B Soundthinking

Sonic Architecture for Iguatemi

2012 | Brazil

Our methodology

Developed by Paulo Dytz, Sound Thinking is a method that seeks to generate solutions to a problem even before thinking about the sound. The idea, similar to design thinking, is to bring people from different areas inside the creative process, aiming to raise the level of innovation and help to maximize the desired results through sound. It has three stages: to listen, to create, and to implement.

Our Client

Iguatemi is one of the biggest shopping malls of southern Brazil, located in Porto Alegre, capital of the state of Rio Grande do Sul. It is part of the life of the people of the city, who grew up inside the mall. It is the main reference of shopping center, and is attached to people's affective memory. However, besides being the city's mall, it also represents a sophisticated universe and ideas that are associated with innovative actions of great impact.

Our initial demand

We were initially called to work on a special playlist for the inside of the mall. But following our Sound Thinking methodology, before adding more sound to the environment, we needed to understand some important points in order to provide a more appropriate scope of action. Questions such as: what was the level

of the background noise? What were the sound manifestations present in the mall? How collaborators were communicating with clients through their voice? Are they congruent with the brand's DNA? Were there other touch-points that could be used to generate a greater impact through sound?

Our Challenge

When provoking and questioning the mall about the real role of sound in the brand's context and in its consumer atmosphere, we had more questions than assertions in return. Then, we jointly defined a goal: to transform Iguatemi's consumer atmosphere in a unique, sophisticated, and more agreeable space; one space that connects our public to the fashion universe and contemporaneity through sound.

Human Context

Iguatemi’s primary group of clients belongs to classes A and B and oscillates between the traditional and the new. While the first group values the roots, the other is connected to everything that is happening all over Brazil and the world. However, these consumers are not the only ones to circulate in this environment, there is a group of collaborators and third-party workers that are also affected by the sound, and contribute in the perception of the mall’s brand.

Sonic Context | Background Noise

Iguatemi is a sophisticated space. Among other aspects that conform to this context, acoustic comfort is synonymous of elegance and sophistication. A less noisy and agreeable space impacts the productivity of the collaborators and hired workers, at the same time keeping clients inside the mall for longer periods. The noise measurements were carried in the internal space of the mall, especially its circulation areas –a total of 45 measurement spots. These locations were carefully chosen, taking into consideration the flow of people, type of stores, and other relevant points.

Methodology

The measurements of Sound Pressure Levels were carried aiming to comply with NBR 10152 – “Noise Levels for Acoustic Comfort”, established by the Brazilian National Standards Organization (ABNT). The times and days of

the measurements were set based on the hours and days of extreme flow of people (low and high) in the mall.

Conclusive Technical Evaluation

The sound pressure levels measured in our evaluations vary between 54.5 and 82.7 dB(A), thus being considerably higher than the recommended levels by Brazilian National Standards Organization's NBR 10152 (Noise Levels for Acoustic Comfort). The main contributing factors for these high levels are the consumers that move, chat, and enjoy themselves. However, there are other specific situations that contribute: sound equipment from the stores at noisy levels, air conditioning, engines, machinery, fans, escalators, ice cream machines, and ATM machines. Only some of these situations are easily corrected, while others are more troublesome. In our opinion, the most difficult solution, but one that is imperative for our goal, is certain construction material used, such as ceramic floors, walls or façades with rigid or non-absorbing material –especially the large gaps ending in light metal or glassy structures. These conditions are favorable to reverberation, echoes, refraction, and even diffraction. Three sources of noise were detected: coming from the mall, sellers, and from the customers themselves.

Sound Context | Voice

Among the sounds that compose the soundscape of this space, the voices of those who deal directly with the public have vital importance –it is through the spoken voice of these representatives that the company reaches to its clients. The

voice, including the diction, vocabulary, and knowledge about the space/subject/product, together with the ability to listen are the main channels of communication with the clients, being able to create positive or negative impressions. Through individual evaluation, carried by a phonoaudiologist, it was possible to map the voice of the following groups: reception, concierge, family space staff, and security staff. The goal was to identify whether their use of voice and language skills were adequate to the specific functions in the workspace. Also, we verified whether they were close to what was pre-established as the voice for the expected sonic identity.

Vocal Evaluation Method Used

Auditory-Perceptual Analysis carried by a phonoaudiologist.

Expected Vocal Pattern

Considering the function executed, we defined that the following attributes must be transmitted through voice:

- Security
- Availability
- Empathy;
- Elegance;
- Respect;
- Cordiality;
- Patience;
- Joy;

- Agility;

- Seriousness;

- Control;

- Charisma;

- Communicability;

- Accessibility.

The attributes listed above are achieved by: a clear and effortless vocal emission, balanced resonance, adequate intonation and frequency, precise articulation, normal speed, absence of vocal attack combined with adequate pronunciation and verbal fluency, and no mistakes of verbal or nominal concordance. We interviewed 52 collaborators. In general analysis, the evaluations were satisfactory, showing that the evaluated teams have communicative competence, with high indexes of availability (99.26%), patience (92.52%), respect (96.44%), cordiality (95.96%), empathy (95.31%), communicability (94.37%), accessibility (94.37%), and seriousness (93.38%). Some other attributes scored lower percentiles, which we identified as items to be improved: control (78.49%) and agility (75.32%).

Among the negative aspects identified are: slowness (12.79%), insecurity (9.82%), de-energized (9.21%), inelegance (6.56%). These were also identified as points to be improved. We believe that in isolated cases of wide deviation regarding the vocal function, improvements and solutions can be brought to specific needs through individual orientation and collective training of Vocal Expression, Diction, and Oratory. This also helps with the general improvement

of the teams, aiming for a standardization of the communicative profile of the company.

Stage: “To Create”

During the “listen” stage, it became evident that Iguatemi was in a growth phase, and intended, each time more, to look into the future by evoking an atmosphere of fashion, sophistication, elegance and contemporaneity for its public. Nonetheless, the sonic manifestations that were investigated through non-musical and vocal elements did not express the brand’s DNA.

Summarizing, we were asked to maximize the brand’s ideas through musical elements inside the mall, but faced prior needs other than introducing more sound in the consumer environment. Factors such as elevated background noise levels caused discomfort and irritability in clients and collaborators. Some of these emissions were controllable, but the mall did not have the rules to reduce them. As for the vocal aspect, collaborators did not have an adequate vocal pattern and conscience of their role in the perception of the brand by the clients.

This way, our goals became clearer: to generate guides to manage the controllable noise, to define vocal patterns for the collaborators, to identify musical moods that would be congruent with the mall’s primary public, and to conceive a project for better intelligibility and control of the sound projection inside the mall. The first step, however, was to establish the sound pillars of the brand. These are as follows:

Fashion: To be ahead, evoking musical tendencies.

Style: To sound unique, personal.

Sophistication: Take care of every detail surrounding the sound.

Experience: Generate experiences that connect our public with the world.

Creating Manuals and Training Collaborators

We created Sonic Identity Manuals, an unseen tool in Brazilian malls. A simple but significant change took place: every security staff member started to wear headsets for their radios. Each staff group –managers, salespeople, and other collaborators– was oriented specifically, with materials developed collaboratively. After, we selected and trained the “noise patrol”: a team of collaborators from maintenance and security that became responsible for the control of the sounds coming from machinery and mobile equipment, as well as checking the volume of the music emitted by the stores. There was a reduction of 10% in the background noise.

Gates

We produced new messages for the entrance gates: shorter, more rhythmic and with better sound quality. This way, we reduced the waiting time from 8.2s to 4s. The vocal pattern was also altered: we opted for a young male voice, in a conversation-like tone.

Sonic Moods

Iguatemi carried a behavioral study of its public, creating categories of profile and objectives related to day and time of the visit. The mall also indicated behavioral targets for each period of the day, emphasizing the values of the brand. Based on this material, we proposed an excitement vs. valence mood graph, naming each quadrant according to the mall’s context (e.g.: tedious, anxious,

relaxing, and exciting). Additionally, we took into consideration the dynamics of the mall's environment in correlating the moods with primary clients. In order to do that, we focused conceptually on the change from one quadrant to another in the graph. This way, our starting point for the musical moods were the quadrants that the mall would like their customers to be. The development of these moods departed from a careful list of musical and sound parameters, which was defined specifically for every time period of the mall, with the target public in mind.

The direction in the graph (e.g.: Tedious →Relaxing) also thought of the stress level of the public at the time and day of visit. It is noteworthy that the choices of parameters were based on: local cultural aspects, research on musical preference, and effects of some parameters on altering moods.

Initially, we grouped musical styles into dimensions based on their general mood influence in this situation. We indicated primary and secondary stylistic dimensions, as well as the styles to be avoided on specific times. Other parameters indicated were: tempo, event density, texture density (number of layers), timbres/instrumentation, and presence of vocals, rhythmic characteristics. Items such as familiarity and artist dates were incorporated for being important aspects regarding musical preference. Finally, we indicated some tracks to serve as references that grouped the selected parameters. From this parameter list, we created mash-ups following the established guidelines.

More intelligibility and control of sound

We installed microphones to capture the noise variations generated by changes in the flow of people. However, we did not want a simple volume

control: with software developed specifically for Iguatemi, we were able to control the sound of determined instruments or vocal being triggered from Ableton Live. We are able to keep or mute tracks depending on the level of noise and frequency of customers detected at any given time. Also, the system allows reacting to an abrupt change of customer frequency or behavior: we have total control over it. Finally, we were careful about the system being projected with maximal intelligibility. In order to achieve this, we used a process of auralization, in which we capture the acoustic characteristics of the environment, providing better directionality and sound fidelity. More than simply providing sound, we took special care in composing the sound atmosphere of Iguatemi.