

Ishibashi Soundscape

Investigating the Soundscape of Urban Japan

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要 旨

本研究の目的は、大阪市郊外にある池田市石橋商店街の音の用法を描き出すことである。その考察は「音は都市環境を充たし、形成する」という仮説に基づいている。マリー・シェーファーのサウンドスケープ理論に、ジェイン・ジェコブスの都市理論を組み合わせ、機能的な側面からサウンドスケープを検討しようというものである。録音、測定、質問票、聞き取りなどを通じて、石橋のサウンドスケープの聞こえ方やPAなどの使い方が明らかにされるが、特に人工的に設置された音が非常に重要な役割をもっていることが確認された。そこには2種類の音響システムがあり、ひとつは商店街全般にくまなくきこえるものと、もうひとつはそれぞれの店が使っている個別的なものである。このシステムは重用されているが、必ずしも訪問者にはその意図がうまく伝わっていないように思われる。結局、このシステムの主要な役割は商店街の雰囲気や範囲をつくることであり、それがこの場所の特性を生みだしていると結論づけることができる。

キーワード：サウンドスケープ、マリー・シェーファー、ジェイン・ジェコブス、サウンド・デザイン、共同体

Being a Danish sound researcher in Japan, I have noticed an overwhelming acoustic complexity in the public urban space. The main public spaces of Osaka are largely dominated by layer on layer of designed sound streaming from installed speakers. In front of shops, in shopping arcades, at train stations and even in public parks these applied sounds are a weighty part of the soundscape that shapes the experience of the places.

Soundscape research often neglects modern

urban sound environment, considering it noisy and undesirable. But from observing behaviour in Japanese urban space it seems, that the negative valuation of these complex and dynamic soundscapes are not entirely shared by users of the settings. On the contrary, some people, particularly young people, prefer places with complex sonic environments and choose these places as meeting points. Of course, the case may be the other way around: that intensely-used urban space is filled with commercial

and informational material, because the exposure is better. Either way, this dynamic calls for investigation of these soundscapes and their perception in order to develop ways of evaluating modern urban soundscape within a framework that suits modern urban experience.

1 Methodology

In order to describe the soundscape and the strategies behind use and perception of sound in Ishibashi shopping area this study seeks to combine the perspectives of Murray Schafer's soundscape theory and Jane Jacobs' urban theory.

1.1 Soundscape theory: Murray Schafer

The soundscape analysis is a method for investigating sonic environments and the perception of these environments. The theoretical framework is a combination of acoustics, psychology, and sociology, and the main methods are sound recording, sound level measurements, sound maps, sound diaries, soundwalks, questionnaires and interviews. As the name *sound-scape* suggests, the analysis emphasises the relation between *sound* phenomenon and perception of *landscape*, or space.

From its source the soundscape analysis includes aspects of cultural and aesthetics analysis. The Canadian composer and music teacher, Murray Schafer, first used the concept in 1968 in *The New Soundscape*¹⁾ and later developed the soundscape theory and methodology in *The Tuning of The World*²⁾. Schafer wanted to activate the soundscape study in an ambitious cultural analysis. Inspired by the artist John Cage, he adopted a minimalist aesthetic approach to environmental sounds, arguing that urbanisation caused

a lack of auditory orientation ability by transforming soundscape from *hi-fi to lo-fi*³⁾. Sympathising with the growing ecological movement, Schafer criticised modern soundscapes in urban environments and struggled to preserve historical sounds and soundscapes. Based on this set of values Schafer's soundscape theory tends to deal with urban sound environments in terms of noise and inconvenience. Not only does urban soundscape include a large quantity of unintended noise, it also incorporates the use of such modern technologies as speakers, tape recorders, radios etc. According to Schafer these technologies act imperialistically on the environments establishing *schizophonia*⁴⁾ and, in the case of background music, hides characteristic soundscapes under fictions⁵⁾.

The soundscape analysis has proven efficient in asserting connections between sonic environments and qualitative evaluations of noisy and unpleasant places. Combining quantitative measurements and qualitative interviews, the soundscape analyses can point at annoying sound elements and improve sonic environments. But the Schafer-ian soundscape analysis falls short in dealing with the broad spectrum of sound influence, which has to do with the atmosphere in the city and daily urban experience. The challenge for the present study of modern urban soundscapes is, on the basis of the soundscape methodology, to develop a framework to describe the functional value of sound in urban settings. Theoretically this includes revising some of the basic aesthetic assumptions in Schafer's work by combining it with an approach to urbanity.

1.2 Urban theory: Jane Jacobs

An essential functionalistic approach to urban life and urban form is the studies by the American urban activist Jane Jacobs in *The Death and Life of Great American Cities*⁶⁾.

Interestingly, though Jacobs' studies are based entirely on American cities, the conception of the city and the urban ideals match many aspects of Japanese cities.

The basis of Jacobs' work is observation of the behavioural patterns of citizens and of the developments of urban fabric. She defines the city as a structural system of its own order and develops theories with specific use only for city centres. The major methodological achievement of Jacobs is to recognize commercial and social designing processes actually going on in cities without central planning effort, and taking those as the starting point for an urban value system.

The main generators in this structural system, says Jacobs, are diversity and vitality. She launches a radical critique of modernist planning ideals, which, by focusing entirely on rationalist city renewal, fail to recognize the quality of the living diverse city. Jacobs' ideal city is one with streets bustling of diverse shops, people and activities, creating a vital atmosphere. She points out, that the vital city is a self-perpetuating generator of safety, freedom and life quality. The more life and activity in the streets, the more social contact, surveillance and community will arise.

Based on her analysis of city life, Jacobs establish an aesthetic standpoint quite different from Schafer's. Though she does not write much about acoustics, it is obvious that her ideal city is not necessarily one with a hi-fi soundscape. On the contrary, she often describes the streets as a complex visual and acoustical order resonating with the order of the city itself. In a long description of *the ballet* of her neighbourhood in New York, it seems the city itself comes to life in the occurrences and sounds:

“Mostly it [the night ballet] is a sound like infinitely patterning snatches of party conversation and, about three in the morning, singing, very good singing. Sometimes there is sharpness and anger or sad, sad weeping, or a flurry of search for a string of beads broken.”⁷⁾

Jacobs' experience of these sounds seems to be one of city community and not of noise and irritation. Here, the complex soundscape carries the notion of urban community and is thus an important factor in the individual appropriation of environments.

Jacobs' approach to cities may seem somewhat optimistic noting the later gradual attrition of street life due to the rise of department stores, suburban shopping centres and the like. Today, the lively street she describes is more seldom. But few places do Jacobs' conception of urbanity fit better than in the Japanese shopping streets, where the creation of diversity and the display of activity seem to be major concerns of the shopkeepers and the local trades organisation, the *shôtengai*.

Based on Jacobs' conception of the urban organism, the present research investigates the functional value of sounds applied to the soundscape of such a shopping area, called Ishibashi. Using soundscape analysis methods such as sound recording, questionnaires and interviews it seeks to describe the use of sound from a functional and not-purist point of view.

2 Process

This research was carried out during a research stay in Osaka from April 2005 till February 2006. The process can be divided into the following steps.

2.1 Selection of research subject

The metropolitan area of Osaka stretches well beyond the city borders and incorporates several centres. The areas around main train stations like Umeda, Namba and Tennôji are the most densely concentrated shopping centres in Osaka. But one finds shopping centres around most of the many train stations in the area.

Ishibashi was chosen as a research subject because it incorporates many of the acoustic features, found in the main centres, though on a smaller scale. Also this area maintains some of the virtues of the old Japanese shopping street, which are seldom found in the more modern central shopping areas.

2.2 Area description

Ishibashi is a part of Ikeda-shi, a city in northern Osaka Prefecture. Ishibashi has 7045 inhabitants, of which 1413 live in Ishibashi 1 Chome, the area where the shopping area is located⁸⁾. On two sides the borders of Ishibashi 1 Chome is constituted by the river Minô Kawa and the national highway 167. Through the area runs another national highway, number 171.

Fig.1 shows a selection of Ishibashi 1



Fig.1 Selection of modern Ishibashi map

Chome. The shopping area is west to the Hankyû Ishibashi train station, a transportation hub with northern lines to Takarazuka and Minô and a southern line to Umeda, one of Osaka's main centres. Ishibashi serves as train station and commercial area for Osaka University, Toyonaka Campus, Ikeda High School and Engei High School.

The shopping area has a clear visual and acoustic identity, distinguishing it from the surrounding area. It is equipped with banners alike and broadcasting speakers. With these features defining the shopping area, it consists of three roads all radiating from the west exit of the train station: Akaihashi Dori leads approx. 200 m. north and Handaishita Dori leads approx. 200 m. south, both narrow walking streets parallel with the train tracks. Saso Rôdo is a wider street leading approx. 260 m. west. Branching off from these mainlines smaller streets without characteristics of the shopping area serve as a local backdrop with residence quarters, small bars, restaurants and coffee shops.

Fig.2 is a diagram of the main roads in Ishibashi. The area lined with a thick line is the shopping area. The hatched area is a roof-covered arcade, constituting the main street in the area.

Ishibashi is an old village, which was gradually transformed into a suburban area during the last 100 years. In a topographical map from 1885-1886 (Fig.3) Ishibashi Village consists of about 20 houses clearly separated from nearby villages. When the Hankyû train lines were built in 1910, Ishibashi gained a central position in the area. Topographical maps from 1951 (Fig.4) and 1968 (Fig.5) show the rapid post-war development of the area, which is today fully incorporated in the metropolitan area of Osaka.

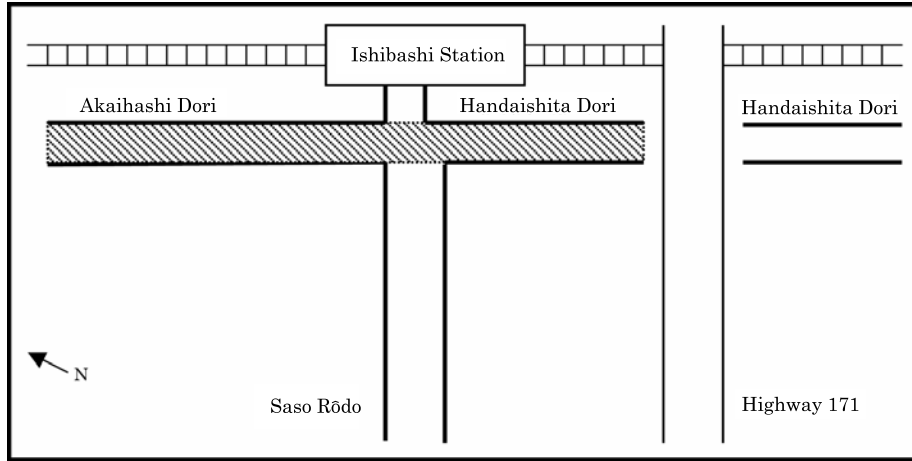


Fig.2 Diagram of Ishibashi shopping area

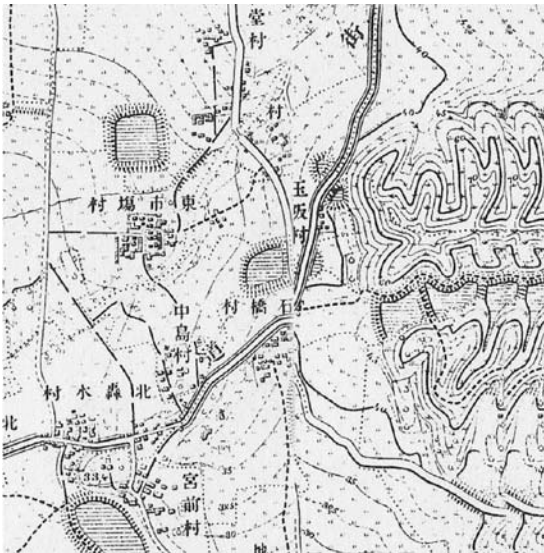


Fig.3 Selection of map showing Ishibashi 1885-1886

Today, the area has maintained a traditional character, with a narrow roof-covered pedestrian street and many small speciality-shops in aged buildings. A lot of the shops are family businesses with a long history. Ishibashi-ya from 1925 is now run by the third generation, and Sakaeya Kutsuten from 1953 is run by the second generation⁹⁾. The conservative character of the area corresponds with the slightly aged population in Ishibashi 1 Chome, 33 % being over 60 years¹⁰⁾.

2.3 Soundscape description

The Ishibashi soundscape was investigated during of process of continuous recordings, sound level measurements, sound map



Fig.4 Selection of map showing Ishibashi 1951



Fig.5 Selection of map showing Ishibashi 1968

drawings and related activities in the area.

The sound level measurements in daytime hours all show levels between 61 Leq and 69 Leq. A measuring in one of the back streets outside the shopping area shows a sound level of 51 Leq. This difference reflects the great distinction between the lively and bustling streets inside the shopping area and almost empty streets on the outside. The functional difference is trade.

Listening to Ishibashi shopping area, sounds of trade are prevailing. Apart from normal urban sounds connected to transportation (trains, cars, scooters, bikes, walking etc.), there are many applied sounds of commercial value. These are mainly sounds of sound systems and sounds of sales calls.

The main sound system in the area is established by the *shôtengai* broadcasting from 32 speakers in the area from 10 A.M. to 8 P.M. The broadcasting is audible all over the area. The content is music, mainly remakes of old and new popular songs, and advertisements from local shops or from the *shôtengai* as a whole. These productions each last 20-30 minutes. They are made by a PR-company and renewed every month. Sometimes the sound system is also used for instant messages read from the *shôtengai* office.

Most of the shops in the area also have their own sound systems, broadcasting radio, music or local advertisements. Speakers are mainly directed towards the inside of the shop, creating a distinct acoustic space inside the shop. The arcade has a high concentration of shops with no separation between the shop and the street. 50% of the ground-level shops there are such *open shops*, allowing the pedestrian in the street to see the inside of the whole shop and to hear the sounds inside shop. This all intensifies the acoustic complexity experienced as one

walks down the street. Three shops in the arcade also use a speaker directed towards the street, thereby requiring the attention of people passing by.

Sales calls are frequently used in three shops in the arcade: a pharmacy, a greengrocer and a fish shop. The shops are spread over the area, making it possible to hear the calls in most of the arcade.

2.4 Interviews and questionnaires

In order to investigate the perception and use of sound in the area two questionnaire investigations and three qualitative interviews were carried out.

The three interviews with shop proprietors were all done in Japanese with interpreters and later translated into English. The head of the local trades organisation, Mr. Akari, was interviewed in his shop November 21st 2005. The proprietor of Sakaeya Kutsuten, Mr. Tsujimoto, and the proprietor of Ishibashiya, Mr. Kawakuchi were both interviewed in their respective shops December 9th 2005.

Questionnaire-interviews with 31 visitors focussing on their perception of the Ishibashi soundscape were carried out in the afternoons of November 21st, December 7th and December 9th. The respondents were stopped in the street and asked to participate in the investigation. For the answers to reflect the perceptions of the soundscape in a large part of the arcade, the interviews were done in three different locations. The first took place in Handaishita Dori, the next in the central area in front of the station's west exit, and the last Akaihashi Dori close to a pachinko hall. Screening lightly regarding age and gender, the section of respondents is an estimated representation of the actual flow of visitors during the daytime. The age- and sex-distribution of the respondents is shown in Fig.6 and 7. Questions about the residence of respondents revealed that the

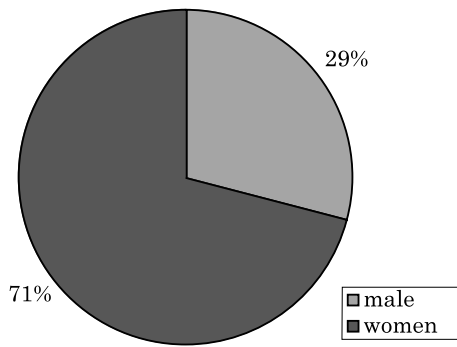


Fig.6 Gender distribution

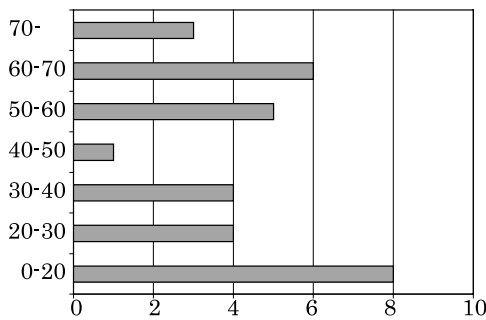


Fig.7 Age distribution

area has a rather strong flow of visitors from other places. Only 52% of the respondents lived in Ikeda-shi and 10% lived outside Osaka Prefecture.

Another questionnaire investigation was done among the shop proprietors. As with the previous questionnaire-investigation this one too focussed on the central Ishibashi-arcade. 76 questionnaires in Japanese were distributed to the shop proprietors February 2nd 2006. 27 out of 103 shops on the ground floor in the arcade refused to receive a questionnaire or were temporarily

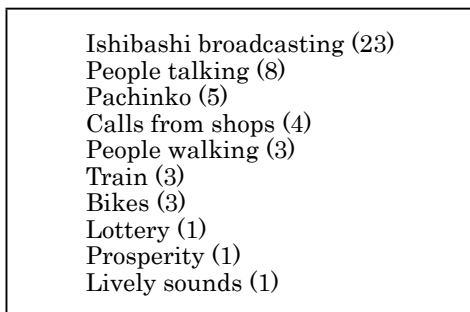


Fig.8 Perceived sounds

or permanently closed. 52 completed questionnaires were collected five days later, February 7th. The answers thus reflect 50 % of the shops in the arcade.

The questionnaires were created in English and translated to Japanese. Later the answers were translated to English.

3 Results

Asked which sound they hear in the area, visitors gave the responses shown in Fig.8. The dominant feature is clearly the shôtengai broadcasting, mentioned by 74% of the respondents. 52% of the sounds mentioned are commercially applied sounds (broadcasting and calls from shops). This dominance of applied sounds suggests that the characteristic of the soundscape does not come from natural sources, but rather from the use of sounds by the citizens. The figurative mentions of *prosperity* and *lively sounds* are noteworthy, because they embody some sense of trade and traditional shôtengai.

Only 29% of the sounds mentioned originate from some specific place within the area (pachinko and calls from shops). The lack of localized sounds, for instance from the river running through the area, indicates that there are few acoustically characteristic places within the shopping area. It seems the massive presence of applied sound excludes other less persistent sounds. Using the terms of Murray Schafer, the area has a lo-fi soundscape allowing few discreet sounds to be heard. Citing Schafer, one can say “there is no distance; there is only presence.”¹¹⁾

3.1 Shôtengai broadcasting strategy

Asked about the strategy of the broadcasting, the head of the shôtengai Mr. Akari Yôsuke gives four main reasons for having

the system: PR for the area as a whole, advertising for the individual shops, announcements in case of disaster or lost children and advertisements of public administration business with relevance for the tradesmen. While these strategies are all concerned with delivering information to the listeners, there also seems to be another strategy behind the broadcastings. Mr. Akari makes the argument, that the music has a good influence on sale because it *makes people livelier*. The broadcasting creates atmosphere.

The main dilemma regarding the broadcasting, according to Mr. Akari, is to make sure everybody can hear the messages everywhere in the area without making the broadcasting too noisy. This issue also concerns the degree of repetition in the broadcasting: repeating can be a way of gaining the attention of people, but at the same time, it may be disturbing, especially for the shop staff who listen to it the whole day. In the questionnaires these presumptions were tested on the users of the area.

3.2 Visitor impression of Shôtengai broadcasting

Visitor respondents to the questionnaire were asked first to describe their impression of the area by given scales, second to describe their impression of the Ishibashi broadcasting by matching scales. The scales were “lively—peaceful”, “modern—old-fashioned”, “exciting—uninteresting”, “noisy—quiet” and “I like—I dislike”. Each scale had 3 positive and 3 negative values as shown in Fig.9. The diagrams in Fig.10 and 11 display

I like						I dislike
3	2	1	0	-1	-2	-3

Fig.9 Illustration of scale

the results after accumulating the values of all 31 respondents.

The two diagrams show a correspondence between the impression of the broadcasting and the area in general in terms of liveliness, old-fashioned style and noisiness, though the tendencies are less clear concerning the broadcasting only. This may be due to a lack of interest in the broadcasting, as shown in the clear tendency towards boringness.

During the interviews there was often a sense that the respondents had not noticed the broadcasting before or had never taken it into consideration. When asked whether they “like” or “dislike” the broadcasting 38% of the respondents put their mark in the middle between the two poles, indicating that they had no such opinion, and the accumulated value is correspondingly vague (1). The same goes for an extra question whether the

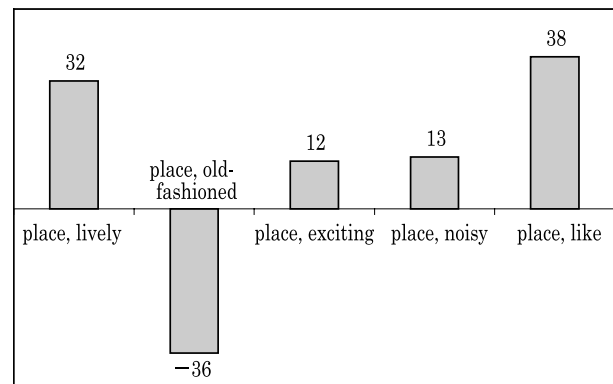


Fig.10 Impression of Ishibashi shopping area

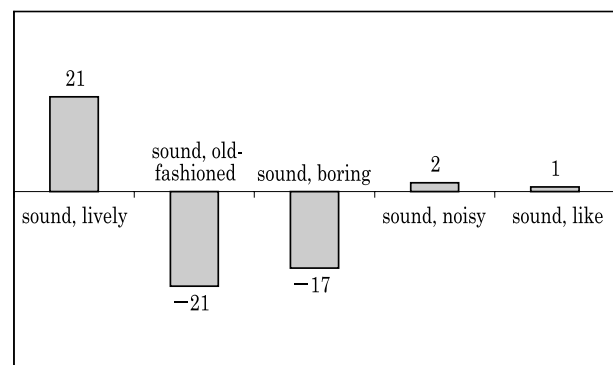


Fig.11 Impression of Ishibashi broadcasting

respondents “listen” or “not listen” to the broadcasting. Here 32% of the respondents put their mark in the middle and the accumulated value is -2.

The figures thus point at a lack of interest in the broadcasting. But at the same they suggest that the impression of the broadcasting is connected to the atmosphere as a whole. It seems the broadcasting is naturalized as a part of the setting, which adds to its colour but does not attract attention. The *shôtengai* strategy of giving information does not seem to work well with the general assumption that the broadcasting is boring. People do not listen to the information. On the other hand, the strategy of creating a lively atmosphere seems to have a clear effect.

3.3 Shop proprietors evaluation of broadcasting

Shop proprietors were asked to choose “agree”, “disagree” or “none of them” as reactions to 13 statements about the broadcasting. The results are ambivalent, but point at an overall satisfaction with the sound system: 73% think it gives important information, 65% think it gives the area a united shape, and 56% think it is good for the sale. At the same time only 40% think the broadcasting has a good influence on the area. 56% think it is irritating to listen to the broadcasting the whole day. Only 10% think the broadcasted music fits the area and only 27% think the music fits their own shop.

An interpretation of these responses is that the shop proprietors generally are happy with the sound system and the possibilities it gives for passing on information in the area. On the other hand they are not happy with the content of the broadcastings.

In the interview with the proprietor of Sakaeya Kutsuten, Mr. Tsujimoto, these feelings towards the sound system are expressed more clearly.

“Q: Do you like listening to the *shôtengai* broadcasting?

T: I don’t know if I like it or not, but it sometimes has a synergic effect. There is lots of music, like Christmas- and New Year-music.

Q: It helps lift the mood?

T: Well, yes. Sometimes when you listen to the music, it gives a mood of sales battle. It is that kind of feeling, I think.

Q: Do you like the way the *shôtengai* broadcasting is done? Do you like or dislike the music?

T: That’s a no. They are not broadcasting very noisy music or something. It is used publicly, so... For example there is information, the *ohako ichi* advertisement is broadcasted, events at Osaka University are advertised... It is a public thing, so there is nothing I like or dislike. Each shop has its own wired network, so the broadcasting from outside does not enter.”

It seems the system has an important role in uniting the area for the visitors and for the trading people. It is like a territorial mark, defining and uniting the area under the banner of trade. Because it is creating a “sales battle” and a “synergic effect”, the shop proprietor does not feel impelled to express opinions about the exact content in the broadcasting. It is the presence of the system, not the content of the broadcastings, which is important.

3.4 Sounds from shops

As Mr. Tsujimoto states, many of the shops

have their own sound system. A few of them also use sale calls to attract customers. When asked whether it improves the sale if the shop is audible from the street, only 23% of the shop proprietors think there is such a connection, and 69% do not think so. The shop proprietors who believe they can attract customers with sound tend to be those from shops with an offensive use of calls or speaker sound.

One of the shops, which have an offensive strategy regarding speaker sound is Ishibashi-ya. The shop has a speaker pointing towards the street, playing mainly modern pop music. According to the proprietor Mr. Kawakuchi the shop uses music as a part of a strategy to attract young people:

“It affects the customers to play loud music in front of the shop. It seems to be better than quiet. Our targets are young students. Trendy music can affect them.”

Other shops, which do not especially target young customers, seem to have a less offensive strategy than Ishibashi-ya. It seems mainly to be a question of creating a pleasant atmosphere for the staff. As Mr. Tsujimoto from Sakaeya Kutsuten says: “I often listen to radio in the shop. I can listen to the channel I like best.” The shop systems also prevent the staff from listening to the shôtengai broadcasting, which many of them find irritating.

As with the shôtengai broadcasting, the shop sound systems may be understood in terms of territorializing. Primarily it is a territorializing of one’s own space, the inside of the shop. Secondary sound may be used to territorialize the surroundings, hoping to win customers’ attention in a wider area.

3.5 Community and sales battle

The many layers of applied sounds in Ishibashi shopping area seem to have an important function in creating atmosphere and establishing territories or zones for customers and shop staff. Though the main purpose of these strategies is to sell more, it does not seem to be a disturbance for the visitors, who are generally very fond of Ishibashi and like the liveliness created by the sounds. Far from Schafer’s ideal of hi-fi soundscape, the area seems closer to Jacobs’ conception of the vital city, whose streets display the complexity of urbanity itself. One may add that the soundscape of Ishibashi not only displays urban complexity but also commercial uniformity. The music in the many shop speakers seldom differs according to the content of the shop, often just broadcasting the same radio channels.

Still the area has the characteristics of a community: a united form displaying varieties within. This is reflected in the soundscape, with the shôtengai broadcasting defining community area, and the many local sound sources creating varieties. The balance between standardization and variety seems to be a main feature of the Japanese shôtangai not only in Ishibashi. The soundscape is a key feature in this account. It is possible that a better knowledge about the effect of sound and a more careful design of sounds could help the shôtengai strengthen their identity and overcome the challenges of standardisation from big department stores.

Attention

1. Schafer, Murray: *The New Soundscape* Don Mills: MBI, 1969.
2. Schafer, Murray: *The Tuning of the World*

- New York: Alfred A. Knopf, 1977.
3. Ibid. p.43
 4. Ibid. p.88
 5. Ibid. p.98
 6. Jacobs, Jane: *The Death and Life of Great American Cities*. New York: Vintage Books, 1961
 7. Ibid. p.53
 8. By December 1st 2005. According to information from Ikeda City Hall.
 9. According to their present proprietors.
 10. By December 1st 2005. According to information from Ikeda City Hall.
 11. Schafer, Murray: *The Tuning of the World* New York: Alfred A. Knopf, 1977. p.43.

Ishibashi Soundscape : Investigating the Soundscape of Urban Japan

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This research aims at describing the use of sound in a suburban shopping area, called Ishibashi, in northern Osaka. It is based on the assumption that sound is a means of appropriating and forming urban environment. By combining the perspectives of Murray Schafer's soundscape theory and Jane Jacobs' urban theory it seeks to investigate the soundscape from a functional perspective. By means of sound-recordings and -measurements and by questionnaires and interviews it investigates the perceptions of Ishibashi soundscape and the strategies employed in uses of applied sound in the area. Ascertaining that the sounds of main importance in the area are applied sounds, it focuses on two types of sound systems in Ishibashi: the central shôtengai sound system and the sound systems in the local shops. Though these systems are used intensively, the strategies involved do not always correspond with the way they are perceived by the visitors in the area. The main important feature of the systems seems to be the creation of atmospheres or territories, which characterize the area or the specific places within.

Keywords : soundscape, Murray Schafer, Jane Jacobs, sound design,
community