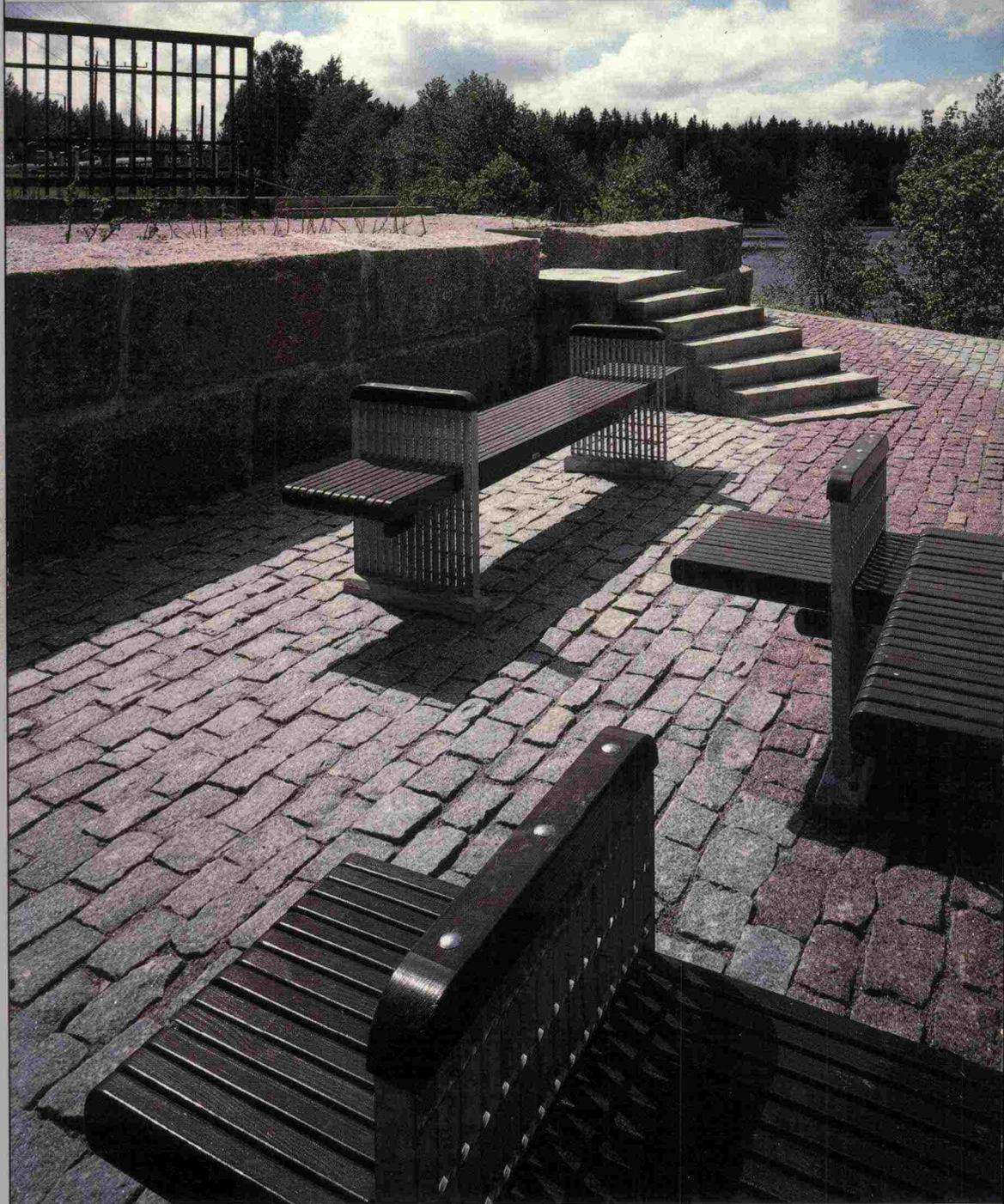




Roadside Rest Areas and Rest Area Structures and Equipment



FinnRA
Reports

51/1992

Helsinki 1992

Finnish National
Road Administration
Technical
Development

FinnRA Reports
51/1992

**Roadside Rest Areas and Rest Area
Structures and Equipment**

**Finnish National
Road Administration**
Technical Development

Helsinki 1992

Translation:
*Oy Helsingin Kieliopisto ja
Käännöstoimisto Ab*

ISBN 951-47-6515-X
ISSN 0788-3722
TIEL 3200041E

Government Printing Centre
Helsinki 1992

This Publication is available from:

**Finnish National
Road Administration**
Opastinsilta 12 A
P.O. Box 33
SF-00521 HELSINKI
FINLAND

Roadside Rest Areas and Rest Area Structures and Equipment. Helsinki 1992. Finnish National Road Administration, Central Administration, Technical Development. Road Administration Reports 51/1992. 32 pp. ISBN 951-47-6515-X, ISSN 0788-3722, TIEL 3200041E

Key words: rest and parking areas, rest area structures, rest area equipment, road design, road environment

Abstract

The publication **ROADSIDE REST AREAS AND REST AREA STRUCTURES AND EQUIPMENT** deals with the importance of parking and rest areas as a part of the road. They are public areas as defined in the Road Act and information value of their own.

The Technical Development unit of the Central Administration has developed model equipment for parking and rest areas, and the equipment and its use is presented in this publication.

The publication also deals with important aspects that should be taken into account in the design and maintenance of parking and rest areas and their structures and equipment.

Preface

Developing the quality of the road and its environment are tasks assigned to the Technical Development unit of the FinnRA Central Administration. Up to now insufficient attention has been paid during road design, construction and maintenance to the parking and rest areas as defined by the Road Act and the quality of these areas varies considerably.

Since the design of each parking and rest area demands that both the environment and the functioning of the area be taken into account, it is not possible to set rigid rules to achieve the best result. However, the knowledge and experience available should be utilized when rest areas are designed.

To create a unified basic appearance for the parking and rest areas of FinnRA, a project for the design of rest area equipment was started in cooperation with the University of Industrial Art in the spring of 1988. The working group consisted of five students and three teachers from the University of Industrial Art and four representatives from FinnRA. Two students proposed ideas that were selected for further development. A development team was formed to work on the ideas. The team consisted of three representatives from FinnRA and the two students whose ideas were selected. The entire project was headed by *Terttu Pohjanoksa*, M.Sc.(Pol), of the Technical Development unit of the FinnRA Central Administration.

Myllylampi and Märkiönjärvi parking and rest areas in the Uusimaa Road District were chosen as trial grounds for the new equipment. This equipment should eventually be in general use at all FinnRA parking and rest areas.

This publication has been produced by *Terttu Pohjanoksa*, photos are by *Simo Rista*.

The Technical Development unit of the FinnRA Central Administration wishes to thank all those who have participated in the project and especially the personnel of the Uusimaa Road District, whose input has been vital for the completion of the project.

Helsinki, November 1992

FinnRA, Central Administration
Technical Development

CONTENTS

Abstract	3
Preface	5
Contents	7
1 The road and the environment - a physical entity	9
2 Symbolic content of the physical road space	10
3 Public design	12
4 Parking and rest areas	14
5 Rest area equipment project	18
6 Use of the equipment series and area design	22
7 References and literature	32

1 THE ROAD AND THE ENVIRONMENT - A PHYSICAL ENTITY

The importance of a road as a travel route is defined by the quality of the traffic flow it conveys, i.e. how quickly and safely the destination is reached. It is more difficult to see the road as a part of a physical entity, comprising the road and its adjoining structures, equipment and environment. The road is one part, however, just like a tree or a bush, of the space in which man acts. It is comparatively easy to measure the good or bad, the pros and cons of a road; to measure the entire physical entity is much harder, since the factors affect man in a multitude of ways and with individually varying effects.

Thus, constructing a road is not purely a technical achievement, it is also a design for utilizing space.

Some attention has always been paid to shaping space, not only to simply construct a road but also to create both a safe and an aesthetically pleasing environment. However, not until the late 1960s did FinnRA consciously begin to improve not only special areas but also the entire road environment as a part of the space it occupies.

At the start, improving the road environment was conceived as simply a kind of road cosmetics. Today, improvement of the environment is a necessary part of road construction. The impact of the road environment on driving comfort, traffic safety and especially on man's activities at the roadside and in the vicinity of the road have become important.



Myllylampi Rest Area

2 SYMBOLIC CONTENT OF THE PHYSICAL ROAD SPACE

Professional designers are often not aware of the symbolic nature of the environment. They generally consider their design object a thing and a framework for various types of functions. Only rarely is a design object considered a social and political symbol of the environment, an object to which people in their minds attach meanings or values.

However, when the environment is intended to represent, or it is perceived as representing something, it becomes a social symbol (Appleyard 1979).

The built-up environment may be defined as a kind of nonverbal information. The built-up environment includes symbolic information. It is one of the most important ways of conveying cultural information. The nonverbal messages conveyed by the built-up environment, if they are received, understood and accepted, encourage behaviour suitable for the environment (Pentti Tuovinen: The symbolism of the city).

Roads have a very strong symbolic significance. The road is generally experienced positively. Attributes are attached to it: progress, development, speed and freedom. But the road is also experienced negatively, as a threat to the quality of life. Roads are the language of high technology, efficiency and improved standard of living, but they are also impersonal.

The Road Act defines the parking and rest area as a space for rest, relaxation and refreshment as well as a place offering various kinds of services to the road users. This area, being a built-up environment, also includes symbolic information. It speaks either the same language as the road or its message contradicts the message of the road.

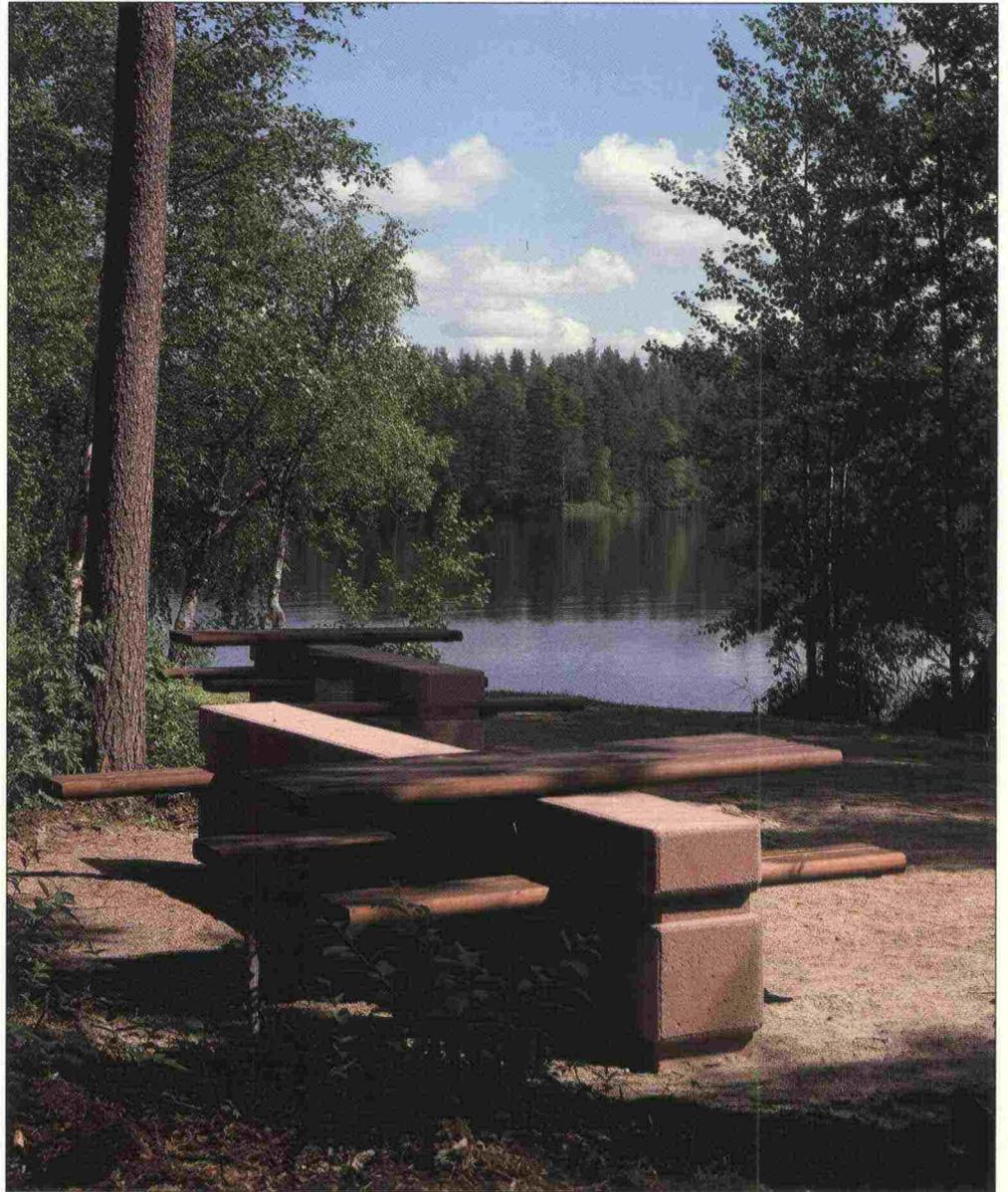
The importance of roadside areas as symbols of the standard of the road has not been completely understood.



Myllylampi Rest Area

3 PUBLIC DESIGN

The concept of Public Design is fairly young and its content is not quite established yet. Public Design generally means the design of common public facilities and their equipment. Where there are communities, there is also Public Design. In primitive communities it was mostly associated with sacred places and rituals. When the urban structure developed, Public Design became urban design, a unified whole composed of the buildings, plazas, squares, pavings, stairs, railings, seats and other equipment as well as plantings, all blending with each other and complementing one another in form, dimension and materials. These principles for urban design were adhered to all over the world until the beginning of this century. However, in the 20th century, the century of technology, design became influenced by the technical function and efficiency of, or required by, each separate object - functionality. The unity was shattered. Now we are returning to the past again. With pedestrian streets, urban design has become a part of town planning.



Märkiönjärvi Rest Area

Constructing an all-encompassing road network of a high technical standard is the product of the 20th century. The quality criteria of the product are the criteria of functionalism.

The concept of Public Design has not generally been associated with the road and its objects in spite of the fact that it clearly belongs there. The objects and equipment of the road network are defined by law and by directives and standards. Technology and functionality have been decisive when objects and equipment for the road network have been designed. The design is bound by international agreements for example with respect to traffic signs. But many objects and pieces of equipment have not been standardized. Parking and rest area structures and equipment belong to this group.



Märkiönjärvi Rest Area

4 PARKING AND REST AREAS

The purpose of the parking and rest areas is to provide services to the road users, i.e. a place to rest, relax and be refreshed. Parking and rest areas also serve the environment by helping keep the road areas free from litter.

Parking and rest areas have become important as a result of the development of motor vehicles and the road network. However, the rest area is not purely a product of the 20th century. Roadside shrines in catholic countries were places for travellers to stop and rest. The equipment in these shrines consists of an altar.

A parking and rest area is a built-up environment, which with its own symbolism conveys messages concerning the culture and the level of civilization.



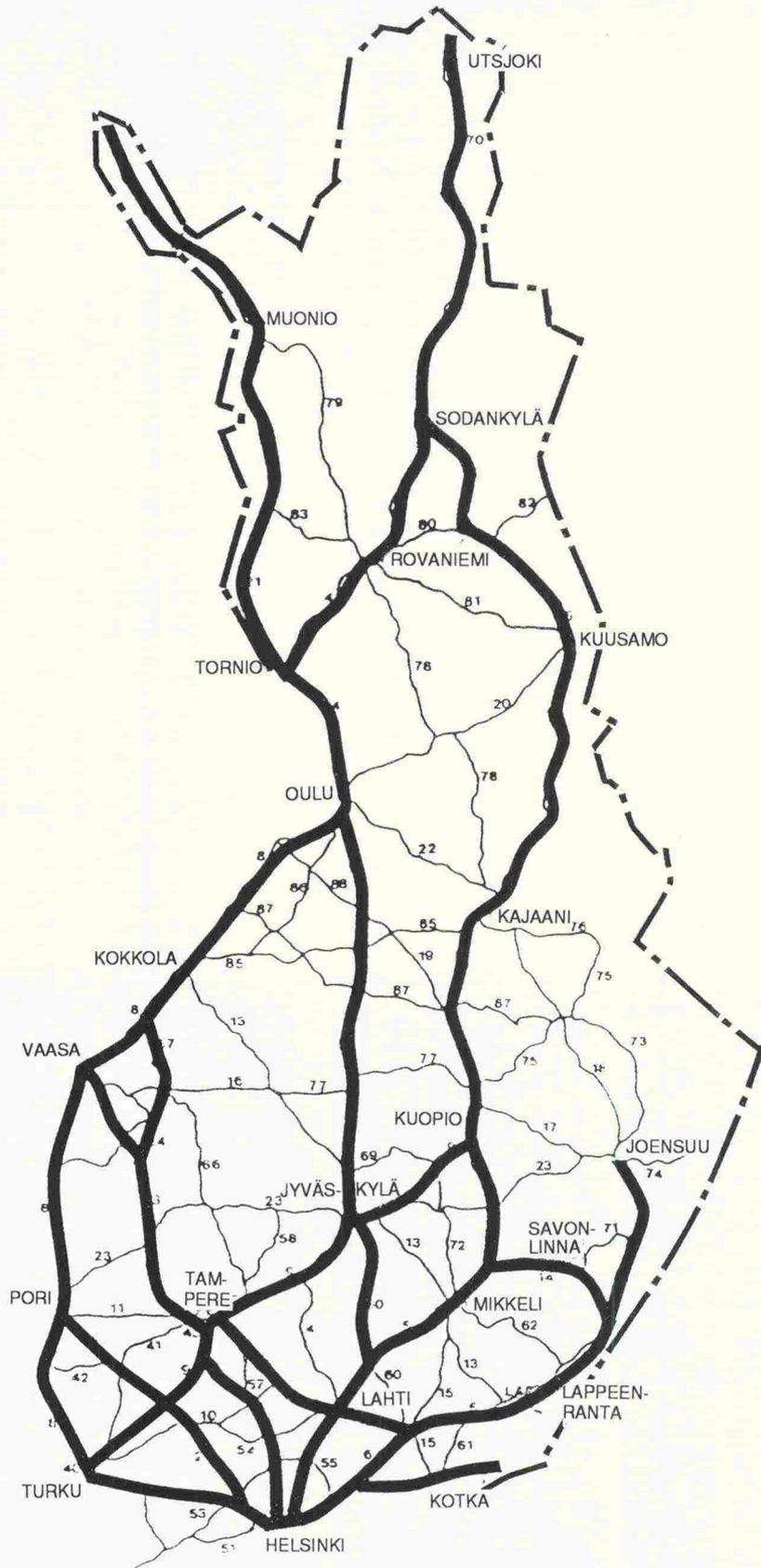
Märkiönjärvi Rest Area

When man looks at his environment, he first observes large entities and focuses on details later. The motorist first sees the outline of the road, the traffic and the surrounding scenery. After that, according to need, he focuses on separate objects and details. There is often a conflict between the parking and rest area and the road - an unkempt area with poor or non-existent structures and equipment is attached to a road with technically superb characteristics and excellent trafficability.

Whenever roads are designed, sufficient areas are reserved for the needs of the road users. The areas are joined to the main road as the standards and directives prescribe, to make it easier to enter and exit. However, these areas have not been systematically maintained except in cases where commercial establishments in the vicinity have undertaken the service and upkeep. A poorly kept area lowers the standard of the road since its symbolic information is not in line with that of the road.

<p>BASIC LEVEL</p> <p>AREAS AS DEFINED IN THE ROAD ACT: parking area or rest area</p> <p>SIGN: </p>	<p>HIGH LEVEL</p> <p>AREA AS DEFINED IN THE ROAD ACT: rest area</p> <p>SIGN:  </p>
<p>Parking places for motor vehicles</p> <p>Trucks-and-trailors separated from cars Room for caravans</p> <p>Table-and-bench groups</p> <p>At least some of the table-and-bench groups roofed</p> <p>Toilets (24 h)</p> <ul style="list-style-type: none"> - separate toilets for ladies and gentlemen - either toilet equipped for invalid use - an odourless, tidy sewage receptacle, or sewer - water main or cistern, wash basin - heating and illumination - durable and easy-to-maintain structure and materials <p>Toilet must be kept continuously clean</p> <p>Rest, relaxation and refreshment area</p> <p>Litter and garbage bin</p> <p>Illumination</p> <p>POSSIBLE ADDITIONAL SERVICES:</p> <p>Travellers' services</p> <p>Map of the region and brochures</p> <p>Phone</p> <p>Electric -outlets</p> <p>Kiosk</p> <p>Exercise equipment</p> <p>-----</p> <p>The notation (24 h) means that service is available around the clock</p>	<p>Basic level services</p> <p>Parking places for motor vehicles Table-and-bench groups Toilets Rest, relaxation and refreshment area Litter bin</p> <p>Café</p> <p>The café may operate seasonally as part of a kiosk Year-round kiosk is unconditional minimum requirement Open at least 7 AM to 10 PM</p> <p>Phone (24 h)</p> <p>Electric -outlets</p> <p>Travellers' services</p> <p>Map of the region, brochures Service point, preferably manned in summertime</p> <p>POSSIBLE ADDITIONAL SERVICES:</p> <p>Service station</p> <p>Rest facilities</p> <p>Resting and washing facilities for truckers</p> <p>Playground</p>

The directives **DEVELOPMENT OF ROADSIDE SERVICES IN THE 1990s** by FinnRA define the desired quality level for parking and rest areas. The directives list the kinds of structures and services that should be provided in the various areas to meet the needs of the road user. Rest areas are established primarily along the roads used by long distance travellers, in places where there is sufficient goods transport as well as business and leisure traffic. Along the road network frequently used by long distance traffic, services at the basic level, at a minimum, will be provided at intervals of 30 minutes' driving distance. Services offered by private businesses are also taken into account. The services offered at basic and high level rest areas are outlined above. In addition to the services listed, restaurant and service station facilities and the like are supplied by private businesses at service areas adjoining motor roads.



Roads utilized by long distance traffic, along which rest areas are primarily established.

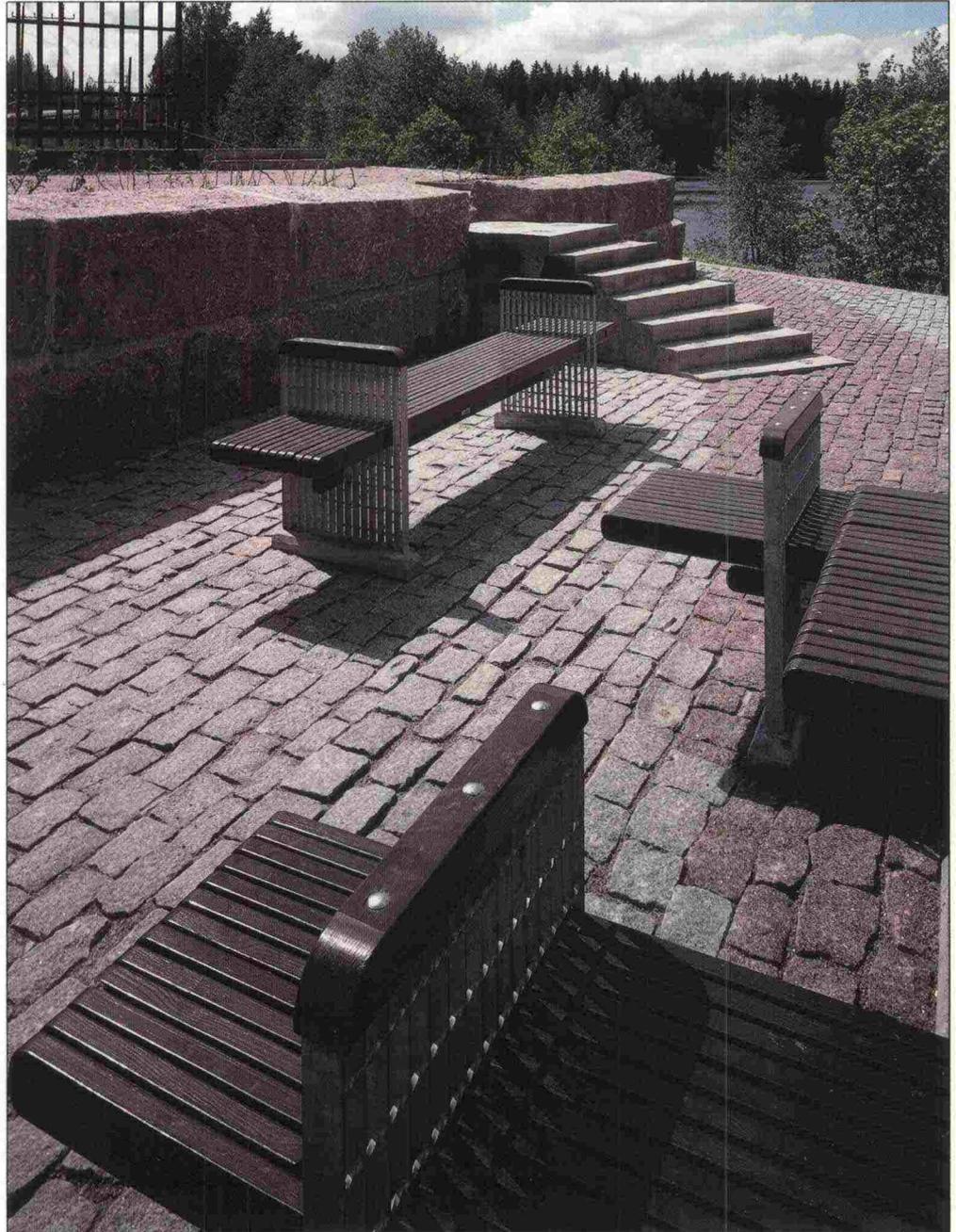


Märkiönjärvi Rest Area

5 REST AREA EQUIPMENT PROJECT

FinnRA strives to improve the service and comfort level of the rest areas and to give them a unified basic appearance.

Practically no structures or equipment suitable for use in rest areas, either as far as dimensions or durability are concerned have been available. FinnRA is developing a series of structures and equipment that is well suited to Finnish nature and the landscape, aesthetically of high standard and resistant to wear and tear.



Myllylampi Rest Area

Design of new structures and equipment was initiated in the spring of 1988, when students from the University of Industrial Art submitted proposals as part of their practical training. The designs were completed in the spring of 1989. Two series were chosen for further development. During 1990, the designs were finalized and the structures and equipment of the two series constructed.

Two areas in the Uusimaa Road District were chosen as test areas: Myllylampi and Märkiönjärvi. The areas are situated along trunk road 53 between Hyvinkää and Lohja. Construction and furnishing of these areas was completed in the summer of 1991.



Myllylampi Rest Area

MYLLYLAMPI REST AREA

The Myllylampi rest area on trunk road 53 near the junction with main road 1 represents an area suitable for a built-up area. A restaurant with accompanying services, run as a private business, is located in the immediate vicinity of the rest area. It was therefore not necessary for FinnRA to arrange all services required for a basic level rest area. The Myllylampi rest area with its swimming facilities has become a place for rest and refreshment for both road users and the local population.

The **MYLLYLAMPI** -series of rest area equipment consists of a table, bench, litter bin and info board. The materials are steel grid and impregnated deep-dyed pine board. The series is designed by Timo Matilainen.



Märkiönjärvi Rest Area

LAKE MÄRKIÖNJÄRVI REST AREA

The Märkiönjärvi rest area on trunk road 53 between Röykkä and Noppo, is an area representing typical Finnish nature with its birch covered slopes leading down to a lake. The combination table-and-bench fixed to a concrete column has been used as a roofed group next to a kiosk-café-service point to be built in the future. A combination table-and-bench has also been placed on the Märkiönjärvi lakeshore near a swimming place, and another in the middle of the birch stand on the slope. The equipment has withstood the changes in the weather well, and the outer surface of the coloured concrete has remained clean. Uncoloured concrete is not recommended for outdoor equipment since streaks from running water as well as dirt from the environment result in unattractive discoloration of the surfaces.

The **MÄRKIÖNJÄRVI** series of rest area equipment consists of a combination table-and-bench fixed to a horizontally laid prefabricated column unit, open-sided roof, and a litter bin. The materials are coloured concrete, and impregnated wood for the benches and the table top. The series is designed by Minna Luukka.



Märkiönjärvi Rest Area

6 USE OF THE EQUIPMENT SERIES AND AREA DESIGN

When starting to design a parking and rest area the surroundings in which the area is located should be taken into account. The Finnish landscape is fairly uniform in appearance, but there are some regional differences. The building style of the environment is also an important factor to consider. Attention should also be paid to whether the area is to fulfil other service functions as well: will it be the swimming beach for the local population or a gathering spot for young people.

The design of a specific parking and rest area should include the entire area and all its activities. The surrounding nature, the buildings, objects and colours, pavings, equipment, protective structures, vegetation and illumination are all part of the overall design. The correct relationship in the dimensions of the areas and objects are especially important. The local climate, natural light, temperature and winds are important design factors, not to mention the landscape generally and the views.



Myllylampi Rest Area

The style, colours and dimensions of buildings, structures and equipment of private businesses should also fit the design of the parking and rest area.

Buildings and structures such as toilets and litter bins should be inconspicuous in appearance. Special attention should be paid to their location, shape and colour. The spherical litter bin-sand container, which represents modern design of the 1970s, is an inappropriate eye-catcher, not suitable in the road environment nor in a town structure.

However, judicious use of protective fencing may serve to hide an otherwise unsightly structure, thereby fitting it into the surroundings. The often used simple fence, painted dark brown, blends in well with Finnish nature.



Myllylampi Rest Area

REUSE OF OLD MATERIALS is recommended. One seating group at the Myllylampi rest area was placed on the concrete foundation of an old house which has been torn down. The retaining walls have been built using stones from a bridge which has been pulled down, and several stone blocks form an artistic seating group. Part of the flag paving is made of stones found in an old FinnRA storage area. Old milestoneposts have been used to mark and surround the area and as barriers for motor vehicles. The oval from an old road crossing sign serves as the post for the name sign of the rest area.

Finland is rich in stone, both beautiful and durable. The use of stone should be increased. Road construction work at times uncovers great blocks of stone, deposited by the inland ice. They may be used as such, as traffic or visual barriers, or simply as pieces of art in the rest area. Materials may no longer be needed on out-of-the-way road sections, and pulled-down bridges may provide interesting pieces to be used for all kinds of purposes.



Märkiönjärvi Rest Area

COLOUR, FORM AND MATERIAL have values and meanings to man, which he unconsciously associates with things he has seen or experienced. To him they speak in a symbolic language of their own.

Bright, strong colours are generally associated with childrens' play, with their language of symbols and also with the circus. Space shuttles and flying saucers evoke feelings of space research, and Greek columns serve as reminders of the Classical Period as well as of town structures in general. Peaceful, earthbound colours and forms as well as natural materials blend in with the Finnish landscape. Man-made materials, such as plastic, should be hidden.



Myllylampi Rest Area

VEGETATION may be used to shape the landscape and give softness to it. Trees and shrubbery may also be used as visual barriers and for breaking up flat, desolate parking areas. It is recommended that plants common to the surrounding nature be used, preferably in massive groups.

The **USE OF VISUAL BARRIERS** creates a feeling of privacy.

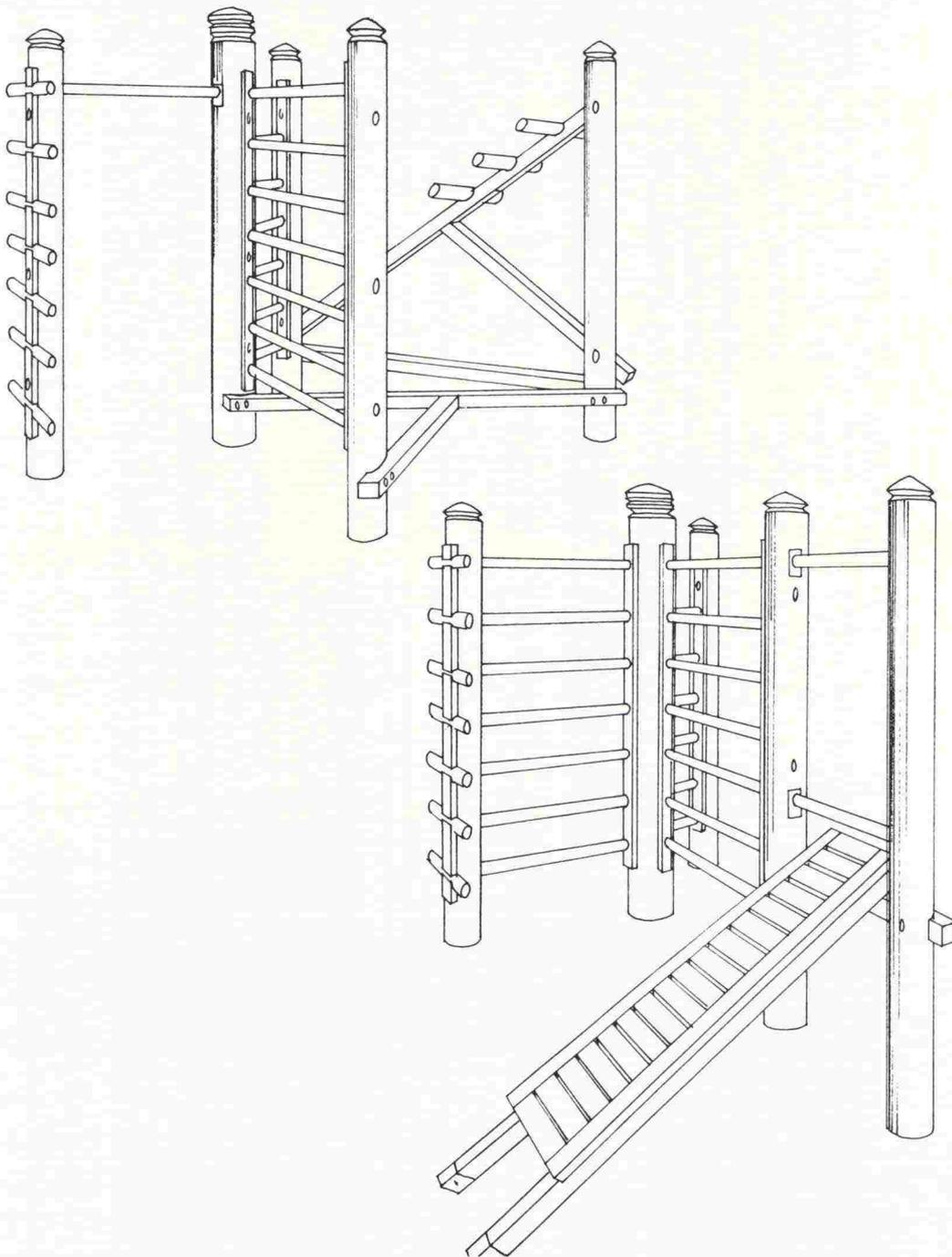
THE USE OF EQUIPMENT. Each rest area requires individual planning. The surrounding nature, forms of the landscape, and the service level defined for the area provide the planning premises. Individual items of a series, or a combination of items may be used to create a unified appearance.



Märkiönjärvi Rest Area

The **MÄRKIÖNJÄRVI** series consists of single pieces, which may be combined in various ways and placed in the terrain, taking into account the conditions of the surrounding nature.

The **MYLLYLAMPI - EQUIPMENT SERIES** is designed for use mainly in a built-up environment. However, the bench of the series may be used as a single piece in a rest area which is less used, to replace the pipe-leg bench-and-table combination which is frequently used today.



JUNGLE GYM. The Technical Development unit of the FinnRA Central Administration has designed a jungle gym for children, to complement the equipment in rest areas. It is a wooden set of bars built around a central log, and it may be rearranged according to needs and terrain. The jungle gym is sturdy enough even for adults. It may also be considered a piece of contemporary art.



A simple **BASIC BENCH** has also been designed. The seat portion is wider than normal. Hence it may be used as a resting place in case of sickness or accident. The bench, made of wood and coloured concrete, is a heavy structure, but it is movable, as it is not designed to be anchored into the soil.



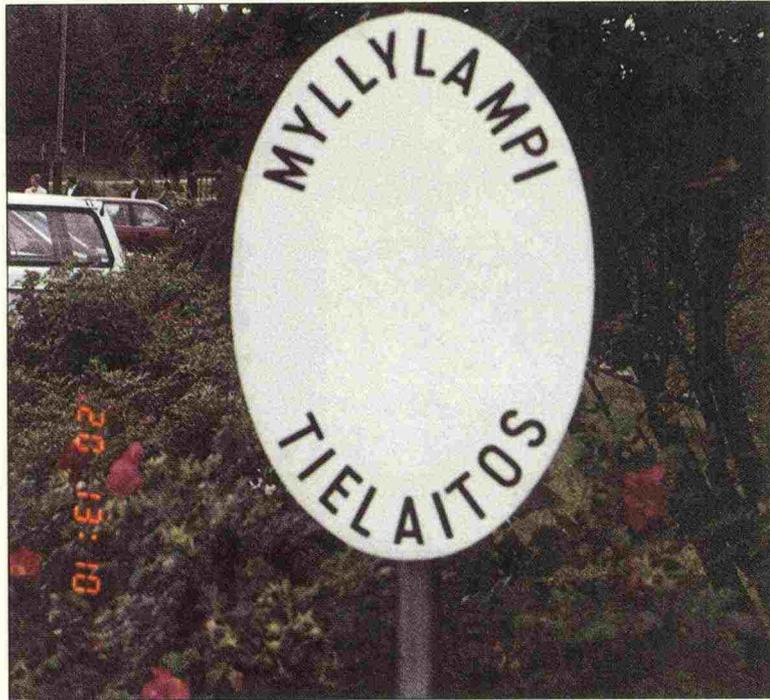
Märkiönjärvi Rest Area

MAINTENANCE is a problem which probably is solved only through continuous and regular upkeep. This requires resources that must be defined in the operations plan and budget.

Maintenance is successful if it is easy to perform. Hence the following should be observed:

- the area must be easy to clean
- snow must be plowed from parts of the area as needed
- some manual maintenance must be carried out
- service and repair of the equipment must be possible
- such urban solutions as flower boxes, which are difficult to maintain in the road environment, and childrens' sand boxes which may be health hazards, should be avoided
- maintenance arrangements must be defined before the area is constructed.

Since rest areas of high standard require continuous attention, a maintenance contract with the private business in the area is recommended.



7 REFERENCES AND LITERATURE

Laki yleisistä teistä 243/54, Road Act
Asetus yleisistä teistä 482/57
Road Traffic Decree

Tienvarsipalvelujen kehittäminen 1990-luvulla, TIEHALLITUS, Tp.TIEL
1003988
(Development of Roadside Services in the 1990s)

Rastplatser, bättre service på väg, VÄGVERKET, Serviceavdelning
Planering och Projektering. Publ. 1986:62
(Rest areas; Better Service on the Road)

Krogstad, Morten: Møblering av byens uterom, Park-og idrettsvesenet og
Oslo Bys Vel ISBN 82-90287-23-2
(Furnishing Urban Public Space)

Alm, Bruno: Trafikbelysning och gaturummet, Forskningsstiftelsen för
samhällsplanering och projektering, Rapport 2, 86, 1986, ISSN 0348-9418
(Road Illumination and the Street)

Appleyard, Donald: The Major Published Works of Kevin Lynch, Town
Planning Review Vol. 49, 1978 nro 4.

Appleyard, Donald: The Environment as a Social Symbol, Ekistics 278, 1979
Sept/Oct.

Tuovinen, Pentti: Kaupungin esittävä symboliikka, YJK:n julkaisu B 49, 1985,
ISBN 951-753-583-X, ISSN 0357-0045.
(The Symbolism of the City)

Tuovinen, Pentti: Kaupunkien symbolisisältö, esitelmä yhdyskuntasuun-
ittelun täydennyskoulutuskeskuksen tutkimusseminaarissa 1990.
(City Symbolism; paper presented at a seminar)

Kekkonen, Ahti ja Kukkonen, Heikki: Taajamakuva, Suomen Kunnallisliiton
julkaisuja, 1991, ISBN 951-777-3.
(Townscape)

Junttila, Ulla-Kirsti: Muuttuvat kadunkalusteet, Jyväskylä 1986.
(Changing Equipment of the Street)

Strassenmöbel in Berlin, julkaisija Der Senator Für Bau- und
Wohnungswesen, 1983. (Street Furniture in Berlin)

ISBN 951-47-6515-X
ISSN 0788-3722
TIEL 3200041E