

“Ancient Migration” Excerpt Transcript

Excerpt from [September 23, 2016](#) episode of Science Friday.

<p>IRA FLATOW</p>	<p>This is "Science Friday." I'm Ira Flatow. We've known that the human species originated in Africa. The "Out of Africa" theory says that we started in Africa, and from there made our way to Europe and Asia. But the details of how we made that trip, well, the details are less clear.</p> <p>Three different groups of scientists unlocked a small piece of that puzzle, and their work was published this week in the journal Nature. Here to tell us the details of those studies is Annalee Newitz. She's the tech culture editor for "Ars Technica," based out of San Francisco. And joins us here at KQED. Welcome.</p>
<p>ANNALEE NEWITZ</p>	<p>Thanks, nice to be here.</p>
<p>FLATOW</p>	<p>So there are lots of studies looking at the origin out of Africa. How are these studies different?</p>
<p>NEWITZ</p>	<p>Well, one of the things that's really great about these studies is that two of them look at modern day people's genomes to kind of trace back the diversity that we see today to an origin point. And what they did was they looked at Aboriginal Australians and people in Africa whose genomes have not really been sequenced very much. We have a lot of coverage in Europe and Asia.</p> <p>So this gives us a much better picture of global genetic diversity. And so once we have that, we can actually walk backward and trace it to an origin point. And what they found-- this is the other piece that's very interesting-- is that it seems that much everyone on earth can trace their ancestry back to one migration out of Africa that happened somewhere between 80,000 and 50,000 years ago.</p> <p>So we're talking, basically, anyone you meet on earth, whether it's someone from Australia or someone from the Americas, they are related to you.</p>
<p>FLATOW</p>	<p>Wow. And do we know which direction they first went when they went out of Africa?</p>
<p>NEWITZ</p>	<p>So we don't know for sure. One of the other studies looked purely at that question and examined how the climate had changed, particularly passages out of Africa into the Middle East, and how wet it would have been. So could people, lots of people, have left and actually found food and found decent places to live that weren't just super dry desert?</p>

	<p>And the times when it was much wetter and would have supported life kind of coincide with this window, this 80,000 to 50,000 year window. Not completely, so there's still a lot of room for debate here. Plus, on top of that, we know for certain that there's evidence that people did leave Africa before that time too. So there were already groups of archaic humans in Asia and in Europe.</p> <p>And so this big mob of immigrants coming out of Africa would have met those people. And we still don't really know what happened to them. There's some hints, but we're still not sure.</p>
FLATOW	So there were like three studies then? There was more than one study.
NEWITZ	Right. There were three studies, two of which looked at genetics and one of which looked at the climate that would have allowed people to leave Africa during that time.
FLATOW	So if we had our genetics-- all genetics done together, we'd see that there's some commonality.
NEWITZ	That's right. Basically, all of us are descended from a big group of immigrants who came out of Africa.
FLATOW	We'll have them over for dinner on Sunday.
NEWITZ	Have a family reunion.
FLATOW	Wow, that's fascinating. Thank you, Annalee.
NEWITZ	Thanks for having me.
FLATOW	Annalee Newitz is the tech culture editor for "Ars Technica" based right here in San Francisco.