

Project SPP - Sub-Study SIM

***Soundscapes in public places:
Sound levels and social interactions in music venues - Exploratory study***

SUMMARY REPORT

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June 2006

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= AIM =

The general aim of the Project SPP "*Soundscapes in public places*" is to observe and describe which kinds of sound occur in different public places (including pubs/cafes/restaurants, music venues, cinemas, theatres, teaching venues, shopping centres, sport venues, transportation), which average and peak levels are typical, and how soundscapes influence human behavior in public venues.

The sub-study SIM, "*Sound levels and social interactions in music venues*", was a small exploratory study. The objective was

- to identify and describe the soundscapes in different types of public places, especially music, using both local observation and sound measurement;
- to interview selected visitors/customers in these locations about their expectations and satisfaction regarding the music level and type, and influences on their social interactions with others in the venue;
- to assess the impacts of a venue's music soundscape on people's social behavior.

= METHODOLOGY =

STUDY DESIGN

The principal plan for this study consisted of 6 elements:

- Representation of different types of public places,
- selecting customers in each venue, to be interviewed,
- inspection of the features of the visited places, especially their soundscape,
- sound level measurements,
- qualitative interviews, based on a list of defined issues,
- observation of behaviours regarding social interaction.

Given the very restricted resources, the number of venues, measurements and interviewees had to be kept small.

LOCATIONS

Three types of venues were chosen: Pubs, cafes/restaurants, and gyms. Most people use these facilities frequently. Each was to be represented by 3 places.

Further venues have been considered but had to be postponed: Music venues (including concert halls), cinemas, and teaching venues.

SAMPLING

Altogether 9 venues were selected for the data collection. In addition, a fourth restaurant was chosen to make observations in a venue which has no music playing, and thereby functioning as a control group.

All 9+1 venues are located in Melbourne, including the areas of Carlton, Parkville, Carlton-North and Fitzroy.

SOUND MEASUREMENTS

In each venue, several sound measurements were taken. The average sound level (L-eq) for several 1-minute phases and selected peak levels (L-max) were measured during a typical state of the venue.

As sound level meter the small "IdB" noise indicator by the French acoustics company "dB01" was used, which can easily be carried and handled.

OBSERVATIONS

The researcher observed in each location what type of venue is, which characteristics the place has, and what kind of customers are typical.

Furthermore, the social behavior and communication habits of the visitors of the place were observed, and how that related to the venue's soundscape.

INTERVIEW PROCEDURE

In each selected venue four customers were to be interviewed in a qualitative non-standardized fashion.

The interview was based on a set of 13 topics, including:

A= Familiarity with the venue; B= Reason/purpose of being in this venue; C= Personal company at this visit; D= Intention regarding verbal interaction with others; E= Expected sound level in this venue; F= Personal preference regarding the soundscape in this type of venue; G= Appraisal of actual sound level; H= Satisfaction (or lack thereof) with the venue's soundscape; I= Impact of the existing sound level on talking with other people; J= Main behavior to deal with communication difficulties; K= Overall liking of the venue; L= Demographic info; M= Any other comment.

The actual wording of the pertinent questions was decided within the social context and therefore varied to some degree. However, the order of the topics was the same in all interviews (as given above).

PARTICIPANTS

According to the research plan, in each of the 9 venues, 4 customers were to be chosen, 2 male and two female ones. The actual number of full interviews was 36. Their distribution is as follows:

>> Sampling per venue

Pubs (m=3): 5 females and 6 males, N=11;
Restaurants (m=3+1): 7 females and 8 males, N=15;
Gyms (m=3): 6 females and 4 males, N=10.

Thus the intended sample size was almost achieved, and the male:female proportion is even (18:18). This was intended, even though male customers are typically more frequent in all venues included in this study.

Regarding the respondents' age, the range was 19 to 28 years, meaning that the sample mainly consists of young people.

= SELECTED RESULTS =

In the following, a very brief sketch of selected results will be given; a more detailed report is currently (June 2006) in preparation.

[1] MOTIVES FOR VISITING THESE VENUES*Reasons of going there:*

The majority of pub patrons were there in order to meet up with friends and have a drink; some were also interested in meeting new people. The purposes for those in restaurants were meeting friends or family and eating. Gym patrons stated that they went there in order to "get fit".

Familiarity with the venue:

People interviewed at pubs exhibited a wide range of familiarity, ranging from first-time visits to attended the pub twice a week. Most restaurant patrons visited the venue for the first time. People in gyms were generally regular patrons.

Personal company:

All those interviewed at pubs or restaurants came with friends or family. To gyms, people tend to go alone.

[2] EXPECTED SOUNDSCAPES*Expected sound level in the venue:*

Regarding pubs, some of the interviewed people expected a medium and some a loud sound level. In restaurants, most people wanted a moderate sound level, i.e., the soundscape made up of both music and people talking should not inhibit one to talk easily. The majority of those in gyms expected notable extent of music.

Intention regarding verbal interaction with others:

All those in pubs and restaurants intended to talk with others during their time in the venue; however, most gym patrons did not go there with the intention of interacting verbally with other customers.

Personal preference regarding soundscapes:

Generally in pubs people indicated that ideally they would prefer a moderate sound level enabling good verbal communication, except of being there to listen to a band. In restaurants, patrons like low-level background music. Regarding gyms, about half of the people interviewed prefer intense and half modest music.

[3] ACTUAL SOUND LEVELS

For each venue, the typical average and peak sound levels observed during this study are listed below.

>> Sound levels in 9 venues

	<i>Mean L-eq</i>	<i>Typical peak</i>			<i>Mean L-eq</i>	<i>Typical peak</i>
Pub A	83	92		Gym A	68	83
Pub B	74	82		Gym B	75	88
Pub C	79	87		Gym C	64	89
Restaurant A	74	79				
Restaurant B	75	80				
Restaurant C	84	94		Venue X {no music}	71	80

In the pub and restaurant venues, the soundscape consists of three sources: Recorded music presented by a CD player through a speaker system; talking people; and traffic noise from outside. (Pubs may have live music, but this was not looked at in the current study). In gyms, talking is rather rare. The presented music is usually the main facet in the investigated venues.

The peak levels observed in the venues usually resulted from loud parts of the played music; in pubs 'talkative' crowds contributed to the loudness of the venue's soundscape.

>> Diagram of the observed sound levels in nine venues

	Mean L-eq	Typical peak levels	Evaluation
50			Sound level marked in yellow are considered as low to medium noise
51			
↓			
63			
64			
65			
66	Gym		
67			
68	Gym		
69			
70			
71			
72			
73			
74	Pub Bistro		
75	Bistro Gym		
76			
77			
78			
79	Pub	Bistro	
80		Bistro	
81			
82		Pub	
83	Pub	Gym	
84	Bistro		
85			
86			
87		Pub	
88		Gym	
89			
90			
91			
92		Gym	
93			
94		Pub Bistro	
95			

The observed sound levels shown in the table and the figure above are considerable, and significantly exceed acceptability levels identified in the socio-psychological noise literature or handled by the current noise protection legislation.

The limits for 'low' and 'medium' noisiness are usually defined as L-eq = 55 and 65; none of the venues falls into this sector.

[4] RESPONSES OF CUSTOMERS

Appraisal of actual sound level:

Most people interviewed in pubs stated that the actual sound level was okay; in restaurants, some visitors found it too loud. Occasionally the people rather than the music were seen as creating a loud soundscape. Those in gyms did not exhibit a clear pattern, however it seemed that overall people found the sound situation all right.

Satisfaction (or lack thereof) with the venue's soundscape:

Most patrons in pubs and in gyms were happy with the venue's soundscape. Regarding restaurants, some would prefer music of a different style to be played, depending on the venue's character.

[5] IMPACTS ON HUMAN COMMUNICATION

Impact of the existing sound level on talking with other people:

Of those interviewed in pubs, the majority stated that the existing sound level inhibited communication with others. This was also reported for restaurants, but less frequently. Those in gyms gave different responses - they don't worry that much about communicating getting difficult.

Main behaviour to deal with communication difficulties:

People use different means for dealing with communication difficulties; this refers to both the communication style and physical attempts to reduce the problem.

In the table below, a set of responses of those who indicated communication trouble is recapitulated.

>> Behaviours to deal with communication difficulties

	cases:
Talking louder	10
Talking about less intense subjects	2
Make use of body language	3
Avoid loudest areas in the restaurant or pub	1
Approach the other person more closely	2
Talking less often	2
Talking not at all	2

About half of these people decided to talk louder, and about 10% stopped talking (especially in gyms where communication with others is less often intended).

Gyms are obviously of a different nature. For example, in the gym which had lower sound exposure, some patrons used the option to choose their own sound type and level via headphones, which meant that these people were likely to be happy with the soundscape as they had control over their own sound level. An interesting point was made by a person who stated that silence would make her feeling uncomfortable while loud music motivates her to exercise by providing a beat. Quietness in the gym would drive her to talk to her friends, as a means of motivation - thus, rather than employing techniques to cope with loud music, she was using strategies to cope with the soundscape's 'calmness'.

Finally, it needs to be considered that all interviewed people had chosen their pub, eating place or gym freely, based on the function, convenience and image of the venue, and consequently most of them overall liked it.

= CONCLUSIONS =

This exploratory study about "*sound levels and social interactions in music venues*" is a small one and should not be 'over-judged' ... The results are pretty obvious though: the soundscapes in pubs, restaurants and gyms are characterized by considerable sound levels; patrons have some problems with the fact that verbal communication is impeded; yet most of them adapt to that and generally like their chosen venue.

Some customers specify their assessment, for example, they distinguish between re-played and live music, they respond differently to various music styles, and they have specific expectations regarding particular sections of a pub or gym. Also, familiarity of a place, friendly service and - in case of restaurants - food quality are likely to enhance the appraisal of a venue and counterbalance unpleasant soundscape features.

The findings gained in this study can be interpreted as part of a wider context: Quiet localities have become rare, certainly in Australia's big cities, and a need for music in about every kind of public place seems to be postulated. The far-reaching cultural change regarding the soundscapes in public places - such as markets, pubs and restaurants, music venues, cinemas, theatres, teaching venues, shopping centres, sport venues, transportation facilities - is obvious.

The empirical data induce manifold contemplations about the significance of an environment's 'serenity' ... While technology-induced noise (e.g., car or aircraft or workshop noise) has gone down, society-induced noise sources (e.g., music in pubs or discos) have become far more frequent in about every 'metropolis' ... May be, quietness is nowadays almost alien to urban people, given that many citizens have never experienced a quiet environment? And loud music is an essential activator and motivator for modern-day humans?

Further research appears to be indicated. It would be worthwhile to widen the type of looked-at venues, to conduct more detailed sound measurements, to employ behaviour observation methods, to explore the influence of people's age and gender, and to identify the relevance of the kind and the level of music exposure for the overall evaluation and acceptance of soundscapes in public places.

Finally, it is intended to conduct related studies in other countries, thereby gaining insights into cross-cultural differences in the influence of music on soundscapes.

= REFERENCES =

This report does not quote references within the text. However, some relevant literature for this research issue is listed below.

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= PROJECT TEAM =

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