Keylab
BIG VOICE RECORDER + REMIXER
July 22, 2024

Soundscape Research on the City's Sonic Fingerprint

- a cultural recorder → a cultural remixer
- a tool that captures, and presents, the acoustic fingerprint of a city
- a "big voice" as in the acoustic fingerprint of a city
- a remix interface that creates a dense 'spectrum' – a musical drone that represents the city's soundscape as recorded by the participants
- Remix app gives the users freedom to fluidly mix between key elements of a soundscape that we define, potentially:

   natural
   cultural
   industrial
   technological

   natural — cultural
   high fi – low fi
   high tech – low tech
   signal – noise
   neutral – emotional sounds

   rhythmic — ambient
   varied — continuous/constant

   human-made
   transportation/traffic
   construction
   animals/insects/birds
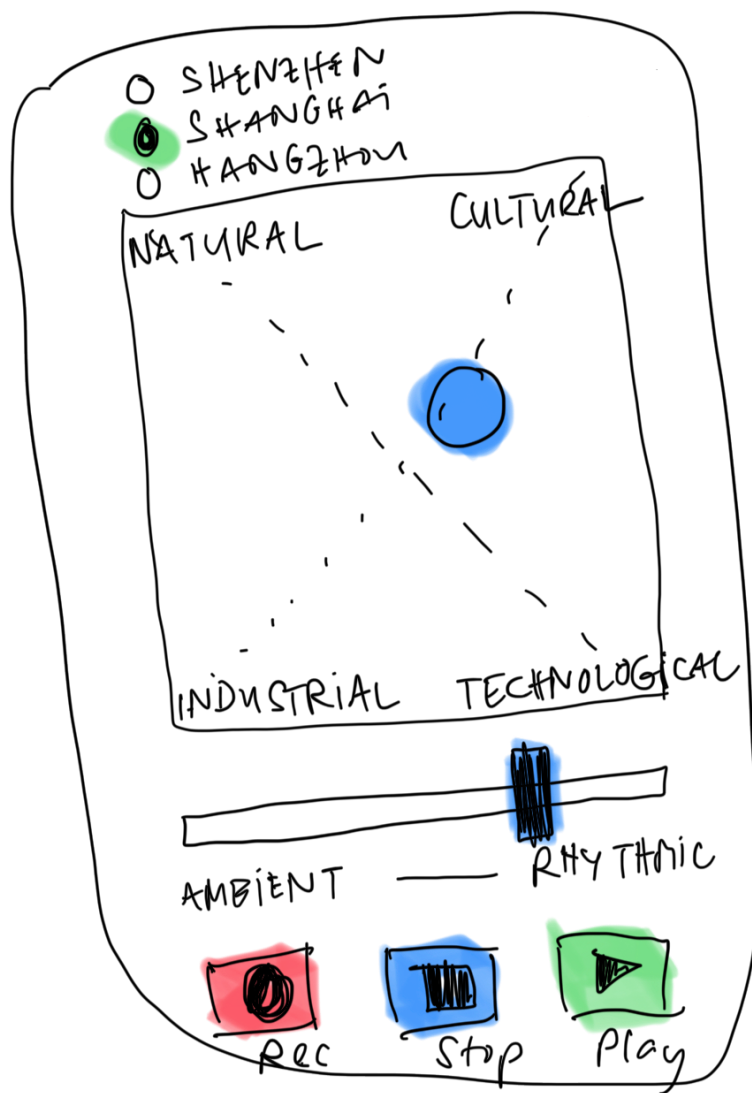   **industry/technology**

- ask people to record sound, and then to take 1 photo of recording situation, which is also uploaded.
- give people the possibility to add tags and require them to answer 1-2 open text questions.

Technical Details

- tool is based on sampling rather than synthesis (or a mixed form in which sampling dominates)
- networked, cloud-based
- computational analysis of sound input
- front-end user interface that gives user agency to remix the city's sonic fingerprint and produce a loud, dense, interesting sound (not just noise)
- rhythm plays a huge role when crafting a dense stream of sound

Input analysis

- what info to get from user: ask them to help us identify what they record
- computational analysis: run rhythmic peak/impulse detection/onset detection
- run spectral analysis/frequency band analysis → how dense? which frequencies dominate?
- run some sort of analysis for continuity/constancy of density across bass/mid/treble
- run semantic analysis: what could it be?
- classify/sort materials

Visualization

- user's recording must be visualized right away after recording as a reward for their contribution
- the "Big Voice" in the database needs visualization, to show to the users how the collection is growing day by day, and to show them results
- remix tool needs visualization component.