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Tables for “Toward a Bioarchaeology of Urbanization: Demography, Health, and Behavior in Cities in the Past”

Table 1: Geographic distribution of cited studies (see Tables 2-4)

Region	Number of studies	% of total
Africa	21	7.19
Central America	7	2.40
Central Asia	3	1.03
East Asia	17	5.82
Europe	165	56.51
Middle East	14	4.79
North America	35	11.99
South America	13	4.45
South Asia	8	2.74
Western Asia	4	1.37
Multiple	5	1.71
Total	292	

Africa	21	7.19
Americas	55	18.84
Asia	32	10.96
Europe	165	56.51
Middle East	14	4.79
Multiple	5	1.71
Total	292	

Table 2: Bioarchaeological studies of urban vs. rural conditions

Topic	Author	Key Variables	Country	Region	Time Period
activity patterns	Manzi, Sperduti, Passarello (1991)	auditory exostoses, sex	Italy	Europe	1st - 3rd centuries CE
	Novak and Šlaus (2011)	joint changes and disease, sex	Croatia	Europe	16th - 19th centuries CE
	Wilson, De Groote, & Humphrey (2020)	cross-sectional geometry	England	Europe	medieval
biological affinity, identity	Blom, Hallgrímsson, Keng, Lozada, Buikstra (1998)	non-metric traits, intentional cranial modification, age, sex	Peru	South America	500-1000 CE
biological affinity, population diversity	Manzi, Santandrea, Passarello (1997)	dental metric and non-metric traits	Italy	Europe	2nd century CE
demography and health/stress	Betsinger, DeWitte, Justus, and Agnew (2020)	mortality/survivorship, stress indicators	Poland	Europe	10th-13th centuries CE
	Crane-Kramer and Buckberry (2020)	historical records of mortality and cause of death	England	Europe	19th century
	Gamble (2020)	mortality/survivorship, stress indicators	Denmark	Europe	11th-16th centuries CE
	Lewis and Gowland (2007)	mortality/survivorship	England	Europe	850-1859 CE
	Nagaoka and colleagues (2019)	mortality/survivorship, stress indicators	Japan	East Asia	1440-1730 CE
	Redfern, DeWitte, Pearce, Hamlin, and	mortality/survivorship, stress indicators, specific infectious diseases, oral health	England	Europe	1st-5th centuries CE

	Egging Dinwiddy (2015)				
	Storey, Marquez Morfin, Smith (2002)	age, sex, stress indicators, oral health	Honduras, Mexico	Central America, North America	300 - 1000 CE
	Walter and DeWitte (2016)	mortality/survivorship, sex	England	Europe	12th-16th centuries CE.
demography, health/stress, diet	Redfern (2020)	trauma, diet, and migration	England	Europe	Roman
demography, health/stress, labor	Frankin and Wilson (2020)	mortality/survivorship, sex, stress indicators, joint disease	United States	North America	19th-20th centuries CE
demography, health/stress, status	Palubeckaitė, Jankauskas, and Boldsen (2002)	mortality/survivorship, stress indicators, status	Denmark, Lithuania	Europe	12th-18th centuries CE
diet	Agurauja-Lätti and Lõugas (2019)	dietary isotopes	Estonia	Europe	12th-16th centuries CE
	Bourbou, Fuller, Garvie-Lok, & Richards (2011)	dietary isotopes	Greece	Europe	6th-15th centuries
	Cheung, Schroeder, and Hedges (2012)	dietary isotopes	England	Europe	1st-5th centuries CE
	Fuller, Márquez-Grant, Richards (2010)	dietary isotopes	Spain	Europe	3rd millennium BCE - 13th century CE
	Hermes and colleagues (2018)	dietary isotopes	Kazakhstan, Uzbekistan, and Turkmenistan	Central Asia	2nd–16th centuries CE

	Kaupová and colleagues (2018)	dietary isotopes	Czech Republic	Europe	9th-11th centuries CE
	Redfern, Hamlin, Athfield (2010)	dietary isotopes, sex	England	Europe	1st century BCE– 5th century CE
	White, Healy, & Schwarcz (1993)	dietary isotopes, age, sex, social status	Belize	Central America	250-950 CE
	Yoder (2010)	dietary isotopes	Denmark	Europe	medieval
	Zhou and colleagues (2019)	dietary isotopes	China	East Asia	770-221 BCE
diet and migration	Nehlich, Fuller, Márquez-Grant, Richards (2012)	dietary isotopes, mobility isotopes, age, sex	Spain	Europe	3rd century BCE - 13th CE
growth conditions	Charisi, Laffranchi, Jiménez-Brobeil (2016)	stature, sex, social status	Spain	Europe	1120–1430 CE
health/stress	Beňuš, Obertová, Masnicová (2010)	age, sex, stress indicators	Slovakia	Europe	8th - 12th centuries CE
	Bernofsky (2010)	respiratory disease	England	Europe	Iron Age - post-medieval
	Blakey, Leslie, Reidy (1994)	stress indicators, age, enslaved vs. liberated	United States	North America	18th-19th centuries CE
	Boldsen (2001)	specific infectious diseases	Denmark	Europe	12th-17th centuries CE
	Gowland, Caffell, Newman, Levene, and Holst (2018)	respiratory disease, metabolic disorders, and oral health	England	Europe	18th-19th centuries CE
	Kaupová, Brůžek, Velemínský, and Černíková, (2013)	stature	Czech Republic	Europe	11th-14th centuries CE
	Kelmelis, Kristensen, Alexandersen, and	specific infectious diseases+F11	Denmark	Europe	1120-1536 CE

Dangvard Pedersen (2020)				
Krenz-Niedbała and Łukasik (2016)	maxillary sinusitis	Poland	Europe	10th-17th centuries CE
Krenz-Niedbała and Łukasik (2020)	respiratory disease	Poland	Europe	10th-17th centuries CE
Lewis and colleagues (1995)	maxillary sinusitis	England	Europe	medieval
Mays, Brickley, and Ives (2008)	growth patterns	England	Europe	18th-19th centuries CE
Mays, Prowse, George, and Brickley (2018)	vitamin deficiency	England	Europe	1st-6th centuries CE
Mays, Turner-Walker, Syversen (2006)	bone density, sex	Norway	Europe	1100–1600 CE
Perrone (2014)	stress indicators, vitamin deficiency, oral health, stature, maxillary sinusitis	England	Europe	1550-1850 CE
Primeau, Homøe, and Lynnerup (2019)	stress indicators, specific infectious disease	Denmark	Europe	1050-1536 CE
Robbins Schug and Blevins (2016)	vitamin deficiency	India, Pakistan	South Asia	2nd millennium BCE
Roberts (2007)	maxillary sinusitis	various	North America, Europe, Africa	various
Rohnbogner and Lewis (2017)	stress indicators, vitamin deficiency	England	Europe	3rd-5th centuries CE
Shin, Seo, Shim, Hong, and Kim (2020)	parasitic infection	South Korea	East Asia	1-1000 CE
Sundman and Kjellström (2013)	maxillary sinusitis, sex	Sweden	Europe	800 - 1200 CE
Veselka, Brickley, D'Ortenzio, Kahlon,	stress indicators, vitamin deficiency	Netherlands	Europe	17th-19th centuries CE

	Hoogland, Waters-Rist (2019)				
	Watts (2013)	growth, stress	England	Europe	1150-1855 CE
	Watts and Valme (2018)	vitamin D deficiency	England	Europe	19th century CE
	Agarwal (2012)	bone density	England	Europe	medieval
	Holck (2007)	bone density	Norway	Europe	medieval
	Szeniczey and colleagues (2019)	bone density	Hungary, Serbia	Europe	14th–17th centuries CE
health/stress and diet	Ives and Humphrey (2020)	growth patterns	England	Europe	medieval and post-medieval
	Kaupová and colleagues (2014)	stress indicators, dietary isotopes	Czech Republic	Europe	9th-10th centuries CE
	Marklein (2020)	stress markers, oral health indicators, fractures	Crete, Cyprus, Greece, and Turkey	Europe, Western Asia	1st century BCE– 7th century CE
	Osipov and colleagues (2020)	growth patterns, dietary isotopes	Spain	Europe	300–1235 CE
	Cucina, Vargiu, Mancinelli, Ricci, Santandrea, Catalano, Coppa (2006)	stress indicators, oral health	Italy	Europe	2nd - 3rd centuries CE
health/stress and trauma	Agnew, Betsinger, and Justus (2015)	stress indicators, fractures	Poland	Europe	10th-12th centuries CE
	Šlaus (2008)	stress indicators, fractures, age, sex	Croatia	Europe	2nd - 9th centuries CE
	Somers, Cooper, Alterauge, Losch (2017)	stature, stress, fractures	Switzerland	Europe	14th-19th centuries CE
occupation and labor	Becker (2019)	osteoarthritis, sex	Bolivia, Peru	South America	500–1100 CE)

occupation and labor, health/stress	Lewis (2016)	mortality/survivorship, stress indicators, specific infectious diseases, trauma, stress to the joints and spine, respiratory disease	England	Europe	900–1550 CE
oral health	Griffin (2017)	oral health indicators	England	Europe	1st-5th centuries CE
	Nystrom (2013)	oral health indicators	United States	North America	19th century
oral health and diet	Garcin and colleagues (2010)	oral health indicators, stress indicators	Czech Republic, France	Europe	9th-10th centuries CE
	Rohnbogner and Lewis (2016)	oral health indicators	England	Europe	1st-5th centuries CE
terrestrial mobility	Saers and colleagues (2017)	cross-sectional geometry	Netherlands	Europe	pre-industrial
trauma	Collier and Primeau (2019)	fractures	Denmark	Europe	1050-1536 CE
	Djurić, Roberts, Rakočević, Djonić, Lešić (2006)	fractures, sex	Serbia	Europe	11th - 19th centuries CE
	Judd (2002)	fractures	Nubia	Africa	2500-1500 BCE
	Judd (2006)	traumatic injury	Sudan	Africa	2500 -1500 BCE
	Judd and Roberts (1999)	fractures	England	Europe	10th-12th centuries CE
	Mant (2018)	historical records of trauma	England	Europe	19th century

Table 3: Bioarchaeological studies of within urban conditions

Topic	Author	Key Variables	Country	Region	Time Period
activity patterns	Baetsen, Bitter, Bruintjes (1997)	osteoarthritis	England	Europe	1750 - 1830 CE
	Becker (2016)	joint changes and disease	Bolivia	South America	500–1100 CE
	Lozano, Jiménez-Brobeil, Willman, Sánchez-Barba, Molina, Rubio (2020)	microscopic dental wear	Spain	Europe	1900-1600 BCE
	Nikita, Siew, Stock, Mattingly, Lahr (2011)	cross-sectional geometry, sex	Libya	Africa	1000 BCE - 700 CE
	Palmer and Waters-Rist (2019)	enthesal changes, social status	Belgium	Europe	late-15th to late-18th century CE
	Pitfield, Deter, Mahoney (2019)	histomorphology, age, sex, status	England	Europe	800 - 1539 CE
	Wesp (2020)	cross-sectional geometry, sex	Mexico	North America	1521-1821 CE
activity patterns, health/stress	Beauchesne and Agarwal (2014)	bone loss	Italy	Europe	1st-2nd centuries CE
activity patterns, labor	Karakostis, Le Quéré, Vanna, Moraitis (2016)	phalangeal metrics, sex	Greece	Europe	3rd–1st century BCE
activity patterns, trauma	Lovell (1994)	joint changes and disease	Pakistan	South Asia	2400-2000 BCE
biological affinity	Haddow and Lovell (2003)	dental non-metric traits	Syria	Middle East	3rd millennium BCE

	Hemphill (1998)	craniometrics, sex	Uzbekistan, Turkmenista n	Central Asia	2200 - 1500 BCE
	Hemphill (1999)	craniometrics, sex	Uzbekistan, Turkmenista n	Central Asia	3500 - 800 BCE
	Lovell and Haddow (2007)	dental non-metric traits	Syria	Middle East	3rd millenium BCE
	Nikita, Mattingly, Lahr (2012)	cranial non-metrics,	Libya	Africa	900 BCE – 500 CE
biological affinity, ethnicity, identity	Buzon (2011)	craniometrics, sex, mortuary practices	Sudan	Africa	3100–1100 BCE
biological affinity, migration	Ragsdale and Edgar (2015)	dental non-metric traits	Mexico	North America	900–1520 CE
	Espinoza and Morfin (2015)	mortality/survivorship, fertility	Mexico, Guatemala, Belize, Honduras	Central America, North America	600-1530 CE
	Nagaoka and Hirata (2007)	age, sex	Japan	East Asia	1603-1867 CE
	Nagaoka, Hirata, Yokota, Matsu'ura (2006)	survivorship, sex	Japan	East Asia	14th century CE
	Sullivan (2004)	age, sex, social status	England	Europe	1200 - 1538 CE
demography	Whittington (1991)	mortality, age, sex, status	Hoduras	Central America	400-1200 CE
	Angel, Kelley, Parrington, Pinter (1987)	survivorship, stress indicators, sex	United States	North America	1823-1841 CE

demography and health/stress	Bourbou (2018)	mortality/survivorship, stress indicators	Switzerland	Europe	1st-3rd centuries CE
	DeWitte, Boulware, Redfern (2013)	mortality, burial context	England	Europe	1050-1548 CE
	Márquez, Hernández, and Serrano (2006)	age, sex, stress indicators	Mexico	North America	250–1000 CE
	Reedy (2020)	mortality/survivorship, stress indicators, social status, sex	England, Portugal, and Italy	Europe	Industrial-era
	Renschler and DeCorse (2016)	stress indicators, age, sex	Ghana	Africa	15th-19th centuries CE
	Storey (1986)	mortality, growth	Mexico	North America	150 BCE - 750 CE
	Yaussy, DeWitte, and Redfern (2016)	mortality, stress indicators, sex, burial context	England	Europe	1120–1540 CE
demography, health/stress, and ancestry	Owsley, Orser, Mann, Moore-Jansen, Montgomery (1987)	age, sex, stress indicators, oral health, joint disease	United States	North America	1720 - 1810 CE
demography, health/stress, trauma	Dabbs (2019)	age, sex, stress indicators, oral health, joint disease, stature	Egypt	Africa	16th - 11th centuries BCE
demography, health/stress, trauma, migration	Emerson and Hedman (2016)	mortality, stress indicators, specific infectious diseases, traumatic injuries, dietary isotopes, mobility isotopes, burial context	United States	North America	11th - 14th centuries CE
demography, labor, and health/stress	Dabbs, Rose, Zabecki, Ikram, Kaiser, and Walker (2015)	age, sex, stress indicators, traumatic injury, mortuary practices	Egypt	Africa	1550–1069 BCE
demography, labor, and status	Stevens (2018)	age, sex, mortuary practices	Egypt	Africa	1550–1069 BCE

diet	Acosta, Killgrove, Moses, & Turner (2019)	dietary isotopes	Italy	Europe	6th–5th centuries BCE
	Alexander, Gerrard, Gutiérrez, Millard (2015)	dietary isotopes, religion	Spain	Europe	13th-16th centuries CE
	Beaumont and colleagues (2013)	dietary isotopes	England	Europe	19th century CE
	Bleasdale and colleagues (2019)	dietary isotopes, social status, occupation	England	Europe	1523-1854 CE
	Burt (2013)	dietary isotopes, age	England	Europe	11th - 16th centuries CE
	Craig and colleagues (2009)	dietary isotopes, sex	Italy	Europe	1st -2nd centuries CE
	Dotsika, Michael, Iliadis, Karalis (2018)	dietary isotopes, sex	Greece	Europe	13th-14th centuries CE
	Finucane, Agurto, & Isbell (2006)	dietary isotopes, age, sex	Peru	South America	550–1000 CE
	Gregoricka & Sheridan (2013)	dietary isotopes, age, sex	Jerusalem	Middle East	5th-7th centuries CE
	Henderson, Lee-Thorp, & Loe (2014)	dietary isotopes, stress indicators, sex	England	Europe	18th-19th centuries CE
	Inskip, Carroll, Waters-Rist, & López-Costas (2019)	dietary isotopes	Spain	Europe	9th-13th centuries CE
	Jørkov and Gröcke (2017)	dietary isotopes, sex, social status	Denmark	Europe	Industrial-era
	Keenleyside, Schwarcz, Stirling, Ben Lazreg (2009)	dietary isotopes, age, sex	Tunisia	Africa	2nd - 3rd centuries CE
	Lukacs (2017)	oral health indicators, dental wear, tooth size	Pakistan	South Asia	2550-2030 BCE

	Miller, Dong, Pechenkina, Fan, Halcrow (2020)	dietary isotopes, age, sex	China	East Asia	771–221 BCE
	Nitsch, Humphrey, & Hedges (2011)	dietary isotopes	England	Europe	18th-19th centuries CE
	Pérez Rodríguez, Kellner, Higelin Ponce de León (2020)	dietary isotopes, age	Mexico	North America	300 BCE-300 CE
	Richards, Hedges, Molleson, & Vogel (1998)	dietary isotopes, social status	England	Europe	Late Iron Age/Early Roman
	Stantis, Schutkowski, Sołtysiak (2020)	dietary isotopes, age	Lebanon	Middle East	2,800–1,200 BCE
	Tsutaya, Kakinuma, and Yoneda (2020)	dietary isotopes, age	Japan	East Asia	18th-19th centuries CE
	Tsutaya, Nagaoka, Sawada, Hirata, Yoneda (2014)	dietary isotopes	Japan	East Asia	17th century
	Tsutaya, Shimatani, Yoneda, Abe, Nagaoka (2019)	dietary isotopes	Japan	East Asia	17th - 19th centuries CE
	Tsutaya, Shimomi, Nagaoka, Sawada, Hirata, Yoneda (2015)	dietary isotopes	Japan	East Asia	12th - 14th centuries CE
	Vigeant, Ribot, Hélie (2017)	dietary isotopes, age, sex, burial context	Canada	North America	1683–1803 CE
diet and migration	Chenery, Müldner, Evans, Eckardt, and Lewis (2010)	dietary isotopes, mobility isotopes, burial context	England	Europe	2nd century CE
	Killgrove & Montgomery 2016	dietary isotopes, mobility isotopes, age, sex	Italy	Europe	1st-3rd centuries CE

diet, health/stress, social status	Toso, Gaspar, Banha da Silva, Garcia, & Alexander (2019)	dietary isotopes, age, sex, stress indicators, social status	Portugal	Europe	11th-12th centuries CE
diet, migration, social status	Casar, Morales, Manzanilla, Cienfuegos, & Otero (2017)	dietary isotopes	Mexico	North America	100 BCE - 550 CE
	Cox, Sealy, Schrire, and Morris (2001)	dietary isotopes, burial practices	South Africa	Africa	1750 - 1827 CE
diet, oral health	Avery, Prowse, Brickley (2019)	oral health indicators, age, sex, burial context	England	Europe	4th - 5th centuries CE
diet, social status	Mbeki, Kootker, Kars, & Davies (2017)	dietary isotopes, mobility isotopes, dental modification, social status	South Africa	Africa	18th-19th century CE
	Nado (2017)	isotopes, oral health	Mexico	North America	AD 275-650
diet, social status, ethnicity	Reitsema, Kyle, & Vassallo (2020)	dietary isotopes, age, sex, mortuary practices	Italy	Europe	8th-7th centuries BCE
environmental toxins	Hess, Smith, Trueman, Schutkowki (2015)	manganese exposure	South Africa	Africa	20th century CE
growth conditions	Arthur, Gowland, Redfern (2016)	pubertal timing	England	Europe	1st-5th centuries CE
	Lewis, Shapland, Watts (2016)	pubertal timing	England	Europe	900-1550 CE
health/stress	Beauchesne and Agarwal (2017)	bone density (histomorphology), age, sex	Italy	Europe	1st - 2nd centuries CE
	Boldsen and Mollerup (2006)	specific infectious diseases, sex	Denmark	Europe	1000-1600 CE
	Boocock, Roberts, Manchester (1995)	maxillary sinusitis, specific infectious diseases, age, sex	England	Europe	12th-17th centuries CE
	Boyd (2020)	respiratory disease	England	Europe	18th-19th centuries CE
	Brickley, Mays, Ives (2007)	vitamin deficiency	England	Europe	18th-19th centuries CE

Buzon and Judd (2008)	stress indicators, age, sex, burial location	Sudan	Africa	1750–1550 BCE
Cardoso, Spake, Wasterlain, Ferreira (2019)	growth patterns	Portugal	Europe	15th–17th centuries CE
Cho and Stout (2011)	bone density (histomorphology), sex	Italy	Europe	100-300 CE
Fonzo, Scott, and Duffy (2020)	parasitic infection	Canada	North America	18th century CE
Gernay (2015)	stress indicators, respiratory disease, stature	England, France, and Belgium	Europe	12th-18th centuries CE
Grauer (1993)	stress indicators, age	England	Europe	1100-1550 CE
Hagg, Van der Merwe, and Steyn (2017)	stress indicators, fluctuating asymmetry, institutionalization	Netherlands	Europe	18th–early 20th centuries CE
Ives & Brickley, 2014	bone density (osteomalacia)	England	Europe	1700-1855 CE
King, Humphrey, Hillson (2005)	stress indicators, age, sex	England	Europe	18th-19th centuries CE
Knorr and colleagues (2019)	parasitic infection	Spain, Portugal	Europe	10th-13th centuries CE
Lanphear (1990)	stress indicators, age, sex	United States	North America	1826-1863 CE
Lewis (2011)	stress indicators, specific infectious diseases	England	Europe	1st-3rd centuries CE
Lewis (2010)	metabolic disease, trauma, pagan vs. Christian burial	England	Europe	3rd-5th centuries CE
Li, Roberts, Chen, and Zhao (2019)	specific infectious diseases	China	East Asia	202 BCE – 220 CE
Marklein, Leahy, Crews (2016)	stress indicators, joint disease, oral health indicators, stature, vitamin deficiencies, fractures, burial context	England	Europe	1000-1500 CE

Mays, Ives, Brickley (2009)	growth patterns, status	England	Europe	19th century CE
Nakayama (2016)	LEH, social status, mortuary pattern	Japan	East Asia	18th-19th centuries CE
Newman and Gowland (2017)	growth, stress indicators	England	Europe	18th-19th centuries CE
Newman, Gowland, and Caffell (2019)	stress indicators, growth patterns, vitamin deficiency, region (north vs. south)	England	Europe	1711-1856 CE
Scott, Danforth, MacInnes, Hughes, and Fonzo (2020)	stress indicators, musculoskeletal markers, oral health, stature	Canada, United States	North America	18th century CE
Steedmann (1991)	stature, sex	United States	North America	1826-1863 CE
Storey, Marquez Morfin, Nunez (2017) Bones of Complexity book	stress indicators, social status	Mexico	North America	250-550 CE
Sullivan (2005)	stress indicators, age, sex, social status	England	Europe	1200-1538 CE
Sundman and Kjellström (2011)	maxillary sinusitis	Sweden	Europe	970-1530 CE
Suzuki, Fujita, Choi (2008)	specific infectious diseases	South Korea	East Asia	100 BCE - 0 CE
Toyne, Esplin, and Buikstra (2020)	specific infectious diseases	Peru	South America	800-1535 CE
Walker, Powers, Connell, Redfern (2015)	specific infectious diseases	England	Europe	1120–1539 CE
Watts (2015)	stress indicators, sex, status	England	Europe	1117–1853 CE
Weisensee (2013)	stress indicators	Portugal	Europe	1806 - 1935 CE
Weiss, Vercellotti, Boano, Girotti, Stout (2019)	stature, sex, social status	Italy	Europe	8th–14th centuries CE

	Western and Bekvalac (2020)	joint disease, trauma, neoplasms, specific infectious diseases, age, sex, status	England	Europe	Industrial-era
	Williams and colleagues (2017)	parasitic infection	Turkey	Western Asia	2nd-5th centuries CE
	Wittmers, Aufderheide, Pounds, Jones, Angel (2008)	lead concentration, histology	United States	North America	19th century CE
	Wood (1996)	stress indicators	United States	North America	18th century CE
	Yaussy (2019)	stress indicators, age, sex, social status	England	Europe	18th–19th centuries CE
	Zhang and colleagues (2016)	stress indicators, age, sex, social status	China	Europe	1250-1046 BCE
health/stress and activity	Robb, Bigazzi, Lazzarini, Scarsini, Sonego (2001)	stress indicators, trauma, status, sex	Italy	Europe	7th - 3rd centuries CE
	Šlaus, Pećina-Šlaus, Brkić (2004)	stress indicators, joint disease, oral health indicators, age, sex	Croatia	Europe	4th century CE
health/stress and diet	Olsen, Heyking, Grupe, White, Longstaffe (2018)	dietary isotopes, stress indicators, joint disease, fracture, oral health indicators, vitamin deficiency, congenital disease, age, sex,	Germany	Europe	12th - 16th centuries CE
	Perry and Lieurance (2020)	oral health indicators, stress indicators, social status	Jordan	Middle East	1st century BCE–1st century CE
	Zarifa et al. (2016)	dietary isotopes, trace elements, age, stress indicators	Latvia	Europe	17th-18th centuries CE
health/stress and migration	Peacock and colleagues (2019)	vitamin deficiency, mobility isotopes, age	Switzerland	Europe	1st-3rd centuries CE
health/stress and trauma	Judd and Roberts (1998)	fractures, specific infectious diseases, age, sex	England	Europe	11th - 17th centuries CE

	Novak, Martinčić, Strinović, and Šlaus (2012)	stress indicators, oral health, specific infectious disease, osteoarthritis, and traumatic injuries	Croatia	Europe	12th-15th centuries CE
	Watkins (2012)	degenerative joint disease, trauma, specific infectious disease, poverty, age	United States	North America	19th-20th centuries CE
health/stress, ancestry	Fleskes et al. (in press)	mobility isotopes, age, sex, cranial morphometrics, stress indicators, fractures, oral health indicators, DNA	United States	North America	18th century CE
health/stress, diet, and migration	Rasmus Brandt, Hagelberg, Bjørnstad, and Ahrens (2017)	stress markers, oral health indicators, dietary isotopes, mobility isotopes	Turkey	Western Asia	300 BCE – 15th century CE
health/stress, diet, demography, ancestry	Blakely and Beck (1982)	age, sex, trace elements, cranial morphometrics, joint disease, oral health indicators, trauma	United States	North America	1850-1884 CE
labor and migration	De Bruyn and Meyer (2018)	stress indicators, specific infectious disease, age, sex	South Africa	Africa	1895-1914 CE
labor and status	Schrader (2015)	entheseal changes, social status	Sudan	Africa	3,200–1,500 BCE
migration	Brönnimann et al. (2018)	mobility isotopes	Switzerland	Europe	150–80 BCE
	Chenery, Eckardt, & Müldner (2011)	mobility isotopes	England	Europe	3rd - 4th centuries CE
	Cucina, Tiesler, Sierra Sosa, Neff (2011)	trace elements, age	Mexico	North America	250 - 700 CE
	Emery, Stark, Murchie, Elford, Schwarcz, Prowse (2018)	mobility isotopes	Italy	Europe	1st - 4th centuries CE
	Kendall, Montgomery, Evans, Stantis, Mueller (2013)	mobility isotopes	England	Europe	1348-1350 CE
	Kjellström (2020)	mobility isotopes, ancient DNA	Sweden	Europe	10th century CE

Nystrom, Amato, Jankowitz (2011)	mobility isotopes, sex	United States	North America	19th century CE
Perry, Coleman, Dettman, Grattan, Halim al-Shiyab (2011)	mobility isotopes	Jordan	Middle East	4th–7th centuries CE
Perry, Jennings, & Coleman (2017)	mobility isotopes	Jordan	Middle East	4th- 5th centuries CE
Peschel, Carlsson, Bethard, Beaudry (2017)	mobility isotopes, sex, burial context	Sweden	Europe	7–11th centuries CE
Price, Tiesler, Folan, & Tykot (2018)	mobility isotopes	Mexico	North America	1st millenium CE
Prowse, Schwarcz, Garnsey, Knyf, Macchiarelli, Bondioli (2007)	mobility isotopes, age, sex	Italy	Europe	1st - 3rd centuries CE
Scherer & Wright (2015)	dental morphometrics, mobility isotopes	Guatemala	Central America	3rd - 9th centuries CE
Shaw, Montgomery, Redfern, Gowland, Evans (2016)	mobility isotopes	England	Europe	1st-5th centuries CE
Sheridan and Gregoricka (2015)	mobility isotopes	Jerusalem	Middle East	5th-7th centuries CE
Toyne et al. (2014)	mobility isotopes, sex	Peru	South America	100-850 CE
Tung and Knudson (2011)	mobility isotopes	Peru	South America	600–1000 CE
Wright (2005)	mobility isotopes	Guatemala	Central America	900 BCE - 950 CE
Valentine et al. (2015)	mortuary practices, mobility isotopes	India, Pakistan	South Asia	2600-1900 BCE

migration and health/stress	Redfern, DeWitte, Montgomery, & Gowland, 2018	mobility isotopes, stress indicators, specific infectious diseases	England	Europe	Romano-Britain
migration, biological affinity	Redfern and Hefner (2019)	craniometrics, age, sex, mobility isotopes, DNA	England	Europe	1348-1350 CE
	Redfern, Gröcke, Millard, Ridgeway, Johnson, Hefner (2016)	dietary isotopes, mobility isotopes, cranial morphometrics	England	Europe	2nd - 4th centuries CE
migration, identity	Shewan, Ikehara-Quebral, Stark, Armstrong, O'Reilly (2020)	mobility isotopes, intentional dental modification	Cambodia	East Asia	500 BCE – 500 CE
migration, population diversity	Leach, Lewis, Chenery, Müldner, Eckardt (2009)	craniometrics, sex, mobility isotopes	England	Europe	2nd - 4th centuries CE
	Price, Tiesler, Freiwald (2019)	mobility isotopes, age, sex, burial context	Mexico	North America	600-1200 CE
	Robbins Schug (2020)	mortuary practices	India, Pakistan	South Asia	2600-1900 BCE
occupation and diet	Crowe, Sperduti, O'Connell, Craig, Kirsanow (2010)	dietary isotopes, auditory exostoses	Italy	Europe	1st - 3rd centuries CE
occupation and labor	Gilmour et al. (2015)	fractures, sex	Hungary	Europe	1st-4th centuries CE
	Zhang and colleagues (2017)	osteoarthritis, sex	China	East Asia	1250-1046 BCE
oral health	Cucina and Tiesler (2003)	oral health indicators, age, sex, status	Mexico	North America	250 - 900 CE
	Lukacs (1992)	oral health indicators, sex	Pakistan	South Asia	2500–2000 BCE
	Nikita, Mattingly, Lahr (2014)	oral health indicators, stress indicators, sex, age	Libya	Africa	1st millennium BCE–1st

					millennium CE
	Sakashita, Inoue, Inoue, Pan, Zhu (1997)	oral health indicators, status	China	East Asia	1400-1100 BCE
oral health, health/stress	DiGangi and Sirianni (2016)	maxillary sinusitis, oral health, sex, age,	Rochester, NY	North America	1826-1863 CE
population diversity	Sutter and Verano (2007)	dental non-metric traits	Peru	South America	200–750 CE
trauma	Brickley and Smith (2006)	fractures	England	Europe	1750-1850 CE
	Gagnon and Castillo (2020)	traumatic injury, ritual vs. non-ritual space	Peru	South America	200-900 CE
	Grauer and Roberts (1996)	fractures, sex	England	Europe	1100-1550 CE
	Ives, Mant, de la Cova, and Brickley (2017)	fractures, age, sex	England	Europe	18th–19th centuries CE
	Judd (2004)	fractures, age, sex	Sudan	Africa	1750–1550 BCE
	Krakowka (2017)	traumatic injury, social status, sex	England	Europe	1050-1550 CE
	Mant (2019)	fractures, age, sex	England	Europe	1666-1837 CE

Table 4: Bioarchaeological studies of changes in urban context over time

Topic	Author	Key Variables	Country	Region	Time Period
biological affinity, identity	Blom (2005)	non-metric traits, intentional cranial modification, age, sex	Bolivia, Chile, Peru	South America	385 BCE - 1100 CE
biological affinity, oral health	Hemphill, Lukacs, and Kennedy (1991)	cranioetrics, cranial non-metrics, oral health indicators, sex	Pakistan	South Asia	2400-2000 BCE
demography	Dangvard Pedersen and colleagues (2020)	mortality/survivorship	Denmark	Europe	800-1800 CE
demography and health/stress	Betsinger and DeWitte (2017)	mortality/survivorship, stress indicators, specific infectious diseases	Poland	Europe	10th-13th centuries CE
	Redfern (2008)	mortality, stature, oral health indicators, specific infectious disease	England	Europe	4th century BCE–4th century CE
demography, health/stress, trauma	Arcini (1999)	mortality, stature, oral health indicators, degenerative joint disease, specific infectious disease, traumatic injury, sex	Sweden	Europe	990-1536 CE
diet	Britton and colleagues (2018)	dietary isotopes	Scotland	Europe	12th-15th centuries CE
	Fuller, Cupere, Marinova, Neer, Waelkens,	dietary isotopes	Turkey	Western Asia	400 BCE - 1200 CE

Richards (2012)				
Irvine, Erdal, & Richards (2019)	dietary isotopes	Turkey	Western Asia	3500–2000 BCE
Lagia (2015)	dietary isotopes, sex, age, burial type	Greece	Europe	5th century BCE - 3rd century CE
Lambert et al. (2012)	dietary isotopes	Peru	South America	400 BCE - 600 CE
Müldner and Richards (2007)	dietary isotopes	England	Europe	2nd -early 19th century CE
Redfern, Gowland, Millard, Powell, Gröcke (2018)	dietary isotopes, age	England	Europe	1st century BCE - 4th century CE
Sołtysiak and Schutkowski (2015)	dietary isotopes, age	Syria	Middle East	2900 BCE - 20th century CE
Sołtysiak and Schutkowski (2018)	dietary isotopes	Syria	Middle East	2300 BCE - 20th century CE
Walter, DeWitte, Dupras, and Beaumont (2020)	dietary isotopes, sex	England	Europe	1120-1539 CE
White, Healy, & Schwarcz (1993)	dietary isotopes, sex, age, social status	Belize	Central America	700-900 CE

	White, Nelson, Longstaffe, Grupe, Jung (2009)	dietary isotopes, age, sex	Peru	South America	450 - 1100 CE
diet and migration	Chiavazza, Mansegosa, & Gil (2015)	dietary isotopes, mobility isotopes	Argentina	South America	17th - 19th centuries CE
growth conditions	Cardosa and Garcia (2009)	growth patterns	Portugal	Europe	1211- 2003 CE
	Sparacello, Vercellotti, d'Ercole, and Coppa (2017)	stature, sex, social status	Italy	Europe	800-27 BCE
health/stress	Cardoso and Gomes (2008)	stature	Portugal	Europe	Mesolithic - 20th CE
	Dangvard Pedersen, Milner, Kolmos, and Boldsen (2019a)	specific infectious diseases	Denmark	Europe	medieval-to-early modern
	Dangvard Pedersen, Milner, Kolmos, Boldsen (2019b)	specific infectious diseases	Denmark	Europe	800-1800 CE
	Haviland (1967)	stature	Guatemala	Central America	1000 BCE - 900 CE
	Holloway, Henneberg,	specific infectious diseases	various	Africa, Central Asia, Western	7250 BCE - 1899 CE

	de Barros Lopes, Henneberg (2011)			Asia, East Asia, Middle East, Europe	
	Keita and Boyce (2001)	stress indicators	Egypt	Africa	3900 - 3050 BCE
	Kyle, Schepartz, and Larsen (2016)	stress indicators, sex	Albania	Europe	1100-30 BCE
	Pérez Rodríguez, de León, and Tuñón (2017)	mortality, stress indicators, oral health, trauma, and degenerative joint disease	Mexico	North America	300 BCE – 500 CE
	Scott and Hoppa (2018)	stress indicators	Denmark	Europe	13th-17th centuries CE
	Scott, Choi, Mookherjee, Hoppa, Larcombe (2016)	stress indicators, specific infectious disease, age, sex, osteocalcin	Denmark	Europe	13th-17th centuries CE
	Starling and Stock (2007)	stress indicators	Egypt, Sudan	Africa	13000 - 1500 BCE
	Trigg, Jacobucci, Mrozowski, and Steinberg (2017)	parasitic infection	United States	North America	17th - 20th centuries CE
health/stress and diet	De la Cova (2014)	stress indicators, specific infectious disease, oral health indicators, enslaved vs. liberated	United States	North America	19th century CE
	Redfern, Millard,	dietary isotopes, vitamin deficiencies, oral health indicators, age	England	Europe	1st century BCE - 4th century CE

	Hamlin (2012)				
	Wright and Vasquez (2017) (Bones of Complexity book)	dietary isotopes, stature	Guatemala	Central America	550 - 700 CE
	Marquez Morfin et al. (2002) (Backbone of History book)	stress indicators, trauma, DJD, auditory exostoses	Mexico	North America	1600 BC - AD 1521
health/stress and migration	Amoroso, Garcia, Cardoso (2014)	age, sex, documented cause of death, migrant status, status	Portugal	Europe	19th - 20th centuries CE
	Slater et al. (2014)	mobility isotopes, burial type	United States	North America	950-1350 CE
migration	Buzon, Schrader, and Bowen (2019)	mobility isotopes	Egypt, Sudan	Africa	2000 - 650 BCE
migration, biological affinity	Sołtysiak and Bialon (2013)	dental non-metric traits	Syria	Middle East	3300 BCE - 1650 CE
oral health	Ullinger, Sheridan, and Guatelli-Steinberg (2015)	oral health indicators	Jordan	Middle East	3500-2300 BCE

secular changes in cranial shape	Weisensee and Jantz (2011)	geometric morphometrics	Portugal	Europe	1806 - 1954 CE
secular changes in stature	Shin, Oh, Kim, Hwang (2012)	stature, sex	South Korea	East Asia	15th-19th centuries CE
terrestrial mobility	Brzobohatá, Krajiček, Velemínský, and Velemínská (2019)	3D geometry	Czech Republic	Europe	2900 BCE - 21st century CE
	Sołtysiak (2015)	cross-sectional geometry, sex, stress indicators	Syria	Middle East	3900-2100 BCE
trauma	Cohen and colleagues (2014)	traumatic injury	Levant	Middle East	4300 BCE–1917 CE
	Robbins Schug, Gray, Mushrif-Tripathy, and Sankhyan (2012)	traumatic injury, social status, sex	India, Pakistan	South Asia	3300-1300 BCE
	Šlaus, Novak, Bedić, and Strinović, (2012)	traumatic injury	Croatia, Bosnia and Herzegovina	Europe	2nd - 16th centuries CE