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THE STRUGGLE AGAINST NOISE IN NICE

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ABSTRACT

The problem of environmental noise has been an integral part of the city's planning policies since 1996. Before this date, the city's public health service had intervened in isolated cases of neighbourhood noise, but there had not been an overall policy aimed at the regulation of noise pollution within the city.

1 - SETTING UP OF A COUNCIL SERVICE

Noise pollution " any undesired sound " is an environmental problem which can have serious effect on public health, decrease the quality of life and reduce the value of real estate. With this in mind, the city council decided to create a special service in 1995 called " **Mission Environnement** " (Environment Planning Department). The aim of this service is to take active measures resulting in concrete and lasting improvements to the quality of life for both the inhabitants of the city and visiting tourists. A delegate was named by this council service in 1996 to lead the fight against different noise sources and their abatement.

2 - ACTIONS TAKEN BY THE CITY OF NICE TO IMPROVE THE SITUATION**2.1 - Enquiry into noise pollution**

An enquiry was carried out among the municipal employees so as to be able to identify the different sources of noise and the particular locations within the city which suffer noise pollution. More than 1000 employees responded to the questionnaire.

The results showed that **noise pollution affects 80 % of the respondents**. The principal source of noise was road traffic with mopeds, motorbikes and lorries singled out, but garbage trucks, lawn movers, and vegetal shredders were also mentioned as offenders.

The enquiry not only showed the extent of the problem but, by pin-pointing the sources of noise disturbance, pointed to both the offenders and to the solutions available to improve the situation.

2.2 - Mapping noise pollution and transport infrastructures**Land transport**

The law voted 31st December 1992 concerns the fight against noise pollution and the 1995 decree, specifying its enforcement, made the Prefects responsible for drawing up an inventory of land transport infrastructures according to their noise characteristics, volume and type of traffic.

In accordance with article 6 of this decree, **the city of Nice submitted a preliminary list of sectors sited in proximity to these infrastructures to the Prefect**. This classification was made official by order of the Prefect dating 27 th December 1999. As a result, the municipality can define exposure levels to be taken into account in the construction and soundproofing of buildings in the vicinity of noise pollution sources and the technical considerations necessary in noise reduction.

Air transport

Nice Côte d'Azur Airport handles around 9 million passengers a year. Its situation close to urban zones has led to the creation of **a noise exposure map**.

The Environmental and Energy control Agency provides an annual **grant of around 6.5 million Francs (1 million Euros)** for soundproofing lodgings within the vicinity of the airport.

The city of Nice has asked the Chamber of Commerce and Industry and the Civil Aviation Authorities to take the necessary steps to ensure that planes landing in a west wind do not fly over inhabited areas. **Four noise sensors, two of which have been placed on municipal buildings**, (City Hall and Mont Boron school), monitor the sound impact of each type of aeroplane and determine its exact flight path. The aim of this monitoring is to identify those planes which fly over the city and to take disciplinary action against offenders.

Moreover, the Civil Aviation Authorities are aware of the problems caused by the actual approach path and another landing approach, which avoids the coastal area by coming in from over the sea, is being tested.

These two measures will be operational during 2000.

2.3 - Renewal of the bus fleet (Fig. 6)

The city council has decided to modernize the urban transport system by progressively replacing old buses with a new fleet of **80 buses running on natural gas with a corresponding gain in noise reduction of 5 dB(A)**.

60 buses are already in service and another 20 are scheduled for 2001.

2.4 - Local legislation in the fight against noise pollution

As the legislation in force no longer corresponded to the needs of the city, a bye-law dated 19th November 1999 was voted by the city council "forbidding, by day or by night, in the entire area of the city of Nice, all unnecessary noise, or that caused by a lack of precautionary measures or monitoring, which is likely to be harmful to the health and well-being of the inhabitants or to disturb the tranquillity and peace of the neighbourhood".

This bye-law concerns public places or those open to the public, building sites, professional activities, leisure and sports activities, animals, etc.

Public Health Inspectors and the Municipal Police are provided with the necessary powers to enforce this bye-law.

2.5 - The project for the construction of a street tramway (Fig. 1)

A study for the future tramway was launched in 1996 to examine the proposed route, the form it will take, and the infrastructure.

2.6 - Charter for the Environment 2000-2004

- This Charter managed by the Planning Environmental Department aims to promote a number of measures which should become permanent in the course of the next five years. It involves municipal services as well as external agencies;
- Among the many projects which have been kept for consideration, article no 15, called fight against noise pollution, includes five noise attenuation measures.

a) Replacement of existing municipal material by quieter material (Figs. 4, 5, 7)

Public transport (buses using compressed natural gas), cleaning and refuse disposal (garbage trucks, glass-collecting containers, high pressure cleaning jets, blowers, watering mechanism, roadsweepers), gardening (leaf blowers, shredders, lawn movers).

b) Road maintenance (Figs. 2, 3)

- Construction of noise-reducing walls and noise-absorbing surfaces;
- Renovation of the iron railway bridges and a study into noise reduction along the S.N.C.F. lines which cross the city;
- Creation of " **quiet neighbourhoods** " where transit traffic is reduced to minimum and average speed of vehicles is reduced. The construction of dissuasive obstacles such as raised crossroads and ramps at the entrances of the neighbourhood should reduce traffic access.

c) Improved insulation in private and public buildings

- Subsidies allocated by the city for householders to install double-glazing in houses located near roads with heavy traffic;
- Improvement of internal soundproofing within communal buildings;

- Improvement of soundproofing in communal buildings against exterior noise sources.

d) Research projects

- Map of urban noise landscape of some different districts of the town;
- Noise monitoring of the highway P. Mathis and the motorway A 8.

e) Public awareness campaign

- Informing children on the harmful health effects of noise;
- Symposium on noise and the environment including topics such as the harmful effects of noise, noise management, a programme of effective noise control measures;
- Codes of practice for restaurants and night clubs.

2.7 - The following transport control measures will complete the Charter's measures

In the fight against noise pollution undertaken over the next five years by the municipality.

- The first tramway line 9 km long linking the most densely inhabited areas;
- Separate bus lanes on an east-west axis will be created at the same time;
- Both tramway and buslanes will be extended towards the outskirts of the city;
- Cars parks will be built on the edges of the city to dissuade visitors from entering with their cars and persuade them to use public transport;
- 28 km of bicycle lanes will be created (Urban Travel Schema);
- The construction of a third railway line between Nice and Cannes;
- Modification of existing traffic-control structures increasing areas available for pedestrians and decreasing the area given over to road traffic.

The Year 2000 is the first year during which the charter is operational. The city council has approved and voted unanimously for the **Noise Reduction Plan 2000**, and voted funds, representing **35 million Francs (6.250 million Euros) or 0.8 % of the city's budget**, to finance implementation.

2.8 - The city council has ratified the Ten Year Urban Plan (2001 – 2010)

which includes a section on noise abatement thus making the five-year Charter operative over a period of ten years.

The implementation of the above projects will considerably reduce the level of noise in the city thus improving the quality of life for both community and visitors.

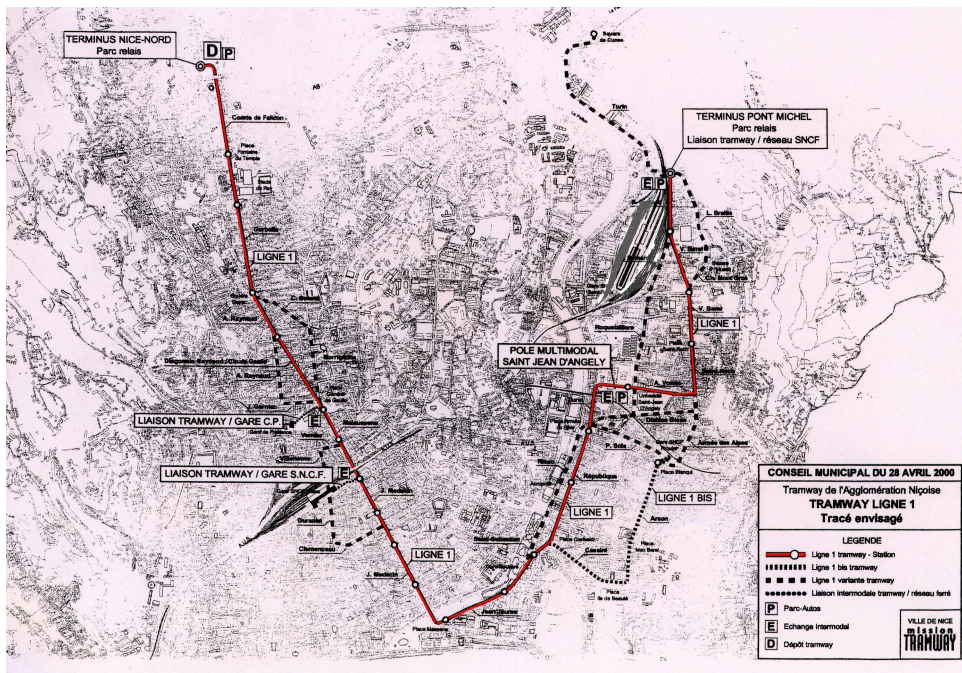


Figure 1: Route of the first tramway line.



Figure 2: Laying of a noise-absorbing surface (noise reduction 3 dB(A)).



Figure 3: Noise reducing wall length 800 m cost: 4.5 MF (680 000 Euros).



Figure 4: Garbage truck (noise reduction: 5 dB(A)).



Figure 5: Electric vehicle for refuse transport.



Figure 6: Bus running on natural gas (noise reduction 5 dB(A)).



Figure 7: Vegetal shredder (noise reduction 5 dB(A)).