The quiet city – planning and designing public urban spaces that meet people’s needs

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ABSTRACT

Quiet is a quality for the city. There is no absolutely defined idea what a quiet place is and, consequently, no exclusive list of quantitative criteria that defines such a place. Instead, characteristics and amenities of a place correlate with people’s lifestyles and their motives to use exterior spaces. Requirements for a «quiet» place depend on the socio-spatial context and the citizens’ needs for meeting, relaxing, saying hello, and feeling good. The Federal Office for the Environment has examined through case studies which places, in a city context, are perceived as a place for recreation, leisure and rest and what are paramount criteria for that quality. The studies show that differentiated, user-focused amenities and qualities of public spaces are significant for an attractive quiet strategy. This requires a forward-looking planning that aims to design appropriate areas and bring them together. Synergy effects between urban planning, open space planning, architecture as well as noise control have to be cultivated when it comes to the planning of quiet areas. In this way, the studies indicate, individual areas of high amenity values grow together into a coherent and nearby public space which represents a real counterpoint to noisy urban areas.

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1. URBAN LIFESTYLES AND PEOPLE’S NEEDS FOR QUIET

The current transformation European cities go through, shifting from an industrial history to a service based future, is closely linked to citizens’ lifestyles. People’s mobility behaviour, increased land use for housing, and changed leisure activities intensify the cities’ spatial growth. The progressive urban growth in Europe leads to increasingly unfavourable listening situations. The mobile everyday behaviour brings the «idea» of city to all places in the world where people live, travel to, work, transit. The city is a process characterised by varied qualities and sometimes ambivalent features. People permanently produce the city through their presence and their design and organisation of the city. Cities are therefore never static but always in audible change (1).

The key objective of the Swiss spatial planning policy is the internal development of urban and peri-urban spaces. The Swiss Planning Act (2) requires towns and cities to focus spatial growth to the already built areas. Internal development and the people’s unsatisfied need for mobility results in increased traffic noise. Moreover, because leisure activities and other uses in exterior spaces like cultural events and sporting events increase, daily life noise will rise too. This, in turn, augments

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the demand for public open spaces and recreational areas. People’s needs for quiet and, thus, public spaces which meet these needs are a main driver of the city process.

Acoustic quality in populated spaces have become an important issue in Switzerland in the light of an integral urban development and in particular in view of the qualities and amenities of the resulting public spaces. The Environmental Protection Act (3) and the Noise Control Ordinance (4) are the legal instruments available in Switzerland which aim to reduce emissions from noise sources and to protect people from harmful noise. The existing noise control strategy better life quality in many places. However, noise level thresholds permit an assessment about the acoustic energy of roads, railways and other noise sources, but are not sufficient to assess people’s needs for recreation and leisure and to determine areas appropriate for these needs. The Swiss noise codes also lack criteria by which the need for quiet should be handled nor do they contain requirements to designate and protect appropriate areas at all.

For the EU countries, e.g., the EU Directive 49/2002/EC on the assessment and management of environmental noise (END) requires urban areas with at least 250’000 citizens to identify and provide «quiet areas» (5). The END doesn’t contain set criteria for finding such areas and gives the possibility that cities use their own criteria, cf. (6).

2. CASE STUDIES ON PUBLIC SPACES WHICH MEET PEOPLE’S NEEDS FOR QUIET

The Federal Office for the Environment FOEN has examined with the help of workshops and case studies which places in a city context are perceived as places for recreation and leisure and which criteria are paramount for that quality. The case studies were carried out by interdisciplinary teams which consisted of urban planners, spatial planners, architects, sociologists and landscape architects, cf. (7, 8, 9, 10, 11, 12). The overall objective of the project was to get an overview about people’s needs for quiet and to find decisive criteria for appropriate public spaces which meet these needs. This overview aims to serve as a basis for the FOEN to revise laws and guidelines on noise control and acoustic quality for public urban spaces.

The starting point of the research is the premise that people experience quiet listening situations as something positive. This quality can be experienced both spatially (for a specific space) and temporarily (during a certain time). Thus, quiet listening situations are a kind of spatial and temporal relief from a negatively experienced listening situation. In the following chapters the main results of the case studies are summarised.

2.1 PEOPLE’S NEEDS FOR QUIET AND THE SOCIO-SPATIAL CONTEXT

In busy city centres with many shops and workplaces people expect places which are suitable for, e.g., talking to somebody, drinking a coffee alone, or having lunch with friends. These places allow a short and relaxing stay near busy areas. Figure 1 shows a courtyard which is set-back from the streets as an example. Its design and planting filter off the adjacent urban spaces both acoustically and visually. Places like these are largely free of commercial uses and they are characterised by a certain introversion in relation to the busy surroundings. The places are easily accessible and at the same time well delimited and filtered in their variety of uses.

In housing developments, which contain many buildings with significant residential space, people demand recreational areas for longer stays. Residents use these places, e.g., to have a walk, play, work out, barbecue and read. As an example, figure 2 shows a green and open space within a housing development which allows retreat and privacy even in an urban environment. Many people use this space simultaneously because it is family- and child-friendly, has a welcoming and public character, feels safe but not exclusive and is easily accessible.
Different persons have different motives for using public spaces and for getting involved with their surroundings. For example, youths are very aware of places where they can chill out, meet for sports and stay without being disturbed by adults and parents. Senior citizens, however, enjoy quiet and peaceful moments during the day when being alone and on long walks. The motives for spending time in public spaces can be grouped into three categories: recreation and relaxation, exercise and sport, and contacts and meetings. In terms of acoustic quality, these differences are to a certain extent ambivalent. Thus, planners can not simply make «quiet areas» available, but these areas have foremost to match the user’s needs. Without respecting the user’s needs a quiet area isn’t experienced as a quality.

Figure 1 – This inner city courtyard is set-back from the streets and shows an acoustic and visual contrast to its busy and noisy surrounding and are welcoming for lunch and coffee breaks (photo: Philipp Krass)

Figure 2 – In urban housing developments people demand child- and family-friendly recreational areas for longer stays where they can play, relax and do sports (photo: Philipp Krass)
2.2 DIFFERENTIATION AND CONTRAST

Another result of the case studies is that a place which shows high sound levels can be perceived as pleasant if the place’s overall qualities and features are better compared to the surroundings. Decisive for relaxation and experience of quiet are contrasts and differentiation, for example, in types of sound (natural sounds vs. street sounds), in sound levels (low vs. high, narrow vs. far away), in materials (green and soft vs. grey and hard), in movements (continuous flowing vs. hectic moving, slow down vs. speed up), and in spatial scales (pocket parks vs. large spaces). Quiet becomes evident and definable if a counterpart exists. The case studies point out that originality and uniqueness of a place meet people’s understanding for quiet and contribute to the place’s qualities and amenities.

The result also shows that a reduction of noise levels alone is in most cases not enough to ensure this quality. Acoustic measures always have to rely on supportive factors to improve people’s experience of quiet. For example, a limitation of a place’s variety of use can have a positive effect for one’s experience of quiet. Periods of use and, for larger areas, use-specific zones offer distinct and clear listening situations and produce varied atmospheres on which people can rely on. Water often has a positive effect for a place. The acoustic resources of water ensure a richness of sounds which is experienced by a listener as very enjoyable. Also green public spaces contain audible resources from wind, plants, and birds which improve spatial orientation and make listening situations more varied. Panoramic views and large scales may strengthen the users’ feeling of safety (keeping the overview), while small scales may support a feeling of cosiness and privacy.

The case studies show that GIS-based approaches can help to find potential public spaces where supportive factors are most likely to become true. To what extent a potential public space also has a positively experienced listening situation has to be proved, e.g., with the help of a participation process which involves users and residents and collects people’s local knowledge on a specific place.

In contrast, there are many unfavourable factors which destroy a place’s differentiation in relation to its surroundings and therefore reduce the experience of quiet. For example, public amenities for recreation and leisure get worse, if new buildings are built to close onto green spaces and displace existing parks and recreational areas, a place’s homogenous character is destroyed, or green elements like natural floors, water surfaces and trees are removed. Additionally, high noise levels from traffic and everyday life, excessive outdoor activities and cultural events as well as ongoing privatisation of public spaces push away a city’s acoustic qualities.

The results to a certain extent overtake the notion that «natural» and «green» spaces and sounds are necessary or even decisive for the experience of quiet. The case studies from the FOEN as well as other studies on sound preferences confirm and highlight the importance of green spaces and natural environments in cities. However, people’s need and understanding for quiet correlate with their socio-spatial context and affect the listening situation preferred and expected, respectively. That’s why in city centres other types of recreational spaces than in housing developments are necessary.

3. INTERWEAVING FRAGMENTED SPACES INTO A COHERENT PUBLIC SPACE

The case studies show that citizens on the one hand have a need for easily accessible recreational spaces nearby as well as continuous paths from their homes into recreational areas well within reach. In order to get a good experience of quiet, it is important that these spaces are integrated into the users’ daily life. In particular housing developments and recreational areas have to be well connected onto the public foot and bike paths. On the other hand there is also a need for recreational areas which are remote from everyday life. People are willing to travel longer if a place offers interesting qualities
and amenities like an outstanding acoustic quality. This point also opens several synergy effects to, e.g., landscape planning and sustainable tourism.

A city doesn’t only have to provide accessible and positively experienced listening situations. Places have to be accepted by users and residents and should offer possibilities like gardening and other activities so that people easily can get involved with their surroundings. Differentiated places with varied audible qualities and characteristics and the possibility to select between these places are significant to match people’s need for quiet. To connect positively connoted places like inner courtyards and backyards, city parks, squares, green spaces, free open spaces, foot and cycle paths, alleys, and so forth to each other allows to respond to people’s varied recreational and leisure needs.

Good interweaved spaces form a spine which interconnects differentiated amenities and qualities from bigger and smaller areas. For example, figure 3 shows a spine along waterways and rail lines. Here, coherent public spaces can be realised featuring high accessibility, permeability and continuity for pedestrians and cyclists. Loud sequences are possible here and there, for example at crossings with roads or at hot spots like a city square, without lowering the spine’s overall experience of quiet. However, it is important to connect such spines to the housing developments, the city’s public transport network, the recreational areas nearby and to the open landscape.

Figure 3 – Along this waterway in the city core the foot and bike paths connect diverse public spaces into a coherent and nearby spine which represents a counterpoint to the adjacent noisy urban areas (photo: Philipp Krass)

4. **CONCLUSIONS FOR PLANNING AND DESIGNING QUIET AREAS**

A series of workshops and case studies which the FOEN has performed shows that there is no absolutely defined idea what a quiet place is and, consequently, no exclusive list of quantitative criteria which defines such a place. Instead, characteristics and amenities of a place correlate with people’s lifestyles and their motives to use exterior spaces. An integral and context-specific approach is required to identify decisive options and stakeholders to better a place’s listening situation, to recognise potentials for making quiet and peaceful sequences in the everyday city, and finally to determine and direct contextual measures for realising this quality.

The differentiation between city centres and housing developments on the one hand and the interweaving of corresponding open spaces, parks and other recreational areas on the other hand proves
to be a promising approach to match the people’s needs for quiet and to achieve acoustic diversity in urban areas. A variety of differentiated public spaces is of great value to people’s experience of quiet. These spaces also avoid conflicts in the use of these spaces and prevents appropriate noise problems. For the planning and designing of quiet areas, this means that the creation and development of a positive experience of quiet and recreation should be the paramount objective. Therefore, especially synergies and links to urban planning and open space planning as well as to architecture and housing quality have to be cultivated. This would also be consistent with the objectives of an integrated urban development which shouldn’t only reduce noise emissions in cities, but also offer nearby public spaces for recreation and leisure.

Quiet is a quality for the city. The FOEN understands quiet areas as a public good for recreation and leisure. Appropriate spaces are characterised by site-specific contrasts in favour to the ear. Places which audibly stand out from monotonous and noisy urban environments are well accepted and actively used by the public. Spatial planning, open space planning, architectural interventions and landscape design, as well as participatory interventions and mandatory user rules always should complement conventional noise control efforts. An attractive quiet strategy contains acoustic criteria and takes into account the relevant influences from contextual qualities and amenities for recreation and leisure as well as well-being and health. This sustainable approach requires a forward-looking planning that gives the chance for necessary conditions so that fragmented individual spaces can be transformed into a coherent and well accessible public space which represents a real counterpoint to the monotonous and noisy urban areas.

REFERENCES