Railway Transportation Systems. Design, Construction, and Operation

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This is a substantial tome (461 pages + 14 pages for the index) that uses twenty chapters to address all of the elements referred to in its title. It is detailed, well-organized and uses a wide range of photographs, tables, graphs and equations to present every topic in sufficient depth; each chapter ends with a detailed reference section.

Noise is first introduced in a very general fashion in Chapter 4 (Tramway) under the subsection of "Verification of environmental impacts — Noise pollution" and the topics and suggestions for abatement are very general and of limited use. Only 24 lines of text are dedicated to the topic. The issue of noise reappears on Chapter 12 (High-speed trains) under the subsection of "Noise barriers" and again, the treatment is limited in terms of length (less than 2 pages); however in this instance we are provided with useful information regarding how to assess the impact of the pressure wave generated by high-speed trains.

The main discussion of noise issues associated with trains happens in Chapter 19, "Railway and the Natural Environment," and in this instance we are presented with a good amount of useful material; however the author's definition of noise had me chuckle a bit.

Noise could be defined in two ways, as given below:

- Any irregular, non-periodic noise, the instant value of which fluctuates in a random way
- Any unwanted noise

This being said, the abatement suggestions are presented in a clear fashion and the 12 pages associated with the issues of noise and ground vibration make for an easy and interesting read. Most of the references are recent (>2000) and some are less than two-years old. I only wished that they would be presented as text-numbered endnotes as opposed to an alphabetical listing as it would make the referencing much easier for the reader.

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