

Sonic environment and commercial attractiveness in the center city of Mestre (Venice)

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Table of contents

1. Introduction.....	p.1
2. Context and objectives.....	p.1
2.1 <i>Mestre Shopping District</i>	
2.2 <i>Venice Noise Zoning Plan</i>	
3. Methodology.....	p.2
3.1 <i>Interview</i>	
3.2 <i>Field recording</i>	
3.3 <i>Questionnaire</i>	
3.4 <i>Soundwalk</i>	
4. Impact of Covid-19 on the activities...	p.5
5. Main findings.....	p.5
5.1 <i>Interview</i>	
5.2 <i>Field recording</i>	
5.3 <i>Questionnaire</i>	
5.4 <i>Soundwalk</i>	
6. Contributions.....	p.7

1. Introduction

The present research intends to deepen the relation between urban studies and sound studies. Acknowledging how urban research is manifesting a growing interest in the urban sensory environment, the study focuses on the notion of affective atmosphere as “the very sensuous interface of people, places and things; as a vague yet anything but weak phenomenon that is staged, culturally informed, and manipulated to achieve social, political, and economic goals by tapping into people's emotions and affects.”¹ In particular, the study addressed the contribution of the sonic environment to the formation of affective atmosphere, and suggested that a critical understanding of everyday urban sounds can trigger urban analysis and advance policy analysis and design.

2. Context and objectives

Mestre is part of the Venice municipality, and its most populated conurbation. From the 1990s Mestre's city center, and particularly its pedestrian area, has been affected by a problematic drop of retail trade that caused a significant rise of empty retail spaces. As of September 2019, the trade association Confesercenti released a report that showed how, only within the area where the main square Piazza Ferretto is located, 15 out of all the 65 commercial spaces were vacant, which represent the 23,1% of the square's retail spaces and the 8,8% of all the spaces within the city center².

The research intended to investigate the decline of commercial attractiveness by analyzing Mestre's urban atmosphere. More specifically the study explored the role of the sonic environment and related human activities in the implementation of two urban policies: the Mestre Shopping District and the Venice Noise Zoning Plan. The aim was to reveal how a sound-considered urban policy design can potentially strengthen the commercial attractiveness and more widely the urban vibrancy of a medium-sized European city center undergoing social and spatial transformations. In order to approach Mestre's sonic environment the research also aimed to test a sonically-oriented mixed methodology as to prove how sonic inquiry in urban research can potentially advance policy analysis tools.

¹ Bille M, Bjerregaard P and Sørensen TF (2015) Staging atmospheres: materiality, culture, and the texture of the in-between. *Emotion, Space and Society* 14: 7.

² Confesercenti Metropolitana Venezia Rovigo (2019) *Osservatorio su Mestre 2019*. Available at: <https://confesercentivero.it/wp-content/uploads/2019/10/Osservatorio-su-Mestre-2019.pdf> (accessed 27 march 2021).

2.1 Mestre Shopping District

In 2019 the municipality of Venice launched the Mestre Shopping District (MSD) as to collaborate with the main trade associations in fostering the city center's commercial attractiveness and support traders through a strategic direction in the making of a new image of the pedestrian area. By the end of 2019 about 170 traders joined the District out of the 770 present in the city center. MSD supported traders through public fundings by introducing a new coordinate image, an App ("Fai Centro!") where customers could coordination of retailer's media contents, a unified digital customer service ("Miglio digitale"), and a partnership with hotels and restaurants for spreading the District's presence within the city. The strategy aimed for a direct involvement and collaboration between traders, hoping to initiate a positive circle that could potentially be self-financing in the mid-term.

2.1 Venice Noise Zoning Plan

The Venice Noise Zoning Plan (NZP) divides the municipality in 6 homogeneous classes, indicating for each a permitted sound pressure level for daytime and nighttime (measured in decibels dbA Leq, where Leq is defined as the equivalent continuous noise level). The classes range from Zone I (most protected areas, max 45 dbA Leq from 6am to 10pm; min 35 dbA Leq from 10pm to 6am) to Zone VI (industrial areas, max 65 db all day long). Piazza Ferretto's pedestrian area falls within Zone IV (intense human activities, max 60 dbA Leq from 6am to 10pm; min 50 dbA Leq from 10pm to 6am). The NZP administers also the noise complaints and monitors sound emission to compliance with the Plan's quantitative thresholds. In monitoring sound emissions, an important variable the Plan takes into account is the "differential threshold", which limits to 3 dB during nighttime and 5 dB during daytime noise level to exceed the average background measured during a length of time the officers find suitable for the evaluation.



Fig.1 Distribution of vacant shops (red) within the case study area (yellow)

3. Methodology

The mixed methodology used throughout the study combined interviews with stakeholders, field recordings, a survey designed for District's traders, and a soundwalk with local cultural organizations, aiming to explore participants' perceives sonic experiences. Consolidated methods commonly used within urban research thus joined experimental tools specifically oriented to the investigation of the sonic environment.

The study was divided in two phases:

- Phase I was developed from October 2019 to February 2020, and ended just before the Covid-19 pandemic started in Italy in the beginning of March 2020. The results from this first phase has been published in Di Croce (2020)³.
- Phase II was developed from March 2020 to October 2020, thus was particularly affected by the first wave of Covid-19 pandemic in Italy (March to June 2020).

For further informations regarding the impact of the pandemic on the research results see section 4.

3.1 Interviews

In order to gather a wide range of perspectives, ten interviewees have been selected among members of the main trade associations, municipality officers working within the Mestre Shopping District and the Venice Noise Zoning Plan, and other stakeholders dealing with local development within the framework of Mestre. The study collected in-depth semi-structures interviews, using a predetermined trace (although flexible) as to better understand the manifold accounts and opinions of the different participants.

The interviewees were asked, based on their specific field of expertise, to picture the causes of the drop of retail trade in Mestre's city center and to show the measures proposed or developed to address the problem. Interviewees were also asked to provide a personal understanding of the link between urban sonic atmosphere and public space's commercial attractiveness.

3.2 Field recording

Field recording is a phonographic method used to collect through microphones the acoustic features of the environment on a digital or analog audio support, enabling to play back and analyze the recording afterwards⁴. The field recording campaign held in Mestre's center city took place between November 2019 and February 2020. Seven spots were selected within the pedestrian area of Piazza Ferretto prior to the recordings, as to cover diverse acoustic situations related to the uses of public space and the overall commercial activity. A 5 min. recording was taken for each spot throughout day and night, more specifically in the morning (around 9/10am), in the afternoon (around 5pm), and in the evening (around 9pm), both on a working day and on a Sunday. The recordings were taken using a binaural technique where two omnidirectional microphones (i.e. recording in all directions) are attached close to the ears of the recordist, thus simulating human sonic perception especially during the playback phase and providing a realistic listening experience during playback. My direct involvement as researcher in this process was crucial, as I was able to perform the recordings and to report through written notes the most relevant aspects later during playback.



Fig.2 Spots where field recordings were realized (blue)

³ Di Croce N (2021) Le trasformazioni del commercio nell'atmosfera urbana. Ambiente sonoro e attrattività dello spazio pubblico nel centro storico di Mestre. *Archivio Studi Urbani e Regionali* 130 (forthcoming).

⁴ Gallagher M (2015) Field recording and the sounding of spaces. *Environment and Planning D: Society and Space* 33(3): 560–576.

The walk gathered 8 people, each of whom represented a local organization devoted to urban regeneration projects and particularly interested in the area of Via Piave and in its potential relations with the city center. With a total length of about 1.5 km, the soundwalk was divided in four parts, which gave participants time to discuss together the sonic experience perceived after the end of each segment. I was guiding the soundwalk also recording it through the same binaural technique used during the field recording campaign, and I facilitated the overall conversation and took notes as to better evaluate the results afterwards.

4. Impact of Covid-19 on the activities

Started before and developed during the Covid-19 pandemic, the research faced an ever-changing situation, particularly due to the first wave that affected Italy from March to May 2020. More specifically:

- All data collected during Phase I (October 2019 to February 2020) were realized before the first wave and lockdown measures. Therefore interviews and field recordings were not affected by the pandemic.
- Questionnaire were administered during the first lockdown phase in Italy (March to May 2020), hence the survey was conducted online. Despite the difficult situation experienced by traders, the number of responses (52 out of 170) demonstrates their interest in participating in the research.
- The soundwalk was realized in the end of October 2020, right before the second wave of the pandemic in Italy (beginning of November 2020). At the time, Venice municipality was however subject to security measures which prescribed the closing time of cafes and restaurants at 6pm. The number of participants and the nature of the activity ensured all the safety measures and inter-personal distance to be maintained throughout the walk.

As of Phase I, the collected data pictured an extremely interesting moment (right before the spread of Covid-19) for further comparative analysis between the pre-pandemic and the post-pandemic socio-economic situation. The study thus offered interesting insights about the changes and future prospects of use of Mestre's public space especially within the city centre's commercial area.

During Phase II, by adopting performative and collaborative tools (especially in regard to the soundwalk), the study also coped with the restrictions and measures against the spread of Covid-19, which profoundly challenged those urban research methods usually requiring interpersonal contact. In this regard the case study opens up a reflection on the limits and possibilities for interactive methods to maintain their approach also during the pandemic.

5. Main findings

The results gathered through the mixed method reveal the centrality of everyday sounds in the formation of urban atmosphere, and more specifically the crucial contribution of the sonic environment in Mestre's center city commercial attractiveness. The study demonstrates that a rich and more diversified sonic atmosphere is required both for the commercial development of Piazza Ferretto's pedestrian area, and for strengthening its social inclusiveness. Within this framework, the research acknowledges the minor role of urban policies to deal with the sonic environment.

5.1 Interviews

The interviews were key to clarify the functioning of the Mestre Shopping District and the Venice Noise Zoning Plan and confirmed their active role in shaping Mestre's atmosphere, especially in the context of Piazza Ferretto's pedestrian area. More specifically, the main findings emerging from the interviews are the following:

- Mestre's development and commercial attractiveness has been profoundly affected over the past decades by its proximity to Venice historic center, which reflected in a weak identity and unlively city image. Within this framework, Venice municipality never supported Mestre to become the administrative and economic center of the municipality and metro-area. In fact, Mestre has remained a small-town dominated by a provincial everyday life that seems not to acknowledge its size, its population, and its geographical centrality.
- Mestre has been particularly affected from the 2000s by the spread of many shopping malls all around its city limits. Their presence has weakened Piazza Ferretto's commercial centrality, and has contributed to limit public space vibrancy (and consequently the sonic environment richness and diversification) as less and less people were interested to cross the city center. However, Mestre's pedestrian area has maintained a symbolic role within the city, and also the municipality still choose Piazza Ferretto to host music events and entertainment shows.
- The MSD has successfully started a process of collaboration among traders located within the pedestrian area. However, the many initiatives promoted by the District revealed a prevailing State-aid mentality among traders, who are apparently keen to be more proactive and to experiment new ways to attract customers but are likely to rely on municipality's governmentality. Following this approach, many

traders have not considered adequately to adapt to new customers' needs (such as the growing number of tourists) and to modify accordingly the opening and closing time of their activities.

- The initiatives promoted by the MSD helped traders to coordinate their commercial strategies, especially in regard to digital communication. However most of the activities have been oriented to trade-related issues, thus ignoring to enliven the public space and to enrich the pedestrian area's sonic environment through events, music, etc.
- The NZP strongly limits nightlife in Mestre's center city, preventing a richer and more diversified sonic environment to attract potential customers. In fact, the NZP has to face a large number of noise complaints, most of which occur between local residents and trade activities, especially to cafes and restaurants that attract people outside their venues. More specifically, the NZP sets its differential threshold at 3 dbA during nighttime, which implies that from 10pm to 6am most of sound sources diffused within the public space (such as small music events or gatherings) easily exceed the limit as the measurements are taking into account a more silent background noise compared to daytime.

5.2 Field recording

The recordings offered a special perspective on public space uses just before the pandemic manifested, in a moment when retail trade was declining although the pedestrian area was still used by locals and residents as a walking and leisure space. The analysis of the recordings confirmed the framework emerging through the interviews, and suggested new perspectives for understanding the loss of Mestre's commercial attractiveness. The main findings emerging from the interviews are the following:

- Over midweeks, piazza Ferretto's sonic environment was mostly calm and uneventful at the time of the recordings, dominated during the midweek mornings by the chattering of elders sitting on benches or cafes and parents walking with their children, particularly an Italian tradition of mothers walking with their sons. Afternoons were enlivened by the sound of children playing, whereas non-Italian speakers (city users and tourists) chatting in small groups affected the overall atmosphere giving a multicultural sense to the environment. Evenings presented an uneventful and monotonous sonic environment where the chatting of young passersby was unlikely dominating the overall atmosphere, which was particularly affected by the absence of still open commercial activities. This analysis confirmed the main findings gained through the interviews, but suggested also that many city users (especially youngsters) were attracted to walk through the pedestrian area even if the nightlife was completely absent. This suggests the commercial underuse of the Mestre's central city.
- Over weekends, Mestre's pedestrian area presented a richer and more diversified sonic environment as many people were attracted by street markets and entertainment shows. Particularly during holidays (such as Christmas time), the square hosted some music events which contributed to an eventful and exciting sonic atmosphere. The situation, however, suddenly changed as soon as the events finished, and the pedestrian area turned back to its usual monotony and uneventfulness. This analysis showed that the majority of events were top-down, reflecting the precise institutional management of public space's uses and purposes and the lack of traders' determination to contrast on a daily base the stagnant situation through bottom-up initiatives.

5.3 Questionnaire

The questionnaire deepened trader's sonic perception within the pedestrian area, and provided interesting insights about their (active or passive) role in shaping a richer and more diversified urban atmosphere as a premise for increasing commercial attractiveness. The main findings emerging from the questionnaire are the following:

- Most of traders follow similar opening and closing time for their activities (from around 9am to 1pm, and then from around 3:30pm to 19:30pm). This means that during lunchtime and in the late evening most of the activities are closed with a clear impact on the uneventful character of the sonic atmosphere.
- During the morning traders find the pedestrian area's atmosphere mostly calm (34,6%), uneventful (30,8%), and monotonous (9,6%), as it is attended largely by elders especially during market days. During the afternoon the responses indicate a similar scenario although slightly more pleasant (15,4%), although mostly calm (21,2%) and uneventful (36,5%). This is explained by the presence of children playing, an increased presence of city users and clients of cafes especially during the happy hour. During the late evening traders find the sonic environment to be mostly calm (26,9%), uneventful (32,7%), and monotonous (21,2%). This perception is clarified by the significant reduction of passersby, whereas the absence of human activities leaves rooms, according to some traders, to a growing sense of insecurity, especially for women. In this regard traders acknowledge that the pedestrian area would need a larger presence of human activities rather than new security measures, thus understanding their potential role in enlivening the everyday urban atmosphere.

- The vast majority of traders agree upon how from 2000s the spread of shopping malls and online commerce has negatively impacted Mestre's center city commercial attractiveness. In this regard, they refer to the lack of parking slots and to the difficult accessibility to the city center through public transportations. Within this framework traders confirm that the vast majority of clients are elders, whereas that younger age groups are less interested in experiencing the pedestrian area as a commercial space. Giving this situation, traders do not consider youngsters as a potential economic resource.
- Most of traders understand the raise of tourism as key to Mestre's center city commercial development. More generally they claim for a stronger touristic and cultural receptivity to be achieved within the pedestrian area. In fact, they believe that the restaurant industry and the organization of concerts and events are the crucial sectors to be expanded. In this regard, a large number of traders recognize that human activities are the main responsible of a pleasant and vibrant sonic atmosphere, although they recall their difficulties in dealing with residents' noise complaints as for the loud chattering of clients outside those venues opened at late evening/night.

5.4 Soundwalk

The soundwalk started in Piazza Ferretto and ended in Via Piave, covering about 1,5 km across the Mestre's center city. The participants considered the participatory experience really stimulating, and the informations they reported after each stop were very helpful to deepen the shape of Mestre's center city sonic atmosphere. The collective discussion that followed each stop gave participants the chance to exchange her/his point of view with the others, and brought up significant perspectives about the role of sound and sonic perception in public space. The main findings emerging from the soundwalk are the following:

- In Piazza Ferretto the soundwalk encountered a demonstration organized by a number of retailers complaining about the measures just approved against the spread of Covid-19, which were about to strongly penalize the retail sector. The climate of tension between protestors and police shaped an intense sonic atmosphere, whereas loud voices and cries were echoing also within the surrounding area the walk was crossing. Piazza Ferretto manifested its primary role as the symbolic center for public discussion, demonstrating how relevant was for traders to find an appropriate place where to address their protest.
- Moving from the main square to the surroundings area, participants underlined the deeply affective switch between the noisy and unpleasant square and the quiet surroundings where the absence of opened shops was described as a sense of loss. Moving away from the city center the passersby dwindled in density, while few sounds were coming only from the cafes in their closing time and from far away police sirens.
- Moving away from the core of the city center, participants slowly started to be more attentive to the elements and little details coming from the sonic environment – a fountain masking the noise from the traffic, the different impact of smaller and bigger vehicles in the main streets, a dog walking with its owner. Through these elements they noticed how the walk was approaching a more residential area, turning away from the most vibrant place of the city. This transition affected their discussion and description of the sonic experience to the point that even single details (such as the vibrating spokes from a moving bike) were noticed by participants, who underlined the stillness of the area and expressed the feeling of entering a completely different environment.
- The last part of the walk crossed the via Piave neighborhood, which was slightly populated only by few ethnic shops from where different languages emerged. Yet, participants realized they were missing a more diversified sonic environment compared to the one they used to perceive in the previous months. They remembered, in fact, an atmosphere enlivened by a variety of activities usually organized by local associations and informal groups, all of which were temporarily stopped due to the pandemic. This last part showed, once again, the centrality of retail activity in shaping a vibrant atmosphere not only in Mestre's pedestrian area but also in those marginal and vulnerable neighborhoods where the constant presence and activities held by local organizations seems to be so vital yet so fragile.

6. Contributions

Based on the findings gained through the mixed method, the research made the following contributions:

- The first contribution the study makes is underlining the link between a vibrant sonic atmosphere and the commercial success of public space. In fact, although Mestre's main square and pedestrian area still have a symbolic value for city users (a popular meeting and leisure space), the sonic character of Mestre's pedestrian area unfolds a monotonous atmosphere that mirrors a decreasing presence of human activities especially during nighttime. Reflecting a general underuse of public space, the lack of a richer and more diversified sonic environment contributes is among the main factors contributing to the fall of commercial attractiveness.
- The second contribution is that the role of local institutions, and most importantly urban policies, is crucial in enlivening public space's sonic environment as a premise of commercial development. Mestre's case

study shows, in this respect, that Venice municipality seems not to acknowledge a sound-considered urban policy design strategy, while its top down approach echoes the lack of pro-activity among traders.

- The third contribution refers to the part played by urban policies in shaping the sonic environment, even when not specifically related to urban sound regulation. As shown by the case study, without a clear consideration on the qualities and potentials of Mestre's city center sonic environment, both the MSD and the Venice NZP fail in contributing to a richer and more diversified sonic atmosphere. In doing so they limit Mestre's commercial attractiveness and miss the opportunity to develop night life as a strategy to combine economic interests and urban security issues.
- The last contribution the study makes is that a sonically-oriented mixed method can significantly advance urban policy analysis and contribute to policy design process. In fact, thanks to the findings gained through the mixed method, the study provided valuable policy recommendations that called for a joint action among the Mestre Shopping District and the Venice Noise Zoning Plan.