# Migration across history

By Bruno Javier Limón Ávila
Matricola 646137

Going from one place to another has been inherent to the human story ever since the dawn of humanity. From the global dispersal of hominids that left Africa 40,000 million years ago to the truly massive population migrations made by our species, homo sapiens sapiens, more than 70,000 years ago, humans have shown that settling is as present in our nature as it is moving away. But this natural impulse has been limited since the establishment of the state as the main organizational form of society. While it is true that kingdoms and empires had borders and that their people had some connection to these political entities the borders were still not precise lines separating areas of national sovereignty. With the formation of states, individuals became nationals, and the crossing of borders was no longer simply "moving" but migrating.
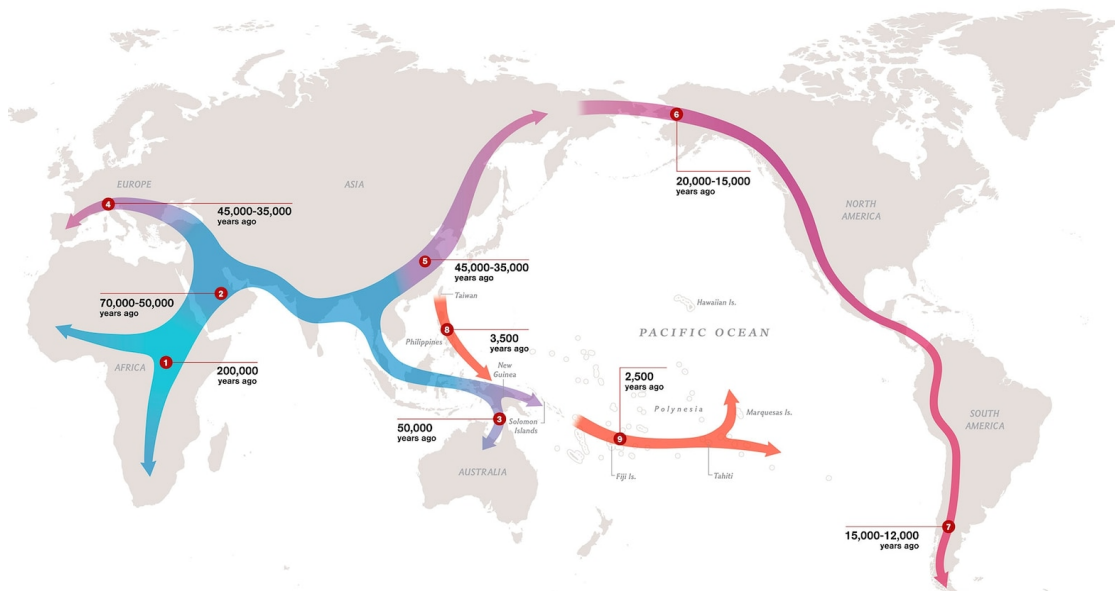
Source: National Geographic

As we can see in the previous image, it all started in Africa, going into the Middle East, Europe and then all the way into the Americas, but, how do we know these were the exact places our ancestors moved to? This is where **tracking** technologies come into play.

Ancient times - DNA tracking

Back in the 1980s, we developed technologies that would completely change our understanding of our origins, the most important of these was DNA tracking. By analyzing the mitochondrial strands of currently living populations and comparing it to the ones found in remains of ancient humans we were able to trace lineages, confirming the theories of how human populations shifted and moved in the past. This kind of DNA has a high mutation rate, and mutations are carried along in subsequent generations. By comparing mutations in mitochondrial DNA among today's populations, and making assumptions about how frequently they occurred, scientists can walk the genetic code backward through generations, combining lineages in ever larger, earlier branches until they reach the evolutionary trunk.

Modern times - Physical records

After the first settlement of modern humans took place and most of the world had homo sapiens presence, human migrations of this size mostly stopped, and instead more local movements were prevalent. This trend continued up until the 16th century, where the "world-system" enters the scene, we are talking about the beginnings of globalization, starting with the discovery and subsequent colonization of the American continent, along with parts of Africa and Asia, carried out mostly by the European superpowers such as Spain or the United Kingdom, who reconfigured the world stage and induced massive flows of human populations, mainly motivated by expansionism and accumulation of resources, such as the slave trade from Africa or the huge resource influx from the Americas.

African and indigenous slaves represented a cheap workforce to work in the colonies and provoked the forced migration of about 12 million people from Africa to the Americas. This was the first time in history we could see an economically-driven mass migration.

Another case of a capitalist-driven mass migration process is the rural exodus of the 20th century, accelerated by the industrial revolution, this phenomenon has been the biggest step forward done by global capitalism. Industries changed the way commodities were produced and the power in the world-system became tightly linked to the industrial means of production, completely changing the production balance in the rural-urban context, forcing millions of people to move from the impoverished countryside to the booming cities.

It is after World War II that the globalization process really took off and nations became fully connected, along with the creation of alliances such as the European Union, which not only ensured military connection, but also economical and societal, linking many nations and making the migration process more straightforward.

Contemporary times - Digital tracking

With the advent of technology, specifically surveillance technology, the whole migration process is radically changed, since now we can track even the smallest aspects of these movements, going from the general paths and behaviors of the movement to the finer details concerning individuals. This is all possible thanks to the advancements in computing and storing for these massive amounts of data. From simple cameras along the points of most migration activity, such as the mediterranean sea to autonomous drones surveilling from the skies, tracking technology is increasingly becoming ubiquitous in the tracking scene.

This increase in tracking power can be a double-edged sword, however, raising important concerns within human rights watch movements, arguing that transparency and privacy might be in danger in a society that has a tighter and tighter grip on surveillance. In addition to this, migrant's rights might also be at risk, since they are becoming subject to automatic decision-making, since these "digital borders" infrastructure progressively depends on automated systems, machine learning, predictive analytics, and related tools aim to create systems of facial recognition, identification documents, ground sensors, biometric databases, and even visa and asylum decision-making processes. This entails an inherent risk to bias, discrimination and overall human rights violations. As such, we need to keep a close eye on the functioning of these algorithms to ensure that they work as intended while minimizing any collateral damage they might produce.

References

Blakemore, E. (2021, May 4). Migration Facts and Information. Culture. Retrieved September 20, 2022, from https://www.nationalgeographic.com/culture/article/migration

Dijstelbloem, H. (2017, March 2). Migration tracking is a mess. Nature News. Retrieved September 20, 2022, from https://www.nature.com/articles/543032a

Gerbeau, Y. M., (2017, August 14). Mass migrations across the world-system's history. E-IR.Info. Retrieved September 20, 2022, from https://www.e-ir.info/2017/08/01/mass-migrations-across-the-world-systems-history/

Smithsonian Magazine. (2008, July 1). The Great Human Migration. Smithsonian.com. Retrieved September 20, 2022, from https://www.smithsonianmag.com/history/the-great-human-migration-13561/

The (ab)use of digital technologies to police irregular migration. strali. (2022, January 4). Retrieved September 20, 2022, from https://www.strali.org/post/the-ab-use-of-digital-technologies-to-police-irregular-migration

Wallis, E. (2022, February 18). Digital Borders: EU increases use of technology to monitor migration. InfoMigrants. Retrieved September 20, 2022, from https://www.infomigrants.net/en/post/38478/digital-borders-eu-increases-use-of-technology-to-monitor-migration