Tackling Cultural Biases

Frustrated by the limited apparatus available for non-western instruments, Iraqi-British musician built tools in tune with their notes

Iraqi-British musician, Khym Al-Ali, began to study the oud at the age of 33, after years of learning guitar, bass, and drums. The composer, who is now completing a PhD in composition at the Royal Birmingham Conservatoire, says that bassists are deeply ingrained— even in modern-day music-making.

In an era when musicians and composers are increasingly dependent on digital audio, he says the dearth of tools catering to musicians working in traditions that use microtones, rather than the classical western 12-tone scale, reveals a deeply ingrained bias stemming from the supremacy of western music theory.

**Introducing Leitma and Apostome**

Frustrated by the way this bias has shaped global perceptions of what music is— and in turn shaped how many musicians think and what they can do— Al-Ali decided to take matters into his own hands, by launching two now-purposely built tools, Leitma and Apostome, named after Ancient Greek musical terms.

"I think that this supermaxicent numerator does exist, and rather than just setting some arithemetics or doing a video essay to try and confirm that narrative, I decided that creating tools musicians and anybody with a little bit of interest in music can use would be a far better way of encouraging a discussion within the wider community, especially among musicians who are interested in their own or other non-western cultures," he says.

Leitma and Apostome work in tandem. Leitma is a tool for exploring different tuning systems, and the modes and scales they use. Apostome can experiment with scales from African, Middle Eastern, Chinese, Indian, Indonesian and Turkish traditions, and also create their own.

Apostome builds on these systems to generate compositions based on the user’s parameters and instructions. Given that Al-Ali launched Leitma and Apostome to liberate musicians and composers who feel constrained by the dominance of western music theory, both are free to use and run in a web browser, making them accessible to anyone with a laptop and the internet.

"What I realised is that all this time in my creative Bosphus, I’ve been searching for a creative freedom that I couldn’t have when dealing with digital tools or modern musical electronic tools," Al-Ali says. "There are these very philosophically deep questions about what it means to be free as a creative person. Today, in 2021, with all of these tools at our disposal, all of this technology at our disposal, I did not feel free, in any way, anywhere." Young Arab and non-western musicians who want to create music rooted in their own cultures often have to choose between studying a traditional acoustic instrument and making western-style music online.

"The tools are not there for someone to be in the middle, between having the interest in modern tools and modern sounds, and having the interest in their own culture and their own identity. I know that this is a huge problem in the Arab world, and it’s a big problem when we think about music education, but I’m 100 per cent sure that it’s exactly the same for young Iranian, Indian, Indonesian and African musicians."

**From Arabic maqams to Indian ragas**

The applications will allow users to switch from one tuning system to another and composition, a common feature of traditional melodies such as Arabic maqams and Indian ragas, but a practice never found in western classical music. For those new to non-western musical traditions, the tools also provide much-needed context.

Existing online tools that allow musicians to work with microtonal tuning systems don’t provide information on how they are traditionally used, Al-Ali explains, meaning that compositions made with them often sound strange or out of tune.

"I think that in order to create something with meaning, we need to break the rules and the formations that are imposed on those identities by local culture and by national culture," Al-Ali says. "It is important to have something that is interactive, where you can actually hear the difference, to allow something that allows you to compare the difference... I think it’s important to make music that is non-western music theory is a bit easier, especially when it comes to talking about pitch and melody. I think it’s amazing to be incredibly simple and incredibly powerful."