Web Appendix for

The Slave Trade and the Origins of Matrilineal Kinship

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Appendix A. Additional Tables and Figures

Figure A1: Global Distribution of Matrilineal Kinship Groups
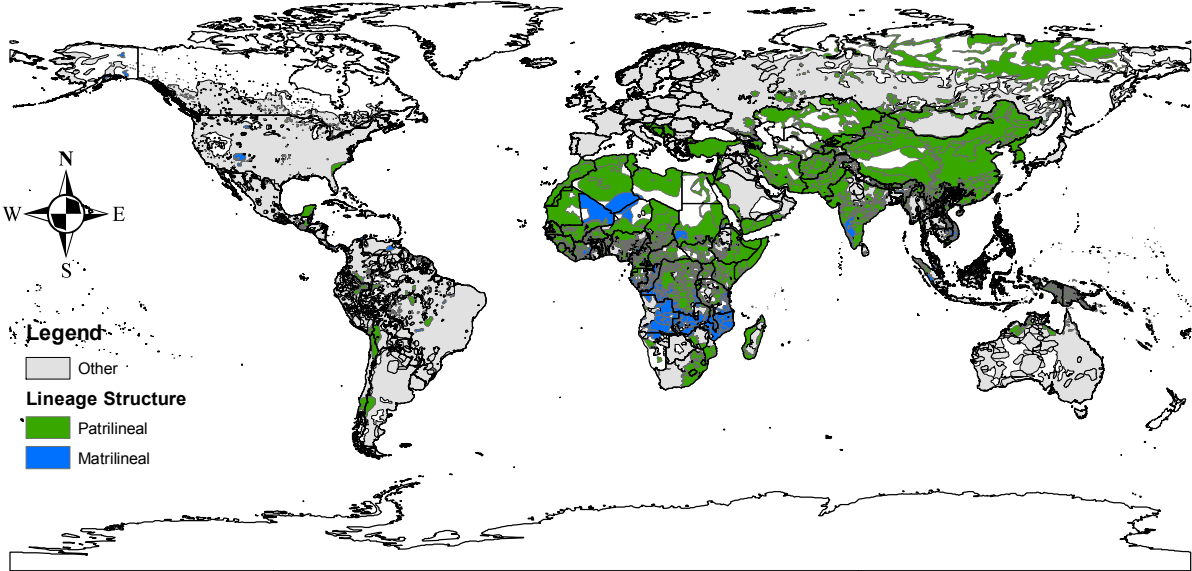
Notes: Data are from Giuliano and Nunn (2018).
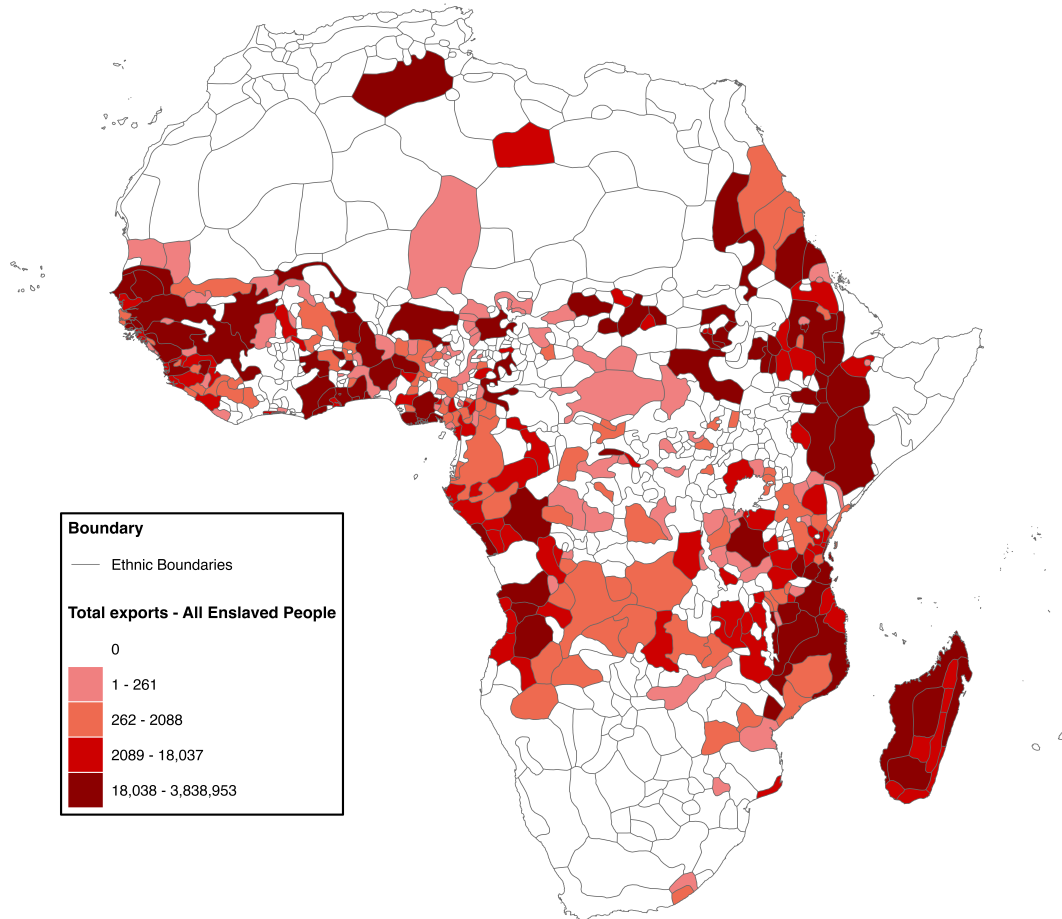
files/tables

Figure A2: All Slave Trades

Notes: The map presents Murdock ethnic group boundaries (Murdock, 1959) and each ethnic group's exposure to the slave trades (Atlantic, Indian Ocean, Red Sea, and Saharan). Source: Nunn (2008), Nunn and Wantchekon (2011), and own calculations.

Figure A3: Map of Subregions
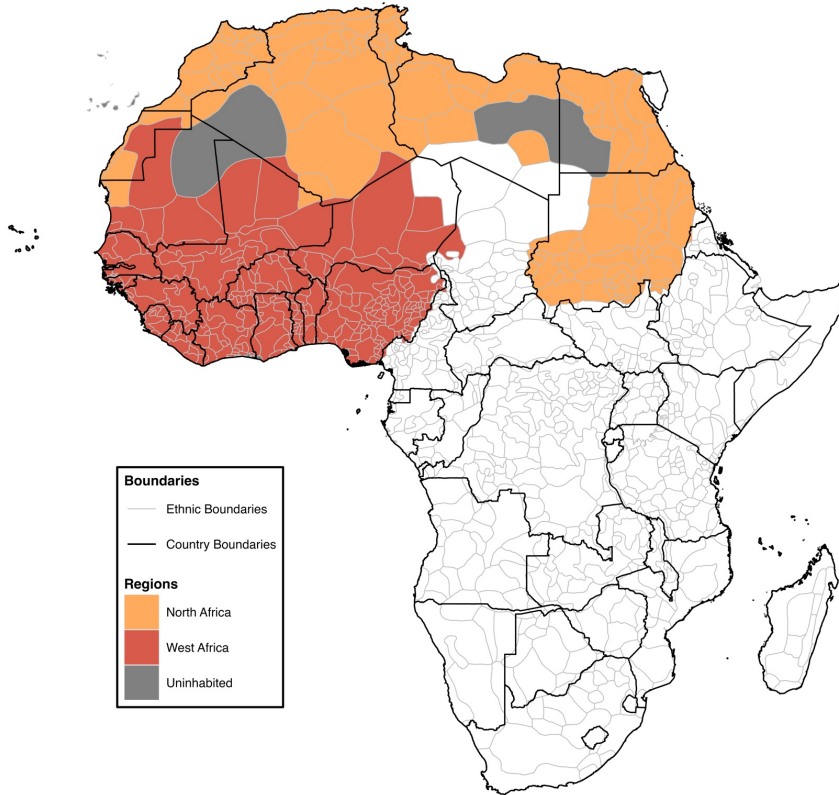
Notes: The map presents Murdock ethnic group boundaries (Murdock, 1959) and the regions designated as North Africa and West Africa in the analysis. We identify groups as part of North or West Africa if the centroid of their Murdock polygon falls within a country designated as part of North Africa or West Africa according to the United Nation Statistics Division (United Nations Statistics Division, 2023). Countries that are part of North Africa are: Algeria, Egypt, Libya, Morocco, Sudan, Tunisia and Western Sahara. Countries that are part of West Africa are Benin, Burkina Faso, Cote d'Ivoire, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

Table A1: The Atlantic and Indian Slave Trades and Matrilineal Kinship

	2SLS: Instrument is distance to coast **Dep. Var.: Matrilineal Kinship** *Atlantic and Indian Slave Trades*					
	Full Sample		*Without N. Africa*		*Without W. Africa*	
	(1)	(2)	(3)	(4)	(5)	(6)
Enslaved People (in 10,000s)	0.017	0.016	0.037*	0.035	0.030	0.025
	(0.019)	(0.017)	(0.022)	(0.022)	(0.031)	(0.027)
First Stage F-Stat.	4.947	3.242	4.993	3.139	1.826	1.528
Endog. Stat. P-Value	[0.534]	[0.487]	[0.081]	[0.056]	[0.421]	[0.414]
Ln(1+Enslaved People)	0.017	0.022	0.036**	0.046***	0.034	0.033
	(0.018)	(0.020)	(0.015)	(0.014)	(0.026)	(0.024)
First Stage F-Stat.	35.115	36.705	46.954	38.683	15.829	26.352
Endog. Stat. P-Value	[0.931]	[0.708]	[0.194]	[0.071]	[0.941]	[0.856]
IHS Enslaved People	0.016	0.021	0.034**	0.043***	0.032	0.030
	(0.017)	(0.018)	(0.014)	(0.013)	(0.025)	(0.022)
First Stage F-Stat.	34.519	36.241	46.527	38.221	15.382	26.165
Endog. Stat. P-Value	[0.917]	[0.696]	[0.189]	[0.069]	[0.917]	[0.835]
Enslaved People/Area[†]	0.154	0.224	0.335**	0.462***	0.352	0.362
	(0.160)	(0.201)	(0.142)	(0.150)	(0.264)	(0.273)
First Stage F-Stat.	26.912	27.436	30.745	27.821	14.436	15.460
Endog. Stat. P-Value	[0.753]	[0.606]	[0.104]	[0.061]	[0.780]	[0.693]
Ln(1+Enslaved People/Area)[*]	0.150	0.219	0.326**	0.459***	0.402	0.404
	(0.159)	(0.202)	(0.150)	(0.162)	(0.303)	(0.305)
First Stage F-Stat.	18.114	19.700	19.986	20.605	10.874	10.886
Endog. Stat. P-Value	[0.612]	[0.519]	[0.077]	[0.052]	[0.681]	[0.615]
IHS Enslaved People/Area[‡]	0.121	0.177	0.262**	0.370***	0.323	0.326
	(0.128)	(0.163)	(0.120)	(0.130)	(0.243)	(0.245)
First Stage F-Stat.	18.450	20.292	20.368	21.081	10.925	10.910
Endog. Stat. P-Value	[0.620]	[0.524]	[0.078]	[0.053]	[0.681]	[0.615]
Any Enslaved Person	0.167	0.224	0.349**	0.463***	0.337	0.306
	(0.178)	(0.202)	(0.151)	(0.153)	(0.279)	(0.231)
First Stage F-Stat.	24.710	27.026	36.416	28.533	9.722	21.637
Endog. Stat. P-Value	[0.702]	[0.537]	[0.121]	[0.053]	[0.628]	[0.576]
Baseline Controls	Y	Y	Y	Y	Y	Y
Geographic Controls	N	Y	N	Y	N	Y
Other Trades Controls	N	Y	N	Y	N	Y
Observations	823	822	720	719	577	576
Mean Dep. Var.	0.142	0.142	0.148	0.148	0.154	0.154
SD Dep. Var.	0.349	0.349	0.356	0.356	0.361	0.361

Notes: Each cell reports estimates from one regression. Conley standard errors with a 200 kilometer bandwidth are reported in parentheses. The Endog. Stat. P-Value is the p-value from an endogeneity test under the null hypothesis that the endogenous regressor can be treated as exogenous. The test statistic is distributed as chi-squared and is implemented with the endog option of the ivreg2 command in Stata, assuming standard errors clustered at the Ethnographic Atlas ethnic cluster level (111 in total). *Matrilineal* is an indicator variable equal to one if the ethnic group or its match is reported to practice matrilineal kinship in the Ethnographic Atlas (Murdock, 1967). *Exports (per 10,000)* is the total number of slaves exported divided by 10,000. *Exports/Area* is exports divided by the Murdock polygon's land area; [†] denotes measure from Teso (2019). *IHS Exports* is the inverse hyperbolic sine of exports. *IHS Exports/Area* is the inverse hyperbolic sine of exports normalized by land area of a Murdock polygon; [‡] denotes measure from Corno et al. (2020). *Ln 1+Exports/Area* is the natural log of 1 + exports normalized by land area; [*] denotes measure from Nunn and Wantchekon (2011). *Any Slave* is an indicator variable equal to 1 if any slave was exported from that ethnic group. *Baseline Controls* are: year of observation in the EA (v102) and whether the group is an exact match between the EA and Murdock. *Geographic Controls* include: ln of land area, ln of land area squared, malaria suitability (Kiszewski et al., 2004), absolute latitude of Murdock polygon centroid, longitude of Murdock polygon centroid, ruggedness, tsetse fly suitability index (Alsan, 2015), and agricultural and pastoral suitability (Beck and Sieber, 2010). The land area controls are excluded from the measures normalized by area. *Other Trades Controls* are: exports of the Red Sea and Saharan slave trades with the same functional form as the displayed independent variables. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A2: All Slave Trades and Matrilineal Kinship

	2SLS: Instrument is distance to coast **Dep. Var.: Matrilineal Kinship** *All Slave Trades*					
	Full Sample		*Without N. Africa*		*Without W. Africa*	
	(1)	(2)	(3)	(4)	(5)	(6)
Enslaved People (in 10,000s)	0.023	0.018	0.047	0.038	0.038	0.027
	(0.028)	(0.019)	(0.033)	(0.026)	(0.044)	(0.031)
First Stage F-Stat.	2.379	2.758	2.779	2.553	1.092	1.309
Endog. Stat. P-Value	[0.514]	[0.470]	[0.076]	[0.053]	[0.410]	[0.408]
Ln(1+Enslaved People)	0.020	0.022	0.037^{**}	0.044^{***}	0.039	0.035
	(0.020)	(0.019)	(0.015)	(0.014)	(0.027)	(0.024)
First Stage F-Stat.	21.756	29.270	46.184	37.039	10.703	17.280
Endog. Stat. P-Value	[0.772]	[0.670]	[0.132]	[0.065]	[0.670]	[0.687]
IHS Enslaved People	0.019	0.021	0.035^{**}	0.041^{***}	0.036	0.033
	(0.019)	(0.017)	(0.014)	(0.013)	(0.025)	(0.023)
First Stage F-Stat.	21.868	29.238	46.397	36.946	10.656	17.302
Endog. Stat. P-Value	[0.769]	[0.665]	[0.131]	[0.065]	[0.667]	[0.681]
Enslaved People/Area†	0.150	0.171	0.249^{**}	0.344^{***}	0.575	0.351
	(0.157)	(0.156)	(0.114)	(0.121)	(0.492)	(0.269)
First Stage F-Stat.	6.287	13.897	15.169	15.268	1.287	4.828
Endog. Stat. P-Value	[0.582]	[0.564]	[0.080]	[0.060]	[0.432]	[0.529]
Ln(1+Enslaved People/Area)*	0.207	0.240	0.367^{**}	0.493^{***}	0.723	0.490
	(0.220)	(0.226)	(0.175)	(0.181)	(0.558)	(0.382)
First Stage F-Stat.	7.727	13.619	14.700	15.246	2.216	5.835
Endog. Stat. P-Value	[0.561]	[0.541]	[0.069]	[0.055]	[0.451]	[0.539]
IHS Enslaved People/Area‡	0.169	0.195	0.296^{**}	0.400^{***}	0.595	0.399
	(0.178)	(0.183)	(0.140)	(0.146)	(0.464)	(0.311)
First Stage F-Stat.	7.559	13.687	14.804	15.250	2.057	5.658
Endog. Stat. P-Value	[0.564]	[0.544]	[0.070]	[0.055]	[0.448]	[0.538]
Any Enslaved Person	0.183	0.219	0.341^{**}	0.438^{***}	0.361	0.333
	(0.189)	(0.188)	(0.145)	(0.145)	(0.273)	(0.240)
First Stage F-Stat.	20.524	25.742	41.999	31.100	8.806	16.085
Endog. Stat. P-Value	[0.684]	[0.566]	[0.109]	[0.056]	[0.582]	[0.573]
Baseline Controls	Y	Y	Y	Y	Y	Y
Geographic Controls	N	Y	N	Y	N	Y
Observations	823	822	720	719	577	576
Mean Dep. Var.	0.142	0.142	0.148	0.148	0.154	0.154
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Notes: Each cell reports estimates from one regression. Conley standard errors with a 200 kilometer bandwidth are reported in parentheses. The Endog. Stat. P-Value is the p-value from an endogeneity test under the null hypothesis that the endogenous regressor can be treated as exogenous. The test statistic is distributed as chi-squared and is implemented with the endog option of the ivreg2 command in Stata, assuming standard errors clustered at the Ethnographic Atlas ethnic cluster level (111 in total). *Matrilineal* is an indicator variable equal to one if the ethnic group or its match is reported to practice matrilineal kinship in the Ethnographic Atlas (Murdock, 1967). *Exports (per 10,000)* is the total number of slaves exported divided by 10,000. *Exports/Area* is exports divided by the Murdock polygon's land area; † denotes measure from Teso (2019). *IHS Exports* is the inverse hyperbolic sine of exports. *IHS Exports/Area* is the inverse hyperbolic sine of exports normalized by land area of a Murdock polygon; ‡ denotes measure from Corno et al. (2020). *Ln 1+Exports/Area* is the natural log of 1 + exports normalized by land area; * denotes measure from Nunn and Wantchekon (2011). *Any Slave* is an indicator variable equal to 1 if any slave was exported from that ethnic group. *Baseline Controls* are: year of observation in the EA (v102) and whether the group is an exact match between the EA and Murdock. *Geographic Controls* include: ln of land area, ln of land area squared, malaria suitability (Kiszewski et al., 2004), absolute latitude of Murdock polygon centroid, longitude of Murdock polygon centroid, ruggedness, tsetse fly suitability index (Alsan, 2015), and agricultural and pastoral suitability (Beck and Sieber, 2010). The land area controls are excluded from the measures normalized by area. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A3: All Slave Trades and Matrilineal Kinship

	OLS; Dep. Var.: Matrilineal Kinship					
	All Slaves Trades					
	Full Sample		*Without N. Africa*		*Without W. Africa*	
	(1)	(2)	(3)	(4)	(5)	(6)
Enslaved People (in 10,000s)	0.002***	0.001***	0.002***	0.001***	0.002***	0.002***
	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Ln(1+Enslaved People)	0.012***	0.011**	0.011**	0.009*	0.023***	0.021***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)	(0.005)
IHS Enslaved People	0.012***	0.010**	0.010**	0.008*	0.021***	0.020***
	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)
Enslaved People/Area†	0.036**	0.042***	0.028	0.035*	0.087***	0.099***
	(0.017)	(0.016)	(0.019)	(0.018)	(0.029)	(0.024)
Ln(1+Enslaved People/Area)⋆	0.040	0.048*	0.027	0.037	0.135***	0.147***
	(0.027)	(0.026)	(0.027)	(0.026)	(0.051)	(0.045)
IHS Enslaved People/Area‡	0.034	0.040**	0.023	0.031	0.108***	0.119***
	(0.021)	(0.020)	(0.022)	(0.021)	(0.040)	(0.035)
Any Enslaved Person	0.082**	0.062	0.067*	0.047	0.162***	0.141***
	(0.037)	(0.038)	(0.039)	(0.041)	(0.047)	(0.045)
Baseline Controls	Y	Y	Y	Y	Y	Y
Geographic Controls	N	Y	N	Y	N	Y
Other Trade Controls	N	Y	N	Y	N	Y
Observations	823	822	720	719	577	576
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