8.1E-04	0.11	8.4E-04	0.103	8.3E-04
India Onge	0.171	1.5E-03	0.172	1.5E-03	0.169	1.5E-03	0.194	1.5E-03	0.195	1.5E-03	0.191	1.5E-03
India Palian	0.076	6.9E-04	0.077	6.7E-04	0.074	7.0E-04	0.1	6.6E-04	0.102	6.8E-04	0.097	6.7E-04
India Paniya	0.108	9.6E-04	0.108	9.3E-04	0.106	9.4E-04	0.131	9.4E-04	0.133	9.5E-04	0.128	9.4E-04
India Piramalai Kallar	0.082	8.5E-04	0.082	8.4E-04	0.079	8.5E-04	0.105	8.4E-04	0.107	8.5E-04	0.102	8.5E-04
India Pulliyar	0.12	1.5E-03	0.121	1.5E-03	0.118	1.5E-03	0.143	1.5E-03	0.145	1.5E-03	0.14	1.5E-03
India Punjabi	0.072	6.5E-04	0.073	6.6E-04	0.07	6.9E-04	0.096	6.4E-04	0.098	6.5E-04	0.092	6.4E-04

India Santal	0.088	7.7E-04	0.088	7.7E-04	0.086	7.9E-04	0.113	7.7E-04	0.114	7.7E-04	0.109	7.8E-04
India Tharu	0.086	7.6E-04	0.087	7.8E-04	0.084	7.8E-04	0.112	7.7E-04	0.113	7.9E-04	0.108	7.9E-04
India Tripuri	0.093	8.4E-04	0.093	8.4E-04	0.09	8.7E-04	0.12	8.6E-04	0.122	8.8E-04	0.117	8.6E-04
India Uttar Pradesh Scheduled Caste	0.076	9.2E-04	0.077	9.6E-04	0.074	9.4E-04	0.1	9.7E-04	0.102	9.7E-04	0.096	9.6E-04
India Velama	0.079	7.7E-04	0.08	7.8E-04	0.077	8.1E-04	0.103	8.1E-04	0.105	8.1E-04	0.099	7.8E-04
India West Bengal Brahmin	0.071	6.6E-04	0.072	6.7E-04	0.069	7.0E-04	0.096	6.7E-04	0.097	6.9E-04	0.091	6.7E-04
Indonesia Bajo	0.103	8.3E-04	0.103	8.7E-04	0.1	8.7E-04	0.131	8.6E-04	0.132	8.7E-04	0.127	8.6E-04
Indonesia Bajo Derawan	0.107	9.0E-04	0.106	9.1E-04	0.104	9.3E-04	0.135	9.1E-04	0.136	9.2E-04	0.131	9.1E-04
Indonesia Bajo Kotabaru	0.116	9.3E-04	0.116	9.4E-04	0.114	9.6E-04	0.144	9.6E-04	0.146	9.8E-04	0.141	9.5E-04
Madagascar Antemoro	0.011	3.1E-04	0.013	3.3E-04	0.01	2.9E-04	0.02	3.6E-04	0.021	3.7E-04	0.019	3.5E-04
Madagascar Mikea	0.015	3.7E-04	0.016	3.7E-04	0.013	3.7E-04	0.024	4.5E-04	0.024	4.6E-04	0.023	4.5E-04
Madagascar Vezo	0.014	3.5E-04	0.014	3.5E-04	0.011	3.2E-04	0.022	3.9E-04	0.024	3.9E-04	0.022	4.1E-04
Indonesia Banjar	0.104	8.5E-04	0.104	8.7E-04	0.101	9.0E-04	0.133	8.8E-04	0.135	8.9E-04	0.129	8.8E-04
Indonesia Bugis	0.105	8.4E-04	0.105	8.8E-04	0.102	8.8E-04	0.133	8.6E-04	0.135	8.6E-04	0.13	8.5E-04
Indonesia Dayak	0.108	8.5E-04	0.108	8.9E-04	0.105	8.9E-04	0.137	8.8E-04	0.139	8.9E-04	0.134	8.8E-04
Indonesia Dayak Ngaju	0.107	8.7E-04	0.107	8.9E-04	0.105	9.0E-04	0.136	8.8E-04	0.138	8.9E-04	0.133	8.8E-04
Indonesia Lebbo	0.126	1.0E-03	0.126	1.0E-03	0.124	1.0E-03	0.155	1.0E-03	0.156	1.1E-03	0.151	1.0E-03
Indonesia Maanyan	0.113	8.8E-04	0.113	9.1E-04	0.11	9.2E-04	0.142	9.1E-04	0.144	9.2E-04	0.139	9.0E-04
Indonesia Samihim	0.114	9.4E-04	0.115	9.3E-04	0.112	9.5E-04	0.144	9.5E-04	0.145	9.6E-04	0.14	9.3E-04
Indonesia Samihin	0.101	8.4E-04	0.101	8.6E-04	0.098	8.5E-04	0.129	8.5E-04	0.131	8.6E-04	0.126	8.4E-04
Irak Kurd Jew	0.08	8.0E-04	0.08	8.2E-04	0.077	8.4E-04	0.102	8.1E-04	0.104	8.3E-04	0.097	8.2E-04
Iran Azeri	0.075	7.0E-04	0.076	7.1E-04	0.073	7.5E-04	0.098	6.9E-04	0.1	7.1E-04	0.093	6.9E-04
Iran Iranian	0.065	6.2E-04	0.066	6.3E-04	0.063	6.7E-04	0.087	6.3E-04	0.089	6.4E-04	0.082	6.2E-04
Iran Iranian Jew	0.085	8.1E-04	0.085	7.9E-04	0.082	8.4E-04	0.108	8.2E-04	0.109	8.3E-04	0.102	8.1E-04
Iraq Iraqi Jews	0.082	8.1E-04	0.083	8.1E-04	0.08	8.5E-04	0.105	8.2E-04	0.107	8.4E-04	0.099	8.1E-04
Israel Bedouin	0.072	7.0E-04	0.073	6.8E-04	0.07	7.3E-04	0.093	6.9E-04	0.095	7.1E-04	0.087	6.7E-04
Israel Druze	0.081	7.0E-04	0.082	7.0E-04	0.079	7.5E-04	0.104	7.0E-04	0.106	7.2E-04	0.098	6.9E-04
Israel Palestinian	0.071	6.7E-04	0.072	6.6E-04	0.069	7.3E-04	0.092	6.8E-04	0.094	7.0E-04	0.086	6.8E-04
Italy East Sicilian	0.234	1.3E-03	0.235	1.4E-03	0.233	1.4E-03	0.246	1.3E-03	0.247	1.3E-03	0.247	1.4E-03
Italy Italian Abruzzo	0.083	8.0E-04	0.084	7.8E-04	0.081	8.5E-04	0.106	8.1E-04	0.108	8.1E-04	0.101	8.0E-04
Italy Italian Bergamo	0.087	8.3E-04	0.088	8.1E-04	0.085	8.6E-04	0.11	8.2E-04	0.112	8.4E-04	0.105	8.1E-04
Italy Sardinian	0.095	7.6E-04	0.096	7.7E-04	0.093	8.2E-04	0.117	7.8E-04	0.119	8.1E-04	0.112	7.6E-04
Italy Sicilian	0.08	7.6E-04	0.081	7.5E-04	0.077	8.0E-04	0.102	7.5E-04	0.104	7.8E-04	0.097	7.4E-04
Italy South Italian	0.236	1.3E-03	0.237	1.3E-03	0.234	1.3E-03	0.247	1.3E-03	0.248	1.3E-03	0.248	1.3E-03
Italy Tuscan	0.084	7.5E-04	0.085	7.4E-04	0.082	7.8E-04	0.107	7.3E-04	0.109	7.5E-04	0.102	7.4E-04
Italy West Sicilian	0.235	1.4E-03	0.236	1.4E-03	0.234	1.4E-03	0.247	1.3E-03	0.248	1.3E-03	0.248	1.4E-03
Jordania Jordanian	0.065	6.5E-04	0.066	6.7E-04	0.063	7.2E-04	0.085	6.8E-04	0.087	7.1E-04	0.08	6.6E-04
Kazakhstan Kurd	0.079	8.8E-04	0.08	9.1E-04	0.078	9.3E-04	0.103	8.8E-04	0.104	8.9E-04	0.097	8.8E-04
Kenya BantuKenya	0.01	3.8E-04	0.012	3.9E-04	0.01	3.7E-04	0.004	2.8E-04	0.004	2.8E-04	0.003	2.9E-04
Kenya Luhya	0.01	2.8E-04	0.012	3.1E-04	0.01	2.8E-04	0.004	1.7E-04	0.004	1.7E-04	0.003	1.7E-04
Kenya Samburu	0.024	4.4E-04	0.025	4.5E-04	0.022	4.7E-04	0.027	4.6E-04	0.028	4.7E-04	0.023	4.3E-04
Kenya Swahili Kilifi	0.008	2.6E-04	0.01	2.9E-04	0.007	2.7E-04	-	-	0.001	1.5E-04	0.001	1.8E-04
Kenya Swahili Lamu	0.009	2.7E-04	0.01	2.8E-04	0.008	2.8E-04	0.001	1.5E-04	-	-	0.002	1.7E-04

Kenya Swahili Mombasa	0.008	2.8E-04	0.01	2.9E-04	0.007	2.8E-04	0.001	1.8E-04	0.002	1.7E-04	-	-
Kenya Turkana	0.017	4.5E-04	0.018	4.5E-04	0.016	4.6E-04	0.023	4.6E-04	0.024	4.6E-04	0.019	4.2E-04
Lebanon Lebanese	0.073	8.1E-04	0.074	8.3E-04	0.071	8.7E-04	0.095	8.2E-04	0.097	8.4E-04	0.089	8.3E-04
Lebanon Lebanese Christian	0.081	7.1E-04	0.081	7.0E-04	0.078	7.5E-04	0.103	6.9E-04	0.105	7.1E-04	0.097	6.9E-04
Lebanon Lebanese Druze	0.079	7.2E-04	0.08	7.0E-04	0.077	7.4E-04	0.102	7.0E-04	0.103	7.2E-04	0.096	6.9E-04
Lebanon Lebanese Muslim	0.074	6.7E-04	0.075	6.7E-04	0.072	7.2E-04	0.096	6.6E-04	0.098	6.8E-04	0.091	6.6E-04
Lybia Lybian Jew	0.082	9.8E-04	0.083	9.4E-04	0.08	9.8E-04	0.104	9.7E-04	0.106	9.8E-04	0.099	9.6E-04
Malaysia Malay	0.095	8.0E-04	0.095	8.2E-04	0.092	8.4E-04	0.123	8.4E-04	0.125	8.4E-04	0.12	8.3E-04
Morocco Moroccan	0.106	7.3E-04	0.107	7.4E-04	0.105	7.4E-04	0.119	7.3E-04	0.12	7.3E-04	0.118	7.2E-04
Namibia Damara	0.021	4.9E-04	0.023	5.1E-04	0.021	5.2E-04	0.015	4.4E-04	0.015	4.3E-04	0.015	4.6E-04
Namibia Haihom	0.036	6.6E-04	0.037	6.6E-04	0.035	6.5E-04	0.032	6.3E-04	0.033	5.9E-04	0.031	6.2E-04
Namibia Juhoansi	0.096	8.9E-04	0.098	8.4E-04	0.095	8.5E-04	0.092	8.1E-04	0.093	8.2E-04	0.092	8.4E-04
Namibia Kwangali	0.012	4.8E-04	0.014	4.9E-04	0.012	4.6E-04	0.005	3.8E-04	0.006	3.8E-04	0.006	4.1E-04
Namibia Mbukushu	0.014	4.6E-04	0.016	4.7E-04	0.013	4.7E-04	0.007	3.6E-04	0.007	3.7E-04	0.008	3.8E-04
Namibia Nama	0.039	5.0E-04	0.04	4.9E-04	0.038	4.8E-04	0.038	4.6E-04	0.039	4.7E-04	0.036	4.7E-04
Nigeria Esan	0.014	3.1E-04	0.015	3.2E-04	0.013	3.2E-04	0.007	1.9E-04	0.007	1.9E-04	0.008	2.2E-04
Nigeria Yoruba	0.013	3.1E-04	0.015	3.1E-04	0.013	3.1E-04	0.007	1.9E-04	0.007	1.9E-04	0.007	1.9E-04
Oman Omani	0.04	4.9E-04	0.041	5.2E-04	0.038	5.3E-04	0.057	5.1E-04	0.058	5.2E-04	0.053	4.9E-04
Pakistan Balochi	0.074	6.8E-04	0.075	6.9E-04	0.071	7.3E-04	0.097	6.9E-04	0.098	7.0E-04	0.092	6.7E-04
Pakistan Brahui	0.075	6.8E-04	0.076	6.9E-04	0.073	7.4E-04	0.098	7.0E-04	0.1	7.1E-04	0.093	6.7E-04
Pakistan Burusho	0.074	6.7E-04	0.075	6.7E-04	0.072	7.1E-04	0.098	6.7E-04	0.1	6.8E-04	0.094	6.8E-04
Pakistan Hazara	0.074	7.1E-04	0.074	7.2E-04	0.071	7.5E-04	0.099	7.0E-04	0.102	7.2E-04	0.095	6.9E-04
Pakistan Kalash	0.098	8.3E-04	0.1	8.2E-04	0.097	8.8E-04	0.122	8.5E-04	0.124	8.5E-04	0.118	8.5E-04
Pakistan Makrani	0.07	6.6E-04	0.071	6.6E-04	0.068	7.2E-04	0.093	7.0E-04	0.095	6.9E-04	0.088	6.7E-04
Pakistan Pathan	0.072	6.4E-04	0.073	6.6E-04	0.07	6.9E-04	0.096	6.5E-04	0.098	6.6E-04	0.092	6.4E-04
Pakistan Punjabi	0.076	7.9E-04	0.077	7.8E-04	0.074	8.1E-04	0.1	7.8E-04	0.102	8.0E-04	0.096	7.9E-04
Pakistan Sindhi	0.071	6.5E-04	0.072	6.4E-04	0.069	7.0E-04	0.095	6.5E-04	0.097	6.7E-04	0.091	6.5E-04
Papua New Guinea Papuan	0.192	1.5E-03	0.191	1.5E-03	0.19	1.6E-03	0.212	1.6E-03	0.215	1.6E-03	0.21	1.6E-03
Philippines Igorot	0.14	1.0E-03	0.14	9.8E-04	0.137	1.0E-03	0.169	1.0E-03	0.17	1.0E-03	0.166	1.0E-03
Romania Romanian	0.082	7.3E-04	0.082	7.2E-04	0.08	7.8E-04	0.105	7.4E-04	0.107	7.5E-04	0.1	7.3E-04
Russia Azeri	0.079	9.4E-04	0.079	9.1E-04	0.077	9.3E-04	0.102	9.4E-04	0.104	9.6E-04	0.097	9.4E-04
Saudi Arabia Arab	0.065	6.2E-04	0.066	6.5E-04	0.063	6.9E-04	0.084	6.6E-04	0.086	6.7E-04	0.078	6.5E-04
Saudi Arabia Saudi	0.073	6.9E-04	0.074	7.0E-04	0.071	7.6E-04	0.094	7.1E-04	0.096	7.3E-04	0.088	6.9E-04
Senegal Mandenka	0.019	3.3E-04	0.02	3.4E-04	0.018	3.4E-04	0.013	2.3E-04	0.013	2.4E-04	0.013	2.6E-04
Sierra Leone Mende	0.015	3.0E-04	0.017	3.0E-04	0.015	3.1E-04	0.009	1.9E-04	0.009	1.8E-04	0.009	2.0E-04
Singapore Malay	0.097	8.1E-04	0.097	8.3E-04	0.094	8.6E-04	0.125	8.4E-04	0.127	8.4E-04	0.122	8.4E-04
Somalia Somali	0.027	3.9E-04	0.028	3.9E-04	0.025	3.7E-04	0.032	3.8E-04	0.033	4.0E-04	0.028	3.6E-04
South Africa Namibia Khwe	0.024	4.2E-04	0.025	4.2E-04	0.024	4.2E-04	0.019	3.6E-04	0.019	3.6E-04	0.019	3.5E-04
South Africa Namibia Xun	0.064	7.4E-04	0.065	7.0E-04	0.063	7.1E-04	0.059	6.7E-04	0.059	7.0E-04	0.059	7.0E-04
South Africa Bantu Soweto	0.012	3.2E-04	0.014	3.1E-04	0.012	3.2E-04	0.006	1.9E-04	0.006	2.0E-04	0.007	2.1E-04
South Africa BantuSA	0.012	4.5E-04	0.014	4.6E-04	0.011	4.5E-04	0.005	3.6E-04	0.005	3.6E-04	0.006	3.7E-04
South Africa ColouredColesberg	0.018	3.7E-04	0.019	3.7E-04	0.017	3.5E-04	0.022	3.4E-04	0.023	3.6E-04	0.02	3.6E-04

South Africa Coloured	0.021	3.6E-04	0.022	3.8E-04	0.019	4.1E-04	0.034	4.2E-04	0.035	4.4E-04	0.031	4.2E-04
South Africa Wellington	0.054	6.3E-04	0.056	6.3E-04	0.053	6.4E-04	0.053	6.0E-04	0.054	6.1E-04	0.052	6.1E-04
South Africa Karretjie	0.044	5.3E-04	0.045	5.1E-04	0.043	5.0E-04	0.045	4.8E-04	0.046	4.9E-04	0.044	4.9E-04
South Africa Khomani	0.013	3.1E-04	0.015	3.3E-04	0.012	3.1E-04	0.006	2.1E-04	0.006	2.2E-04	0.007	2.2E-04
South Africa SEBantu	0.016	4.0E-04	0.018	4.2E-04	0.015	4.2E-04	0.012	3.4E-04	0.012	3.2E-04	0.012	3.4E-04
South Africa SWBantu	0.075	6.7E-04	0.076	6.6E-04	0.073	7.0E-04	0.096	6.6E-04	0.098	6.9E-04	0.092	6.6E-04
Sri Lanka Sri Lankan	0.074	6.7E-04	0.075	6.8E-04	0.072	7.0E-04	0.098	6.7E-04	0.1	6.8E-04	0.094	6.7E-04
Sudan Arab	0.032	4.6E-04	0.033	4.7E-04	0.03	4.8E-04	0.042	5.0E-04	0.043	5.0E-04	0.037	4.7E-04
Sudan Nubian	0.033	4.8E-04	0.035	5.1E-04	0.032	5.4E-04	0.044	5.4E-04	0.046	5.5E-04	0.039	5.4E-04
Sudan Sudanese	0.026	3.6E-04	0.027	3.9E-04	0.025	3.7E-04	0.021	3.0E-04	0.021	3.0E-04	0.017	2.7E-04
Syria Syrians	0.071	7.2E-04	0.072	7.2E-04	0.069	7.7E-04	0.093	7.3E-04	0.095	7.4E-04	0.088	7.2E-04
Tanzania Hazda	0.06	7.8E-04	0.061	7.6E-04	0.059	8.0E-04	0.057	7.4E-04	0.058	7.6E-04	0.055	7.6E-04
Tanzania San	0.052	6.0E-04	0.054	5.7E-04	0.052	5.9E-04	0.051	5.5E-04	0.052	5.6E-04	0.05	5.5E-04
Tanzania Sandawe	0.021	3.5E-04	0.023	3.5E-04	0.02	3.4E-04	0.02	2.9E-04	0.021	3.0E-04	0.018	3.0E-04
Tunisia Tunisian	0.228	1.4E-03	0.228	1.4E-03	0.226	1.4E-03	0.239	1.4E-03	0.24	1.4E-03	0.24	1.4E-03
Turkey Turks	0.076	7.2E-04	0.077	7.2E-04	0.074	7.8E-04	0.099	7.1E-04	0.102	7.4E-04	0.094	7.1E-04
Turkmenistan Turkmen	0.073	7.6E-04	0.073	7.7E-04	0.07	7.9E-04	0.096	7.5E-04	0.099	7.7E-04	0.092	7.7E-04
UAE Arab	0.228	1.4E-03	0.229	1.4E-03	0.227	1.4E-03	0.24	1.3E-03	0.241	1.4E-03	0.241	1.4E-03
Uganda Bakiga	0.011	2.7E-04	0.012	2.9E-04	0.009	2.6E-04	0.005	1.8E-04	0.005	1.9E-04	0.004	2.0E-04
Uganda Batwa	0.045	5.6E-04	0.047	5.9E-04	0.045	5.8E-04	0.04	5.3E-04	0.041	5.3E-04	0.04	5.3E-04
USA CEU	0.088	7.8E-04	0.089	7.5E-04	0.086	8.1E-04	0.111	7.6E-04	0.114	8.0E-04	0.107	7.5E-04
Vietnam Kinh	0.107	8.8E-04	0.107	8.9E-04	0.104	9.1E-04	0.135	9.0E-04	0.137	9.1E-04	0.132	8.9E-04
Vietnam Vietnamese	0.109	9.2E-04	0.108	9.3E-04	0.105	9.5E-04	0.137	9.4E-04	0.138	9.6E-04	0.133	9.4E-04
Yemen Yemeni	0.065	6.4E-04	0.067	6.4E-04	0.064	7.1E-04	0.085	6.4E-04	0.087	6.6E-04	0.079	6.2E-04
Yemen Yemenite Jews	0.08	7.7E-04	0.081	7.5E-04	0.078	8.0E-04	0.101	7.8E-04	0.103	8.0E-04	0.095	7.8E-04

Table S8. Pairwise  $F_{ST}$  values obtained for Comoros and Swahili groups and each population of the low SNP density dataset. S.D: standard deviation.

Target	Source1	Source2	$f\beta$	SE	Z
Comoros Comoros Anjouan	South Africa Bantu Soweto	Indonesia Lebbo	-0.014295	0.000336	-42.503
Comoros Comoros Anjouan	South Africa Bantu Soweto	Indonesia Banjar	-0.014289	0.000306	-46.694
Comoros Comoros Anjouan	South Africa Bantu Soweto	Brunei Dusun	-0.014259	0.000315	-45.288
Comoros Comoros Anjouan	South Africa Bantu Soweto	Indonesia Samihim	-0.014255	0.00032	-44.556
Comoros Comoros Anjouan	South Africa Bantu Soweto	Philippines Igorot	-0.01424	0.000342	-41.582
Comoros Comoros GdeComore	South Africa Bantu Soweto	Philippines Igorot	-0.013771	0.000348	-39.568
Comoros Comoros GdeComore	South Africa Bantu Soweto	Brunei Dusun	-0.013715	0.000331	-41.441
Comoros Comoros GdeComore	South Africa Bantu Soweto	Indonesia Samihim	-0.013666	0.000333	-41.079
Comoros Comoros GdeComore	South Africa Bantu Soweto	Brunei Murut	-0.013652	0.000331	-41.212
Comoros Comoros GdeComore	South Africa Bantu Soweto	Indonesia Banjar	-0.013615	0.000316	-43.064
Comoros Comoros Moheli	South Africa Bantu Soweto	Brunei Murut	-0.015918	0.000319	-49.966
Comoros Comoros Moheli	South Africa Bantu Soweto	Philippines Igorot	-0.01584	0.000344	-46.096
Comoros Comoros Moheli	South Africa Bantu Soweto	Brunei Dusun	-0.015838	0.000311	-51.003
Comoros Comoros Moheli	South Africa Bantu Soweto	Indonesia Banjar	-0.015802	0.000306	-51.611
Comoros Comoros Moheli	South Africa Bantu Soweto	Indonesia Dayak	-0.015794	0.000307	-51.402
Kenya Swahili Kilifi	Namibia Kwangali	Italy Tuscan	-0.005091	0.000341	-14.914
Kenya Swahili Kilifi	Gabon Bongo	Italy Tuscan	-0.005044	0.0003	-16.802
Kenya Swahili Kilifi	Gabon Nzebi	Italy Tuscan	-0.004989	0.000266	-18.748
Kenya Swahili Kilifi	Namibia Kwangali	Spain Spanish	-0.004981	0.000342	-14.553
Kenya Swahili Kilifi	South Africa Bantu Soweto	Italy Tuscan	-0.004956	0.000264	-18.782
Kenya Swahili Lamu	Gabon Nzebi	Italy Tuscan	-0.004002	0.00026	-15.405
Kenya Swahili Lamu	Gabon Bongo	Italy Tuscan	-0.003928	0.000295	-13.303
Kenya Swahili Lamu	South Africa Bantu Soweto	Italy Tuscan	-0.003797	0.000259	-14.645
Kenya Swahili Lamu	Gabon Nzebi	Spain Spanish	-0.003787	0.000261	-14.523
Kenya Swahili Lamu	Gabon Bongo	Spain Spanish	-0.003764	0.000302	-12.47
Kenya Swahili Mombasa	Gabon Nzebi	Italy Tuscan	-0.008843	0.00028	-31.567
Kenya Swahili Mombasa	Gabon Bongo	Italy Tuscan	-0.008788	0.000309	-28.407
Kenya Swahili Mombasa	Namibia Kwangali	Italy Tuscan	-0.008725	0.000343	-25.47
Kenya Swahili Mombasa	Namibia Mbukushu	Italy Tuscan	-0.008607	0.000351	-24.523
Kenya Swahili Mombasa	South Africa Bantu Soweto	Italy Tuscan	-0.008536	0.000275	-30.986
Madagascar Antemoro	South Africa Bantu Soweto	Philippines Igorot	-0.026794	0.0003	-89.298
Madagascar Antemoro	South Africa Bantu Soweto	Brunei Murut	-0.026499	0.000273	-96.966
Madagascar Antemoro	Gabon Nzebi	Philippines Igorot	-0.026363	0.00031	-85.073
Madagascar Antemoro	South Africa Bantu Soweto	Indonesia Samihim	-0.026347	0.000267	-98.628
Madagascar Antemoro	Namibia Kwangali	Philippines Igorot	-0.026346	0.000367	-71.883
Madagascar Mikea	South Africa Bantu Soweto	Philippines Igorot	-0.022797	0.000337	-67.718
Madagascar Mikea	South Africa Bantu Soweto	Brunei Murut	-0.022686	0.000305	-74.284
Madagascar Mikea	Namibia Mbukushu	Philippines Igorot	-0.022537	0.000406	-55.549
Madagascar Mikea	Gabon Nzebi	Philippines Igorot	-0.022434	0.000341	-65.867
Madagascar Mikea	South Africa Bantu Soweto	Brunei Dusun	-0.022404	0.000312	-71.731
Madagascar Vezo	South Africa Bantu Soweto	Philippines Igorot	-0.026676	0.0003	-88.99
Madagascar Vezo	South Africa Bantu Soweto	Brunei Murut	-0.026582	0.000276	-96.337
Madagascar Vezo	Gabon Nzebi	Philippines Igorot	-0.026381	0.000299	-88.128
Madagascar Vezo	South Africa Bantu Soweto	Indonesia Samihim	-0.026322	0.000273	-96.527

Madagascar Vezo	South Africa Bantu Soweto	Brunei Dusun	-0.026217	0.000282	-93.09
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Table S9.  $f_3$ -statistics for Comoros and Swahili populations. For each studied group, the 5-top lowest results are shown, with their respective standard error (SE) and Z-score (Z).













Bulgaria Bulgarian	0,157	0,159	0,154	0,149	0,151	0,146	0,080	0,001	83,486	0,080	0,001	83,174	0,081	0,001	73,107	0,081	0,001	62,024	0,080	0,001	87,322	0,081	0,000	175,962
Indonesia Lebbo	0,163	0,165	0,161	0,154	0,155	0,151	0,011	0,002	4,825	0,010	0,002	4,526	0,011	0,002	4,468	0,011	0,003	3,857	0,011	0,002	5,199	0,011	0,001	9,858
Philippines Igorot	0,178	0,178	0,175	0,168	0,170	0,166	0,002	0,001	2,263	0,003	0,001	2,599	0,003	0,001	2,466	0,003	0,001	2,071	0,002	0,001	2,366	0,002	0,000	4,920
India Jarawa	0,197	0,200	0,197	0,189	0,192	0,186	0,046	0,005	9,004	0,045	0,005	8,658	0,045	0,006	8,121	0,046	0,006	7,375	0,045	0,005	9,051	0,046	0,002	19,106
India Onge	0,204	0,207	0,205	0,196	0,199	0,192	0,045	0,006	7,861	0,043	0,006	7,483	0,043	0,006	6,937	0,045	0,007	6,418	0,043	0,006	7,831	0,045	0,003	16,594
Papua New Guinea Papuan	0,227	0,228	0,224	0,217	0,219	0,215	0,056	0,002	22,500	0,056	0,002	22,572	0,057	0,003	21,097	0,057	0,003	18,341	0,056	0,002	23,852	0,056	0,001	58,641
UAE Arab	0,292	0,292	0,290	0,284	0,287	0,285	0,085	0,002	47,693	0,086	0,002	48,271	0,086	0,002	41,494	0,086	0,002	36,908	0,085	0,002	48,856	0,083	0,001	157,702
Tunisia Tunisian	0,292	0,294	0,290	0,285	0,287	0,285	0,089	0,002	37,607	0,089	0,002	37,082	0,091	0,003	34,253	0,090	0,003	29,337	0,089	0,002	39,025	0,088	0,001	108,178
Italy West Sicilian	0,298	0,299	0,295	0,291	0,293	0,290	0,086	0,002	42,176	0,086	0,002	41,742	0,087	0,002	38,194	0,086	0,003	32,470	0,086	0,002	43,608	0,085	0,001	119,719
Italy East Sicilian	0,298	0,299	0,295	0,292	0,293	0,291	0,088	0,002	56,937	0,087	0,002	56,368	0,090	0,002	50,487	0,087	0,002	42,540	0,087	0,001	58,283	0,086	0,000	184,963
Italy South Italian	0,298	0,300	0,295	0,292	0,293	0,291	0,088	0,003	29,734	0,088	0,003	29,560	0,090	0,003	26,797	0,089	0,004	23,588	0,088	0,003	30,295	0,087	0,001	81,032

Table S10.  $F_{ST}$  and  $f3$ -statistics (African-SNP: Comoros-Anjouan, X; China-Han) results for Comoros and Swahili populations compared to other populations in the 170K dataset using African-SNPs identified by PCAdmix<sup>11</sup>.



D-Each Swahili community analysed separately																									
Population	Null	Best-fit	p	R <sup>2</sup> .1D	FQ1	FQ2	G.1D	G.1D 95%CI	% 1D Source 1	1D Source 1	1D Source 2	% MW Source 1	MW Source 1	MW Source 2	M	G.2D.1	G.2D.1 95%CI	% 2D.1 Source 1	2D.1 Source 1	2D.1 Source 2	G.2D.2	G.2D.2 95%CI	% 2D.2 Source 1	2D.2 Source 1	2D.2 Source 2
Kenya Swahili Kilifi	0	1D	<0.01	0.98	0.99	1.00	23.85	21.1-25.1	0.12	Ethiopia Tygray	South Africa Bantu Soweto	0.42	South Africa Bantu Soweto	Namibia Kwangali	0.26	19.39	-	0.12	Ethiopia Tygray	South Africa Bantu Soweto	66.97	-	0.37	Comoros Moheli	Namibia Kwangali
Kenya Swahili Kilifi	1	1D	<0.01	0.98	0.98	0.99	26.59	23.7-30.7	0.13	Ethiopia Oromo	South Africa Bantu Soweto	0.43	South Africa Bantu Soweto	Namibia Kwangali	0.24	14.73	-	0.09	Ethiopia Oromo	South Africa Bantu Soweto	56.27	-	0.13	Ethiopia Oromo	South Africa Bantu Soweto
Kenya Swahili Lamu	0	1D	<0.01	0.98	1.00	1.00	25.25	23.4-29.1	0.11	Ethiopia Tygray	South Africa Bantu Soweto	0.49	Comoros Moheli	Namibia Kwangali	0.17	1.00	-	0.10	Ethiopia Tygray	South Africa Bantu Soweto	28.71	-	0.49	Comoros Moheli	Namibia Kwangali
Kenya Swahili Lamu	1	1D	<0.01	0.97	0.99	1.00	28.33	25.4-30.9	0.12	Ethiopia Oromo	South Africa Bantu Soweto	0.49	South Africa Bantu Soweto	Namibia Kwangali	0.30	8.57	-	0.12	South Africa Bantu Soweto	South Africa Bantu Soweto	39.09	-	0.13	Ethiopia Oromo	South Africa Bantu Soweto
Kenya Swahili Mombasa	0	1D	<0.01	0.98	0.99	1.00	24.35	19.8-26.6	0.13	Yemen Yemeni	South Africa Bantu Soweto	0.46	Kenya Luhya	Comoros Moheli	0.16	13.46	-	0.13	Kenya Turkana	South Africa Bantu Soweto	41.37	-	0.13	Yemen Yemeni	Namibia Kwangali
Kenya Swahili Mombasa	1	1D	<0.01	0.97	0.99	1.00	26.84	20.8-32.2	0.15	Ethiopia Amhara	South Africa Bantu Soweto	0.39	Comoros Moheli	Namibia Kwangali	0.30	8.51	-	0.13	Kenya Turkana	South Africa Bantu Soweto	44.14	-	0.15	Ethiopia Amhara	South Africa Bantu Soweto

Table S11. GLOBETROTTER<sup>24</sup> inferred dates in generations from present (G) for each studied population. The table is separated into four sections according to the clustering defined in fineSTRUCTURE<sup>2</sup>: A-Comoros and Malagasy populations in the same cluster; B-Comoros and Malagasy in different clusters; C-All Swahili individuals in one ‘target population’; D-Each Swahili community analyzed separately. The best-fit models of admixture are labeled as: 1D: one date; 2D: multiple dates; MW: multiway one date; U: uncertain. P: p-value of evidence of any detectable admixture event obtained after 100 bootstrap resamplings of the NULL procedure. Date confidence intervals are based on 100 bootstrap replicates of the date inference. M corresponds to the additional R<sup>2</sup> explained by adding a second date versus assuming only a single date of admixture (M>0.35 to infer multiple dates event). FQ1 and FQ2 correspond respectively to the fit of a single admixture event and the fit of the first two principal components capturing the admixture events.

A-Comoros and Malagasy in the same cluster														
Population	Source.A	Source.B	A.1	SD.A.1	Z.A.1	G.1	SD.G.1	Z.G.1	A.2	SD.A.2	Z.A.2	G.2	SD.G.2	Z.G.2
Comoros Anjouan	Namibia Kwangali	Philippines Igorot	6.332E-04	4.021E-05	15.748	23.873	1.789	13.343						
Comoros Grande Comore	Philippines Igorot	South Africa BantuSA	6.998E-04	3.813E-05	18.353	26.717	1.553	17.198						
Comoros Moheli	Namibia Kwangali	Philippines Igorot	5.795E-04	6.199E-05	9.348	17.250	2.664	6.475						
Madagascar Antemoro	Namibia Kwangali	Philippines Igorot	1.421E-03	4.798E-05	29.613	28.874	1.160	24.883						
Madagasca Mikea	Namibia Mbukushu	Philippines Igorot	1.336E-03	7.172E-05	18.628	24.226	1.797	13.478						
Madagascar Vezo	Namibia Kwangali	Philippines Igorot	1.375E-03	7.15E-05	19.218	22.171	1.413	15.678						
B-Comoros and Malagasy in different clusters														
Population	Source.A	Source.B	A.1	SD.A.1	Z.A.1	G.1	SD.G.1	Z.G.1	A.2	SD.A.2	Z.A.2	G.2	SD.G.2	Z.G.2
Comoros Anjouan	Namibia Kwangali	Philippines Igorot	6.339E-04	4.007E-05	15.821	23.906	1.783	13.408						
Comoros Grande Comore	Philippines Igorot	South Africa BantuSA	7.002E-04	3.796E-05	18.446	26.737	1.547	17.288						
Comoros Moheli	Namibia Kwangali	Philippines Igorot	5.817E-04	6.173E-05	9.423	17.341	2.656	6.528						
Madagascar Antemoro	Namibia Kwangali	Philippines Igorot	1.42E-03	4.76E-05	29.839	28.895	1.152	25.079						
Madagasca Mikea	Namibia Mbukushu	Philippines Igorot	1.337E-03	7.16E-05	18.676	24.242	1.794	13.512						
Madagascar Vezo	Namibia Kwangali	Philippines Igorot	1.376E-03	7.12E-05	19.324	22.19	1.406	15.775						
C-All Swahili individuals in one 'target population'														
Population	Source.A	Source.B	A.1	SD.A.1	Z.A.1	G.1	SD.G.1	Z.G.1	A.2	SD.A.2	Z.A.2	G.2	SD.G.2	Z.G.2
Kenya Swahili	Lybia Lybian Jew	Namibia Kwangali	1.563E-04	2.946E-05	5.303	52.903	8.130	6.507	3.210E-05	8.450E-06	3.796	8.458	2.138	3.956
D-Each Swahili community analysed separately														
Population	Source.A	Source.B	A.1	SD.A.1	Z.A.1	G.1	SD.G.1	Z.G.1	A.2	SD.A.2	Z.A.2	G.2	SD.G.2	Z.G.2
Kenya Swahili Lamu	Lebanon Lebanese	South Africa BantuSA	8.992E-05	1.500E-05	5.997	20.981	4.325	4.851						
Kenya Swahili Kilifi	Kenya Bantu Kenya	Syria Syrians	9.988E-05	1.368E-05	7.304	43.589	6.833	6.379	2.480E-05	7.761E-06	3.201	7.583	2.321	3.267
Kenya Swahili Mombasa	Lebanon Lebanese	Namibia Mbukushu	1.407E-04	2.792E-05	5.041	20.111	5.164	3.894						

Table S12. MALDER<sup>58</sup> inferred dates in generations (G) from present for each studied population. The table is separated into four sections according to the clustering defined in fineSTRUCTURE<sup>2</sup>: A-Comoros and Malagasy populations in the same cluster; B-Comoros and Malagasy in different clusters; C-All Swahili individuals in one 'target population'; D-Each Swahili community analyzed separately. A: amplitude of the weighted LD curve; SD: standard deviation; Z: Z-score; G: date in generations of the latest (1) or earliest (2) admixture event.

Population	t-test	Asian ancestry	Middle Eastern ancestry	African ancestry
Comoros Anjouan	t	-2,612	<b>-4,829</b>	<b>4,116</b>
	P	0,020	<b>&gt;0,0001</b>	<b>0,001</b>
	$P_c$	0,529	<b>0,006</b>	<b>0,025</b>
Comoros Grande Comore	t	-2,128	<b>-4,873</b>	<b>3,769</b>
	P	0,048	<b>&gt;0,0001</b>	<b>0,002</b>
	$P_c$	1,304	<b>0,004</b>	<b>0,041</b>
Comoros Moheli	t	-0,257	-1,741	<b>20,442</b>
	P	0,801	0,104	<b>&gt;0,0001</b>
	$P_c$	21,632	2,798	<b>&gt;0,0001</b>
Madagascar Antemoro	t	1,509	1,823	-1,658
	P	0,145	0,081	0,111
	$P_c$	3,911	2,195	2,994
Madagascar Mikea	t	<b>5,084</b>	1,420	<b>-5,213</b>
	P	<b>&gt;0,0001</b>	0,171	<b>&gt;0,0001</b>
	$P_c$	<b>0,002</b>	4,617	<b>0,001</b>
Madagascar Vezo	t	2,503	0,832	-2,607
	P	0,020	0,414	0,016
	$P_c$	0,536	11,175	0,426
Kenya Swahili Kilifi	t	-0,800	1,334	-0,853
	P	0,429	0,191	0,399
	$P_c$	11,588	5,147	10,778
Kenya Swahili Lamu	t	-0,989	1,718	-0,615
	P	0,331	0,096	0,543
	$P_c$	8,928	2,595	14,670
Kenya Swahili Mombasa	t	-0,788	-0,051	0,393
	P	0,441	0,960	0,699
	$P_c$	11,915	25,917	18,869

Table S13. Student's t-tests between genetic ancestries estimated by ADMIXTURE<sup>7</sup> (K=3) for chromosome X and autosomes of populations from Comoros, Madagascar and Kenyan Swahili. Each ancestry is represented in Figure S13: Asian ancestry in blue; African ancestry in green and Middle Eastern ancestry in red. t: value of the t-test; P: nominal p-value;  $P_c$ : corrected p-value after Bonferroni multiple test correction (n=27). Significant sex-bias ancestries are written in bold.

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