

The Bantu Expansion

The Bantu Expansion refers to the demic diffusion underlying the Bantu languages' spread across Central, Eastern, and Southern Africa. We review here linguistic, genetic, and archaeological lines of evidence for the Bantu Expansion, all of which lead back to the original homeland in the eastern end of the Gulf of Guinea.

Bantu is Africa's most widespread language family but only a late development within Niger-Congo, the world's largest phylum (Eberhard *et al.* 2022). Niger-Congo largely owes this ranking to the overly vast geographic distribution of Bantu. Within Niger-Congo, Bantu is part of Benue-Congo whose other descendant languages are all spoken today in a compact area straddling southern Nigeria and western Cameroon (Good 2020: 147). Southern Bantoid, Bantu's nearest relatives within Benue-Congo, is located in the same frontier zone (Watters 1989; Watters and Leroy 1989; Blench 2015; Marten 2020). Greenberg (1972) was the first to locate the Bantu homeland in this modern area of greatest internal divergence. Within Bantu itself, the highest diversity is also situated in the northwestern area. It is generally acknowledged that the Bantu languages from the Congo rainforest are more diverse than those from the far more extensive savannas further east and south (Bastin *et al.* 1999; Nurse and Philippson 2003; Grollemund *et al.* 2015; Philippson and Grollemund 2019; Koile *et al.* 2022). Linguistic heterogeneity thus decreases with distance from the homeland, a clear signal of expansion. Their close relatedness is no doubt the reason why Bantu languages were defined as a language family as early as the mid-19th century CE (Bleek 1858). Distinguishing them from other languages is straightforward in the northwestern, northeastern and southern Bantu frontier zones (Güldemann 2018). Telling them apart from their closest relatives in the homeland is much less clear-cut. There is no discrete cut-off point has been identified between Bantu and Bantoid or so-called "Narrow Bantu" and "Wide Bantu" (Watters 2018). The definition of Bantu is contingent on Guthrie's non-genealogical classification (Guthrie 1948; 1971).

Genetically, the prevalence of West African ancestry in present-day Bantu speakers' genomes across the continent endorses migration as the principal population dynamic behind the Bantu Expansion (Tishkoff *et al.* 2009; de Filippo *et al.* 2012; Pickrell *et al.* 2012; Schlebusch *et al.* 2012; Li *et al.* 2014; Schlebusch and Jakobsson 2018). Exceptional are relic forager groups in the Congo rainforest who speak Bantu languages but are predominantly of local Central African ancestry (Verdu *et al.* 2009; Patin *et al.* 2017; Breton *et al.* 2021). They shifted to Bantu languages at some point in time to the detriment of their original languages (Bahuchet 2012). Another clear signal of demic diffusion is decreasing diversity in the West African genetic component the further one gets removed from West Africa (Semo *et al.* 2020; Tallman *et al.* 2022). A last line of genetic evidence corroborating a relatively recent demic expansion, though one

that still needs more data, is the total absence of West African ancestry amongst the earliest existing ancient DNA (aDNA) samples from what is today Bantu-speaking Africa, i.e., since ~3,900 years ago. All of them are more closely related with modern remnant forager groups in Central, Eastern and Southern Africa (Schlebusch et al. 2017; Skoglund et al. 2017; Prendergast et al. 2019; Wang et al. 2020). For now, the oldest aDNA samples of West African origin in Bantu-speaking Africa come from Pemba Island in Tanzania and are not older than ~600 years (Prendergast et al. 2019). Older aDNA data of Western African origin are likely to be discovered soon.

The earliest archaeological evidence for a demic diffusion with possible roots in West Africa comes from the Congo rainforest. Several Central African sites with a comparable material culture testify to the emergence of a more sedentary way of life from ~3,000 years ago. The equatorial rainforest experiences then a significant rise in settlements with large refuse pits that often hold large quantities of pottery and residues of plants such as *Elaeis guineensis* and *Canarium schweinfurthii* pointing to an intensified exploitation of the natural environment. Only from ~2,500 years ago onwards, such sites also yield evidence for metallurgy. This new cultural complex, which spread across the Congo rainforest in less than a millenium, is unmistakably different from that of pre-existing rainforest foragers. It is therefore widely seen as the archaeological signature of the region's first colonization by Bantu speakers (de Maret 1994-1995, 2013; Russell et al. 2014; Bostoen et al. 2015; Bostoen 2018, 2020; Seidensticker et al. 2021). It likely originated in the area where linguists situate the Bantu homeland. The archaeological record of the Shum Laka rock shelter in Cameroon's Grassfields region is the most telling in this regard (Lavachery 2001; de Maret 2013). A new industry consisting of pottery, large blades and bifacial tools of basalt begins to appear there ~7,000 to 6,000 years ago and signals the advent of a new lifestyle that became predominant ~5,000 to 4,000 years ago. It gradually replaced older foraging lifeways represented by microlithic quartz tools. The four children buried at Shum Laka, two ~8,000 and two ~3,000 years ago, whose aDNA was identified as most closely related to the modern DNA of foragers from western Central Africa (Lipson et al. 2020), probably belonged to local foragers represented at Shum Laka since 30,000 years (Cornelissen 2003). The innovative technology slowly superseding their hunting equipment has been tentatively linked with the introduction of a more sedentary lifestyle by immigrants from further north (Lavachery 2001; de Maret 2013), possibly Benue-Congo speakers (Bostoen 2007). South of the Bantu homeland, this new lifeway first emerges ~3,500-3,000 years ago around Yaoundé (de Maret 1982; 1992). The archaeological record of Eastern and Southern Africa also testifies of a demic diffusion that has been linked with the initial spread of Bantu speakers. The Urewe Early Iron Age industry, which appeared in the Great Lakes region ~2,500 years ago (Clist 1987; Ashley 2010), is generally seen as the Bantu Expansion's kick off east of the Congo rainforest. This novel cultural complex would be ancestral to several Early Iron Age traditions further south and the archaeological backdrop of the first Bantu speakers in East Africa (Phillipson 1985). It reached Southern Africa in the first centuries CE

(Soper 1971; Sinclair 1991: 191-192; Phillipson 2005: 252; Pikirayi 2009; Mitchell 2013). It is poorly understood whether and how Urewe and descendant traditions in Eastern and Southern Africa are linked with the spread of early settlements in the Congo rainforest.

Despite the many remaining gaps in our knowledge and existing incongruities between genetics, linguistics and archaeology, data from the three fields concur in showing that the Bantu Expansion was a demic diffusion, which transformed Africa's linguistic, cultural, and demographic landscape. Even if uncertainty remains about the precise pathways and dynamics of dispersal, Bantu languages apparently spread from their homeland region to Southern Africa in roughly two millennia. Such a rapid and huge expansion is exceptional for several reasons. First, it contrasts with the dispersal pace and range of the remainder of Niger-Congo. The modern Niger-Congo territory beyond Bantu is between a half and a third of that of Bantu alone. Its time depth is estimated at 12 to 10 millennia (Blench 2006: 126). Hence, the spread of Niger-Congo during the first 8,000 to 6,000 years of its existence was significantly much slower and less extensive than that of Bantu. Second, the spread of Niger-Congo before the Bantu Expansion mainly had a latitudinal orientation, as most demic diffusions and other spreads of biological species, because migration from east to west or west to east involve less change in climate, rainfall, day length and diseases of crops and livestock and thus less adjustment to new ecologies (Crosby 1986; Diamond 1997; Diamond and Bellwood 2003; Ramachandran and Rosenberg 2011). The Bantu Expansion, however, had a predominantly north-south axis and required migration and settlement across the Congo rainforest in between the Sudanian savanna belt where the Bantu homeland is located and the Zambezan savanna belt which hosts most current-day Bantu speakers. Even if a climate-driven shrinking of the Congo rainforest between 4,000 and 2,500 years ago may have boosted the Bantu Expansion (Maley 1992; Schwartz 1992; Oslisly et al. 2013; Bostoen et al. 2015; Grollemund et al. 2015), its mostly longitudinal orientation remains odd. Third, the speed and amplitude of the Bantu Expansion is remarkable because it was initially not driven by agriculture, in contrast to what often is claimed (Diamond and Bellwood 2003; Phillipson 2003; Russell et al. 2014). The oldest available evidence for food production is much younger than the Bantu Expansion's assumed start and situated south of the homeland (Neumann 2005; Eggert et al. 2006; Kahlheber et al. 2014; Wotzka 2019; Bostoen 2020; Cagnato et al. 2022; Neumann et al. 2022). The earliest Bantu speakers in the Congo rainforest rather had a lifestyle situated towards the foragers' side of the "middle ground", i.e. "the large transitional zone in the continuum between hunter-gatherers on the one hand and agriculturalists largely depending on domesticated crops on the other (...)" (Neumann 2005). Even in the Great Lakes region, the first Bantu speakers ~2,500 years ago did not depend on domesticated plants as their principal subsistence. Archaeological evidence for West African crops such as pearl millet and cow pea only shows up several centuries later (Giblin and Fuller 2011; Crowther et al. 2014; Crowther et al. 2016; Crowther et al. 2018). East African savanna crops such as sorghum and native finger millet are initially more important

(Robertson 2010; Gibling and Fuller 2011; Crowther *et al.* 2018; Mueller *et al.* 2022). Pastoralism significantly predates the Bantu Expansion, i.e., from ~4,000 years ago onward, in both Eastern Africa (Phillipson 1975; Katanekwa 1979; Lane 2004; Phillipson 2005; Huffman 2007; House *et al.* 2021) and Southern Africa (Güldemann 2008; Breton *et al.* 2014; Macholdt *et al.* 2014).

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