

# **HEADING TOWARDS BARRIER-FREE ENVIRONMENTS...**

**A STUDY BASED ON URBAN AND ARCHITECTURAL COMPOSITION, AS WELL AS UNIVERSAL DESIGN CRITERIA, REVEALING LIVING CONDITIONS OF PEOPLE WITH REDUCED MOBILITY AND PEOPLE WITH DISABILITY AND SOCIAL CONSEQUENCES. FOCUSING ON THE EXISTING SITUATION IN GREECE.**

**INTRODUCING: "AccOrD~4u2!" (ACCESSIBILITY, ORIENTATION AND GUIDANCE FOR YOU TOO!)**

ausgeführt zum Zwecke der Erlangung des akademischen Grades eines Doktors der technischen Wissenschaften unter der Leitung von

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## **FOREWORD**

### **I. INTRODUCTION**

As my name shows, I am half Greek, half Austrian. I was born in Austria, I grew up in Switzerland, I passed my teenage-years in Greece and returned to Austria for studying. I completed my studies in 2002 and since then I've been working for my thesis.

During all these years of moving a little bit around Central and Southern Europe, I got the opportunity to compare, in a conscious or unconscious way, the countries I've lived in and their actual living status. Especially when I started studying architecture at the Vienna Technical University I became aware, little by little, of the way architecture affects, influences and guides our everyday life and of all problems, which brash architecture provokes.

Having attended several courses for "Barrier-free Design" during my studies, I started paying even more attention, when moving from one place to the next. Especially every time I visited my parents, who are living in Athens. I was astonished of the rarity, almost absence, by which an Athenian would see a person with reduced mobility or disability in Greece's capital. Apart from persons in plasters or with crutches, some blind beggars on pavements or salesmen with a missing foot, leg, hand, arm, and so on at crossings, it seems that Athens is free from any people with impairments...

As I wish to return to Greece and work there, I decided to search a topic for my thesis, where a case study could be elaborated for a Greek city. Thus, being already sensitised on the problems, barriers, obstacles, etc. architecture can build, I finally chose to reveal the current situation for people with reduced mobility and persons with disability living in Greece. Although Greece is a member of the European Union and has equivalent regulations and laws, as all other member countries, everyday life for people with reduced mobility and persons with disability living in this Southern European country seems to be almost a forbidden matter.

The general idea was to gather quantity and quality data revealing the specific development of special indexes on the current situation for people with reduced mobility and persons with disability living in Athens and to compare attitudes with other European cities. This thesis is my contribution to start to remove all fears, myths and prejudices and to promote independent surviving through the supporting tool 'AccOrD~4U2!'.

Greece, with its renewed constitution, with the European Year for People with Disability starting in Athens, the Greek Presidency of the European Union in the first half of 2003 and the (Para) Olympic Games of 2004 had a golden chance to record its own contribution in moulding a new European model for disability. Grabbing these favourable frame-conditions, I started investigations on disability matters in general in Greece. The general idea was to

gather quantity and quality data revealing the specific development of special indexes on the current situation for people with reduced mobility and persons with disability living in Athens and to compare attitudes with and conditions in other European cities. The research was lead by the hope to bump into a changing situation for people with disability in the Greek society, where differences are accepted and discrimination is denied, and to find accessible infrastructure. This thesis is my contribution to start to remove all fears, myths and prejudices and to promote independent living through the supportive tool 'AccOrD – 4U2!', which is being introduced in this thesis. At this point, I would like to apologise for all little mistakes that made their way through to the end print.

I hope that the end result of all efforts corresponds to the expectations of every interested person. The goal of this book is not to persuade or convince, but to stimulate thinking, discussion, and perhaps even argument. To argue, after all, is to become involved; to become involved is perhaps to care.

I would like to dedicate this thesis to all those persons, who have stopped being ignorant to other people's problems and those, who struggle in their own way for achieving a better tomorrow for everybody!

## **II. THESIS' AIM**

The aim of this thesis is to reveal and portray the present situation of people with reduced mobility (PRM) and persons with disability (PWD) living in Greece. So far, few articles concerning the living conditions of PWD living in Greece have been published. Thus, an accumulation of important topics has been aimed at dealing with major problems in their everyday life. In addition, society's sensitisation and universal design implementations in Athens have been investigated, as it seems important to provide this material for reasons of comparison and for further investigations. All future discussions will be pointless, if no common understanding on the location of the more severe obstacles is guaranteed.

No demand of completeness has been made. No explicit reference to existing laws for the protection of PWD is searched, as legislative situation within countries belonging to the EC is supposed to be similar in all member states. No comparison of existing legislative design regulations has been integrated into this thesis' topics, as within Europe standards are more or less the same. The problem lies in implementing and/or controlling the suggested or ordered implementations.

Finally, this thesis wishes to give the start for the provision of a supportive tool, called 'AccOrD-4U2!', (ACCessibility, ORientation and GuiDance for you too) - a tool, which could facilitate everyone's everyday life offering a possibility to move around in an autonomous and independent way within mostly inaccessible, hostile and foreign cities.

### **III. THESIS' STRUCTURE**

This thesis is divided into three parts: a first theoretic part (A), a second part with a survey (B) and a third part (C), where the tool 'AccOrD-4U2!' is presented.

- (A) The first theoretic part (chapter 1-9) aims at giving a summarised overview on the physiological, psychological and social aspects of the existing situation for people with disability and people with reduced mobility, focusing especially on the existing conditions in Greece.
- (B) The second part (chapters 10-11) presents a survey, which was carried out by the author in order to reveal children's' notions and behaviours towards people with disability and people with reduced mobility, as well as their understanding as far as matters of disability are regarded.
- (C) The thesis' third part (chapters 12-18) discusses disability from the point of view of a design professional, comprising Universal Design implementations, and finally introduces criteria for the specific development of a geo-coded Geographic Information System called 'AccOrD~4u2!' (Accessibility, Orientation and Guidance- for you too!), as a step towards integration of people with disability and people with reduced mobility.

### **IV. ACKNOWLEDGEMENT**

First of all, I would like to thank my family and friends, who supported me during my research through helpful discussions, interesting hints and new ideas.

Besides them, Mr. Kostas Tshipis has to be thanked, who was the first to encourage my idea to orient my PhD research topic towards the domain of people with disability and universal design in Greece.

Having taken this decision, I started searching for a supervisor. With the aid of Mrs. Sabine Plakolm-Forsthuber, whom I would like to express my gratefulness, I was taken over by Mrs. Christa Illera, who conducted me during these two and half years of research and work. She has to be thanked for all her efforts, kindness and understanding and I am really glad, that she was my so-called "Doktor-Mama".

Finally, best thanks to all those persons in Greece and Austria, who took the time to discuss with me, and those who helped me to find the required material, for instance Mr. Wolfgang Zagler of the FORTEC-Insitute in Vienna, as well as many others.

Thank you all!  
Vielen Dank!  
Σας ευχαριστώ!

Athens, November 2004

**CHAPTER OVERVIEW**

**1. TERMINOLOGY OF 'DISABILITY'**

**1.1 INTRODUCTION ..... 2**

**1.2 THE 'REFERENCE GROUPS' WHEN TALKING OF PEOPLE WITH DISABILITY (PWD) ..... 2**

**1.3 THE THREE MODELS OF DISABILITY ..... 3**

**1.4 DEFINITIONS OF DISABILITY OVER TIME ..... 4**

**1.5 POINTLESS TERMINOLOGY? ..... 7**

**1.6 DEFINITIONS FOR PWD IN GREECE AND SOME NUMBERS FOR GREECE.. 8**

1.6.1 THE CURRENT DEFINITIONS FOR PWD IN GREECE.....8

1.6.2 SOME NUMBERS FOR GREECE.....8

**2. 'PROTOTYPES' AND 'IDEAL BODIES' VERSUS 'DIS-ABLED'**

**2.1 INTRODUCTION ..... 13**

**2.2 BRIEF HISTORIC OVERVIEW ON THE EVOLUTION OF (DIS-) ABLED NOTIONS..... 13**

2.2.1 CLASSICAL ARCHITECTURE.....13

2.2.2 19<sup>TH</sup> CENTURY.....14

2.2.3 MODERN MOVEMENT.....14

2.2.4 POST SECOND WORLD WAR.....16

2.2.5 LAST 25 YEARS.....16

**2.3 TODAY'S PERSISTING DUALISM IN THE BUILT ENVIRONMENT ..... 17**

**2.4 THE DOMINANCE OF SOCIETY'S ABLE-BODIED VALUES..... 19**



---

<b>3.</b>	<b>SOCIAL EXCLUSION AS A CONSEQUENCE OF ABLE-BODIED ARCHITECTURAL VALUES AND STANDARDS</b>	
<b>3.1</b>	<b>INTRODUCTION .....</b>	<b>22</b>
<b>3.2</b>	<b>SEARCHING FOR A DEFINITION FOR THE TERM OF 'SOCIAL EXCLUSION' .....</b>	<b>22</b>
<b>3.3</b>	<b>EFFECTS OF SOCIAL EXCLUSION .....</b>	<b>25</b>
<b>3.4</b>	<b>PRM - PWD AND SOCIAL EXCLUSION .....</b>	<b>27</b>
<b>3.5</b>	<b>OFFICIAL DATA ON SOCIAL EXCLUSION IN GREECE .....</b>	<b>29</b>
<b>4.</b>	<b>ATTITUDES OF PWD AND THEIR FAMILIES TOWARDS IMPAIRMENT</b>	
<b>4.1</b>	<b>PWD AND THEIR DISABILITY.....</b>	<b>32</b>
<b>4.2</b>	<b>THE WISH FOR AN INDEPENDENT LIVING.....</b>	<b>33</b>
<b>4.3</b>	<b>ATTITUDES OF (GREEK) FAMILIES HAVING A MEMBER WD.....</b>	<b>33</b>
<b>4.4</b>	<b>THE DIFFICULTY OF ACQUIRING INFORMATION IN GREECE.....</b>	<b>35</b>
<b>5.</b>	<b>ATTITUDES OF SOCIETY TOWARDS PWD</b>	
<b>5.1</b>	<b>DISABILITY IN DIFFERENT CULTURES .....</b>	<b>39</b>
<b>5.2</b>	<b>TODAY'S ATTITUDES AND BELIEFS ABOUT DISABILITY.....</b>	<b>40</b>
<b>5.3</b>	<b>PREJUDICES AGAINST PWD FROM THE PART OF (GREEK) SOCIETY.....</b>	<b>42</b>
<b>5.4</b>	<b>DISCRIMINATION AND OPPRESSION AGAINST PWD (IN GREECE).....</b>	<b>45</b>
<b>5.5</b>	<b>ACCEPTANCE OF PWD.....</b>	<b>47</b>
<b>5.6</b>	<b>ARE THERE ANY PWD LIVING IN GREECE? .....</b>	<b>48</b>
<b>5.7</b>	<b>INFORMAL NETS IN GREECE .....</b>	<b>50</b>

<b>6.</b>	<b>INTEGRATION OF PWD</b>	
6.1	THE IDEA OF INTEGRATION .....	53
6.2	PWD'S INTEGRATION IN GREECE .....	55
6.3	STATE WELFARE IN GENERAL .....	56
6.4	THE GREEK WELFARE STATE .....	57
6.5	SOCIAL CARE IN GREECE.....	59
6.6	REHABILITATION AND MEDICAL CARE IN GREECE .....	60
6.7	SOCIAL SERVICES IN GREECE .....	61
<b>7.</b>	<b>EDUCATION FOR PWD</b>	
7.1	EDUCATION FOR ALL .....	63
7.2	THE EDUCATIVE SITUATION FOR CHILDREN WD IN GREECE.....	65
7.2.1	PRIMARY AND SECONDARY DEGREE EDUCATION FOR CHILDREN WD IN GREECE.....	65
7.2.2	TERTIARY EDUCATION FOR PWD IN GREECE.....	66
7.3	BRIEF HISTORIC DEVELOPMENT OF (SPECIAL) EDUCATION IN GREECE	69
7.4	PUBLIC SPECIAL SCHOOLS IN GREECE .....	70
7.5	VOCATIONAL TRAINING PROGRAMS FOR PWD IN GREECE .....	72
<b>8.</b>	<b>SITUATIONS OF EMPLOYMENT AND UNEMPLOYMENT FOR PWD</b>	
8.1	PWD AND UNEMPLOYMENT.....	76
8.2	EMPLOYED PWD .....	77
8.3	EMPLOYMENT FACILITATIONS FOR PWD IN GREECE.....	80

---

<b>9.</b>	<b>PRM AND PWD PRESENTED IN THE MASS MEDIA</b>	
<b>9.1</b>	<b>THE ROLE OF THE FOURTH POWER .....</b>	<b>84</b>
<b>9.2</b>	<b>PRESENTED ATTITUDE AND IMAGES OF PWD IN THE MASS MEDIA .....</b>	<b>85</b>
<b>9.3</b>	<b>PWD PRESENTED ON THE BIG SCREEN .....</b>	<b>87</b>
9.3.1	MENTAL IMPAIRMENTS PRESENTED IN FILMS.....	88
9.3.2	VISUAL IMPAIRMENTS PRESENTED IN FILMS.....	90
9.3.3	SPEECH AND ACOUSTIC IMPAIRMENTS PRESENTED IN FILMS.....	91
9.3.4	MOBILITY IMPAIRMENTS PRESENTED IN FILMS.....	92
<b>9.4</b>	<b>SOME CONCLUSIVE REMARKS.....</b>	<b>95</b>
<b>10.</b>	<b>INFORMATION, SENSITISATION AND AWARENESS RISING</b>	
<b>10.1</b>	<b>INTRODUCTION .....</b>	<b>97</b>
<b>10.2</b>	<b>IS THERE A LACK IN SOCIETY'S SENSITISATION TODAY? .....</b>	<b>97</b>
<b>10.3</b>	<b>RECENT PUBLIC SENSITISATION CAMPAIGNS IN GREECE .....</b>	<b>99</b>
<b>10.4</b>	<b>PREFERABLE GOALS OF INFORMATIVE CAMPAIGNS.....</b>	<b>103</b>
<b>11.</b>	<b>INFORMATION</b>	
<b>11.1</b>	<b>INTRODUCTION .....</b>	<b>105</b>
<b>11.2</b>	<b>SURVEY'S CONTENT AND AIM .....</b>	<b>105</b>
<b>11.3</b>	<b>SURVEY'S METHODOLOGY .....</b>	<b>105</b>
11.3.1	A FEW EXPLICATIVE WORDS.....	105
11.3.2	SURVEY'S QUESTIONNAIRE.....	106
11.3.3	SCHOOL SAMPLING IN ATHENS.....	109
11.3.4	SCHOOL SAMPLING IN VIENNA.....	112
<b>11.4</b>	<b>SURVEY'S RESULTS IN DETAIL.....</b>	<b>115</b>

11.4.1	GENERAL REMARKS.....	115
11.4.2	PARTICIPATION OF 6 <sup>TH</sup> AND 9 <sup>TH</sup> GRADE PUPILS.....	116
11.4.3	REPLIES TO QUESTION 1.....	117
11.4.4	REPLIES TO QUESTION 2 AND 3.....	122
11.4.5	REPLIES TO QUESTION 4, 5 AND 6.....	125
11.4.6	6 <sup>TH</sup> GRADE REPLIES TO QUESTION 7 AND 8.....	129
11.4.7	REPLIES TO QUESTION 9.....	131
11.4.7	REPLIES TO QUESTION 9.....	131
11.4.8	REPLIES TO QUESTION 10.....	136
11.4.9	REPLIES TO QUESTION 11.....	144
11.4.10	REPLIES TO QUESTION 12.....	146
11.4.11	REPLIES TO QUESTION 13.....	148
11.4.12	REPLIES TO QUESTION 14.....	150
11.4.13	REPLIES TO QUESTION 15.....	152
<b>11.5</b>	<b>SURVEY'S COMPARISON AND CONCLUSIONS.....</b>	<b>154</b>

## **12. SPACE AND THE BUILT ENVIRONMENT**

<b>12.1</b>	<b>THE DYNAMIC OF SPACE .....</b>	<b>163</b>
<b>12.2</b>	<b>URBAN SPACE AND POLICIES .....</b>	<b>166</b>
<b>12.3</b>	<b>SPACE AND DESIGN APARTHEID.....</b>	<b>168</b>
<b>12.4</b>	<b>THE REFLECTION OF SOCIETY'S ATTITUDES IN SPACE .....</b>	<b>169</b>

## **13. UNIVERSAL DESIGN (UD) AND UNIVERSAL ACCESS (UA)**

<b>13.1</b>	<b>SHORT OVERVIEW ON CITIES' AWARENESS ON MATTERS OF UD AND UA .....</b>	<b>173</b>
<b>13.2</b>	<b>GENERAL GOALS OF UD AND UA .....</b>	<b>173</b>
13.2.1	THE NORMATIVE SITUATION IN THE EUROPEAN COMMUNITY.....	173

---

13.2.2	THE REAL PICTURE OF THE NEEDS OF UA.....	177
<b>13.3</b>	<b>DWELLINGS FOR EVERYONE? .....</b>	<b>181</b>
<b>13.4</b>	<b>LIFE-CIRCLE-LIVING .....</b>	<b>183</b>
<b>13.5</b>	<b>UA IN THE BUILT ENVIRONMENT.....</b>	<b>185</b>
<b>13.6</b>	<b>THE POWER ROLE OF DESIGN AND CONSTRUCTION PROFESSIONALS</b>	<b>186</b>
<b>13.7</b>	<b>THE ARCHITECT'S EDUCATION.....</b>	<b>190</b>
<b>14.</b>	<b>ACCESSIBILITY AND MOBILITY IN SPACE</b>	
<b>14.1</b>	<b>ACCESSIBILITY AND MOBILITY FOR PWD.....</b>	<b>196</b>
<b>14.2</b>	<b>ACCESSIBILITY AND MARKET EFFICACY .....</b>	<b>198</b>
<b>14.3</b>	<b>THE ROLE OF THE PUBLIC TRANSPORT SYSTEM (PTS).....</b>	<b>202</b>
<b>14.4</b>	<b>THE PUBLIC TRANSPORT SYSTEM TODAY.....</b>	<b>204</b>
<b>14.5</b>	<b>MOBILITY CONDITIONS FOR PWD LIVING IN GREECE .....</b>	<b>205</b>
<b>15.</b>	<b>THE CURRENT ACCESSIBILITY AND MOBILITY SITUATION IN GREECE</b>	
<b>15.1</b>	<b>INTRODUCTION.....</b>	<b>209</b>
<b>15.2</b>	<b>SHORT OVERVIEW ON BASIC UD- AND UA-GUIDELINES IN GREECE....</b>	<b>209</b>
<b>15.3</b>	<b>UD AND UA APPLICATIONS IN GREECE .....</b>	<b>211</b>
<b>15.4</b>	<b>THE DEVELOPMENT AND THE ACTUAL SITUATION IN GREECE'S CAPITAL .....</b>	<b>215</b>
<b>15.5</b>	<b>MOBILITY CONDITIONS IN ATHENS: PAVEMENT AND STREET SPACES .....</b>	<b>217</b>
<b>15.6</b>	<b>ATHENS' PTS.....</b>	<b>222</b>
<b>15.6.1</b>	<b>INTRODUCTION.....</b>	<b>222</b>

15.6.2	ATHENS' BUSES (ΟΑΣΑ/ ΕΘΕΛ) AND TROLLEYS (ΗΛΠΑΠ).....	225
15.6.3	ATHENS' RAILWAY (ΗΣΑΠ) AND ΑΤΤΙΚΟ ΜΕΤΡΟ (ΑΤΤΙΚΟ ΜΕΤΡΟ).....	230
<b>15.7</b>	<b>ARE PRIVATE CARS THE ONLY ALTERNATIVE FOR PWD LIVING IN ATHENS? .....</b>	<b>232</b>
<b>16.</b>	<b>RESULTS OF RECENT SURVEYS ANALYSING UD AND UA CONDITIONS IN ATHENS</b>	
<b>16.1</b>	<b>INTRODUCTION .....</b>	<b>235</b>
<b>16.2</b>	<b>THE EVALUATION STUDY 'ΚΑΘΕΝΑΣ' (2001) .....</b>	<b>236</b>
<b>16.3</b>	<b>EVALUATION STUDY OF THE GREEK MINISTRY OF INTERIOR (2002) .....</b>	<b>238</b>
<b>16.4</b>	<b>AUTHOR'S COMPARATIVE STUDY ON ACCESSIBILITY CONDITIONS TO SPECIFIC BUILDING CATEGORIES IN ATHENS (1984-2004) .....</b>	<b>239</b>
16.4.1	GENERAL REMARKS ON THE FOLLOWING COMPARATIVE SURVEY.....	239
16.4.2	PUBLIC SERVICES: MINISTRIES.....	242
16.4.3	PUBLIC SERVICES: HOSPITALS.....	244
16.4.4	EDUCATIONAL BUILDINGS: HIGHER-DEGREE EDUCATIONAL ESTABLISHMENTS.....	248
16.4.5	CULTURAL BUILDINGS: MUSEUMS.....	251
16.4.6	CULTURAL AND ENTERTAINMENT BUILDINGS: THEATRES.....	253
16.4.7	ENTERTAINMENT BUILDINGS: CINEMAS.....	258
16.4.8	CONCLUSIONS FROM THE PRECEDENT COMPARATIVE STUDY.....	261
<b>17.</b>	<b>ACCORD~4U2</b>	
<b>17.1</b>	<b>INTRODUCTION .....</b>	<b>266</b>
<b>17.2</b>	<b>THE IDEA.....</b>	<b>266</b>
<b>17.3</b>	<b>AIM OF 'ACCORD~4U2!'.....</b>	<b>269</b>
<b>17.4</b>	<b>WHY A GIS AND NOT AN ORDINARY MAP?.....</b>	<b>271</b>

---

17.4.1	SPECIAL GIS-DEMANDS FOR 'ACCORD~4U2!'	273
<b>17.5</b>	<b>DATA COLLECTION FOR 'ACCORD~4U2!'</b>	<b>274</b>
<b>17.6</b>	<b>'ACCORD~4U2!' PILOT PHASE</b>	<b>284</b>
17.6.1	INTRODUCTION	284
17.6.2	DEMO AREA	285
17.6.3	PTS STOPS AND TERMINI IN THE DEMO AREA	286
17.6.4	SERVICES OF PUBLIC USE INCLUDED IN THE DEMO	287
17.6.5	URBAN EQUIPMENT AND FACILITATIONS RECORDED IN THE DEMO AREA	288
17.6.6	OBSTACLES CONSIDERED IN THE DEMO	288
<b>17.7</b>	<b>IDEAS FOR 'ACCORD~4U2!' FURTHER DEVELOPMENT</b>	<b>289</b>

**18. CONCLUSION - SUGGESTIONS**

<b>18.1</b>	<b>INTRODUCTION</b>	<b>292</b>
<b>18.2</b>	<b>SYNOPSIS OF BASIC PROBLEM FIELDS</b>	<b>292</b>
<b>18.3</b>	<b>POSITIVE TENDENCIES AND EXAMPLES IN ATHENS</b>	<b>294</b>
<b>18.4</b>	<b>LEISURE AND TOURISM FOR PWD AS A NEW MARKET OPPORTUNITY</b>	<b>297</b>
<b>18.5</b>	<b>AUTHOR'S PROPOSALS FOR URGENT FUTURE MEASURES</b>	<b>302</b>

<b>REFERENCES</b>	<b>306</b>
-------------------	------------

<b>FIGURE INDEX</b>	<b>316</b>
---------------------	------------

<b>TABLE INDEX</b>	<b>330</b>
--------------------	------------

# PART A



**1 TERMINOLOGY OF 'DISABILITY'**

**1.1 INTRODUCTION..... 2**

**1.2 THE 'REFERENCE GROUPS' WHEN TALKING OF PEOPLE WITH DISABILITY (PWD)..... 2**

**1.3 THE THREE MODELS OF DISABILITY ..... 3**

**1.4 DEFINITIONS OF DISABILITY OVER TIME ..... 4**

**1.5 POINTLESS TERMINOLOGY? ..... 7**

**1.6 DEFINITIONS FOR PWD IN GREECE AND SOME NUMBERS FOR GREECE ..... 8**

1.6.1 THE CURRENT DEFINITIONS FOR PWD IN GREECE ..... 8

1.6.2 SOME NUMBERS FOR GREECE ..... 8

ABBREVIATIONS:

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

## 1.1 INTRODUCTION

When is somebody considered to be 'disabled'? Is it of any importance how somebody is seen or how that somebody sees herself/himself so that she/he is thought to be a 'person with special needs'? Why should any aspects concerning 'handicaps' been taken into consideration during the design process?

As one can see, there are quite a few different terms to express persons' impairments. Terminology has often changed and it seems that a major focus has been set on, especially in Greece (fig. 1-1). First, there was talking about 'people with disabilities', then appeared the 'handicapped ones', all of a sudden there was the baptism of 'people with special needs'. Finally, today, the term 'people with disability' is the most common one to be used. In the following, the author's abbreviation for '**person with disability**' (**PwD**) will be used throughout the whole thesis.

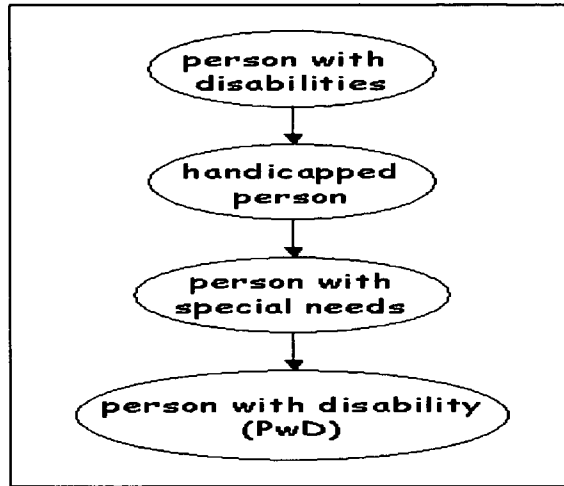


Fig. 1-1: Changes of the term used for persons with disability in Greece in the past

In 1971, disability globally corresponded 'to the malfunction or the deficiency of an extremity, an organ or a corporal mechanism.' In 1975, on December 9<sup>th</sup>, the UN General Assembly announced with resolution no.3447 the still existing **definition for PwD and their rights**: "The term 'disabled person' means any person unable to ensure by himself or herself, wholly or partly, the necessities of a normal individual and/or social life, as a result of a deficiency, either congenital or not, in his or her physical or mental capabilities" (www.ods).

## 1.2 THE 'REFERENCE GROUPS' WHEN TALKING OF PEOPLE WITH DISABILITY (PWD)

Usually, when talking about people with disability (PwD), one refers to people with:

- **mobility** impairments,
- **sensory** impairments or
- **mental** impairments.

This means, that vision, hearing, speech, language, mobility, intelligence, emotionality, chronic illnesses and/or the exterior appearance are considered determining factors for any 'categorizing'.

The complexity of disability and the problematic constellation of defining reference groups are clearly expressed in the following statement: "There are hundreds of different disabilities. Some are congenital (occurring at birth); most come later in life. Some are progressive (becoming more serious over time). Others are episodic (occurring from time to time). Some conditions are static. Still others can even go away. Some disabilities are 'hidden'. Each disability comes in differing degrees of severity" (Shapiro quoted in Ellis, et al., 1997: 110).

### 1.3 THE THREE MODELS OF DISABILITY

As humans like to classify everything, definitions emerged to categorize disabilities. Three models of disability can be dissociated among all these attempts, within which perceptions are generally structured (ΕΣΑΑ, 2000).

**Firstly**, there is the **old-fashioned or traditional medical model of disability** (fig. 1-2). It has been the basis of the dominant view of disability over many decades. This approach loads all problems of disability on the individual itself and difficulties to become active are related to the particular medical condition or the impairment. **The interaction between the person and his/her environment is totally ignored.** This approach has a clearly paternalistic origin and leads to an autarchic and often violent confrontation of personal and human rights of PwD separating them from any social, economic and political activities.

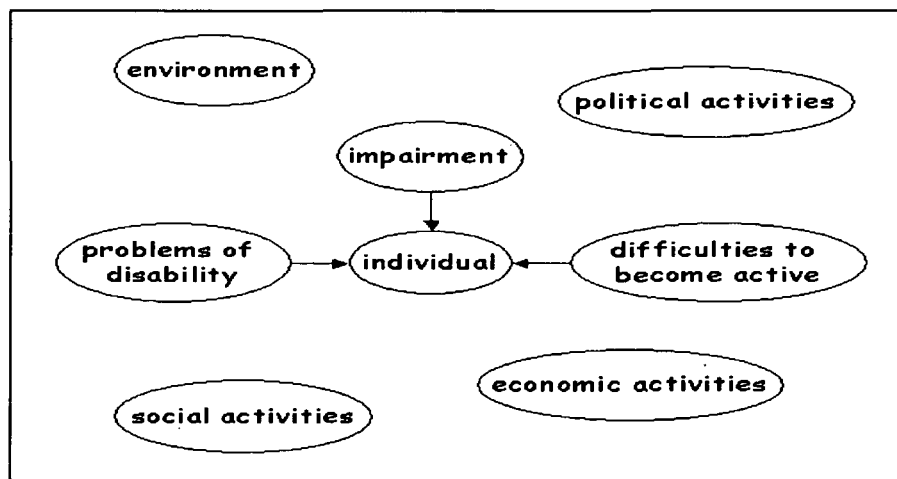


Fig. 1-2: Scheme showing relations in the traditional medical model of disability

**Secondly**, there exists the **social model of disability**. This approach looks at **disability being a social issue** (fig. 1-3). It focuses upon how the way in which society organizes itself disables PwD and how laws, regulations behaviours and so on, build burdens, typical and atypical barriers placing PwD in the mercy of the socio-political environment (Matthews, 1996). Society's weakness to take note of needs and particularities of PwD is blamed for all problems they have to face in order to be able to act equally in all social happening.

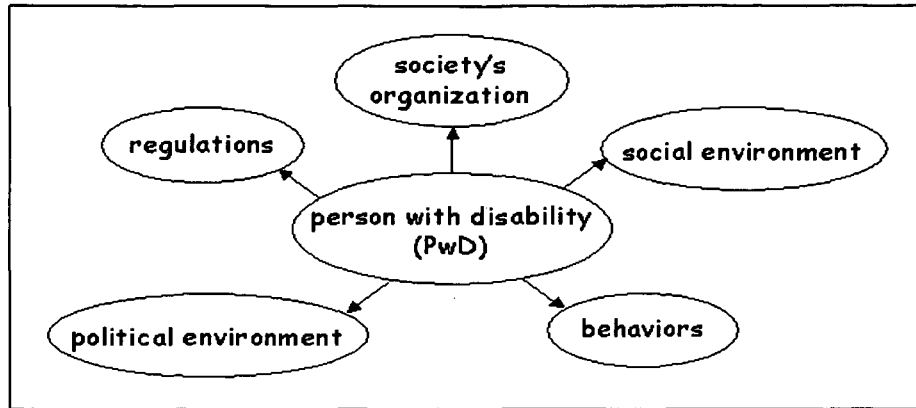


Fig. 1-3: Scheme showing relations in the social model of disability

The third model is a multi-dimensional definition for disability (fig. 1-4), which combines the medical and the social one. According to this model, disability is a spectrum of three dimensions: **body – functions – structure** (EΣAA, 2000). Taking the two other models into consideration, 'body' can be related to the medical side of the impairment itself, 'functions' stands for all human activities within society and finally 'structure' can be linked to the (built) environment. The importance of this model lies in the interaction between these domains.

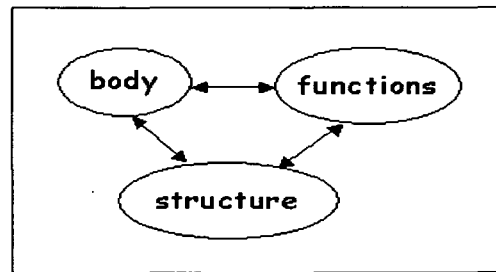


Fig. 1-4: Scheme showing the three dimensions of disability linked in the multi-dimensional definition for disability

#### 1.4 DEFINITIONS OF DISABILITY OVER TIME

Looking back in history, the **first definitions** were in a more or less medical way. The health condition of a PwD is described. Thus, disability is related to a corporal malfunction, mainly of a basic organ like the heart, the kidneys, etc. However, as the following definitions show, even these strictly medical approaches involve in one way or the other consequences for a PwD's life in society (Ellis, et al., 1997).

In the **17<sup>th</sup> century**, disability was defined as "a usually permanent physical or mental condition that limits an individual's activities, especially her/his ability to work" (Ellis, et al., 1997: 107). This early definition proves how important labour was considered to be. It is the only activity that was considered to be of significance in any person's life.

A couple of centuries later, the importance of being able to work reached its apogee. "The category 'disabled' emerged in the 19<sup>th</sup> century as the state's response towards sorting out the able-bodied from the disabled, or those with the (measurable) capacity to work from those without" (Stone quoted in Imrie, 1996: 44).

Since 1980, the World Health Organisation (WHO) has been trying to differentiate the definition of disability in a three-dimensional way. Perceiving disability merely as a physical or mental characteristic and understanding impairment only in its medical way was claimed to be insufficient. The relation between disability and the expectations a given society has of each individual was researched.

In details, the **WHO (World Health Organisation) distinguishes in the ICIDH (International Classification of Impairment, Disability and Handicap) among** (www.who):

- **'impairment'**: any temporary or permanent loss or abnormality of a body structure or function, whether physiological or psychological. Impairment is defined as a disturbance affecting functions that are essentially mental (memory, consciousness) or sensory, internal organs (heart, kidney), the head, the trunk or the limbs.
- **'disability'**: a restriction or inability to perform an activity in the manner or within the range considered normal for a human being, mostly resulting from impairment.
- **'handicap'**: the result of an impairment or a disability that limits or prevents the fulfilment of one or several roles regarded as normal, depending on age, sex and social and cultural factors.

As can be seen, the part of a dynamic socio-cultural and physiological process is not comprised directly in the WHO's definitions. Disability continues to be presented as a series of 'types', of physical and/or mental (end) states.

But: "Does it make sense at all to perceive impairments, if a person is socially integrated?" (Holzer, 1999: 12). This conception is based on the principle that a physical disability is not a handicap, as long as it does not inhibit the person's self-completion (Nikolaidou, 1999) (fig. 1-5).

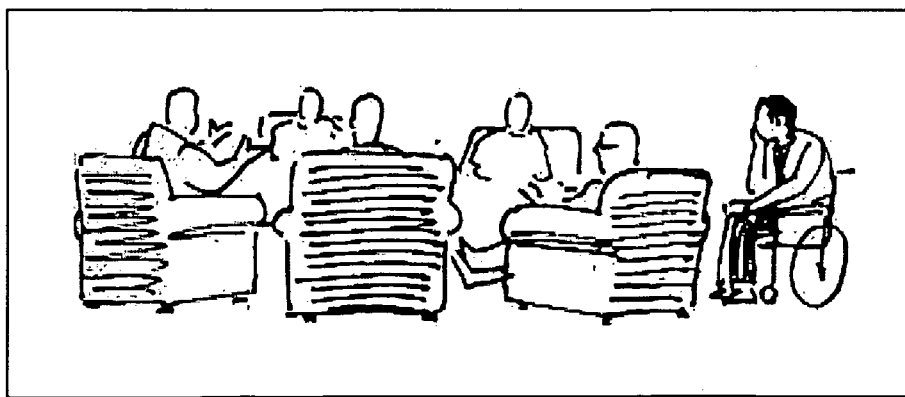


Fig. 1-5: An example of social integration of PwD

Since the 1970's, PwD themselves have given their answer to this question in developing their own definition of disability, one that focuses on social issues exclusively. "The first consideration is a quest of opportunity and integration in society – including opportunities for employment, education, communication and access to public buildings and transportation. The second is the search for a disability culture, a sense of being different that is positive, proud and powerful" (Ellis, et al., 1997: 107).

It is characteristic, that some PwD use the following slang term for persons without disabilities: 'TAB's', for 'temporarily able-bodied people' (Ellis, et al., 1997: 112). This is a reminder that any individual can become disabled at any time.

The hazards of modern living (traffic accidents, rise of criminality and violence, etc.) often cause **severe injuries**. It appears that many will be functioning with a severe disability or limitation in function at some points of their lives. According to international researches based on statistic data of accidents one person out of four (1:4) suffers once in her/his life from an accident (fig. 1-6) (Scherer, 1993).

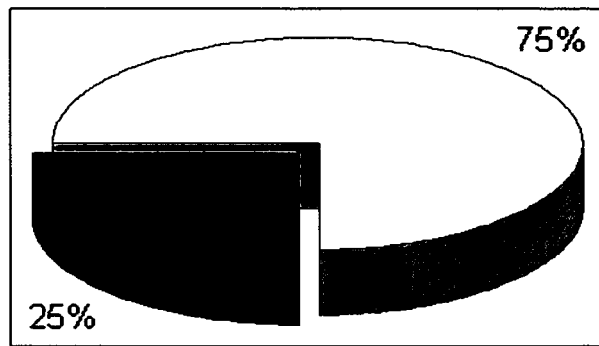


Fig. 1-6: Percentage of individuals suffering once a lifetime from an accident (25%)

Furthermore, statistics show that 85% of all PwD do not acquire their disability at birth, but sometime later during their life (fig. 1-7). There is a one to two (1:2) possibility to have a **permanent disability** (one lasting longer than 90 days and, on the average, over 6 years in duration) between the ages of 30 and 65 (Scherer, 1993).

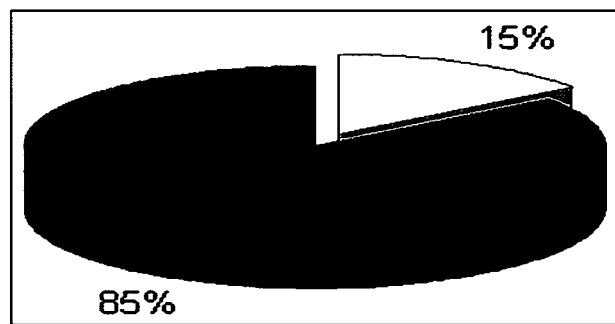


Fig. 1-7: Percentage of non-congenital disabilities (85%)

Nowadays, **progress in medicine and rehabilitation techniques** offers people possibilities to survive accidents, but often with permanent disabilities. The European Commission estimates that 1 out of 10 persons in Europe (1:10) has a disability referring to the total population (fig. 1-8) and not the economically active one (Int. Labour Conf, 1998).

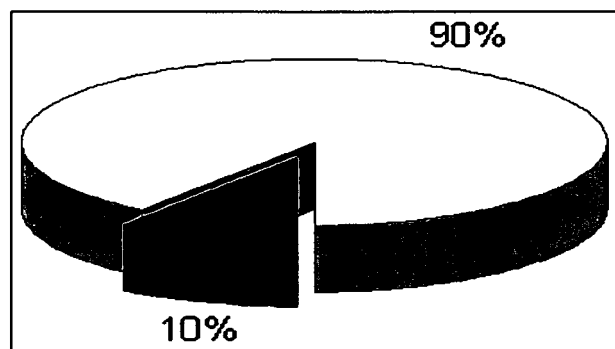


Fig. 1-8: Approximate percentage of PwD in Europe

In addition, the increase of persons in the third (60-74 years) and fourth age (over 75 years) associates and emerges **more disabilities with advanced age**. With age, important changes occur in all human being's physiology as well as in her/his psychology, e.g. a reduction of sensory abilities which appears gradually (Στεφάνου et al., 1993). As a consequence of ageing, chronic illnesses can be mentioned as well. A large percentage of 'chronic disabled' is over the age of 60. These are individuals who suffer from a chronic illness, often followed by a serious and usually non-reversible disability (Ameria, 1999).

### 1.5 POINTLESS TERMINOLOGY?

In conclusion of the above paragraphs, at any time of life, a person can pass from a state of self-care to a state of more or less physical dependence. Ultimately, disability is neither a 'type' nor a solely objective condition. It has to be understood as "*a fluid transformative and transforming state of being*" (Imrie, 1996: 176).

Thus, it is **almost impossible to distinguish certain specific groups of PwD**. It seems difficult and maybe even pointless to try to define impairments, illnesses, disabilities, etc. that might form groups in one way or another, as **PwD's identities should be defined by what they can do and not by what they cannot**, e.g. hear.

PwD do form an **inhomogeneous group** of each population. Their needs and their responses to barriers differ according to the category and the gravity of disability. The following statements unfold a small variety of the complexity of all attempts to define groups and show some differing points of view on the topic.

*"Disability is oppression of people with impairments. Being a disabled person is defined by each individual, so if you say you are disabled, then you are. The definition of disability is a social one, not a medical model"* (Imrie, 1996: 106).

*"Impairment is a human characteristic; it knows no bounds in terms of time-space, geographical location, social or economic status and age-band"* (Kisanji, 1999: 78).

*"Disability is not a dilemma; it is about lifestyle, about discrimination and about ignorant able-bodied service-providers who inculcate narrow medical and paramedical stereotypes into the minds of the future generation"* (Finkelstein quoted in French, 1996: 118).

*"When individuals with disabilities are prevented from acting independently and attaining personal goals due to their own limitations, or to limitations in environmental and social accommodations, such persons are said to be 'handicapped'"* (Scherer, 1993: 18).

## 1.6 DEFINITIONS FOR PWD IN GREECE AND SOME NUMBERS FOR GREECE

### 1.6.1 THE CURRENT DEFINITIONS FOR PWD IN GREECE

According to the **Greek law 1566/85** (article 32), **PwD** are those persons, who "suffer from certain impairments or malfunctions, ought to physical, mental or social parameters in such an extent, that it appears difficult to them to participate in the general and vocational orientation, to find a job or to fully participate in society (Kassotakis et al, 1999: 452). In details, the following 'groups' are included:

- **blind** persons or persons with severe **impairments in eyesight**,
- **deaf** persons or persons **hard of hearing**,
- persons with **severe mobility restriction**,
- persons with **particular learning difficulties**,
- persons with **mental illnesses**
- persons with **emotional repressions**,
- persons with **epilepsy**,
- persons with **intellectual impairments**.

In 1999, a brochure of the Greek Ministry of Interior, Public Administration and Decentralisation published the following definitions, while distinguishing between 'hindered persons' (εμποδιζόμενα άτομα) and 'people with disability' (άτομα με αναπηρία):

" **'Hindered persons'** are **PwD**, as well as **people with reduced mobility (PRM)**, that means **people belonging to the third and fourth age, pregnant women, pre-adolescents, persons with unusual corporal dimensions, addicts to harmful substances, all individuals using or driving any kind of chairs, everyone charged with freight, etc. (fig. 1-9); 'PwD'** are **persons with permanent or temporary injuries, impairments, weaknesses, or a combination of the above, which are provoked by physical, psychological or mental insufficiencies"** (ΥΠ. ΕΣΩΤΕΡΙΚΩΝ, 1999).

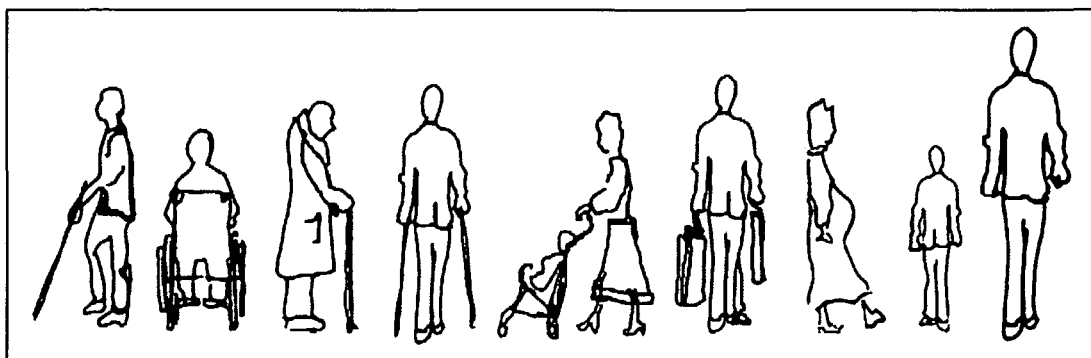


Fig. 1-9: Sketches of individuals belonging to the group of PRM and PwD: a blind person, a wheelchair user, an senior citizens with a walking stick, an injured person with crutches, a mother with an infant sitting in a pram, a person with two suitcases, a pregnant woman, persons with unusual corporal dimensions



## 1.6.2 SOME NUMBERS FOR GREECE

**In Greece, no relevant census** has ever been made to determine the extent of PRM and PwD among the total population. In conclusion, no data on the exact number of PwD living in Greece is available.

From a variety of studies carried out in different European countries, the accepted view of major European agencies (like Eurostat) is that **approximately 12%-13% of the total population has some form of disability** (ΕΣΑΑ, 2000). Across the entire population of Europe (circa 500 mio people), this correlates to approximately 60 million people (McKee, 1996).

In relation to Greece, the Greek Ministry of Interior, Public Administration and Decentralisation assumes that the **number of PRM in Greece, including PwD, exceeds 40% of the total population** (Υπ. Εσωτερικών, 1999). Mobility impairments comprise 3/5 of all disabilities in Greece. This results from Greece's top position in traffic accidents. Thus the majority of PwD with mobility impairments are young persons ageing between 18-35 years (Ισοτιμία, issue 53). Only 3% of all PwD are under the age of 20, about 45-65% of PwD are in the productive age being between 15-64 years old (Κυριαζοπούλου, 2003).

Furthermore, it is estimated, that today, **35-40% of the global population are over the age of 65 years** (Κυριαζοπούλου, 2003). In 2000 (?), Greece occupied one of the first positions as regards ageing in Europe. Survival rates for the aged population are ranked as follows: men living in Greece hold the 2<sup>nd</sup> position and women the 8<sup>th</sup> position in Europe (Στεφάνου et al., 1993: 35). Thus, the Greek National Statistic Service foresees a rise of 40-50% in the group of persons being over 64 years old for the next two decades (www.minenv).

The Greek Ministry for the Environment, Physical Planning and Public Works, however, presumes that today, **50% of the total population are partly or in total excluded from the built environment in Greece, either due to reasons of reduced mobility and/or other impairment** (www.minenv). The division of percentages according to each excluded population 'group' is portrayed in the following figure (*fig. 1-10*):

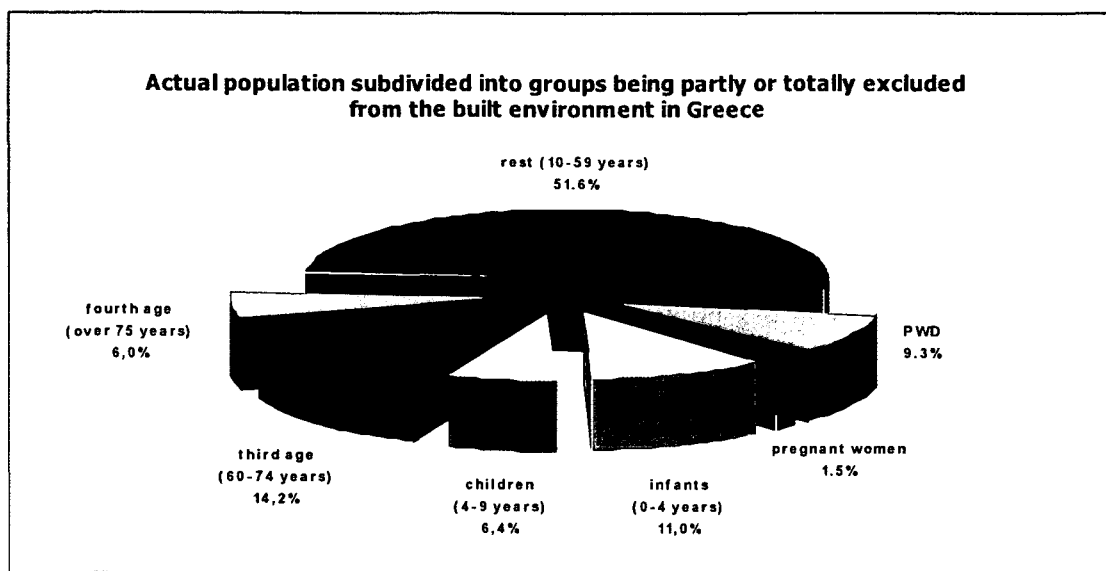


Fig. 1-10: Suggestion of the actual party of the Greek population, which is partly or totally excluded from the built environment in Greece

According to this publication, percentages of Greece's PRM are estimated as follows. Senior citizens hold about 20% of Greece's population (14,2% belonging to the third age and 6,0% to the fourth age), while about another 20% are assumed to be children and infants (6,4% and 11,0% respectively). It is guessed, that PwD comprise 9,3% of Greece's population and pregnant women about 1,5%.

However, it has to be clearly pointed out, that due to **lack of statistic data in Greece, the above percentages do not incorporate the following PRM groups:**

- persons moving with any kind of transportation vehicle, luggage or any other kind of burdens,
- people with unusual corporal dimensions (under 1,50m or over 2,10m),
- people being temporarily disabled,
- patients on cure and
- addicts to various harmful substances.

Percentages of figure 1-10 change dramatically, if one would add approximately another 20-30% for all those persons, that face situations of reduced mobility during lifetime, either due to mobility restrictions of herself/himself, or due to mobility difficulties of persons belonging to her/his close surrounding, which they are looking after, serving, guiding or accompanying. Taking this consideration into account, it is **about 70-80% of the total population that is affected by barriers and problems in the built environment in Greece!**

The sketch below (*fig. 1-11*) portrays this fact telling the story of a Greek woman, called Maria. Beginning from her being as an embryo and her childhood, where stairs are one of the reasons she often gets hurt and where she is hindered to reach what she would like to. In her adolescence, further situations of reduced mobility show up, e.g. due to temporarily

injuries caused by a car-accident. From her mid twenties onwards, Maria almost does not stop having to face situations of reduced mobility and barriers in the built environment. After having had to face built barriers during her pregnancy, she is confronted again with them whenever she wants to move around with her infant George in his pram. Some years later, she gets pregnant again and all these problems emerge once more. While years pass, ageing weaknesses start to trouble her, like when lifting weights over height differences. As her children grow older, George has a street accident and is temporarily unable to walk around by himself, due to a broken leg, bringing Maria back to similar problems as when she used his pram. As years go on, her and her husband's parents grow older and weaker, forcing Maria to look after them and to help them to move around. Finally, it is Maria, herself, that has gotten old and is obliged to use walking aids when moving. Although her son George probably faces fewer situations of reduced mobility, as periods of pregnancy and looking after the infants can be left out, his story is quite alike the one already described!



Fig. 1-11: Maria's story: "Me, Maria, the human being, the citizen,... Me, George, Maria's... son..."

<b>2 'PROTOTYPES' AND 'IDEAL BODIES' VERSUS 'DIS-ABLED'</b>
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<b>2.1 INTRODUCTION.....</b>	<b>13</b>
<b>2.2 BRIEF HISTORIC OVERVIEW ON THE EVOLUTION OF (DIS-) ABLED NOTIONS.....</b>	<b>13</b>
2.2.1 CLASSICAL ARCHITECTURE.....	13
2.2.2 19 <sup>TH</sup> CENTURY .....	14
2.2.3 MODERN MOVEMENT .....	14
2.2.4 POST SECOND WORLD WAR.....	16
2.2.5 LAST 25 YEARS.....	16
<b>2.3 TODAY'S PERSISTING DUALISM IN THE BUILT ENVIRONMENT .....</b>	<b>17</b>
<b>2.4 THE DOMINANCE OF SOCIETY'S ABLE-BODIED VALUES .....</b>	<b>19</b>

**ABBREVIATIONS:**

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

## 2.1 INTRODUCTION

What are the criteria to distinguish between someone being 'able-bodied' or someone being called 'dis-abled'? What is the 'ideal body' all architecture is based on? In what way do these prototypes dominate the built environment?

As the definitions presented in the preceding chapters have already stretched out, an obvious **dualism** exists. Difference (as race, gender, class, disability) has always been and still is expressed in relational terms. In conclusion, reference criteria prevail in different contexts. The question '**Compared to what?**' guides every understanding of disability. A distinctive measure of distance between the individual and the ideal of an able body is often involved. "*If disability is a statement about a person's deviation from a constructed social norm, then we need to question the constructed and imagined spatial boundaries of difference... At what point does any one person become dis-abled?*" (Dossa, 1999: 304).

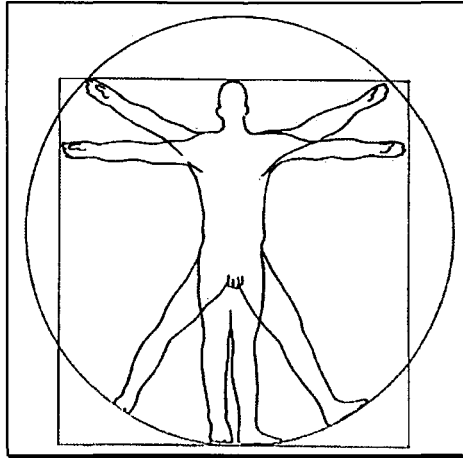
Planning theories and practices give one striking answer to this question. They have always tended "*to reflect the dominance of white, able-bodied men, where the pursuit of enlightenment valued, such as economic efficiency, has been paramount*" (Imrie, 1996: 17). As a result, every human being diverging from this prototype is categorised as disabled.

Unfortunately, design history proves, that the myth of the '**normal person**' has been and still **is supported at its best through architecture**. The emphasis on sameness and on uniformity is problematical due to its failure to differentiate between possible users. No recognition can be observed, that places and spaces need to be multifunctional in order to cope with human diversity. Realisations in the built environment provide sufficient proof of all possible dualistic inequalities.

## 2.2 BRIEF HISTORIC OVERVIEW ON THE EVOLUTION OF (DIS-)ABLED NOTIONS

### 2.2.1 CLASSICAL ARCHITECTURE

Classical architectural theory revolved around the conception of the **symmetry of 'able-bodied' man**. "*Buildings like the Parthenon in Athens were constructed with 'systematic imagery', a gender partiality but also a conception of health, vigour and bodily rightness as portrayed in the classical context of able-bodiedness*" (Imrie, 1996: 16). If a glance at art is taken, this point of view can be seen, as well. Following the ancient Greeks, many architects and artists researched human dimensions and looked for ideal proportions and unifying measures. For instance, da Vinci's (*fig. 2-1*) well-known 'canon of proportions' can be mentioned.



*Fig. 2-1: Da Vinci's canon of proportions*

### 2.2.2 19<sup>TH</sup> CENTURY

In the late 18<sup>th</sup> and early 19<sup>th</sup> century new socio-economic conditions emerged generating new dependent populations. This has already been partly expressed through the definitions of disability (*chapter 1.4*). But it was the waged labour, which made the distinction between the able-bodied and the disabled effective. The state's response was segregation. "In the UK, for instance, the Poor Law Amendment Act was underpinned by a morality, which not only individualised the nature of disability, but institutionalised state policies premised on the idea that **PwD should be disciplined, even punished, for their transgressions from normality**" (Imrie, 1996: 53).

In conclusion, a persistent feature of able-bodiedness emerged in the 19<sup>th</sup> century. **Charitable acts** developed the projection of 'pity' and 'empathy' in institutions. Yet, on the one hand, charity was and still is subsumed as the correct treating of PwD by a wider **segregationist ethos**. On the other, trying to help the 'unfortunate few', the prevalent notion was, to keep the 'diseased' or malevolent disabled apart from the normal population (Imrie, 1996).

### 2.2.3 MODERN MOVEMENT

The modern movement treated the theoretic and design approach on the level of housing, as well as on organising housing, the city and the neighbourhood. The aim was to **reduce human complexity**. The emphasis was lead towards **universal sets of rules and regulations** for building use and human behaviour. Human beings were thought to conform to a singular type, to particular patterns of (able-bodied) normality both in corporal and mental terms. "The minimal ideal house for the 'ordinary' standardised employee was the same for everyone on the planet. 'Ideal' for the 'ordinary user', who finally never lived, nowhere" (Bpυχέα, 1997: 758).

The welfare state supported this 'ideal' housing model. The idea was to provide an inexpensive built form for every citizen in the community. **Louis Sullivan's motto 'form follows function' was understood as the search for universal laws of human habitation and behaviour.** As a result, the functionalist attempt arose and produced 'pure' design, singular styles and forms adjusted to the predictable essence of all human beings. This functionality was expressed by the idea of minimising the form and of maximising the building utility. The idea that human behaviour was wholly predictable and knowable was the premise (Imrie, 1996).

The most known theory on **universal proportions** is the one of Le Corbusier "all men have the same organism, the same functions... the same needs" (Le Corbusier quoted in Imrie, 1996: 80). This embodiment of normality was expressed in a diagram conceived by **Le Corbusier** in 1925 called the "**Modular** (fig. 2-2), a device, which utilised the proportions of the (able) body to enable the architect to create the built spaces. Yet, this rediscovery was wholly based on a particular, ableist, gender-specific, conception of the person, an idealised man who was presented, as the embodiment of normality" (Imrie, 1996: 82).

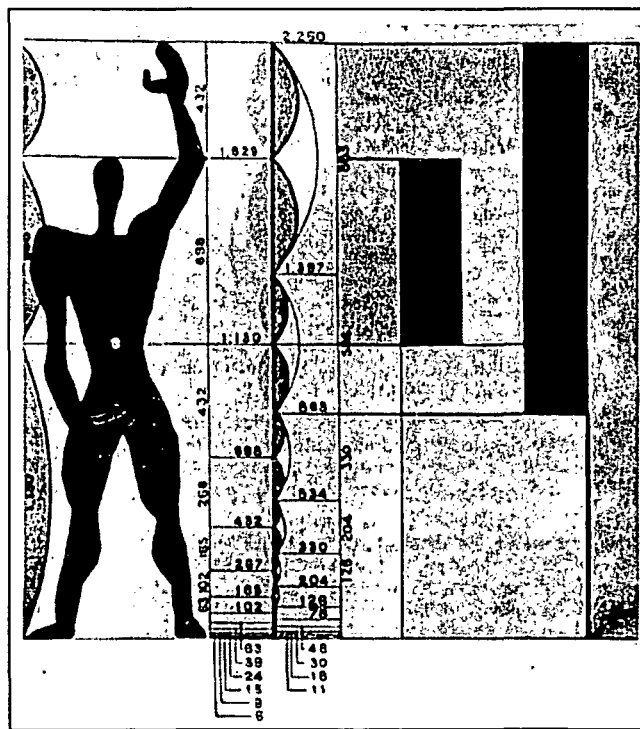


Fig. 2-2: Le Corbusier's Modular

**Dreyfuss** presented another **diagram of universal human scales** in 1955 (fig. 2-3). The parallels are evident between Le Corbusier's Modular and this one. However, Dreyfuss did at least consider, that women exist as well and that they have different physical attributes in comparison to masculine human beings. Nevertheless, the denial of bodily diversity and differences and the projection of normality as one of able-bodiement persist (Imrie, 1996).

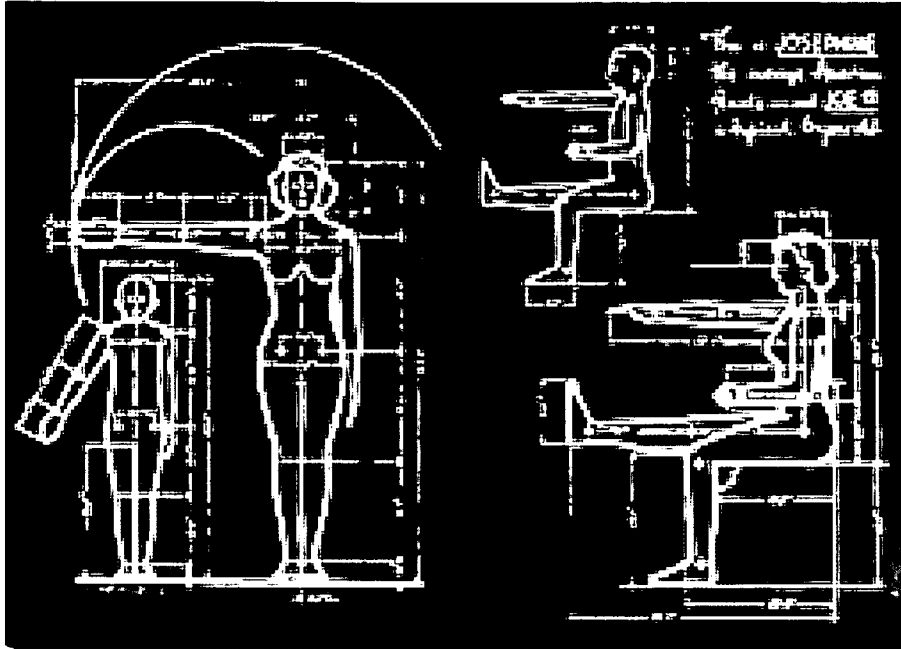


Fig. 2-3: Dreyfuss's scheme on universal human scale (example of the woman)

#### 2.2.4 POST SECOND WORLD WAR

The **assimilationist philosophy** reached its apogee under the post-war modern movement. Integration into the mainstream was thought to be the 'cure' for PwD. This inclusion continued to impose able-bodied rules. The extension of bureaucratic control conducted the 'healing' of PwD in denying their differences. A universal conception of normalisation was put upon PwD in order to transform them into a normal (able-bodied) person.

*"The resultant discourses of disability, then, tended to reflect a societal xenophobia, a collective neurosis about disability which led off and conditioned, the wider socio-institutional conditions within which most PwD had to live their lives. In particular, the assimilationist ideal, or the notion that PwD should be brought into the worlds of the able-bodied, revolved around the idea that **PwD should somehow seek to 'expel' their condition**" (Imrie, 1996: 55).*

#### 2.2.5 LAST 25 YEARS

Over the last 25 years or so PwD have been struggling to vanish all dominant able-bodied values and practices of society. Interactions between the body as physiological and socio-cultural artefact and the built environment have been researched. As a result, Western welfare states have continued to create strategies denying the differences of impairment and the differences that impairments impose to the ways in which PwD have to lead their lives. The attitude persists that PwD have to 'become normal', to somehow reject and deny their (bodily) differences, to **'scale their bodies'**. It is this process that would guarantee their assimilation into and finally their acceptance by the mainstream of society (Imrie, 1996).



"**Ableism**, a term dating from the late 20<sup>th</sup> century, refers both to the belief that PwD are inferior to persons without disabilities and to practices of discrimination and violence against PwD. Three categories do exist:

- **individual** ableism, the prejudices held by members of a particular person,
- **cultural** ableism, the prejudices held by members of a particular culture or community,
- **institutional** ableism, a system of economic and social discrimination against PwD – prejudice plus power!" (Ellis, et al., 1997: 113)

The poor result of all evolution seems to be a society that is still seeking to incorporate PwD into the 'mainstream'. However, some progress can be noticed lately, as, for instance, awareness rises that **PwD are a potential market**. Nevertheless, the persistence of universalistic services remains today's reality. Society reflects its dominant able-bodied values everywhere (fig. 2-4). It is the built environment again, that shows an unending list of discrimination against PwD when, e.g., public buildings are not equipped with an elevator or a PwD's toilet. The whole surrounding we live in labels PwD as 'abnormal' and propagates the dominance of 'able-bodied' values.

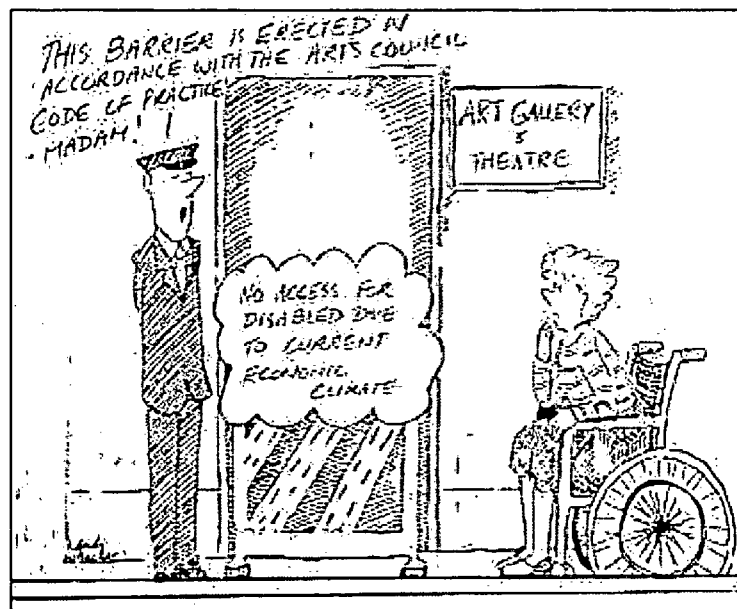


Fig. 2-4: Cartoon - speaking for itself!

### 2.3 TODAY'S PERSISTING DUALISM IN THE BUILT ENVIRONMENT

In conclusion of all the above, architectural history shows, that the 'white male' has been the most powerful dimension in design process. Unfortunately, this clearly racist, sexist and able-bodied 'prototype', continues to build the reference for unilateral planning, even nowadays. Architects, decorators, urban planners, building professionals, etc. treat human beings mostly unvarying. This, of course, is **far from designing for the subjective being and human diversity**.

However, considerations on the constant changes of the human body, its diversity and complexity have already been made in Ancient Cultures. In Ancient Greece, for instance, daily problems of reduced mobility conditions were clearly expressed through the following well-known enigma, which Oedipus was asked to answer by the Sphinx of Thebes: "Ο τετράπους, δίπους, τρίπους γίγνεται" ('Four feet transform into two feet and finally into three feet'). And of course the enigma's solution is: the human being. It is neither the child, nor a man or a woman, nor an old man or an old woman. It is the complexity of mankind itself, which has already been surveyed a couple of millennia ago.

But until today, only few professionals from the building sector seem to have taken serious considerations on these facts and on matters of universal accessibility and comfort. A little example on some of the difficulties a human being is confronted with during her/his lifetime are shown in the following sketches dating from the past century (fig. 2-5).

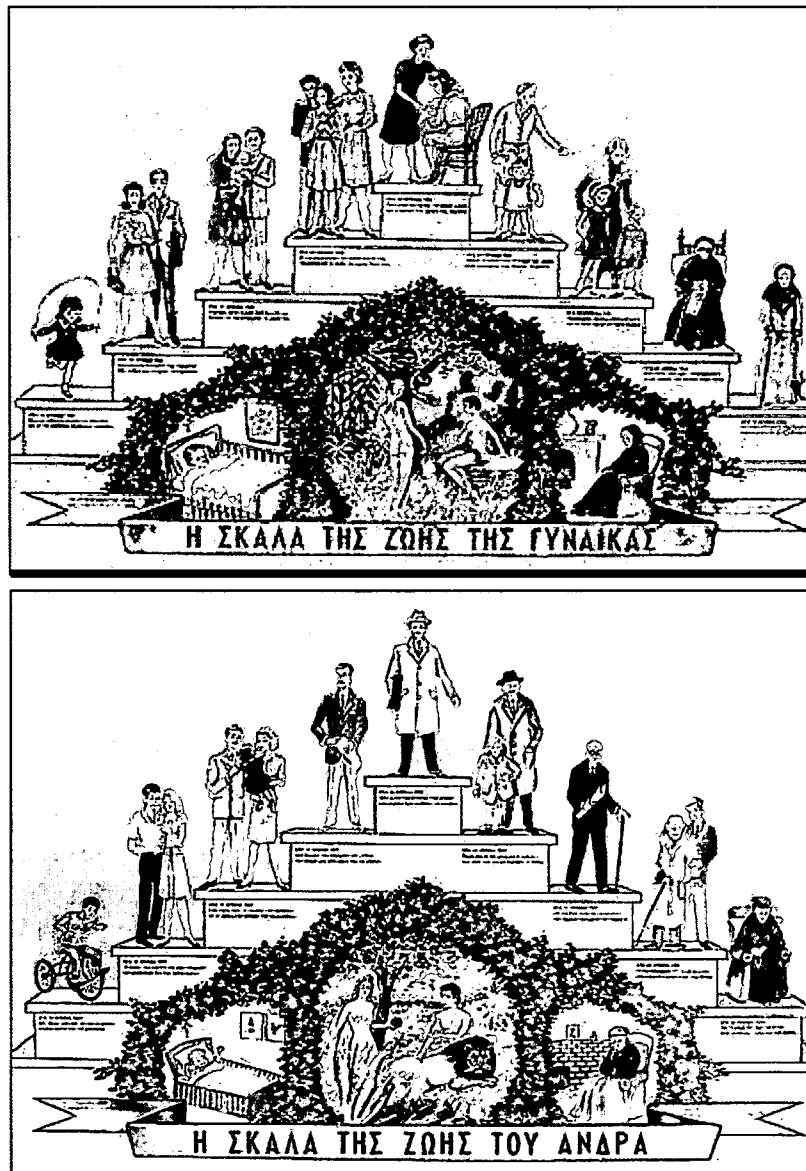


Fig. 2-5: Drawings showing steps of a woman's and a man's life pyramid

These **life-pyramids** clearly represent various stages and needs in a woman's and man's life circle, according to her/his age. For instance, the mother with the infant is painted seated, the old man is shown with a walking stick, etc. Nevertheless, today, it often seems that such considerations are unknown or new to many design and building professionals.

Today, the **built environment is static**. Little, if at all, variations according to the degree of sensitisation of a person, to the degree of her/his adaptability and correspondence or to the degree of her/his capability to move around have been achieved so far. The way spaces are designed is responsible to which extent actions are flattened or suspended and expressions are standardised. "*Yet, spaces should allow imaginative persons to have visions, dreamy persons to build castles in the air, kinetic persons to move around and PwD to participate*" (Στεφάνου et al., 1993: 11).

Besides this, all these **(able-bodied) conceptions treat disability as uniform and homogeneous**. Thus, the notion that there are two discrete types (the able-bodied and the disabled) is reinforced. The existence of the former is understood as much more enriched, 'better' and 'superior' than the latter (Imrie, 1996).

## **2.4 THE DOMINANCE OF SOCIETY'S ABLE-BODIED VALUES**

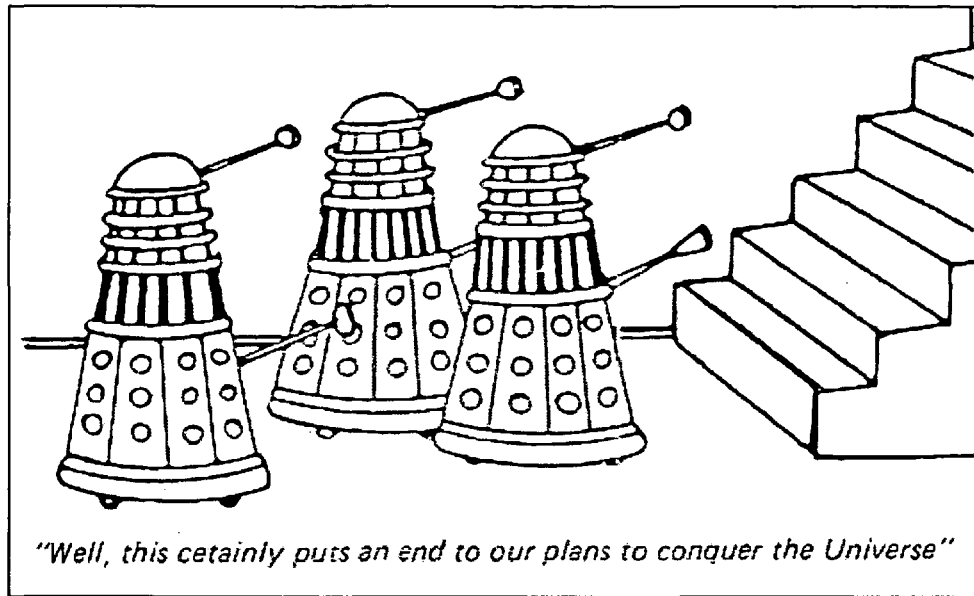
All values continue to tend to be perceived in comparison to able-bodied ways. In conclusion, the attitude still survives that **a PwD is someone failing to compete with the 'masculine values of strength, physical ability and autonomy'**. But "*the body is an active and reactive entity, which is not just part of us, but is who we are (...). The body is corporeal neither determined by biological or social processes, but absorbing and reacting to social and biological processes*" (Hall quoted in Imrie, 1996: 45).

The ICIDH approach of the WHO (chapter 1.4) "conserves the notion of impairment as abnormality in function, disability as not being able to perform an activity considered normal for a human being and handicap as the inability to perform a normal social role" (Oliver quoted in Imrie, 1996: 37). But progress can be noted, as some years ago the WHO redefined its approach. The new ICF (International Classification of Functioning) tries to point out abilities, instead of seeing a disabled state as a form of disease and/or abnormality.

But in general, only few changes can be observed, as the "definitional basis tends to take the concept of 'normality' for granted and disability as **'not being able to perform an activity considered normal for a human being'**. There is little consensus on what constitutes a state of normality, while the WHO's definitions of disability fail to recognise the situational and cultural relativity of how normality is understood" (Imrie, 1996: 36).

So, for instance, if it is taken for granted, that human beings manage to climb up stairs without any help, about 75% of the population might be considered 'dis-abled', as they will have difficulties to reach the top of any steps (*fig. 2-6*). As has been already pointed out, an

important amount of people, for instance PRM, will probably be confronted with serious problems in ascending steps (especially if there is no railing, like in the cartoon) and PwD will partly fail to do so, as well.



*Fig. 2-6: Cartoon - speaking for itself!*

In conclusion, all these persons will get socially excluded, as they are hindered to reach their goal, whatever that might be. This major consequence resulting primarily from barriers in the built environment will be discussed in the following chapter.

**3 SOCIAL EXCLUSION AS A CONSEQUENCE OF ABLE-BODIED ARCHITECTURAL VALUES AND STANDARDS**

**3.1 INTRODUCTION..... 22**

**3.2 SEARCHING FOR A DEFINITION FOR THE TERM OF 'SOCIAL EXCLUSION' ..... 22**

**3.3 EFFECTS OF SOCIAL EXCLUSION ..... 25**

**3.4 PRM - PWD AND SOCIAL EXCLUSION ..... 27**

**3.5 OFFICIAL DATA ON SOCIAL EXCLUSION IN GREECE..... 29**

ABBREVIATIONS:

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

### 3.1 INTRODUCTION

When is a person considered to be 'social excluded'? What are the characteristics of 'social exclusion'? How can a PwD be affected by 'social exclusion'?

In 1974, the term 'exclusion' appears for the first time. The European Union uses this term officially since September 1989 with its 'Fight against social exclusion' (Bpυχέα, 1997).

### 3.2 SEARCHING FOR A DEFINITION FOR THE TERM OF 'SOCIAL EXCLUSION'

Let's begin with the **first reported exclusion act ever**, which happens to be bequeathed from Ancient Greece. It is found in the sayings of the myth of Europe in Greek mythology (Pilgram et al, 2000). She is said to be seduced by a white bull and crosses the sea on its back to Crete. There the bull de-masks and becomes Zeus again. Three sons are the result: Minos, Rhadamantys and Sarpedon. Minos' wife, Pasiphae, also falls in love with a white bull. This time it is her who seduces it with the aid of an artificial cow. But no god appears – and so she gives birth to a bastard, the Minotaur being half human, half bull. It is for this Minotaur that king Minos builds the first prison ever – the labyrinth. This story is the first of social exclusion. But it is as well the first one of prison escape through Daidalus and Ikarus and that was at least partly a success.

As discussed in previous chapters, the deification of natural strength lead and still leads to an overrating of all supreme goods. In conclusion, everything not corresponding to the ideal prototype of a corporal and mental healthy human being gets excluded due to her/his inability to participate in most activities of social life (Nikolaidou, 1999). In other words, excluded persons are **locked out of any possibility to work, to own, to have money, to move freely (fig. 3-1 and fig. 3-2), to get knowledge and education, to get correctly trained, to autonomously create their lives, to gain privacy and intimacy, etc.**

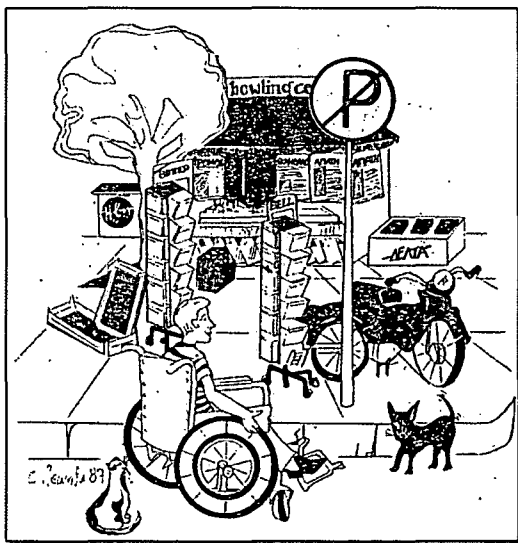


Fig. 3-1: All kinds of barriers and obstacles in the built environment hinder PRM and PwD to move freely...



Fig. 3-2: ... for instance merchandise on pavements (Vienna, 1<sup>st</sup> district)

But **social exclusion is not an all-or-nothing event**. It is a dynamic multidimensional process with degradations. "Social exclusion is the continuous and gradual exclusion from full participation in social (including material as well as symbolic) resources. These are produced, supplied and exploited in society for making a living, organising a life and taking part in the development of a (hopefully better) future" (Steinert, 1998: 28).

There exists also an 'inner exclusion'. This term refers to the **temporary or permanent enclosure in institutions, as well as to less evident forms of ghettoisation** (Steinert, 2000), as was already described earlier with the paradigm of the Minotaur. In other words, any isolation from the regular, smooth way of life is the basic characteristic of excluded groups or people. This means partly or total isolation from basic social mechanisms, which produce or distribute social resources.

**Exclusion for PRM and PwD from society is relied to barriers located in the lack, obstacles and/or limits of barrier-free access to buildings and/or means of transport (fig. 3-3 and fig. 3-4), in the social environment and/or in goods and services.** Only to mention a few: health and social services, public administration services, telecommunication facilities, the inability to communicate orally (hearing and speech impairments) or in writing (visual or language impairments), means of public transportation, etc. As a result of such barriers within the built environment, PRM and PwD are prevented and discouraged from participating in society and from freely choosing their ways of living.

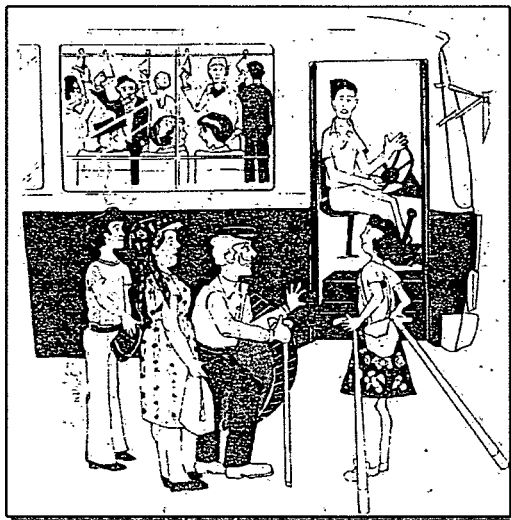


Fig. 3-3 : Inaccessible means of public transport constitute one of the major barriers for PRM and PwD discouraging them from moving around...



Fig. 3-4: ...for instance certain wagons of the Vienna 'Strassenbahn'

As exclusion is a dynamic process, **no general theory is possible**. Different forms can be distinguished corresponding to the existing inequalities, distinctions, hierarchies, etc. that social systems produce. "Social exclusion is the conflict for accumulating social products and for participating in them. These products are all kinds of products and

resources, economic, social and cultural ones. They always have a material as well as symbolic aspect. The most abstract product is recognition" (Steinert, 2000: 17).

Therefore, it seems difficult to exactly determine the meaning of social exclusion and to precisely describe its complexity. "Exclusion refers to a reconstruction of society as space – where some who were inside before, now seem to be outside its perceptible boundaries. In other words, 'social exclusion' is the tool to describe and define the 'exodus' from social regularity" (Πετράκη, 1997: 20). Problems in defining are based on the one side on the fact, that so far no attempts to set limits and/or indexes have been made. On the other side, there still does not exist a method to count social exclusion itself (Chrisakis, 1999).

Given the multiple meanings of the term, the **conceptualisation of social exclusion** (fig. 3-5) distinguishes between three basic components (Tsiganou, 1999: 35): exclusion from:

- **basic needs** (material deprivation - poverty),
- **livelihood** (labour issues and social services) and
- **social participation and representation** (racism, nationalism, citizenship, protection of human rights, etc.).

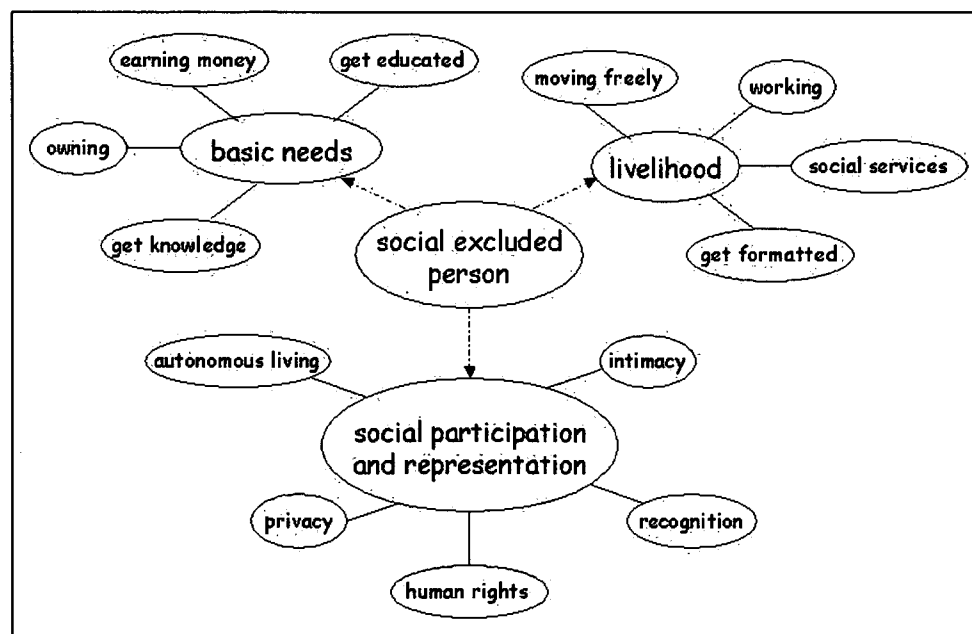


Fig. 3-5: Scheme showing the three basic components, which constitute social exclusion

According to the opinion of an Athenian, the term of social exclusion has to be looked at in the following way: "Definitions are liable to relativism and are historically determined. In the 1960s we were talking about the poor, in the 1970s we forgot all about them, in the 1980s we remembered them again while in the 1990s the fashionable way to address various social issues is under the concept of social exclusion" (quoted in Tsiganou, 1999: 50).



This statement might be relied on the Amsterdam treaty, which declares, that poverty and social exclusion go hand in hand with development and richness. It is an unquestionable fact that social exclusion is partly caused by economic factors. But **social exclusion conveys more than poverty**. It is a phenomenon, which besides its economic poverty has also the dimension of social poverty. '**Social poverty**' is a deprivation of access to basic activities of life, such as culture, entertainment, tourism, sports, etc. Again, it is primarily the built environment, which hinders (or enables) PRM and PwD to participate in any kind of social activities (*fig. 3-6 and fig. 3-7*) and deprives them of this basic right.

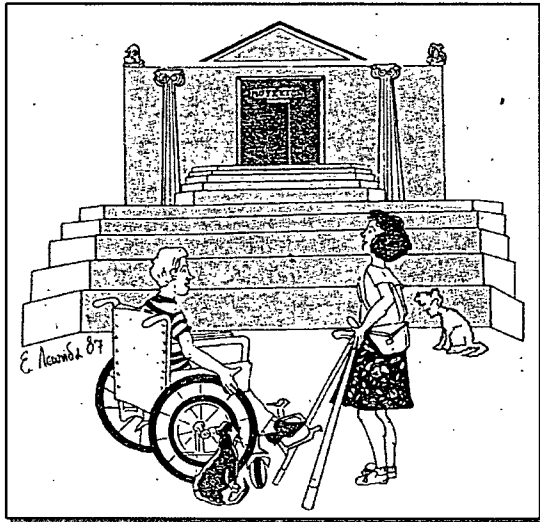


Fig. 3-6: Stairs are one of the main reasons that provoke 'social poverty'...



Fig. 3-7: ...railings and ramps play an important role in destroying it (example: Vienna Kuensterhaus, Karlsplatz)

Today, social problems are legalised as problems of 'fringe groups'. No reference is made to the fact that **these problems are caused due to the malfunction of society itself** and that society and especially design professionals, is the only one to blame for all problems that PRM and PwD have to face daily due to barriers in the built environment. The notion of social exclusion builds a world cut into pieces by problems. But none of these problems has a specific structure and identity. The structural and multidimensional character of social exclusion is not always seen.

### 3.3 EFFECTS OF SOCIAL EXCLUSION

The rise of social exclusion in European cities is a fact nowadays. Millions of people living in poverty, long-term unemployed persons and PRM and PwD due to age, illness or an organic impairment form the group of excluded persons. **At least one third (1/3) of the population of 'developed' countries, e.g. Europe, form these 'fringe groups'** (Παϊδοῦση, 1997). But this number seems rather tolerant, if one considers the facts presented in chapter 1 and the rapid increase of PRM and PwD today.

In recent years, exclusion is the topic of researches within frameworks of different programmes (Τρέσσου, 1997). In all European Community countries new aspects of social deprivation have appeared. This observation led to the setting of European activity programmes dealing with social exclusion, its effects and extents.

It is noted, that the **extent in more than one domain is characteristic for these new forms of social exclusion**. This means that a person can dispossess accommodation, education and employment at the same time. This accumulation of deprivations forces several groups of the population to live cut off from the world by means of general welfare. No participation in the economic and social way of life, which the rest enjoy and no social incorporation is possible. As a consequence, the excluded cannot determine their identities (Kavounidis, 1999).

Social exclusion reveals to a **limitation of basic social rights and prohibits the participation of the excluded as citizens in their own society**. "Social exclusion is a violation of basic human rights. Every citizen has the right of education and formation, of social protection and cultural life. Social exclusion is the obstruction of the mentioned social and public goods and services – their deficiency normally leads also to economic poverty. The term of social exclusion characterises a situation as well as a process" (ΕΣΑΑ, 2000: 9).

As has been discussed above, there seems to be no searching for the roots of this problem in the social structure itself. Thus, exclusion problems are presented as **problems of certain population groups that require special treatment** in order to achieve respect, integration possibilities and acceptance (Πετρόκη, 1997). This notion goes hand in hand with the incorrect, but widespread understanding of disability and the domination of able-bodied values and the deification of the human body and strength, as presented in chapter 2.

Seen from the side of an individual that comes close to become (partially) an 'outsider', the **most significant fields and forms of social exclusion and its effects and consequences** are the following ones (Steinert, 1998: 37 and Parkinson, 1998: 1):

- **wage labour:**
  - being made an outsider at the place of work – getting bad work, lower pay than (comparable) others,
  - insecure employment,
  - unemployment - not finding a job or being unable to take on a paid job (for e.g. family reasons like care of senior citizens);
- **subsistence:**
  - earning too little money / getting into debts / being in arrears,
  - losing family support,
  - losing or not getting informal work / other informal means of subsistence,
  - deficits in basic needs (homelessness / inadequate housing);

- **'official existence':**
  - not getting proper state support in situation of need,
  - problems of state discrimination / damage,
  - lack of citizenship rights;
- **personal qualification:**
  - private ostracism (neighbours, peers),
  - unsuitable job qualification (due to technological advances, increased competition),
  - low educational attainment and/or education drop-out,
  - poor health due to serious illness / handicap.

Moreover, exclusion has many "secondary symptoms, such as social fragmentation, civil disorder, a growth in racial tension, youth alienation, crime and policing problems, drug abuse and mental health problems" (Parkinson, 1998: 1). Most of these excluding effects have to be linked to the consequences to mobility limitation and especially to restricted access to essential services. Thus, it is first and foremost architects, civil engineers, urban planners, etc. that create the basis for all such inequalities.

### 3.4 PRM - PWD AND SOCIAL EXCLUSION

In 1976, the British Union of the Physically Impaired Against Segregation (UPIAS) gave the following definition for disability: "**Disadvantage or restriction of activity due to contemporary social order**, which either does not or does not sufficiently take into account people with physical impairment and consequently excludes them from major social activities" (Stiker, 1999: 359). Important social consequences, such as exclusion, are clearly described in the preceding definition for PwD. Developed societies are economy and wage-based. Thus, exclusion from the labour market leads to the restriction from participating in the most important dimension of today's social life.

As already stated, there exist **many kinds of disabilities. Not all lead to social exclusion.** Determinants are the way they are dealt with, the degree of disability and the attitude of the PwD and her/his surrounding as far as the impairment is concerned, etc. The following list gives an idea of the characteristics and **basic problems that might lead a PRM or PwD and her/his family to social exclusion:** (Amera, 1999: 57):

- **limitation in mobility,**
- **difficulties in communication,**
- **decrease of working skilfulness,**
- **decrease in income,**
- **dependence on others (family support, informal nets) or on machines,**
- **need of (home) care, often nursery one,**
- **need of permanent rehabilitation efforts or simple functional upkeep with special therapeutic exercises,**
- **substitution of functions with mechanic or electronic means,**

- need of architectural and complementary infrastructure guaranteeing accessibility,
- the general positive attitude towards a disability on the part of the patient, as well as on the part of society,
- loss or underdevelopment of perceptive functions,
- fear of the surrounding, that PwD's situation will influence them directly or indirectly,
- prejudices of society,
- overwhelming cost of care – psychological, social, economic,
- lack of supportive infrastructure helping the patient as well as the caregivers.

All of these characteristics create certain behaving forms. "Morally valued questions of choice are drawn into the equation and so confronting the universal-asserted values of society with the notion **that some can choose, others cannot**" Blomley quoted in Imrie, 1996: 22). In fact, it is barriers in the environment, the limited number of accessible buildings and spaces that impose restrictions in choice and variety in many cases.

**For instance, people in the third and fourth age**, are often estranged against their will. Their social exclusion can be related to (Balourdos et al, 1999: 82):

- problems of mobility
- problems in communication,
- dementia and
- decrease in hearing and eyesight.

In conclusion, a decrease in physical and psychological processes can be observed, due to lesser social contacts, participation in activities and organizations (Backes et al, 1998). In consequence, aged people are often living cut off in isolation. Medicine and technology have developed and continue to develop supportive devices, which limit a human being's problems caused by age offering significant contributions against social exclusion, like e.g. providing hearing aids for decrease in hearing. Design and construction professionals should implement all researched and acquainted knowledge, as well, in order to limit barriers in all spaces and favour social contacts and mobility with age (fig. 3-8). But the building domain is far from being ready to provide living quality for all members of society (Part C).



Fig. 3-8: An ideal environment supporting social contacts, activities and participation of people belonging to the third and fourth age

### 3.5 OFFICIAL DATA ON SOCIAL EXCLUSION IN GREECE

In Greece, an almost **complete absence of research in the domains of social exclusion** can be noted. Unidentified is all data as well, that would give any idea about the extent of this part of the population (Ketsejopoulou et al, 1999). "So far, all discussion on the real extents of social exclusion in Greece and the combating policies has been based rather upon hypothesis than on real facts" (Kavounidis, 1999: 62).

However, as has already been presented in chapter 1.6.2. (fig. 1-10), the Greek Ministry for the Environment, Physical Planning and Public Works estimates that today about 1/2 the Greek population is partly or totally excluded from the built environment in Greece! The following figure (fig. 3-9) originates from the same Ministry, as well, revealing the correlation between social exclusion and age in Greece:

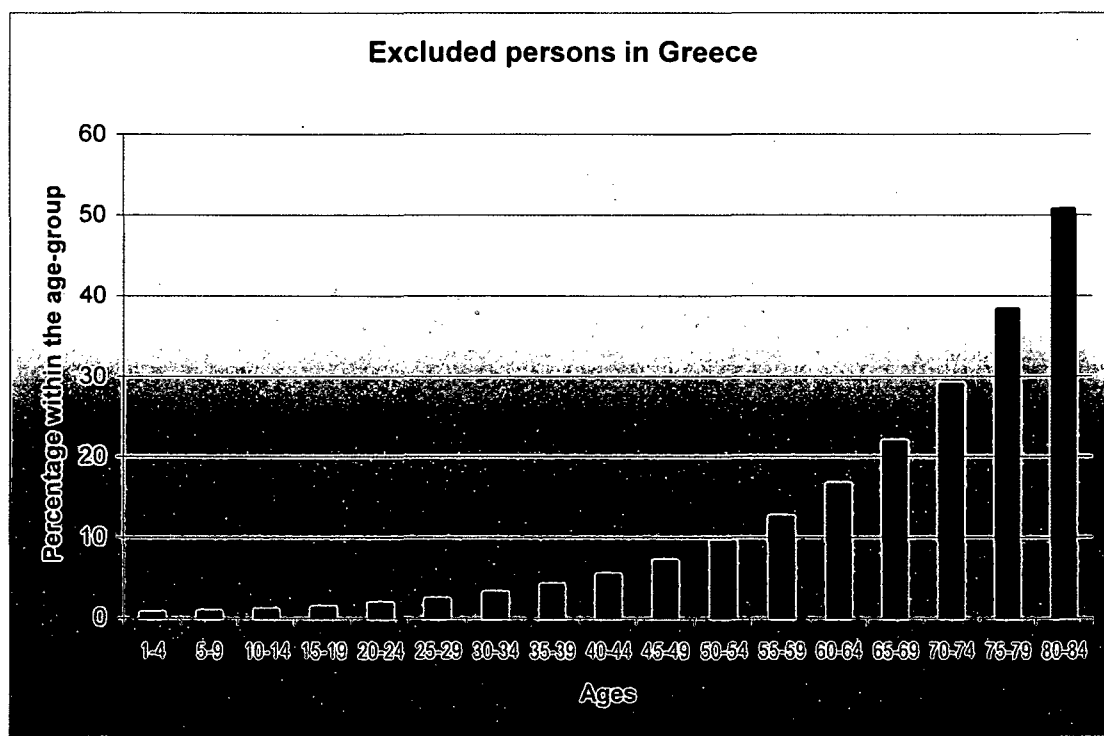


Fig. 3-9: Percentages of excluded persons in Greece in relation to age groups

Although in 1992, "an European Community report had concluded that 'it would be difficult to maintain that there is in Greece any kind of meaningful discussion on the notion of social exclusion', a lot of meaningful discussion has been developed since then" (Tsiganou, 1999: 33). The underlying motive for any concern may principally origin from the perspective of human rights and equal opportunities.

But despite all discussion, no implementation of specific measures to combat social exclusion in Greece can be observed so far. On the one hand, problems as far as analysing the phenomenon and formulating suitable strategies have to be overcome. Similar behaviours

have already been mentioned in chapter 1.1 regarding the appropriate way PwD should be addressed. On the other hand, difficulties are encountered concerning the recognition of social excluded persons in Greece (Ketsejopoulou et al., 1999). This matter is of major importance and probably goes hand in hand with the limitation of architectural and urban barriers in the built environment. Therefore, the following chapters discuss attitudes of the wider society and integration possibilities of PRM and PwD into society.

<b>4 ATTITUDES OF PWD AND THEIR FAMILIES TOWARDS IMPAIRMENT</b>
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<b>4.1 PWD AND THEIR DISABILITY .....</b>	<b>32</b>
<b>4.2 THE WISH FOR AN INDEPENDENT LIVING .....</b>	<b>33</b>
<b>4.3 ATTITUDES OF (GREEK) FAMILIES HAVING A MEMBER WD..</b>	<b>33</b>
<b>4.4 THE DIFFICULTY OF ACQUIRING INFORMATION IN GREECE .....</b>	<b>35</b>

**ABBREVIATIONS:**

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

### 4.1 PwD AND THEIR DISABILITY

The **obstacles PwD have to face are first and foremost their impairments**, rather than the physical barriers of the built environment or the prejudices of society. "It is impossible that a PwD feels equal to everybody else, if she/he does not first take on self-esteem and if she/he cannot feel useful and profitable within the wider social surrounding" (Σταυριανόπουλος, 2003: 16).

Reflection on the part of PwD on the differences is important, as physical impairment changes the ways in which they have to lead their lives. The consideration of a 'politics of difference' has to emerge. **Social equality without denial of physiological states** has to be achieved. "Every human being is unique and her/his singularity has to be treated with respect" (ΕΣΕΕΠΑ quoted in Παναγοπούλου, 2003: cover).

Undisputable is the important significance of **attitudes of the surrounding**, especially of PwD's families, which is described in the following chapters. Often PwD end up seeing their impairment as the only reason for all their deprivations. This attitude is used as an excuse for their failure and for all acquisitions of social prejudices.

On the contrary, **most, if not all, PwD do not want to be identified 'disabled'**. On the one side, their reluctance derives more from the social effects a disability causes than from its physical and mental effects, as their status often is the one of daily exposure to disrespectful treatment. The key to the construction of disability is not the physical or mental differences that exist among different people, but the ways in which value is assigned to these differences (fig. 4-1) (Ellis, et al., 1997).

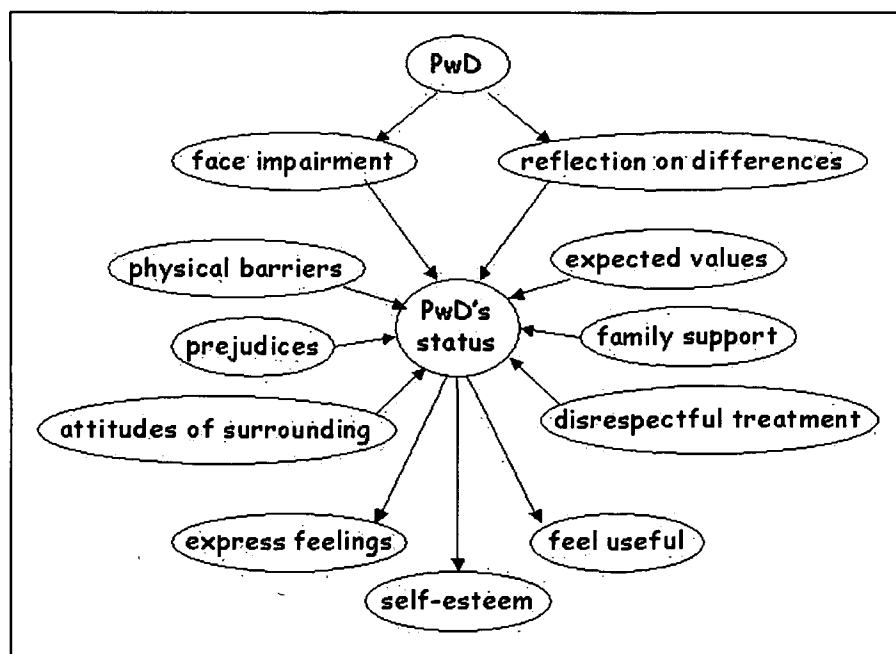


Fig. 4-1: Scheme showing some interrelations between a PwD and her/his surrounding



On the other side, few PwD occupy positions of power. In general they are **prevented from expressing their feelings and perspectives on social life** where others are able to listen. The powerlessness of PwD, in part, results from their societal marginalisation and from their weak and dependent relationship with the formal labour market. Due to their exclusion, PwD belong to one of the poorest groups in western societies. They remain estranged from involvement in the socio-institutional fabric of society.

#### 4.2 THE WISH FOR AN INDEPENDENT LIVING

The basic concept of self-determined living for PwD is to gain the possibility of exercising control over their own lives. This also means enabling them **to become active on their own behalf, to fulfil social roles and to take the responsibility that arises from all such activity** (Miles-Paul, 1999). However, for most PwD world-wide, daily reality is dependence on a caregiver. Dependency is the biggest psychological as well as social problem that follows a disability. Main reasons for this are hemiplegia, tetraplegia, arthritis, mental retardation, dementias and blindness (Amera, 1999).

To quote Rousseau: "Man is born free yet everywhere he is in chains" (Imrie, 1996: 3). This '**prisoner syndrome**' is a frequent reality (fig. 4-2). In the UK every two out of five (2:5) PwD are dependent on someone's support. In Greece this number must almost equal to every (1:1) PwD. To take trips out of their homes for shopping, recreation and all other pursuits, PwD in Greece need at least one to two persons to manage to pass all barriers and hindrances. Yet, again, it is the built environment, which hinders PRM and PwD to escape from this 'prisoner syndrome' and which forces them to remain dependent on the goodwill of another person, whenever they wish to break out of their 'prison'!



Fig. 4-2: The 'prisoner syndrome'

#### 4.3 ATTITUDES OF FAMILIES HAVING A MEMBER WD

There exist many **different attitudes on the part of the family towards a family member with impairment**, all of them relying on complex situations (fig. 4-3). Conflicts with impairment and the procedure of prevalence are influenced by many variables. Some important determinants are the personality of the parents and their relation to one-another,

the kind and the degree of disability of the family member, the general social attitude, the family's socio-economic condition and social contacts-relations. Besides these criteria, interactions with the disabled child play an important role for all kinds of changes of parent's attitudes and behaviors (Ζώνιου-Σιδέρη, 1998).

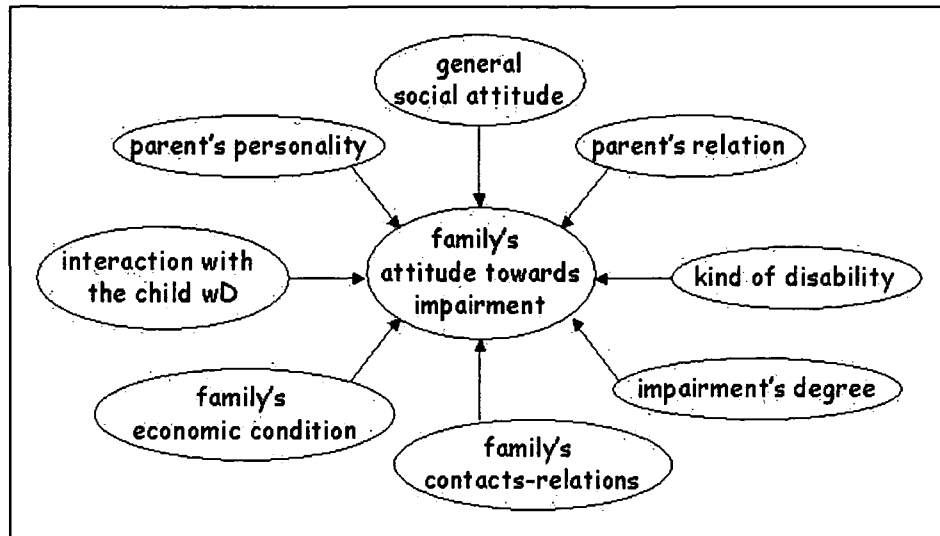


Fig. 4-3: Scheme showing some of the factors, which determine a family's attitudes and behaviours towards their child with disability

**Parents are unprepared to face the appearance of a disabled child or an impairment that shows up later.** It is considered as a catastrophe. The shock determines the from-then-on life of most of the parents, especially the one of mothers. After this shock-phase, relations have to be re-established. However, their life changes on many levels. All family members have to show a physical and psychic readiness based on long-term measures of treatment and care. Family life is in total adapted to the disabled child, while often all other family members are neglected (Ζώνιου-Σιδέρη, 1998).

The conscious impact of the child's impairment has to replace any other defence mechanisms. It is important to mention, that the **parents' attitude towards their children's impairment is the most determining factor for all future reflections on the part of the PwD towards her/his impairment.** The family's and society's function cannot be reduced to a simple treatment of symptoms which finally encloses PwD in institutions. They have to be accepted as equal and have to be given the chance to participate in education, in vocational and social life, so as to enable them to gather their own experiences (Ζώνιου-Σιδέρη, 1998).

Besides the importance of attitudes inside the family, all **exterior problems families with a member wD have to face are significant for the development of a PwD's character.** There exist several myths about the social and cultural integration of PwD, already to be found in Ancient Cultures. B. Ingstad has referred to one she calls the 'Historic Myth'. It bears the assumption that traditionally in Europe, a family member wD was seen as

a disgrace or a punishment by God. As a result, the disabled relative was hidden away or killed (Albrecht, 1999).

The attitude described in this myth can still be observed in many Greek families today, as they hide the member wD by locking her/him up in institutions or in the house's back room. In conclusion, parents 'kill' her/him, as her/his development is suppressed. A similar behaviour can be also found in Ancient Greece, where Spartans threw children wD into the precipice Kaiades (Καιάδας).

In general, Greek **parents with a child wD complain for** (Kottaridi et al., 2000):

- **negative attitudes** on the part of the Greek society,
- **social, psychical and physical barriers** and
- **scarce information.**

There do exist numerous cases in Greece, where families, in order to **avoid social stigmatising**, do not act energetically for finding solutions for their child wD (Kassotakis et al., 1999). In conclusion, parents refuse to grow up and to educate their child wD within the family and prefer to send it to a private institution, even when the family budget does not allow it (Ζώνιου-Σιδέρη, 1998). "It is alarming that the poor are less aware than the non-poor about the existence of various public social services" (Karantinos, 1992b: 5).

Unfortunately, PwD's stigmatising seems to be a general policy in Greece. For instance, the **separation of children with mobility impairments from ordinary public schools**, even when they are mentally fit, continues to be a reality nowadays in Greece. And this has not to be linked exclusively with inaccessible school-buildings and educational infrastructure. To a certain degree, parents can be blamed, as well, as they think of their misfortune as of fate and in conclusion stop having demands and cease to get informed (Παναδόπουλος, 2002).

But even if disability may evoke feelings of guilt in parents of children wD, it cannot accurately be conceived of in notions related to justice and morality (Stiker, 1999). The mother of an autistic child pointed this out successfully: "Of course we cannot change the world. But we can improve ourselves. By getting knowledge. Only this way we will realize, that this thing that happened to us is not our fault. We will stop getting embarrassed and we will stop hiding from the 'bad thing' that occurred to us. Only then we will finally feel 'that **there is nothing good or bad, but it is only thought, which makes it the one way or the other**' (Shakespeare)" (Παναγοπούλου, 2003: 152).

#### 4.4 THE DIFFICULTY OF ACQUIRING INFORMATION IN GREECE

Maybe the most significant problem out of all that PwD and their families have to face in Greece, is the one of **(not) getting informed, consulted, guided and updated**. This is

totally lacking in Greek society, education and culture in general (Πολυχρονίου, 1993). The overall view in Greece – though not documented – “is that we are far behind at all levels of information and of supportive structures” (Kottaridi et al., 2000: 39).

As noted in the Second National Report of Greece to the European Community Observatory on Social Exclusion, “in Greece, there are **serious inequalities in access to benefits and services among the individuals entitled to these**. There is great overlap of benefits and services offered by various public bodies and in most cases little publicity is given to entitlements. The result is that individuals who are better informed, better initiated into the working of state bureaucracy, or better connected, may claim multiple benefits, while others who are entitled claim no benefit at all” (Karantinos, 1992b: 5).

However, some **efforts to inform the public at large** can be observed on the part of the Greek State. In 1998, the Directorate of Social Welfare and Health of the Municipality of Athens published a brochure on public services for PwD (Δήμος Αθηναίων, Διεύθυνση Κοινωνικής Μέριμνας και Υγείας: Κέντρο Δικτύου Μεταφορών και μετακίνησης για Άτομα με Ειδικές Ανάγκες), giving special weight to the transport network. However, on pages 12-13 an address and phone list of relevant Public Carriers and Ministerial Services can be found. In addition, pages 14-16 show a further list of clubs, associations and societies for PwD. Two years later, in 2000, the Greek National Centre for Social Research (EKKE) published a brochure on Special Services and Institutions for children aged 0-18 with mobility, mental and sensory impairments for the region of Attica (fig. 4-4). This seems to be the most accurate information available today in Greece, as it was impossible to get one of the circulars on ‘PwD’s rights, benefits and services’ the Greek Ministry of Interior, Public Administration and Decentralization claims to distribute.

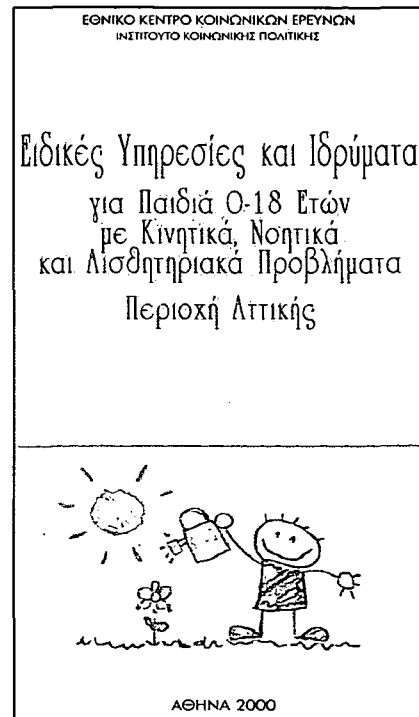


Fig. 4-4: Cover of the brochure on “Special Services and Institutions for children wD in the region of Attica”

But the major contribution can be noticed from the side of **Greek Services for Children wD to inform the public at large on their existence and on their work** (fig. 4-5). The following acquired data is referring to Services for Children wD in the area of Attica. Activities to hold up relationships with the community consist mainly of athletic and cultural events. 63% of the Services use facilities belonging to the community, like sports fields and parks. Some Services participate in local community cultural events or organize such events for the community in their attempt to inform the public at large about their work. But, these efforts are few and rare. Moreover, informative leaflets are distributed and special events are organized by many Services (77%) and personal contacts are upheld from the part of the staff (69%) (Kottaridi et al., 2000).

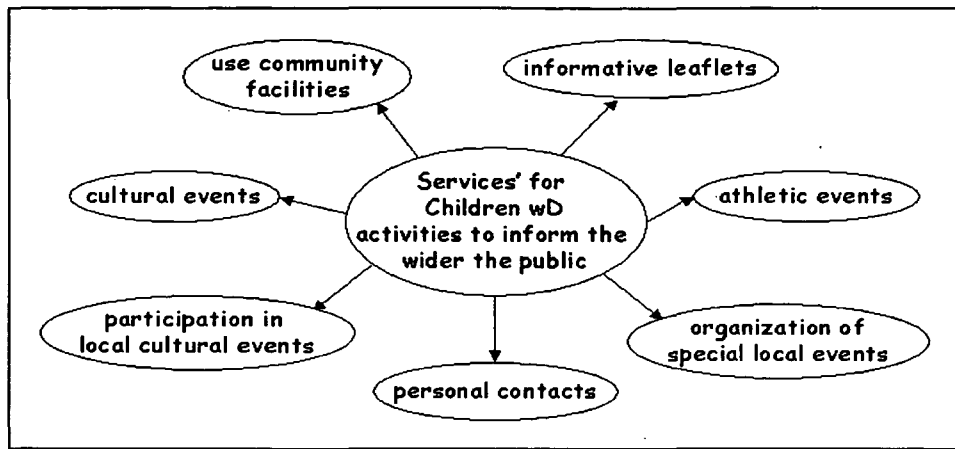


Fig. 4-5: Scheme showing attempts and activities of Services for Children wD in Attica to inform the wider public on their existence and on their work

97% of the Services in Attica report information activities in order to make their programmes and the Service’s work known, but it seems that they do not actually reach their target. The public is not informed and a disappointing number of people do not even know that such Services exist in Greece. Main **sources of information about the Services** (fig. 4-6) represent the families using the Service (86%), doctors and authorities for health and welfare. Other sources of information are supervising and occasional broadcasts in the media (Kottaridi et al., 2000).

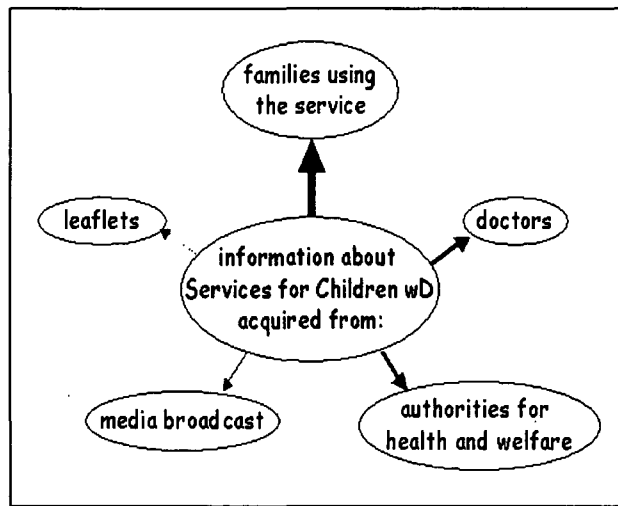


Fig. 4-6: Scheme showing the major sources of information about the existence of Services for Children wD in Greece

In conclusion, **more systematic and broader information of parents, employers and the public at large has to take place**, especially in less developed countries like Greece, in order to avoid all social prejudices towards PwD, to dissolve any established misinterpretations and to promote social sensitisation. The end result shall be the erasure of all kinds of barriers who complicate the life of a PwD living in Greece. During the ‘European Year of People with Disability’ in 2003, many relevant informative and sensitising spots were broadcasted on the Greek radio and television network. Only time will show if these information and sensitisation campaigns achieved their goal to inform the Greek society at large.

**5 ATTITUDES OF SOCIETY TOWARDS PWD**

**5.1 DISABILITY IN DIFFERENT CULTURES..... 39**

**5.2 TODAY'S ATTITUDES AND BELIEFS ABOUT DISABILITY ..... 40**

**5.3 PREJUDICES AGAINST PWD ON THE PART OF (GREEK) SOCIETY..... 42**

**5.4 DISCRIMINATION AND OPPRESSION AGAINST PWD (IN GREECE)..... 45**

**5.5 ACCEPTANCE OF PWD ..... 47**

**5.6 ARE THERE ANY PWD LIVING IN GREECE? ..... 48**

**5.7 INFORMAL NETS IN GREECE ..... 50**

ABBREVIATIONS:

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

## 5.1 DISABILITY IN DIFFERENT CULTURES

There is no culture, which has not worked out an explanation, a vision, in short, an **'anthropology of impairment'**. Disability is looked at differently according to each country or cultural area. It is conceived in the light of the prevailing situation in that country (Stiker, 1999). Looking at different social constellations reveals how variously people create normality, or conversely, make differentiations and draw borders. Each perception of disability leads to more comprehensive conceptions and to complete social meaning structures. On this basis incapacity, illness, invalidity, disfigurement, death and anomaly are differently rated and judged (Holzer et al., 1999).

Traditionally oriented cultures totally lack believes corresponding to the way 'developed' countries look at disability as a general concept. They surely distinguish between, for instance, blind persons, lame and senile, etc. and recognise that all these groups of people have something in common. But *"a grouping of all of them together as part of a higher and overarching category does not develop. This fact is very interesting because it suggests that, in traditional cultures, physical, mental or psychological deviation represent no compelling reason to construct 'We and They groups' (in the sense of able-bodied versus disabled people)" (Albrecht, 1999).*

But the situation in traditional cultures is changing as well. Over centuries, individuals who in 'developed' cultures would have been identified as disabled or impaired were indeed recognised. Furthermore, no separate social categories are constructed for them. Unfortunately, discriminating and xenophobic ways of seeing disability, originating from the 'developed' world, are promoted in developing countries today, as well. *"Until recently, aspects of physical and mental impairments were widely investigated and accepted as a definition of disadvantage" (Tsiganou, 1999: 32).* As almost always happens, these **already discredited ideas get transmitted and begin to influence the recognition of PwD in developing traditional cultures, too.**

In contrast to the concepts of these traditional cultures, early practices of **creating 'We and They groups' can be found in Ancient Cultures, described for instance in Greek mythology.** There is the story of Hephaistus, the son of Hera, who was born deformed. Hera was disgusted by his appearance and threw him from the heavens, but Hephaistus landed in the sea and was rescued and raised becoming a master craftsman by Thetis and Eurynome. One day Hera saw one of Hephaistus' works and admired it, without knowing who the artist was. As soon as she learned that Hephaistus had made it, she brought him up to Mount Olympus and had him work there with the finest equipment and materials.

**Such behaviours** seem to have been also **common in Ancient Greece.** When a child was born, e.g. in ancient Sparta, Spartan soldiers would come by the house and check the baby. If the baby did not appear healthy and strong or had any kind of anomalies (e.g. webbed fingers, incomplete or deformed limbs, etc.), the infant was taken outside the social space. It was left to the mercy of the gods on vacant ground, bogland, water or a

hillside. According to Stiker (1999) this act was called 'apotheosis', which stands for the displaying of infants wD. The children who survived became people of superior significance. Greek mythology shows this super-signification of the disabled admirably: some of the best-known figures are Oedipus (*fig. 5-1*), Tiresius or Homer, who all were blind persons, etc.



*Fig. 5-1: Oedipus' abandonment; Roman sarcophagus cap, 3rd century AC*

Believes that disability is supernaturally induced lead to **traditional constructs, where disability is understood as a curse, a sin or a pity**. Unfortunately, such ways of seeing and judging impairments persist until today. In the life of a child, it will make little difference whether the family understands her/his impairment as one of bad blood or of genetics as long as they continue to couple the explanation with a curse from God. "The genetics would be troubled to learn that their state-of-the-art scientific explanation is being incorporated into a very traditional belief system to provide a culturally satisfactory interpretation" (Groce, 1999: 290). In conclusion, until today, societies and communities determine their inside and outside with the construction of 'We and They groups'. As a result, segregation practices can be observed deciding who or what belongs to or is marginally included or excluded from society (Albrecht, 1999).

## 5.2 TODAY'S ATTITUDES AND BELIEFS ABOUT DISABILITY

"In exploring the wide variety of local concepts of and different ideas and beliefs about disability, it becomes clear just how differently a disability may be judged. In this light, disability can no longer be perceived as a physical, psychological or mental characteristic, which a person is born with or has acquired in the course of



her or his life. On the contrary, it becomes evident to what large degree **attitudes and interactions with others** that are usually in the respective social context, **form and influence the nature and extent of a disability** and thereby determine the life of the disabled person" (Holzer et al., 1999: 10).

"(Unpleasant) conditions cannot be faced by getting ignored" (Huxley quoted in Παπαδόπουλος, 2000). The confrontation with a specificity, which cannot be sidestepped, means a decisive positioning of the group. The permanent idea in 'developed' cultures is the one of limits and boundaries. **Disability almost always takes its place on the borders of segregation.** A PwD is placed in the passage between two worlds or between two categories of values. An identity game results. Some PwD conceive this as a challenge, as a daily enrichment of their lives and maybe even as a widening of their horizon of perceptions. But others understand this game as a drawing of new boundaries every day and as a fight for power in every new social relationship.

But, even when PwD "return to take a new place, or the one that was formerly theirs, they continue to be seen and treated as **remaining in an in-between situation.** Thus they are neither rejected, nor fully accepted, nor sidelined, nor integrated, they are neither strangers, nor completely familiar. Neither found guilty, nor treated as completely innocent, because they are embarrassing and at fault for disturbing the peace of mind of a society dreaming of men and women with zero deficiencies. Neither slaves, nor full citizens. Neither totally subjugated, nor free" (Stiker, 1999: 362).

At this point, the so often heard statement that **'a PwD is not disabled, but becomes disabled'** fits best. PwD experience annoyance from the mainstream of society daily in all possible ways. Exclusion is the consequence from their exploitation, marginalisation and powerlessness. Many blame the system and cultural imperialism for the fact, that they still feel inadequate. As a result for avoiding violence, many PwD become or try to be more or less invisible.

The following statement portrays the **disappointment and daily struggle** which many PwD are confronted with daily: "It is the system that puts you in the position of a slave from your birth or your accident onwards. You have to have an attitude of gratefulness and submission. You will never be able to really express yourself. You will always have the tendency to make yourself forgotten, to apologise for existing. You have to be thankful for surviving" (PwD quoted in Stiker, 1999: 373).

Moreover, the dominant societal stereotype of **disability as a 'pitiful' and 'tragic' state** reinforces the view that PwD are 'creatures of a lesser god'. Even efforts as the United Nations' Decade in favour of PwD in 1982-1992 did not really improve the situation of PwD and the general attitude towards them. PwD are still looked at as subjects of compassion of the social environment and seldom or never as the person itself, that means as an object of her/his own luck. They still have to fight to eliminate their minority role, as well as to get

completely recognized as equal citizens by society. The possibility to develop in their jobs, in family and in public life remains a dream for most of them (fig. 5-2).

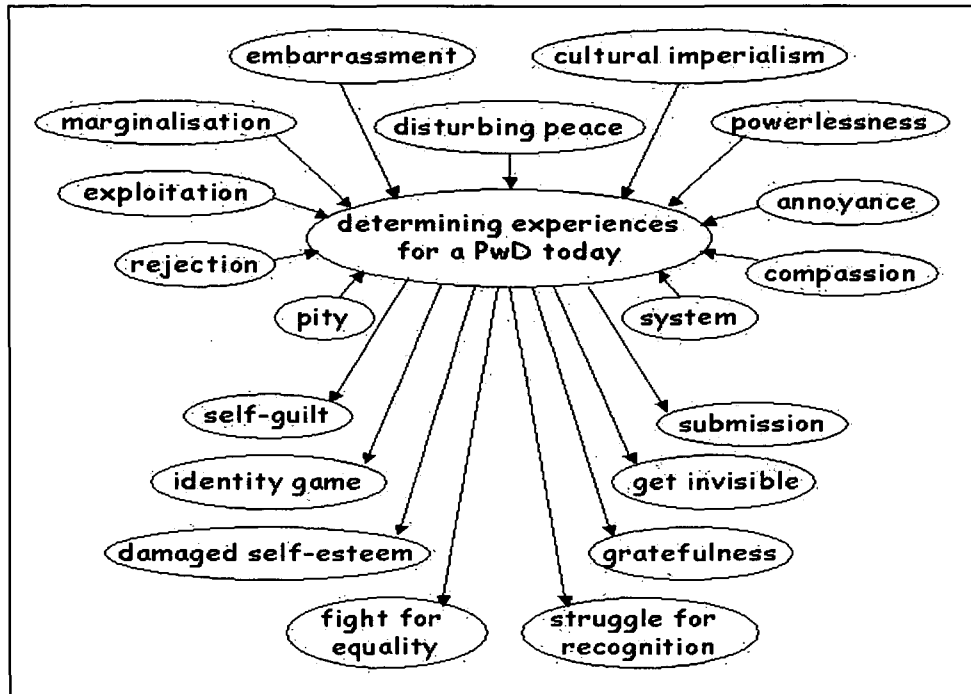


Fig. 5-2: Scheme showing society's major attitudes towards and beliefs about PwD today and provoked consequences in the life of a PwD

"There ain't nothing worse than being stuck. There's nothing you can do to change it physically and you know that right off the bat. And when you ain't got nothin' to fight with, then you loose your will" (PwD quoted in Scherer, 1993: IX). However, there still is much to **fight for gaining equality**. The world president of Disabled People's International expressed this in a very encouraging way: "We don't have problems. We just have challenges" (Konkolla quoted in Miles-Paul, 1999: 280).

### 5.3 PREJUDICES AGAINST PWD ON THE PART OF (GREEK) SOCIETY

A world being free from prejudices against PwD and environments without any physical and social barriers still remain quite distant and probably unachievable ideals, as for most PwD their societal marginalisation is reality everyday everywhere. This fact is relying on **society's believes, that physical, mental or psychological deviation indicates a problem**. Thus, fear of disturbing the social order exists, as: "There's power in difference. Power. Pass the word" (Wade quoted in Ellis, et al., 1997: 107).

Despite evolution, **social prejudices against PwD are kept up** in their older frameworks, especially in Greece (Nikolaidou, 1999: 427):

"a) PwD require other persons' help.

b) due to physical disabilities and their dependency, PwD are obliged to submit themselves to the environment of family, friends and society, which provides them with help,

c) the reduced offering from those members to a society of production and consummation excludes them, as it is hard for them to stand up for equal rights not possessing the equivalent socio-economic force."

**Greek society identifies disability in different ways (fig. 5-3).** Some continue to see in it a curse and think of impairments as of something sin or evil, like a punishment of God for certain crimes. Others sense to present PwD as victims and express pity. In this case they are left to cope with their suffering. In conclusion, self-esteem is damaged. Finally, there are others that wish to correct or cure PwD. In reality, the general population does not accept PwD. Often people are annoyed by their presence (Παναδόπουλος, 2000). Possible reasons are that disability is identified with illness, pain and in the end reminds human beings of their mortality. Non-disabled persons are afraid of such life experiences and only see a loss or the presence of a hidden or visible impairment. "They see the disability instead of the person itself" (Σταυριανόπουλος, 2003: 17).

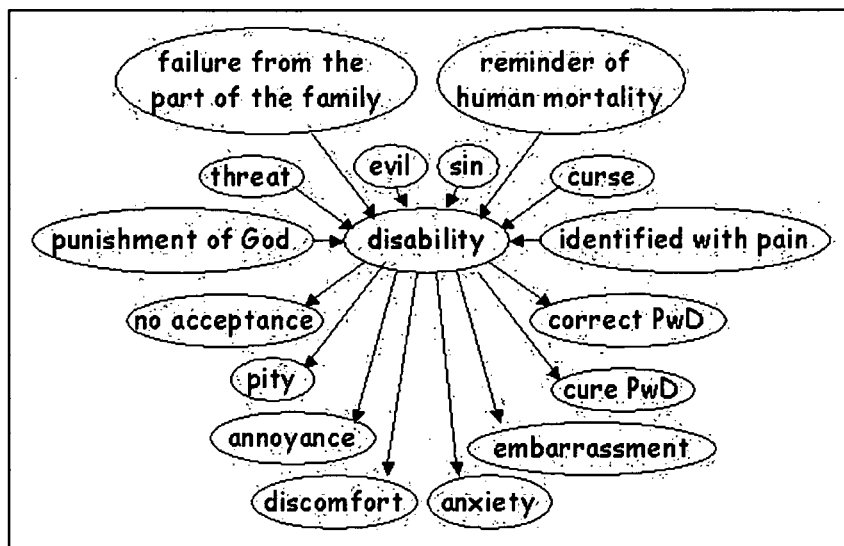


Fig. 5-3: Scheme showing significant prejudices against PwD on the part of the Greek society and reactions that can be observed

Experimental psychologists explain this in the following way. **PwD arise anxiety and discomfort in others. As a result, they are socially stigmatised.** "Despite all the efforts invested by our society in an attempt to rally sympathy for the crippled, they still elicit serious discomfort. It is well documented that the disfigured person makes others feel anxious and he becomes an object to be warded off. He is viewed as simultaneously inferior and threatening. He becomes associated with the special claims of monster images that haunt each culture" (Fisher quoted in Imrie, 1996: 31).

Another testified reaction is that "People with scar tissue on their face and/or visible disfigurements become a source of embarrassment for those who gaze at them and the stunned silences, while people wait for the person with a stammer to finish their sentence, convey the **inability of society to accept the multiplicities of the body**" (Imrie, 1996: 31).

In Greece, the absence of corporal or mental health is often considered as being an immense failure on the part of the family, who consists of an unfavourable person, as well as on the part of the person itself (self-guilt). This framework of fears and guilt leads to prejudices, which affect cohabitation in a negative way and which mould a society, which rests on **rejection of the right of differences** (Nikolaidou, 1999).

The story of Rena, the mother of an autistic child, describes this prejudice as follows: "At his age of 6, my son Paul was diagnosed 'autistic'. Thus, a new double struggle started for me. On the one hand, I had to face my son's problem besides all my sorrow and pain and I had to rescue what was left of myself. On the other hand, I had to defend and justify myself in front of my husband and his family. Everyone was blaming me. That my over-protectiveness and my hysteria had driven Paul crazy. **That I had born a normal child, but my attitude had transformed him into a 'plant'**. As this whole situation was my fault, I had to take on all my responsibilities. That means to grow him up on my own. Thus, my husband moved to his mother in order to calm down and to find himself after all these 'psychological' burdens, which the whole situation had loaded on him. And me, I moved to Athens together with my parents and Paul, trying to make a new start" (Péva quoted in Παναγοπούλου, 2003: 120).

The story of another mother of an autistic child clearly shows another of the existing prejudices in Greek society: "We always go on holidays all together, as I cannot leave the child (that is autistic) anywhere secure for some days. Thus, because of the child's condition, we will never go to the beach when it is crowded, neither to a tavern. We all get very distressed when the **person sitting next to us gets up and leaves or crosses oneself, which means, that God protected her/him from this bad thing...**" (Quoted in Παναγοπούλου, 2003: 136)

There are even more extreme situations reported, like the one of another mother of an autistic child: "I had to convince the court and it really was so difficult to explain to them, why these two elderly people, who seemed so harmless, did not want my son Charis to stay at his home, which happened to be above theirs. I had to persuade them, that a normal child would make much more noise than an autistic one, that a family without any problems lives with a developed sociability and more noise, than a family of silence. I had to carry conviction, **that our being different was the thing, which annoyed and that we cannot be deprived of our right to be different**" (Ραχιώτη quoted in Παναγοπούλου, 2003: 113).

#### 5.4 DISCRIMINATION AND OPPRESSION AGAINST PwD

As explained in previous chapters, PwD experience forms of social and institutional injustice on a daily basis. However, this behaviour is anti-ethical for just societies. In this sense, the real barriers are not the physical ones, but humiliating attitudes, often even **unconscious assumptions and reactions, against PwD like prejudice, discrimination, stigma or oppression**. "Group oppressions are enacted in this society not primarily in official laws and policies, but in informal, often unnoticed and unreflexive speech, bodily reactions to others, conventional practices of everyday interaction and evaluation, aesthetic judgements and the jokes, images and stereotypes pervading the media" (Young quoted in Imrie, 1996: 31).

The most frequently encountered form of oppression PwD are confronted with is **verbal and/or physical violence**. Even acknowledged PwD refer to inappropriate or oppressive attitudes they have to face and testify to the violence that they have endured, in hospitals and schools, at home and in daily life. "EDF (European Disability Forum) would like to draw your attention to violence because... each disabled person encounters it... This is something which is at the very essence of the human dignity of disabled people" (Huyberechts quoted in EDF, 2000: 15).

"Disability law (in the USA) also applies to people with **perceived disabilities**, such as obesity or stuttering, which are not disabling but create prejudice and discrimination" (Shapiro quoted in Ellis, et al., 1997: 110). This instance shows the wide range of discriminating attitudes. People with mental impairments are another example. Mainstream society often ignores their attempts to communicate. Being short of time or lacking patience are excuses which refuse to try to understand the 'unusual' ways in which persons with mental impairments speak.

One such obvious discriminative spatial behaviour is the example of some cities in the USA, a country however, where the ADA (Americans with Disability Act) was in force much before comparable regulations in other 'developed' countries. Nevertheless, there are cities in the USA, which placed **signs forbidding PwD to live in specific areas**. Until the end of the 1960s, cities like Chicago, erected signs which ordered: "No person who is diseased, maimed, mutilated or in any way deformed so as to be an unsightly or disgusting object or improper person to be allowed on or on the public ways or other public places in this city shall therein or thereupon expose himself to public view"

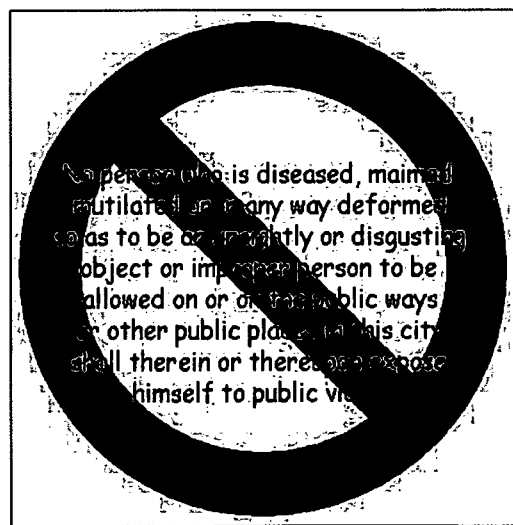


Fig. 5-4: Discriminative sign that apparently was erected until the late 1960's in US cities like Chicago

(Imrie, 1996: 15) (fig. 5-4). Apparently, such commands still existed in the 1990's in American cities like Columbus-Ohio and Omaha-Nebraska!

In its fight against discrimination, one of the EDF's presidents points out: "To tackle discrimination against disabled people in employment effectively, we must also look at the unacceptable root causes of inequality and discrimination in society as a whole. **Discrimination occurs in education, in the inaccessibility of buildings and public environments and in counterproductive social protection systems**" (Vardakastanis quoted in EDF, 2000: 7). Again, it is the unfriendly built environment and in conclusion design professionals, which carry an important burden of guilt as inaccessible buildings and spaces support acts of discrimination against PwD! (fig. 5-5)

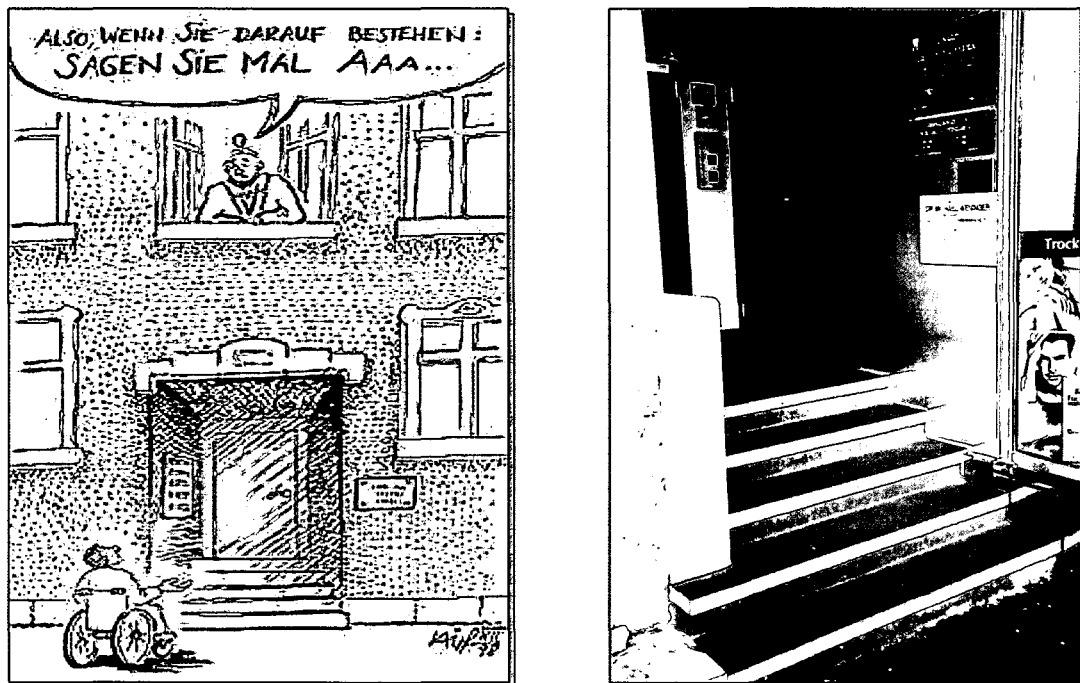


Fig. 5-5: "Well, since you insist: Say aaa..." – Cartoon speaking for itself – and reality in Vienna, Gasometer

Unfortunately, **even natural physical changes often lead to discriminative behaviours on the part of society**. So, for instance, senior citizens are often presented in a fatalistic way, as if they were 'handicapped', feeble and not active. None can deny that bonds with society change while getting old. These changes are influenced by typical changes in corporal abilities, as well as in the personal way of life which is a result of direct interactions with society (Στεφάνου et al., 1993). A detailed overview on problems that occur due to the discrimination and social exclusion of elderly people has already been portrayed in chapter 1 and in the example given in chapter 3.4.

But the **significant global increase of persons in the third and fourth age**, both in percentage as well as in absolute figures, makes discrimination against aged people especially important nowadays. Factors that severely aggravate the position of aged people are: the difficult living, their living in far away areas, that means away from their families

and from their children. These are determinants that often lead to oppressive acts. Besides this, conflicts are often provoked due to financial problems of elderly people, as well as due to other problems of their survival. Instances of violence and of being pushed aside from the family and the social environment are the new reality. It is finally unfriendly places and institutions, which come up to their increased needs for medical care, supporting their status of social exclusion. (Balourdos et al., 1999)

## 5.5 ACCEPTANCE OF PwD

Today it seems obvious that a healthy and prospering society is not reflected in its possession of cars, of gold or of clothes, but in the way and the degree it serves minorities (Μπαξεβανίδης, 2002). This quality is portrayed on an important degree on measures that have been taken and on the general behaviour of all members of society towards PwD, ill persons or the poor (Παπαδόπουλος, 2000). So it fits "to paraphrase a well-known saying: **Tell me how you treat the disabled and I'll tell you who you are!**" (Stiker, 1999: 375)

The degree of PwD's participation within the energetic social activities portrays the status of civilization and the social development of each society. The higher the rate of exclusion of different groups, the more the society is poor of moral and social values (Nikolaidou, 1999). Obviously, **the inscriptions of the built environment serve as an active shaper of human identity** (fig. 5-6 and fig. 5-7). Friendly, safe and foremost accessible environments for all PRM and PwD reduce feelings of discrimination and favour the general acceptance of PwD! The example in the sketch shows an obstruction-free area at a street-corner, which is correctly provided with curb cuts enabling every pedestrian to use the pavement!



Fig. 5-6: Accessible environments reduce discrimination...



Fig. 5-7: ... favour PwD acceptance (ex.: Vienna)

The **acceptability of different types of disabilities** does not seem to be determined arbitrarily, but rather to be closely tied to two factors (Groce, 1999: 287):

- a) how a society explains the appearance of that specific type of disability,
- b) what the social expectations are for the individual with that type of disability when she/he reaches adulthood.

It seems evident, that awareness is the most important factor to achieve an improvement in relations between society and all minorities. *"Both, wearing a label and being aware of the labels given to others influence thoughts, words and actions"* (Ellis, et al., 1997: 108). In 1991, an UK minister for disabled people proclaimed this need, too: *"Nor would I deny that discrimination exists...but, rather than legislating, the most constructive and productive way forward is through raising awareness in the community as a whole"* (Scott quoted in Matthews, 1996: 19).

A range of **questionable assumptions influences society's attitudes and awareness**. In particular, the general notion projects disability as functions being reducible to physiological limitations. Besides this, the assertion of normality (and naturalness) of able-bodiedness dominates all thoughts. As has already been discussed, the propagation of these able-bodied socio-cultural values results in the perception that disability is abnormal, even a product of deviant behaviour. So, society's awareness is finally based on the unique goal to bring PwD back to a normal (able-bodied) state (whatever that is).

*"We have said for 200 years and say anew each day, that we do not wish to see disabled people and disabilities. We do not want to be reminded of their needs, or burdened with their desires to live in the world. We prefer these people to be sequestered safely in secluded institutions – and they have been. We prefer them to remain second-class citizens – and they are. We prefer them to be invisible – and they strive, many of them, to be so, in hope perhaps that way finally of gaining our acceptance"* (Bowe quoted in Imrie, 1996: 51).

## 5.6 ARE THERE ANY PWD LIVING IN GREECE?

The existing situation in Greece is correctly presented in the following statement:

*"There exist 3 kinds of unacceptable conditions:*

- 1) *The ones that need to be searched for in order to be found.*
- 2) *The ones, which you bump into without looking for them.*
- 3) *The ones, which you happen to meet on every step.*

*The first ones... we do not know they exist. The second ones... we assign them to others. The third ones... we think of as being natural"* (Ματσούκας quoted in Παπαδόπουλος, 2000: 7).



Awareness as far as PwD are regarded is almost absent in Greece. "**There are no PwD in Greece**" – this was the answer of an employee in a Greek technical service (Πολυχρονίου, 1993). And he's not the only one to believe this. Other reports show, that many Greeks share this opinion as well. Interviewed families without any contact to PwD, state, that they have no experience with disability at all (Kottaridi et al., 2000). Such perceptions can be partly understood, as the immense physical barriers in Greek cities (*fig. 5-8 and fig. 5-9*) make it impossible for PwD to move around. In conclusion, their existence is not directly perceived and Greeks wonder, if there are any PwD living in Greece at all.

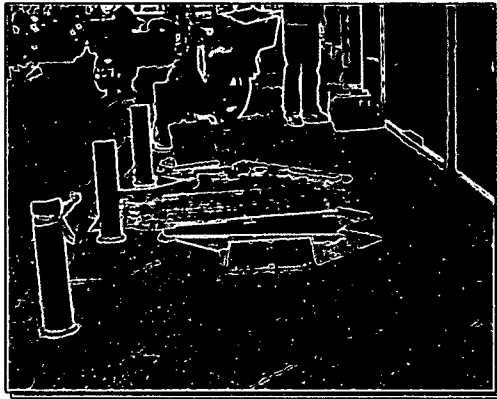


Fig. 5-8: The hostile, unfriendly environments of Greek cities...

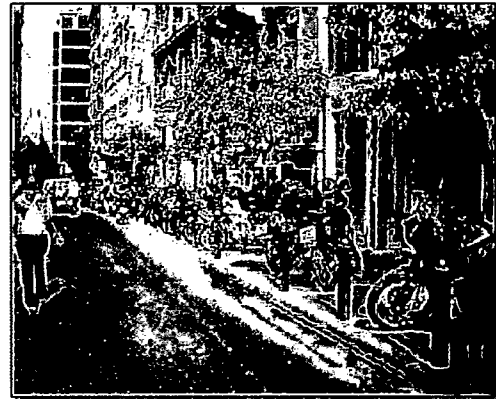


Fig. 5-9: ...make it almost impossible for PRM and especially PwD to move around

When Greeks think of PwD, they will mostly, if at all, refer to 'the blind or invalid person who begs daily at the traffic lights, the woman who sells handkerchiefs in the metro for the support of her wheel-chair-bound child, etc.'. **Disability in Greece is almost always linked to poverty and begging persons**, whom the major Greek population does not think of as real Greeks.

But the failure of Greek society, as far as matters of PwD are regarded, can directly be linked to the fact that **until recently Greek society wanted to ignore this problem**. 10-15 years ago a citizen wD was locked away in a room, as the family felt guilty for her/his existence. It was society, which provoked these feelings. For instance, priests would tell a mother of a child wD: 'Come and confess to me what sins you committed and thus you gave birth to a child wD'. In conclusion, mothers felt ashamed and locked their children away from the eyes of society. It was the Greek society itself, which did not want to demand, to claim, which did not want integration, but harbouring (Τσιούμπος, 2000).

In this sense, **information and adaptation might be a major ability and maybe the only virtue of enormous efficiency**. One sort of adaptation regards the reduction of certain irritants in society. It has become an universal habit, not to get touched by conditions, which some years ago would have lead to reactions. "We do not realize that we do not see any PwD in the streets of Greek cities and that PwD do not participate in daily activities and enjoyments" (Παπαδόπουλος, 2000: 18). Efforts to change the overall view of Greeks on matters of PRM and PwD have been launched from

various sides. For instance, the Health Action Sector (Αγωγή Υγείας) of the Greek Ministry of Health and Welfare has recently published posters and distributes stickers (fig. 5-10) to awaken the right of universal access and PRM's and PwD's equal integration into society!



Fig. 5-10: "Right for free access for PRM – Equal integration" - Sticker that is distributed by the Greek Ministry of Health and Welfare

## 5.7 INFORMAL NETS IN GREECE

Greece is a country, which must be placed "somewhere in between the developing countries and the 'developed' countries" (Στεφάνου et al., 1993: 32). In other words, **in Greece the welfare state is still quite underdeveloped**. This is the reason, why it still shows some differences in family statutes and bonds, if compared to other European countries.

Until 1960, Greek society was a basically agricultural society, where solidarity played a major role in all its principals. Over time, the Modern Greek society began to change. The once known solidarity seemed to be the same as decades ago. The vision of social evolution was driven by vivid geographical displacements and social mobility. One of the effects of early urbanism is the differentiation of social values leading to a **new social, collective and individual consciousness**. Nowadays, humans are defined by what they possess and not by what they are (Τσιούμπος, 2000).

Nevertheless, in Greece, **family and neighbourhood networks played and continue to play an outstanding role in the domain of care for members in times of need.** The unofficial sector of informal networks leans on relations within the family and kin, friends and the neighbourhood. In Greece, as elsewhere, the primary burden of care of network members has traditionally fallen on women (Karantinos, 1992a). These human nets play an important role in providing informal social welfare services. An important part of care and help, like financial support, housing possibilities, nourishing, help for personal services and psychological support and companionship, is obtained from the part of these informal networks (Cavounidis, 1999).

Efforts against institutionalisation and exclusion of PRM and PwD and to maintain these informal networks can be noticed in the last couple of years on the part of the Greek State. For instance, the Greek Ministry of Health and Welfare has launched the **supportive programmeme 'Help at home'** (fig. 5-11) (co-financed by the European Community) in order to maintain networks and to aid individuals with specific needs to remain in their natural and social environment. Furthermore, importance is laid on the maintenance of the significant role of family support and existing networks. Therefore, the programmeme's staffs periodically visit homes, which host a PRM or PwD and offer the caregiver the possibility to relax, to socialise, in few words: to have some time on her/his own.



Fig. 5-11: Emblem of the European Community programmeme: "Help at home"

But it is of course first and foremost **family networks that remain substantial for PwD, elderly persons and young family members in Greece nowadays.** Thus, renderings of informal networks are relatively high in Greece. In conclusion, today's changes in family lives and the resulting straining of informal care, involve severe effects to all kinds of groups with specific needs (Kavounidis, 1999). Unfortunately, such changes can already be observed in Greek society. Surcharged daily schedules, small apartments, etc. lead more and more to the reduction and loss of will and time to provide care and help.

**6 INTEGRATION OF PWD**

**6.1 THE IDEA OF INTEGRATION..... 53**

**6.2 PWD'S INTEGRATION IN GREECE..... 55**

**6.3 STATE WELFARE IN GENERAL ..... 56**

**6.4 THE GREEK WELFARE STATE ..... 57**

**6.5 SOCIAL CARE IN GREECE ..... 59**

**6.6 REHABILITATION AND MEDICAL CARE IN GREECE..... 60**

**6.7 SOCIAL SERVICES IN GREECE..... 61**

ABBREVIATIONS:

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

## 6.1 THE IDEA OF INTEGRATION

Diversity and difference most often lead to limitations of equal opportunities. A substitute to the idea of segregating and hiding away PwD from society exists in the aim of every integrationist society: to **bring individuals back to 'normality'**. This seems to be the only widely accepted way to achieve integration and equal opportunities in society.

But, what PwD primarily want is social equality, the "full participation and inclusion of everyone in society's major institutions and the socially supported substantive opportunity for all to develop and exercise their capacities and realise their choices" (Imrie, 1996: 169). For PwD, these demands equal with their **desire to be treated without contempt**. This means, that all depreciating social and cultural stereotypes have to be disrupted and all bodily differences have to be accepted as something, which is not abnormal.

Consequently, **access** to education, to professional formation, to employment, to housing, to public services and to health care is considered as particularly significant (*fig. 6-1*). In order to achieve equal treatment and integration, it seems significant to question and change society's incorrect attitudes and unfair behaviours towards PRM and especially PwD. The problem is often based on "questions of if and how people with these characteristics are to be educated, how to integrate them into the labour process and how to allow them to participate in normal life" (Albrecht, 1999: 124). The 'how' could be easily answered and solved, if architectural access to buildings and spaces was guaranteed and provided!

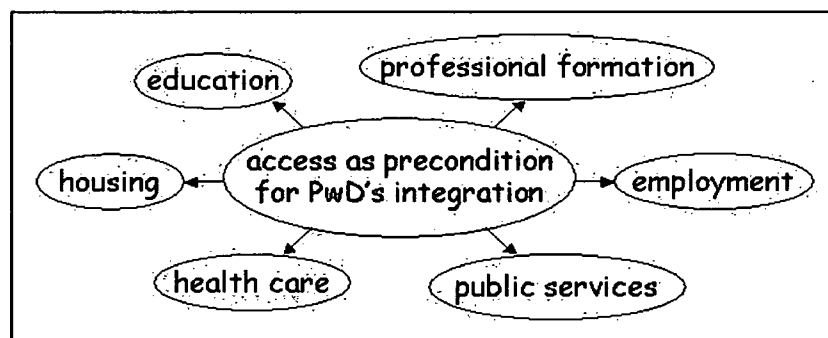


Fig. 6-1: Scheme showing some of the domains, to which access plays a major role in the integration procedure of PRM and especially PwD

Today's ideologies tend away from institutional holdings, but this conception requires excellent supportive structures on a regional level, provided by very few countries so far. **All 'developed' countries are facing severe problems**, especially in the support domain of PRM and PwD. These problems are basically related to the following facts (Amera, 1999: 64):

- Many elderly persons face severe disabilities nowadays.
- Many PwD, who died rather young in historic ages, continue to live after their parents' deaths today.
- Overwork fatigues the family members who care for the depending person.

- Family sizes shrink and there are no members able to care for a depending person.
- All adult family members have to work in order to earn today's living.

In conclusion of this evolution nowadays, negligence and social exclusion, even maltreatment towards depending weak persons appear in different extents. This fact has already been discussed in preceding chapters. Even the USA, a country, where regulations in favour of PwD are in force for many years now, "provides apt convenient illustrations where, despite years of campaigning for integratio and the propagation of mainstreaming policies, PwD are still seen as 'requiring treatment' and special attention" (Imrie, 1996: 7).

Nevertheless, **integration of PwD is feasible** today. "The information society has the potential to achieve greater integration of disabled people through the use of new technologies, this however, can also create more barriers in the inclusion of disabled people" (EDF, 2000: 10), especially if aiding devices presuppose technological knowledge for their use. Fig. 6-2 shows a public phone with text display (text telephone), which enables persons with hearing and/or speaking impairments to use this device and get integrated. However, the main problem for PwD's equal integration remains the degree to which the state and society are ready. Prerequisite is a severe social questioning and taking over of responsibilities on state levels. Only then, a psychological support and a socio-economic power on the part of corporal healthy and economic powerful citizens might be guaranteed. It is first and foremost these groups of society that have to give way and accept every member of society and in conclusion, admit the right of differences (Nikolaidou, 1999).

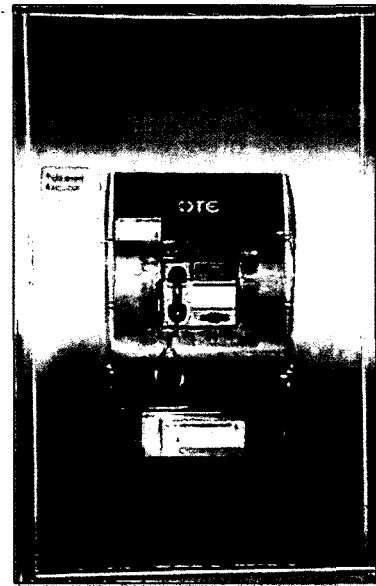


Fig. 6-2: Public phone with text display at Athens International Airport  
Eleftherios Benizelos

**If acceptance is achieved, the socio-economic exclusion will not be any longer guided by natural and/or technical factors.** Therefore, in future, it will be unimaginable to design buildings without ramps, elevators sized too small for the use of wheelchairs, pavement nets with obstacles (e.g. disturbing the moving comfort and safety of blind persons), no stopping possibilities (e.g. discouraging the usurpation of public urban spaces on the part of persons in the third and fourth age), unreachable devices, etc. Thus, the role of design professionals, their awareness, understanding, open-mindedness and reach for practical solutions in the creation, adaptation and re-use of the built environment is of major importance! Fig. 6-3 shows another positive example of a public phone, this time placed lower, so as to be reachable by small persons and wheelchair users and thus, supporting their integration and equal treatment.

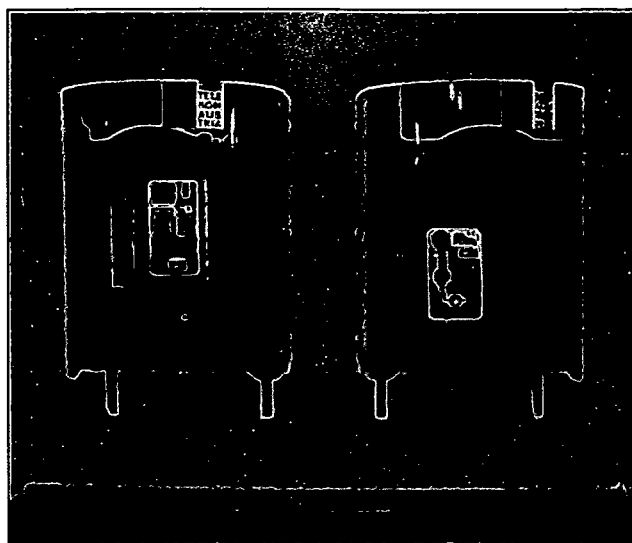


Fig. 6-3: Lowered public phone at Vienna International Airport Wien-Schwechat

## 6.2 PWD'S INTEGRATION IN GREECE

In Greece, there still do exist **two controversy perceptions concerning integration and rehabilitation of PwD**. On the one hand there is the understanding that PwD have the possibility to live an independent and normal life. On the other, the conception of disability being a disease continues to oppress many PwD living in Greece. The ideology of protection presumes the idea, that a PwD cannot lead a normal life and thus she/he has to be supported by organized groups or organizations outside the society of the 'healthy' and 'wealthy' ones (Zώνιου-Σιδέρη, 1998).

These notions may be partly formatted by the position of the Greek State. The **continuous emphasis on a benefit policy tends to create conditions making PwD dependant**. Despite all attempts having been made in Greece so far, it is not possible to ascertain the satisfactory integration of PwD. No basic services or conditions exist that might be able to support self-serving. Thus, gaining of independency seems impossible for PwD living in Greece (Amera, 1999). Likewise, the overall attitude towards PwD's integration in the community is negative, especially for the mentally retarded (Kottaridi et al., 2000). As a result, lives of many PwD remain defined in and through state or private institutions. This dominant injustice inhibits people from determining their actions or the conditions of their actions and locks them away for good. In conclusion, PwD remain 'unseen' making awareness rising and acceptance stimulation in the society at large rather impossible.

One basic reason for this denial of PwD's integration into Greek society can be found in education and Greeks' perception on basic matters of life. All ideas are based on the **hypothetical precondition, that every able-bodied person will stay able-bodied for the rest of her/his life**. However, this thought is daily contradicted. "The ability of

thinking in a creative way does not flourish in Greece. Greeks live the moment, the now, without taking into account the fact that life will continue also after this moment and that its quality should be secured" (Παπαδόπουλος, 2002: 101). In conclusion, almost no possibilities to deal effectively with a sudden partly or total reduction of physical abilities, temporarily or for a lifetime, can be observed. As has been already presented, in many cases, a sudden impairment is the immediate reason for individuals themselves, as well as their close surrounding, to end up in social exclusion!

### 6.3 STATE WELFARE IN GENERAL

**"Welfare is something like a human right.** It is the main task of the state to expand this aspect. (...) In fact, it is the very *raison d'être* of a state and the main legitimization of a democratic state" (Steinert, 1998: 25).

The period after 1945 has been marked by the rise of paternalistic values. It was assumed that disability is equivalent with the need of financial help and social support. As already mentioned: "Welfare states, post 1945, have been and still are preoccupied with notions of normalization, of a de-differentiation process which is wholly subversive of (disabled) 'identity as difference'" (Young quoted in Imrie, 1996: 42).

Progress in welfare refers to the changing role of states in defining, categorising and (re-) producing 'states of disablement' for PwD. This is synonymous to the fight against hunger, misery and illness and in conclusion **welfare equals to a better life for those who are pushed aside and outside by the forces of economy.** However, present policies turn "towards voluntary rather than statutory based services" for PwD (Imrie, 1996: 59). "The State has to help people to live better, not destroy their lives by mistreating them" (Steinert, 1998: 26) or locking them away.

It is significant that countries set free certain resources for securing the social well-being of their population. This action directly reveals the extent of evolved social concepts and the way they are reflected in society. There is proof, that **investment of adequate human, material and financial resources do improve the living status of PRM and PwD** (fig. 6-4). These measures primarily aim at medical, occupational and social rehabilitation. Of course, a number of further sectors are involved, like education, physical environment, town planning, ergonomics, communication technologies, social, cultural and sports activities, transportation, etc., but their progress paces very slowly.



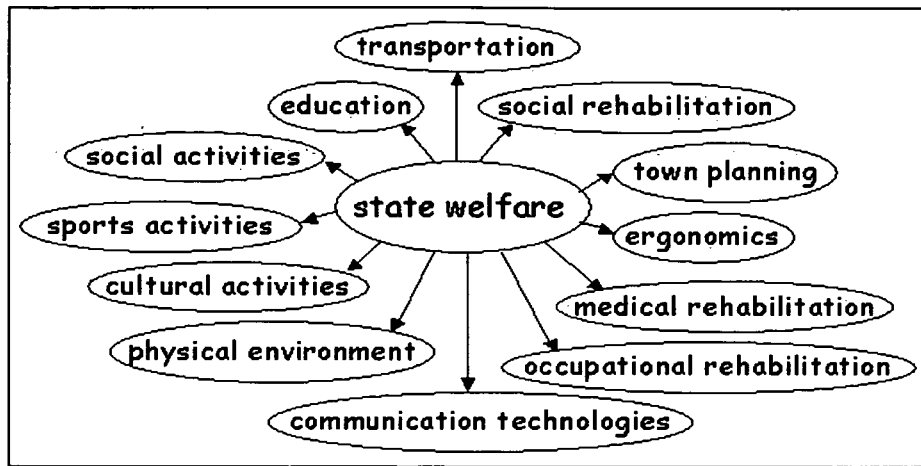


Fig. 6-4: Scheme showing the main sectors, where state investments should focus in order to accurately improve, guide and support PRM's and foremost PwD's welfare, rehabilitation and their equal integration into society

#### 6.4 THE GREEK WELFARE STATE

In Greece, **social welfare of the public sector focuses on needs and demands of four population groups: the young, aged people, PwD and returning migrants or refugees.** In the past, policies in Greece have been trying to replace or bolster networks, when these were unable or unwilling to care for certain individuals. For example, policies regarding elderly people's care focused on institutional care, although institutionalisation could have been avoided in many cases (Karantinos, 1992a). This is totally contrary to the nowadays' dominating ideology of supporting informal networks in every way in order to guarantee their function and contribution in the domain of care

However, **during the 1980's new policies and legislations** were introduced for persons with mental and physical impairments in Greece. Some of the major deficiencies of the present system of services offered to PwD are as follows: the lack of any data regarding the actual number of PwD living in Greece or who they are and how they cope with their disabilities and what services they make use of. In addition, **implementation is not always guaranteed**, due to fragmented legislation regarding the Greek social services machinery, as well as due to the legalistic and bureaucratic system (Karantinos, 1992a).

Prevention and rehabilitation of disability play an important role in social welfare and social legislation today. But in this sector, **social reality reveals a plethora of differing cases.** This makes **scientific standardization particularly difficult.** Not only because different types of disability exist, but also because it is possible that a person presents severe difficulties in coping with certain of her/his needs, while the same person has all abilities in other domains if compared to 'normal' people. This leads to the fact, that an analogue differentiation of measures of social welfare is necessary (Ματθαίου, 1997).

But even when persons managed to get informed on the supportive sources that exist in Greece, there always remains the question of procedure in order to achieve the relevant rights and benefits. These problems appear at most as regards **welfare benefits**. For instance, there is no possibility to claim for benefits for the period before the application date. This way, citizens that were informed in delay on their rights or were hold up due to reasons of bureaucracy, are deprived of earlier benefits, although they might fulfill all preconditions (Μαρθαίου, 2003).

Obviously, an **evident lack of suitable organisation among the different sectors providing welfare services and developing welfare strategies** in noticed in Greece. Co-operation would be especially important, as policies in the domains of health, education, employment and housing are very closely related to policies dealing with social welfare (Cavounidis, 1999). Thus, coordinative problems prohibit decision-making and delivery processes of welfare strategies and their correct implementation. This means, that: *"Although 'culturally' and 'ideologically' Greece has embarked to the 'road to the West', it structurally remains attached to its traditional 'irrational', 'inflexible' and rigid administrative underdevelopment"* (Tsiganou, 1999: 65).

Although experience exchange with other European Community countries could provide an active contribution to Greek knowledge, pinpointing good practices, distributing relevant know-how and identifying the policies and methods best suited to combat the present forms of social exclusion, Greece seems to pay little attention to this privilege. The **minimal and non-systematic learning from other European experiences** on the part of Greece may be attributed to difficulties that can be linked to the following burdens (Karantinos, 1992b: 141):

- lack of applied research in the area of social policy,
- problems of discontinuity in policy making caused mainly by the 'reshuffling' of directors and of high-level officials,
- most European publications provide ad hoc information, while policy making is more normative.

The **main activities for the benefit of PwD** and their families living in Greece continue to **primarily deal with economic grants, such as assistance pensions or economic releases, professional training and hospital-care**. In conclusion, PwD are propagated as a 'problem', they continue to be excluded and caregivers are approached fragmentarily only, if at all (Λαμπροπούλου, 1997). Furthermore, the number of PwD who have been successfully integrated through these programmes remains unknown and is most probably not encouraging (Karantinos, 1992a).

Some suggest, that studies in the following areas could already improve the momentary situation and help finding strategies to upgrade social planning effectively in Greece: studies of social conditions, of organisation and functioning of services, evaluation of existing services and programmes, studies of the use and the staff of already existing programmes (Karantinos, 1992b).

## 6.5 SOCIAL CARE IN GREECE

In Greece, **state welfare for PwD is realized through the Ministry of Health and Welfare**. Law 2646/98 regulates the development of the Greek National system of social welfare. According to this, every person living legally in the Greek State and who is in an emergency situation is entitled to use social care offered by the State System. Social care has to be granted without any (gender) discrimination, corresponding to the particular personal economic and social needs of every individual and her/his family. Social care is offered as: a) Closed care provided in health institutions, rehabilitation and therapy centres and as b) Open care provided through programmes of the Ministry (Yn.Eσ., 2000).

The Greek social welfare system contributes to **social care for PwD** (fig. 6-5) with the following actions (Αμνισης, 1997):

- prevention and in time diagnostics of disability and chronic illnesses,
- keeping PwD in society and reducing institutional care to a minimum,
- creation of circumstances for PwD to become independent and to develop all their corporal and mental powers,
- integration of PwD into social, economic and political life with equal chances,
- sensitisation and preparation of society to accept and integrate PwD.

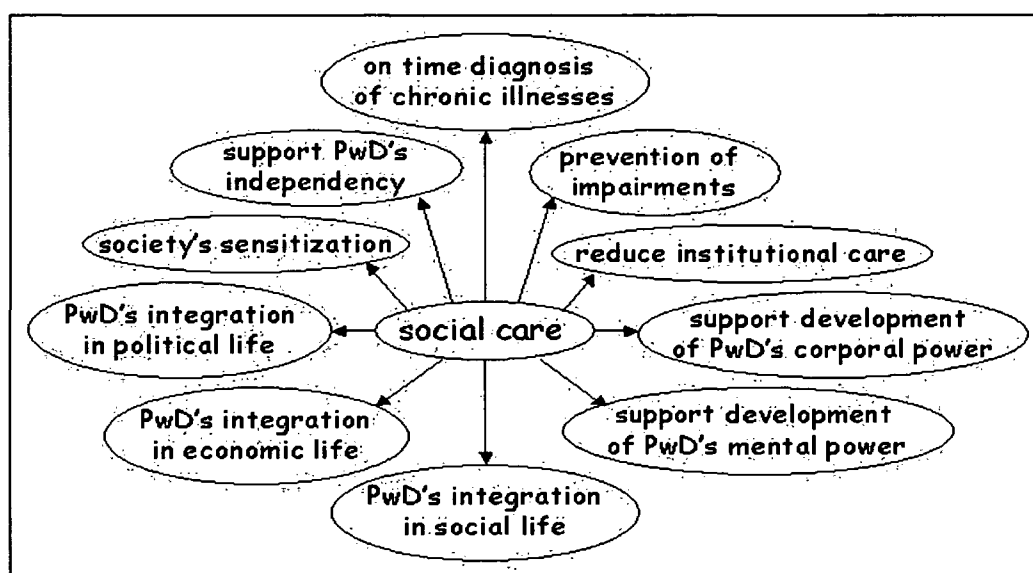


Fig. 6-5: Scheme showing the main sectors of Social Care that contribute to PwD's welfare and integration

Undoubtedly, in the last years several important statutory improvements have been made to achieve these goals. However, **it is primarily programs for economic support** that are foreseen for PwD living in Greece. This move ignores on an important degree the need of statutory activities in the domain of prevention. Existing programmes in Greece that primarily address PwD are (Αμνισης, 1997):

- physical rehabilitation,
- direct economic support,

- indirect economic support,
- card for free movements for PwD having a disability judged over 67%,
- entrance into universities without exams (according to the conditions and requirements of universities),
- facilitations in working hours for employees in the public sector, in legal entity public finance laws and in Local Governments,
- creation of jobs for PwD.

## 6.6 REHABILITATION AND MEDICAL CARE IN GREECE

In 'developed' countries, rehabilitation and medical care are no longer placed at the beginning of social integration for PwD, but are self-evident accompanying factors (Holzer et al., 1999). However, in Greece, **prevention and prediction is almost unknown in all domains: health, politics, economy and traffic accidents**. Besides this, "*there are no State structures in Greece*" (Παπαδόπουλος, 2000: 537). Rehabilitation is not taken as seriously as it should. The fact is based on the way disabilities are treated by the state. Material security through pensions continues to be the main support.

Sad, but true is the evidence is, that there are **only 183 rehabilitation beds in Greek hospitals**, all of them situated in Athens. This shortage leads injured patients to have to wait up to five years in order to gain access to one of those few rehabilitation places. This major lack of provision has to be underlined as Greece unfortunately belongs to those countries, that are placed amongst the first ones in Europe as far as vehicle accidents and deriving severe injuries are regarded!

In conclusion and as examples proof, dealing with people's serious injuries in Greece can be fatal, as **substantial rehabilitation cannot be found**. The family's surcharge is enormous and the family can be lead to economic poverty, as rehabilitation and care in private health centres often remains the only possible solution for on-time treatment. **Social and psychological welfare for the patient and her/his relatives does not exist at all** in Greece. Besides this, even if the possibility of a public rehabilitation is offered, the general public doubts the efficiency and effectiveness of Greek State Institutions and Services. "*There is no infrastructure, the problem is confronted superficially and the situation is not properly judged*" (Kottaridi et al., 2000: 39). The general view is, that Greece is far behind at all levels of care and of health treatment in comparison to other 'developed' countries.

This seems especially dangerous, as the need for social services will begin to rise even more dramatically in the near future. Demographic and societal developments show, that **the risk to become care-dependent has stopped to be an individual problem**. It has become a problem of society, whose size outweighs the possibilities for personal provision (Oester. BM fuer Gesundheit, 1998). This fear is reinforced by decreasing mortality rates of accident injuries and medical and technological progress, which contributes to the ageing of the population.

However, one positive report of Greece was found. The frequency with which chronic illnesses appear in Greece reduces thanks to education, civilization and informing the citizens. This reduction is also achieved through correct family planning, the consistent preventive health care as well as the diagnosis on time followed by a pre-birth and birth care and surveillance (Amara, 1999). The same concern and equivalent actions should be expressed and successfully implemented as regards PRM and PwD's rehabilitation and social and medical care in general.

## 6.7 SOCIAL SERVICES IN GREECE

**Little material exists** on social services in Greece. No handbook for citizens is available, nor is there any periodical updating. Information is scarce and brochures almost impossible to be acquired. According to the degree of interest of each citizen, her/his possibility to cope with the needed bureaucracy, her/his endeavour, etc., personal guidance and support varies from one person to the next.

Although there do not exist suitable evaluation researches of the few existing services provided by the Greek State, the common agreement is, that **today's supplies seem to be extremely ineffective** (Cavounidis, 1999). *"The social services in Greece have been described as poorly planned. They have developed in a piecemeal fashion, developed to meet extreme cases rather than enhance prevention"* (Karantinos, 1992b: 2).

Apart from the already mentioned informal nets (*chapter 5.6*), the **Greek Orthodox Church** has played and continues to play a major role in the provision of certain social services. For instance, the institutional care for children whose families could not come up for rested traditionally in the Church's hands. However, this role seems to be detracting today, as the number of children in state institutional care has been falling. But the Church has also been and still is the leading provider of services for the senior citizens, e.g. with Open Care Services (Karantinos, 1992b), which is an important and often the only, contribution for PRM's and PwD's care in Greece today.

## **7 EDUCATION FOR PWD**

<b>7.1</b>	<b>EDUCATION FOR ALL.....</b>	<b>63</b>
<b>7.2</b>	<b>THE EDUCATIVE SITUATION FOR CHILDREN WD IN GREECE .....</b>	<b>65</b>
7.2.1	PRIMARY AND SECONDARY EDUCATION FOR CHILDREN WD IN GREECE.....	65
7.2.2	TERTIARY EDUCATION FOR PWD IN GREECE.....	66
<b>7.3</b>	<b>BRIEF HISTORIC DEVELOPMENT OF (SPECIAL) EDUCATION IN GREECE .....</b>	<b>69</b>
<b>7.4</b>	<b>PUBLIC SPECIAL SCHOOLS IN GREECE.....</b>	<b>70</b>
<b>7.5</b>	<b>VOCATIONAL TRAINING PROGRAMMES FOR PWD IN GREECE .....</b>	<b>72</b>

### ABBREVIATIONS:

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

## 7.1 EDUCATION FOR ALL

According to the 'Standard Rules on the Equalization of Opportunities for Persons with Disabilities of the United Nations', declared on December 20<sup>th</sup> 1993 (resolution 48/96) rule 6 refers to PwD's education as follows (www.unhchr2): "States should recognize the principle of **equal primary, secondary and tertiary educational opportunities for children, youth and adults wD**, in integrated settings. They should ensure that the education of PwD is an integral part of the educational system."

Today, the international method observed is **to incorporate children** (and students) **wD** (even with slight mental impairments) **in the ordinary educative process**. Profit is gained on both sides. Important experiences can be gathered on the part of all pupils, which might possibly influence the characters' development of all these children in a positive way (Παπαδόπουλος, 2002: 92) they learn:

- to live together with someone who is 'different',
- to respect, to appraise and to integrate minorities or weak groups,
- to understand the importance of changes, independent mobility and living,
- to simplify.

School and the educational system can and have to **function as the determinant for social and cultural integration of children wD**. Education is a crucial aspect in a PwD's life providing every individual with the needed tools to participate in society. Regardless the possibilities of pupils wD, limitations remain in obtaining a satisfying percentage of the provided education. Decisive factors are for instance correct access conditions to school buildings (*fig. 7-1 shows an incorrect ramp*). Especially vocational orientation and even more employment form the requisites for a PwD's smooth integration in society and for the personal equilibrium of everyone.



*Fig. 7-1: Accessibility to school-buildings forms a major precondition for educational opportunities of children wD and their social and cultural integration (too steep ramp at Hauptschule in Vienna, 16<sup>th</sup> district)*

At no time in capitalism's history has education and vocational training of the workforce assumed such **widespread importance** as at present. The main reason perhaps is the expected link between improving the education and training system and raising the general living standards (Tsiganou, 1999). Therefore, opportunities to get educated and cultivated are of undoubted importance, especially for PwD, as it comprises of the most important step towards future acceptance and (successful) integration into society.

"Children can be excluded from education when education takes place under circumstances of co-existence with the society at large, as well as when education happens under circumstances of total differentiation from the society at large" (Τρέσσου, 1997: 651). Unfortunately, **schools and the educational system often operate as a powerful machine provoking and finally leading to social exclusion.** Obstacles of any type strengthen the mechanisms of social exclusion and discourage PwD from developing their interests and fulfilling relevant life expectations. Moreover, these conditions produce possible forms of dependence, instead of rising and strengthening children wD's independence and autonomy.

But there are also efforts, **positive examples** and attempts, which are undertaken by various institutions, especially on the part of tertiary education aiming at the equal integration of students wD. For instance, the building of Vienna's law school (fig. 7-2 and fig. 7-3) can be mentioned, which is completely accessible to students with mobility impairments.



Fig. 7-2: Vienna's Law School: accessibility pointed out with the International Sign of Disability

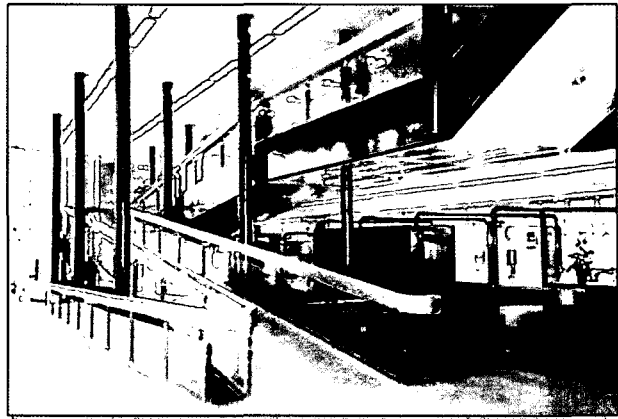


Fig. 7-3: Vienna's Law School: accessibility granted with the indoor ramp

Of course, over-enthusiastic and over-protective initiatives can lead to extremes and finally support exclusion. For instance, there is a university for deaf students and students with hearing impairments in the USA: Gallaudet in Washington. "It is certain, that if this cultural logic were systematised, there would be the danger that this kind of specificity would make the deaf community some sort of exception, marginalized and treated with indifference and condescension. This is as far as a reference to American culturalism as a way of thinking about disability goes, even in the case of the deaf" (Stiker, 1999: 360). In this case, students wD are rather locked up in a tertiary education institution!



## 7.2 THE EDUCATIVE SITUATION FOR CHILDREN wD IN GREECE

### 7.2.1 PRIMARY AND SECONDARY EDUCATION FOR CHILDREN wD IN GREECE

Experiences of disadvantaged groups at pan-European level (such as young people leaving statutory care, people with mental impairments, visually impaired persons and offenders) proof, that most of them hold **low levels of educational qualification and report consistently poor experiences in access to training provision** (Tsiganou, 1999). For instance, in the UK only one in five (1:5) children wD attends an ordinary school (Imrie, 1996). However, it is a positive evolution, that 60% of all blind children in the UK go to ordinary schools, 10% attend special schools for visually impaired children and 30% visit special schools for children with a range of other disabilities, mainly learning disabilities (Low, 2002).

In Greece, **access to all levels of education for children wD still remains a key question**. The majority, if not all children wD, are still being educated in segregated establishments, if at all. Their integration with non-disabled children would not only guarantee positive attitudinal changes of members of the future society, but also provide personal contacts and experiences. Nevertheless, even children with exclusively mobility impairments do not attend ordinary schools in Greece, although improvement regarding accessibility conditions of public schools can be observed lately (*fig. 7-4*). Only if parents claim for a juridical decision and endure the processes, school directors are forced to accept children with mobility impairments in ordinary schools. This is not due to the small number of such cases, but due to the existing mentality to separate minorities (in conclusion also children wD). Thus, these children are sent to 'special' schools, where knowledge and spiritual atrophy is almost guaranteed.



*Fig. 7-4: All over Athens older public school-buildings have been adapted recently with ramps so as to become accessible*

Apart from any physical problems, opposition can be found on the part of Greek teachers. On the one side, **Greek teachers in general deny to keep up relations with children wD's parents**. Studies proof, that this happens to be a crucial precondition for an ordinary integrative process and apparently a smooth co-operation with the children's parents is necessary. Creating and maintaining an intimate atmosphere between the school and the family has to be the goal in any such integrative structure so as to achieve wider acceptance. But, as it seems, co-operation is unfortunately left to the mercy of teachers and their

goodwill, underpinning difficulties and problems to accept children wD in ordinary schools in Greece.

On the other side, **teachers do not want to have any responsibilities and they refuse to get surcharged with paying special attention to pupils wD** (Παπαδόπουλος, 2002). Partly, this notion may have been legitimated in the past, as an inventory of security measures in public school buildings all over Greece showed, that over 80% of all buildings present serious lacks in all domains, including traffic and fire protection, sports and recreation areas, power systems, etc. In 1992, 30% of all accidents occurring to children happened in schools (Παπαδόπουλος, 2002). In conclusion, responsibilities of teachers are high. But, newly built school buildings show improved security and this fact should manage to change teachers' opinions and refusals – however, the major problem remains maintenance and this unfortunately is well-known by any Greek citizen.

### 7.2.2 TERTIARY EDUCATION FOR PWD IN GREECE

In Greece, pupils wD that manage to graduate from secondary education **have the right to proceed to tertiary education**, but an important lack of knowledge has been noted on the part of these students, as well as little self-esteem and an attitude of dependence and indisposition for the new roles and demands of university life (*fig. 7-5*) (Καλλινικάκη, 2003).

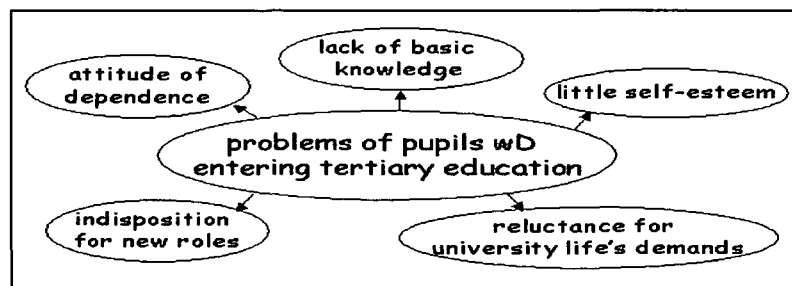


Fig. 7-5: Scheme showing major problems of a pupil wD entering tertiary education in Greece

New experiences in university are, among others, **participation without distinctions and the avoidance of discrimination** by any means. The presence of students wD in a collective space like tertiary education calls for the activation of supportive infrastructure, such as access and supply of basic information about facilities in and adaptation to the educational process, sensitization of the social surrounding and finally awareness of PwD's rights.

Unfortunately, it is exactly tertiary education, where the most severe problems can be located in Greece (*fig. 7-6*). So far, **almost no concern has been expressed, as far as students wD are regarded**. Besides physical barriers, as the lack of wide corridors in order to access teaching rooms, laboratories, libraries, restaurants and all other entertainment halls for students, there is no specialised staff that might support students wD. In general, there are no university books written for blind students, neither is there a special service engaging in

the particular problems students wD are facing, e.g. the attending of classes for students with sensory or corporal weaknesses (Kassotakis et al., 1999).

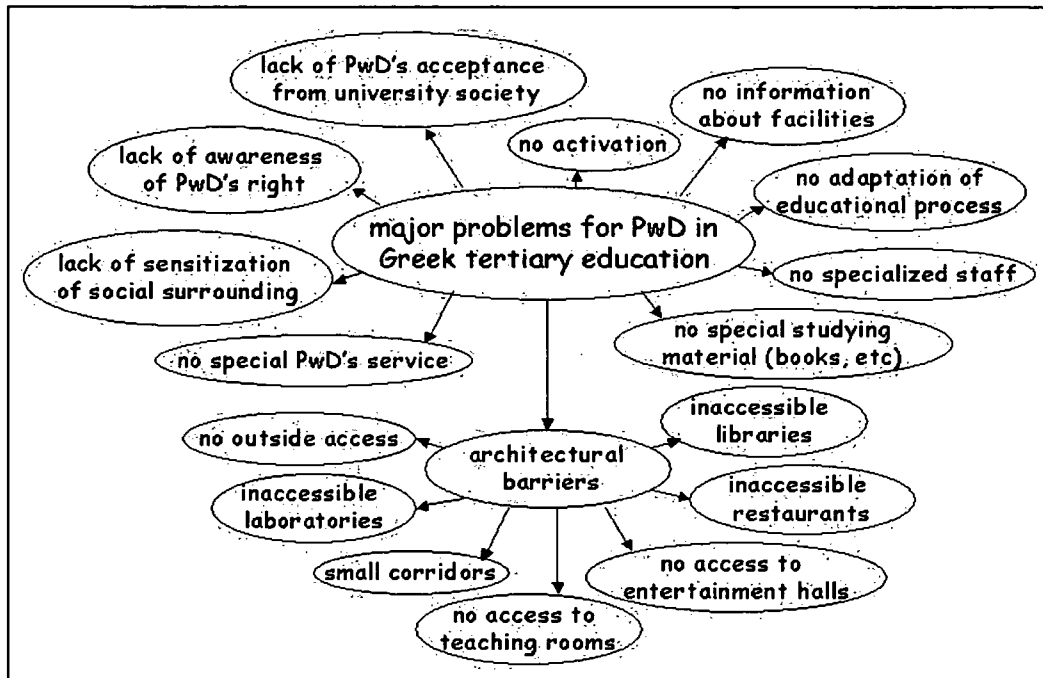


Fig. 7-6: Scheme showing the major problems in tertiary education in Greece discouraging and hindering pupils wD to complete their studies and get a higher degree education diploma

One major weakness in Greece is the **lack of regulations in advantage of PwD in tertiary education**. Apart from some regulations regarding entrance exams, only a circular from the Greek Ministry of Education and Religious Affairs exists, which advises tertiary educational institutions to be informed on the situation of studies for students wD and to look after the accessibility of spaces and of examination procedures according to the needs of any student wD. The provision of an accompanying person for each student wD either from the institution or from her/his family should be considered. But so far, no legislative protection and extremely limited supportive measures can be observed (Ματθαίου, 2003: 103).

Ordinances regulating the entrance rights of students wD into a tertiary educational institution in Greece will have little effect on this student's life, when she/he will have to face fellow-students, professors and other staff that will not think of her/him as of an equal and complete member of the university society. All these barriers in tertiary education, are especially serious, as **the only way to reach upward social status in Greece and then acceptance remains a third degree education diploma**. Educational attainment is highly valued among the members of the Greek society. This socio-economic determinant of the success mechanism rests though unreachable for children wD, as "special attention is only given to determine the causal effect of social origin and poverty on inequalities in tertiary education and the completion of the basic educational level" (Chrisakis, 1999: 84).

So far, in Greece, the educational procedure itself does not seem adjusted to any new reality. In consequence, **most applied supportive acts and measures for students wD remain isolated initiatives of some few sensitized and energetic professors and directors.** One such positive example are the supportive measures, which are offered on the part of the 'Consultation Center for Students' of the Athens' University. A peer counseling system has been set up, where 13 students from the Department of Philosophy-Pedagogy-Psychology are educated to help fellow-students with hearing impairments in the domains, they face problems due to their impairment (Καλατζή-Αζίζι, 2003). Another example can be found at the Dimokritian University of Thrace, where a 'Compass for first-year students' provides information on faculties and departments, the administrative services, student hostels and clubs, the connection office, the entrance regulations for Muslims, foreigners and students wD (Καλλινικάκη, 2003).

The Department of Informatics and Tele-Communication at the National and Capodistrian University of Athens seems to provide the best example on supportive measures for students wD in Greece. The department was established in 1986 and during the years 1987-2000 there were 42 students wD (students with visual, hearing and severe motor impairments at the upper extremities) registered. For the academic year 2000-20001 the department received 33 applications of students wD to enter without exams (out of 120 students in total). The applied supportive measures and services for students wD lead and continue to lead to the development of model solutions and demonstration systems that can be used by students wD during their studies. Some of the department's positive initiatives are as follows (Κουρουπέτρογλου, 2003):

- informing students and their parents before the beginning of their studies on the conditions, difficulties, possibilities and available supportive aids;
- consultation and guidance by a supervising professor for students wD during the whole duration of their studies;
- support through individual assistive technologies and aids;
- individual support and aid for certain courses;
- special regulations for exams (supplementary time, use of supportive aids, etc);
- 100% accessibility to all spaces;
- social sensitization through press releases, presentations in television and radio and leaflets;
- informing the members of the teaching, administrative and technical staff.

These few positive examples provide evidence on pioneering attempts of isolated departments in Greece's higher education establishments. Obviously, there exists the immediate necessity of systematic and expanded information, as well as the creation of a communication network between professors that have developed supportive initiatives. Furthermore, positive and working measures have to get known, in order to stimulate other departments and tertiary educational institutions to follow existing examples or create their own supportive programmes for PwD. The detection of the real needs and expectations of students wD has to start, as well as their equal incorporation into education and the university environment. It is also the cooperation with administrative and economic services

of tertiary educational institutions, foremost with technical services, that has to become the rule in all these procedures and programmes, so as to guarantee free access for PwD to tertiary education (fig. 7-7 and fig. 7-8)



Fig. 7-7: Accessible library at the Athens' Technological Institute –ramp with correct inclination



Fig. 7-8: Accessible library at the Athens National Technical University campus (Zografou)

### 7.3 BRIEF HISTORIC DEVELOPMENT OF (SPECIAL) EDUCATION IN GREECE

The following brief overview of the historic development of special education in Greece is based on relevant information taken from Ζώνιου-Σιδέρη, 1998.

First references in **Ancient Greece** derive from Homer. He distinguishes kinds of inferiority, such as 'deaf (powerless)', 'baby (stupid)', 'aesifron' (mentally impaired), 'nipytiot' (crazy), etc. Dimokritos calls for education for everyone without distinctions. He pays special attention to education and not to the physic of persons. Plato suggests special education for all human beings of both sexes, regardless of their social status and their mental intelligence. Aristotle engages specially for blind and deaf people and proposes one common school for all children. Theofrastot shows interest in education of mentally impaired children.

Later on, in the **Byzantine**, the period of 'welfare', the tendency towards charity leads to the establishing of institutions for 'the poor', for 'the old', for 'the blind', for 'the incurable', etc.

In the **Ottoman Period** the same social policy continues with modernised efforts in organizing health services. Measures are taken, for instance, for the care of PwD or of people being unable to work, etc. Besides that, charitable institutions continue to be set up under the leadership of the Church, which takes care of and treats suffering people. Education remains in the general sense. No special attention is paid to education of disadvantaged children.

In the 20<sup>th</sup> century the notion of 'pity' leads to the creation of special schools and institutions. According to the mainstream social perceptions of each period, it is care, protection, education, treatment and/or vocational training that is provided.

As mentioned in the paragraphs above, **institutional segregation still is considered to be the only method of education for PwD in Greece, even nowadays.** It has to be stressed, that until today, there do not exist any higher educational establishments in Greece to train educational staff for the education of children wD! (Kassotakis et al., 1999: 455) In conclusion, many children wD are only sent to school to pass their day away from home. However, real concern should be expressed and efforts should be supported to establish special schools, where children will be able to effectively develop their capabilities and abilities, where they can learn to survive and to participate in the highest possible degree in all action levels of society on their own, where they can learn to live and to feel happy (fig. 7-9). If parents and the society at large do not start to cooperate and accept PwD, the existing situation will continue to survive. Only if all these matters are solved, the general idea of special education will finally be applied successfully in Greece, too.

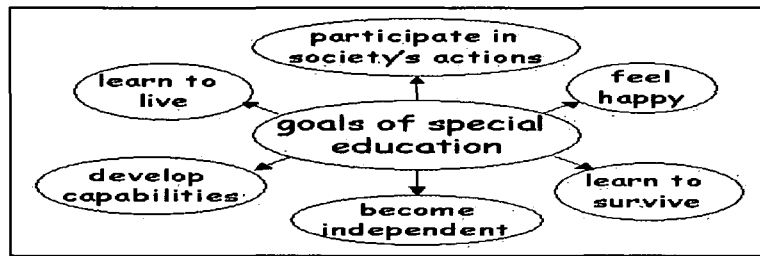
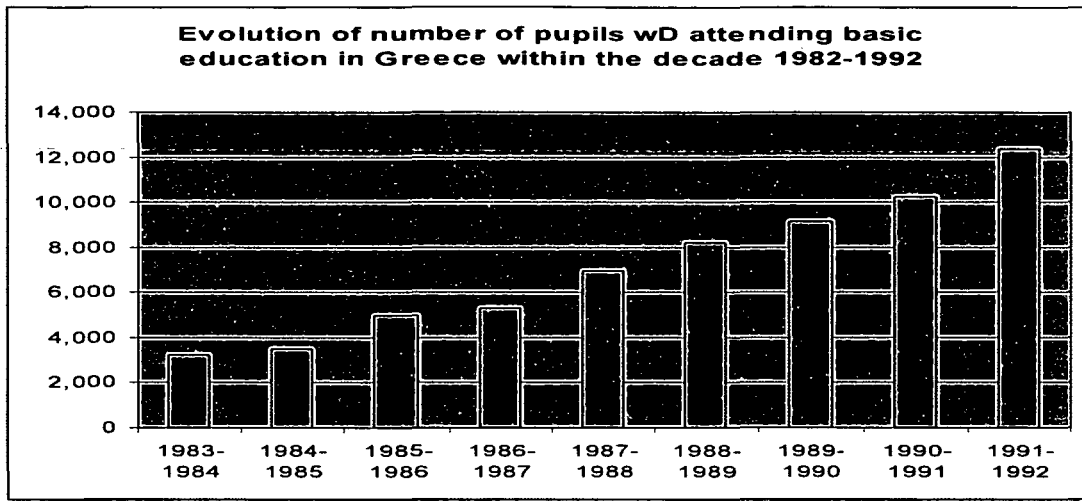


Fig. 7-9: Scheme showing the major goals of special education following its aim to integrate children wD into society as best as possible

#### 7.4 PUBLIC SPECIAL SCHOOLS IN GREECE

In Greece, **education is obligatory between the ages of 5,5-6 years to 15.** Children can attend special schools, where they have the right for free transport to and from the school, as well as for free distribution of books or other required printed material. This is also valid for books blind children are provided with (Kassotakis et al., 1999).

An increasing number of existing special schools in Greece can be noticed in the decade of 1982-1992. Reason for this evolution is the emphasis given in the corresponding period to the development of special educational establishments in Greece. This lead to the multiplication of equivalent educational institutions or to the creation of special classes in ordinary schools. The following table (Tab. 7-1) refers to this **evolution of special training units and the number of pupils wD in Greece during the decade 1982-1992** (Kassotakis et al., 1999: 458):



Tab. 7-1: Evolution of the number of pupils wD in reference to school years during the decade 1982-1992

In 1999, the number of children attending special educational institutions corresponded to 0,73% of the entity of pupils in primary and secondary education in Greece (Kassotakis et al., 1999). The table below (Tab. 7-2) shows the **distribution of impairments of pupils and students wD in 1999** (Kassotakis et al., 1999: 459):

Category	Number of pupils wD	Number of students wD
Mediterranean Anaemia	-	298
Deafness	722	37
Blindness	108	37
Corporal disability	430	10
Other cases	11.123	14
Total	12.383	386

Tab. 7-2: Recorded pupils and students wD categorised by their impairment in Greece in 1999

Despite the increase of special educational services within the last years in Greece, still **a lot of problems** persist. The possibility to acquire basic education is still restricted for most children wD. One basic reason is, that the totality of special institutions is situated in big urban centres. Besides this fact, schools offering organised boarding houses are even less (Kassotakis et al., 1999). Furthermore, the total number of public special schools and the available places for children wD is rather disappointing. A glance at unending waiting lists for a place in one of the few public establishments (fig. 7-10) makes this unpleasant fact rather clear and unfortunately forces many parents to subscribe their child to an expensive, private special school!



Fig. 7-10: 'Theotokos' – one of Athens' public educative rehabilitation centres, where waiting-lists are endless

This tendency can also be related to the general notion of Greeks as regards the efficiency and effectiveness of public special institutions and services in Greece. The mainstream opinion seems to be influenced by the general view on the functioning of the Greek State. **"Indeed these services and centres cannot be efficient since, in Greece, no section is covered satisfactory"** and *"they cannot function properly since the State undertakes nothing in the area of disability; the State is inactive, it is not sensitised; things are better abroad"* (Kottaridi et al., 2000: 39).

Furthermore, evident problems occur, as far as **children's 'categorising'** is regarded in Greece. If children wD do not 'fit' into the target group of the public special services, there is no other way, than to send them to private special schools, if parents' finances allow them to do so. *"Unfortunately, even here in Athens, one prohibition followed the next one. No (public) school would accept an autistic child. There exists no specialized frame for his impairment"* (Παναγοπούλου, 2003: 120).

The story of the mother of another autistic child describes her own experience of this disappointing situation as follows: *"Our son attended four classes in a normal school and reaching puberty, problems began to grow. We were asked to take him, as they did not have any specialized section for cases like his. Since then, our roaming started in order to find a specialised school. But none does exist and those schools existing would not keep him, as he was too restless. Our trial and sadness were enormous. During some periods of time and with great difficulties he could attend private schools – but the only thing they did was to pick him up from the street, without offering him the according help he needed"* (quoted in Παναγοπούλου, 2003: 132).

## 7.5 VOCATIONAL TRAINING PROGRAMMES FOR PWD IN GREECE

In Greece, programmes usually focus on medical aspects of disability, sometimes even with unrealistic goals. All other needs, such as psychological, recreational, vocational and social programmes, are most often disregarded (Kottaridi et al., 2000). Another pitfall of these processes is that the **emphasis lies on training and not on integrating the 'user' into the labour market** (Tsiganou, 1999). The 'job finding' task is neglected and again, effective integration is dependent on director's or teacher's initiatives and good will. The wider sensitization and the establishing of connections to and the cooperation with shops or offices lies exclusively in their hands. Otherwise, there exists almost no possibility to find work places for trained PwD after having successfully fulfilled their vocational programme. The Greek Ministry of Interior, Public Administration and Decentralisation notes, that there do exist programmes for unemployed PwD that fight social exclusion from the labour market (Υν.Εσ. 2000), but they are rare and few.

Although the **quality** of training provision in Greece has improved lately, it **still remains far behind the desired levels of effectiveness**. An important change in the general ideology and the administrative and lay mentality on the issue has to be accomplished. Innovative



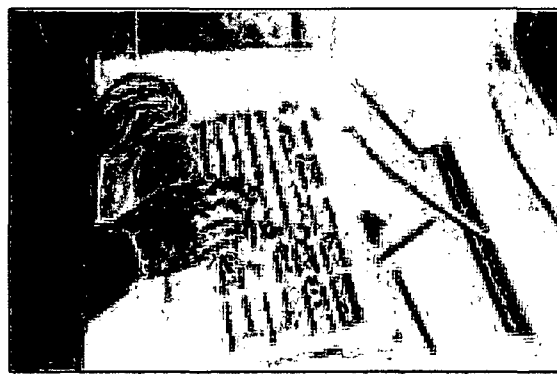
practices are scarce. However, a quality rise of standard forms of provision has been managed. During the past years, training has been looked at as a source for profit. At present, it seems to be understood as an urgent need (Tsiganou, 1999). Administrative departments of the state sector, which have regional or district offices, are forced to outreach services. So, for instance, PwD who live in Greek rural areas may apply to existing local employment services in order to receive vocational training (Int. Labour Conf., 1998: 47). Again, the problem primarily is their lack of information.

In the user's view, **training programmes are not well fitted to the Greek local labour market demands.** Vocational training is characterised by minimal choices and bad quality. Programme users stressed that they liked the practical angle of training and disliked the theoretical courses (Tsiganou, 1999). This can easily be understood, as programmes most often offer only courses for old-fashioned jobs (*fig. 7-11*), such as carpentry, machine knitting, shoe-making, cutting – sewing, goldsmithery, florist, etc. This can be partly related to the lack of required machines for teaching other professions. PwD having been specialised in more modern jobs such as computer science, bookbinding - printing, technical drawing, etc. are disappointingly few, as such programmes occupy only small numbers of pupils wD.



*Fig. 7-11: Many vocational programmes in Greece train for old-fashioned jobs, like weaving*

Besides this, in Greece, most vocational programme's **main focus is set on occupying the trainee for the specific duration of the programme** (from 3 to 8 months). Afterwards, help is seldom offered in the job finding task, as the Greek labour market is not ready to accept PwD, yet. Therefore, only little cooperation with local labour markets has been mentioned. However, PwD having learned one of the more up-to-date occupations (*fig. 7-12*) seem to be finding a paid job more easily.



*Fig. 7-12: Skills in newer jobs facilitate PwD's integration into the labour market*

In addition, **vocational programmes obviously focus only on a small group of persons**, excluding an important number of PwD that are living in Greece. According to

Amera (1999), vocational training initiatives have to expand and include besides the today's known disabilities, persons suffering from: poliomyelitis, the Hansen syndrome, hemiplegia, nephropathy, bed-riding or psychotic impairments, autism, Mediterranean anaemia or chronic corporal injuries, even from alcohol, drugs and AIDS.

But the **major problem lies in the educational level of PwD in Greece**. According to Eurostat (1995) the educational level of PwD in Greece a decade ago was as follows (*fig. 7-13*): 25,4% are illiterate, 59,5% graduated from primary education, only 5,7% have a secondary education graduation diploma and 3,4 % have a tertiary education diploma. In addition, an important differentiation as regards the educational level between male and female can be noticed (Κυριαζοπούλου, 2003: 58). Unfortunately, no significant changes seem to have taken place during the last decade.

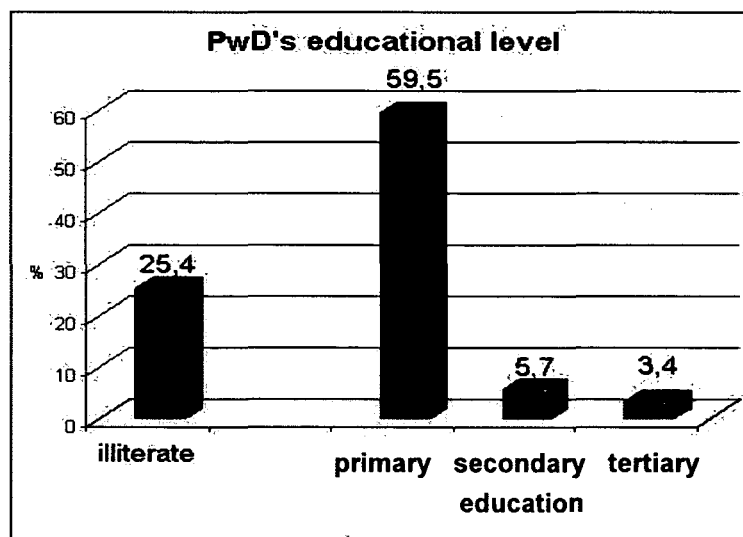


Fig. 7-13: Educational level of PwD living in Greece

In conclusion, vocational training programmes in Greece, as for instance computer training, attract only a small target group, as the majority of PwD do only possess the most basic knowledge and education, making them less competitive and not enough qualified. This fact makes supportive regulations and policies, like the following one, rather ineffective. The Greek Employment Service (OAEΔ), for instance, decided that 10% of all persons being educated in its specialized and continuing training programmes are to be PwD. Such initiatives remain on paper, as most of PwD living in Greece do not fulfill the preconditioned skills in order to subscribe to any of these vocational training programmes. But even if PwD obtained the required educational levels for such vocational programmes, hindrances are to be found, e.g. in the number of properly equipped Centers for Specialized Vocational Training ('KEK' – Κέντρο Ειδικευμένης κατάρτισης). Αθανασοπούλου (2003) claims, that only three special 'KEK's do exist for persons with visual and/or hearing impairments in Greece (in Athens, Thessalonica and Larissa), making effective training of all these persons rather impossible!

<b>8 SITUATIONS OF EMPLOYMENT AND UNEMPLOYMENT FOR PWD</b>
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<b>8.1 PWD AND UNEMPLOYMENT .....</b>	<b>76</b>
<b>8.2 EMPLOYED PWD .....</b>	<b>77</b>
<b>8.3 EMPLOYMENT FACILITATIONS FOR PWD IN GREECE.....</b>	<b>80</b>

ABBREVIATIONS:

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

## 8.1 PWD AND UNEMPLOYMENT

The experience of disadvantaged groups at pan-European level (such as young people leaving statutory care, people with mental health problems, visually impaired persons and offenders) shows, that **PwD are over-represented among the unemployed**. Besides this, they experience a few or several forms of disadvantage and marginalisation, which directly affect their employability. Moreover, they often expect to be perceived in a negative way by employers. Even more often, PwD relate their life experiences to all their problems, but rarely, if ever, to their attributes and abilities (Tsiganou, 1999).

But PwD's marginalisation from workplace often has little to do with their impairment. It is more likely to be **spatial exclusion**, e.g. building entrances with steps (*fig. 8-1*), staircases without railings and without elevators, tactile orientation markings suddenly ending at permanent barriers (*fig. 8-2*), obstacles on pavements, etc. In addition, the normality standard remains 'full employment', which often is impossible to be taken over from the side of PwD. It is questionable, why this remains the precondition and social and/or labour market policies are still oriented towards this unmatching standard, as reality in the labour market is different (Vobruba, 1998).



Fig. 8-1: Step at the entrance to the 'Integrationsstelle' in Vienna (1<sup>st</sup> district)



Fig. 8-2: Tactile orientation marking ending at an Athenian kiosk (city centre)!

However, another important barrier to PwD's employment remains the 'attitude' of society and employers. **Prejudices and ignorance** as regards what disability is or what reasons provoke disability continue to rule nowadays. Thus, disability is identified with disqualification. "What is needed is training in how discrimination against disabled people can be prevented or dismantled by employers, organisations and unions and how disabled people are affected by discriminatory practices" (French, 1996: 122).

According to European Community reports, unemployment worsens the distribution of income and leads to new patterns of poverty (Ketsejopoulou et al., 1999). It seems, that in Greece the recent socio-economic (national and international) developments triggered off concerns primarily on issues of social policy, secondly on questions of politics and thirdly on issues of access to material deprivation, due to their dependence to mechanisms of the social security system. The **main determinant of poverty and deprivation seems to be the lack of adequate education**. The main target groups include PwD, who are excluded from processes of labour market inclusion due to physical disability, as well as the aged, who live at society margins (Tsiganou, 1999).

Undoubtedly, it is first and foremost the population group of PwD that is exposed to the danger of poverty and of social exclusion. Studies (ΕΣΑΑ 2000: 2) show that:

- the average family income is fairly lower in households having a member with disability;
- there is a **clear correlation between the grade of disability and the grade of poverty and social exclusion** primarily due to unemployment;
- women with disability are more often victims of poverty and social exclusion;
- people with disability living in institutions normally do not face the danger of poverty, but they experience an extreme social exclusion, meaning enclosure.

But, the 37 mio PwD in the European Community desperately want to see improvements in their job opportunities. **PwD are two to three times more likely to be unemployed than non-disabled** (EDF, 2000). Today, in Greece, without having any exact numbers, it is assumed that 60-65% of men wD and 85-90% of women wD are unemployed. This difference lies not only in Greek society's attitude, (surveys show that 45% of the population is tolerant), but also in the existing legislation and images transmitted by the mass media (Σταυριανόπουλος, 2003).

## 8.2 EMPLOYED PWD

**"PwD who work, loose the definition of 'being a disability', they become... the partner who lives with her/his impairment"** (Σταυριανόπουλος, 2003: 17). The contribution that PwD can make as employees is evident and has to be recognised (*fig. 8-3*). Nevertheless, their employment is not put on the same level as that of other employees. Employment policies have to integrate measures providing adequate social protection for PwD, the development of enterprises and the improvement of adaptation possibilities for companies and employers (EDF, 2000).



Fig. 8-3: PwD working as gardeners

The myth of meritocracy is based on **western conceptions of justice**. The generally held view is that (work-related) positions should be awarded to the most qualified person. Job vacancies are supposed to be filled in a fair, value-neutral way according to the appropriate and technical skills, the applicant needs to fulfil. Yet, separating values and cultural conditions form all decisions, which are made about who should be allocated particular jobs and/or goods or services. PwD are the poorest in western societies being discriminated against by employers precisely because of their perceived bodily incapacities (Imrie, 1996).

Today's living forces of global integration and continuous technical change have placed education and training on the first step in the competitive process. On the one side, **employers are immune to disadvantage and they dislike to lower expectations**, which may be incited by employing a PwD. On the other side, trainees or PwD when employed, feel that they are professionally exploited and claim that employers hold discriminatory stance. They generally do not feel that they are getting the support they need. PwD are more likely to be underpaid and not protected by social insurance schemes. They are less likely to possess salary gains, assets in the form of savings, personal possessions and costumer durables (Tsiganou, 1999).

Some other reasons revealing **difficulties PwD face in the labour market situation** (fig. 8-4) are (Hostasch, 1998: 14):

- vocational training of PwD is generally worse then that of other future employees,
- existing qualifications of PwD comply less and less with the market demands,
- PwD dominate as long-term unemployed individuals, a fact, which reduces chances to get re-employed,
- unemployed PwD often belong to branches that are in economic crises.

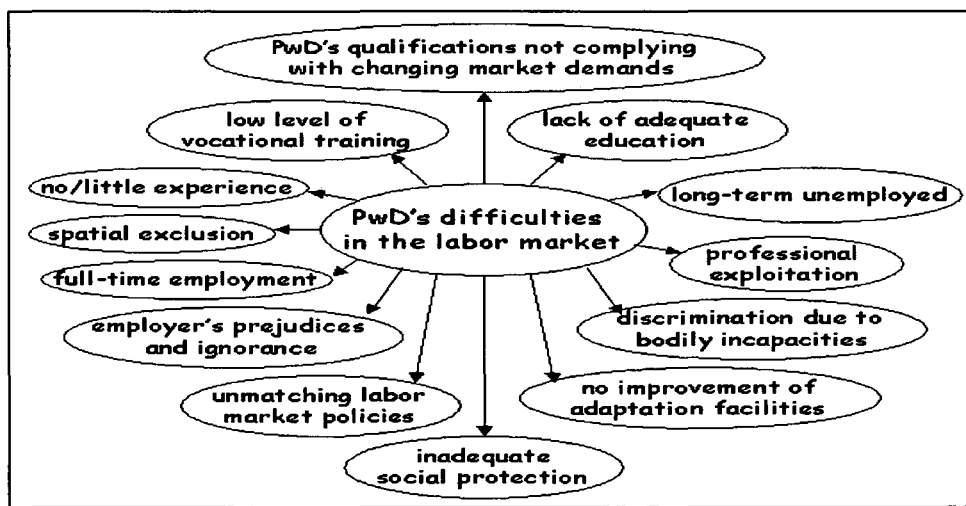


Fig. 8-4: Scheme showing difficulties, which PwD face in the labour market and the main reasons for their unemployment

In conclusion, even PwD, who are employed, are more endangered from unemployment than non-disabled employees.

However, PwD not only can work, but they want to. During the last years, the labor market has changed its shape enormously requiring mobility, flexibility and the use of new technologies. The **development of information and communication technologies (ICT)** also has massive consequences for PwD (*fig. 8-5*). On the one hand, it is new technologies that open multiple possibilities for improving the employment situation for PwD by introducing new working methods and opening up new employment branches (Clotuche, 1998). For instance, the development of new ICT provides the possibility for PwD to work at home. Tele-working already starts to make its way through in Europe. For PwD, on the one side this possibility opens new integrative perspectives in the production process as barriers such as physical obstacles, transport, etc. are erased, on the other side isolation will rise even more.



*Fig. 8-5: Communication and information technologies introduce new working methods, like tele-working, which could improve PwD's employment situation*

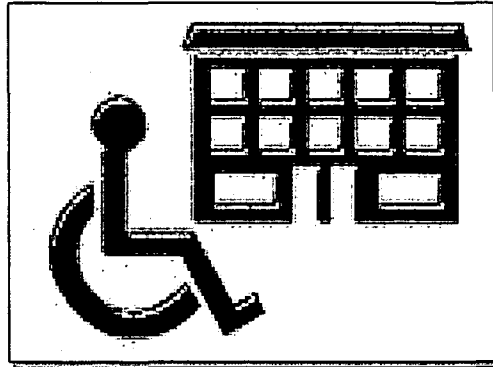
However, there also rises a looming **danger of inequality**. New skills are necessary for using any means of communication and information technologies, the Internet, etc. And these abilities are not equally distributed. Older people, the less well educated ones or those with a lower income do not have access to a computer and/or the internet (digital divide) which makes new possibilities based on new technologies almost worthless. Thus, they are more probable to get excluded from all benefits that this knowledge and technology could provide (Einem, 1998).

In some countries policies on equality of opportunity, vocational rehabilitation and treatment in employment of PwD are formulated through **national plans and programmemes**. Some governments state that they have set up permanent bodies to hold consultations with the representative organizations of employers and workers. In Greece, the Government refers to tripartite departmental committees, where a representative of organizations of PwD replaces the workers' representative when matters affecting the interests of PwD are discussed. The training and availability of qualified staff in public and private services are the responsibilities of the public authorities. For example, in Greece, an increasing number of specialists practise in offices set up within the Greek Employment Service (OAEA) (Int. Labour Conf., 1998).

### 8.3 EMPLOYMENT FACILITATIONS FOR PWD IN GREECE

"The main objective of promoting employment opportunities for PwD in the open labour market is to provide the legal and organizational framework that will guarantee the right of PwD to compete for jobs on an equal footing with other citizens. Generally, **the machinery needed to allow PwD to obtain an income-generating activity can be envisaged and established only if financial support is provided for the purpose**" (Int. Labour Conf., 1998: 65).

In Greece, **financial assistance for employers** is possible in many ways, direct or indirect. For instance, pursuant to Decision No.34166 of 28. Jan. 1993 of the Secretary General of the Ministry of Labour, a PwD may receive a subsidy up to €1760 to start with an enterprise in the manufacturing sector and €1465 in the services and commerce sector. Employers, who are willing to employ a PwD can apply for subventions in order to adapt working places (*fig. 8-6*), e.g. with a ramp, a WC for wheelchair users, a working bench, etc.. The amounts for every ergonomic arrangement in the working space that is decided to be necessary can cover up to 90% of the total costs of such facilitations, however not exceeding €2400 (Αθανασοπούλου, 2003: 76).



*Fig. 8-6: Employers can apply for subventions in order to adapt the building and to undertake ergonomic arrangements at a PwD's working place*

Furthermore, in many countries **subsidies are paid to supplement PwD's wages or employers may be awarded of credits or tax reductions**. In Greece, the OΑΕΔ programme for PwD (2000) foresees the following regulations. Employers can receive a grant of €22 per day for contracts with PwD of indefinite time of full work for the duration of 36 months. In the case of contracts of indefinite time of part time work the grant for employers is €12 per day. In both cases, the employer has to engage the PwD for another 12 months, without receiving any grants. As far as contracts of limited time of full work are regarded, grants for employers are €22 per day. The employee has to be hired between 4 and 9 months. In all cases, the first three months are considered to be the adaptation period for the employed PwD. The employer has to engage the employee within this period of time and to guarantee her/his soft integration into the production procedure. The employer may receive €300 in addition to the daily grant for this adaptation period (Αθανασοπούλου, 2003: 75).

But, even such legislative steps do not really improve PwD's employment situation. One of the measures carried out by a number of countries intending to protect PwD against discrimination are **quota schemes**. This means, that enterprises above a certain size are obliged to hire PwD as a specified percentage of their workforce. The ratios employers are required to meet vary from country to country: 4% in Austria, 5% in Greece, 6% in Germany.



So does the size of the enterprises covered by the relevant legislation. For instance, in Germany, public and private sector employers with at least 16 employees are subject to the quota requirement (Int. Labour Conf., 1998). Most often, failure to fulfil the quota is penalised by fines (e.g. in Austria and Germany). Only too often employers prefer to pay a monthly 'fine' of €250 (in Germany), rather than to employ a PwD (Holzer et al., 1999).

The European Community initiative 'Horizon' (fig. 8-7) supports prototypes aiming at the integration of PwD in the labour market. These programmes include vocational training and orientation, especially in new technologies. Besides this, the adaptation for guaranteed access to jobs, to public buildings and to means of public transport are elements that are looked after. One such initiative is the Argyroupoli's Programme in Attica. Among its activities for PwD there are included: vocational orientation, professional education, supportive aid in finding jobs, creation of self-employment and workshops (Kavounidis, 1999).

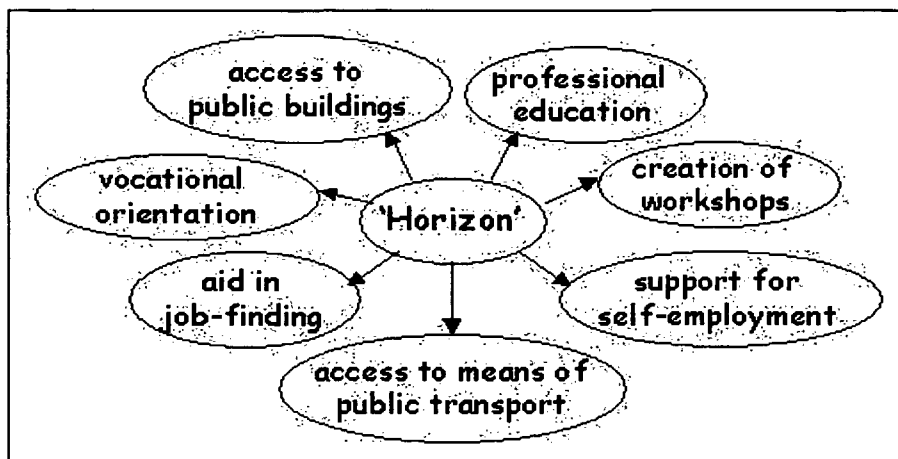


Fig. 8-7: Scheme showing major aims and supportive measures of the European Community programme 'Horizon' for the integration of PwD into the labour market

From time to time, **certain legislations appear in Greece facilitating PwD's employment.** Future employees are prepared in certain specific phases, such as vocational training and formation, psychological support, special services, etc. Unfortunately, these legislations are too often violated and exploited by people not belonging to the group of PwD. In conclusion, these measures cannot be understood as a radical intervention or improvement (Ketsejopoulou et al., 1999).

Greece has adopted some legislation providing the **compulsory employment of PwD.** In accordance with Act No.1648 of 1986 by the Ministry of Labour Committees, which enforces the compulsory engagement of PwD all over the country, employment was found for 3,168 PwD in the private and public sectors between 1987 and 1992 (Int. Labour Conf., 1998). Furthermore, in money institutions, social benefit organizations and carriers of the public sector supplementary obligations are foreseen. For instance, they are forced to hire blind telephone operators with a percentage of 80% and PwD with a percentage of 20. Priority is

defined by an objective system (point system). Hiring is compulsory for the employer and dismissal, as well as replacement, has to be approved by a special committee of the OAEΔ (Ματθαίου, 2003).

The percentage of **PwD's employment in Europe reaches 27%, in Greece only 17%** (Ισοτιμία, issue 53). As has been observed, in other European countries an eagerness of employers can be noted, in accepting to offer jobs for instance to students wD, as well as in financially supporting consultative centers for students wD. Most probably the sensitization degree in favor of PwD is higher (Σιδηροπούλου-Δημακάκου, 2003).

Besides these numbers, **no detailed indexes are available for Greece**, for instance relying on criteria like occupation-ability. No exact data is available concerning the number of employed PwD, neither their expertise. In consequence, nothing can be said about the possibilities and the effectiveness of vocational training and employment strategies for PwD in Greece (Ketsejopoulou et al., 1999).

## **9 PRM AND PWD PRESENTED IN THE MASS MEDIA**

<b>9.1</b>	<b>THE ROLE OF THE FOURTH POWER.....</b>	<b>84</b>
<b>9.2</b>	<b>PRESENTED ATTITUDE AND IMAGES OF PWD IN THE MASS MEDIA.....</b>	<b>85</b>
<b>9.3</b>	<b>PWD PRESENTED ON THE BIG SCREEN .....</b>	<b>87</b>
9.3.1	MENTAL IMPAIRMENTS PRESENTED IN FILMS .....	88
9.3.2	VISUAL IMPAIRMENTS PRESENTED IN FILMS.....	90
9.3.3	SPEECH AND HEARING IMPAIRMENTS PRESENTED IN FILMS.....	91
9.3.4	MOBILITY IMPAIRMENTS PRESENTED IN FILMS.....	92
<b>9.4</b>	<b>SOME CONCLUSIVE REMARKS .....</b>	<b>95</b>

### ABBREVIATIONS:

PRM:	Person / People with reduced mobility
PwD:	Person / People with disability
UA:	Universal Access
UD:	Universal Design
wD:	with disability

## 9.1 THE ROLE OF THE FOURTH POWER

Over the last years, the mass media have been trying to inform the public about the existing conditions PwD have to live with, their problems and the problems they are confronted with in society. However, **no detailed way has been chosen to monitor incidences or situations**. Of course, the mass media claim to present all components of reality. Nevertheless, the phenomenon of people living cut off from society or of people that are endangered to get excluded from society seems to be of little interest for reporters and responsables in the news broadcast. This seems especially important today, as an enormous part of information and knowledge is transmitted by mass media and in particular by television news reports.

The limited time of news reports and the nature of television forces producers to choose topics by very strict criteria. As a result, an indicative daily agenda is drawn up relying on news from the social, economic and political world, that seem most significant. **Disadvantaged groups are rarely projected in news reports**. Their disadvantaged positions within the economic, political and social world are not listed among the top interesting and very important issues to be presented.

Studies show that the main news reports in Greek television channels contain few reports on people or groups living excluded from society or tend to get excluded. Two cases of interest for the mass media can be distinguished. First, frequently it is only **collective action** (fig. 9-1) that brings up the issue. So, disadvantaged groups are approached, when they happen to protest or participate in public manifestations, demonstrations, hunger strikes or detentions. Second, the mass media tend to present **PwD either as objects of interest to police or juridical authorities or as extreme cases of poverty, deprivation and violation of citizens' basic rights** (Παϊδούση, 1997).



Fig. 9-1: PwD's collective actions, e.g. manifestations, are one of the issues the mass media are interested in

In detail, studies examining topics shown during news reports on the Greek television prove, that only few references are made to chronically or mentally ill patients. In total, no references at all were noticed to any of the following excluded groups: long-term unemployed, aged people with low pensions, PwD. (Παϊδούση, 1997).

Some note however, that lately the **situation seems to be changing in Greek television**. Exclusion has excited the interest of mass media and thus has provoked reactions. This happens mainly due to the sudden 'visibility' of children belonging to disadvantaged groups of society, that do not attend school (Τρέσσου, 1997). Furthermore, activities such as television presentation of books written by PwD can be noticed. From time to time, special services for children wD try to inform the public about their existence and programmes through broadcasting.

However, opinions exist that support the idea that it is the mass media's role to inform the public through an intensive **campaign** including congresses, symposiums and seminars, in order to sensitise all responsible services (Μπενάκη-Πολυδώρου, 1993). An important start was made in 2003 during the 'European Year for People with Disabilities' (fig. 9-2), where the information campaign in Greece included spots on radio and television network aiming at the sensitization of the public at large.



Fig. 9-2: Logo of the European Community information campaign in 2003 'Get on board!'

## 9.2 PRESENTED ATTITUDE AND IMAGES OF PwD IN THE MASS MEDIA

The communication system creates certain images and reproductions of individuals and groups. According to the degree of presenting different opinions, of supporting the presence and participation of PwD, etc., the interference of **the mass media spreads discourses, myth-made stories and illustrations** (Δαρεμάς, 1997). In the way media newscasters intervene certain attitudes and images are produced or reproduced.

1981 was announced 'International Year of the Handicapped' by the United Nations Organization. This fact played an important role in the attempt to sensitize the public as far as matters concerning PwD are regarded. But, besides all efforts made, the image and the negative attitude of non-disabled are up-hold. Most journalists continue to **present the PRM and foremost PwD as a "lonely, poor and tortured person"** (Ζώνιου-Σιδέρη, 1998: 61).

This existing behaviour is the achievement of news reports that do not keep to neutral descriptions of facts, but are always combined with a direct or indirect evaluation of the topic. The result is a perpetuation and reproduction of exclusion, as **exclusion is attributed to coincidental factors or to some temporary malfunctions of the social system (fig. 9-3)**. The ruling opinion of society and the official position are systematically elevated. In conclusion, a continuous concealment of every speech of socially disadvantaged individuals is achieved. "The way excluded people are being presented is transformed into a speech, which indirectly justifies social exclusion, as a result of personal characteristics and opinions" (Παϊδούση, 1997: 747).

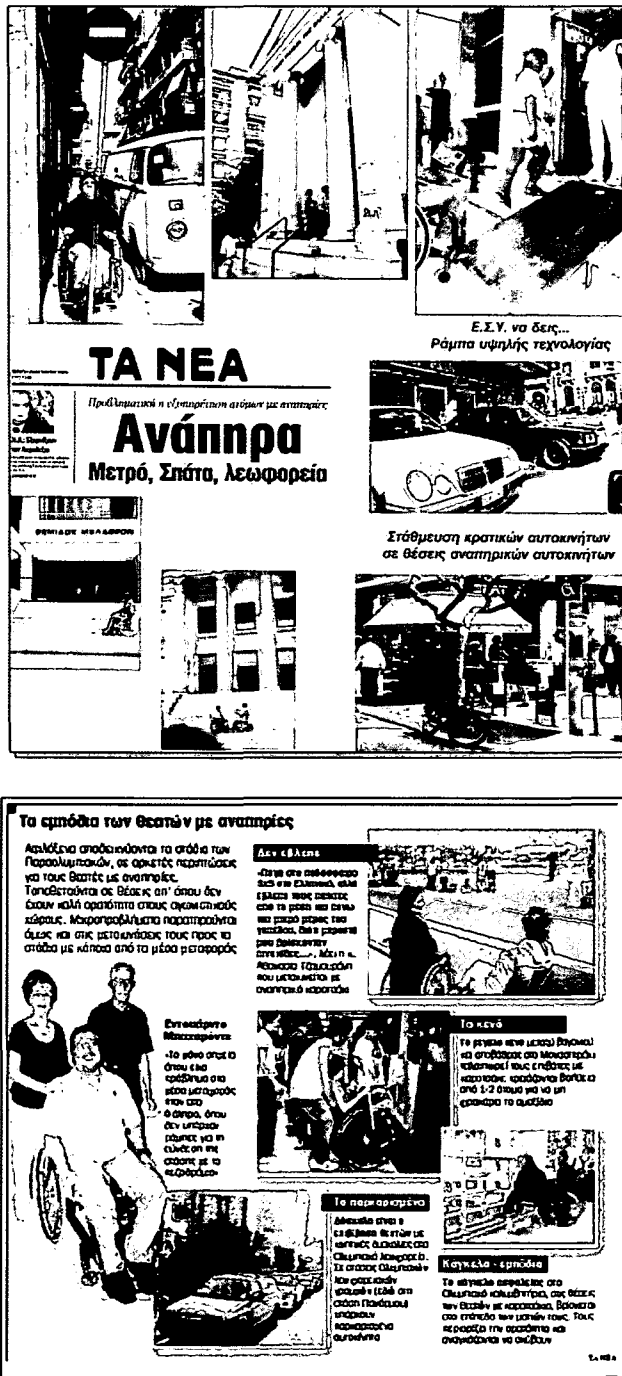


Fig. 9-3: Pictures of Greek newspaper reports on matters regarding PwD

In television, for instance, PwD are stigmatized by the dominance of able-bodied values. Degradation and dehumanization end up in presenting them as "not quite normal, dull, impotent, selfish, defensive and uncultured" (Imrie, 1996: 9). In general, (Greek) journalists cannot overcome their **glossary of compassion**. They forget the role society plays or darken the real problems of PwD. Seldom journalists link personal problems of a PwD with its roots in society. Of course there do exist some positive examples, but they are rare and few (Ζώνιου-Σιδέρη, 1998).

In Greek news reports, **shocking scenes or emotional stories** are shown almost exclusively in festive programmes at Christmas and Easter. This attempt to create a spectacle or a drama, aims at a personification of all spectators, as well as at a general but nebulous hunt to find reasons and responsibilities. The projected images either provoke tears or show misery, but never show achievements, possibilities or abilities of PwD. Thus, "the myth of the non-productive person, the pariah of society, is maintained" (Σταυριανόπουλος, 2003: 18). In conclusion, Greek society continues to be trained to disregard negative attitudes.

### **9.3 PWD PRESENTED ON THE BIG SCREEN**

As mentioned in previous paragraphs (*chapter 4.2 and 6.1*), mythology and old traditional habits already mark pejorative images of PwD. Likewise, literature reinforces excluding views with fairy tales showing PwD as afflicted and evil. But it is **in films and movies that discriminating and able-bodied views are transmitted in the most 'effective' way**. From the 80's onwards, there seems to be a cinema fascination in bringing stories of or with PwD on the big screen. Spectators get impressed with images and plots, feel pity for PwD, while unconscious fixed boundaries and delimited interpretations get forwarded. The status quo is seldom examined and facts are accepted in the way they are presented on screen aiming primarily at creating feelings of compassion and sympathy or of horror towards the characters performing a PwD.

But it is also films portraying physical deformed characters that represent society's discriminating attitudes in an outstanding way. For instance, there is the movie "**Elephant Man**" (1980, USA, director: David Lynch), where Merrick is assumed to be retarded as well as mis-shaped, only because of his inability to speak coherently. Society's horror is clearly expressed: "**He's not contagious, is he?**".

The list of films dealing with PwD or presenting PwD's lives is quite long. In the following, a small sample of rather recent movies is discussed, trying to cover a variety of films and several ways of presenting stories with or of PwD on the big screen.

### 9.3.1 MENTAL IMPAIRMENTS PRESENTED IN FILMS

There is a plethora of movies dealing with human's mental impairments. The variety of illnesses is either treated with a dramatic point of view, or with a funny comedy-unison "**pretending that mental disturbances are the same as ineptitude**" ([www.allmovie](http://www.allmovie)). Of course little reference to the built environment is made, but these films represent a perfect platform reflecting society's attitudes and general notions towards PwD, existing prejudices and surviving inequality.

One of the best known movies portraying the story of a mentally challenged person most probably is: "**Rain Man**" (1988, USA), directed by Barry Levinson, starring Dustin Hoffman, Tom Cruise, Valeria Golino, Jerry Molen and others. This movie tells the story of Charlie Babbitt, a L.A. car dealer that goes home to the Midwest for his father's funeral. There he learns not only that he has been out of his inheritance, but also that he has a grown brother called Raymond. He's an autistic savant who has been kept in the Wallbrook institution near Cincinnati for most of his life. Charlie kidnaps him and hopes to get hold of some of the \$3 mio that their father has left in trust for Raymond's care.

However, Charlie's first reaction towards his autistic brother reveals the general notion of society. He asks the doctor: "*Is he crazy? Retarded? Can he hear us?*". This notion is also exclaimed by his girl friend, which during a fight shouts: "*You're crazy! It's in the family!*" Raymond's high functioning abilities are portrayed in being capable to memorize reams of trivia and add, subtract, multiply and divide without a second's hesitation. Besides this, Raymond is incapable of functioning and communicating as other human beings. While kidnapping Raymond, Charlie is forced to accommodate all his various autistic idiosyncrasies, not the least of which is his insistence on adhering to a rigid daily schedule, no matter what. While sitting in a café, Charlie is whispering trying to avoid attracting the attention of the surrounding. In some situations, he orders Raymond: "*Stop being an idiot!*" or "*Why do you always have to act like an idiot?*"

The story and its effects are based on the confrontation of two different characters, while **trying to make the audience favour for the helpless manners of the autistic guy**. This movie clearly evokes compassion for Raymond, who's always dressed in trousers and clothes being too short for him, staying in total contrast to the often cruel, abrupt and impatient behaviour of his brother Charlie.

Some other well-known films portraying mental impairments and their impact on society are "**Benny & Joon**" (1993, USA, director: Jeremiah S. Chechik, cast: Johnny Depp, Mary Stuart Masterson, Aidan Quinn, Julianne Moore, Oliver Platt and others) or "**The other sister**" (1999, USA, director: Gary Marshall, cast: Juliette Lewis, Diane Keaton, Tom Skeritt, Giovanni Ribisi, Poppy Montgomery and others). These two stories deal with two slightly mentally challenged young couples in a rather **fairy-like** way. The films present parents, being ill equipped to deal with the mental impairments of their child, either due to guilt or due to over-protectiveness, especially when their children seem to fall in love.





Carla's mother talks to her in an extremely childish way saying rather often: "Good girl!" to her and almost always feeling uncomfortable with Carla's presence: "She's humiliating me!" or "You disturb the others!" or "We would like to apologize for this inconvenience, but you know how children are!". The house-dealer represents the wider attitude of society, not really liking the idea of lodging a person with mental impairments, as (referring to the neighbourhood): **"They do not like people 'like' her"**.

However, in both films in the end, the young persons find a way to turn to each other, to earn their living finding and maintaining a job and to stay together to face a world of adult opportunities and responsibilities. No reference to the real world can be found in these two tales. These films are "a trifle evasive in their **suggestion that a form of mental illness that sounds like schizophrenia can be cured by love...**" (Costello) or independence.

There are many more movies having mentally challenged or disturbed persons as topic. The list of films portraying such impairments and their impacts is very long, only to mention a few more by name:

- The Snake Pit (1948, USA, director: Anatole Litvak)
- David and Lisa (1962, USA, director: Frank Perry)
- Shock Corridor (1963, USA, director: Samuel Fuller)
- The Caretakers (1963, USA, director: Hall Barlett)
- Larry (1974, USA, director: William A. Graham)
- Tim (1979, AUS, director: Michael Pate)
- Amos (1985, USA, director: Michael Tuchner)
- Promise (1986, USA, director: Glenn Jordan)
- Dominick and Eugene (1988, USA, director: Robert M. Young)
- Bonds of love (1992, USA, director: Larry Ellikan)
- Family Pictures (1993, USA, director: Philip Saville)
- Picnic (1994, J, director: Shunji Iwai)
- Angel Baby (1995, AUS, director: Michael Rymer)
- Shine (1996, AUS/UK, director: Scott Hicks)
- Le huitième jour (1996, F/B/UK, director: Jaco van Dormael)
- Molly (1999, USA, director: John Dingan)
- Pauline et Paulette (2001, F/B, director: Lieven Debrauwer)
- I am Sam (2001, USA, director: Jessie Nelson)
- Manic (2001, USA, director: Jordan Melamed)
- and many more.

### 9.3.2 VISUAL IMPAIRMENTS PRESENTED IN FILMS

Fewer films have been made on visual or hearing impairments. Most probably, the best-known movie dealing with a blind person is *"Scent of a Woman"* (1992, USA), directed by Martin Brest and starring Al Pacino, Chris O'Donnell, James Rebhorn, Gabrielle Anwar and others. This film tells the story of Charlie Simms, a timid student, who, by taking care of a blind homebound, Frank Slade, on the weekend of Thanksgiving, earns the much-needed money. The blind man turns out to be a crusty, irritable, foul-mouthed and hard-drinking veteran army colonel that has his own agenda including a weekend fling in New York City.

Even though the **story is barely believable** and quite predictable, some characteristic situations of a PwD are portrayed. First of all, Slade walks around with a black cane, although canes used by blind people are usually white! He never wants to be touched when moving around and exclamations as the following ones are heard during the movie: *"Are you blind? Why do you grab my arm?"* or: *"This bat has got sharper radar than you've noticed!"*. But on the screen, he is always guided when moving around – either with the exclusive help of Simms or with the supplementary help of his cane. Only once he is captured walking by himself and this is the moment he bumps into an elevator door! This little detail reveals the full dependence of this blind person on someone guiding him. The whole story is based on this dependence, so there is no concern expressed regarding possible autonomy. Even in his very own apartment, Slade seems to have some problems when standing up and moving to the kitchen or to the front door.

Although the blind man is portrayed as a person always trying to attract everyone's attention, partly due to his over-human abilities, as he's a perfect tango-dancer, a splendid driver and the person, that in the end saves Charlie's life, he is going through a major crisis. In fact, he wants to commit suicide. *"I'm rotten. I got no life. I'm in the dark here. You understand?"* But his change of mind makes **him the hero in the end of the story putting PwD into the cliché of persons with over-human and heroic characteristics and outstanding abilities.**

The picture *"Ice Castles"* (1979, USA, director: Donald Wyre) shows some quite similar treaties. In this story, Alexis, a talented ice-skating girl is blinded by an accident, but nevertheless manages to win the major competition. Besides the parallel of Alexis becoming the hero in the end, she is **always guided when moving around and her dependency on another person remains in the foreground of this story,** as well.

There are quite a few more movies dealing with characters with visual impairments, such as:

- City lights (1931, USA, director: Charles Chaplin)
- The miracle worker (1962, USA, director: Arthur Penn)
- Butterflies are free (1972, USA, director: Milton Katselas)
- Love's dark ride (1978, USA, director: Delbert Mann)
- If you could see what I hear (1982, CAN, director: Eric Till)
- Mask (1985, USA, director: Peter Bogdanovich)



- Multi-handicapped (1986, USA, director: Frederick Wiseman)
- Proof (1991, AUS, director: Jocelyn Moorhouse)
- Wild hearts can't be broken (1991, USA, director: Steven Miner)
- The seventh sense (1999, USA, director: -)
- At first sight (2000, USA, Irwin Winkler)
- Dancer in the dark (2000, DK/F/S, director: Lars van Trier)
- Dogville (2003, DK, director: Lars van Trier)
- and many more.

### 9.3.3 SPEECH AND HEARING IMPAIRMENTS PRESENTED IN FILMS

A movie revealing difficulties of, discrimination against and efforts of a deaf person is the one based on Mark Medoff's play: **"Children of a lesser God"** (1986, USA), directed by Randa Haines and starring Marlee Matlin, William Hurt, Philip Bosco, Piper Laurie and others. The film shows the efforts of a speech teacher, Mr. Leeds, in a small New England school for deaf children, who falls for a beautiful, yet distant deaf girl, Sarah. She is a brilliant student that denies learning to speak.

Although the aim of the film is to portray the obstacles that the two leading characters face due to their differences, both **personalities seem to be extraordinary**. On the one side there is Leeds, the teacher with his unconventional approach to education trying to teach the students to feel the vibrations of music and to get them to try to speak phonetically. On the other side, there is Sarah, an exceptionally intelligent yet extremely bitter young woman that is afraid to face what she perceives as a cruel and uncaring world. As she was sexually molested as a teenager, she is afraid of every new relationship and prefers to stay withdrawn from society in the safe surrounding of her former school. Eventually, James does get through to Sarah and the two fall in love, although both have to learn new ways to communicate their feelings.

Society's attitudes find their way throughout the movie. There is **Sarah's father, who could not accept her deafness as he felt he had failed**. There is the school director that only sees the aim of his work in: *"It is us who educated her. Now, Sarah is productive. She pays taxes."* And finally, there is Sarah, a very strong character, opposing herself to undergo society's wish to communicate through speech. Leeds is vocalising all their sign language throughout the whole movie, often unnecessarily, as certain signs can easily be understood within the general context of the movie.

Sarah represents **the stubborn PwD, the one that does not want to submit to society's beliefs and understandings**. She wants people that wish to communicate with her to understand sign language. Furthermore, Sarah's idol, a deaf woman having studied and earning her own living, represents society's ideals. Clearly, this movie shows that Sarah would have no future, if there were not James who cares about her – once more the immediate dependence of a PwD is represented on the screen.



Totally different is the notion of the Greek film: "**Λόγια της Σιωπής**" (Words of Silence – 2002, GR) directed by Lukia Rikaki (Λουκία Ρικάκη). It is a documentary about sign language and reveals the present situation of mute and deaf people living in Greece. Testimonies mention the fact that the **lack of speech is often treated like an illness and in conclusion, most persons deal with this impairment with pity or react shocked**, when e.g. they see deaf people riding motorcycles on the street. Some of them reveal that society combines muteness with deafness and deaf-mute-ness with idiocy. They also refer to cases, where they were laughed at when communicating in sign language. Besides society's direct prejudices, some facts are presented, e.g. that there are 25.000 deaf persons living in Greece and that they have to pass an ID-test every 5 years to renew their driving license.

This film is a **remarkable attempt to awaken society's attitudes towards the problems PwD have to face today** in Greece. Half the film is mute and sign language is only translated with the aid of subtitles on the screen. This and other details reveal the real interest of this film in creating an atmosphere reminding of deafness, while keeping to a more silent atmosphere. Every spectator will remember the ambience during this movie and the evident problems and difficulties of people with hearing or speech impairments! It is also with the aid of such films that society's attitudes might possibly change little by little, hopefully!

There are some more movies dealing with the impairment of deafness, some of these are:

- Mandy (1952, UK, director: Alexander McKendrick)
- Voices (1979, USA, director: Robert Markowitz)
- Miracle Worker (1979, USA, director: Paul Aaron)
- Multi-handicapped (1986, USA, director: Frederick Wiseman)
- Deaf (1986, USA, director: Frederick Wiseman)
- Bridge to silence (1989, USA, director: Karen Arthur)
- Mr. Holland's Opus (1996, USA, director: Stephen Herek)
- Sur mes lèvres (2001, F, director: Jacques Audiard)
- Sound and Fury (2000, USA, director: Josh Aronson)
- Stille Liebe / Amour Secret (2001, CH, director: Christoph Schaub)
- and many more.

#### 9.3.4 MOBILITY IMPAIRMENTS PRESENTED IN FILMS

The spectrum of movies dealing with mobility impairments is quite smaller. Although wheelchairs appear quite often in movies, they mostly remain as a 'décor' in the background of scenes shot in hospitals (e.g. "Regarding Henry", 1991, USA, director: Mike Nichols), in insane asylums (e.g. "One flew over the cuckoo's nest", 1975, USA, director: Milos Forman) or as a means of camouflage (e.g. episode of old series of "Mission Impossible" in the 70's(?)). In other films, for instance, an old person sitting in a wheelchair is shown in contrast to the hero who manages to walk with the aid of crutches (e.g. "Flawless", 1999, USA, director: Joel Schumacher). Besides these points of view, recent movies (e.g. "The Human



Stain", 2003, USA, director: Robert Benton) show **wheelchair users as background figures**, e.g. a wheelchair-driving student on the university campus. **Maybe this is finally a proof that PwD's integration has started to be partly achieved!** However, the spectrum of movies portraying a (leading) character with mobility impairments, her/his problems, society's attitudes towards her/him, etc. seems quite reduced.

The most celebrated film in this category probably is the transfer of Christy Brown's biography on screen: **"My left foot"** (1989, Ireland/UK), directed by Jim Sheridan and starring Daniel Day-Lewis, Ray McNally, Brenda Fricker, Ruth McCabe, Fiona Shaw and others. Paralysed by cerebral palsy from complications at birth, Christy is written off as retarded and helpless, as a *"wretched lump of flesh that his family thinks cannot function physically or mentally"* (allmovie.com). First reactions from the neighbourhood towards his father are: *"Are you gonna put him in a home?"*, while having Christy's father responding: *"I'll go in a coffin first, before I put my son in a home."* But exclamations on the part of the neighbours are common: *"He's got the mind of a three-year old."* or *"He's a terrible crust for the poor woman."* or *"Poor unfortunate retard!"* or **"What should he know. (...) The boy is a cripple."** Even the priest expresses his discriminative opinion against Christy: *"You can never go out of hell!"* and *"I think you should not bring him to the altar, yet."*

Christy himself only once refers to the improper behaviour of his surrounding saying: **"They are cutting me off, as if I were a deaf-mute"**, which reveals from his part a discriminative attitude towards other PwD! Besides all discrimination expressed on the part of society, it is this movie that clearly reveals discrimination in the built environment. During his childhood, Christy was carried around, up and down the stairs in the house of his family, etc. either by his mother or by one of his brothers. The problem of stairs without a ramp is shown several times, e.g. when his mother has to descend the stairs in front of the church with Christy sitting in his chariot. Growing older, he is always being carried by two persons, even when sitting in his wheelchair, when height differences have to be overcome. However, his dependency on others is diminished by the power of gaining his independency through speaking, writing and painting. This film obviously has no 'sugar-coating', no situation is embellished and problems even in the built environment are really presented!

Another movie portraying a person in a wheelchair is **"The theory of flight"** (1998, UK), directed by Paul Greengrass and starring Helena Bonham Carter, Kenneth Branagh and others. It is the story of a frustrated artist called Richard, who does not manage to build himself a flying machine. As punishment for his eccentric behaviour, he is forced to accept **community service** in the company of Jane, a young girl, who suffers from the neuromuscular disorder called ALS and thus uses a wheelchair.

This picture shows **no problems with the built environment at all!** Jane is able to move around everywhere autonomously in her power wheel-chair: in the supermarket, in the museum, in a restaurant, in the city, at the countryside - wherever the shots are captured, she does not seem to encounter physical obstacles at all. It is only some attitudes of society



that are presented: "People usually feel uncomfortable just walking beside me. Everyone wants to push me." or her mother saying: "Have you ever considered that this affects also my life? This is definitely not the way I wanted to live my life!" This movie belongs to the tale-category, showing besides few negative attitudes on the part of society, no problems with the built environment at all!

It is the much older movie **"Born on the 4<sup>th</sup> of July"** (1989, USA, director: Oliver Stone, cast: Tom Cruise, Raymond J. Barry, Caroline Kava, Kyra Sedgwick, William Dafoe and others), where circumstances are much **more realistic**. It is a biography-like transfer of important parts of the life of a war-invalid, named Ron Kovic. The movie shows segments of Ron's life before and after he gets mobility impaired, due to a bullet wound that leaves him mid-chest-down paralysed in the war and his efforts to regain self-confidence, acceptance and a meaning in life.

Wheelchairs and war-invalids are the leading theme in this movie. They appear from the beginning to the end in celebratory parades on the streets or in the veteran hospital. Issues caused by mobility impairments are very effectively presented in this picture. On the one side, there is Ron's father having **adapted his son's bathroom in order to be accessible for him in the wheelchair. He widened the door, built an accessible shower and equipped the toilet with handles**. On the other side, there are Ron's reactions to society's behaviour: "I want to be treated like a human being!" or "I don't want you to feel sorry for me!" or "They don't wanna see us!" and "You're ashamed of me!"

This film indeed is based **on problems caused by sudden mobility impairment**. During the whole film, Ron keeps on bumping against all kinds of obstacles in his house, in shops, in bars, etc., when moving around independently. However, he is shown managing autonomous mobility using the train, moving around in the environment of cities, in bars, on the streets, etc. Only once, he is presented facing a physical obstacle, when he does not manage to enter into a shop because of steps and has to knock on the shop-window in order to have someone come out to serve him. Furthermore, when being pushed by someone else, Ron pushes obstacles with his hands aside that lie in their route. This movie does not try to embellish any situation and obviously presents accurately some problems persons with mobility impairments have to face in their every-day life.

The list of films dealing with characters facing mobility impairments includes:

- The men (1950, USA, director: Fred Zinnemann)
- Inside moves (1980, USA, director: Richard Donner)
- Whose life is it anyway? (1981, USA, director: John Badham)
- Just the way you are (1984, USA, director: Edouard Molinaro)
- Gaby: A true story (1987, USA/MEX, director: Luis Mandocki)
- The Waterdance (1991, USA, director: Neal Jimenez / Michael Steinberg)
- A brief history of time (1992, UK/USA, director: Errol Morris)
- Dogville (2003, DK, director: Lars van Trier)
- and many more.



#### 9.4 SOME CONCLUSIVE REMARKS

It seems astonishing and rather alarming, that most movies dealing with matters of disability are nominated for awards. One might suspect, that certain films were nominated for Best Picture, Best Actress/Actor, etc. more on the basis of its 'courageous' subject matter than its execution, which in many cases remains fairly ordinary. **"The idea is to give viewers a feel-good character to root for or cry about, someone who overcomes impossible odds to live a triumphant life or who dies gently without the burning and raging"** (Cummings).

The success of many of these films lies in the combination of attractive picture formulas: the **'triumph of odds', the 'fish-out-of-water' story and the 'unlikely buddies' movie or biographic pictures.** The stretching of scenes until they yawn finally makes spectators cry in many cases. However, what often stands out are also intense performances and Oscar Award Winners, notably e.g. Al Pacino (performing the blind man in 'Scent of a Woman'), Marlee Matlin (playing the deaf woman in 'Children of a lesser God'), Daniel Day Lewis (playing the paralysed person in 'My left foot'), Dustin Hoffman (performing the autistic man in 'Rain Man'), Geoffrey Rush (playing David Helfgott in 'Shine') and so on.

**The tendency of nominating and awarding movies that deal with an extract of the life of a PwD, might also be linked to society's weakness, to effectively support them.** It seems obvious, that the easiest solution is to praise actors that 'entertain' or in the optimum trouble society for a couple of hours, maybe evoke compassion and pity (or horror) and shortly afterwards make this 'reality' forgotten – as it is only on screen that things 'like that' happen (fig. 9-4 and fig. 9-5). So, instead of trying to open society's eyes and change its habits and perceptions little by little, the role of the movie machinery remains at presenting heroes and extraordinary humans, occasionally wD, while almost never criticising and always ignoring or obliquely showing severe problems caused by society and the built environment!

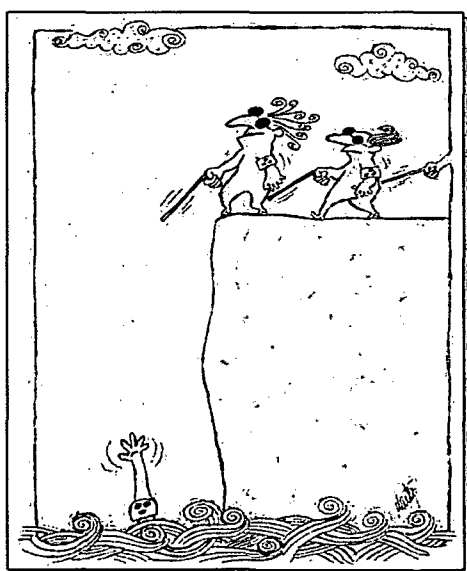


Fig. 9-4: Cartoon - speaking for itself!

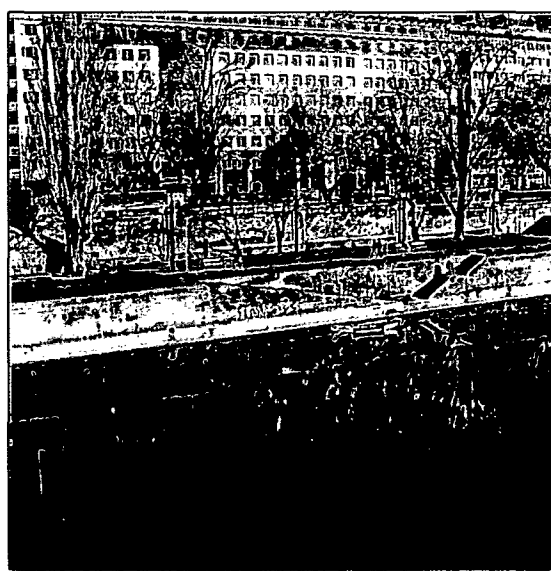


Fig. 9-5: ...And reality: no railing at the promenade of the Vienna Donaukanal!

# PART B



<b>10 INFORMATION, SENSITISATION AND AWARENESS RISING</b>
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<b>10.1 INTRODUCTION .....</b>	<b>97</b>
<b>10.2 IS THERE A LACK IN SOCIETY'S SENSITISATION TODAY? ...</b>	<b>97</b>
<b>10.3 RECENT PUBLIC SENSITISATION CAMPAIGNS IN GREECE ..</b>	<b>99</b>
<b>10.4 PREFERABLE GOALS OF INFORMATIVE CAMPAIGNS.....</b>	<b>103</b>

**ABBREVIATIONS:**

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

## **10.1 INTRODUCTION**

The precedent chapters have given an overview on major topics regarding disability from the physiological and psychological point of view, as well as on the multiple problems and social consequences PwD have to conquer within their every-day-life. It has become clear, that **difficulties mainly derive from society's ignorance and anxiety, from a lack of information and personal contacts, from unawareness.** All efforts in the domains of rehabilitation, planning, social service programmes and so on, play a significant role in establishing supportive conditions for PwD and in creating proper foundations so they can gain equal opportunities in society. As a precondition, the pursuit and implementation of civil rights for PwD is of importance.

Of course, it is also **treaties and laws**, which may change situations. Legislation forms the basis for all actions. Almost two decades have passed with protests and campaigns, also of groups of PwD. Although there often are more facts and daily circumstances that separate various groups of PwD, than uniquely unite them, 'crip-politics' have emerged. By this method, PwD try to assert their differences by projecting positive images of themselves and their physical and/or mental impairments (Imrie, 1996).

It seems important, to take a glance on different **sensitisation and awareness rising attempts and campaigns** that have been launched over the last years. The underlying principle is that PwD have the right to enjoy the quality of life and community participation which all able-bodied take as granted. The agendas comprise of working towards a common goal of equality and justice, informing on PwD's rights, protecting them from discrimination, supporting the full exercise of their rights, etc.

## **10.2 IS THERE A LACK IN SOCIETY'S SENSITISATION TODAY?**

However, total recognition of their rights to fully participate in society is still missing. Environments continue to have barriers everywhere, attitudes towards PwD keep on being clearly lead by the notion of the 'deserving poor' and **equal opportunities for PwD at home, at work and in life continue not to be reality.** Awareness of society seems still to be hibernating.

The legislative frame includes a long list of rights, declarations, resolutions, conventions, etc., regarding attempts to achieve equal participation of all members of society. As has already been pointed out, the legislative situation will not be discussed in detail. However, some important stadiums of this ongoing process of the establishing of **civil rights** will be shortly referred to.

Already in 1948, the human rights stated, that: "*Recognition of inborn dignity and equal and unalienable rights of the whole humanity is the foundation of freedom, justice and peace in the world*" ([www.un.org](http://www.un.org)). In 1983 and with vote 37/52, the United Nations policy for PwD was launched, aiming at full and equal participation of PwD in society. A

decade later, in December 1993, vote 48/96 forwards the changing of society to achieve equal participation for all its members (www.unhchr1). In 2000, on May 12<sup>th</sup> the European Community signed the treaty 'for a Europe without discrimination', in favor of the **development and support of a wide and complete strategy and campaign regarding the confrontation with social, architectural and constructive barriers, that limit PwD's accessibility to social and economic opportunities** (www.conventions). Two years later, in 2002, the Madrid Declaration points out the discriminative situation of PwD and states, that PwD often live in conditions of social exclusion and poverty. This declaration suggests to stop seeing PwD as patients and objects of pity and to start seeing them as independent citizens, totally integrated in society (www.madrid).

"Reality primarily shows the **continuing lack of social sensibility**. This situation even aggravates with the predominance of economic matters in the market and the cultivation of pure individualism and personal interests. The crisis of social states that can be observed and the reduction of the state's function leads to unfavorable consequences as regards all human rights and especially the rights of members belonging to fragile social groups" (Καλτσόγια-Τουρναβίτη, 2003: 47/48).

The global discourse of human rights supports the fight for a worldwide recognition and integration of PwD. The commonality of disability has one goal beyond all differences of gender, race, culture and professional background: **better lives** (fig. 10-1). As the UK government argues: "Disabled people may encounter discrimination... the government has worked hard to change these attitudes through a continuing policy of education and persuasion..." (Imrie, 1996: 165) underlining the importance of providing information to the public at large. Also in Greece, over the past years, an important number of sensitisation and awareness rising actions and campaigns can be observed. A small number of these important contributions will shortly be presented in the following paragraphs.

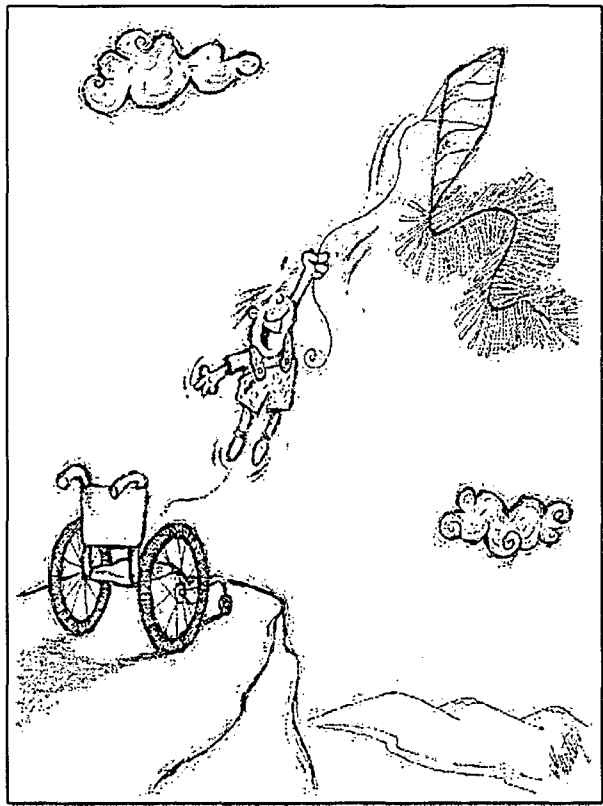


Fig. 10-1: Cartoon – speaking for itself!

### 10.3 RECENT PUBLIC SENSITISATION CAMPAIGNS IN GREECE

In Greece, ignorance and unawareness on matters of disability and PwD's rights continue to rule the opinions of the public at large. Confrontation with a PRM or a PwD either provokes indifference or over-protection. Most often, feelings of pity or compassion are evoked. Thus, it can be observed, that acceptance and implementation of civil rights many times results in overreactions, as if PwD were not able to take their own decisions. For instance, pushing a paraplegic's wheelchair along the street without having asked her/him first, or pulling and pushing a person with visual impairments to help her/him to get across the street (especially if she/he does not want to get on the other side), are some of such 'assistive' actions, that continue to discriminate PRM and PwD. Quite obviously, apart from all other goals of information and sensitization campaigns, spontaneous, imprudent or ill-advised actions should be pointed out and eliminated.

Some years ago, the Greek Ministry of National Education and Religious Affairs discussed the re-issuing of schoolbooks for primary education. As Greeks do not seem to reconcile with the fact, that PwD live amongst them, the introduction and the linking of discussion topics to social matters of PRM and PwD were worked out. The latest edition of the **schoolbook 'We and the world' (Εμείς και ο κόσμος) of the 2<sup>nd</sup> class of primary education school** (Γεωργοκόστας et al., 2003) gives proof of this achievement.

In the chapter 'Caring for our health' first attempts to confront pupils with a PwD are made. One of the pictures of this chapter shows a blind man, who is walking with his cane on the pavement in front of a shop (fig. 10-2). The text mentions: "There is a Greek saying 'Guard it as if it were your eyes!' (Φύλαξέ το σαν τα μάτια σου!) What does this saying mean? In order to understand, think of the difficulties you would meet if you were blind" (Γεωργοκόστας et al., 2003: 144). This picture, gives an impression of independence and autonomy of blind persons, although the usage of the cane misinterpreted and shown like if it rather were a walking stick.

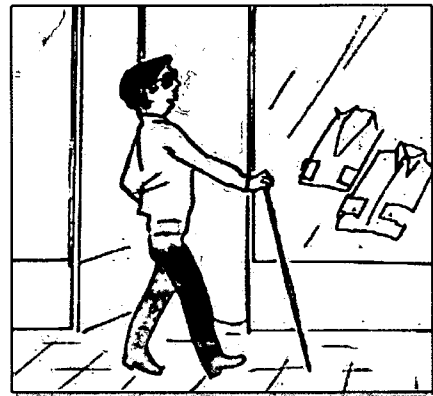


Fig. 10-2: Sketch portraying a blind man

In a further chapter, where people's needs are discussed, persons with mobility impairments are portrayed: a seated old woman with a walking stick (fig. 10-3), an infant (fig. 10-4) and an injured person with crutches (fig. 10-5). The text says: "What do you say? Will our needs ever stop? Think about what could happen to us from moment to moment and from hour to hour. But everybody has her/his specific needs" (Γεωργοκόστας et al., 2003: 151-153). In these cases, the elderly woman, as well as the infant are shown dependent on someone else, while only the injured person manages to move without the help of another person.

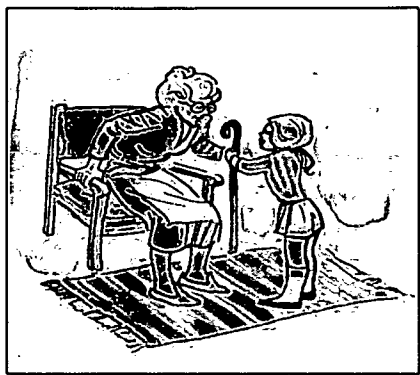


Fig. 10-3: Sketch portraying an old woman with a walking stick



Fig. 10-4: Sketch portraying an infant with its parents



Fig. 10-5: Sketch portraying an injured person

Finally, on the next page of the same schoolbook a child in a wheelchair (fig. 10-6) can be found. This chapter reminds of: "What our family offers us. In our family we find a lot of those things we need to live and to grow up. Many families have difficulties and problems. Talk about those shown on the pictures and about other ones you know" (Γεωργοκόστας et al., 2003: 154). The child is presented completely dependent on his parents, when moving outside their home, as he gets pushed by his father and does not move autonomously.

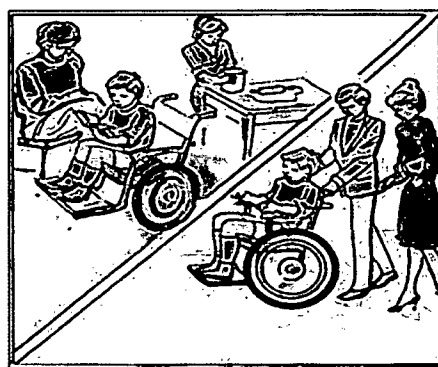


Fig. 10-6: Sketch showing a child in a wheelchair

Of course, other important actions can be mentioned from various others parts, one of which is the **Panhellenic Association of Blind** (Πανελληνιος Σύνδεσμος Τυφλών). Every year, on October 15<sup>th</sup>, the **International Day of the White Cane**, the Panhellenic Association of Blind sets up an information desk in Athens' city center, on the Dionisiou Aeropagitou Pedestrian Zone (fig. 10-7), in order to inform residents, as well as passing citizens, on the use of tactile orientation markings on pavements and generally on matters, that deal with persons with visual impairments and their difficulties in everyday life. The media is always invited and present. Of course, comparable actions can be mentioned on the part of other associations, clubs and societies of PwD, for instance on the International Day of PwD on December, 3<sup>rd</sup>.



Fig. 10-7: International Day of the White Cane in 2002

In 1999, the Panhellenic Association of Blind (Πανελλήνιος Σύνδεσμος Τυφλών) in co-operation with the Greek Telecommunications Company (OTE) published a **phone card** with sketches in order to sensitize the public at large on matters of visual impairments (*fig. 10-8*). This phone card, however, is missing the tactile mark specified by the European Community programme COST and the technical report ETSI/DTR/HF020111 (1996)!



Fig. 10-8: Sensitization campaign on Greek Telephone Cards launched by the Panhellenic Association of Blind

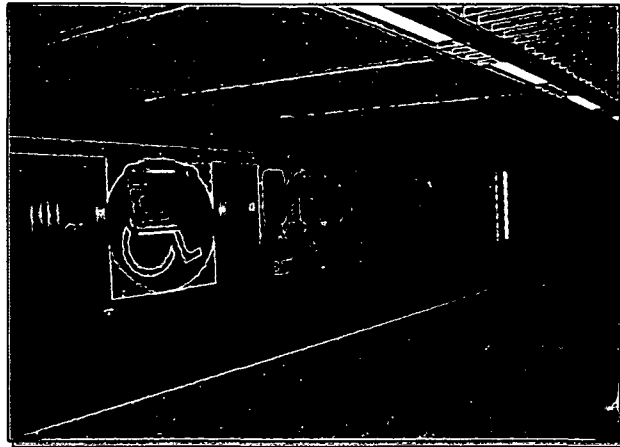
In 2002, the Panhellenic Association of Blind (Πανελλήνιος Σύνδεσμος Τυφλών) in co-operation with professor I. Papadopoulos of the National Medical School of Athens, succeeded in adding one page (in 2003 it was page numbered 34) to the **Greek National Formulary** (published yearly by ΕΟΦ), which comprises advices on how to write **prescriptions for patients with visual impairments**.

A major campaign was started in 2003, as the European Community devoted that year to PwD. Lots of information was distributed, like leaflets, video-spots on television, spots on the radio, etc. and European States made efforts to sensitise the public at large as far as rights of PwD are concerned. Disability and impairment were presented in a more positive light, in order to correct false perceptions and widespread prejudices. Particular concern was expressed regarding the rights of children wD in order to provide equivalent education and to support and to favour their full integration into society. As the first half of 2003 coincided with the Greek presidency of the European Community, the campaign was started in Greece with the slogan "**EYPD (European Year for People with Disability) 2003 – get on board!**" and a special bus (*fig. 10-9*) was sent on tour through Europe. The overall aim was to inform European residents on the multiple forms of discrimination PwD have to face daily, on their living conditions and their everyday problems.



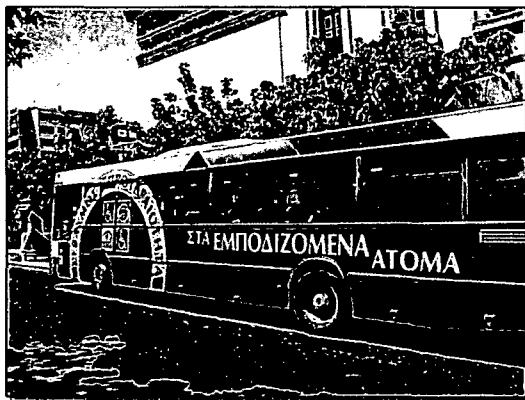
Fig. 10-9: The European Community campaign's "Get on board!"-bus

In Greece, the **ΟΑΣΑ** (Οργανισμός Αστικών Συγκοινωνιών Αττικής – Athens Urban Transport Organisation) took another initiative and **dressed several coaches and waggons with awareness rising mottos and symbols** in 2003. For instance, some trains of the ΗΣΑΠ (Ηλεκτρικός Σιδηρόδρομος Αθηνών-Πειραιώς – Electric Railway of Athens-Piraeus) and Αττικό Μετρό (Athens Subway) are covered with the international symbol for PwD (the wheelchair-user on a blue circle), while the motto says: 'Safety and Access for PRM' (*fig. 10-10*).



*Fig. 10-10: An ΗΣΑΠ-waggon dressed for the ΟΑΣΑ sensitization campaign*

In addition, some busses and trolleys of the ΟΑΣΑ are dressed in red, showing the international sign for PwD and symbols for persons with hearing impairment and for persons with visual impairments. The slogan reminds: 'Respect towards and Priority for hindered persons' (*fig. 10-11*).



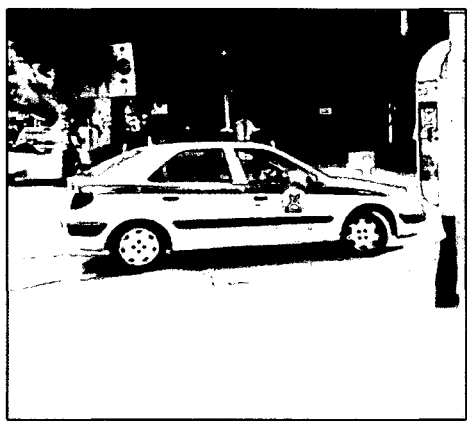
*Fig. 10-11: A 'sensitizing' bus from the ΟΑΣΑ awareness-rising campaign*

Of course, a further opportunity to sensitize the public at large was given during the preparatory months of the Olympic and Paralympic Games, which took place in Athens in summer 2004. **Paralympic education programmes** were developed by the Athens 2004 Organizing Committee and implemented on all educational levels by the General Secretariat for the Olympic Games 2004 (Γενική Γραμματεία Ολυμπιακών Αγώνων), a department belonging to the Greek Ministry of Culture. Within this frame, schools were randomly selected and informed by athletes wD on the Paralympic Games and discussed with the pupils on general matters of disability. Also a series of TV spots gave information on the Paralympic Games.

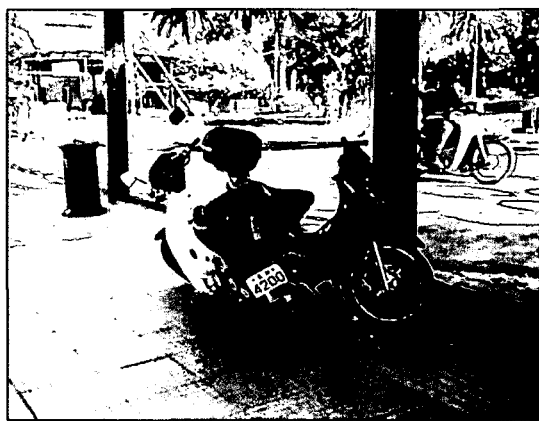
#### 10.4 PREFERABLE GOALS OF INFORMATIVE CAMPAIGNS

The overall aim should be the loop from paternalism and marginalisation to equal participation of every citizen. In addition, an understanding at large should be established, aiming at concepts and the understanding, that **accessibility contributes to comfort, easy-use, safety and upgraded life quality for everyone!**

Thus, information and awareness rising are of major significance. Even if space and buildings were built completely accessible, there would be little use, if for instance Greek citizens continue to occupy pavements with cars, tables, chairs, flower pots, trees, merchandise and all sorts of other old objects they want to get rid off. Furthermore, inconsiderate practices make PwD's lives enormously difficult and partly prevent them from participating in social life. For instance, it is essential, that fellow citizens do not park their cars in front of a curb cut hindering PRMs to get on/off the pavement (*fig. 10-12*), that they do not park their motorcycles on tactile orientation markings (*fig. 10-13*) or that drivers do not violate red lights and that they do stop at pedestrian crossings. It is with such brash actions, that citizens deny to persons using wheelchairs, to parents with perambulators, to blind persons, to many senior citizens, etc. the right to move on the streets of the city they are living in. And it is any such **discriminative habits that have to be pointed out and finally prevented** through informative campaigns!



*Fig. 10-12: Inconsiderate habits: police car parked at curb cut (Athens)*



*Fig. 10-13: Inconsiderate habits: motorcycles parked on tactile orientation*



*Fig. 10-14: Inconsiderate habits: car parked at curb cut (Vienna)*



<p><b>11 SURVEY ON PUPIL'S SENSITISATION AND INFORMATION</b></p>
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<b>11.1 INTRODUCTION .....</b>	<b>105</b>
<b>11.2 SURVEY'S CONTENT AND AIM .....</b>	<b>105</b>
<b>11.3 SURVEY'S METHODOLOGY.....</b>	<b>105</b>
11.3.1 A FEW EXPLICATIVE WORDS .....	105
11.3.2 SURVEY'S QUESTIONNAIRE .....	106
11.3.3 SCHOOL SAMPLING IN ATHENS .....	109
11.3.4 SCHOOL SAMPLING IN VIENNA.....	112
<b>11.4 SURVEY'S RESULTS IN DETAIL.....</b>	<b>115</b>
11.4.1 GENERAL REMARKS.....	115
11.4.2 PARTICIPATION OF 6 <sup>TH</sup> AND 9 <sup>TH</sup> GRADE PUPILS.....	116
11.4.3 REPLIES TO QUESTION 1 .....	117
11.4.4 REPLIES TO QUESTION 2 AND 3.....	122
11.4.5 REPLIES TO QUESTION 4, 5 AND 6 .....	125
11.4.6 6 <sup>TH</sup> GRADE REPLIES TO QUESTION 7 AND 8.....	129
11.4.7 REPLIES TO QUESTION 9 .....	131
11.4.7 REPLIES TO QUESTION 9 .....	131
11.4.8 REPLIES TO QUESTION 10.....	136
11.4.9 REPLIES TO QUESTION 11.....	144
11.4.10 REPLIES TO QUESTION 12.....	146
11.4.11 REPLIES TO QUESTION 13.....	148
11.4.12 REPLIES TO QUESTION 14.....	150
11.4.13 REPLIES TO QUESTION 15.....	152
<b>11.5 SURVEY'S COMPARISON AND CONCLUSIONS .....</b>	<b>154</b>

## 11.1 INTRODUCTION

In order to gain a glance on actual goals of such 'visibility of disability' (EDF, 2000: 1) efforts, a survey was carried out by the thesis' author during spring 2004 trying to reveal if and what effects and results recent awareness rising strategies and sensitisation campaigns have achieved. The target group chosen for this study were children of primary and secondary education, as they are less dominated by negative notions due to impairments. It is obvious that they copy and later on adopt attitudes and points of view of their parents and other adults of their surrounding, but it is them who notice and question in most details all activities, campaigns and actions that daily surround them. The survey is presented in detail in the following chapters.

## 11.2 SURVEY'S CONTENT AND AIM

This survey's aim was based on **revealing pupil's attitudes towards and their opinions about PRM and PwD**. So far, no such study has ever been carried out. Thus, it seems convenient to integrate this research, in order to stress out or destroy certain prevailing notions. In addition, it seems interesting to find out, if and what probable differences between more (e.g. Austria, Germany) and less (e.g. Greece) developed European countries exist today in regard of PwD's equal integration into society.

Therefore, primary and secondary schools in Athens (GR), Vienna (A) and Hamburg (D) were chosen, as it seems particularly important **to gather the opinion of Europe's future residents**. Their understanding on society's role was examined, as well as their spontaneous reactions towards PRM and PwD and their awareness on possible daily problems within urban structures. Finally, the all-over idea is, to gather and to point out, if and where the most notable lacks of relevant knowledge and understanding persist among pupils.

## 11.3 SURVEY'S METHODOLOGY

### 11.3.1 A FEW EXPLICATIVE WORDS

The survey was carried out with a **questionnaire, which (ideally) was filled-in individually by each pupil, who had agreed to participate in this study (on-site sampling)**. As negative attitudes and partly indifference towards PRM and PwD reaches its top in urban areas, the chosen schools belong to the wider area of Athens (as an example of a Southern-European country) and Vienna (as an example of a Middle-European country). As it was impossible to obtain the necessary permit for schools belonging to the city of Hamburg, no results of a Northern-European city are available. Had it not been five months of contacting the 'Sekretariat der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland', maybe there had been the time to choose another Northern-

European city and restart the bureaucracy all-over again in order to receive the relevant permit within the time frame of this thesis.

It was decided, to **investigate pupils' level of information and sensitisation belonging to the 6<sup>th</sup> grade** (this equals in Greece to: 6<sup>th</sup> grade primary education, respectively in Austria to: 2<sup>nd</sup> grade secondary education) **and 9<sup>th</sup> grade** (in Greece: 3<sup>rd</sup> grade secondary education, respectively in Austria: 5<sup>th</sup> grade secondary education). The inquired pupils attend public schools, which were chosen completely at random. It was aimed at gathering about 400 answered questionnaires from every city respectively for each grade, in order to found a comparative basis for the study's results. But as procedures to obtain a research permit vary from primary to secondary education and from country to country, processes in Austria and Greece will be shortly referred to separately in the following.

### 11.3.2 SURVEY'S QUESTIONNAIRE

The survey was based on the **following anonymous questionnaire**, which was ideally filled out by each pupil on her/his own.

STATISTIC DATA
----------------

Sex:

Age:

Grade:

School:

Average marking during last school year:

Parent or legal guardian's age:

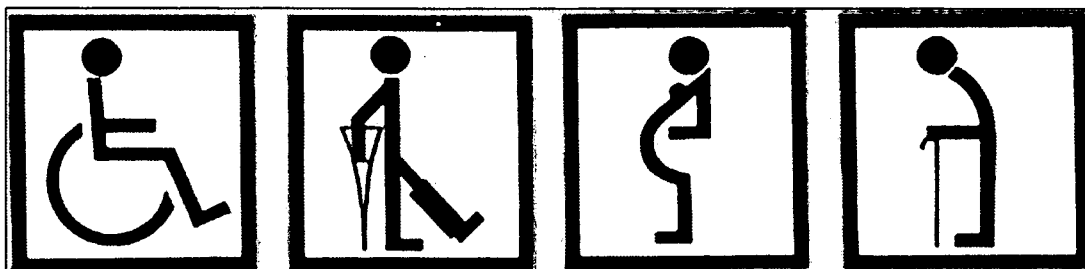
Parent or legal guardian's educational level:

Parent or legal guardian's profession:

Number of family members:

QUESTIONNAIRE

1. What represent these signs?



2. Which one have you already seen somewhere?

3. Where have you seen it?

4. Have you ever seen a PwD?

5. If yes: What was her/his impairment?

6. If yes: Where have you seen this person?

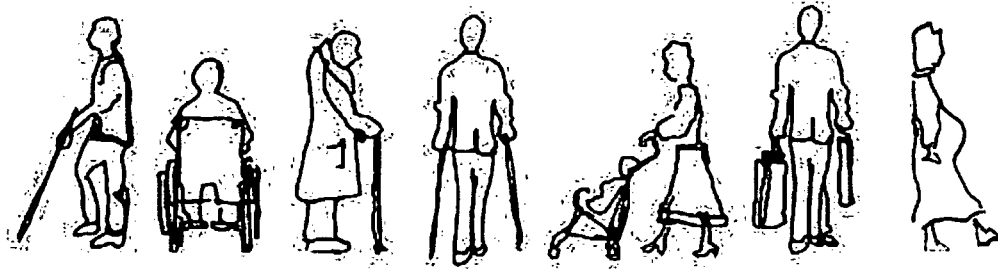
7. Is there a pupil wD attending your school?

8. If yes: How serious do you judge that her/his every-day problems are?  
 very serious – serious – I don't know – medium – none at all

9. How serious do you think are problems PwD are confronted with?

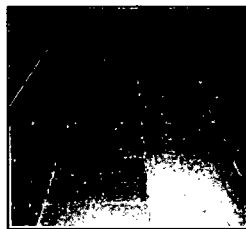
- a) mobility impairment:            very serious – serious – I don't know – medium – none at all
- b) visual impairment:                very serious – serious – I don't know – medium – none at all
- c) hearing impairment:                very serious – serious – I don't know – medium – none at all
- d) cognitive impairment:                very serious – serious – I don't know – medium – none at all
- e) communication impairment:        very serious – serious – I don't know – medium – none

10. How serious do you think are the problems of each one of the following persons during their daily traffic on streets?

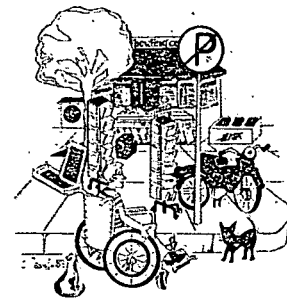


very serious – serious – I don't know – medium – none at all

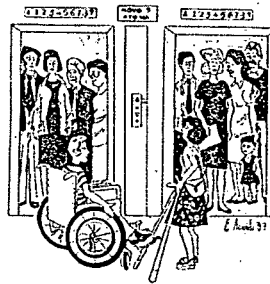
11. What is the reason for these lines of different color and texture on pavements?



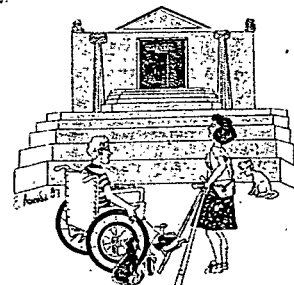
12. According to your opinion: What is the reason for the boy being indignant and being forced to move on the street?



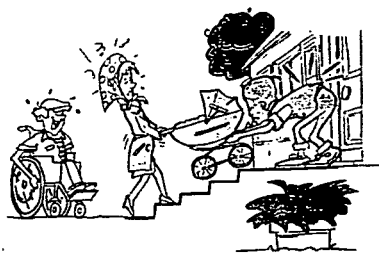
13. According to your opinion: Why is the behavior of the persons in the elevator socially incorrect?



14. According to your opinion: Due to what reason do the girl and the boy of the picture face similar problems?



15. According to your opinion: Why do you think is the man in the wheelchair laughing?



□□□

## 11.3.3 SCHOOL SAMPLING IN ATHENS

In Greece, in order to obtain a permit to realize a study in primary and secondary education, an application has to be made to the Greek Ministry of National Education and Religious Affairs. Amongst all required documents, a detailed list of all desired schools has to be attached to the application. Together with the supply of the permit to the researcher, all schools are informed on the topic and on the permit's duration. If the permit exists, school directors are contacted and asked to co-operate.

The author made her application for research in primary schools in May 2003 (register number: 413271/9 on 2003-05-06) and obtained a three-year permit on September, 8<sup>th</sup> 2003 (register number: Φ.15/472/94709/Γ1). In September 2003, the same application was extended in order to achieve also the permit for carrying out this survey in secondary education in Athens. The final permit was handed out in January 2004 (register number: 746/Γ2 on 2004-01-07) for the school year 2003-2004.

**Schools spread all over Athens were selected, representing as good as possible the variety of its citizens.** Therefore, the list contained 3-4 schools belonging to the municipality of Athens, respectively Piraeus. In addition, 4 further schools were chosen belonging to Northern districts, respectively 4 from Western districts.

**All selected schools (with the exception of one) were so kind to collaborate.** In agreement with certain school directors, the author visited several of the chosen schools in Athens during February and March 2004. Questionnaires were handed out and afterwards replies collected during one and the same lesson. In the rest of the selected schools, directors preferred not having their lessons interrupted by the tests. Therefore, questionnaires were sent out by mail. Directors handed them out whenever convenient until the end of March 2004. Replies were either sent back by mail or picked up by the author from school directors during April 2004.

In total, 387 filled-in questionnaires were gathered from Athens' pupils attending 15 public primary education schools (*tab. 11-1*). The amount of replies from public secondary education schools came up to 539, deriving from 14 schools in the area of Athens (*tab. 11-2*). In the two tables below, all co-operating schools in Attica are listed, showing also the respective number of received replies:

A/a	6 <sup>th</sup> grade	School's address	Nr of Replies
1	31 <sup>ο</sup> Δημοτικό Αθηνών	Κόρακα, Αγ. Νικόλαος	24
2	35 <sup>ο</sup> Δημοτικό Αθηνών	Κωλέττη 34, 10682 Αθήνα	20
3	49 <sup>ο</sup> Δημοτικό Αθηνών	Αγ. Ασωμάτων 35-37, 10553Θησείο	7
4	76 <sup>ο</sup> Δημοτικό Αθηνών	Κυκλώπων 6, 11852 Αθήνα	41
5	1 <sup>ο</sup> Δημοτικό Πειραιώς	Χαϊδαρίου & Παλαμίδου, 18545 Πειραιάς	34

<b>6</b>	35 <sup>ο</sup> Δημοτικό Πειραιώς	Τζαβέλα & Αλεξάνδρου, 18533 Πειραιάς	26
<b>7</b>	3 <sup>ο</sup> Δημοτικό Νίκαιας	Γρεβενών & Ραιδεστού, 18453 Πειραιάς	14
<b>8</b>	5 <sup>ο</sup> Δημοτικό Μελισσιών	Αγ. Ειρήνης 4 & Διούσου, 15127 Μελίσσια	19
<b>9</b>	1 <sup>ο</sup> Δημοτικό Ηρακλείου	Σοφίας & Νεότητας, 14222 Ν. Ηράκλειο	25
<b>10</b>	1 <sup>ο</sup> Δημοτικό Κηφισιάς	Χρήστου Λαδά 18, 14562 Κηφισιά	34
<b>11</b>	4 <sup>ο</sup> Δημοτικό Ταύρου	Τσακάλωφ 9, 17778 Ταύρος	11
<b>12</b>	4 <sup>ο</sup> Δημοτικό Ν. Φιλαδέλφειας	Λαχανά 1, 14342 Ν. Φιλαδέλφεια	17
<b>13</b>	6 <sup>ο</sup> Δημοτικό Αιγάλεω	Παπανικολή 14 <sup>ο</sup> , 12242 Αιγάλεω	38
<b>14</b>	12 <sup>ο</sup> Δημοτικό Περιστερίου	Παναγή Τσαλδάρη 2, Περιστερί	39
<b>15</b>	7 <sup>ο</sup> Δημοτικό Αγ. Αναργύρων	Νικόλαου Πλαστήρα 206, Αγ. Αναργυροι	30
		<b>Total:</b>	<b>379</b>

Tab. 11-1: List of the 15 randomly selected public primary education schools in Athens

<b>A/a</b>	<b>9<sup>th</sup> grade</b>	<b>School's address</b>	<b>Nr of Replies</b>
<b>1</b>	16 <sup>ο</sup> Γυμνάσιο Αθηνών	Λαρίσης & Πανόρμου, 11523 Αθήνα	39
<b>2</b>	32 <sup>ο</sup> Γυμνάσιο Αθηνών	Νικοπολέως 33, Αθήνα	35
<b>3</b>	40 <sup>ο</sup> Γυμνάσιο Αθηνών	Σκιάθου & Ζώτου, Αθήνα	37
<b>4</b>	1 <sup>ο</sup> Γυμνάσιο Πειραιώς	Αφεντούλη 5, Πειραιάς	38
<b>5</b>	14 <sup>ο</sup> Γυμνάσιο Πειραιώς	Κω & Αγ. Αναργύρω, 18542 Πειραιάς	43
<b>6</b>	2 <sup>ο</sup> Γυμνάσιο Κερατσινίου	Δεμερτζή, Κερατσίνι	44
<b>7</b>	2 <sup>ο</sup> Γυμνάσιο Κηφισιάς	Όθωνος & Σουλίου, Κηφισιά	29
<b>8</b>	2 <sup>ο</sup> Γυμνάσιο Ν. Ιωνίας	Λεωφ. Ηρακλείου, Νέα Ιωνία	54
<b>9</b>	2 <sup>ο</sup> Γυμνάσιο Αμαρουσίου	Μεγάλου Αλεξάνδρου 25, 15125 Μαρούσι	39
<b>10</b>	1 <sup>ο</sup> Γυμνάσιο Ν. Πεντέλης	Νέα Πεντέλη	38
<b>11</b>	1 <sup>ο</sup> Γυμνάσιο Πετρούπολης	Αν.Ρωμυλίας&Θεσσαλίας,13231 Πετρούπολη	24
<b>12</b>	3 <sup>ο</sup> Γυμνάσιο Ν. Φιλαδέλφειας	Ιασωνίδου 22, 14342 Ν. Φιλαδέλφεια	34
<b>13</b>	2 <sup>ο</sup> Γυμνάσιο Περάματος	Κων/πόλεως & Ευρυβιάδη, 18863 Πέραμα	40
<b>14</b>	11 <sup>ο</sup> Γυμνάσιο Περιστερίου	Ιωαννίνων 5, Περιστερί	45
		<b>Total:</b>	<b>539</b>

Tab. 11-2: List of the 14 randomly selected public secondary education schools in Athens

The following map (fig. 11-1) shows the spreading of these schools over Athens' urban area:

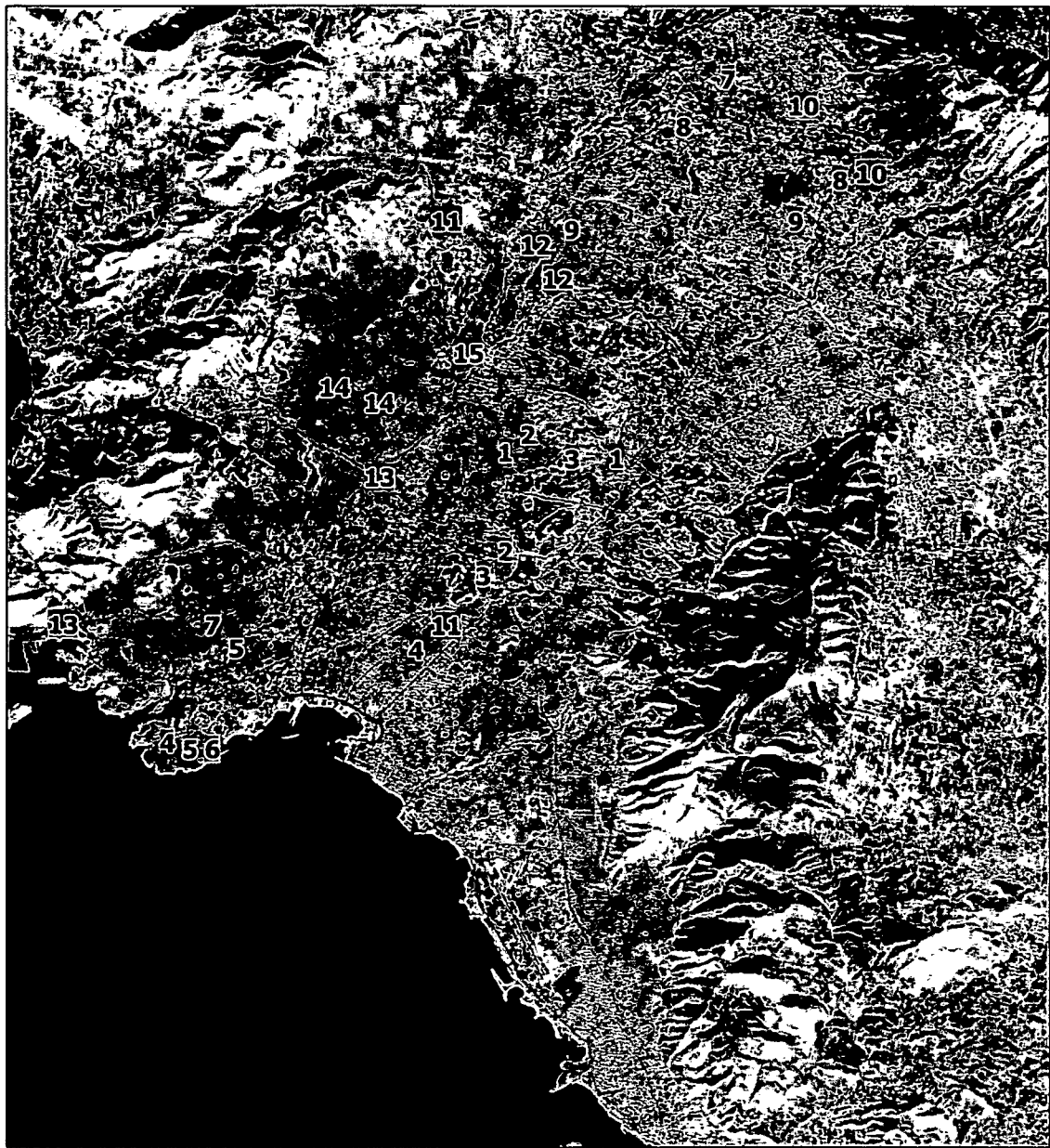


Fig. 11-1: Map showing the spreading of randomly selected schools in Athens' urban area



#### 11.3.4 SCHOOL SAMPLING IN VIENNA

In Austria, in order to obtain a permit to realize a study in primary and secondary education, an application has to be made to the relevant Stadtschulrat (in this case to the Stadtschulrat of Vienna). The big difference in this procedure is, that the existing permit does not necessarily force school directors or teachers to co-operate. In a first step, school directors and the relevant teaching staff have to be contacted and asked, if they agree with the contribution of their pupils for the study. If they do so, there is still no guarantee of the collaboration, as in a second step, pupils' parents have to submit their acceptance of having their child interrogated for research reasons.

The author made her application for research in primary and secondary education to the Stadtschulrat Wien in October 2003 (register number: 000.029/51/2003 on 2003-10-18). The research permit was sent out on December 12<sup>th</sup> 2003.

Due to **problems in obtaining agreements on the part of school directors and/or teachers**, the author's aim to select schools spread all over Vienna was not possible at all. Communication over the telephone was impossible, as school directors insisted in receiving the research permit and the study's aim first on paper and then to inform teachers or the teaching council.

Thus, in a first step, as far as 6<sup>th</sup> grade classes are concerned, 49 public schools in Vienna were asked via fax, if they agreed to have this study carried out in their school. Only 7 replies were received, out of which 3 were negative ones! Due to this **little support**, almost all remaining public schools with 6<sup>th</sup> grade classes (31 in number) were contacted via email in a second step, providing the small number of 5 more positive responses.

The co-operation of Vienna's public schools hosting 9<sup>th</sup> grade classes was almost as disappointing as the one already described above. In a first round, 50 schools were asked via fax, if they were interested in supporting this study. Again only 7 replies were received, out of which 5 were negative ones! Therefore a second round to gather co-operative schools was launched. Another 38 public schools in Vienna (almost all remaining ones) were contacted via email. 10 answers were received, out of which 7 positive ones.

Due to the bureaucratic way of carrying out studies in Austrian public schools, it was agreed, in February 2004, that the author sent the parents' letter (Elternbrief) and the questionnaires to the co-operating school directors. It was teachers' responsibility to hand out the parents' letter to pupils and to re-collect them. Whenever convenient, teachers should distribute also the questionnaires to the collaborating pupils, at latest until the beginning of April 2004. Finally, replies were either sent by mail to the author, or collected personally at schools at the end of April 2004.

However, although 9 public schools in Vienna hosting 6<sup>th</sup> grade classes had agreed to co-operate in the beginning, actually in the end only 7 schools provided results for the research. Even after further phone calls, the matter was rejected due to the shortage of time before

the test period. So, in total only 129 filled-in questionnaires were received from 6<sup>th</sup> grade pupils in Vienna (tab. 11-3). The case was similar with schools hosting 9<sup>th</sup> grade classes. Out of the 9 agreements, only 6 school directors kept their word and forwarded the matter to the teaching staff. Therefore, only 173 replies could only be integrated into this study (tab. 11-4). The tables below list the few co-operating schools in Vienna, showing also the respective number of filled-in questionnaires:

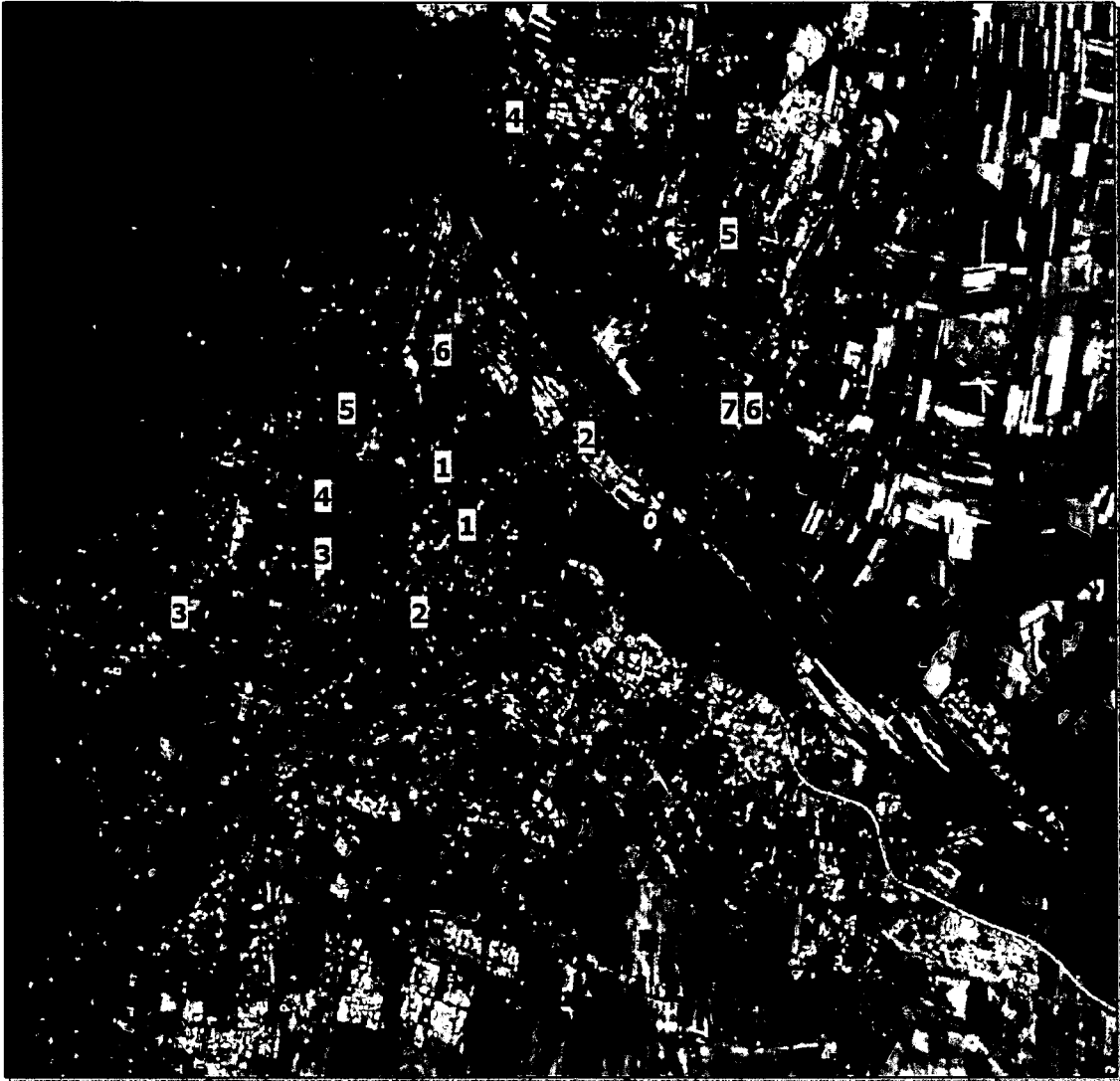
A/a	6 <sup>th</sup> grade	School's address	Nr of Replies
1	RG 1	Schottenbastei 7-9, 1010 Wien	6
2	NTS Schäffergasse	Schäffergasse 3, 1040 Wien	16
3	Sport KMS Hadersdorf	Hauptstrasse 80, 1140 Wien	13
4	Multimedia HS	Grundsteingasse 48, 1160 Wien	10
5	BG 18	Klostergasse 25, 1180 Wien	23
6	Informatikhauptschule	Leipziger Platz 1, 1200 Wien	34
7	BG+BRG+BORG 22	Polgarstrasse 24, 1220 Wien	16
		<b>Total:</b>	<b>129</b>

Tab. 11-3: List of Vienna's public schools hosting 6<sup>th</sup> grade classes, that co-operated for this research

A/a	9 <sup>th</sup> grade	School's address	Nr of Replies
1	Wiedner Gymnasium	Schellinggasse 13, 1010 Wien	11
2	Sigmund Freud-Gymnasium	Wohlmutterstrasse 3, 1020 Wien	40
3	PTS 15	Benedikt Schellinger-G. 1-3, 1150 Wien	39
4	PTS 21	Roda-Roda-G.21, 1210 Wien	49
5	AHS Theodor Kramer-Strasse	Theodor Kramer-Strasse 3, 1220 Wien	21
6	BG+BRG+BORG 22	Polgarstrasse 24, 1220 Wien	13
		<b>Total:</b>	<b>173</b>

Tab. 11-4: List of Vienna's public schools hosting 9<sup>th</sup> grade classes, that co-operated for this research

The following map (*fig. 11-2*) gives an overview of Vienna showing the position of the mentioned above cooperating schools:



*Fig. 11-2: Map showing the position of the cooperating Vienna public schools*

## 11.4 SURVEY'S RESULTS IN DETAIL

### 11.4.1 GENERAL REMARKS

In the following chapters, the survey's results are presented in detail. Tables show the answers of female and male pupils attending Austrian, respectively Greek public primary and secondary education schools. **Nuances of red show Austrian data and those of blue the Greek one. The lighter tones represent answers deriving from female, respectively the darker ones those from male pupils.** Data is given in percentages in all tables due to reasons of comparison. Detailed reference to specific numbers is made in accompanying texts. The listing of different answers to the same question is based on the ranking of absolute responses from all pupils. To facilitate the text reading, pupils attending Austrian schools will be addressed as 'Austrian girls and boys', respectively those attending Greek schools as 'Greek girls and boys'. These expressions though shall of course not at all be related to pupils' nationalities.

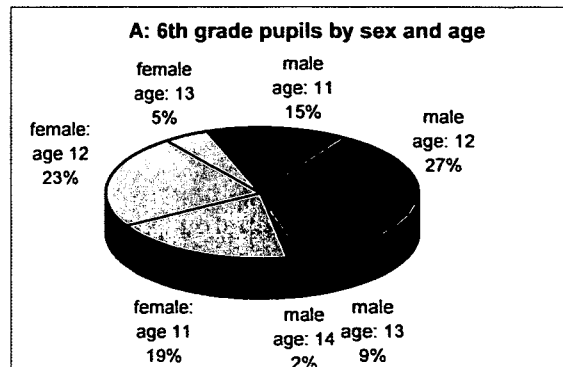
As far as questionnaires' statistic data is concerned, only little reference is made, as it seems rather irrelevant for children's answers. A short remark on the participating age groups of the pupils is made at the beginning of the presentation. No obvious influence can be noted deriving from e.g. the pupil's educational level, nor her/his parent's or legal guardian's age or educational level, neither her/his profession nor the family size. Therefore, no explicit remarks to any of these data are made in the following.

Regarding the structure, **replies are discussed with the results from 6<sup>th</sup> grade (large tables).** The given answers to each question are presented in detail, while comparisons between female-male and Austrian (A) - Greek (GR) pupils are portrayed. In general, answers of 9<sup>th</sup> grade pupils are quite similar to the ones given by 6<sup>th</sup> grade pupils, varying mostly only little in percentages and spreading. Conclusive remarks and references are made at the end of each question presentation to point out similarities and/or convergences between the results of female and male participants, as well as between the two age groups. Tables with 9<sup>th</sup> grade pupils' answers (smaller tables) will be added at the end of each question presentation without any further explanations. Presumptions and conclusions are based on the one hand on pupil's questions to the author, which rose during the fill-out of the questionnaire and on the other hand, on short texts, that many pupils wrote while answering the questions, trying to make their opinion clear and to state their own point of view.

Finally, it is important to keep in mind, that it is children that have replied to the questionnaire and thus maybe some irrelevant answers derive from pupils wanting to make a joke, being unmindful or not interested on the topic, etc. Thus, especially replies showing low percentages, have to interpreted with care and no overall conclusions should be made. Once again, it seems significant to point out that **the number of cooperating schools and pupils clearly varies amongst Vienna and Athens.** Therefore, the survey's data should not be used for an absolute comparison between the two countries, but rather as a basis for comparison of possible answers and participants' thoughts.

11.4.2 PARTICIPATION OF 6<sup>TH</sup> AND 9<sup>TH</sup> GRADE PUPILS

**In Vienna, 7 public primary education schools cooperated for this survey.** In total, 61 female and 68 male pupils filled-in the questionnaire (fig. 11-3). Their ages were between 11 years and 14 years. 25 girls and 19 boys were 11 years old, 30 girls and 35 boys were 12 years old and 6 girl and 12 boys were 13 years old and 2 boys aged 14.



**In Athens, 15 public primary education schools were randomly selected for this survey.** In total, 179 female and 200 male pupils filled-in the questionnaire (fig. 11-4). Their ages lie between 10 years and 14 years. 1 girl was 10 years old, 52 girls and 41 boys were 11 years old, 118 girls and 145 boys were 12 years old, 7 girls and 8 boys were 13 years old and 2 boys were 14 years old. 1 girl and 4 boys did not fill in their age.

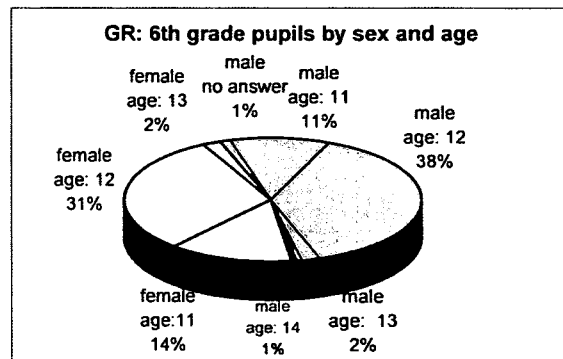
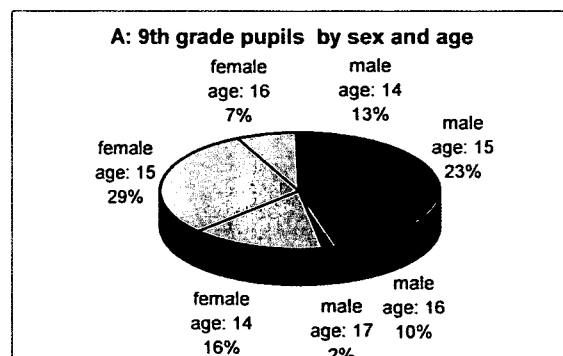


Fig. 11-3 and Fig. 11-4: Age distribution of participating 6<sup>th</sup> grade pupils in Vienna (up) and Athens (down)

**In Vienna, 6 secondary education public schools cooperated for this survey.** In total, 91 female and 82 male pupils filled-in the questionnaire (fig. 11-5). Their ages vary from 14 years to 17 years. 27 girls and 22 boys were 14 years old, 52 girls and 39 boys were 15 years old and 12 girls and 18 boy were 16 years old and 3 boys were 17 years old.



**In 14 randomly selected public secondary education schools in Athens the questionnaire was handed out.** In total, 265 female and 274 male pupils cooperated for this survey's results (fig. 11-6). Their ages lie between 13 years and 18 years. 3 boys were 13 years old, 133 girls and 120 boys were 14 years old, 112 girls and 126 boys were 15 years old, 13 girls and 17 boys were 16 years

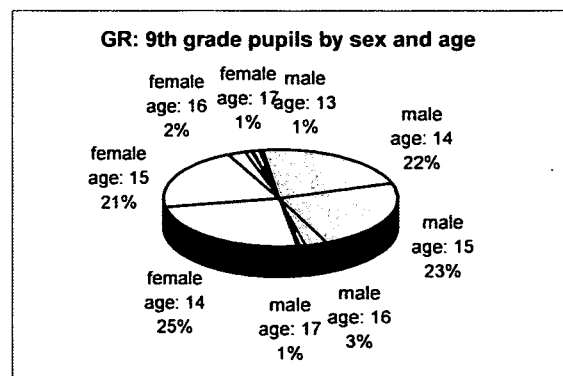


Fig. 11-5 and Fig. 11-6: Age distribution of participating 9<sup>th</sup> grade pupils in Vienna (up) and Athens (down)

old, 5 girls and 4 boys were 17 years old and 1 girl was 18 years old. 1 girl and 4 boys did not fill in their age.

The comparative tables below show, that in both grades 75% of all filled-in questionnaires originate from Athens and only 25% derive from Vienna. Subdivided, this equals to a primary education participation (fig. 11-7) of 35% girls and 40% boys from Athens and 12% girls and 13% boys from Vienna. In secondary education (fig. 11-8), the participation of Greek pupils comes up to 37% girls and 38% boys, while 13% girls and 12% boys from Vienna filled out the questionnaire.

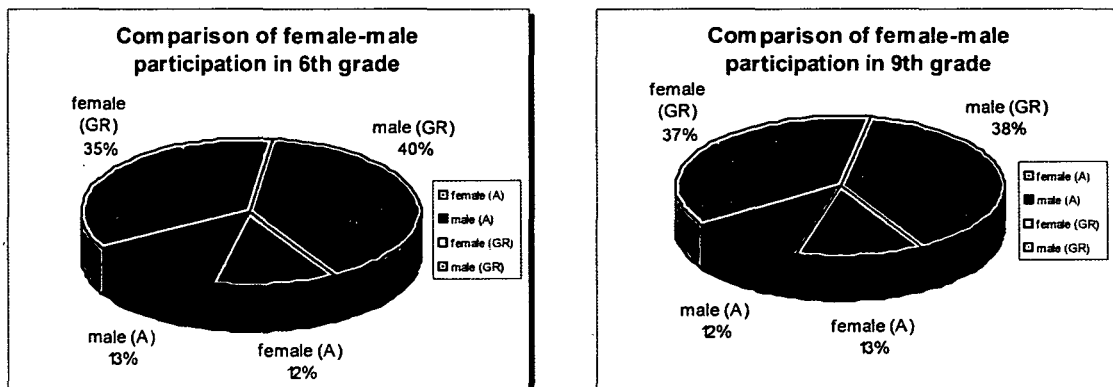
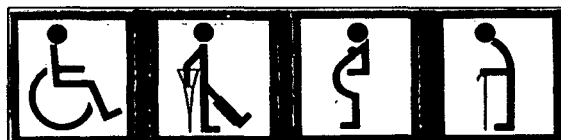


Fig. 11-7 and Fig. 11-8: Comparison of female-male participation in A and GR in 6<sup>th</sup> grade (left) and 9<sup>th</sup> grade (right)

11.4.3 REPLIES TO QUESTION 1



The first question asks pupils, if they know what the signs on the left represent. A field below each symbol is supposed to be filled out with one answer.



The answers for the **first picture of Question 1**, the wheelchair user being also the 'International sign for PwD', are as follows (fig. 11-9). The majority of all 6<sup>th</sup> grade pupils (63% of Greek girls, 50% of Greek boys, respectively 38% of Austrian girls and 35% of Austrian boys) answered, that the symbol stands for 'PwD'. Another 30% of Austrian girls and 22% of Austrian boys replied that it portrayed a 'person with wheelchair'. Only 1% Greek girls and 7% Greek boys chose this answer as well. This difference has to be related to common language use, as in German the expression 'Rollstuhlfahrer' (wheelchair driver) is often used, while Greeks almost never refer to 'άτομο με/σε αναπηρικό αμαξίδιο'. Other answers with little percentages are: 'person with mobility impairment' (5% Greek girls and 4% Greek boys) and 'PwD with wheelchair' (2% Austrian boys, respectively 4% Greek girls and 3% Greek boys). Pupils' abstention reaches 33% on the part of Austrian girls and 41% of Austrian boys, while Greek pupils' abstention is slightly reduced (28% girls and 37% boys).

Q 1a

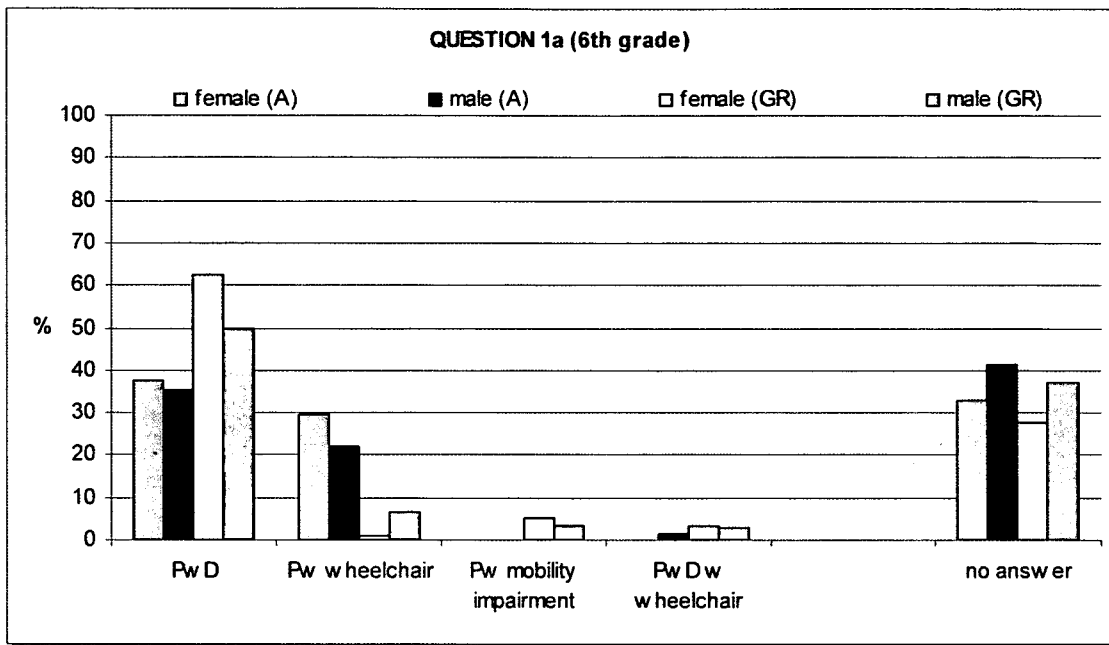


Fig. 11-9: 6<sup>th</sup> grade pupils' answers to Question 1a

9<sup>th</sup> grade pupils' answers are quite alike the ones of 6<sup>th</sup> grade pupils (fig. 11-10). However, abstention is almost reduced by half and children's answers from both countries can be found at all replies.

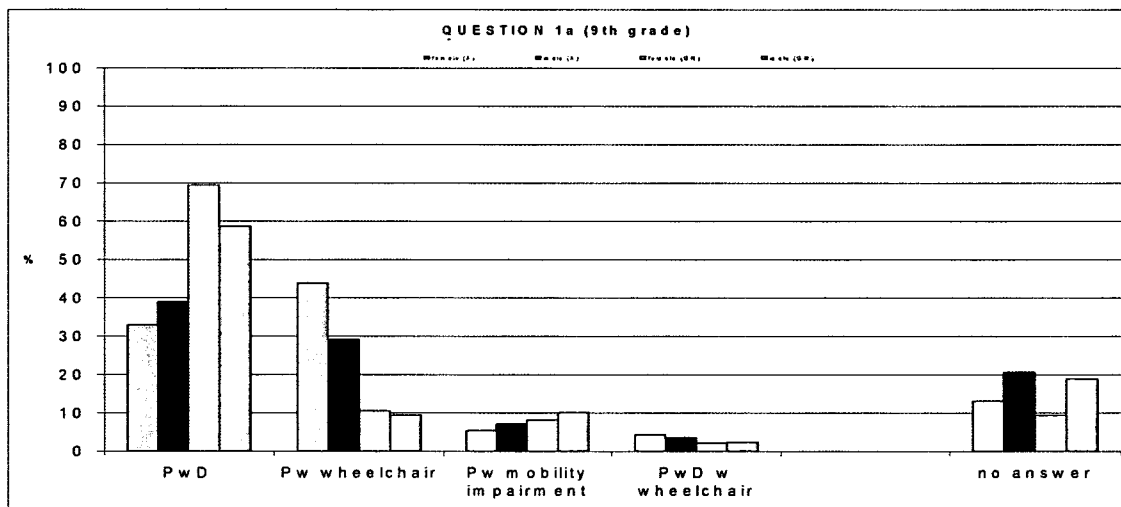


Fig. 11-10: 9<sup>th</sup> grade pupils' answers to Question 1a



The **second picture of Question 1** shows an injured person with a crutch. The majority of all participating 6<sup>th</sup> grade pupils (fig. 11-11) replied that the sign stands for 'injured person' (44% girls and 37% boys and only about half as may Greek pupils: 20% girls and 25% boys). The second most common answer of Greek pupils is 'limping person' (19% girls and 15% boys), an answer that was not at all given on the part of Austrian pupils. Austrian's second favored answer is 'person with broken leg' (8% girls and 7% boys). Greek pupils replied this as well (14% girls and 8% boys). Other answers with fewer percentages are:

Q 1b

'(temporary) mobility impairment' (2% Austrian girls, 3% Austrian boys, 2% Greek girls and 1% Greek boys), 'person with crutch(es)' (2% Austrian girls, 4% Austrian boys and 3% Greek girls, 1% Greek boys), 'PwD' (3% Austrian girls, 4% Greek girls and 4,5% Greek boys) and finally 'PwD with crutches' (only responded by Greek pupils, 3% girls and respectively 1% boys). The percentages of pupils not knowing or understanding this symbol is very high for both countries, lying at 41% of Austrian girls, 49% of Austrian boys, 36% of Greek girls and 46% of Greek boys.

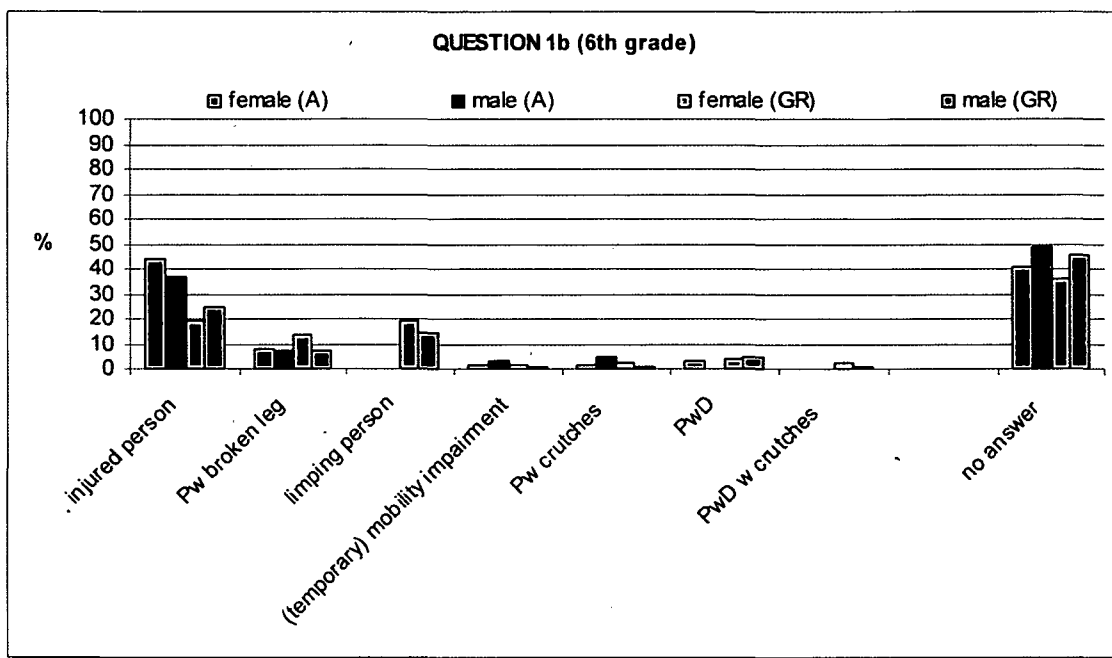


Fig. 11-11: 6<sup>th</sup> grade pupils' answers to Question 1b

9<sup>th</sup> grade pupils' answers (fig. 11-12) are the same ones as above, but the spreading is different. Again, children's abstention is remarkably lower.

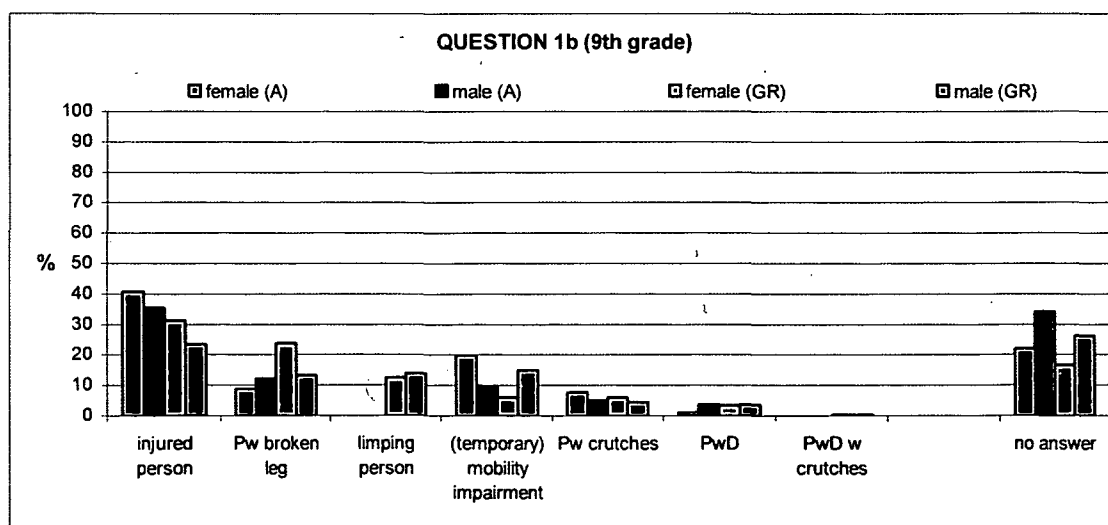


Fig. 11-12: 9<sup>th</sup> grade pupils' answers to Question 1b





The **third picture of Question 1** portrays a pregnant woman. The clear majority of all 6<sup>th</sup> grade pupils (*fig. 11-13*) filled-in, that it is a 'pregnant woman' (66% Austrian girls, 65% Austrian boys, 61% Greek girls, 50% Greek boys). Other replies with absolutely fewer percentages were: 'PwD' (only answered by Greek pupils, 1% girls and 3% boys) and 'person with mobility impairment/ baby' (filled-in by 2% Austrian boys). 'Corpulent person' is the only irrelevant answer and was given exclusively by Greek pupils, 3% girls and 5% boys. The percentages of not answering pupils remain on high levels for both countries (34% girls and 43% boys from Austria, 35% girls and 43% boys from Greece).

Q 1c

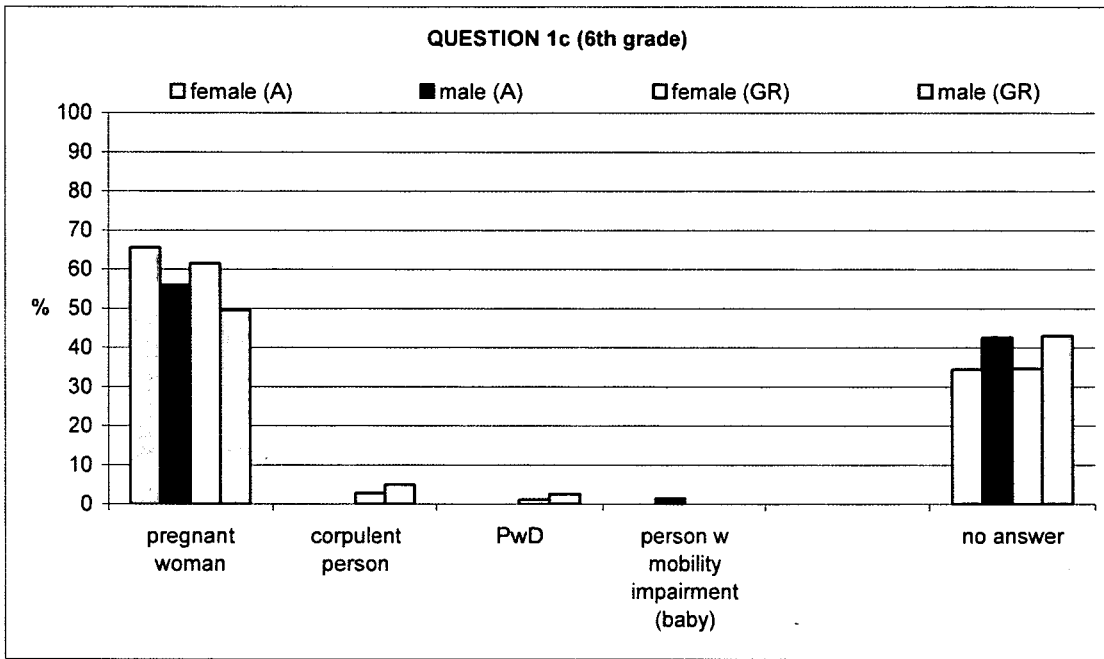


Fig. 11-13: 6<sup>th</sup> grade pupils' answers to Question 1c

Answers from 9<sup>th</sup> grade pupils (*fig. 11-14*) are similar to the ones already described, but it is clearly less children that did not know, what this symbol stands for.

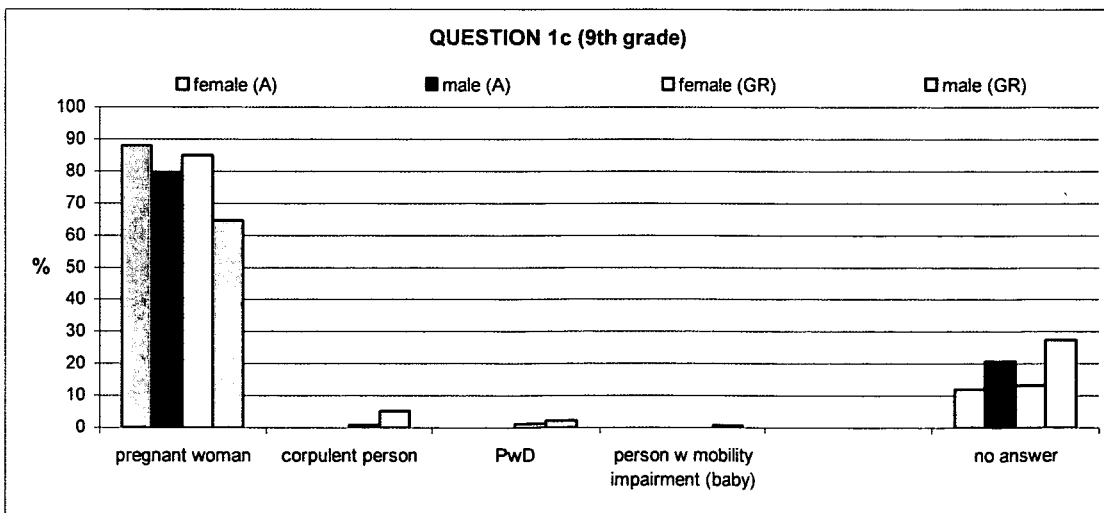


Fig. 11-14: 9<sup>th</sup> grade pupils' answers to Question 1c



The **fourth picture of Question 1** shows an elderly person with a walking stick. The peak of all 6<sup>th</sup> grade pupils' answers (*fig. 11-15*) can be clearly seen at 'elderly person'. 61% Austrian girls and 53% Austrian boys, 60% Greek girls and 52% Greek boys wrote this down. Other related answers, but with insignificant percentages were: 'PwD' (only answered by Greek pupils, 1% girls and 3% boys), 'person with mobility impairment' (1% Greek girls), 'elderly person with walking stick' (2% Austrian girls and 1% Greek boys), 'problem with back' (2% Greek boys). The only irrelevant reply to this symbol was 'blind person', filled-in by 2% Austrian girls, respectively boys and 1% Greek boys. The percentages of pupils not answering come up to 36% Austrian girls, 46% Austrian boys, 38% Greek girls and 43% Greek boys.

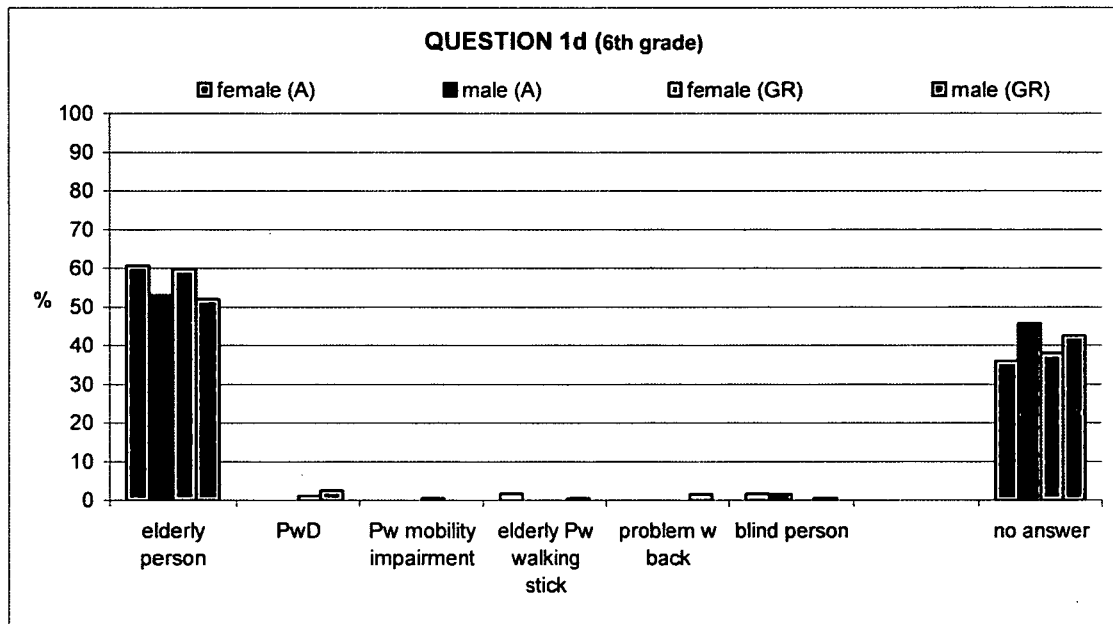


Fig. 11-15: 6<sup>th</sup> grade pupils' answers to Question 1d

Answers of 9<sup>th</sup> grade pupils are alike the ones above (*fig. 11-16*); again abstention is reduced and about half as high.

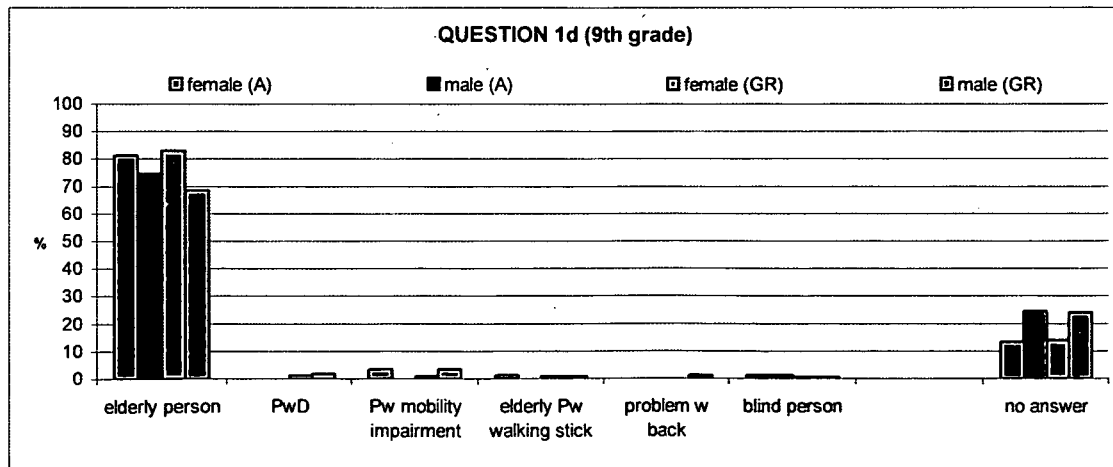


Fig. 11-16: 9<sup>th</sup> grade pupils' answers to Question 1d

11.4.4 REPLIES TO QUESTION 2 AND 3

In **Question 2**, pupils are asked to state, which of the symbols of Question 1 or similar signs they remember to have already seen somewhere. Nearly all of the participating 6<sup>th</sup> grade pupils (*fig. 11-17*) stated that they have already seen the 'international sign for PwD' (98% Austrian girls and 97% Greek girls and 94% boys from both countries respectively). The symbol that least pupils remember to have seen is the one for 'injured person'. Only 34% Austrian girls, 56% Austrian boys and 26% Greek girls and boys respectively remember to have it noticed somewhere. Quite different is the situation with the other two symbols. About double as many Austrian, than Greek, pupils have noticed the symbol for 'pregnant woman' (62% Austrian girls, 72% Austrian boys, 31% Greek girls and 25% Greek boys) and for 'elderly person' somewhere (61% Austrian girls, 75% Austrian boys, 34% Greek girls and 26% Greek boys).

Q 2

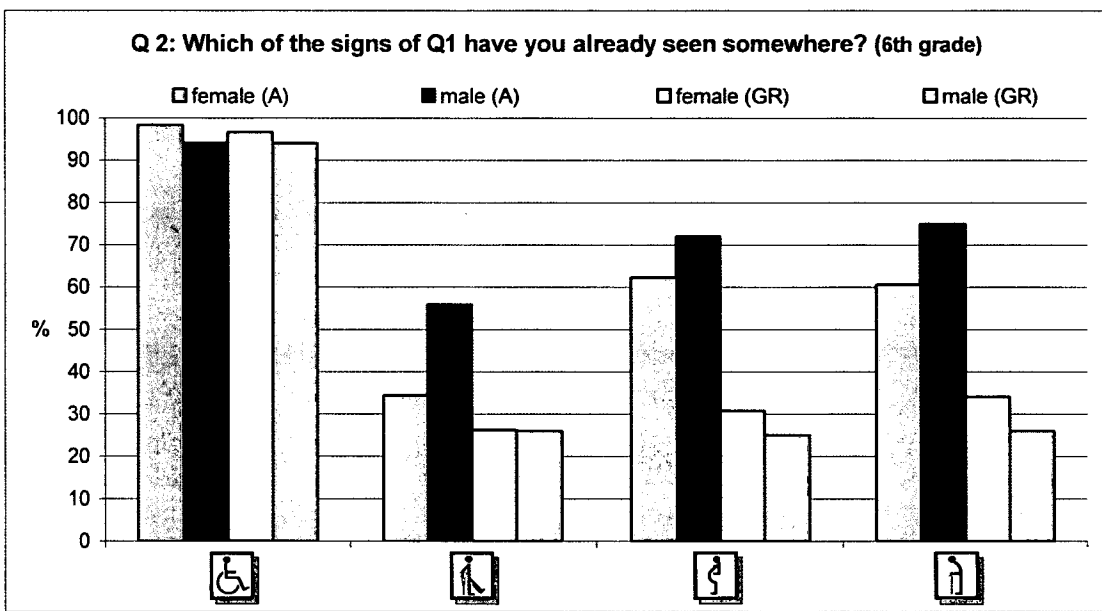


Fig. 11-17: 6<sup>th</sup> grade pupils' answers to Question 2

Percentages of 9<sup>th</sup> grade pupils (*fig. 11-18*) having seen the signs of Question 1 generally are lower than the ones presented above. Here also, the first sign has been remembered by about all pupils. However, the second sign was only seen by about a fourth of all children from both countries, while the third and fourth sign were noticed by circa double as many Austrians than Greeks, however showing a general decrease in Austrian boys' and Greek pupils' percentages.

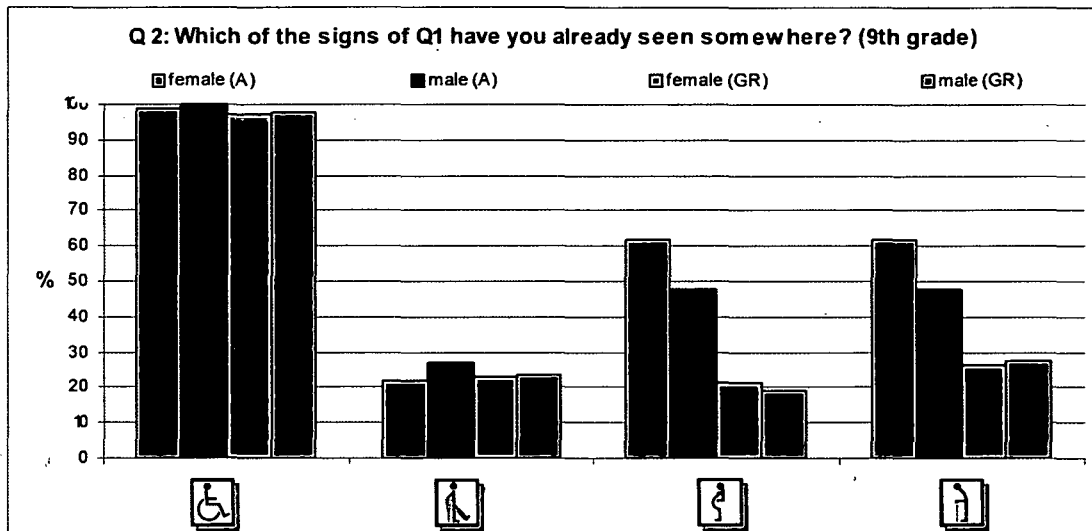


Fig. 11-18: 9<sup>th</sup> grade pupils' answers to Question 2

In **Question 3**, pupils are asked to note, where they have seen these or similar symbols. More than one answer was possible (fig. 11-19). The absolute majority of 6<sup>th</sup> grade Austrian pupils answered 'in a means of public transport' (67% girls and 62% boys, only chosen by 13% Greek girls and 18% Greek boys), while the peak in Greek pupil's replies is found at 'outside on the street or pavement' (50% girls and 31,5% boys; this answer was only given by 3% Austrian girls and boys respectively). Many pupils replied that they remembered having noticed these symbols in 'hospital' (5% Austrian girls, 15% Austrian boys, 22% Greek girls and 30% Greek boys), at 'special parking lots' (18% Austrian girls, 2% Austrian boys, 13% Greek girls and 18% Greek boys) or on 'toilet' (30% Austrian girls, 12% Austrian boys, 3% Greek girls and 4% Greek boys).

Q 3

Other answers with remarkably lower percentages, are: 'public building or spaces' (3% both Austrian and Greek boys and 4% Greek girls), 'in restaurants/hotels/etc.' (3% of all pupils respectively), 'on signs/plates' (only filled-in by Greek pupils, 6% from both sexes), 'on special equipment, like elevators, phones, etc' (1% Austrian boys, 2% Greek girls, 3% Greek boys), 'at entrances' (again only replied by Greek pupils, 1% girls and 5,5% boys), 'in old people's home' (again only mentioned by Greek pupils from 2% respectively), 'on PwD's cars' (2% Austrian girls and boys respectively, 1% Greek boys), 'in TV, on advertisements, etc.' (1% Greek girls and 2% Greek boys) and finally 'at school, in books' (2,0% Greek girls and 1% Greek boys). A small number of pupils from both countries did not answer this question, either because they have never seen one of these symbols or because they could not remember where they had looked at it (15% Austrian girls, 22% Austrian boys, 12% Greek girls and 11% Greek boys), but Austrian pupils not answering to this question are clearly more than the Greek abstinent ones.

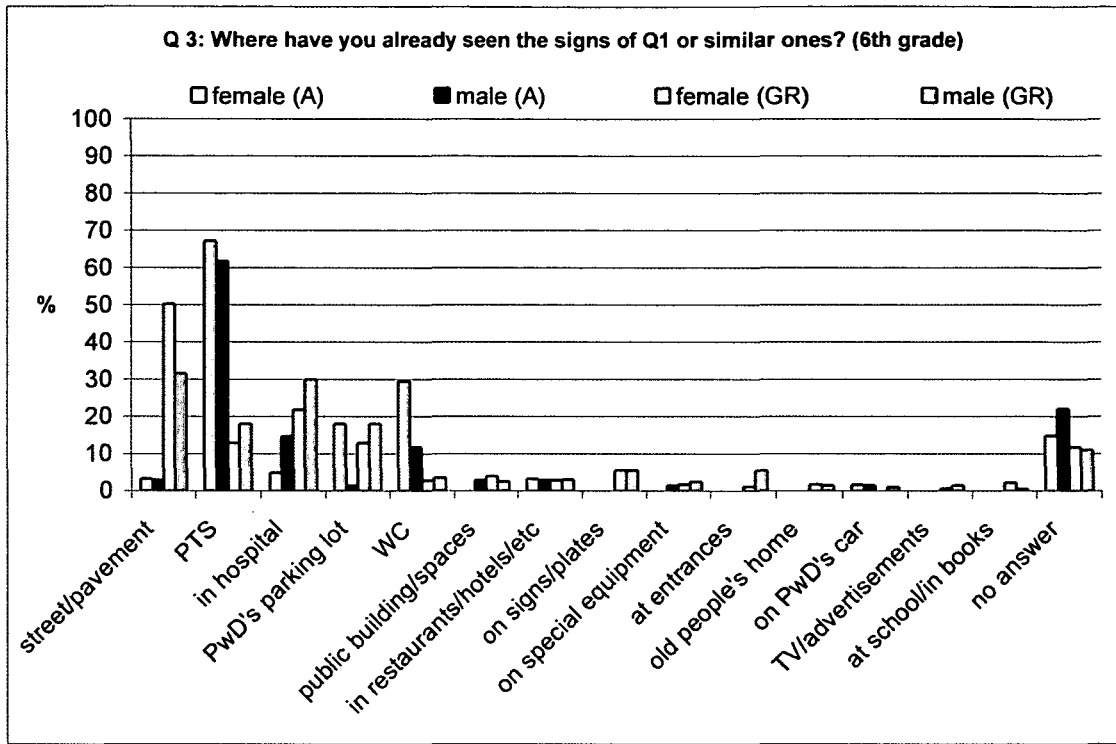


Fig. 11-19: 6<sup>th</sup> grade pupils' answers to Question 3

As far as 9<sup>th</sup> grade pupils' replies (fig. 11-20) are regarded, places where they have noticed these signs are the same ones as already presented, 'at school/in books' being the only exception. Slight differences in the percentages' spreading occur, but the peaks remain the same ones, as well as the Austrian and Greek pupils' four most chosen replies.

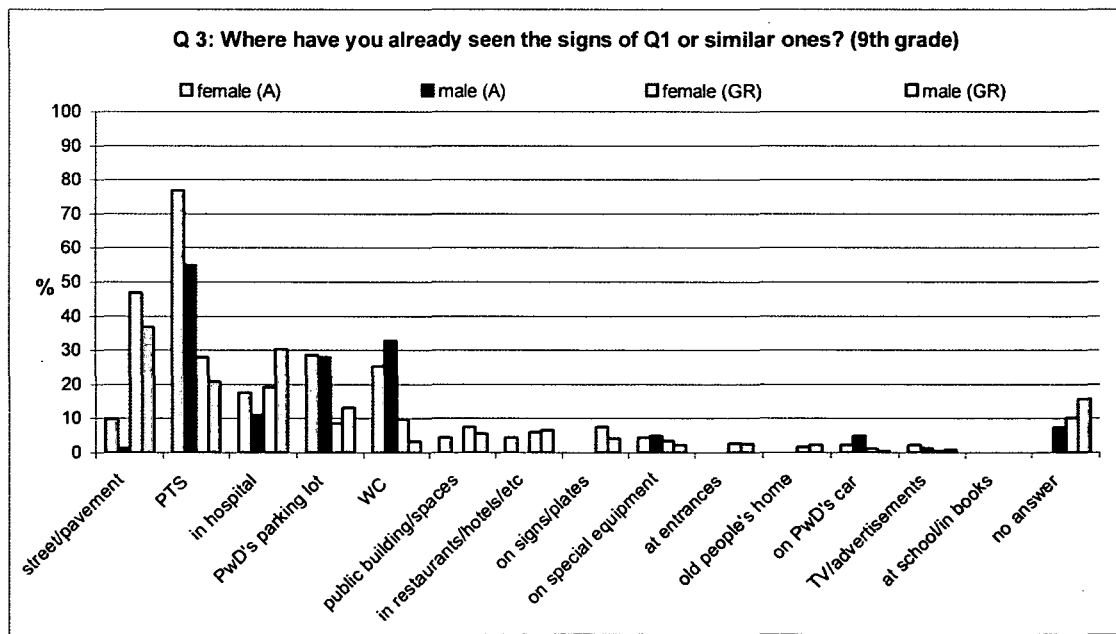


Fig. 11-20: 9<sup>th</sup> grade pupils' answers to Question 3

11.4.5 REPLIES TO QUESTION 4, 5 AND 6

Q 4

In **Question 4** pupils must reply to the question, if they have ever seen a PwD. The results of 6<sup>th</sup> grade and 9<sup>th</sup> grade pupils are presented in comparison in the table below (fig. 11-21). The absolute majority of all pupils from both cities claims to have already seen a PwD somewhere. 97% Austrian girls and 99% Austrian boys both from 6<sup>th</sup> and 9<sup>th</sup> grade answered this question with 'yes', 87% Greek girls and 88% Greek boys from 6<sup>th</sup> grade and 97% Greek girls and 95% Greek boys from 9<sup>th</sup> grade as well.

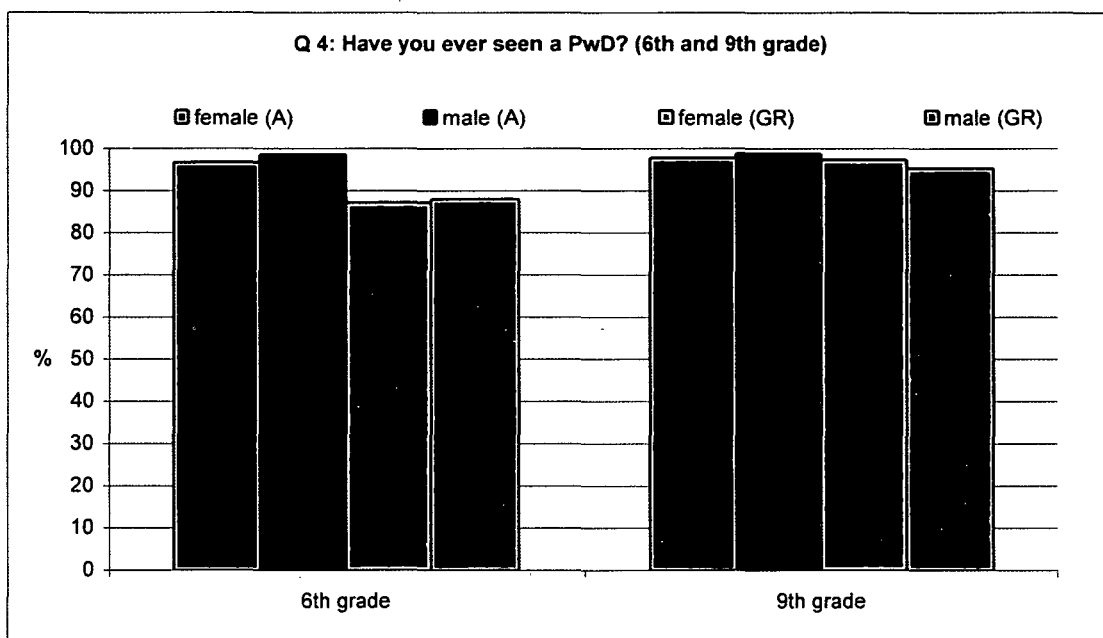


Fig. 11-21: 6<sup>th</sup> grade and 9<sup>th</sup> grade pupils' answers to Question 4

**Question 5** asks pupils to name, what the PwD's or PwDs' impairment was/were, they remember to have seen. The majority of 6<sup>th</sup> grade pupils from both cities (fig. 11-22) filled-in 'wheelchair user/PwD' (34% Austrian girls, 25% Austrian boys, 37% Greek girls and 35,5% Greek boys). Other representative answers on the part of Austrian children are: 'mental disturbance' (23% Austrian girls, 25% Austrian boys, however only answered from 3% Greek girls and 5% Greek boys) and 'blind person' (18% Austrian girls, 28% Austrian boys, again only noted by 4% Greek girls and boys respectively). 'Mobility impairment' was marked with an important amount of Greek pupils (25% Greek girls and 27% Greek boys, chosen also by 8% Austrian girls and 6% Austrian boys), probably meaning wheelchair user.

Q 5

Other answers are 'broken leg/arm' (2% Austrian girls, 12% Greek girls, 9,5% Greek boys) and 'no leg/foot' (7% Austrian girls, 4% Austrian boys, 4% Greek girls, 5,5% Greek boys). Lower percentages show replies like: 'no arm/hand' (2% Austrian girls and 3% Austrian boys, 5% Greek girls, 4% Greek boys), 'pregnant woman' (3% Austrian girls, 1% Austrian boys, 4% Greek girls and 3% Greek boys), 'elderly person' (only filled-in by Greek pupils, 3% girls and 4% boys), 'mute person' (2% Austrian girls, 4% Austrian boys, 1% Greek girls), 'psychological impairment' (2% Austrian girls and 1% Greek boys) and 'deaf person'

(only answered by Austrian pupils, 2% girls and 1% boys). The general expression 'corporal impairment' was only used by Austrian pupils (3% both girls and boys) and is listed in the table as a separate category, as it is not clear to what impairment it should be added. Finally, a small percentage of pupils could not describe or name the impairment, they had seen (13% Austrian girls and 10% Austrian boys, 8% Greek girls and 6% Greek boys).

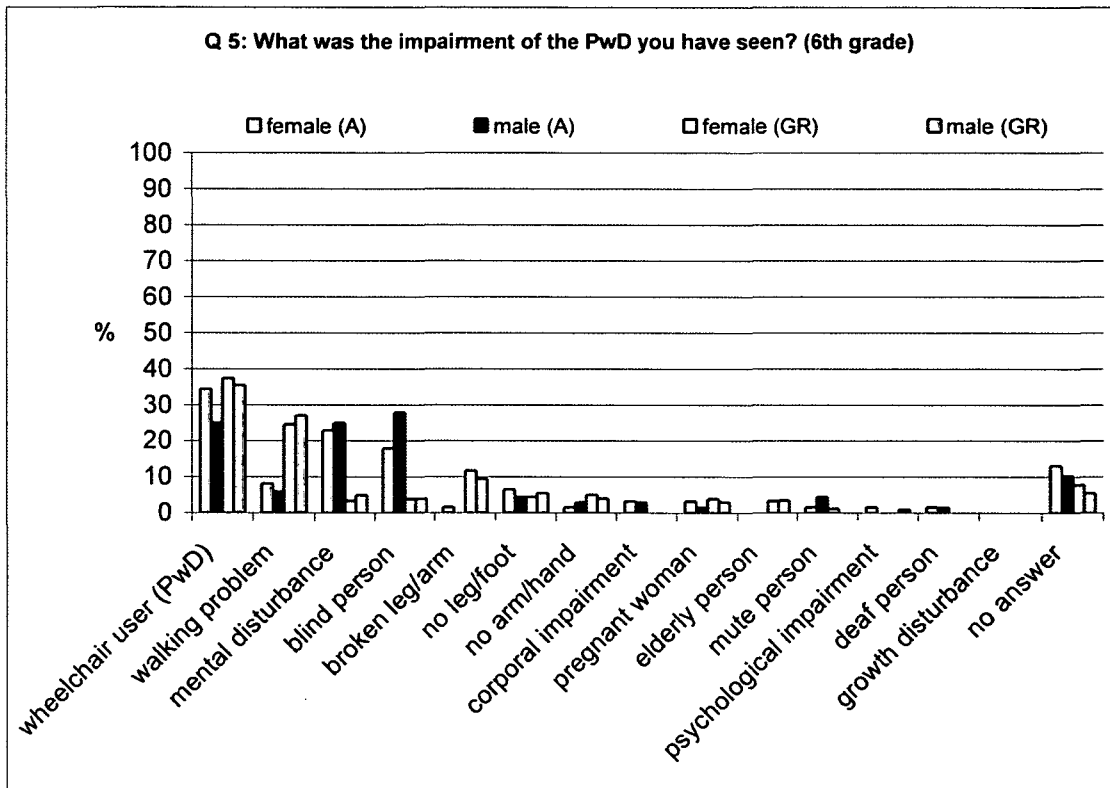


Fig. 11-22: 6<sup>th</sup> grade pupils' answers to Question 5

The general picture of the answers received from 9<sup>th</sup> grade pupils shows little differences (fig. 11-23), if compared to the ones described above. However, on the part of Austrian 9<sup>th</sup> grade pupils an additional peak can be observed at 'corporal impairment'. Furthermore, a new category was added, as some pupils mentioned 'growth disturbance' being one of the impairments they had seen.

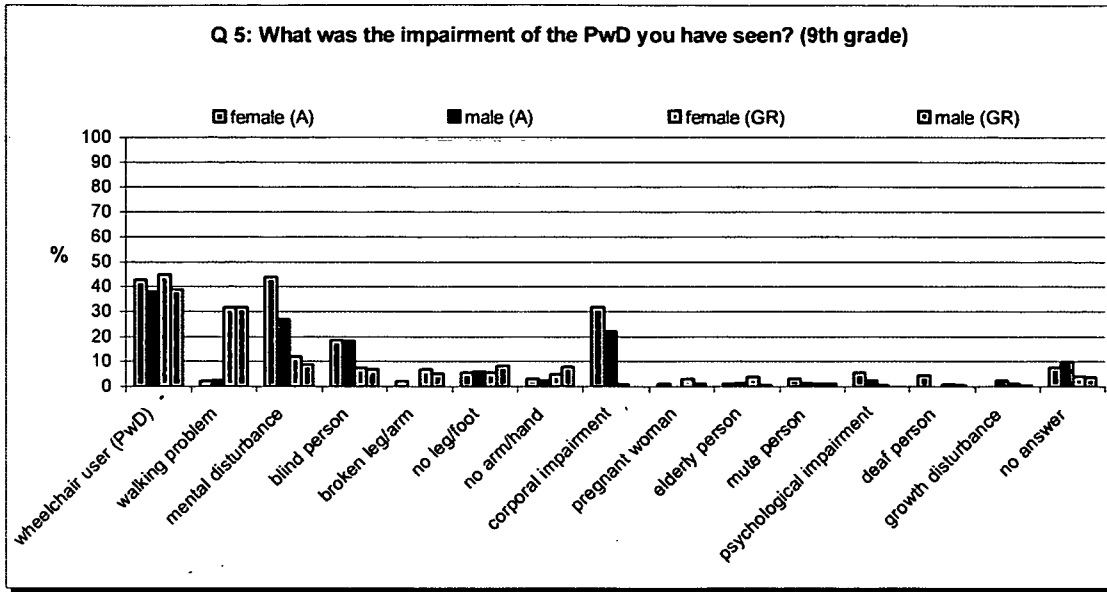


Fig. 11-23: 9<sup>th</sup> grade pupils' answers to Question 5

In **Question 6**, those pupils that have remembered seeing a PwD, are asked to write down, where they have seen her/him/them. The absolute majority of all 6<sup>th</sup> grade pupils (*fig. 11-24*) filled-in 'outside/in street' (54% Austrian girls, 49% Austrian boys, 44% Greek girls, 45% Greek boys). Another peak on the part of Austrian children can be noted at 'in a means of the Public Transportation System (PTS)' (18% girls and 24% boys, this answer was only given by 3,5% Greek girls and boys respectively). A representative answer on the part of Greek pupils is 'in hospital' (15% girls and 13% boys, only chosen by 2% Austrian girls and 3% Austrian boys). Other frequently chosen replies from pupils of both countries are 'at a friend's dwelling' (10% Austrian girls and 9% Austrian boys, 11% Greek girls and 10% Greek boys) and 'at school' (11% Austrian girls and 12% Austrian boys, 10% Greek girls and 13% Greek boys). 'In a shop' was also answered by a remarkable percentage on the part of Austrian girls (13%, while only 3% Austrian boys, 4% Greek girls, 3% Greek boys wrote this answer, too).

Other places that were mentioned are: 'at an event' (3% both Austrian girls and boys, as well as Greek girls and 4% Greek boys) and exclusively on the part of Greek children: 'in her/his village of origin' (4% both girls and boys), 'on TV' (3% girls and 2% boys) and 'begging on street' (3% girls and 1% boys). The abstention to this question reached 5% on the part of Austrian girls, 9% from Austrian boys, 3% Greek girls and 5% Greek boys.

Q 6



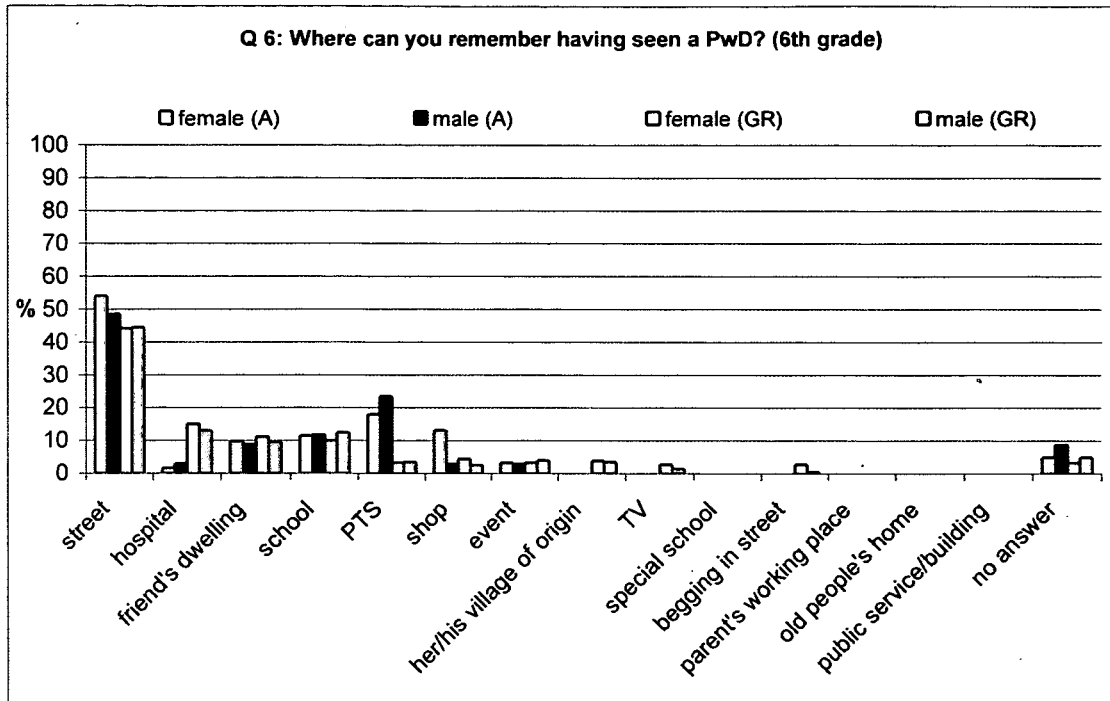


Fig. 11-24: 6<sup>th</sup> grade pupils' answers to Question 6

9<sup>th</sup> grade pupils' replies to Question 6 reveal a bigger variety of places (fig. 11-25). The majority of answers belong to the same categories, as those of 6<sup>th</sup> grade pupils. However, 9<sup>th</sup> grade pupils deriving from both countries additionally mentioned: 'at special school', 'at my parent's working place', 'in old people's home' and 'in public service/public building'.

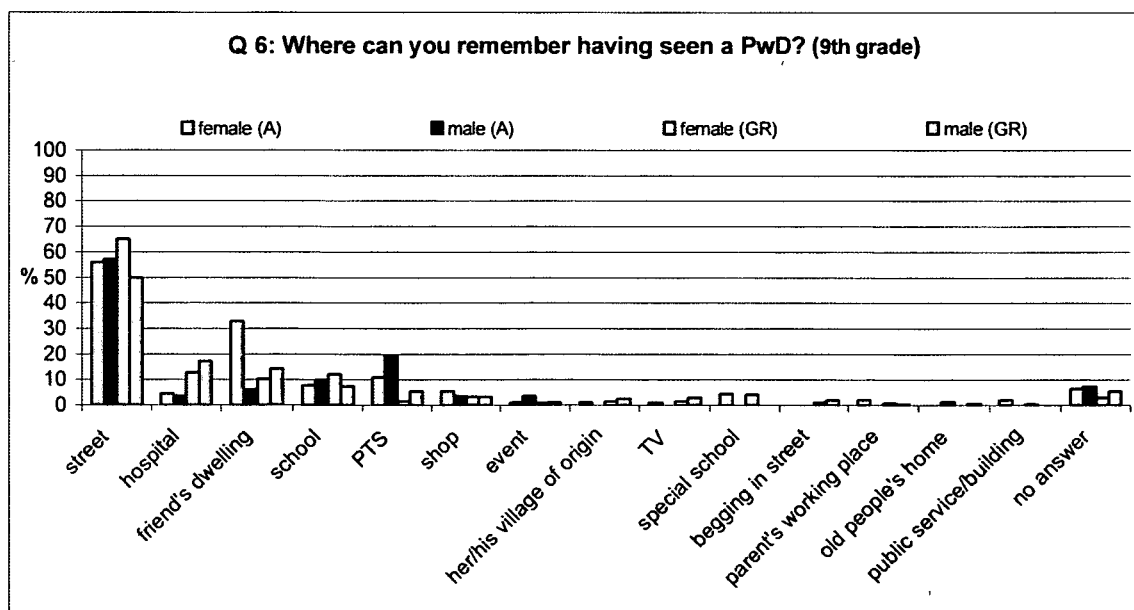


Fig. 11-25: 9<sup>th</sup> grade pupils' answers to Question 6

11.4.6 6<sup>TH</sup> GRADE REPLIES TO QUESTION 7 AND 8

**Question 7** queries, if there is a pupil wD attending the pupils' schools (*fig. 11-26*). Greek 6<sup>th</sup> and 9<sup>th</sup> grade pupils filled-in in similar ways, holding similar levels regarding both sexes (29% and 31% respectively in 6<sup>th</sup> grade and 39% and 37% in 9<sup>th</sup> grade). On the part of Austrian girls an outstanding divergence has to be remarked, if compared to Austrian boys' answers. In the case of 6<sup>th</sup> grade, only about half the amount of Austrian girls answered 'yes' (20%, in contrast to 43% boys), while in 9<sup>th</sup> grade they are over-represented (41%, in comparison to 33% Austrian boys).

Q 7

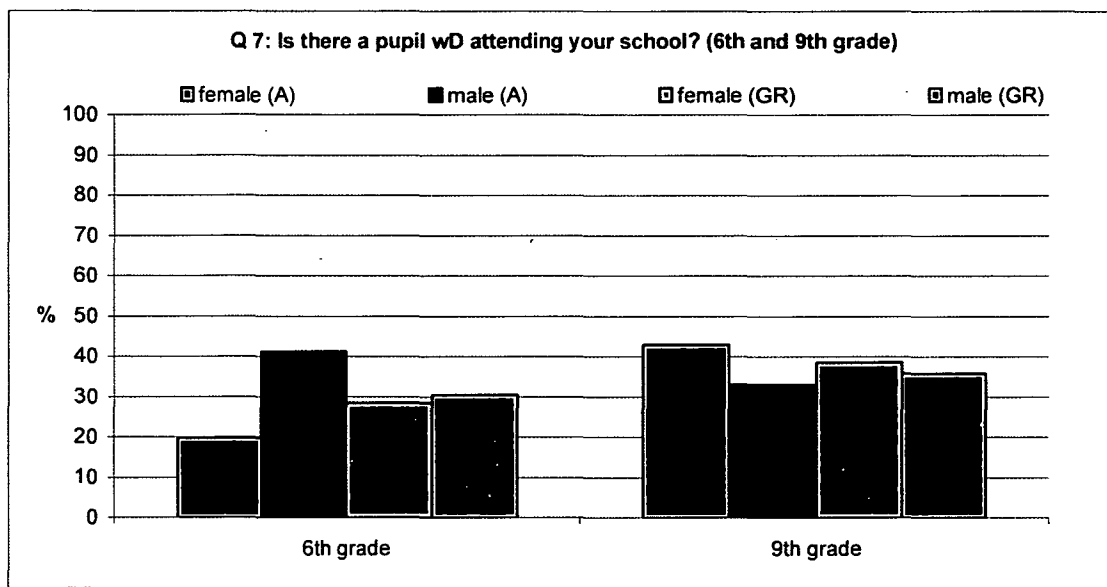


Fig. 11-26: 6<sup>th</sup> grade and 9<sup>th</sup> grade pupils' answers to Question 7

**Question 8** is addressed to the pupils that have filled-in positively to Question 7. It asks them to judge how serious every-day problems of their schoolmate wD are. A scale of five steps (very serious – serious – I don't know – medium – none at all) is given and according to their opinion, they have to choose the best fitting answer (*fig. 11-27*). The majority of 6<sup>th</sup> grade Austrian pupils and Greek boys (46% Austrian girls, 38% Austrian boys and 35% both Greek boys and girls) chose 'serious' to describe the pupil's wD daily difficulties. The most represented answer on the part of Greek girls is 'very serious' (37%, also chosen from 8% Austrian girls, 10% Austrian boys and 25% Greek boys). Another peak can be remarked at 'medium' on the part of Greek boys (27%, this answer was also given from 8% Austrian girls and 14% Austrian boys and Greek girls respectively). 'None' was chosen by a very small amount of pupils (8% Austrian girls and 3% Austrian boys and both 2% Greek girls and boys). It has to be pointed out, that the abstention is very high, especially on the part of Austrian children. 'Unknown/no answer' is the second most chosen reply on the part of them and exceeds Greek pupils about three times (31% Austrian girls and 34% Austrian boys chose this reply and only 12% both Greek girls and boys)!

Q 8

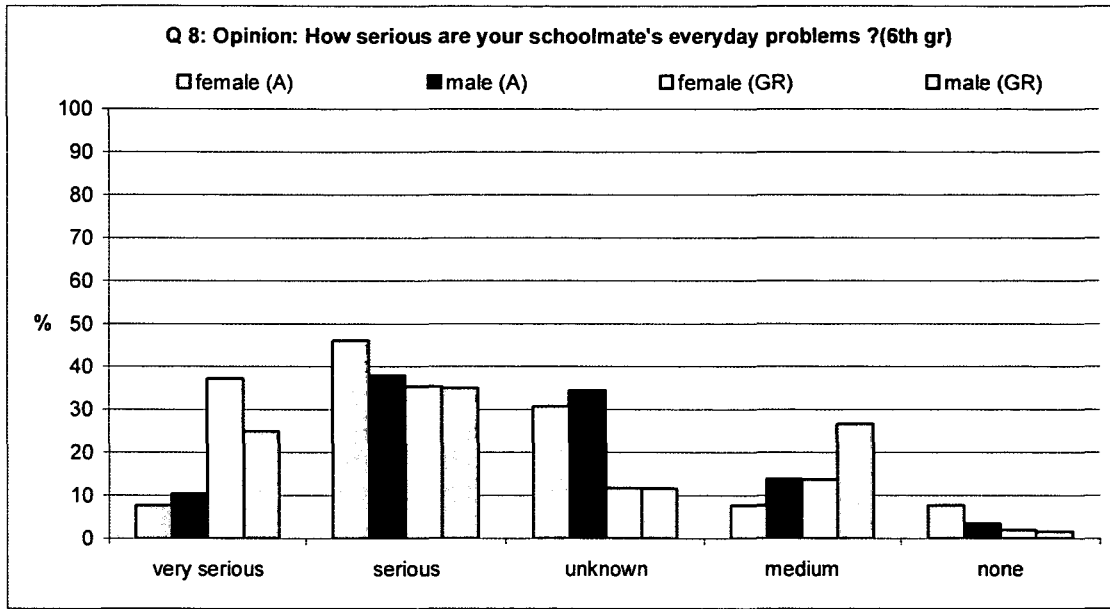


Fig. 11-27: 6<sup>th</sup> grade pupils' answers to Question 8

As far as answers of 9<sup>th</sup> grade pupils to Question 8 are concerned, the picture is a bit different (fig. 11-28). The majority of both countries chose 'serious', with the exception of Austrian boys, who primarily judged that their schoolmate's problems are 'medium'. Abstention in general is slightly reduced, but still quite high and important increase on the part of Greek boys.

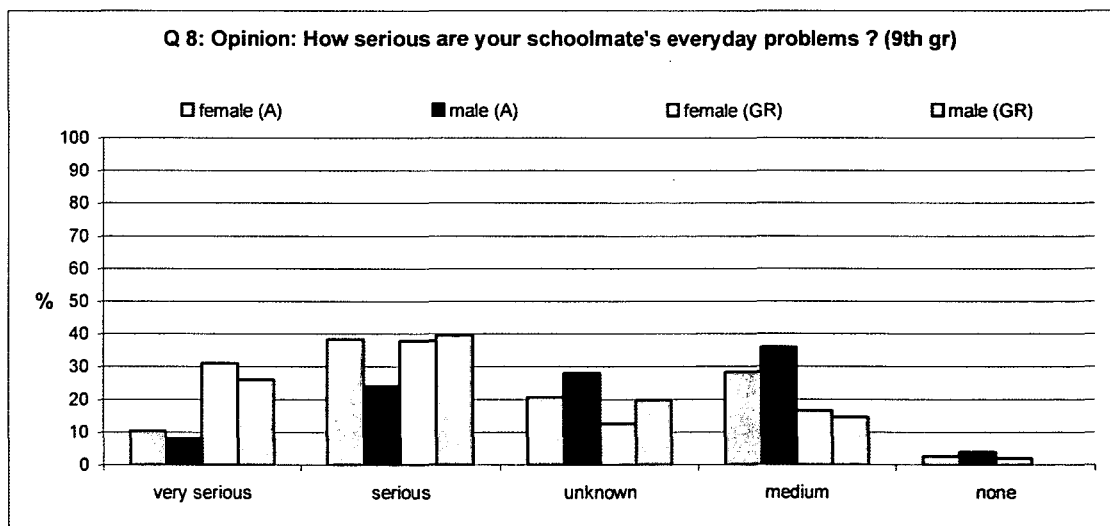


Fig. 11-28: 9<sup>th</sup> grade pupils' answers to Question 8

11.4.7 REPLIES TO QUESTION 9

In Question 9, pupils must encircle the degree of difficulties, PwD are confronted with, according to their proper opinion. Five fields of impairments were listed and next to them again the scale of 'very serious – serious – I don't know – medium – none at all'.

**Question 9a** deals with the seriousness of problems of persons with mobility impairment (fig. 11-29). The majority of Greek 6<sup>th</sup> grade pupils and Austrian girls thought of their problems being 'very serious' (34% Austrian girls, 52% Greek girls and 44% Greek boys, this was also answered by 22% Austrian boys), followed by 'serious' (33% Austrian girls, 32% Greek girls and Greek 36% boys, also chosen from 15% Austrian boys) and 'medium' (13% Austrian girls, 8% Greek girls and 11% Greek boys), being Austrian boys' favorite answer (24%). Again, it is remarkably few pupils, which decided to choose 'none', however all being male (3% Austrian boys and 2% Greek ones). Percentages of pupils crossing 'unknown' is almost three times higher as regards Austrian girls and more than five times higher as regards Austrian boys, if compared to Greek pupils (20% Austrian girls, 37% Austrian boys, 7% Greek girls and boys respectively).

Q 9a

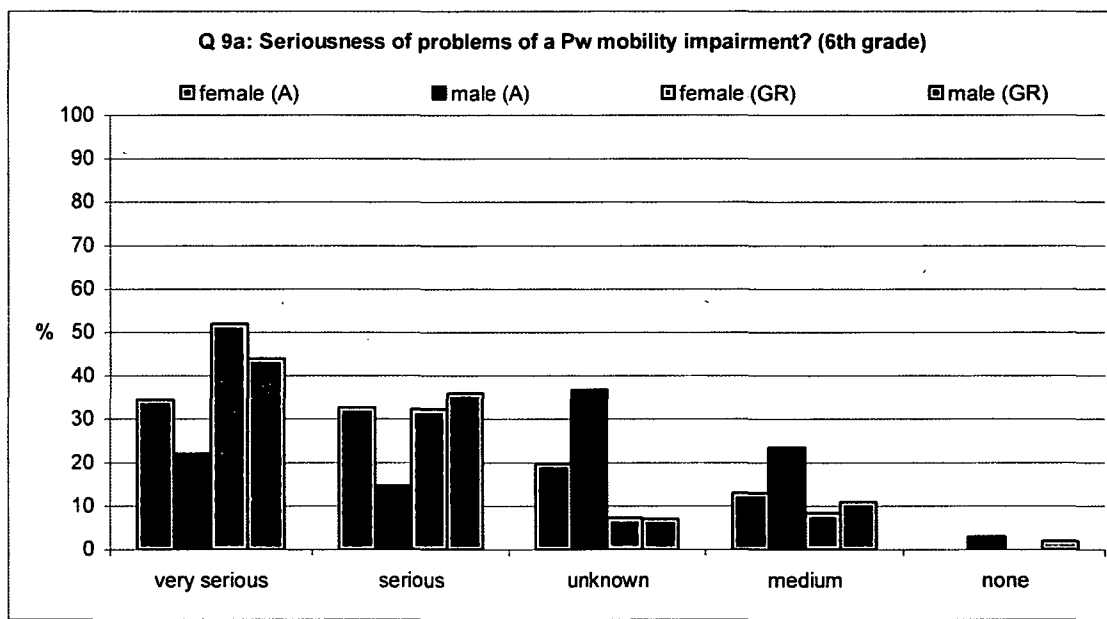


Fig. 11-29: 6<sup>th</sup> grade pupils' answers to Question 9a

As regards 9<sup>th</sup> grade pupils' answers to Question 9a (fig. 11-30), slight differences in the spreading of Austrian children's replies have to be noted. The preferred answers are vice-versa, if compared to Greek pupils' choices. 'Serious' is Austrians' top answer, followed by 'very serious'. The general reduction of pupils that crossed 'unknown' has to be pointed out as well. However, Austrian pupils' abstention still remains much higher!

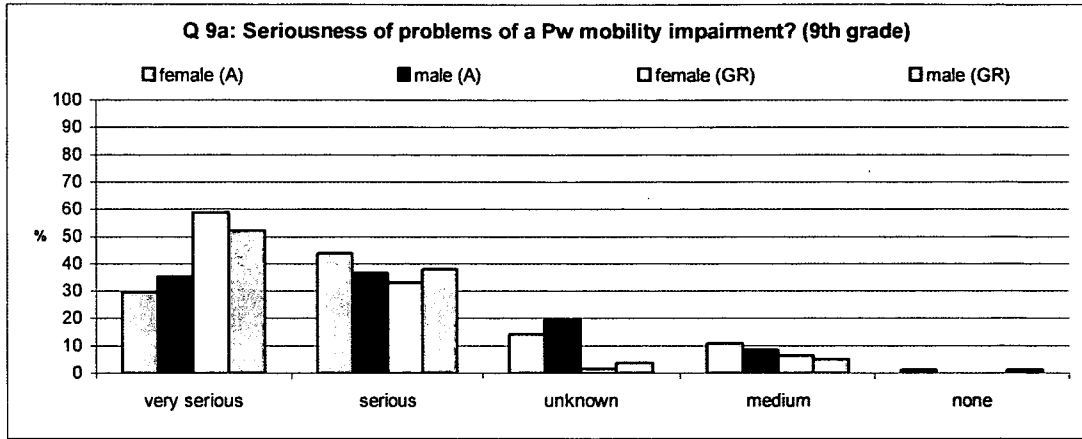


Fig. 11-30: 9<sup>th</sup> grade pupils' answers to Question 9a

The seriousness of problems of persons with visual impairment is to be evaluated in **Question 9b**. The clear majority of Greek 6<sup>th</sup> grade pupils and Austrian girls (*fig. 11-31*) filled-in 'very serious' (36% Austrian girls, 48% both Greek girls and boys), followed by 'serious' (23% Austrian girls, 22% Greek girls, 24% Greek boys). No clear peak can be observed among Austrian boys' replies; however 'serious' stands before 'very serious' (27% and 22% respectively). On the part of all pupils, the degrees of 'medium' and 'none' are less represented (5% Austrian girls, 13% Austrian boys, 7% Greek girls and 8% Greek boys, respectively 8% Austrian girls, 12% Austrian boys, 10% Greek girls and 7% Greek boys). Again, the abstention on the part of Austrian pupils is remarkable (28% girls and 26% boys) and lies almost double as high as the one of Greek pupils (14% both girls and boys).

Q 9b

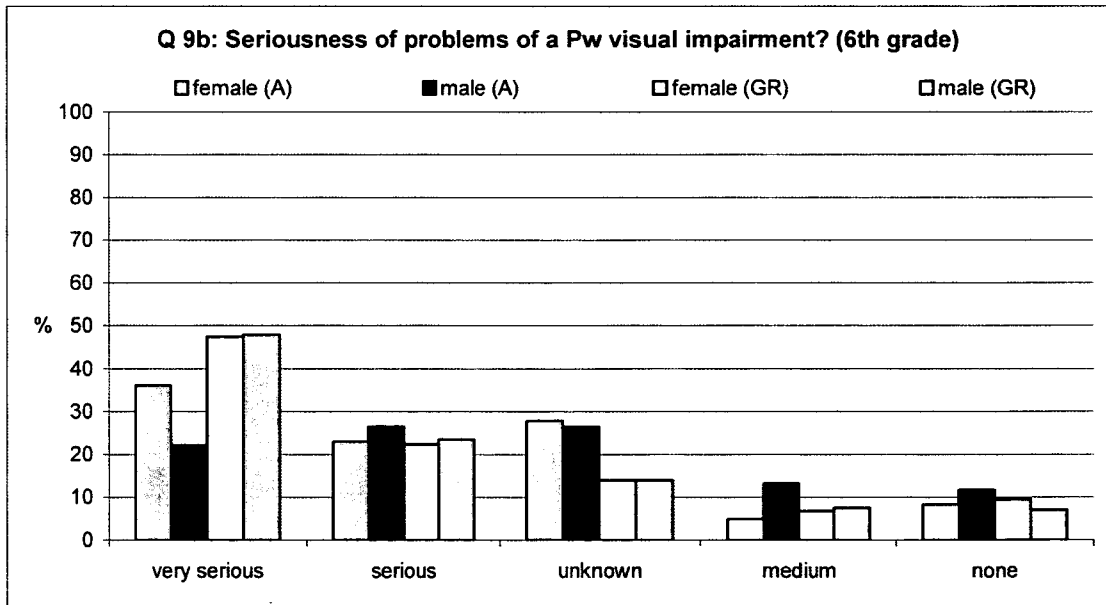


Fig. 11-31: 6<sup>th</sup> grade pupils' answers to Question 9b

9<sup>th</sup> grade pupils replies ranked the degrees in a similar way (fig. 11-32), but in general, no outstanding degradations can be observed on the part of Austrian children's answers. Remarkable is also the slight increase in children's abstention.

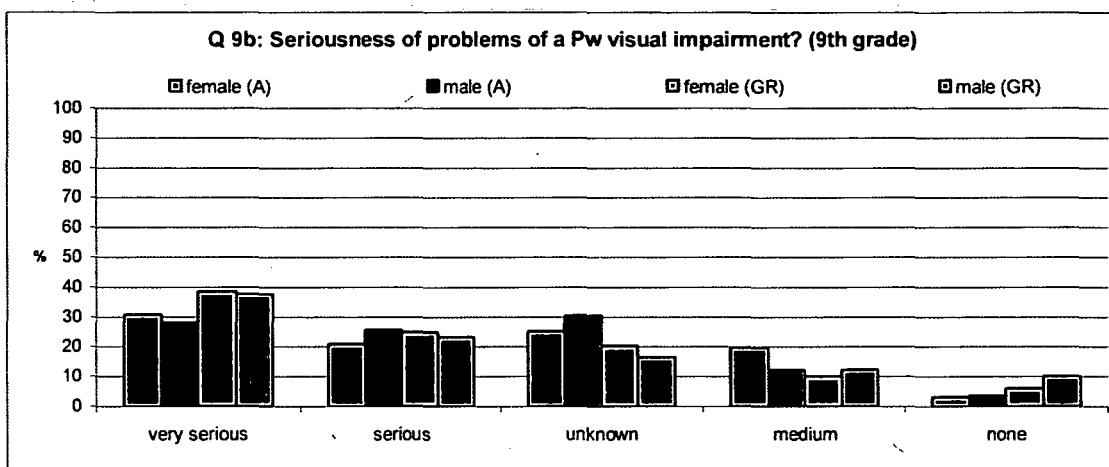


Fig. 11-32: 9<sup>th</sup> grade pupils' answers to Question 9b

In **Question 9c**, it is daily problems of persons with hearing impairment that are to be evaluated (fig. 11-33). The ranking of seriousness degrees is common for all 6<sup>th</sup> grade pupils from both countries. In general, they think of her/his problems' being 'serious' (30% Austrian girls, 25% Austrian boys, 37% Greek girls and 34% Greek boys), followed by 'very serious' (28% Austrian girls, 18% Austrian boys, 21% Greek girls and 27% Greek boys), 'medium' (13% Austrian girls, 18% Austrian boys, 16% both Greek girls boys) and 'none' (5% Austrian girls, 15% Austrian boys, 11% Greek girls and 9% Greek boys). Also in this question, abstention is higher on the part of Austrian pupils (25% both Austrian girls and boys, compared to 15% Greek girls and 16% Greek boys).

Q 9c

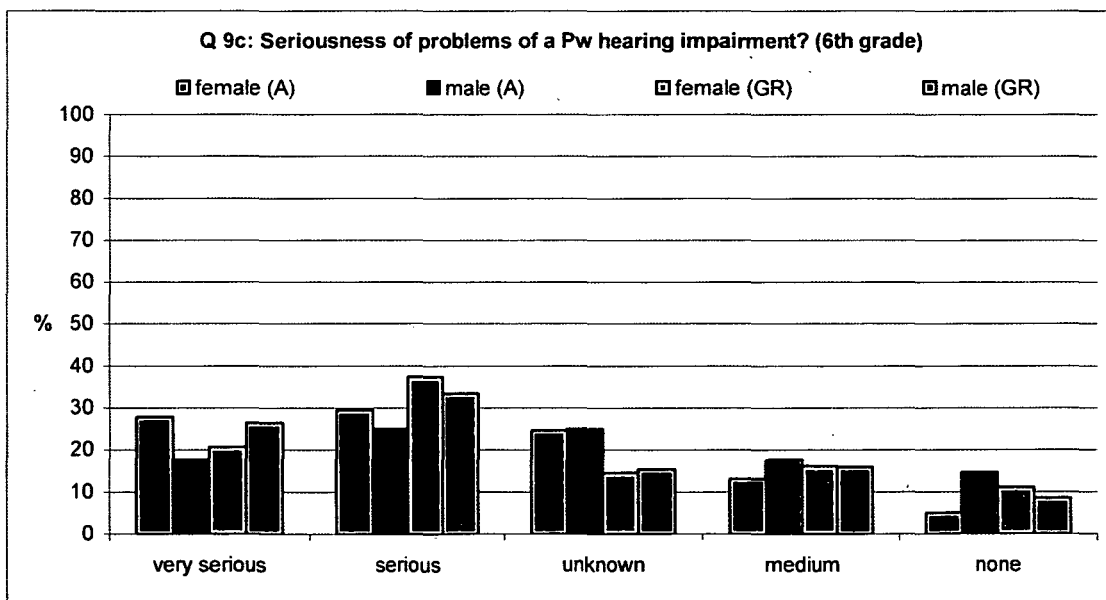


Fig. 11-33: 6<sup>th</sup> grade pupils' answers to Question 9c

Taking a glance at 9<sup>th</sup> grade pupils' replies (fig. 11-34), the peak again is at 'serious', followed by 'medium' and then 'very serious' and 'none' on the part of Greek pupils. Austrian children's answers give the same percentages for 'very serious' and 'medium', placing both degrees on the same level before 'none'. Again, it can be observed, that it is more 9<sup>th</sup> grade than 6<sup>th</sup> grade pupils that did not know how to evaluate the problems of a Pw hearing impairment.

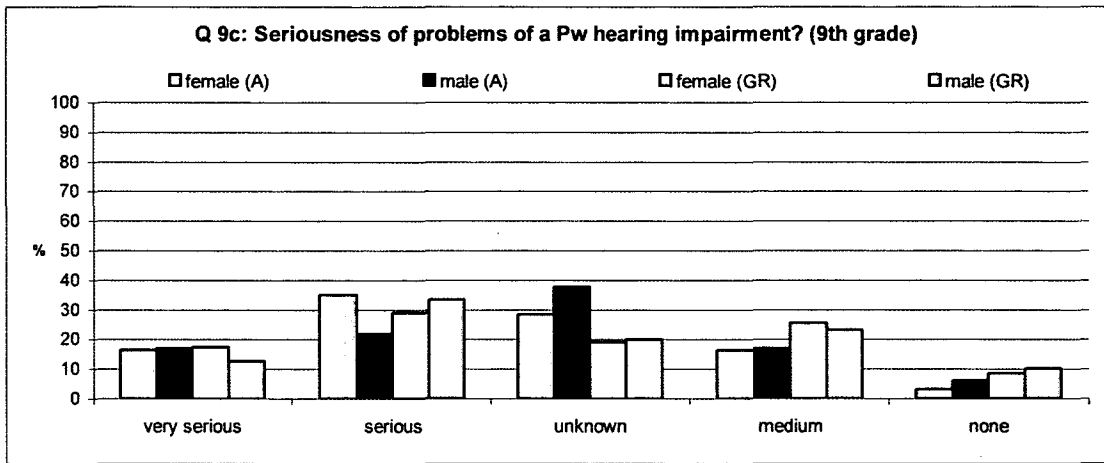


Fig. 11-34: 9<sup>th</sup> grade pupils' answers to Question 9c

**Question 9d** refers to problems of persons with cognitive impairment (fig. 11-35). The majority of 6<sup>th</sup> grade Austrian pupils (41% girls and 47% boys) did not answer this question. Apart from this, most Austrian pupils chose the degrees of 'very serious' (23% girls and 18% boys) and 'serious' (19% girls and 22% boys). These two answers are most marked by Greek children, too, (28% girls and 32% boys, respectively 32% girls and 23% boys) together with 'unknown' (27% girls and 29% boys). Both 'medium' and 'none' show remarkably low percentages (8% Austrian girls, 7% Austrian boys, 10% Greek girls and 9% Greek boys, respectively 8% Austrian girls, 6% Austrian boys, 3% Greek girls and 8% Greek boys).

Q 9d

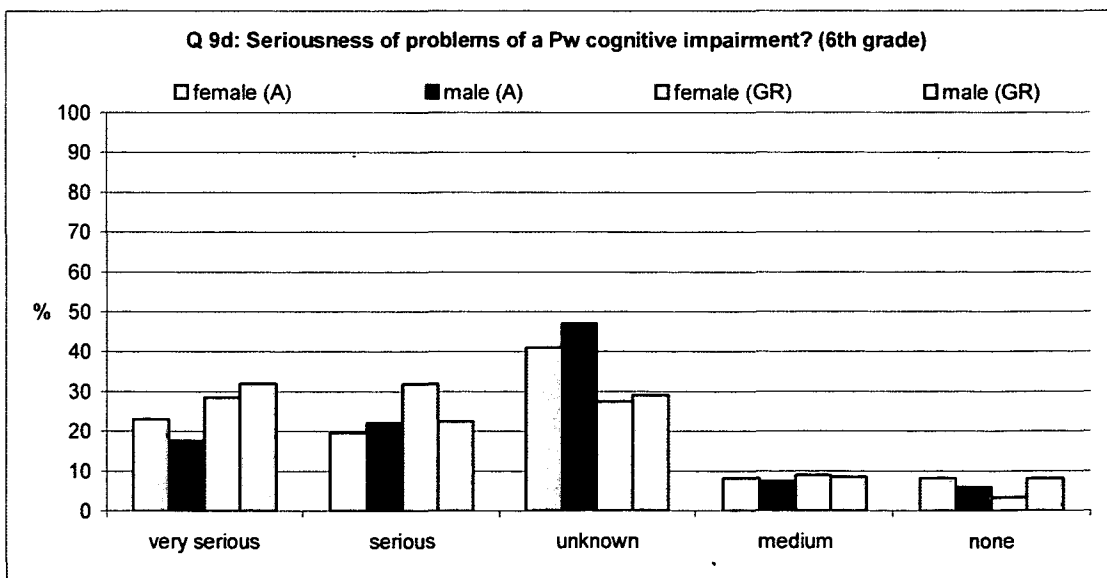


Fig. 11-35: 6<sup>th</sup> grade pupils' answers to Question 9d

9<sup>th</sup> grade pupils were more confident in giving an answer (fig. 11-36). Austrian children replies placed 'serious' before 'very serious', while Greek choices have these two degrees about equally represented. However, Austrian children more often ticked 'unknown' than Greek ones.

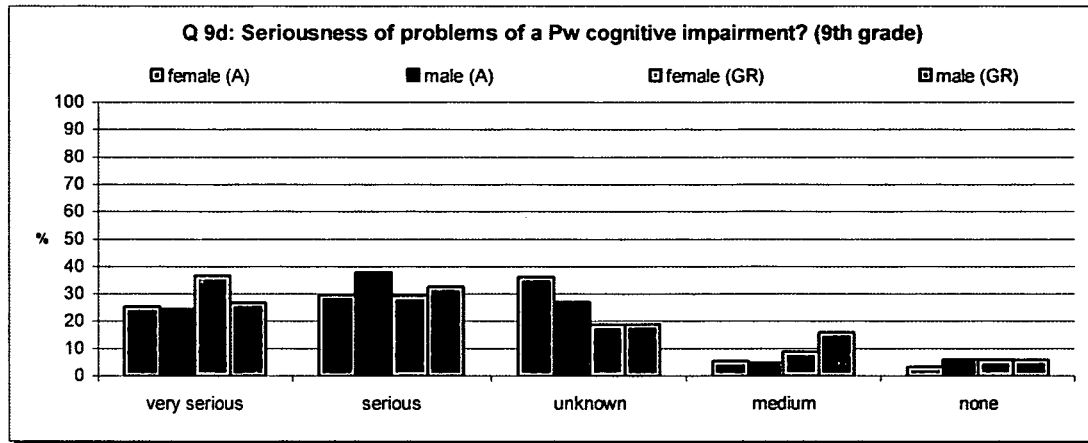


Fig. 11-36: 9<sup>th</sup> grade pupils' answers to Question 9d

The last field of **Question 9, field e**, deals with difficulties persons with communication impairment are confronted with (fig. 11-37). Their problems' seriousness was evaluated similar from all 6<sup>th</sup> grade children, ranking 'very serious' (30% Austrian girls, 31% Austrian boys, 35% Greek girls and 36% Greek boys) before 'serious' (23% Austrian girls, 19% Austrian boys, 28% Greek girls and 30% Greek boys), 'medium' (21% Austrian girls, 12% Austrian boys, 11% Greek girls and 14% Greek boys) and 'none' (8% Austrian girls, 6% Austrian boys, 7% Greek girls and 8% Greek boys). 'Unknown' was chosen by a notable amount of Austrian boys (32% Austrian boys, in contrast to 18% Austrian girls, 20% Greek girls and 14% Greek boys).

Q 9e

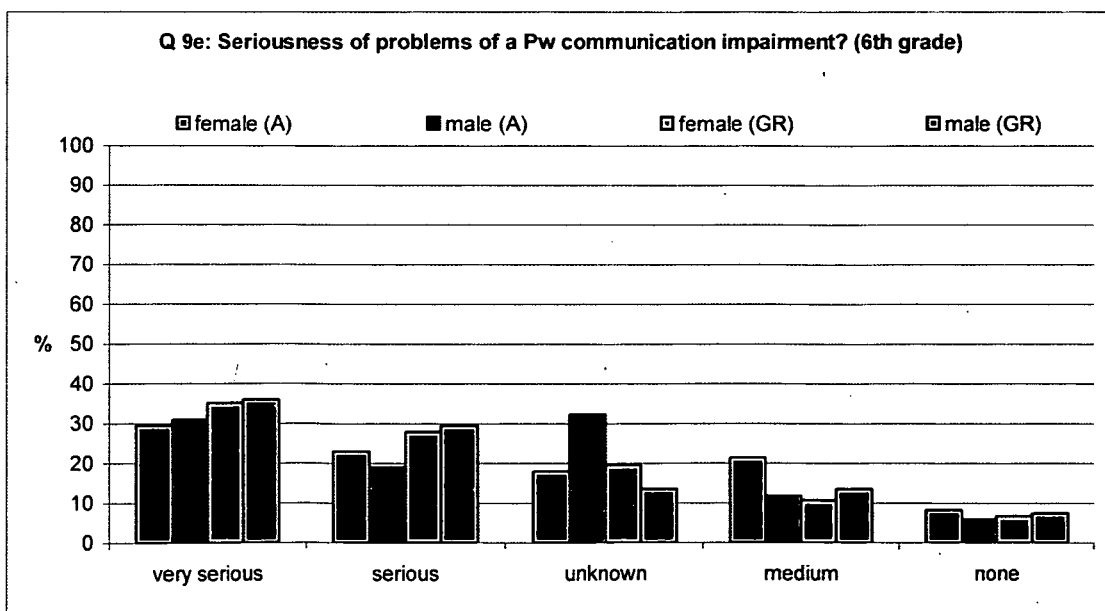


Fig. 11-37: 6<sup>th</sup> grade pupils' answers to Question 9e



Regarding 9<sup>th</sup> grade replies to question 9e (*fig. 11-38*), most pupils judged, that difficulties either are 'serious' or 'very serious', than 'medium' and 'none'. In this grade, it was primarily Austrian girls that did not know what to answer, followed by Austrian boys, almost doubling Greek pupils choosing 'unknown'.

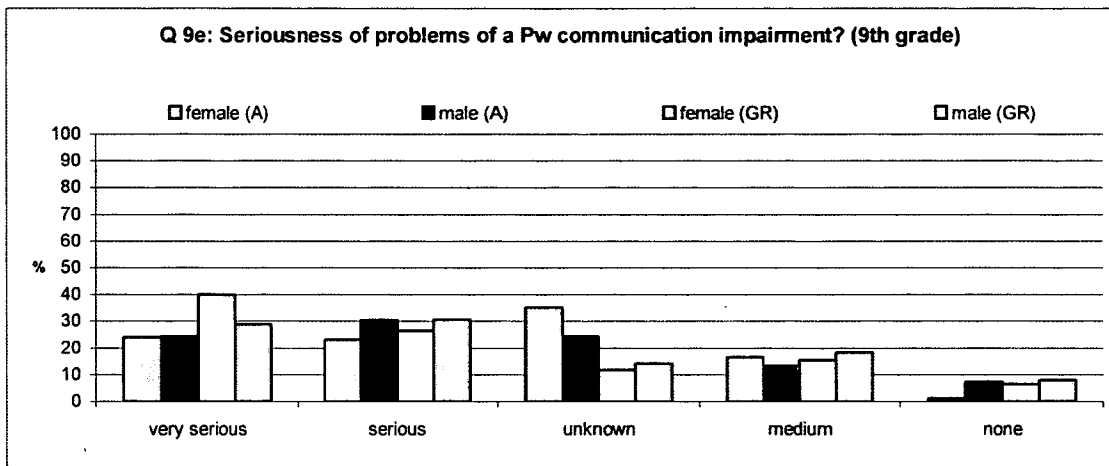
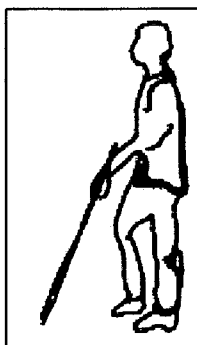


Fig. 11-38: 9<sup>th</sup> grade pupils' answers to Question 9e

#### 11.4.8 REPLIES TO QUESTION 10

**Question 10** shows sketches of various PRM and PwD and deals with their daily problems when walking on pavement and streets, the built environment in general. According to the scale: 'very serious – serious – I don't know – medium – none at all', pupils have to evaluate the seriousness of each portrayed person.



The **first picture** portrays a Pw visual impairment walking with the aid of a white cane. The absolute majority of 6<sup>th</sup> grade pupils (*fig. 11-39*) judged, that his problems are 'very serious' (64% Austrian girls, 59% Austrian boys, 63% Greek girls, 62% Greek boys). Fewer percentages accumulated at 'serious' (21% Austrian girls, 24% both Austrian boys and Greek girls, 22% Greek boys) and 'medium' (11% both Austrian and Greek girls, 13% Austrian boys, 14% Greek boys). The percentage at 'none' is negligible (1% Greek girls). It was also remarkably few children (3% Austrian girls, 4% Austrian boys, 1% Greek girls, 2% Greek boys) that did not know, how to evaluate a blind person's problems, when moving outside her/his dwelling.

Q 10a

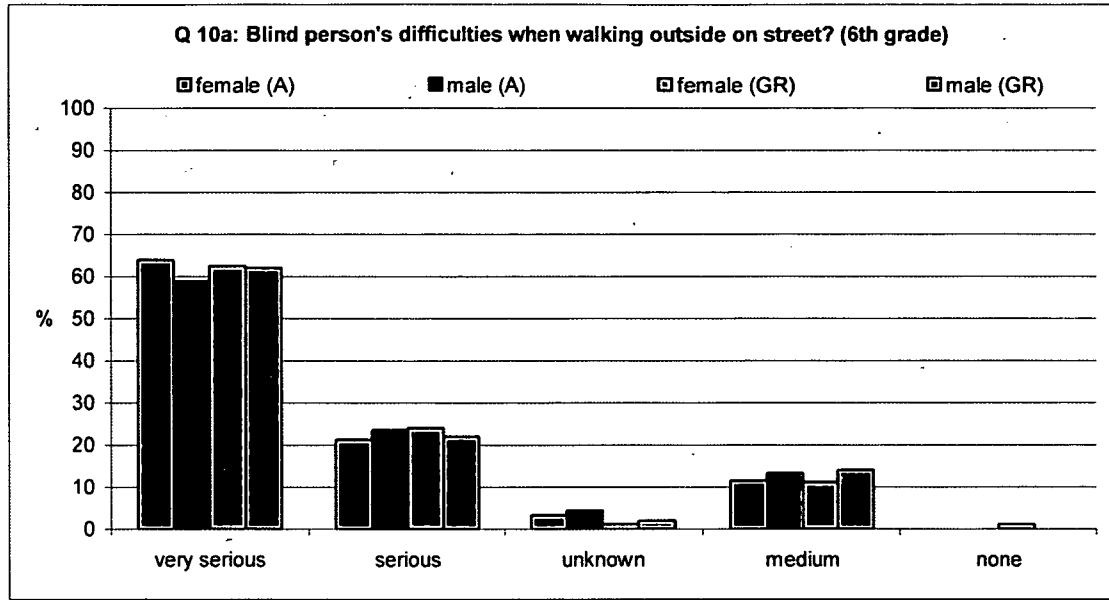


Fig. 11-39: 6<sup>th</sup> grade pupils' answers to Question 10a

9<sup>th</sup> grade's replies give about the same picture (fig. 11-40) as the one presented above.

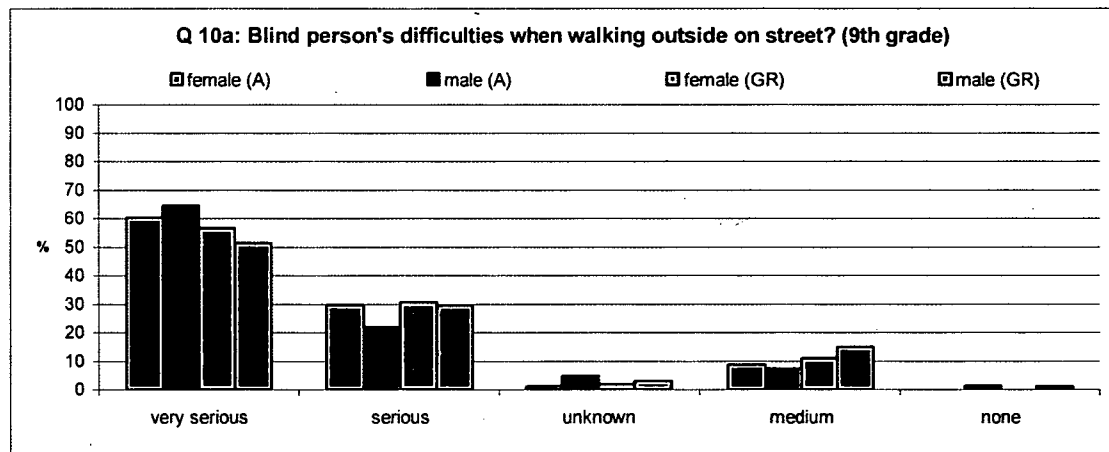
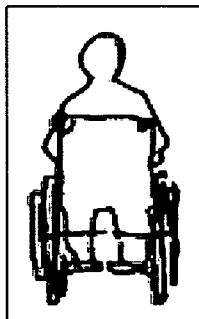


Fig. 11-40: 9<sup>th</sup> grade pupils' answers to Question 10a



The **second sketch of Question 10** shows a wheelchair user. The majority of Greek 6<sup>th</sup> grade pupils and Austrian boys estimated (fig. 11-41), that her/his problems to drive around are 'very serious' (41% Austrian boys, 60% Greek girls and 56% Greek boys), followed by 'serious' (35% both Austrian boys and Greek girls and 38% Greek boys). Austrian girls primarily answered 'serious' (48%) than 'very serious' (41%). Pupils encircling 'medium' or 'none' are significantly less on the part of both countries (3% Austrian girls, 12% Austrian boys, 2% Greek girls and 4% Greek boys, respectively 3% Austrian girls, 2% Austrian

Q 10b

boys and 1% Greek girls). Again, the percentages of pupils that did not answer are very low (3% Austrian girls, 10% Austrian boys, 2% Greek girls and 3% Greek boys).

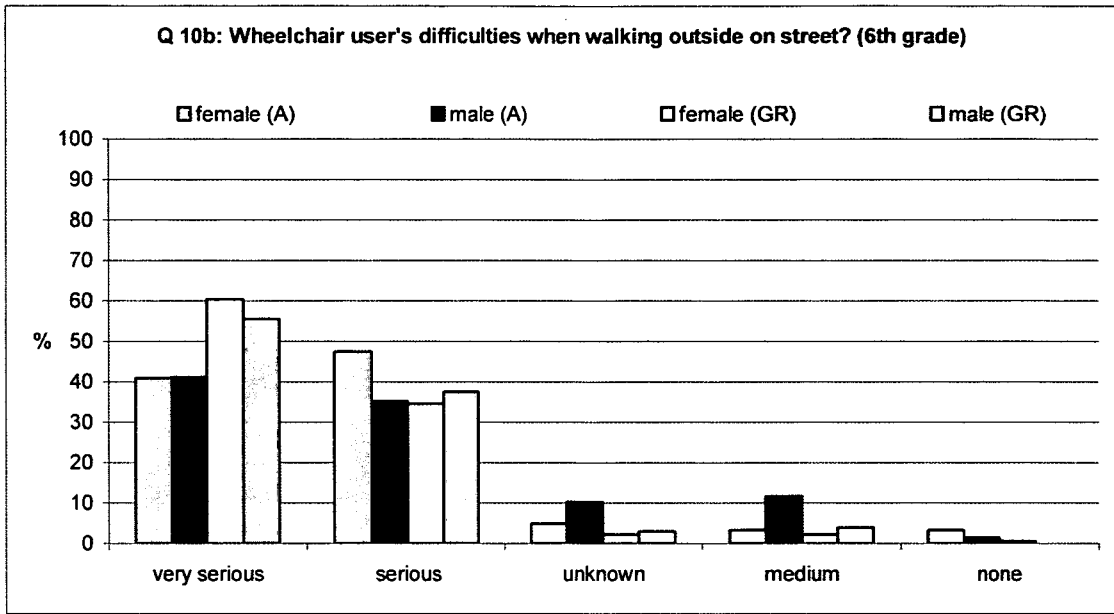


Fig. 11-41: 6<sup>th</sup> grade pupils' answers to Question 10b

9<sup>th</sup> grade pupils' answers ranked the difficulties' degrees (fig. 11-42) in a similar way as 6<sup>th</sup> grade replies. However, the majority of Greek children chose 'very serious' and the majority of Austrian pupils encircled 'serious'. In contrast to the answer presented above, practically no child chose 'none' and abstention was even less.

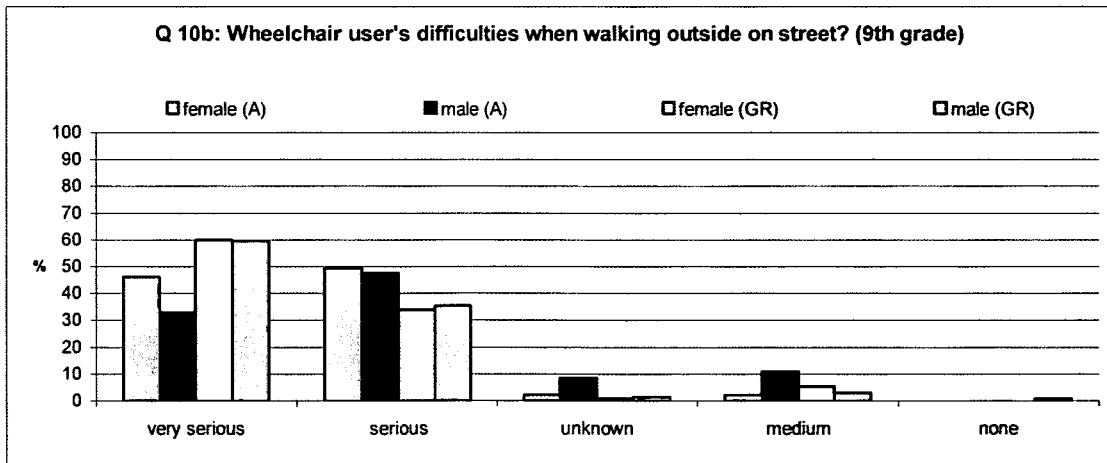


Fig. 11-42: 9<sup>th</sup> grade pupils' answers to Question 10b



Sketch 3 of Question 10 shows an elderly person with a walking stick. The majority of all 6<sup>th</sup> grade pupils decided (fig. 11-43), that her/his problems to walk outside are 'serious' (38% Austrian girls, 37% Austrian boys, 45% both Greek girls and boys) followed by 'medium' (28% Austrian girls, 31% Austrian boys, 35% Greek girls and 30% Greek boys). Few children chose 'very serious' (11% Austrian girls, 10% Austrian boys, 8% Greek girls and 12% Greek boys) or 'none' (8% Austrian girls, 6% Austrian boys, 3% both Greek girls boys). Children's abstention is a bit higher than in the first two pictures of this question (15% Austrian girls, 16% Austrian boys, 8% Greek girls and 10% Greek boys).

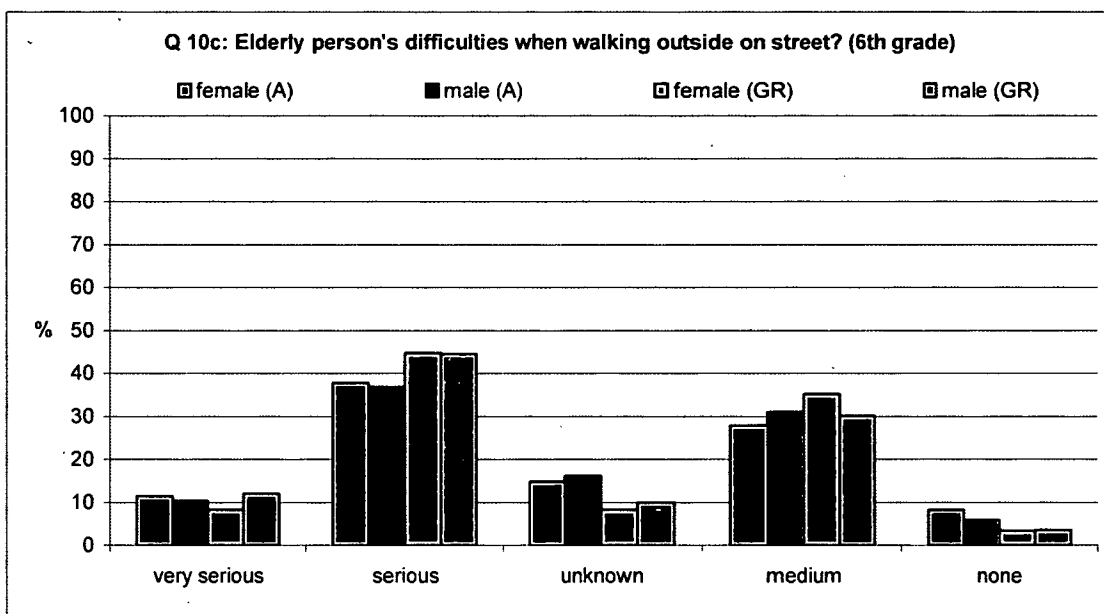


Fig. 11-43: 6<sup>th</sup> grade pupils' answers to Question 10c

The ranking of 9<sup>th</sup> grade pupils shows differences in the two countries' peaks (fig. 11-44). Austrians judged, that senior citizens have rather 'medium' difficulties, in contrast to Greeks' 'serious'. However, pupils crossing 'none' were even less.

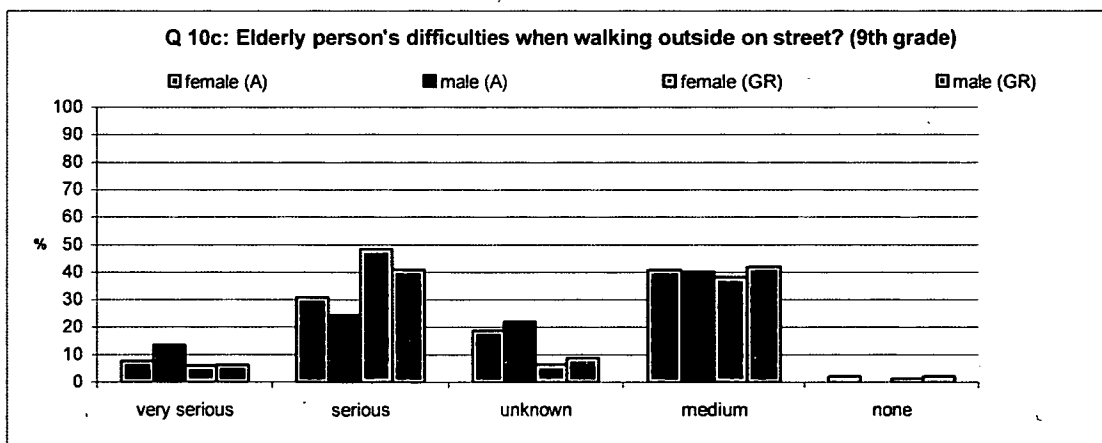
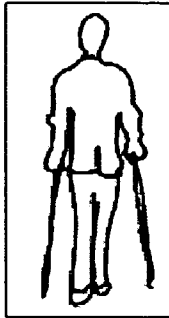


Fig. 11-44: 9<sup>th</sup> grade pupils' answers to Question 10c



The fourth picture of Question 10 shows an injured person with two crutches. All 6<sup>th</sup> grade pupils (fig. 11-45) primarily judged that his problems to move outside in the built environment are 'serious' (41% Austrian girls, 44% Austrian boys, 46% Greek girls and 43% Greek boys). The seriousness' ranking placed 'medium' (30% Austrian girls, 30% Greek girls and 32% Greek boys) before 'very serious' (15% Austrian girls, 17% Greek girls and 15% Greek boys), the only exception being Austrian boys' answers that ranked the degrees vice-versa (24% 'very serious' and 21% 'medium'). Negligible few pupils marked 'none' (1% Austrian girls, 2% Greek girls and 1% Greek boys). Again, it was more Austrian children (13% girls and 12% boys) that did not answer than Greek ones (6% girls and 9% boys).

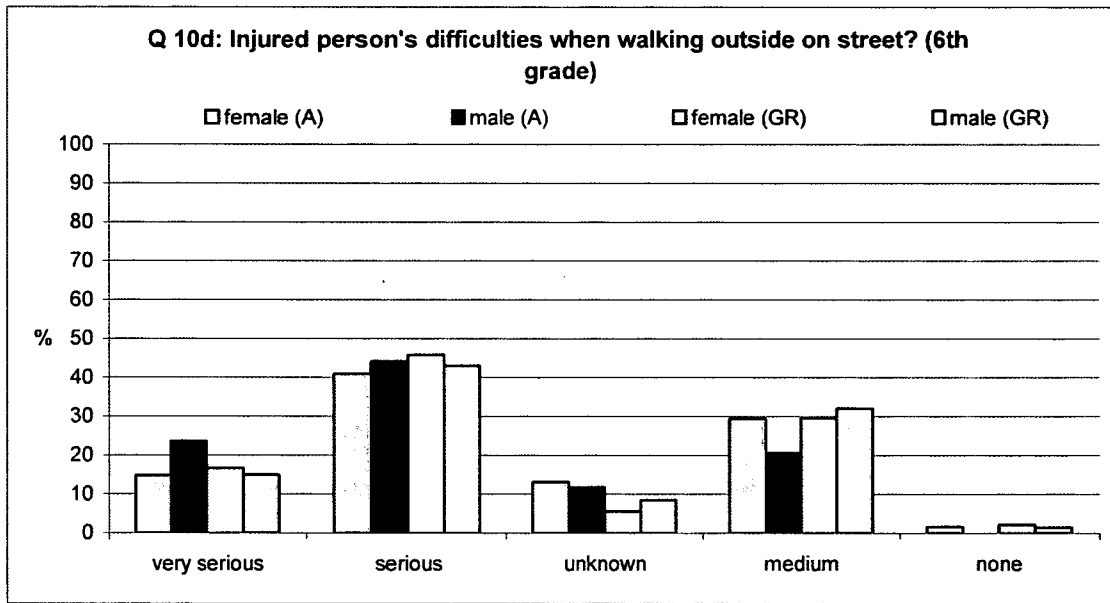


Fig. 11-45: 6<sup>th</sup> grade pupils' answers to Question 10d

9<sup>th</sup> grade pupils' answers (fig. 11-46) were quite alike the ones presented above.

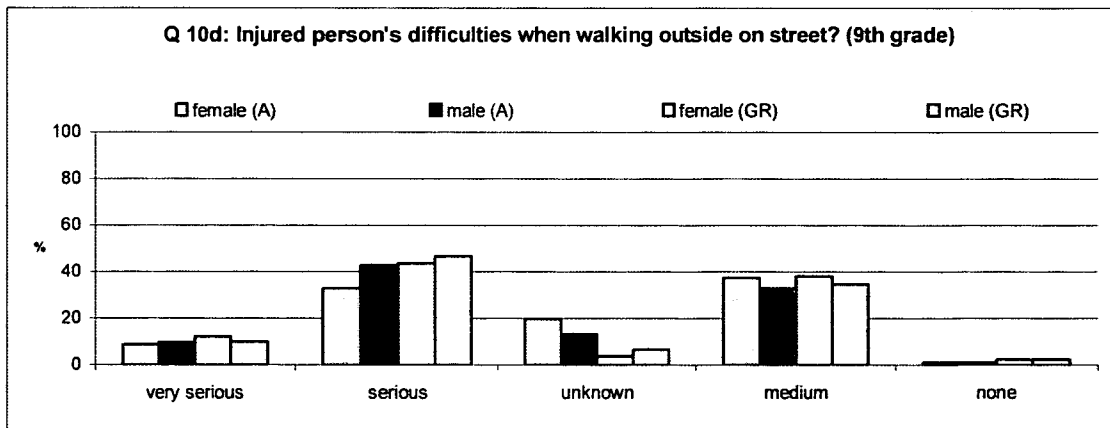
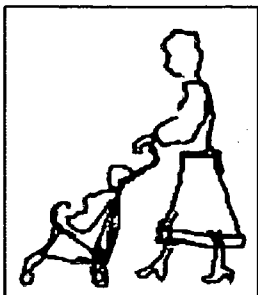


Fig. 11-46: 9<sup>th</sup> grade pupils' answers to Question 10d



The **fifth sketch of Question 10** represents a woman pushing an infant in a pram. The majority of 6<sup>th</sup> grade Austrian pupils and Greek girls (*fig. 11-47*) estimated that her problems when walking outside on the street are 'medium' (39% Austrian girls, 47% Austrian boys, 41% Greek girls), followed by 'none' (20% Austrian girls, 24% Austrian boys, 32% Greek girls). Greek boys primarily judged that she will encounter 'none' (41%) problems at all, rather than 'medium' (32%). Notably fewer children decided, that her difficulties are 'serious' (21% Austrian girls, 15% Austrian boys, 17% Greek girls and 10% Greek boys) or even 'very serious' (7% Austrian girls, 10% Austrian boys, 3% Greek girls and 6% Greek boys). 'Unknown' was ticked by a rather small percentage of children (13% Austrian girls, 4% Austrian boys, 7% Greek girls and 13% Greek boys).

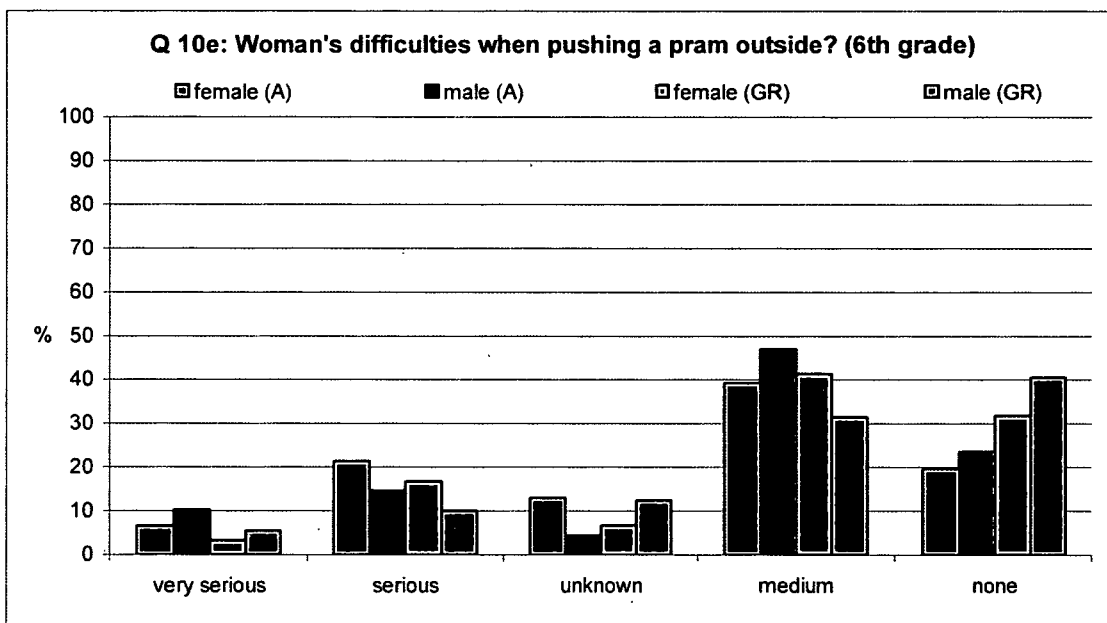


Fig. 11-47: 6<sup>th</sup> grade pupils' answers to Question 10e

9<sup>th</sup> grade pupils' replies (*fig. 11-48*) show a common image as the one above.

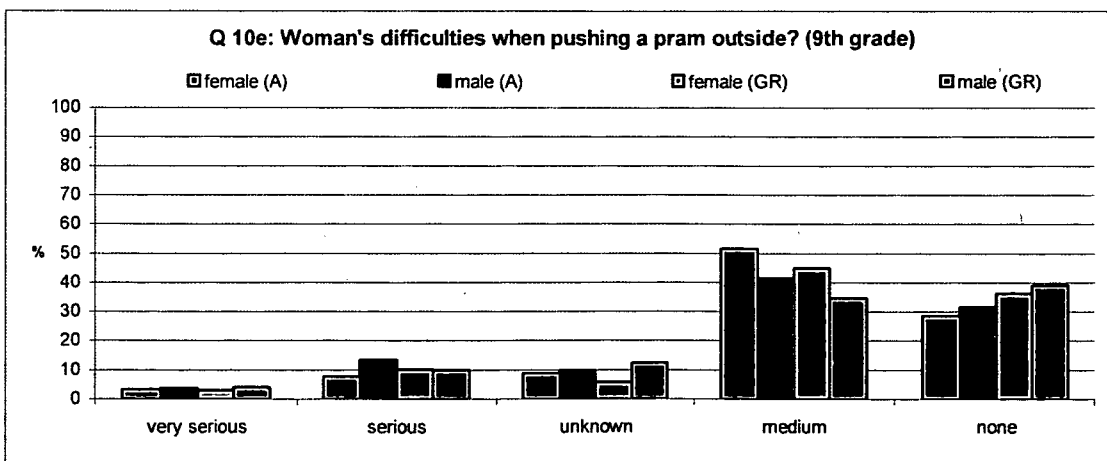


Fig. 11-48: 9<sup>th</sup> grade pupils' answers to Question 10e



The next sketch, **Question 10f**, portrays a person carrying two suitcases. At this point, it has to be stressed, that during the filling out of the questionnaire, an important number of pupils asked what kind of person this sketch represents. Although they always knew the correct answer themselves, they just did not think of placing her/him into the category of PRM. In conclusion, percentages of 'I don't know' answers have to be interpreted carefully, as in consequence of their confusion they often preferred to choose this reply.

Q 10f

The majority of all 6<sup>th</sup> grade pupils (*fig. 11-49*) decided that she/he has rather 'no' problems at all (34% both Austrian and Greek girls and 41% both Austrian and Greek boys) when walking outside, then 'medium' ones (28% Austrian pupils, respectively Greek girls and 22% Greek boys). 'Serious' (16% Austrian girls, 13% Austrian boys, 12% Greek girls and 13% Greek boys) was rarely chosen and almost nobody crossed 'very serious' (2% Austrian girls, 3% both Austrian boys and Greek girls and 4% Greek boys). As has been explained above, percentages for 'unknown' are quite high (20% Austrian girls, 15% both Austrian boys, 23% Greek girls and 21% Greek boys).

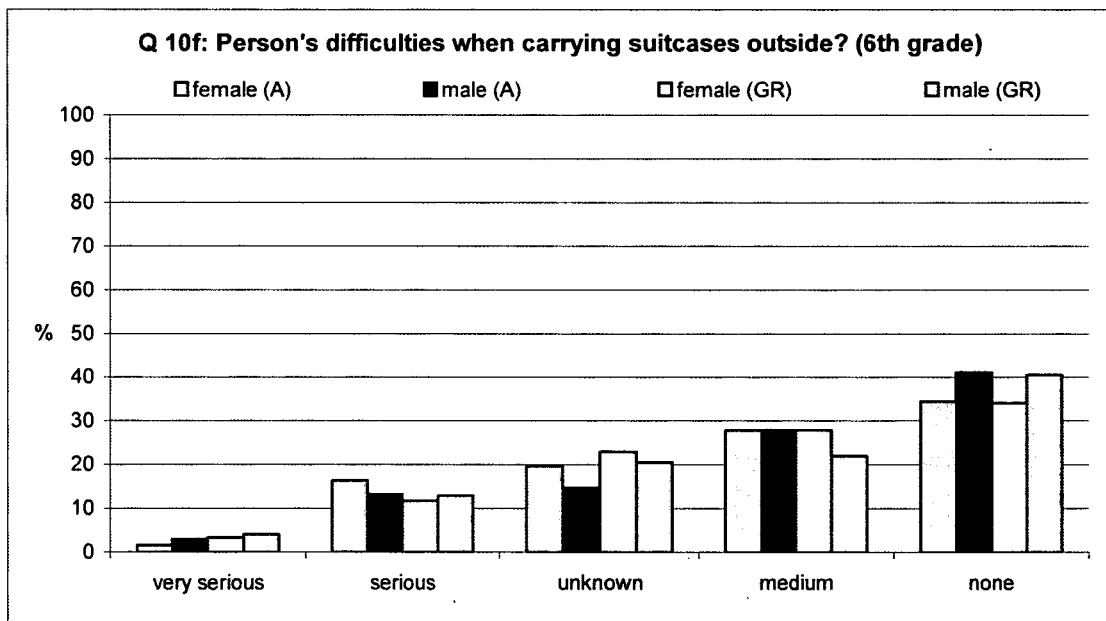


Fig. 11-49: 6<sup>th</sup> grade pupils' answers to Question 10f

9<sup>th</sup> grade pupils' answers (*fig. 11-50*) give about the same spreading on the seriousness' degrees, as 6<sup>th</sup> grade's replies. However, children estimating that she/he faces 'none' problems are almost double as many than those that decided, that difficulties might be 'medium'.

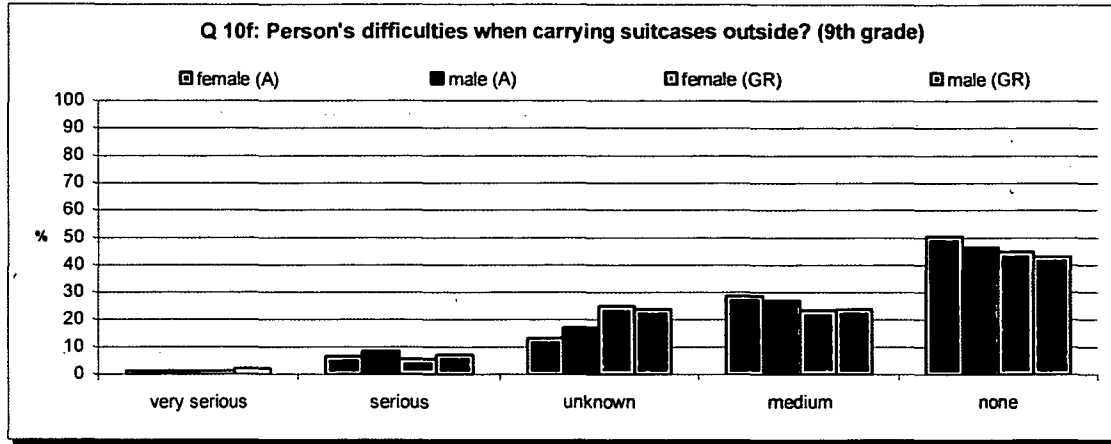
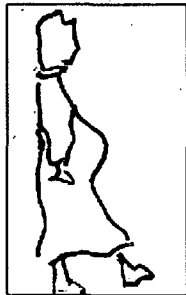


Fig. 11-50: 9<sup>th</sup> grade pupils' answers to Question 10f



The last sketch of Question 10 pictures a walking pregnant woman. Greek children's top answers (fig. 11-51) accumulate at 'serious' (36% girls and 33% boys) and 'medium' (35% both girls and boys). Greeks percentages at the other degrees show much reduced percentages, ranking 'very serious' (12% both girls and boys) before 'none' (10% girls and 8% boys). On the part of Austrian pupils, the majority replied, that the pregnant will encounter 'medium' (26% both girls and boys) difficulties, when walking outside, followed by 'very serious' (26% girls and 23% boys), 'serious' (23% girls and 16% boys) and 'none' (8% girls and 16%). Abstention to this question again was about double as high on the part of Austrian pupils (16% girls and 19% boys), than from Greek ones (7% girls and 13% boys).

Q 10g

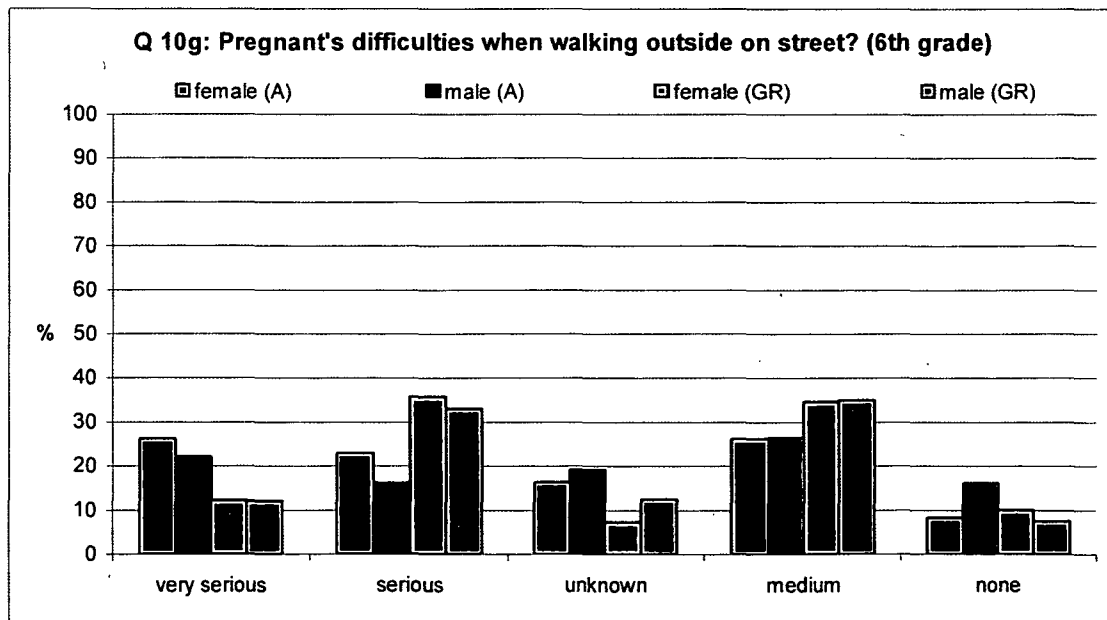


Fig. 11-51: 6<sup>th</sup> grade pupils' answers to Question 10g



At 9<sup>th</sup> grade's replies (fig. 11-52), an obvious peak on the part of all pupils can be observed at 'medium'. All other degrees are less represented, rowing 'none' before 'serious' and 'very serious' on the part of Austrian girls. Austrian boys decided that the pregnant woman's difficulties are rather 'serious' or 'very serious', than 'none'. Greek pupils answers again are quite alike between both sexes, ranking 'serious' before 'none' and 'very serious'.

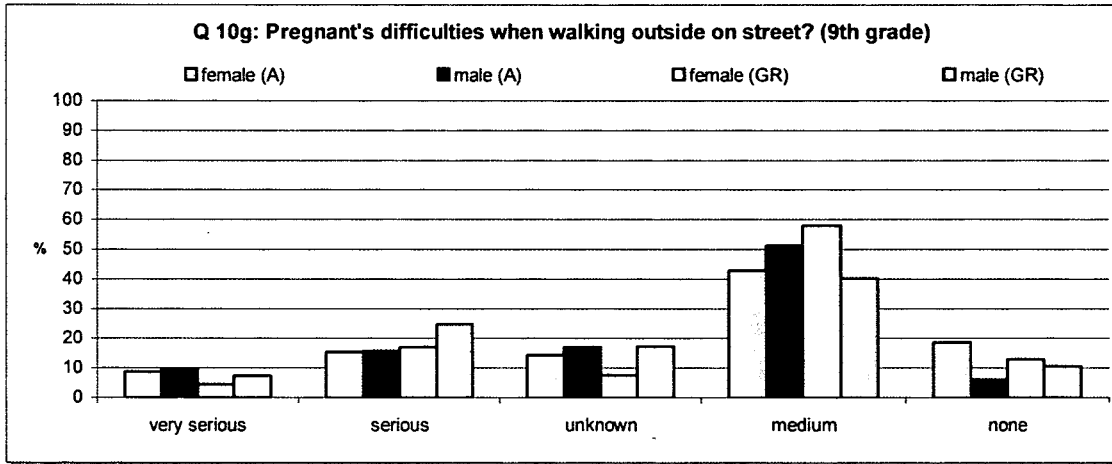
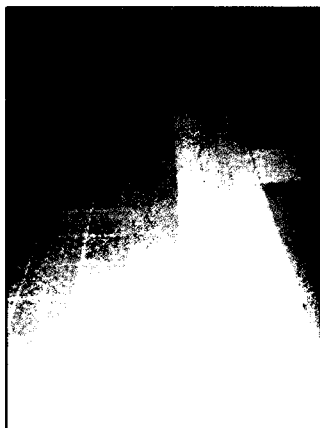


Fig. 11-52: 9<sup>th</sup> grade pupils' answers to Question 10g

11.4.9 REPLIES TO QUESTION 11

Q 11



**Question 11** asked pupils to state, what the reason for the lines of different color and texture on pavements is, like the ones on the picture. It has to be stressed, that his question comprises the highest abstention on the part of all 6<sup>th</sup> grade pupils (60% Austrian girls, 32% Austrian boys, 57% Greek girls and 53% Greek boys) (fig. 11-53)! The absolute majority of all children did not know or could not imagine what these lines are for. Only a very small amount of them (11% Austrian girls, 28% Austrian boys, 15% Greek girls and 17% Greek boys) could figure out or knew that these lines are tactile orientation markings used by persons with visual impairments!

The rest of the pupils gave vague or false answers, often influenced by the questionnaire's topic. Thus, a common reply was 'PwD moving line' (9% Austrian girls, 21% Austrian boys, 12% Greek girls and 19% Greek boys). This rather general answer made not clear what the line's aim is. Few children additionally explained, that the line is 'for wheelchair users, in order e.g. to know where to move along and not to block other pedestrians'. As in general pupils used the expression 'PwD' only in the case of wheelchair users, it seems probable that no person with visual impairment was thought of in this reply. Pupils have obviously been influenced by the often-used expression 'PwD' throughout the questionnaire and, therefore, wrote it down or tried to link it to an answer. This is also evident in other replies, where children mentioned that these lines 'divide PwD from pedestrians' (1% Greek boys) or that

they exist 'for (PwD's) orientation' (4% Austrian boys and 1% Greek boys). Some pupils seem to be mixing up tactile orientation markings with zebra crossings and filled-in that they are for 'pedestrian's correct movement on streets and crossings' (7% Austrian girls, 6% Austrian boys, 12% Greek girls and 6% Greek boys) or that the lines are specific 'PwD's street crossings' (1% Greek girls and 3% Greek boys). However, some children noticed the 'color contrast' effect (13% Austrian girls, 18% Austrian boys, 3% Greek girls and 5% Greek boys) of these lines, not knowing that it is implemented for persons with visual impairment and decided that it was in order 'to make the city more colorful and beautiful'. Finally, few pupils estimated, that the lines are also meant as 'barriers for vehicles' (1% Austrian boys, 4% Greek girls and 2% Greek boys).

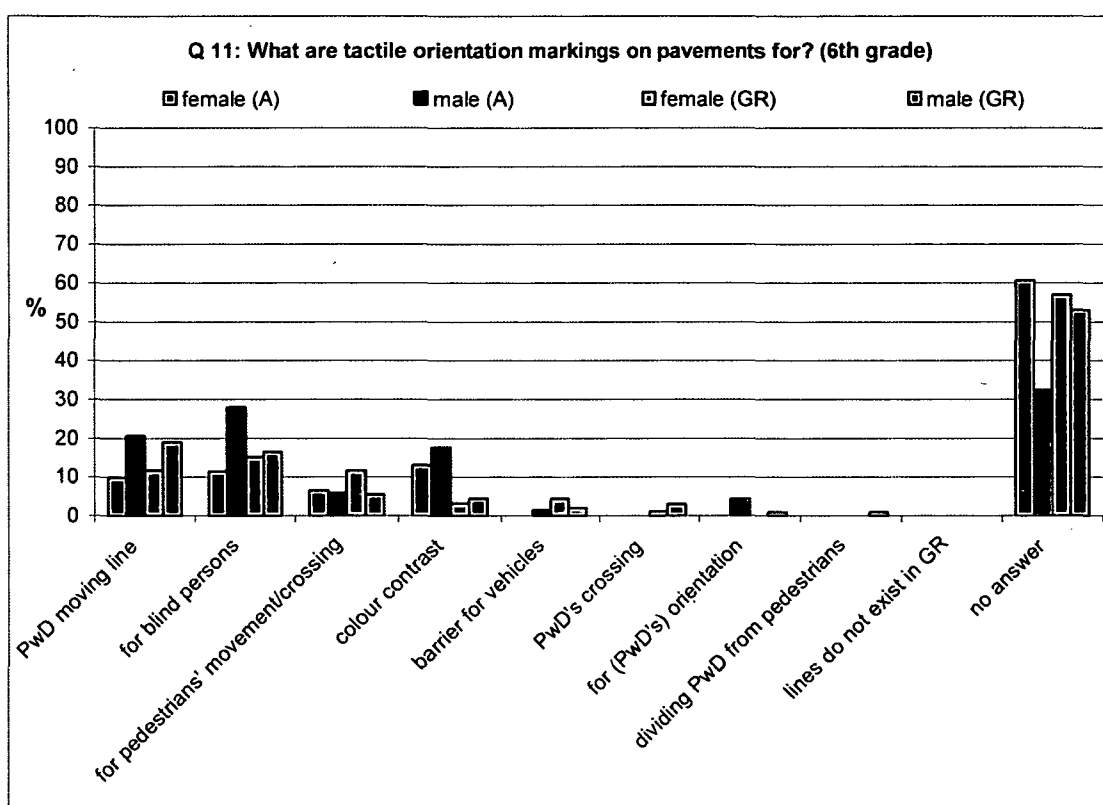


Fig. 11-53: 6<sup>th</sup> grade pupils' answers to Question 11

As far as 9<sup>th</sup> grade pupils' answers are regarded (fig. 11-54), some changes can be noticed. Although abstention remains very high, correct answers on the part of Austrian pupils show an important increase! The increase of Austrian children responding 'for orientation' is also remarkable. Maybe they indeed meant that the lines are for the orientation of persons with visual impairments. In contrast to these fair replies, Greek pupils continue to give answers related to the 'PwD'-matter. Even some insisted, that these lines do not exist in Greece!

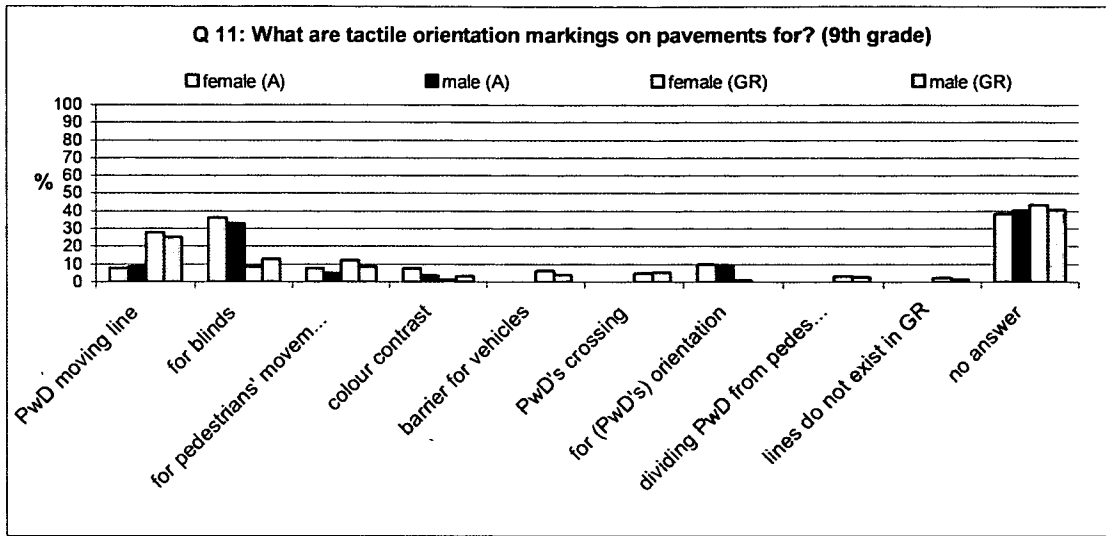
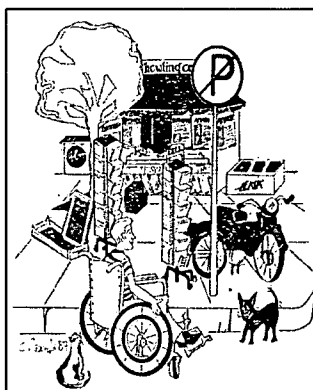


Fig. 11-54: 9<sup>th</sup> grade pupils' answers to Question 11

11.4.10 REPLIES TO QUESTION 12

Q 12

In the questionnaire's final questions, some scenes portraying probable everyday difficulties of PRM and/or PwD are shown. Children are asked to express their opinion based on these sketches.



The sketch of **Question 12** shows a boy in a wheelchair, who is forced to move on the street. Reasons for his indignation are searched. The peak of 6<sup>th</sup> grade Austrian children's replies (*fig. 11-55*) is at 'because there is no curb cut, the pavement curb is too high and he cannot ascend on it' (51% girls and 49% boys), followed by 'he cannot move on the pavement due to all kinds of obstacles' (36% girls and 37% boys). The majority of Greek pupils also either wrote one of these two reasons ('cannot ascend on pavement': 36% girls and 40% boys, 'obstacles on pavement': 44% girls and 34% boys) or decided, that he is irritated, 'because parked vehicles take his movement space' (25% girls and 23% boys, also answered by only 1% Austrian boys).

Another often chosen answer on the part of 6<sup>th</sup> grade pupils is, 'because he is lame or he would like to walk and run' (13% both Austrian girls and boys, 10% Greek girls and 9% Greek boys). Other reasons that were mentioned are: 'because it is dangerous for him to move on the street or he might be hit by a car' (2% Austrian girls, 3% Austrian boys, 11% Greek girls and 4% Greek boys), 'because there is nobody near to help him to get on the pavement' (13% Austrian girls, 1% Austrian boys, 4% Greek girls and 2% Greek boys). Replies with lower percentages were: 'pavements are too narrow or do not exist at all' (2%

Austrian girls and 3% Greek boys), 'there is no space for him to park or it is forbidden for him to park on the pavement' (only filled-in by Greek pupils, 2% both girls and boys), 'because he would like to ride the motorbike' (only remarked by Austrian pupils, 5% girls and 4% boys), 'because a parked vehicle blocks the curb cut' (only Greek pupils, 1% both girls and boys) and finally 'because he cannot enter into the shop' (2% Austrian girls, 1% both Greek girls and boys). Levels of abstention were rather low, but again Austrian pupils (10% girls and 16% boys) exceed Greek ones (4% girls and 9% boys).

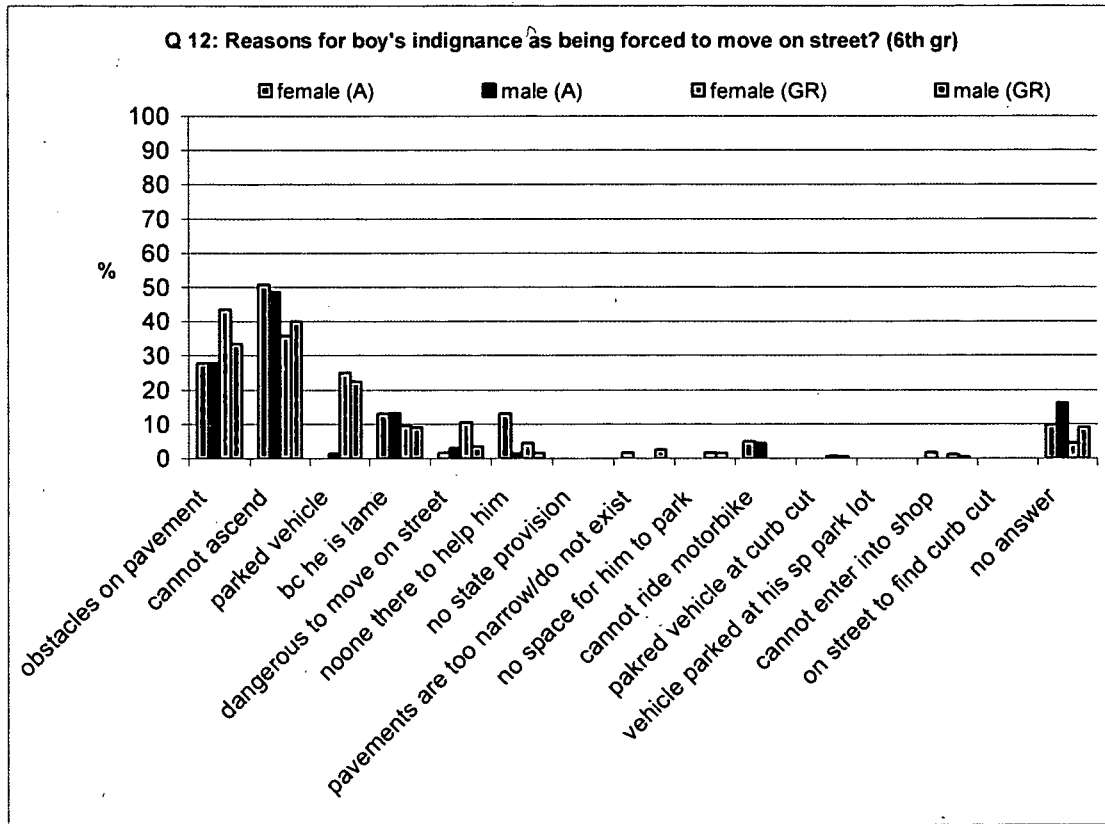


Fig. 11-55: 6<sup>th</sup> grade pupils' answers to Question 12

9<sup>th</sup> grade pupils provided similar responses (fig. 11-56). Differences in the percentages spreading have to be mentioned, but the most common answers remain the same ones. However, 9<sup>th</sup> grade pupils claimed also, that the boy is indignant, 'because there is no state provision' or 'because there is a vehicle, which parked at the boy's special parking lot' or 'that the boy is moving in the midst of the street in order to find somewhere a curb cut and ascend on the pavement' (only written by Greek girls). No 9<sup>th</sup> grade pupil gave the reply, that he is irritated, because he cannot enter into the shop. Finally, children that did not answer to question 12 are less the above.

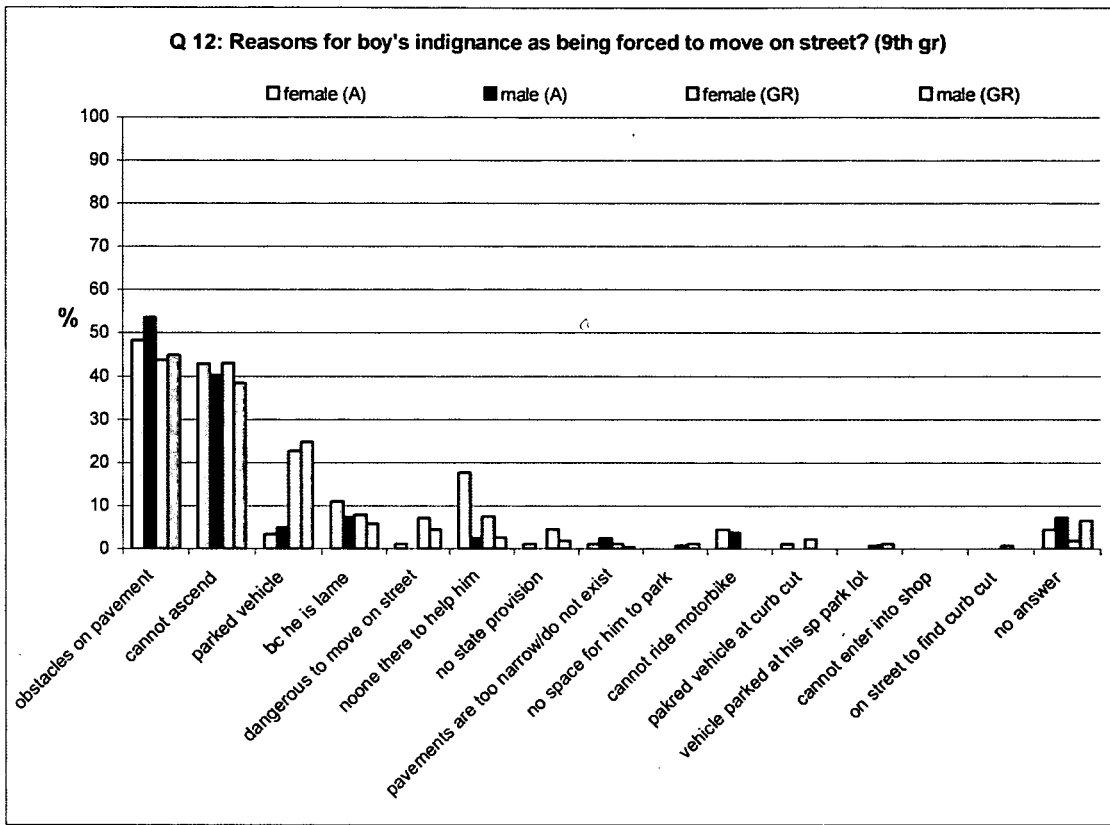
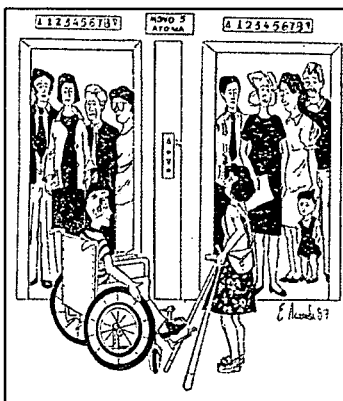


Fig. 11-56: 9<sup>th</sup> grade pupils' answers to Question 12

11.4.11 REPLIES TO QUESTION 13

Q 13



The sketch at **Question 13** shows two elevator cabins, which are overcrowded and a boy in a wheelchair and an injured girl with crutches waiting outside the cabins. The question demands: "According to your opinion: Why is the behavior of the persons inside the elevator cabins socially incorrect?" The majority of 6<sup>th</sup> grade Austrian pupils (*fig. 11-57*) agreed, that 'their behavior is unfriendly, because they are not making space for the children wD to enter' (49% girls and 43% boys, also answered by 16% Greek girls and 18% Greek boys), while the majority of Greek children responded, 'because nobody is willing to help them get into the cabin' (47% girls and 26% boys, also replied by 28% Austrian girls and 26% Austrian boys). An important amount of pupils from both countries wrote 'because nobody is getting off so that they could enter' (21% Austrian girls, 24% Austrian boys, 15% Greek girls and 18% Greek boys).

Other answers with lower percentages are: 'due to social racism' (5% Austrian girls, 4% Austrian boys, 7% Greek girls and 8% Greek boys), whatever this may mean. Some children explained that the persons' behavior is inappropriate, 'because they stare at the children wD' (7% Austrian girls, 3% Austrian boys, 5% Greek girls and 6% Greek boys), 'because they are afraid of them' (only mentioned by Greek children, 7% girls and 6% boys) and 'because they feel pity for them' (1% Austrian boys, 2% Greek girls and 3% Greek boys). Even two Greek pupils wrote 'that they are afraid they will ask them for money'! Finally, another more practical answer was, 'that the elevator is too small' (1% Austrian boys, 6% Greek girls and 8% Greek boys) meaning either that it is overcrowded, or that the boy with the wheelchair will not fit into the cabin. In this question, abstention on the part of Austrian pupils was lower (8% girls and 6% boys), than from Greek ones (12% girls and 23% boys).

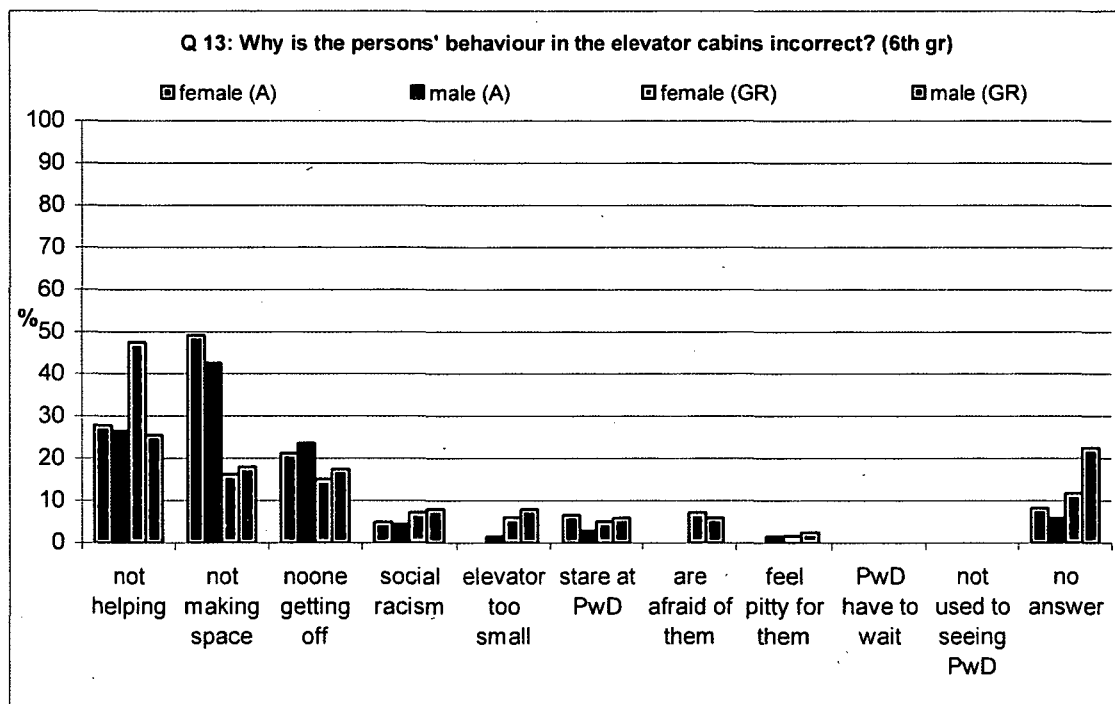


Fig. 11-57: 6<sup>th</sup> grade pupils' answers to Question 13

Taking a glance at 9<sup>th</sup> grade pupils' replies (fig. 11-58), the absolute majority of all pupils decided, that the persons' behavior is socially incorrect, 'because they do not help the children to get into the cabin'. Several children replied also 'because they are not making space' or 'because nobody is getting off'. There is a remarkable increase in Greek children mentioning 'because of social racism', whatever that might mean. Furthermore, there are some children that note that 'we are not used to seeing PwD in Greece and, therefore, reactions are improper'. Finally, on the part of Austrian pupils, there is a small amount of children that claim, that 'there is nothing wrong with the person's behavior; PwD have to wait as well for the cabin's arrival!' As regards abstention, a decrease can be observed in 9<sup>th</sup> grade.

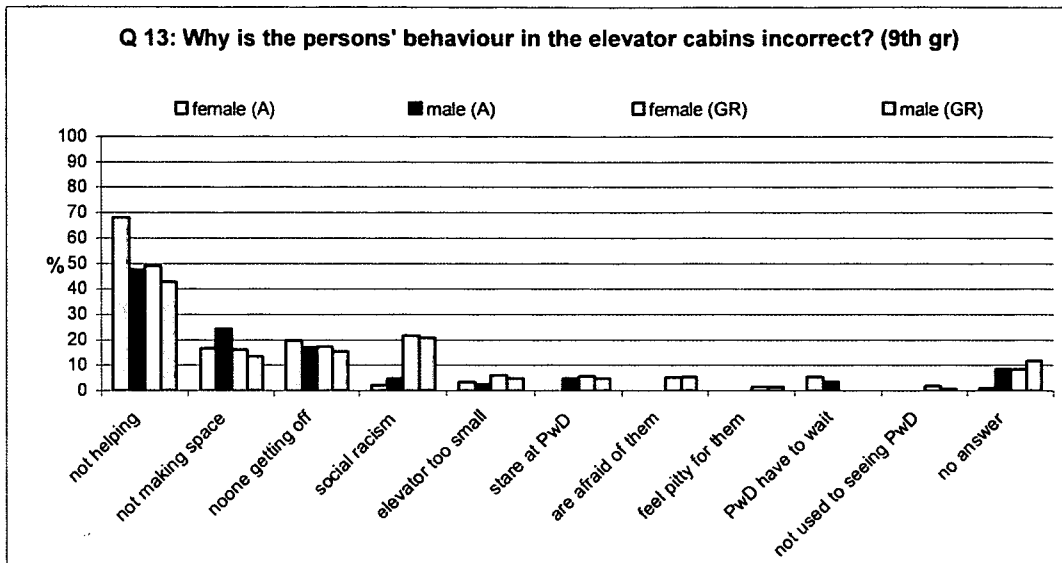
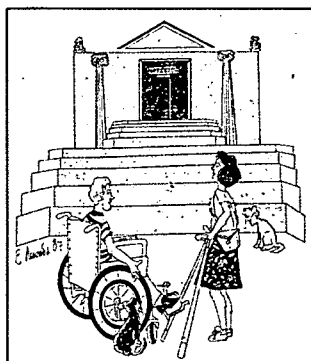


Fig. 11-58: 9<sup>th</sup> grade pupils' answers to Question 13

11.4.12 REPLIES TO QUESTION 14

Q 14



In **Question 14** a boy in a wheelchair and a girl with crutches are portrayed in front of the stairs of a monumental building. Pupils are asked to express their opinion, why they think, that these two children face similar problems. The absolute majority of all 6<sup>th</sup> grade pupils (*fig. 11-59*), filled-in 'because there is no ramp or an elevator and they cannot get up the stairs to enter the building' (59% Austrian girls, 60% Austrian boys, 58% Greek girls and 54% Greek boys). Other common given replies are: 'because they both face locomotive problems/ are PRM' (18% Austrian girls, 31% Austrian boys, 33% Greek girls and 24% Greek boys) and 'because both are disabled/ PwD' (20% Austrian girls, 10% Austrian boys, 16% Greek girls and 13% Greek boys).

Other answers with rather insignificant percentages are: 'because nobody helps them to get up the stairs' (2% Austrian girls, 3% Greek girls and 4% Greek boys), 'because there is no state provision' (only answered by 2% Greek girls), 'because they cannot move as they would like to' (1% Austrian boys, 3% Greek girls and 4% Greek boys) and 'because there is no railing for the girl' (only replied by 1% Greek boys). However, some judged, that 'their difficulties are not similar, because the boy's problems are much more serious than the girl's ones, because she could get up the stairs if she tried hard enough' (2% Austrian girls, 1% Greek girls and 2% Greek boys). Pupils that did not answer to this question were relatively few (13% Austrian girls, 5% Greek girls and 14% Greek boys), Austrian boys being the exception (19%).

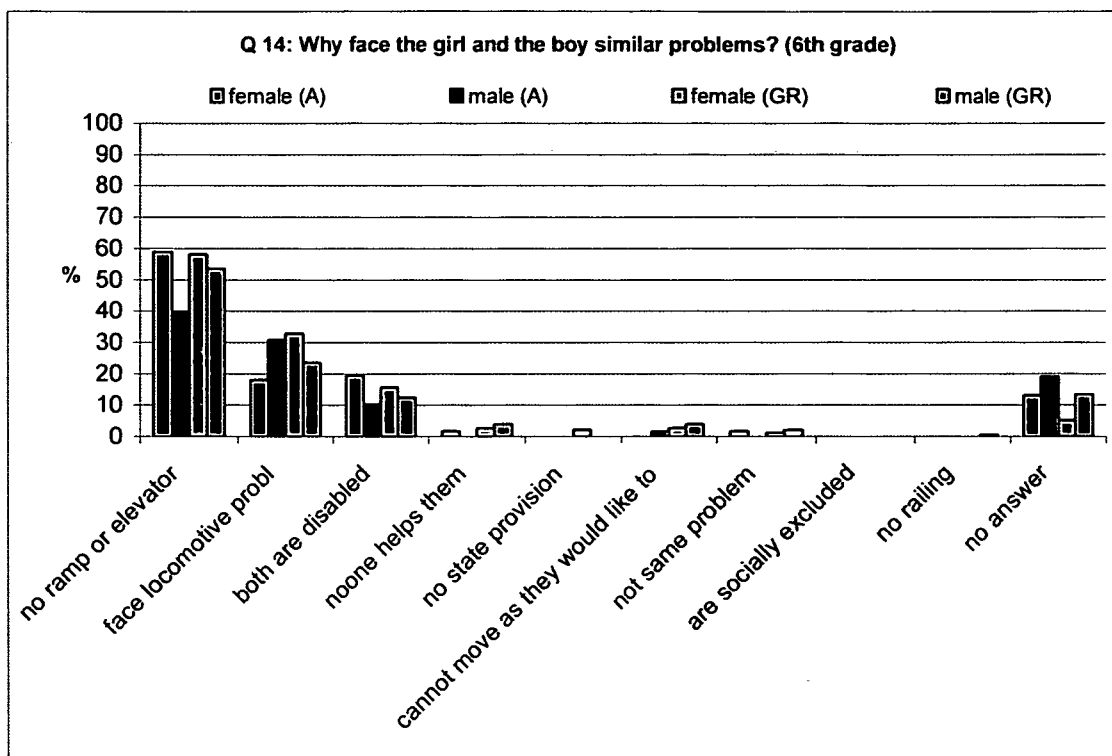


Fig. 11-59: 6<sup>th</sup> grade pupils' answers to Question 14

9<sup>th</sup> grade pupils' replies (fig. 11-60) show some differences in the percentages spreading, but reasons in general are similar to the ones given from 6<sup>th</sup> grade pupils and the ranking of the most chosen answers is similar. However, percentages at other answers are quite higher than before. 9<sup>th</sup> grade pupils also added, that 'the boy and the girl face similar problems, as they are/get both socially excluded'.

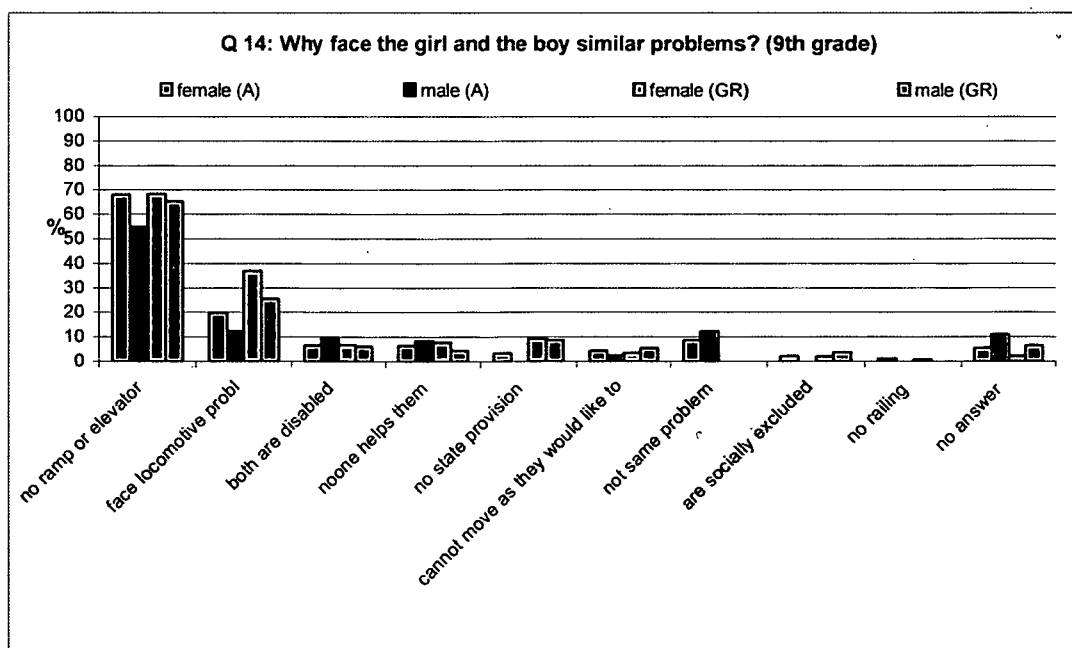
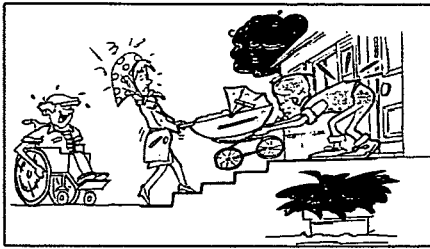


Fig. 11-60: 9<sup>th</sup> grade pupils' answers to Question 14



11.4.13 REPLIES TO QUESTION 15

Q 15



The last sketch of the questionnaire, the one to **Question 15**, shows a woman and a man trying to carry a pram over some stairs and next to them a man in a wheelchair laughing. Pupils were asked to state, why they think, that the man in the wheelchair is laughing.

The majority of 6<sup>th</sup> grade Austrian pupils (*fig. 11-61*) replied, 'because the pram is too heavy' (38% girls and 18% boys, also filled-in by 13% Greek girls and 15% Greek boys), while the majority of Greek children answered, 'because they cannot get up the pram as there is nowhere a ramp' (32% Greek girls and 24% Greek boys, this answer was given by 3% Austrian girls and 6% Austrian boys, too). Another reason, which was often mentioned from pupils from both countries, is: 'because they have the same problem as the ones the wheelchair user has to face daily and because now they see the difficulties he is confronted with everyday' (23% Austrian girls, 16% Austrian boys, 18% Greek girls and 13% Greek boys).

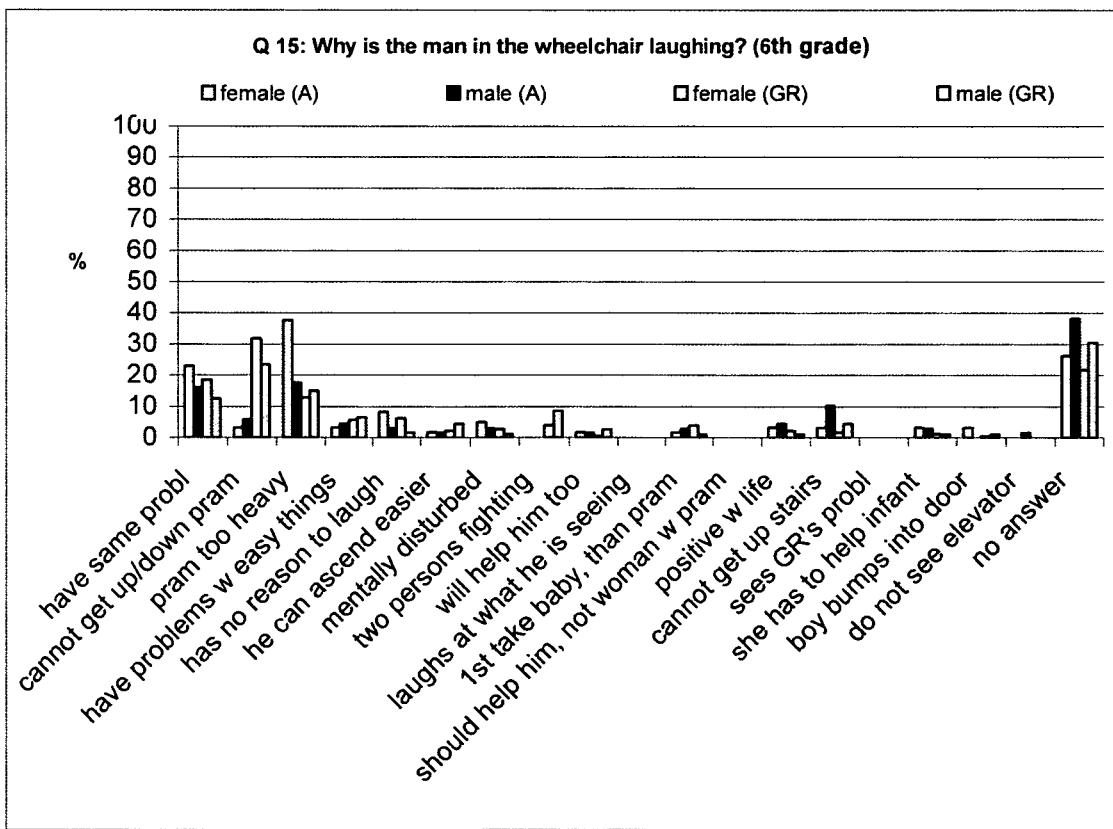


Fig. 11-61: 6<sup>th</sup> grade pupils' answers to Question 15

Other reasons that were mentioned, but are less represented are: 'because they have problems with easy things, while his problems are more serious' (3% Austrian girls, 4% Austrian boys, 6% Greek girls and 7% Greek boys), 'he has no reason to laugh' (8%

Austrian girls, 3% Austrian boys, 6% Greek girls and 2% Greek boys), 'because he can ascend much easier' (2% both Austrian girls and Greek girls, 1% Austrian boys and 5% Greek boys), 'because he is mentally disturbed' (5% Austrian girls, 3% both Austrian boys and Greek girls and 1% Greek boys), 'because he sees two fighting persons' (only written by Greek pupils, 4% girls, 9% boys), 'is happy, because they will help him, too' (2% Austrian girls, 1% both Austrian boys and Greek girls and 3% Greek boys), 'because they are stupid, as they could first take the baby and then carry up the pram' (2% Austrian girls, 3% Austrian boys, 4% Greek girls and 1% Greek boys), 'because he is positive with life' (3% Austrian girls, 4% Austrian boys, 2% Greek girls and 1% Greek boys), 'because he cannot get up stairs' (3% Austrian girls, 10% Austrian boys, 2% Greek girls and 5% Greek boys), 'because the woman has to permanently help infant' (3% both Austrian girls and boys, 1% both Greek girls and boys), 'because the landing is too narrow and the boy bumps into the door' (3% Austrian girls, 1% both Greek girls and boys) and 'because they do not see the elevator next to the stairs!' (only mentioned by 1% Austrian boys). Abstention from both countries was astonishingly high (26% Austrian girls, 38% Austrian boys, 22% Greek girls and 31% Greek boys).

As regards 9<sup>th</sup> grade pupils' answers (fig. 11-62), reasons that were given for the man's laughing are about similar to the ones presented above. Highest percentages are gathered at the same reasons as given by 6<sup>th</sup> grade pupils, however with a different spreading. But 9<sup>th</sup> grade children gave further reasons, like 'he laughs at what he is seeing', whatever that might mean and the man in the wheelchair is laughing, 'because the other man should help him instead of the woman' and 'because he once more sees Greece's problems' (only written by Greek pupils). However, reasons like 'because the mother has to help the infant' or 'because the man bumps into the door' were not noted.

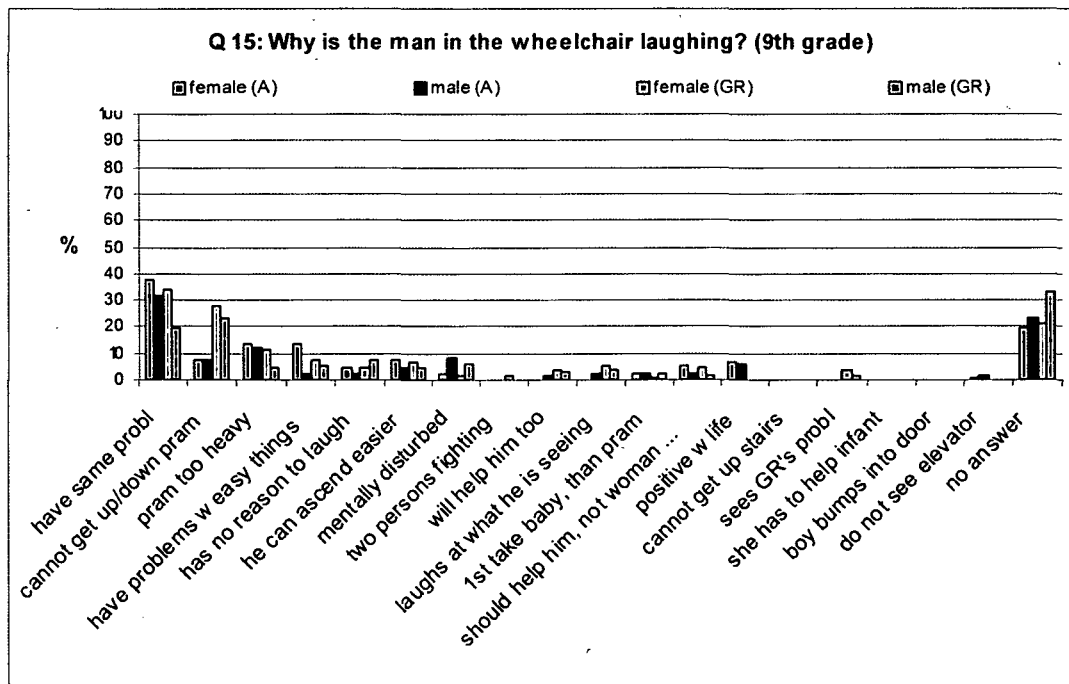


Fig. 11-62: 9<sup>th</sup> grade pupils' answers to Question 15

## 11.5 SURVEY'S COMPARISON AND CONCLUSIONS

In this chapter, a short comparison of childrens' replies to every question will be made regarding sexes, grades and countries.

Regarding 6<sup>th</sup> grade answers to **Question 1: 'What represent these signs?'**, pupils' replies show clear peaks on correct answers and little spreading on additional ones. In general, it is girls that seem to be more confident in answering, than boys. Situation in 9<sup>th</sup> grade is similar. However, older children seem to be better informed and abstention on the part of all children is reduced. But again, it is primarily boys from both countries that did not want to answer or did not know what to write down.

Furthermore, it has to be remarked, that Greek pupils' knowledge on the meaning of the portrayed symbols seems less. It is mostly them, who offer a bigger variety on answers, in general exceeding those of Austrians by 2-3 replies. This fact might lead to the conclusion, that some Greek pupils did not exactly know how to name the sign's meaning and, therefore, tried to describe it. So, additional descriptions are mostly relevant to the symbols' meanings and are only represented with low percentages. However, some of the Greeks chose to answer for every symbol that it shows a 'PwD', although, apart from the first symbol, it is PRM that are pictured. This may probably be linked to reasons of ignorance or incertitude and, therefore, children decided to rather fill in the questionnaire's topic than not to reply.

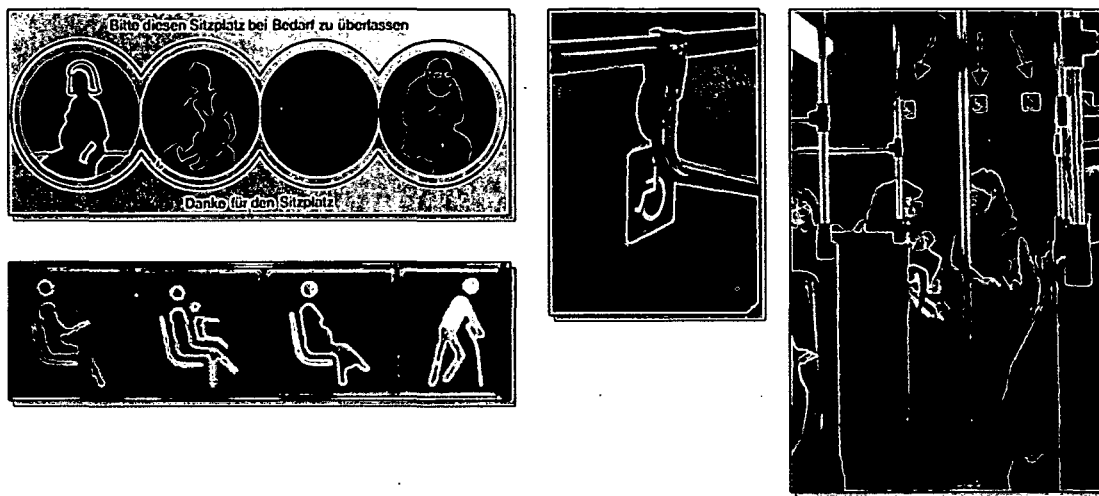
Incorrect answers as far as the symbols' meanings are concerned primarily come from Greek pupils. The answer of 'limping or lame person' of exclusively Greek pupils for the injured person's sign can be mentioned. Moreover, the Greek opinion of seeing a 'corpulent person' in the symbol of a pregnant woman is worth mentioning. Finally, it is both Austrian as well as Greek pupils that mix up the elderly person symbol with the one of a 'blind person'.

As Question 1 clearly deals with pupils' knowledge on basic symbols of PRM and PwD, it can be concluded that 6<sup>th</sup> grade pupils seem to be less informed or do not remember what the signs represent. Situation seems to be changing with age, as the clear majority of 9<sup>th</sup> grade pupils from both countries and sexes gave correct answers to each of the four symbols.

Looking at **Question 2: 'Which one of these signs have you already seen somewhere?'** reveals certain divergences between pupils' replies. Nearly every pupil remembers having seen the 'international sign for PwD'. As regards the 'injured person' symbol, it is primarily 6<sup>th</sup> grade Austrian boys (more than half of them), followed by 6<sup>th</sup> grade Austrian girls (about a third of them) that claim having noticed this sign somewhere. From all other pupils, it is only about a fifth that have seen the second sign. As far as the other two symbols are concerned, a significant gap between Austrian and Greek pupils can be noticed. Austrians that have seen the portrayed symbols are about double as many than Greeks in both grades. Remarkable is as well, that in 6<sup>th</sup> grade, Austrian girls having noticed the sign are less than Austrian boys, while in 9<sup>th</sup> grade situation is vice-versa. The significant contrast between the two countries' replies may be related to the fact, that for instance, in



Austria, in every means of the Public Transportation System (PTS), stickers with similar symbols to the ones mentioned above point out priority seats (*fig. 11-63*), while in Greece it is mostly the 'international sign for PwD', if at all.



*Fig. 11-63: Stickers for priority seats in PTS - Austrian subway vehicles (left up), Austrian bus vehicles (left down), Greek bus vehicles (middle) and Greek subway vehicle (right)*

There seems to be little meaning to compare results of **Question 3: 'Where have you seen each one of this signs?'**, as it is just a list of places, where pupils did remember these signs. It seems quite obvious, that the majority of Austrian children remember having seen symbols primarily 'in a means of the Public Transportation System' and on 'toilet doors', in contrast to Greek pupils, probably because only few toilets for wheelchair users can be found in buildings in Greece. The majority of Greek girls and boys has seen one or more of these signs 'on the street or on pavements', which might be linked to plates marking PwD's parking lots. Finally, it is 'in hospitals' that both Austrian and Greek children have often noticed such signs. Again, it is Greek pupils of both grades that offered a bigger variety on answers (on the average 3 supplementary ones), if compared to Austrians' answers.

As has already been stated in the detailed presentation of **Question 4: 'Have you ever seen a PwD?'**, almost every pupil from both grades has already seen somewhere a PwD. The high percentages of Greek answers may be astonishing, if remarks in previous chapters are taken into account. However, these results can partly be explained, as some of the Greek pupils replied earlier, that every sign of Question 1 showed a PwD. In conclusion, percentages of 'yes'-answers to Question 4 are very high. Obviously, many children have not known where exactly to draw the line between PRM and PwD. A glance on the following question and its results underlines this assumption.

**Question 5: 'If yes: What was her/his impairment?'** deals with the kinds of impairment children have seen. Important amounts of pupils filled-in 'wheelchair user' or 'walking problem'. On the part of Austrian pupils, high percentages are also gathered at 'blind', 'mental disturbance' and 'corporal impairment'. As already mentioned, it is primarily Greek

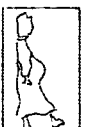
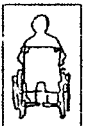
pupils that also name PRM categories in this question, for instance 'broken leg', 'elderly person' or 'pregnant woman'. This fact probably leads to the conclusion, that Greek pupils are less informed and thus, do not know what an impairment is and which persons are meant when talking about PwD. Abstention is low, but it is Austrian pupils that overrate Greek ones.

As regards **Question 6: 'If yes: Where have you seen this person?'**, the most represented places, where pupils have seen a PwD are in both grades and countries 'outside/on the street or pavement', 'in a means of the Public Transportation System', 'in school' and 'in hospital'. Again, it is Austrian pupils that did reply less than Greek ones.

Results of **Question 7: 'Is there a pupil wD attending your school?' and of Question 8: 'If yes: How serious do you judge that her/his every-day problems are?'** have to be interpreted carefully and thus, will not be compared. Only 2 school directors from Athenian primary education public schools informed me, that there were one or more pupils wD attending classes during the survey's school-year. Therefore, once more it needs to be stressed, that pupils did not only reply 'yes', if there really was a pupil wD amongst their schoolmates. An important amount of children also answered positive to Question 7, if a schoolmate faced temporary mobility difficulties, for instance, due to a fracture. In conclusion, pupils may have filled-in, that a broken arm provokes 'no' daily problems and that a twisted leg causes 'serious' difficulties in her/his daily activities. As these answers are too vague and general, no conclusions shall be drawn.

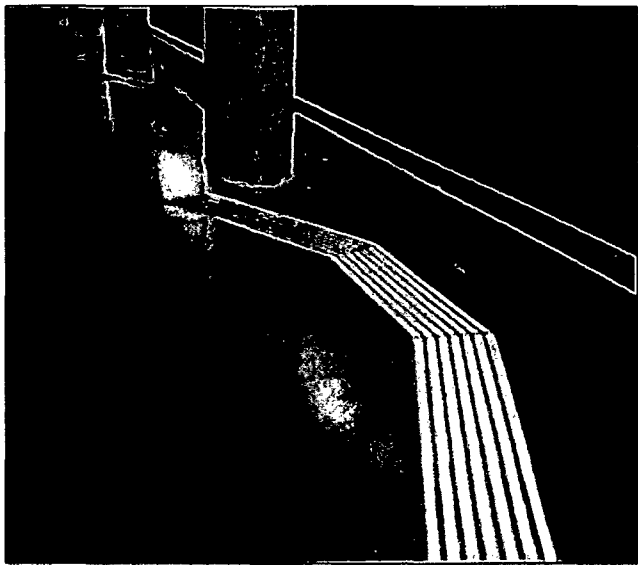
In any way, it is **Question 9: 'How serious do you think are problems PwD are confronted with?'**, which investigates children's opinions on the degree of difficulties PwD are confronted with in their every-day life. Detailed remarks have been already made in the results' presentation. At this point, it will only be stated, that in general, it is primarily Greek pupils, which evaluate problems with higher degrees of seriousness than Austrians. However, the over-all spreading is similar from both sexes and countries. Amounts of pupils answering, that PwD face no problems at all, are about the same for every country and both sexes and remain for all mentioned impairments low. Again, it is Austrian pupils that overrate Greek ones in abstention.

In **Question 10: 'How serious do you think are the problems the sketched persons have to deal with during their daily traffic on streets?'** the degree of difficulties they might face when PwD and PRM are moving in the built environment is looked at. No detailed reference will be made to results one by one. However, it has to be pointed out, that some impairments, which were described by words in question 9, are shown again with the help of a sketch in question 10 and here, children's abstention, is much lower, if compared to question 9. This fact clearly shows that pupils' problems primarily lie in understanding the description of certain impairments, rather than the picture of them. Only one such example will be given. The first sketch in Question 10 shows a blind man. Visual impairment was also the issue in question 9b. Nevertheless, especially Austrian answers differ to an important degree from one question to the other.



In general, the degrees of difficulties were equally evaluated from all participating pupils, although, conditions on pavements and streets differ a lot between Austria and Greece. The highest degrees of difficulties were ascribed to the blind man and the wheelchair user. It has to be said, that these were the two sketches with least abstention, where children generally answered decisively. The probable difficulties of elderly and injured persons were judged medium serious. Percentages of abstention are slightly increased. The majority of all pupils decided, that the mother with the pram and the man, who carries suitcases, will not face any problems, or if at all, only little ones, when walking outside. As already mentioned, abstention to this last sketch is extremely high. It probably has to be related to the fact that a person carrying loads does not fit into children's images of a PwD or PRM and thus, they got confused and preferred not to answer the question. Finally, the pregnant woman arose different opinions. No clear peaks can be observed on the part of Austrian 6<sup>th</sup> grade pupils, as all degrees are more or less represented. Greek 6<sup>th</sup> grade children judged that her problems are medium or serious. In contrast, 9<sup>th</sup> grade's pupils commonly chose medium. Abstention remains on the same levels as before.

**Question 11:** 'What is the reason for these lines of different color and texture on pavements?' revealed an unexpected high percentage of ignorance on the part of all children, although tactile orientation markings can be found in public places in Vienna (*fig. 11-64 and fig. 11-65*) as well as in Athens (*fig. 11-66 and fig. 11-67*). Regarding 6<sup>th</sup> grade replies, only about a sixth of all pupils knew that colored and uneven lines on pavements serve persons with visual impairment for orientation. Austrian boys are the exception, as their knowledge reaches almost a fourth of all of them. A significant increase in awareness has to be mentioned when looking at Austrian 9<sup>th</sup> grade pupils. Almost a third of all participating Austrian girls and boys replied correctly, but correct answers on the part of 9<sup>th</sup> grade Greek children are even lower than in 6<sup>th</sup> grade.



*Fig. 11-64 and Fig. 11-65: Tactile orientation markings in a Vienna subway station and on Vienna pavements*

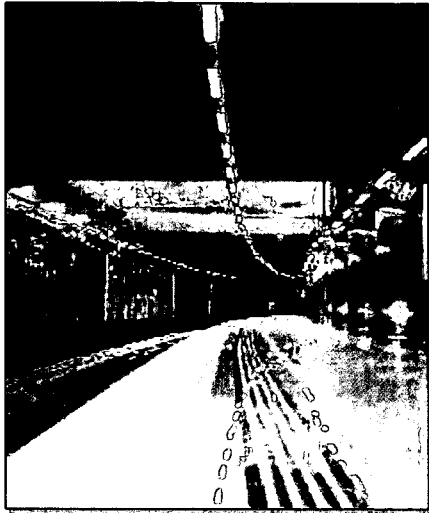
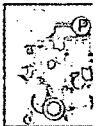


Fig. 11-66 and Fig. 11-67: Tactile orientation markings in a new Attiko Metro Station in Athens and on the Akropolis pedestrian zone on Apostolou Pavlou Street

In the following questions, no significant divergences in major chosen replies can be noticed between countries and sexes. However, less represented answers underline important discrepancies between the built environment and prevailing notions in Austria and Greece. In **Question 12: 'According to your opinion: What is the reason for the boy being indignant and being forced to move on the street?'** the overall idea was to let children judge actual conditions in the built environment. The majority of all pupils from both grades filled-in that the boy's indignation has to be related to the pavement's condition, either 'because it is blocked with obstacles' or 'because he cannot ascend, as there is no curb cut'. Some decided that it is due to his impairment, as 'he would like to walk' or 'because there is nobody around to help him'. Besides these general resemblances, especially Greek pupils' answers from both grades exceed the situation shown on the sketch and refer to their well-known every-day experiences. Greek children often wrote, that 'cars and motorcycles are parked on pavements and block the boy's way', although no car is shown on the sketch and only one motorcycle can be seen! Furthermore, they describe various obstacles in detail, such as kiosks, newspaper stands, garbage hills, electricity poles, sign posts, trees and green areas, holes, uneven paving, etc., exceeding the situation presented on the picture. In few words, they describe pavement conditions that daily surround them. Few Austrian pupils referred to the exact obstacles shown on the picture, the cats being the exception. Some of them wrote, that 'the boy is annoyed, because the cats block his way'.

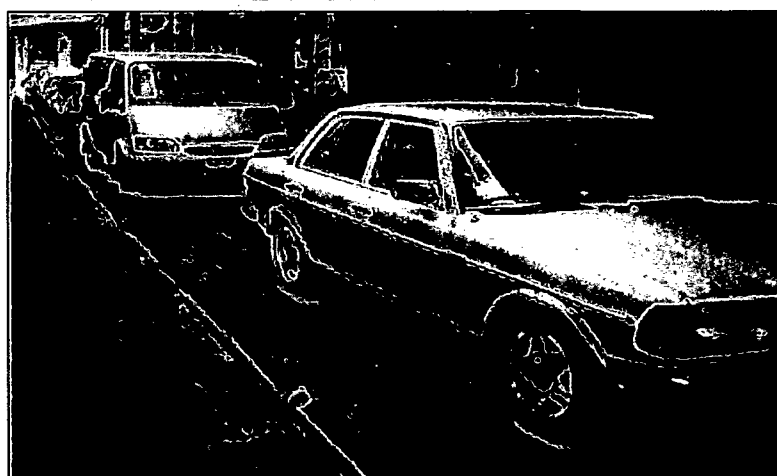
Moreover, it is Greek pupils that give a variety of further explanations. Although, it is only Austrian pupils that mention, that 'the boy is unhappy, because he would like to ride the motorbike', this answer is not really a supplementary one, as it goes hand in hand with the description of the boy's impairment. Greek pupils state that 'a vehicle parked at his special parking lot without permission' or that 'a car parked at the curb cut and hinders him to use it in order to get on the pavement' (fig. 11-68, fig. 11-69 and fig. 11-70). Both these answers refer to daily situations, which are far from being shown on the picture. Some children even went further and suggested, that 'the boy is forced to move on the street in order to find a



curb cut somewhere' and to blame the state, 'that there is no provision and infrastructure'. These explanations once more portray in a very clear way the inaccessible environment of Athens, as seen through the eyes of children! However, they partly also referred to intolerable and indifferent behavior towards PwD on the part of fellow-citizens.



*Fig. 11-68: Parked cars at curb cuts can be rarely found in Vienna...*



*Fig. 11-69 and Fig. 11-70: ...but almost on every pavement in Athens*



In contrast to Question 12, **Question 13: 'According to your opinion: Why is the behavior of the persons in the elevator socially incorrect?'** deals with the social side of impairment and fellow-citizens' reactions. Here as well, major answers of all pupils were about the same. They all judged, that the reaction and behavior of the persons inside the elevator cabin is socially incorrect, as 'nobody helps the children to get into the cabin', 'nobody is getting off and giving her/his space to one of the two children' and 'because they are not making space for them to enter', whatever this might mean. Some pupils expressed this even clearer and talked of 'social racism', also describing 'that it is ungentle to stare at the children wD' or 'that their behavior is incorrect, because they feel pity for the children wD! Greek pupils went further and claimed, that 'they are not making space for them, because they are afraid of them' or 'people in Greece are not used to seeing PwD' or 'they are afraid that they will beg for money! However, on the other side, Austrian 9<sup>th</sup> grade pupils show a totally opposite, harsh side, insisting, that 'there is nothing wrong with the person's behavior, as PwD can also wait for the next cabin to come'. The one way or the other, pupils from both countries described socially discriminating attitudes and behaviors towards PwD, underlining conditions and circumstances presented in previous chapters.

In **Question 14: 'According to your opinion: Due to what reason do the girl and the boy of the picture face similar problems?'** the lack of access to buildings wanted to be pointed at. And indeed, the majority of all pupils from both grades answered, that it is 'due to the missing ramp or elevator, that both children face similar problems, as they are not able to reach the building's entrance'. Of course, an important amount of pupils noted, that 'it is because they both face locomotive problems' or 'because they both are disabled'. Again, it was on the part of Greek pupils that further replies were given, pointing out, that 'there is not even a railing for the girl to enable her to climb up these stairs' and some amongst them even concluded, that 'they are socially excluded, because they cannot reach the building'. As already pointed out in Question 12, some of the Greek pupils blamed the state 'for the missing provision and necessary infrastructure'!

Finally, **Question 15: 'According to your opinion: Why do you think is the man in the wheelchair laughing?'** ironically shows, that it is also PRM that sometimes face similar problems as PwD. The relatively high rate of abstention in both grades is surprising (about a fifth of all pupils). An important amount of children described the picture and stated, 'that the wheelchair user is laughing, because they cannot get up/down the pram' and some of them concluded that 'his laughing is meant to be ironically, as they finally see some of the difficulties the man in the wheelchair has to face daily'. The variety of given answers in total, is the biggest one if compared to other questions. Some Austrian pupils replied, that 'he is laughing, because they have not seen the existing elevator next to the stairs'. This answer obviously portrays the common sense of Austrian children, taking it for granted, that state provision has foreseen aids for such situations. In contrast, Greek pupils are of course far from believing in such ideal situations for their country. The more optimistic ones see happiness in his smile, 'as the two parents will help the man in the wheelchair to get up the stairs, too', the more pessimistic ones describe either 'two persons that are fighting for the baby' or that 'the man is laughing at Greece's problems'!

Just to say two words at the end. In general it can be said that in 6<sup>th</sup> grade, Greek boys' and girls' most chosen or most given answers are identical, while 6<sup>th</sup> grade Austrian children have different opinions or show different ranking degradations, especially regarding their second most mentioned reply. In 9<sup>th</sup> grade, compliance of girls' and boys' replies is kept at same levels for both countries and divergences in further chosen answers, as well. Finally, abstention is lead primarily from Austrian boys and Austrian girls, followed by Greek boys and than Greek girls.

The **knowledge questions** at the beginning of the questionnaire have shown that Greek pupils are a bit weaker in answering correctly, although the majority of all pupils deriving from both countries did not know what tactile orientation markings are. Although they do exist in both countries, places where they can be found are rather few and children might not have paid attention to these lines, so far, or simply do not know what they are used for.

The **opinion questions** reveal a similar picture for all pupils, as far as major chosen answers are concerned. Prevailing notions, behaviors and opinions as regards matters of disability that have been discussed in preceding chapters are revealed, assigned and described through children's answers. However, details in replies show that foremost Greek pupils clearly refer to and unveil the inaccessible and unfriendly environments in Greece, the leading topic of the following chapters!

# PART C

## **12 SPACE AND THE BUILT ENVIRONMENT**

<b>12.1</b>	<b>THE DYNAMIC OF SPACE.....</b>	<b>163</b>
<b>12.2</b>	<b>URBAN SPACE AND POLICIES.....</b>	<b>166</b>
<b>12.3</b>	<b>SPACE AND DESIGN APARTHEID.....</b>	<b>168</b>
<b>12.4</b>	<b>THE REFLECTION OF SOCIETY'S ATTITUDES IN SPACE.....</b>	<b>169</b>

### ABBREVIATIONS:

PRM: Person /- People with reduced mobility

PwD: Person / People with disability

UA: Universal Access

UD: Universal Design

wD: with disability

## 12.1 THE DYNAMIC OF SPACE

In conclusion of all previous chapters, it is undoubted, almost trite, that **social behaviours, attitudes, beliefs and contradictions are reflected in space**. This dynamic of space has been already clearly portrayed in precedent paragraphs and pictures. In all following discussions, it is important to keep in mind, that space is not meant to be understood only in its physical appearance and in its objective reality, but always also "as a space becoming known through experience and action", (Herlyn, 1990: 7), that means through its appropriation that moulds daily routines and determines or blocks behaviours, gestures and motions.

"The degree of activity and usage interrelates directly with the degree of a person's or a group's appropriation with a specific space. **Appropriation, in conclusion, depends also on the degree of awareness and perception of space** (fig. 12-1). (...) Multiple factors contribute to the degree of awareness of space. (...) Awareness is first of all the native need of everyone to understand space in a practical, emotional and intellectual way. Thus, appropriation results in a developing relation between the human being and space" (Στεφάνου et al., 1993: 53).



Fig. 12-1: (Bus stop) "Caution works!"

Cartoon – speaking for itself!

"A place that supports people's activities and desires, permits them to be and do what they want, causing them a minimum of pain, frustration and embarrassment, is more accessible than a place that confuses, harasses, or intimidates people" (Davies and Lifchez quoted in Imrie, 1996: 91). Unchangeable spatial reference points support accessibility to and identification with space. Graduations in the organisation of space establish diversifications of social perceptions regarding the integration and incorporation of PwD as persons with full rights and duties in social life.

Access to and identification with space is "fundamentally related to social status and power and changing the allocation of space is inherently related to changing society" (Weisman quoted in Imrie, 1996: 13). As has been mentioned already, the **status of PwD is reflected in the interrelation between disability, physical access and space**. Thus, it is a matter of the interdependence of combining forms of housing, neighbourhood and urban space.

The **organisation of space is also an important determinant for avoiding or creating fears**. The attribution of significance to or interpretations of specific spaces usually

change during life in typical ways. For instance, during aging, objects in the environment usually are re-discussed and re-interpreted. This can be partly related to the changing roles, as all people going into third age have to cope with the fear of dependence and of disorganization, which are mainly caused or evaded by their identification with space (Herlyn, 1990 and Στεφάνου et al., 1993). Due to the fact, that every person has a different starting point and duration of her/his aging process, it is, for instance, impossible to exactly define the group of persons in the third age. It seems obvious, that every person has varying possibilities and unequal consequences as an infant or a child or in aging and in conclusion, no spaces can severely be predestined for any one of the categories exclusively.

"Today there is a **crisis on the level of space**. A crisis of housing, of neighbourhood, of the city." (Βρυχέα, 1997: 757) Most, if not all human experiences with space and architecture are linked to materialism, idealism and the human desire to ascribe meaning to all social processes, experienced foremost in cities with their urban structures. Thus, **the future evolution of space has not to be underestimated**.

The necessary **precondition for autonomous mobility and ameliorated living conditions is the creation of save, accessible and friendly spaces without barriers or exclusions**. Such environments will allow all citizens to live, to move and to use in a comfortable, independent and secure way their homes, working places, recreation areas, shops, all open-air spaces, means of transport and so on (fig. 12-2). Spaces creating and evoking feelings of everyone's acceptance will encourage all citizens to participate actively and equally in all kinds of social and economic activities of today's society. This notion constitutes the common goal of all European countries. The reformation of planning criteria for such environments composes the basis for any new challenge of today's permanently changing societies (www.minenv). Of course, accessibility and improved functioning are of major importance, as they form the crucial basis for every "individual's basic needs for security, autonomy, affiliation, accomplishment, intimacy and identity" (Scherer, 1993: 85).

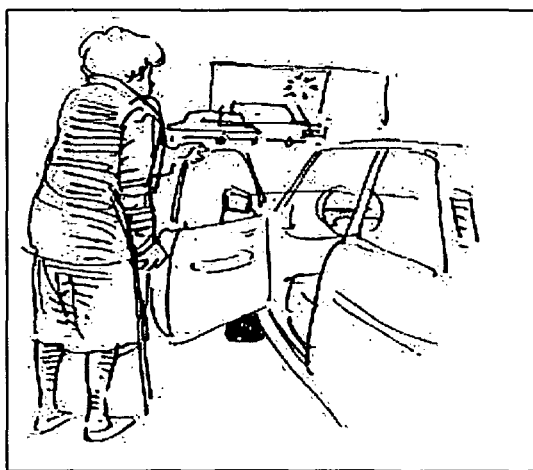


Fig. 12-2: Mobility is supported and ameliorated lives can be achieved through save, accessible and friendly spaces

Designing for PRM and PwD is designing for every citizen. However, a significant problem observed in many reformatting theories is the underlying reductionism, which already has been pointed out earlier. Access policies tend to reflect such societal stereotypes. Often PwD are presented as members of a homogenous group having solely mobility impairments and in conclusion, all their interests and requirements being the same. **"The phrase 'accessible to all disabled people' is very hard to pin down and does not simply mean step-free access (fig. 12-3)"** (Matthews, 1996: 26). **Focussing on wheelchair access only, important as it is, will not solve simultaneously all other accessibility problems.**



Fig. 12-3: Access to information for everyone is also an important issue of Universal Design, e.g. information in Braille

"If you have to adapt yourself to enter a building, it's like they're saying, 'well, okay, we really don't want you here, but if you can figure out a way to get in, we'll allow you to come in'." (Scherer, 1993: 86) Thus, the all-over idea has to be to make space and buildings accessible. This means **access without any barriers or hindrances and usable for everyone without any help, irrespective of age or impairment.** If this aim is achieved, persons will not have to find different ways to adapt space or to enter buildings (fig. 12-4). Steps prevent wheelchair users from using their right to use the front door and signs like the one pictured on the right (fig. 12-5) treat PwD rarely any better than baggage or deliveries. Having to ring and wait positions PwD on an inferior level and/or tells them that something is wrong with them, because they require help to enter into a building, marking them somehow with a childhood status. If environments and buildings are accessible, persons will feel accepted and in conclusion more comfortable and safe when moving around!

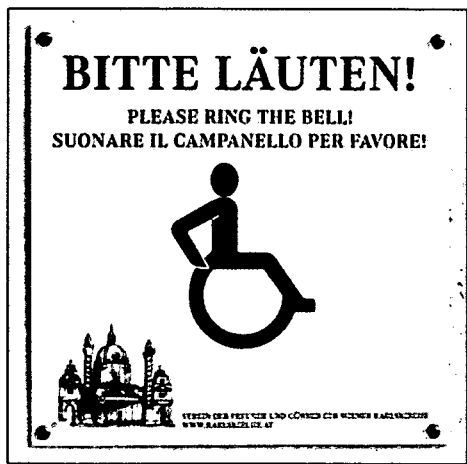


Fig. 12-4: 'Please ring the bell'



Fig. 12-5: 'Make yourself conspicuous (by knocking) - We help willingly'

## 12.2 URBAN SPACE AND POLICIES

Having considered all the above, it seems unquestionable, that space reflects the social construction of disability and the general attitude towards it. There is a direct relation between physical disability and the environment. The organisation of urban space can either restrict or tighten the degree of a person's physical disability, either limit or widen the degree of physical dependence. If a PwD is situated in a surrounding, which has been designed in such a way, that her/his autonomy is supported, she/he will not extrovert her/his impairment as a total restraining factor for the development and evaluation of her/his personality.

If a glance back at modern after-industrialised societies is taken, it becomes clear, that less and less interest in different needs of various population groups, especially those of PwD or PRM, was taken. **However, until today, the emergency of avoiding exclusion of numerous groups of the population constitutes an urgent necessity aiming at redesigning and reorganising urban areas** (Nikolaidou, 1999). The spatial structure of urban spaces still propagates all dominant power relations, as **design continues to be oriented towards over-resistant individuals and super-humans with ideal physical attributes that few humans can ever hope to approximate** (fig. 12-6). In conclusion, it is not only PRM and PwD, which are oppressed and dominated by values and practices that (re-) produce their marginal status of being locked away. The exclusion from the general use of urban infrastructure (buildings, public services, means of transport, etc.) of at least every 1 out of 4 (1:4) citizens is alarming.



Fig. 12-6: More than 1 in 4 persons do not possess the 'ideal body', nor any 'ideal dimensions'

Equality regards citizens who have similar necessities and possibilities. As has been noticed, also **evident biological and physical changes, which occur to everyone during lifetime, have been mostly ignored in the design and organisation of urban space world-wide so far**. It is still aspects of medicalisation (rehabilitation) and functional limitations that retain power over elements of public policies towards disability. Unfortunately, often the doubtful assumption is expressed, that "because built environment facilitates access for most people, it should be possible for disabled people to adapt their behaviour to the environmental constraints that they encounter" (Imrie, 1996: 28).



"For PwD everything is placed on the top of a hill. Difficult climbing is required, but once having reached the top, the view and the satisfaction are magnificent. Nevertheless, it is our duty to make this hill become a flat country." (Μπενάκη-Πολύδωρου, 1993: 112) As has been discussed in preceding chapters, new social perceptions regard all members of society as potential PRM. Thus, **space has to be designed, organised and maintained in such ways, that adaptation and use is possible for everyone (fig. 12-7).**



Fig. 12-7: "Tactile orientation markings ensure our comfortable, safe and autonomous mobility. Support our efforts! Keep the necessary space obstacle-free!"

Lately, **awareness is rising, that PwD deal with hostile built environments, where access to buildings, streets and places, most often is impossible.** Thus, it is the acknowledgement of unfriendly and oppressive spaces, that access policies and programmes exist. Today, access forms part of many political agendas and strategies for barrier-free environments are widely promoted. Such gains are also incorporated in various legislations and codes. However, these recommendations keep being shifted from the voluntary to the obligatory parts of regulations. "The overwhelming impression is that the plethora of policies and programmes for access are doing little more than reflecting and reproducing elements of state welfarism, the idea that what PwD are receiving (yet again) is another form of government benefit (and, so some would say, a 'handout')" (Imrie, 1996: 97). Unfortunately, **none of the regulations makes universal access compulsory** in the way, e.g. fire regulations are.

Likewise, in welfare states, like for instance Austria, significant policies and programmes, aim at creating barrier-free spaces for PRM. Yet, most, if not all applications have been piecemeal with little resources to be spent on. For instance, such **policies do not integrate accessibility plans as integral and integrative part of the design process.** It is only

weak statutory controls, if at all, which observe real access needs of PwD (Imrie, 1996). "A great entrapment for policy practice is the tendency to reduce the dynamic socio-spatial nature of disablement to a built environment problem, so that disability merely becomes a problem of physical inaccessibility in a thoughtlessly designed environment" (Gleeson quoted in Imrie, 1996: 45).

### 12.3 SPACE AND DESIGN APARTHEID

Already in 1965 the following opinion was expressed: "The anthropologist cannot stop his astonishment, that planning in our cities seems to be done only for one age-type and even this seems to be done with mistakes – the age-type is the adult being able to work. How the child becomes such an adult, seems to be a fact that can be forgotten" (Mitscherlich quoted in Bertels, 1990: 1). This statement seems to have kept its actuality until today, as builders still construct places of segregation and separate PwD from the mainstream of society. This design apartheid is evident everywhere.

The major roots of design apartheid are of course to be primarily related to the role of 'design professionals'. This group includes architects, civil engineers, designers, constructors, traffic engineers, building control officers, etc. It is them who construct buildings and urban structures that portray the already discussed able-bodied values. In conclusion, discriminating spaces and places are created, which exclude and lock PwD away (fig. 12-8). "From the shattered paving stones (or curb cuts), to the absence of wheelchair turning circles, PwD face the daily hurdles of negotiating their way through hostile environments, which the majority of us take for granted. Yet, the ways in which such places 'get built' are not simply the result of the thoughtlessness of design professionals, but reflect a much wider complexity of socio-cultural and political processes" (Imrie, 1996).

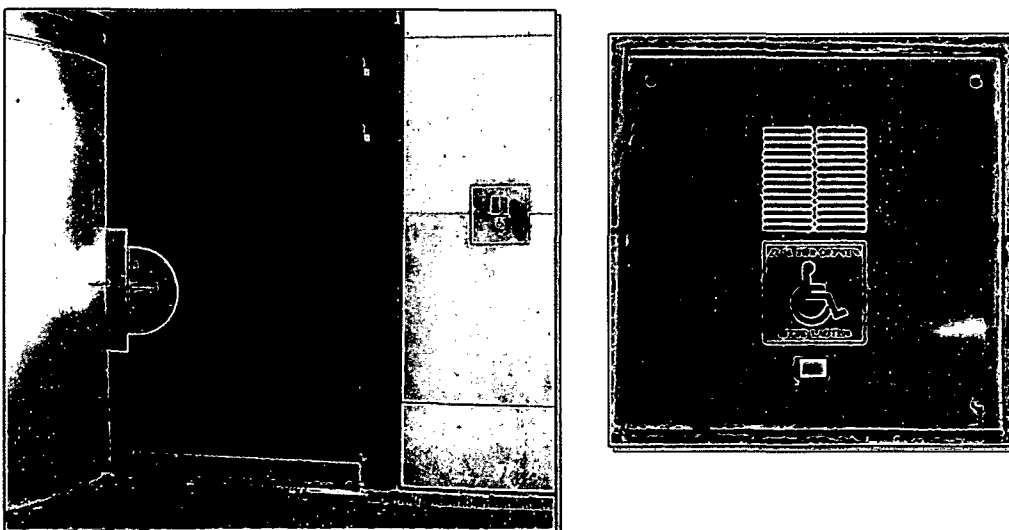


Fig. 12-8: 'Wheelchair users please ring for assistance!' – But the bell is obviously positioned out of reach for any wheelchair user!

Even a glance at the circulatory routes in urban areas proof, that exclusion is evident everywhere, as the exclusive aim is to maximise speed. The **support of the economic efficiency of movement is the only goal, instead of facilitating access** for pedestrians. Another example is zoning regulations, which again serve to exclude certain population groups. Such ordinances lead to the creation of spaces and places, which once more separate PwD from the mainstream.

A general architectural apartheid can be perceived everywhere daily. Space apartheid against every citizen can be best viewed on the many **dangerous and discriminating elements** that are hidden in the built environment. Accidents that happen due to e.g. badly constructed or dangerous steps (fig. 12-9), insufficient marking of public work and construction areas (fig. 12-10), minimal lighting of projecting elements (fig. 12-11), etc., are more than unjustified. Nevertheless, the palette of examples seems endless. Although today, a variety of means is available, to reduce and conceal architectural dangers, it is mostly ignorance and imprudence, which rule. And therefore the all-over image of many spaces remains hostile and displeasing!

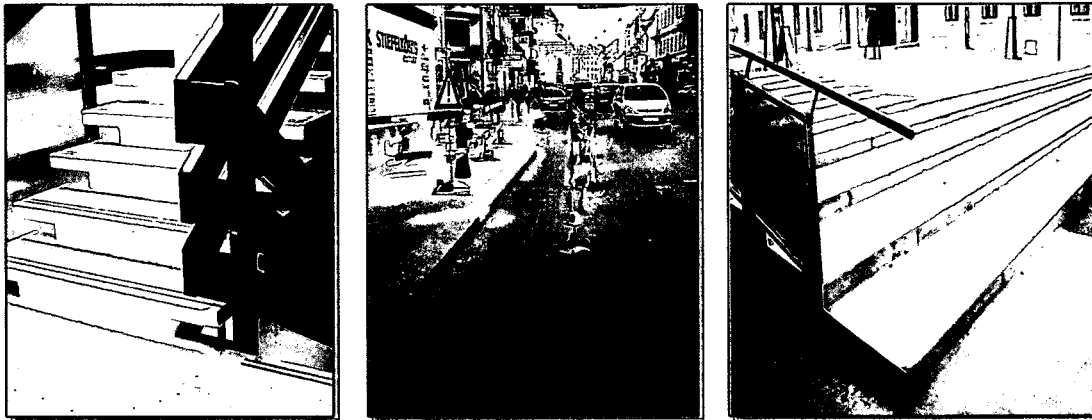


Fig. 12-9 and Fig. 12-10 and Fig. 12-11: Dangerous staircases (left), insufficiently marked construction areas (middle) and projecting (design) elements (right) are some of the many hidden dangers in the built environment, especially when lighting is not sufficient!

#### 12.4 THE REFLECTION OF SOCIETY'S ATTITUDES IN SPACE

"Society is constituted in space and space acts both as a container and shaper of social processes." (Laws quoted in Imrie, 1996: 12) Obviously, "there is an interdependence between spatial and sociological phenomena" (Βρυχέα, 1997: 766). In this sense, oppression and all other social relations are determined in and by space. Matters of housing, neighbourhood and the city constitute decisive factors of 'exclusion or integration', of marginalisation or oppression. "Disability is reaffirmed as a socio-political and cultural category, neither fixed nor unchanging, yet one which is firmly understood only by reference to the specificities of the socio-spatial and temporal conditions of its existence" (Imrie, 1996: 24). Thus, **disability has to be understood as an oppressive social relation in all 'developed' societies.**

Although basic rights of every member of society seem evident, matters like **choosing and participating in social activities are often prohibitive for PwD**. As has been discussed, it is primarily the social organisation and the planning of urban environment that have so far and continue to totally ignore such self-evident principles. The plethora of PwD's possibilities remains often, if not always, unexplored. Despite their stubbornness, their patience and their insistence, PwD cannot develop freely, as society builds barriers everywhere. Most often these hindrances remain insurmountable during their whole lifetime.

A variety of researches indicate that built **space is not at all naturalistic**. Shape is evidently dependent on the range of socio-political formations and procedures. In particular, "social inequalities in the city, as one of the more significant spatial materialities, are mapped by the complex spatial mosaic of place-based segregation, like suburbanisation, ghettoisation and gentrification and in this sense, such forms of segregation are expressive of the culturally imperialist values of society" (Imrie, 1996: 12).

In conclusion, it seems obvious, that **society and the built environment can play a major role in supportively enabling and empowering PwD**. This is also related to the fact, that every action reflects the way and closer contexts, in which the surrounding treats human beings and their activities. "The socio-cultural problem of the modern city is how to make the impersonal milieu speak, how to relieve its current blandness, its neutrality, while breaking down the social and physical barriers which segregate, seclude and, ultimately, reinforce discrimination and disadvantage against many of its citizens." (Imrie, 1996: 74) Prejudices form systematic exclusion and represent broader structural relations. For instance, PwD's chances and opportunities to find a job or to possibly find a way to enter a building (fig. 12-12, fig. 12-13 and fig. 12-14) are linked to the systematic forms of society, its awareness, its interest and profits resulting from offering equal chances to all citizens.



Fig. 12-12: Conditions for integration: museums' accessible entrances (War museum Athens)



Fig. 12-13 and 12-14: Conditions for integration: Museums' accessible entrances (left: NHM Vienna) and a remark at a bank in Vienna (1<sup>st</sup> district)

But it remains questionable, if transformations exclusively based on economic resources for adopting spaces to become barrier-free, will erase all **existing and dominant ableist values of society**. It is supposed, that only co-efforts with information campaigns will provoke important changes on the part of all citizens. However, conditions can be improved on an important degree by design professionals. Their dominant and important role is discussed in the following chapters.

**13 UNIVERSAL DESIGN (UD) AND UNIVERSAL ACCESS (UA)**

**13.1 SHORT OVERVIEW ON CITIES' AWARENESS ON MATTERS OF UD AND UA ..... 173**

**13.2 GENERAL GOALS OF UD AND UA ..... 173**

13.2.1 THE NORMATIVE SITUATION IN THE EUROPEAN COMMUNITY .... 173

13.2.2 THE REAL PICTURE OF THE NEEDS OF UA ..... 177

**13.3 DWELLINGS FOR EVERYONE? ..... 181**

**13.4 LIFE-CIRCLE-LIVING ..... 183**

**13.5 UA IN THE BUILT ENVIRONMENT ..... 185**

**13.6 THE POWER ROLE OF DESIGN AND CONSTRUCTION PROFESSIONALS ..... 186**

**13.7 THE ARCHITECT'S EDUCATION ..... 190**

ABBREVIATIONS:

- PRM: Person / People with reduced mobility
- PwD: Person / People with disability
- UA: Universal Access
- UD: Universal Design
- wD: with disability

### 13.1 SHORT OVERVIEW ON CITIES' AWARENESS ON MATTERS OF UNIVERSAL DESIGN (UD) AND UNIVERSAL ACCESS (UA)

Urban awareness regarding Universal Access (UA) is a rather recent matter going hand in hand with general concerns and ideas of acceptance on matters of disability. If a glance is taken on the development of the built environment, three phases can be distinguished, according to the understanding of different periods of time, as well as various attempts and definitions regarding the term 'disability'.

In conclusion, the necessity to facilitate actions of PRM and PwD in urban space and the importance of organising it was met in different ways over time (Nikolaidou, 1999: 422):

- **first period:** at the beginning of the 20<sup>th</sup> century: **no accessibility whatsoever** for PRM or PwD existed and town planning in big urban centres was exclusively based on criteria for 'able-bodied' citizens;
- **second period:** after the second world-war: **partial accessibility** can be found in some spaces based on the important increase of war invalids and on technical interventions. Evolution of social perceptions permitted also PRM and PwD to gain greater accessibility in urban areas;
- **third period:** recent years: architectural design and recent social organisations of urban areas are based on believes, that all members of society are considered possible PRM, **supporting and enforcing the implementation of UD and UA criteria.**

### 13.2 GENERAL GOALS OF UD AND UA

#### 13.2.1 THE NORMATIVE SITUATION IN THE EUROPEAN COMMUNITY

Universal Design (UD) and UA are the preconditions that PRM and PwD obtain equal chances in everyday life, that they get the opportunity to develop their talents freely, to participate in all activities of society, to gain access to information, services, economic activities, language, culture, etc. and first and foremost to have the possibility to lead independent lives. All visible physical barriers and all invisible social obstacles have to be eliminated in order to **guarantee autonomous and safe mobility and in consequence accessibility to all spaces for every citizen:**

Individual and environmental deficit modifications go hand-in-hand. **UD criteria are (building) facilitations providing comfortable and secure spaces including at a minimum (fig. 13-1):**

- smooth inclinations without any steps (ramps, curb cuts, etc.);
- wider door openings;
- mechanical means to cover height differences (correctly sized elevators, stairlifts, etc);
- minimal room sizes (enough action space in sanitary rooms, space for wheelchair turning circles, etc);
- provision of non-slipping grounds;

- railings and movement aids (tactile floor-marks on step-edges, etc.);
- suitable and easy understandable signs (visual indications at information systems);
- easy accessible handling mechanisms and control elements (reachable interphones, etc);
- colour contrast between construction elements and marking of glass surfaces;
- wheelchair lifts in public buses;
- etc.

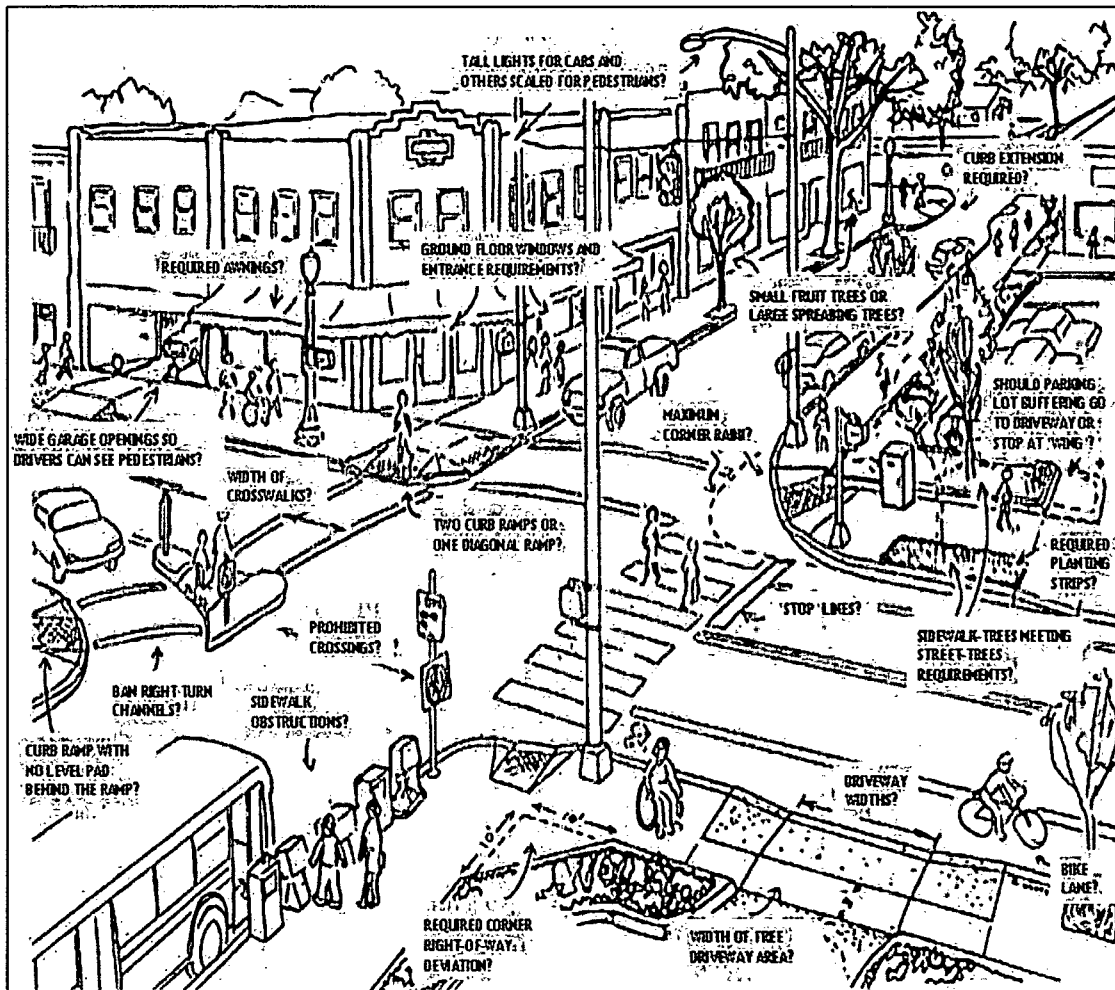


Fig. 13-1: Sketch illustrating many of the issues and questions that are important for an over-all accessible pedestrian design and domains of UA and UD measures

In addition to the UD measures, **UA principles foresee interventions to make environments accessible, friendly and safe for every user** (fig. 13-1). Immediate amelioration of accessibility conditions can be achieved through (Χριστοφρή, 2002):

- improving functionality of pavements;
- founding continuous networks with accessible paths and infrastructure;
- cleaning up pavements from useless things;
- tidying up traffic and information signs (removing all signs below 2,20m);
- creating a continuous through pedestrian zone (of at least 0,85m) entirely free of all obstacles and interspersed urban equipment;
- lowering public phones;



- maintenance of plantings and pruning of especially large canopied shade trees;
- covering tree roots and holes in pavements with grids on even level with pavement;
- replacing protective columns at curb cuts;
- clearing corners of obstructions and provide good visibility and curb cuts;
- fixing or removing dangerous elements or protruding obstacles;
- lighting of dangerous spots;
- marking of dangerous spots;
- etc.

Such facilitations and **technical standards** are regulated in norms, which represent the acknowledged technical status quo regarding a specific subject or issue. The drafting of the norm's specific content results from the basic consensus including all relevant domains, such as economies, users, public services, sciences, etc. (Klenovec, 2002). On the normative level several UD-guidelines have been published so far. No explicit reference will be made to these regulations, however, worldwide there exist the following standards (Klenovec, 2001):

- ISO TR 9527 Building construction – needs of disabled people in buildings – Design guidelines (published in 1994);
- ISO/IEC Guide 71 Guidelines for standardisation to address the needs of older persons and people with disabilities (draft 2000);
- ISO/TC 59/SC 16 Accessibility to buildings and town planning (November 2000 – Oslo);
- International Best Practices in Universal Design: A comparative study of the Canadian Institute of Barrier-Free Design (2001 November).

On European level, the 'European Concept for Accessibility' (published by CCPT in March 1996) "*serves as a reference work for the harmonisation of the concept of accessibility in Europe and provides a basic foundation for a European standard of accessibility*" ([www.eca](http://www.eca)), as well as many ordinances and national regulations, which are adapted in and/or to National Building Regulations of every country respectively. Undoubtedly, the **all-over principles in all European countries are very similar and differ slightly on tolerance levels** of dimensions, measures, etc. declaring, that accessibility ought to be finally considered as a common environmental quality. Dimensional principles (*fig. 13-2*) are oriented on physical differences between e.g. men, women, children, elderly people, wheelchair users, people with crutches or prams, etc. As the European Community is working on an all-over norm, no explicit reference to a comparison of existing norms within the European Community will be made.

Despite norms and existing guidelines, today unfortunately the contestable notion continues to exist even on the part of design professionals, that, "*because the built environment seems to facilitate access for the majority of the population (...), it is the responsibility of the minority to cope by overcoming their handicaps and/or compensating for them*" (Imrie, 1996: 12). But as has been shown in previous chapters and as the table (*tab. 13-3*) in the next chapter states, it is more than half the population which faces problems in gaining access – in few words, the statement above should be exactly the other way round!

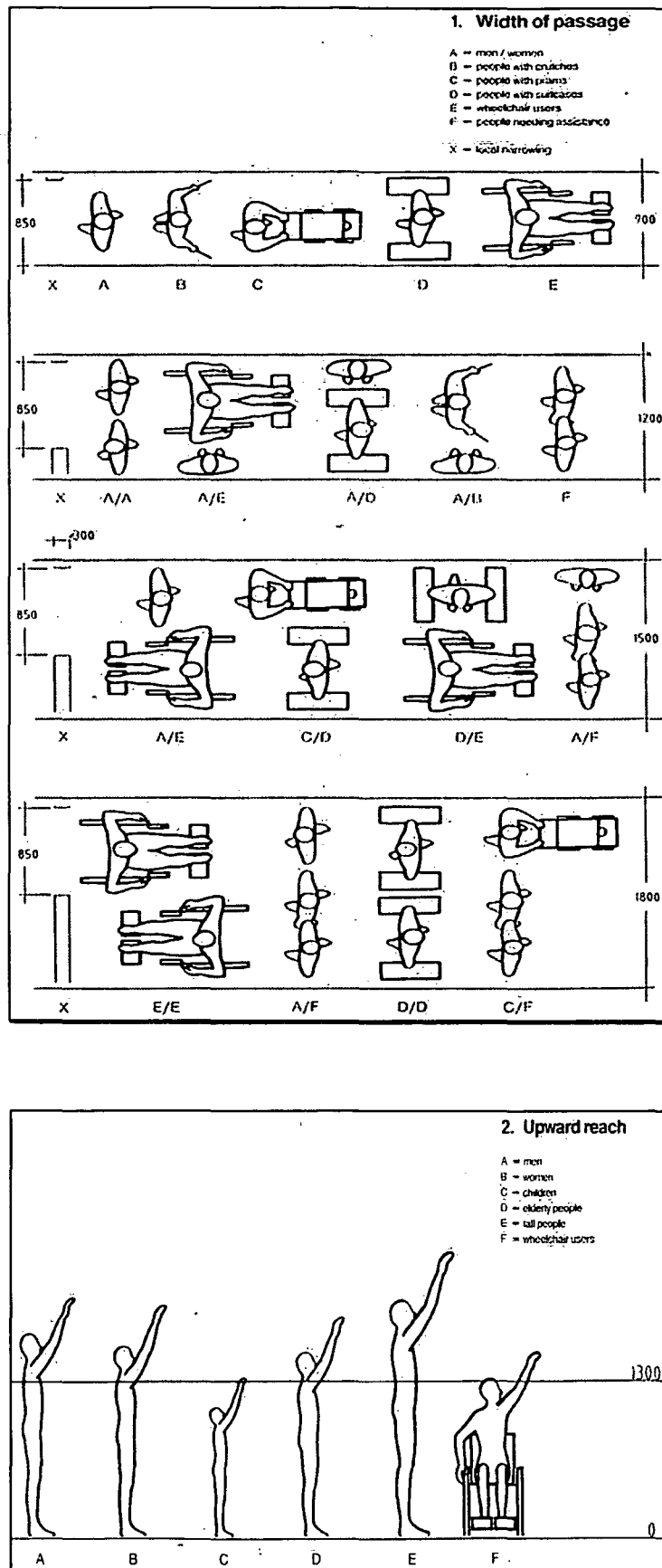
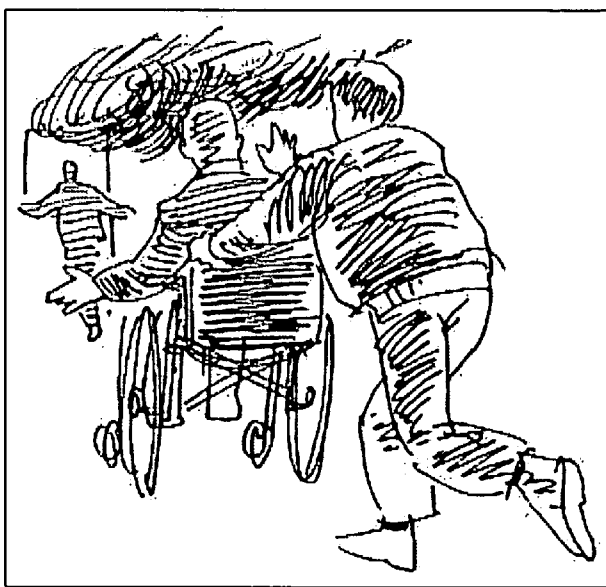


Fig. 13-2: The 'European Concerrow for Accessibility' incorporates suitable dimensions for a big variety of possible users

However, **worst situations are conditions of emergency**, such as e.g. fire or earthquakes. Public buildings, like offices and administration buildings, manifestation places like stadiums, theatres or multifunctional halls, schools and health institutions almost never provide emergency and escape routes that consider the real difficulty of limited orientation and mobility in stress situations. But it is architectural elements, which could provide a 'feeling of safety and security' and reduce probable stress factors and support escape respectively rescue (Waldau, 2002).

Obviously, such considerations are of major importance, but are almost never considered in regulations. Few building designs integrate, for instance, the movement of a PwD in an emergency situation without a lift (as its use is prohibited in emergency situation, if it is not technically completed as a safety elevator). The **need for evacuation concepts** is evident, as dangerous situations can decrease, if design helps to choose the correct emergency path (*fig. 13-3*). One positive step towards such regulations is for instance the Austrian OeNorm B 1602, which discusses for the first time rescue plans for PwD. The **ultimate ambition is of course self-rescue of PRM and PwD**, though it still is very hard to be realised.



*Fig. 13-3: Escape routes for PRM or PwD are almost never considered in regulations!*

These considerations go hand in hand with all UD and UA criteria. The clearer a built structure is, the more easily the building and its environment can be overlooked and understood by every user. UD supports the idea of **designing transparent spaces, where luminosity, good orientation and UA is guaranteed**. Entrances without steps, wider corridors and doors, etc. do not only facilitate the mobility of PwD, but do also support those persons, whose perceptions are reduced e.g. due to extreme stress in certain situations. In conclusion, UD and UA have to be implemented in all future design!

### 13.2.2 THE REAL PICTURE OF THE NEEDS OF UA

In general, the domain providing most difficulties to every citizen is mobility. The talk of the '**chain of accessibility**' is based on this principle and all previous discussion has so far been relied on this important notion. The idea of a chain is based on the fact, that if one link gets

broken, it becomes useless. In conclusion, if not all elements of the built environment, e.g. pavement networks, public transport stops, means of public transport, public services, shops, entertainment facilities, an so on, are accessible, maintained and usable, it is often impossible for a PRM or PwD to embark from home and reach her/his destination. **Everything has to be accessible, otherwise no mobility is guaranteed!**

The importance of any of the elements of the 'chain of accessibility' can be clearly observed on e.g. inclined slopes like curb cuts and ramps. These 'aids' are more likely to be used instead of steps by healthy persons, as well. Observing the movement on any ramp (fig. 13-4 and fig. 13-5), it is astonishing, that the masses of pedestrians will choose to use a little, steep ramp without any railing instead of the stairs with railing! Regardless pedestrians' traffic, it is the ramp, which is preferred and of course, it is the ramp, which will exclusively provide access to every person with mobility impairment!

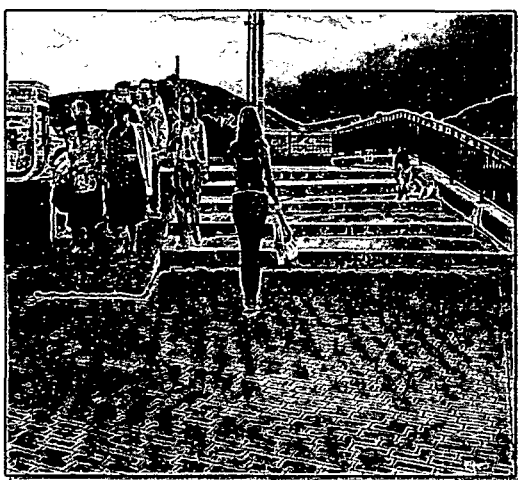


Fig. 13-4: Regardless of age, pedestrians generally prefer to use a ramp instead of steps – even when the railing and border are missing (ex. Promenade in Chalkida)!



Fig. 13-5: Also persons carrying weight prefer using a ramp (ex. Vienna, 1<sup>st</sup> district)

From the point of view of orthopaedics, this phenomenon is explained in the following way. While walking on a plane surface, the body's weight is equally shared on both legs. If a human ascends or descends steps, the total weight is transferred to one knee, which with age becomes more and more uncomfortable, as stability can easily be lost. In conclusion, everyone prefers even surfaces. "Thus, for individual, the accessibility problem is a fairly standard one; **more accessibility is better than less**" (Helling, 1998: 59).

Taking a closer look on the effects of the absence of accessibility measures, the broken chain elements, the Greek Ministry for the Environment, Physical Planning and Public Works has published the following table (tab. 13-1). Divided into population groups by age, the table reveals in relation to the group's characteristics its demands in order to achieve autonomous and safe mobility conditions in the built environment and the **effects caused by the lack of such appropriate accessibility measures:**

**Table revealing PRM’s and PwD’s needs for autonomous and safe mobility conditions:**

<b>age group</b>	<b>% of population</b>	<b>group’s characteristics</b>	<b>group’s demands for autonomous and save mobility conditions</b>
<b>0-4 years</b>	<b>5,50%</b>	Mobility – displacement <i>mostly with a perambulator, or on foot and always with an accompanying adult</i> . Infants and babies in perambulators feel insecure and anguished while ascending or descending steps and street curbs, as well as during moving on badly maintained pavements (protrusions, holes, obstacles). Instability in walking and reduced sense of danger characterise infants. Obstacles and small passages surcharge escorts, who on the one hand endeavour greater power or force and on the other face permanently dangers provoking accidents.	Necessary are obstacle-free grounds of larger widths and of better quality, non-slipping surfaces without any protrusions and gaps, big-sized elevators and the avoidance of steps. The lack of appropriate measures leads to mobility weaknesses within the built environment and in conclusion to a partial exclusion.
<b>Escort</b>	<b>5,50%</b>		
<b>Subtotal</b>	<b>11,0%</b>		
<b>4-9 years</b>	<b>6,40%</b>	Imprudence and <i>reduced sense of danger, instability while walking, reduced perception of space</i> . Normally accompanied by an adult.	Necessary are grounds of larger widths and of better quality free from any obstacles, non-slipping surfaces without any protrusions and holes, big-sized elevators and the avoidance of detached steps, appropriate and easy perceptible signs, measures (street curbs and railings of appropriate shape and heights, correctly designed stairs and slopes). The lack of correct planning leads to partial exclusion from the built environment, multiplying the daily number of accidents.
<b>60-74 years</b>	<b>14,0%</b>	<i>Gradual weakening of reflection, sensual and moving capabilities</i> . Frequent use of aids.	Due to aids, necessary are grounds of larger widths and of better qualities free from any obstacles, smooth and non-slipping surfaces without any protrusions and holes, big-sized elevators, lifts and slopes instead of steps, appropriate and easy perceptible signs (acoustic signs as well), measures (street curbs and railings of appropriate shape and heights,

			correctly designed stairs and slopes, sitting possibilities in pedestrian passages, etc). A lack of these measures leads to partial exclusion from the built environment of the younger ones and to total exclusion of the older ones of this group.
<b>75-</b>	<b>6,0%</b>	Aggravation of <i>weakening of reflection, sensual and moving capabilities</i> Besides the use of aids an accompanying person is often necessary.	Imperative are the measures already mentioned above. A lack of these measures leads gradually to a total exclusion from the built environment and to the permanent enclosure at home or in bed.
<b>Subtotal</b>	<b>37,4%</b>		

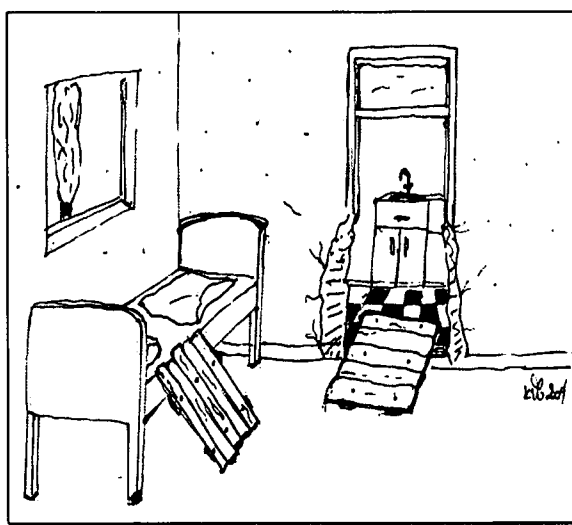
<b>Pregnant women</b>	<b>1,50%</b>	Feeling insecure. <i>Reduced mobility.</i>	Necessary are grounds of better quality free from any obstacles, non-slipping surfaces, elevators, lifts and slopes instead of steps, appropriate and easy perceptible signs. The lack of appropriate measures leads to partial exclusion from the built environment.
<b>PwD (10-59 years)</b>	<b>9,30%</b>	<i>Permanent use of aids</i> , often chairs (wheel-chairs), normally with an accompanying person.	Due to aids, necessary are: grounds of larger widths and of better qualities free from any obstacles, smooth and non-slipping surfaces without any protrusions and holes, big-sized elevators with appropriated signs, lifts and slopes instead of steps, appropriate and easy perceptible signs (acoustic signs as well), measures (street curbs and railings of appropriate shape and heights, correctly designed stairs and slopes, sitting, manoeuvres and wheelchair turning circles possibilities in pedestrian passages, specially designed sanitary rooms, etc). A lack of these measures leads gradually to a total exclusion from the built environment and to the permanent enclosure in home.
<b>TOTAL</b>	<b>48,2%</b>	<b>Totally excluded persons: 27%</b>	<b>Partly excluded persons: 22%</b>

Tab. 13-1: Table showing PRM groups divided by age and PwD, their percentage out of the total population and their needs for autonomous and safe mobility conditions based on their characteristics

However, as already analysed in the thesis' first chapter, the total amount of excluded persons from the built environment reaches at least 50%. Therefore, persons driving any kind of transportation lorries, luggage lorries or moving with other loads, persons with unusual corporal dimensions, persons with a permanent disability due to accidents, patients in recovery, persons addicted to any kind of substances, etc. have to be added to the numbers, in order to obtain the correct total amount. This consideration results in having **approximately 80% of the total population being seriously affected and restricted in their mobility by the lack of UA in the built environment!**

### 13.3 DWELLINGS FOR EVERYONE?

The first link of the chain of accessibility is housing. It is the most elementary form of human life and nevertheless, it can be related with most problematical forms of segregation and/or marginalisation (*fig. 13-6*). As has been discussed earlier, space has clearly been and continues to be used as an indicator for 'social stigma'. The state's power was and still is expressed through its control over the 'inferior' population groups. **"Housing plays an important role in the process of pushing someone out of the limelight"** (Βρυχέα, 1997: 755). According to states' decisions, the realised housing patterns vary and finally determine the provision and in conclusion, the palette of choices for every dwelling-searching citizen.



*Fig. 13-6: Cartoon – speaking for itself!*

Today, the constantly changing society leads to transformations everywhere. The **differentiated structures of households provoke a series of economic and social changes**. In conclusion, housing supplies also have to adapt to these new formations. For instance, materialistic needs determine the living quality and standards based on the following criteria (Backes et al., 1998: 212):

- size and equipment;
- living alone or sharing lodgings;
- economic and living rights: costs;
- independency;
- regional factors: geographic aspects;
- environment: micro-environment (relations within the house), nearer environment (up to 10min walk distances), macro-environment (neighbourhood);

- social and society factors: quantity and quality of social contacts within the neighbourhood and identification with it;
- danger and risk factors: risks to fall, reduced mobility;
- material and health security;
- etc.

Regardless evolution, housing structures seem to continue surviving primarily in their old-fashioned shapes. This forces PwD in many cases **to just take what is offered, according to accessibility conditions**. They most often have no possibility at all to base their final decision on criteria like the area or the housing-type they would prefer to live in. As designers and developers continue to pay little or no attention to UD and UA criteria in dwellings design, equal opportunities or specific requirements of certain population groups are still far from being considered and implemented in the housing sector.

In 1971, an OPCS (Office for Population Censuses and Surveys) survey revealed: "Over 25% of disabled people in the UK were living in 'poor' conditions, usually without an accessible indoor toilet, while **most disabled people were living in ordinary dwellings with no specific design features or facilities**. (...) 1 mio disabled people living at home were in need of rehousing or required substantial improvements to their existing dwellings" (Imrie, 1996: 3). Although over 30 years have passed since this statement, these problems still persist today. Similar conditions are presented as regards housing conditions of the aged population. Their apartments "show **lacks that can provoke accidents and/or health problems**, e.g. uneven floors, leaky windows and doors, deficits in smoothly accessing services and establishments – access to means of transportation, shopping possibilities and medical treatment." (Backes et al., 1998: 213)

Another study reveals the evaluation of dwellings of chronic ill patients living in Greece. Results are rather astonishing, as the situation is valued satisfying by  $\frac{3}{4}$  of the interviewed persons! (Amera, 1999) This of course has to be related to the subjectivity of answers and this result does not mean that residences fulfil or come close to appropriate conditions of autonomous mobility or patient's various needs. However, it is another proof that human beings **have to and get accustomed to often unfavourable situations** (fig. 13-7), especially if there is the insight, that only few if any better solutions can be achieved easily.

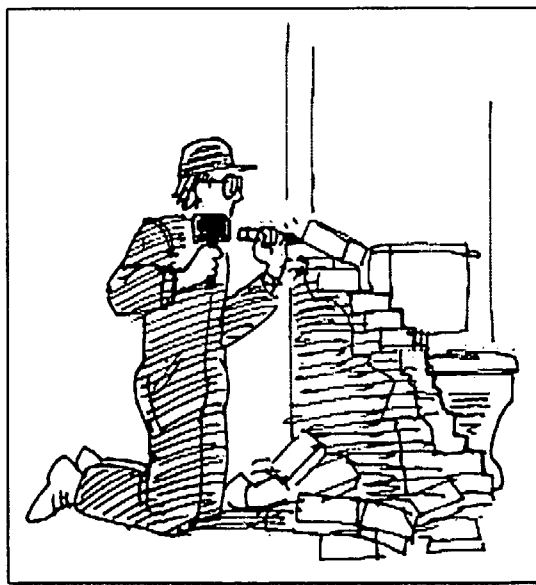


Fig. 13-7: Cartoon – speaking for itself!



The results of a study examining senior citizens and their social exclusion give the following reasons, why aged persons in Greece prefer to live in the certain district and dwelling they have chosen (Balourdos et al., 1999: 94) (tab. 13-2):

Reasons	Percentage (%)
to be near their children or relatives	34,4
they like the area	27,9
it is their birthplace	13,0
other	24,7
Total	100,0 (= 462 persons asked)

Tab. 13-2: Table showing reasons, why aged people have chosen the dwelling and the area they are living in

Obviously, there exist several serious reasons, why PRM and PwD remain in their old, inaccessible and dangerous homes. On the one hand, this is directly linked to the **lack of alternatives, which would provide improved living conditions near services**, a fact that is never clearly expressed. On the other hand, reasons like being near their kin or from force of habit often come up. Despite these observations, the probability that a person between the age of 55 and 75 living in a one- or two-person household, changes home in the European Community comes up to 52,2% (Backes et al., 1998). Criteria, which may lead to the acceptance to move can be related, e.g. to changing family sizes, when children move out, or to the desire to be near places that support social contacts, like old people’s clubs and centres.

### 13.4 LIFE-CIRCLE-LIVING

Based on the evident lack of alternative houses or apartments that meet with requirements and needs of certain population groups a variety of methods to support and make independent living for PwD possible, have been developed during the last years. Facilitations comprise of e.g. **technical aids and adaptable interior equipment**. But this of course cannot be the solution. On the one hand, later-on adaptations and supportive devices are very expensive. On the other hand, such interventions again support PRM’s and PwD’s social exclusion, as usability is only achieved within the specific dwelling. Regarding the chain of accessibility, for instance, visitability cannot be taken for granted and it will be not enough for a

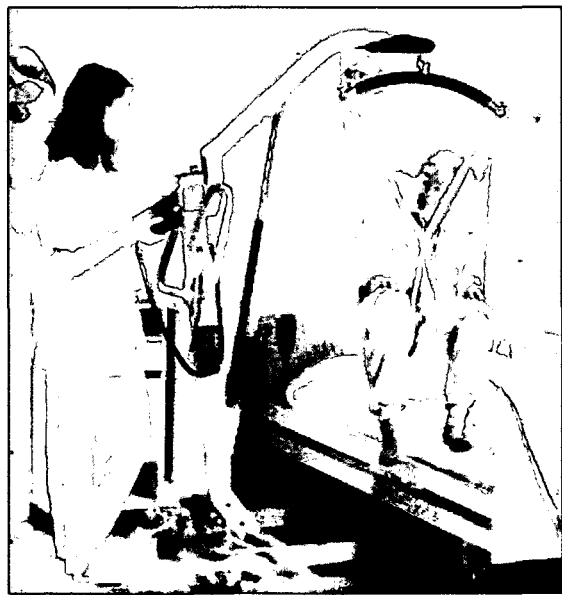


Fig. 13-8: Today an enormous range of technical aids and adaptable interior equipment is available on the market

wheelchair-user, that her/his dwelling has been adapted and became barrier-free, if she/he wants to visit a friend living in an inaccessible house (fig. 13-8). Obviously, design has to change in its roots and dwellings and their environments have finally to be designed in the notion of 'life-circle-living'.

Today, the over-all idea in design should be **co-operation and knowledge exchange of all relevant parties**. The implication of all kinds of users and future residents in housing projects has to be supported. Only then a permanent process of conscious and effective design will result. Innovation in housing means, apart from ecological and economic treatment of resources (e.g. as building ground, energy, water, etc.), the acceptance of new integrative housing forms (Muehlegger, 1999: II):

- **innovation in buildings** (fig. 13-9 and 13-10): adaptability of apartments at low cost (flexible/ function neutral floor plans) and/or multiple housing forms and sizes (according to the life-phases-circle),
- **design quality of the environment**: rooms designed according to the needs of children, women and PwD; safety in public and semi-public spaces (no more 'panic-spaces').

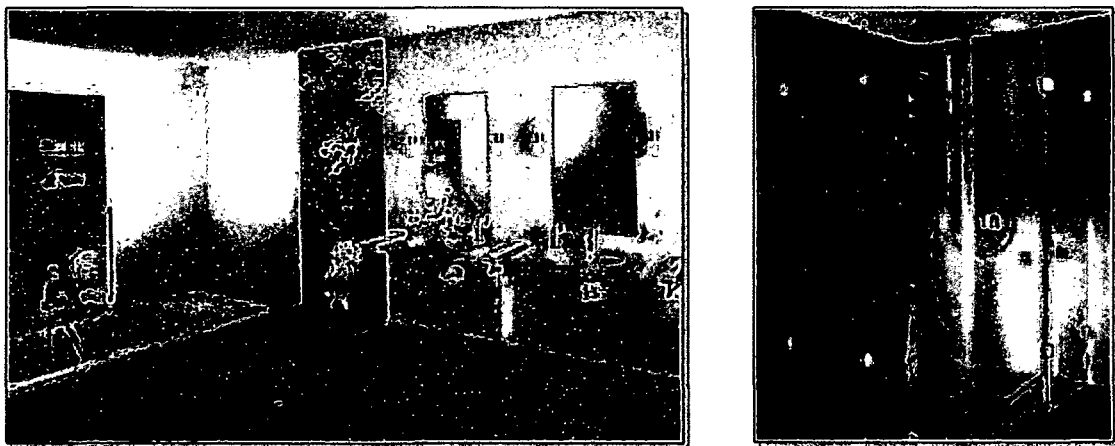


Fig. 13-9 and 13-10: Barrier-free bathrooms and equipment improve use for PRM, like pregnant women, senior citizens, temporary mobility impaired persons and of course PwD

Besides these specifics, **integrative living should become the new housing concept**. A maximum of social profit can be achieved in such 'integrative living projects', when inhabitants with similar needs in care and help co-habit (e.g. strangers, families, one-parent-families, PwD, aged people, etc.). This of course does not mean, that old people's homes are considered to be the correct solution. A mixing of population groups has to be the final vision supporting the co-habitation of different age groups in such projects ('multi-generation living') (Muehlegger, 1999). Successful projects based on this notion can already be found in many European cities.

In order to support and enable 'life-circle-living', criteria for barrier-free design have to be implemented in housing projects. Housing concepts have **to consider and integrate all life**

**phases and guarantee comfort, warmth, security, autonomy and independence for all life long, regardless of age or social status.** This idea is especially important in Greece, where family (although being influenced from the European model, where every family lives in separated households) remains the basic cell, having often three generations living in one and the same dwelling. While providing user-friendly and suitable housing conditions for all resident-groups, everybody's living standards are upgraded and family and social nets are supported.

**Concepts for barrier-free dwellings and 'life-circle-living' structures call first and foremost for care in details.** Private places should be adaptable and visitable! It is suggested, that basic design criteria are put into zoning-concepts and primarily consider the following principles:

- no steps or provision of ramps at entrances;
- comfortable entrance spaces, sheltered and well illuminated;
- comfortable elevator cabins;
- wide entrance and interior doors;
- spaces for wheelchair wheelchair turning circles;
- corridors of minimal length and sufficient width;
- positioning of light switches at proper heights (at about 85cm everything can be reached);
- easily useable doors and windows;
- color contrasts between different construction elements;
- possibility to adapt rooms lying next to each other (like, e.g. toilet, bathroom and storage room – this equals to no installations in the combined walls);
- horizontally arranged control buttons (e.g. in elevator cabins);
- information / indication labels for services (on the wall on the side of the door handle);
- etc.

### 13.5 UA IN THE BUILT ENVIRONMENT

Housing is the first link in the chain of accessibility, but of course, facilitations do not only refer to measures for buildings. Accessible environments play a significant role enabling PRM and PwD to reach their destination. Therefore, the capacity of people to utilise skills and technologies has to contain barrier-free outdoor spaces as well. The supply of certain **security and comfort elements is imperative for movement and rests in the environment** and neighbourhoods of urban structures. Security handrails, plane and clean courses, illuminated signs, protection shelters for sudden weather changes, avoidance of protrusions at heights that could be dangerous to passing pedestrians (aged people have reduced eyesight!), warning signs indicating temporary works, safe passages above or below works and so on, are some of the elements, which should be considered, when planning the environment (Στεφάνου et al., 1993). However, their aesthetic often remains unconsidered.

Furthermore, architects show an unjustified failure in complying and understanding the advantage of accessible, secure and friendly design and environments for all users. A systematic attempt has to be undertaken to persuade them for self-evident basics. But even when they seem convinced, **mistakes are continuous and unjustified** (fig. 13-11 and fig. 13-12), on a degree to ask if they do comply to any regulations at all or just improvise? (Πολυχρονίου, 2000) This may be partly related to the false existing notion, that many wrongly think that UD-elements are complicated and have a hospital-like aesthetic or that accessibility equals to bigger surfaces and higher expenses.

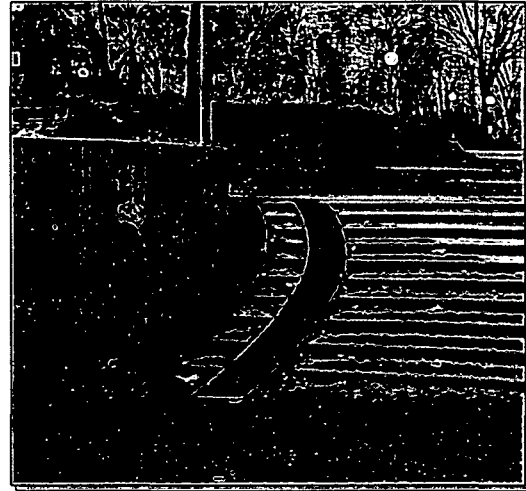
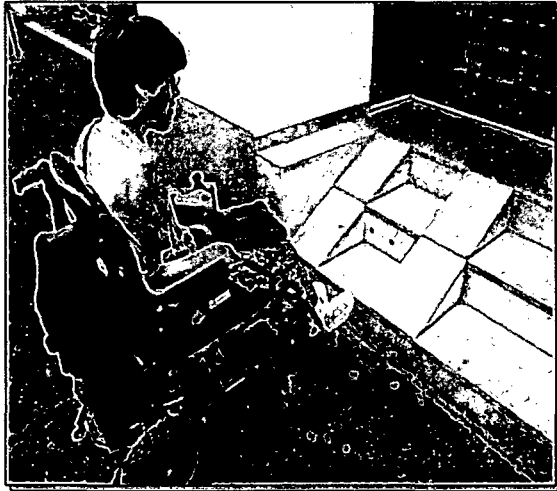


Fig. 13-11 and Fig. 13-12: Pictures speaking for themselves!

Moreover, many examples show that often the real **conflict remains architectural aesthetic versus the humane**. Only to mention one such example: A paraplegic woman living in Athens moved into a new apartment, in order to have an easier life. She placed a metallic ramp on her own cost, to be able to cover the 4 steps at the entrance, as otherwise it would be impossible for her to leave the building. Fellow lodgers (among them older people and a doctor) did not allow the placing of this ramp at the building's entrance due to reasons of aesthetic, as they claimed. Conversation with representatives of the fellow-lodgers was completely negative. They did not accept any discussion at all and would not accept any solution, although these 4 steps could easily be covered on the one side with a ramp in the same colour as the paving, without damaging the space's aesthetic (Παναδόπουλος, 1993).

### 13.6 THE POWER ROLE OF DESIGN AND CONSTRUCTION PROFESSIONALS

During the last decades, powerful critique on the role of architects, civil engineers, constructors, etc. has emerged, which persists until today. This criticism is mainly based on the over-all dominance of **gendered, racial and all other kind of divisions in space**.

S. Goldsmith (Goldsmith, 2000: 2-4) has pointed out the actual situation with his **eight-level design pyramid** (fig. 13-13), **focusing on the use of public buildings and public toilets**. **Row 1** deals with fit and mostly agile people, who can run, jump, leap up stairs,

climb perpendicular ladders, dance and carry loads of heavy baggage. **Row 2** represents the generality of normal adult able-bodied people, who, while not being athletic, can walk wherever needs or wishes may take them, with flights of stairs not troubling them. These two rows are marked with pointer A, which means that architects do normally care well enough for these people.

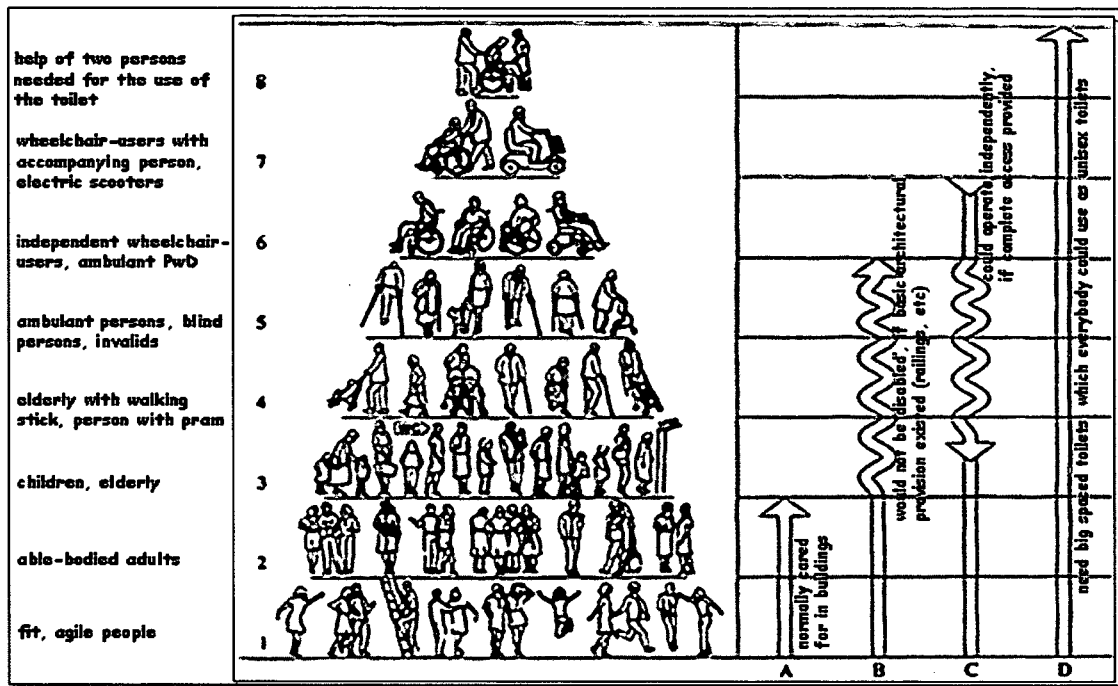


Fig. 13-13: Goldsmith's pyramid regarding usual design considerations linked to public buildings' user groups

**Row 3** shows normal able-bodied people, whose needs normally are not considered by architects. This row includes people with children and elderly persons. **Row 4** portrays elderly persons, who use walking sticks to move around, but probably do not consider themselves as being 'disabled', as well as people with infants in prams. In **row 5** ambulant people are listed, like injured persons, persons with crutches and blind persons lead by guide-dogs. These three rows consist of **persons, who normally would not be 'disabled', if architecture would offer basic dimensions and equipment suitable for them** (pointer B). If public toilets were planned more accommodating and conveniently reachable and steps and stairs were more comfortably graded and equipped with handrails, these persons would face little problems in public buildings, if at all. **Row 6** deals with independent wheelchair users or ambulant PwD, who do not necessarily need help when using public toilets. Pointer C is drawn top-down, underlining the fact, that if access provision is taken in and around buildings, these people can operate independently. Finally, **row 7** shows Pw physical impairments, like wheelchair users, who need another person to help them and those PwD, who drive electric scooters. **Row 8** portrays wheelchair users, who need the assistance of two persons to use public toilets. Pointer D stresses, that these two rows need e.g. toilets for wheelchair users and if they are planned as unisex family toilet facilities, where a second person can enter to help, it has not to be considered as something 'special', rather than an UD facilitations for all rows.

As shown in this pyramid, **PRM and people with mobility impairments are most vulnerable to architectural discrimination.** This has not only to be related to steps and stairs or confined turning spaces, but also to fixtures and controls that are too high or too low to reach. However, it is these persons, who could mostly benefit from UD implementations. "By way of information on architectural drawings the scope available to help people with sensory or cognitive disabilities is tiny by comparison. Ideally, the outcome of applying UD would be as shown by the pointer D, indicating buildings that are entirely convenient for all users" (Goldsmith, 2000: 4).

Today's criticism on the lack of UD and the ignorance of design professionals seems to be justified. "Architecture, a luxury rather than an indispensable service, remained within a pre-modern model of elite patronage, its **provision of services primarily dictated by economic power**" (Crawford quoted in Imrie, 1996: 79).

Of course, excellent barrier-free design projects do exist. Specific demands can lead design professionals to create barrier-free solutions in particular, but it seems to be closely linked to the needs and wishes expressed by a certain elite, a fact that reflects the narrow-mindedness of architects. Rem Koolhaas' 'Maison à Bordeaux' (1998) (fig. 13-14) is one such example. The commission of this house reflects the physical needs of the family's husband, who uses a wheelchair. The wish for a complex house nevertheless raised this well-known project and the necessity of designing barrier-free is always mentioned as the important achievement of this house (instead of being the most common thing!), although a dangerous indoor staircase without proper railings can be found, as well as an indoor platform without protective railings!

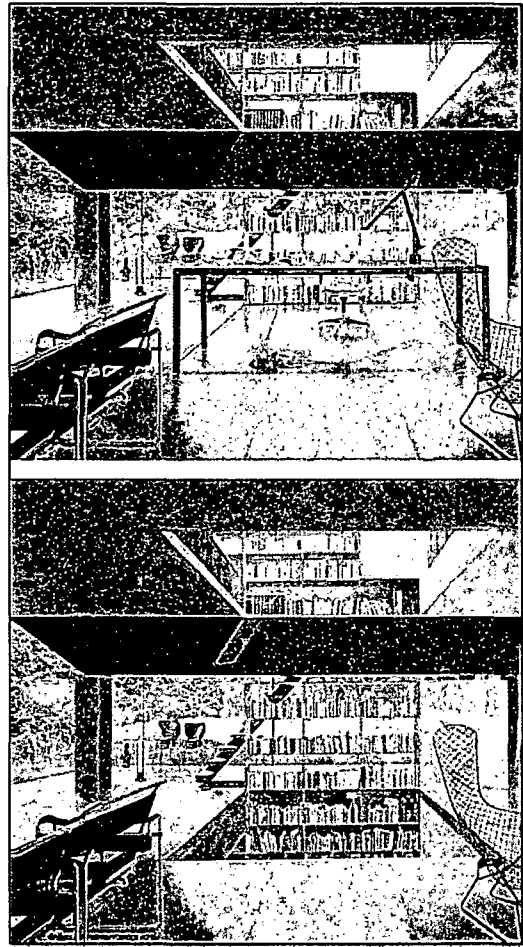


Fig. 13-14: 'Maison à Bordeaux' – a house designed specifically for a wheelchair user with many dangerous spots, e.g. missing railings at indoor platform opening and at indoor staircase

This **actual impasse seems to prevent architects from connecting design to social and economic questions.** Such connections are still missing in most projects. Many recent giga-projects prove this. Let's only mention the problems with the 'Museumsquartier' in Vienna (fig. 13-14), where all design professionals forgot to think of the barrier-free access to this museums' square. This deficiency had to be 'repaired' by investing gigantic supplementary amounts in order to adapt all constructions to become accessible.

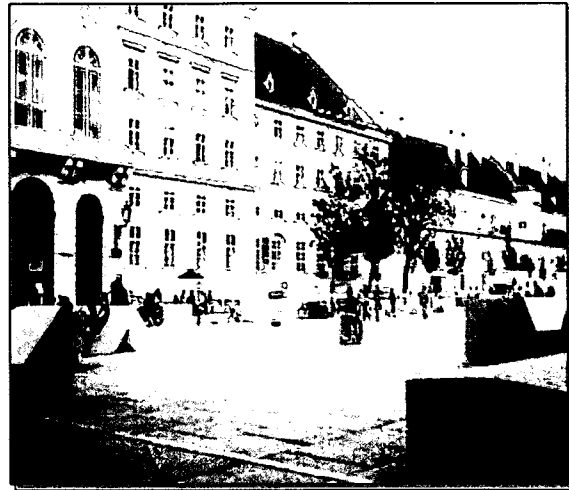


Fig. 13-15: 'Museumsquartier' in Vienna – a project that got accessible after its completion and can now be used by everyone

Such deficits and disrespectfulness can be clearly related to the **lack of social questioning on the part of design professionals**. The already discussed prototypes survive in an excellent way, regardless all existing norms and regulations for UD. It is design and construction professionals that have to finally become aware of the discriminating environments they are continuously creating. Architectural solutions have to start to be founded on detailed elements serving the use for everyone within the population. Isn't it architecture that guides most of all and develops communication, understanding, co-habitation, respect, etc.?

"The philosophy (...) is that it is normal to have a disability and that those involved in the built environment **should design and plan inclusively rather than tacking on supplementary provision for PwD and other needs groups**" (Reeves quoted in Imrie, 1996: 117). This is foremost a question of human's ethic: "How ethical is it to practice architecture, to be a professional licensed to design buildings, without having first developed an intellectual and emotional understanding of people. (...) Architects need to confront the social psychological context of design, how it feels for the users and to acknowledge that there are no simple technical (design) solutions" (Davies and Lifchez quoted in Imrie, 1996: 93) and that (unusable) add-ons (fig. 13-16 and fig. 13-17) have to stop being the only solution!

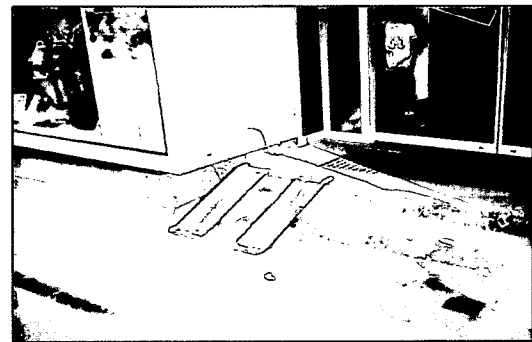


Fig. 13-16 and Fig. 13-17: Questionable add-ons to public buildings (up: shop in Vienna, down: hospital in Athens)

Once more the prevailing notion, that 'it is not impairments, that disable, but society', is well placed at this point. Design professionals should not wait for everything to be spelled out only by law. **Social sensitivity is required, correct judgement and the capability to create and think in means of wider concepts and their effects on every citizen.** Correct planning of space will enable, rather than disable.

"I try and train the city architects, but they're not very respectful, they don't want to spend time on it. (...) UD isn't important to them; **they see access as a separate issue, as an additional design requirement which they think just compromises what they're trying to do**" (Access Officer quoted in Imrie, 1996: 7). "Often, I am asked to come into a project that is already in the final stages of design. People think access can be added after the fact, as if it were landscaping. Access is more than a ramp and there are more than just physical disabilities to contend with. To be meaningful, access must be integrated into the overall design at the conceptual stage. Making changes after the design phase is completed, is almost as difficult as retrofitting an existing structure" (McCannell, 1998: 56). But even if plans are correctly adapted in their final stage, still the problem remains, that construction on-site often does not deliver the exactly wanted results.

Nevertheless, the major 'prohibition', which already has been mentioned before remains the notion, that in many cases access is only understood as an obstruction to architectural aesthetic. But of course, the only correct way to conceive barrier-free design is in the view of having the **challenge and the power to lead today's perceptual orientation towards the missing humanity in society!**

### 13.7 THE ARCHITECT'S EDUCATION

As previous paragraphs have discussed, design reality is far from engaging in the subjective being and human diversity. Apart from the planner's judgement, also **planning schools are to blame that spaces continue to propagate exclusion.** Furthermore, it is governing and regulatory bodies, which do not seriously take the responsibility to control and conduct building procedures. As already shown, the proportion of the population of PwD grows in these days. But the design profession has not kept pace with these changes of society. Environmental implications of the increasingly ageing and/or disabled population have been disregarded so far.

Already a decade ago, in 1993, on December 20<sup>th</sup>, the United Nations signed resolution 48/96, which remarks in rule 5 (accessibility) the **importance of informing and educating design and construction professionals as regards UD and UA regulations** as follows (www.unhchr2):

"1. Such measures should be to develop standards and guidelines and to consider enacting legislation to ensure accessibility to various areas in society, such as housing,



buildings, public transport services and other means of transportation, streets and other outdoor environments.

2. States should ensure that architects, construction engineers and others who are professionally involved in the design, construction and renovation of the physical environment have access to adequate information on disability policy and measures to achieve accessibility.

3. Accessibility requirements should be included in the design and construction of the physical environment from the beginning of the designing process."

In 2001, on February 15<sup>th</sup>, the Committee of Ministers of the Council of Europe adopted at the 742<sup>nd</sup> meeting of the Ministers Deputies 'Resolution ResAP(2001)1 on the principles of universal design into the curricula of all occupations working on the built environment', which emphasises the **almost total lack of compulsory training programmes with a universal design dimension for all occupations working on the built environment** (www.cm):

"It is the responsibility and duty of society and in particular of all occupations working on the built environment, to make it universally accessible to everyone, including persons with disabilities. (...) Such policy includes the education and training of key players in this process. Through a co-ordinated set of measures introducing the concept of universal design into the curricula of all occupations working on the built environment, people of all ages, sizes and abilities should be enabled to have as much mobility and access to buildings, as well as means of transport, as possible, so that they can play a full role in society and take part in economic, social, cultural, leisure and recreational activities.

For the purpose of taking early action to promote a coherent policy to improve accessibility, the **concept of UD should be an integral and compulsory part of the mainstream initial training of all occupations working on the built environment, at all levels and in all sectors.** Adequate further training should be made available for active professionals, such as architects, engineers, designers and town planners. Their attendance should be strongly encouraged. (...) Curricula of architects, engineers, designers and town planners at under-graduate and post-graduate level should develop the following skills:

- that of perceiving the relationship between human beings and their contractual creations and between the latter and their environment,
- that of understanding the need to accord contractual creations and space in compliance with human needs,
- that of mastering problem-solving techniques in order to increase the usability of all their contractual creations, taking into account human diversity."

Despite of all attempts to introduce UD-courses into the educative process of future design and construction professionals, the fact is, that most planning schools still ignore matters of UD, although accessibility consultants (*fig. 13-18 and fig. 13-19*) are already self-evident for

many big projects in some countries. **UD is the most widely known approach to build barrier-free environments and buildings and does not increase construction costs, if integrated on time!** Even in the few institutions, where the issue of barrier-free spaces and aspects of UD are taught, the subject is treated like an 'issue' and like an after-thought or add-on in the design-procedure. Furthermore, no interaction and contact between students and PwD in the community at large is observed. The matter is totally neglected so far. Moreover, no compulsory attendance at continuing professional formation courses does exist. In conclusion, there is no guarantee, that architects, civil engineers, constructors, traffic engineers, travel organisers, etc., are informed, trained and up-dated on access and security issues.



Fig. 13-18: Accessibility consultants are self-evident in big projects

*"The innovative performance for the future is to be found in **knowledge design**. Knowledge means, building up from information and values, assessments, decision making. Knowledge is more than information. Konrad Lorenz once said, that information is the best fertilizer, on which knowledge can grow. Information can be passed on by technical means, but knowledge in its complexity can only be transferred with a face-to-face situation" (Henn, 1998: 283).*

However, in the rare existing courses, the trend seems to be **simulation exercises, where physical and sensory disabilities can be 'experienced'**. Sensitisation classes exist, where, for instance, students are obliged to use wheelchairs, as frequently used in awareness programmes. The aim is to let persons vividly experience the subject of 'disability'. The result should be a deeper confrontation with problems, barriers, difficulties and frustrations PwD have to deal with daily. Such activities have the potential to bring about positive attitude changes towards disabled people.

Of course, there exist controversial opinions, criticising this way of awareness rising: *"Simulation exercises form part of the medical model approach to disability and serve to reinforce the negative view that disability is only some terrible personal tragedy and cannot encompass the view of disability as part of a fulfilling or unfulfilling life experience" (London Boroughs Disability Resource Team quoted in French, 1996: 121).* The problem engaged in such simulations is evident. Non-disabled may believe that PwD experience exactly the same situation as them. And as non-disabled cope rather helplessly with appearing problems, as they are not used to deal with the complexity and multiplicity of barriers and hindrances, they might seem to be ridiculous. Thus, one

possible effect is, that PwD become superhuman and heroic. The one way or the other, it is better to raise any awareness and sensitisation instead of nothing at all!

However, it is absurd that restaurants exist today, where guests enjoy their meal in complete darkness, like being blindfolded and only little interest, if at all, can be found in design schools. In **Austria, lectures and exercises on UD have been integrated in the study programme for architects at the Vienna University of Technology since 1997 and at the Graz University of Technology since 1998**, held by Mrs. M. Klenovec. The courses started as alternative lectures, but it is aimed at comprising them in the basic education programme.

**In Greece**, unfortunately, **no such intentions can be observed so far**. Although the teaching staff seems to be well informed on UD- and UA-guidelines, real implementations can only be found in private projects. The necessity to inform students and to transfer knowledge on accessibility matters to them does not seem to be of importance to the majority of Greek professors. No relevant course is offered at any higher-degree educational institution for engineers or constructors, apart from periodically organised workshops or research courses. As sad as it is, the only such course that is being held in Greece is at Athens' Medical School, where professor Papadopoulos sensitises future doctors on accessibility matters in his alternative courses on 'Social pharmacology and Substantial Medicine'. This fact proves once more, that UD and UA matters are clearly linked to the initiative and ethic of individuals. And as long, as these virtues are absent, no improvement can be expected.

'**Flexible architecture**' is the key word today in planning schools, as well as **structures, which are 'demountable, reasonable, multifunctional and changeable over time'**. These trends do not necessarily incorporate UD-criteria, but it is obvious that it could become quite easily the over-all goal. Although people and places are fluid, transformative and multi-dimensional, as already mentioned in previous chapters, architecture continues to petrify social forms and to deny and to resist to the dynamic of society. Only if ethic and open-mindedness is treated during the education and formation process of design and construction professionals, future degree holders will think of UD and UA as of something self-evident, when practising their profession. Knowledge has to be transferred to future professionals, pointing out that:

- ⇒ **UD regulations do not lead to boring, trite and ugly solutions!** (*fig. 13-20 to 13-22*)
- ⇒ **The rise of total construction costs of completely accessible spaces and buildings solely consists of 1%-2% if provision is made on time! It is retrofitting, which is incredibly expensive!**
- ⇒ **And UD does not limit imagination and inspiration!** (*fig. 13-20 to 13-22*)

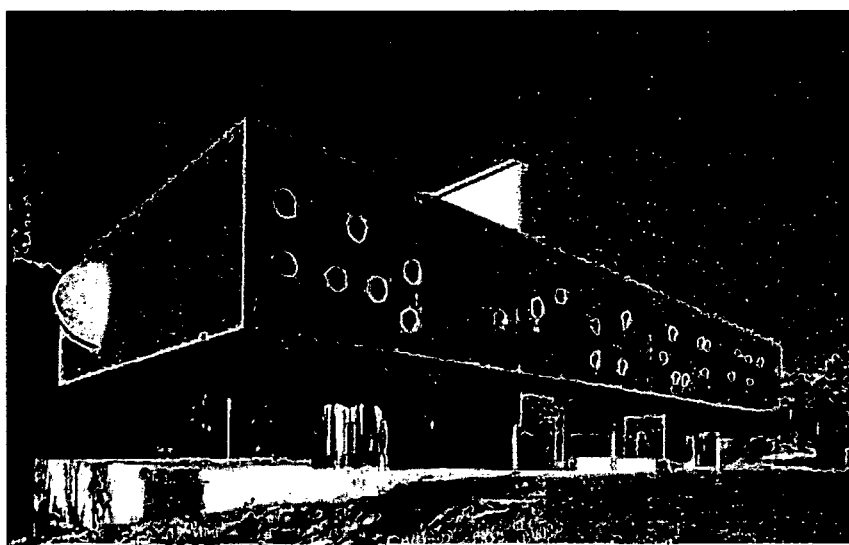
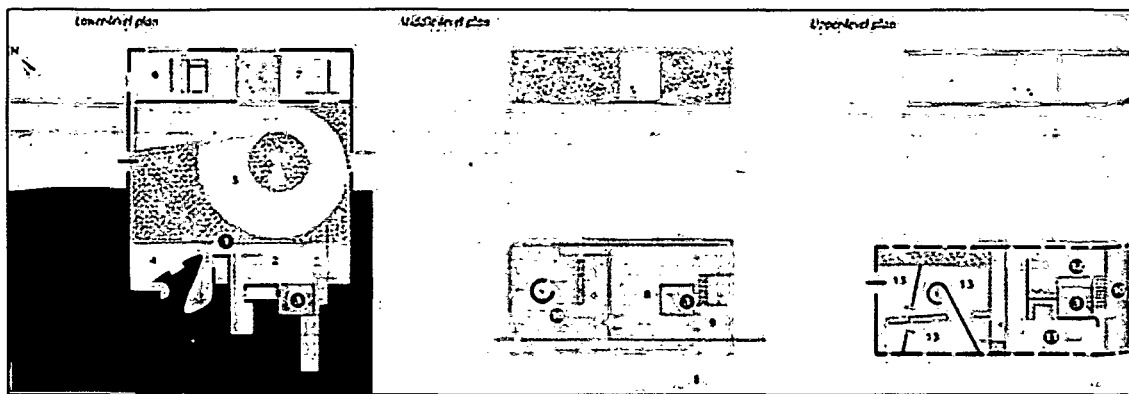


Fig. 13-19 and Fig. 13-20 and Fig. 13-21: Again the complex plans and vivid building of the 'Maison à Bordeaux' is shown as proof, that UD implementation does not lead to boring, trite and ugly solutions, neither does UA limit an architect's imagination and inspiration!

<b>14 ACCESSIBILITY AND MOBILITY IN SPACE</b>
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<b>14.1 ACCESSIBILITY AND MOBILITY FOR PWD .....</b>	<b>196</b>
<b>14.2 ACCESSIBILITY AND MARKET EFFICACY .....</b>	<b>198</b>
<b>14.3 THE ROLE OF THE PUBLIC TRANSPORT SYSTEM (PTS) .....</b>	<b>202</b>
<b>14.4 THE PUBLIC TRANSPORT SYSTEM TODAY .....</b>	<b>204</b>
<b>14.5 MOBILITY CONDITIONS FOR PWD LIVING IN GREECE .....</b>	<b>205</b>

**ABBREVIATIONS:**

PRM:	Person / People with reduced mobility
PTS:	Public Transportation System
PwD:	Person / People with disability
UA:	Universal Access
UD:	Universal Design
wD:	with disability

**14.1 ACCESSIBILITY AND MOBILITY FOR PWD**

Living in cities today is primarily linked to the significance set on mobility and accessibility. **Free and safe access** to all spaces, places, resources and activities of social and economic life, **as well as the possibility of unhindered communication** through all means of information form the basics of social justice. It is these two aspects that enable citizens to live their civil rights and to gain equal living conditions in urban structures. This has also been remarked in the already quoted United Nations resolution 48/96 of 1993, where rule 5 points out matters of accessibility in the built environment, as well as in the already mentioned 'European Concept for Accessibility' of 1996.

The so often mentioned '**chain of accessibility**' (*fig. 14-1*) **underlines the importance of having all links within urban structures barrier-free**, from the exit of an apartment, street spaces and parking lots next to building entrances over means of public transport and public services entrances and buildings to service's staff attitudes, signs, information and so on. If only one link is missing, the chain is broken and in conclusion, none of the above mentioned basics of social justice is guaranteed, making it impossible for any PRM and especially PwD to reach her/his target!

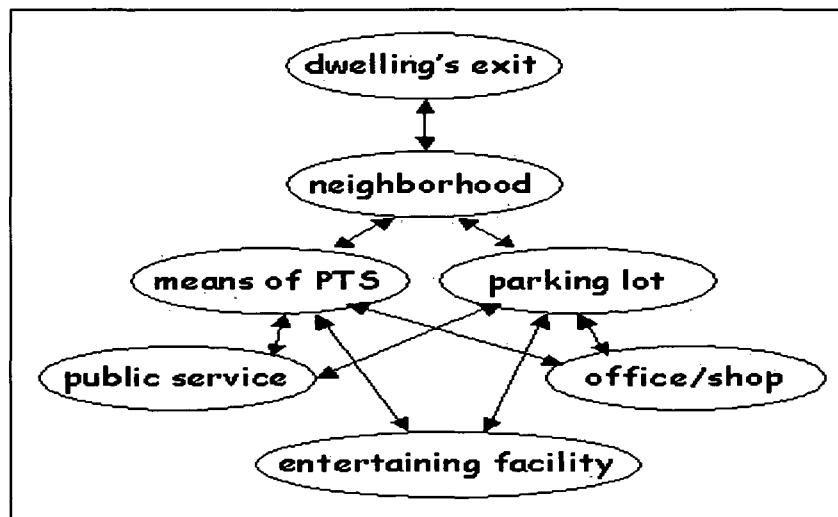


Fig. 14-1: An example for the 'chain of accessibility'

**Differential forms of mobility** are important factors in the construction of landscapes providing every citizen with a variety of choices to move. It is evident and has already been discussed, that the relation between environment and mobility is very important as regards the degree of accessibility, exclusion and marginalisation. Social power and socio-spatial inequalities can either be upheld or diminished. Freely walking is defined as spatial movement from one point to another and the utilization of space, according to the complete desire of the moving person (choice of walkway, frequency of stops, possibility of access, etc.) (Nikolaidou, 1999).

Today, it is immobility, which reinforces social inequalities. The existing conditions determine, which categories of citizens can gain access or not to particular places. **"Accessibility for all means first and foremost for myself.** When you visit my office and you cannot enter, it is not only you, that is deprived from seeing me, but it is also me, that cannot see you!" (Κουλαξής, 2000: 19) (fig. 14-2) For PwD the absence of circumstances where they are able to freely move underpin their subordinate and marginal status in society. As a result, experiencing oppression and domination seems to be the price or penalty of every attempt to leave their homes. **"Every time I go out it's like an assault course,** I can hardly get down the street because the paving stones are shattered and I feel that everyone's looking at me. (...) I can only go to certain places on my own, (...) **it's a form of enforced dependence"** (PwD quoted in Imrie, 1996: 164).

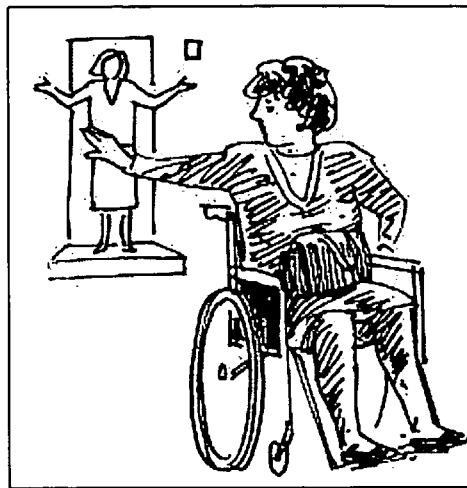


Fig. 14-2: Visitability remains one of the many problematic issues for PwD

For instance, it is characteristic, that the decreasing action radius of aged people limits their chances to experience environments. On the one side, this can be directly linked to the reduction of corporal forces and/or social contacts with growing age. In conclusion, self-determined and active spatial use become less and less (Herlyn, 1990). On the other side, this has to be related to the fact, that daring is replaced by the fear of an accident, mobility is substituted by stiffness in motion and curiosity by hesitation (Nikolaidou, 1999).

**Mobility is the possibility, which opens ways to important social correlations in the nearer and farer environment.** But also confidence in the surrounding environment and differing ways of using available infrastructures play an important role and define criteria for outside-home targets. Studies having been carried out in Greece (EIAA 2000: 1) show, that PwD suspend their exits increasingly in proportion to the distance they have to cover from their residence to the final destination point. An increasing percentage of their displacements are limited to the neighbourhood, as they are better aware of the conditions of roads and buildings they want to reach. Visiting the city centre or other public spaces is restricted to PwD living in Athens, as no information is available regarding existing accessible buildings or accessibility conditions of the means of public transport.

**Almost every PwD's mobility in space is reduced and limited if compared to the rest of citizens** (fig. 14-3). Reaching particular places and in the following using certain establishments depends on the one hand on the distance from home. On the other hand, it is security measures and perceptibility of space that play an important role. For instance, the percentage of perceptibility of space for a person with weaknesses and/or impairments in

eyesight is relied to certain biological characteristics, such as age, sex, kind of blindness, descent, social origin, educational level, experience (Nikolaidou, 1999). Thus, the determining factor, which imposes the way and the duration of independent movements and social integration of every PRM and PwD, is, of course, the design of space and its buildings.

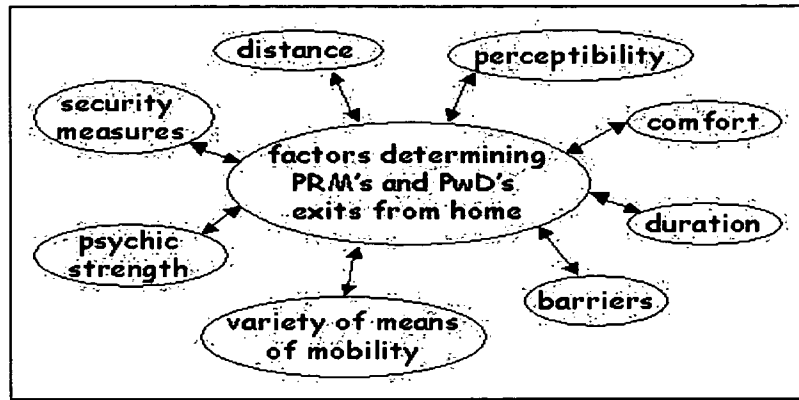


Fig. 14-3: PRM's and PwD's mobility and in conclusion exits from their dwellings are determined and blocked a variety of factors, some of them shown in this diagram

## 14.2 ACCESSIBILITY AND MARKET EFFICACY

The following statement belongs to an UK minister of a local government: "Whilst committed to creating an environment more accessible to PwD, **we must ensure that any additional costs do not bear unreasonably heavy on those who provide and use buildings or on the community** which ultimately pays the price for goods and service." (Curry quoted in Imrie, 1996: 67) This is one more prove for the discriminative notions existing against PwD. The minister evidently has forgotten, that PwD also belong to the group of 'users', 'consumers' and the 'community' in the widest sense. As legislation in matters of access is weak, emphasis seems to be put only on places, where the market demand is expressed clearly in advantage of it.

However, times seem to be changing. Today, the liberate economic market increasingly presents **PwD as a 'new' profit group**. "From the side of economics, investments in UA is not counter-productive, as, on the one side the circle of categories of these groups (PRM and PwD) is very wide, thus a considerable number out of the population is concerned and on the other side, adaptations do seriously serve everyone's comfort, also people without any difficulties and in conclusion make the system more attractive" (Kiknpaç, 2000: 116).

The principle of free choice is best viewed through forms of market exchange. And finally, it is this liberty and rational justice of the market that forces to accept PwD's citizenship and that claims for their rights to gain barrier-free environments (fig. 14-4). The leader of the US Equal Employment Opportunities Commission expresses this clearly profit oriented view of



today's society in the following way: **"There are good dollar and cents why business should be interested in disabled people.** First, disabled people purchase goods and services just like any other consumer. (...) A smart business person would make sure that his or her business was accessible to and usable by disabled people. (...) 36 mio Americans can be a profitable market for you" (Kemp quoted in Imrie, 1996: 64).



Fig. 14-4: Placing the International Sign of Accessibility on shop-doors does not always mean barrier-free access (ex. from Vienna)

In conclusion, it seems that **market efficacy is the substantial factor, promoting or denying issues of UA and UD in all domains.** So, it is evident, that this is not a matter of civil rights, but a matter of profit speculation arising from the awareness, that PwD might be possible customers and consumers and should be served in the same way like all other citizens are. But existing attitudes are far from voluntarism. Even if PwD are expected to pay for what they want, the decisions on how the environment gets built primarily remain based on developers' concerns about costs and profits. It seems important, that developers begin to see PwD as an important clientele.

"Our attitude to the issue is to tell the developer that an **accessible building is one which maximises their market opportunities.** (...) (fig. 14-5) Indeed, this seemed to be a common, binding, theme with most authorities commenting on the cynicism of the development industry, able and willing to provide appropriate design features for disabled persons, if it presents them with a market opportunity." (Access officer quoted in Imrie, 1996: 109) If market efficacy really is the effective way to successfully achieve accessibility, considerations as the following ones regarding tourism should perhaps be propagated louder in Greece: " We have to do everything – as say the developed ones – also for those, we exploit. We approximately have 20.000.000 tourists a year. Their average age is between 70-75 years. In this sense, if we do not do something for ourselves and just do it for tourists, that leaves us money, we again will have appropriate infrastructure, which serve PwD." (Ψωμόπουλος, 2000: 25)

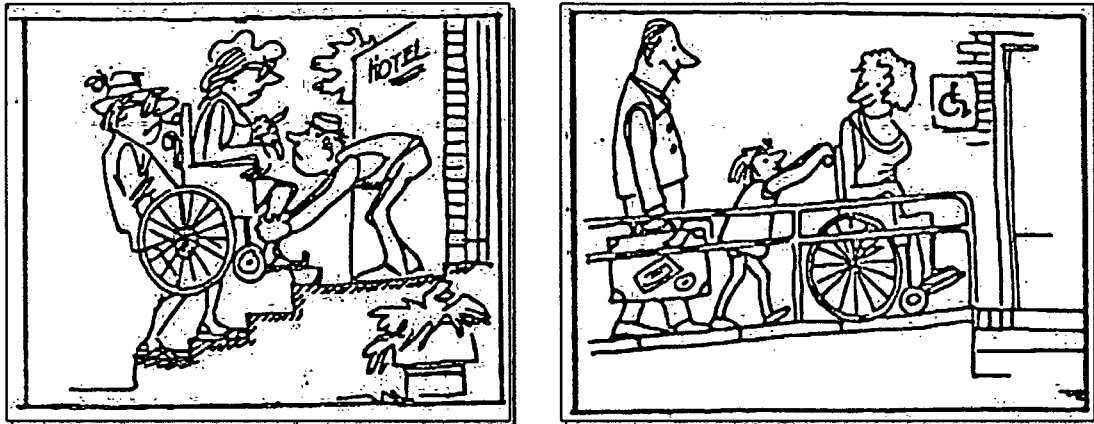


Fig. 14-5: Accessible infrastructure maximises market opportunities, e.g. in the tourism sector

Despite such exclamations, the idea to create accessible environments seems to remain an utopia. This is partly related to the fact, that no support on the part of state legislations can be noted, as regulations remain weak and mostly advisory. **In modern urban space every design is unbreakably related to the factors of cost/profit.** The most important requirements, which are mainly looked after are on the one hand to guarantee a minimum of functionality, while fulfilling the basic aim of the building and on the other hand to dispose of minimum requirements of hygiene and safety (Nikolaidou, 1999).

Future development has to replace the all-over dominant importance of commercialisation and consumption with other values and correct investigations. The major hindrance remains the ignorance of most designers, developers, etc. as far as real supplementary costs are regarded. **If space is built accessible right from the beginning, the rise of the total construction costs solely consists of 1%-2%,** when provision is made on time (Stern, 1994).

Many examples show, that retrofitting is (very) expensive (e.g. Vienna's Museumquartier and Vienna's Gasometer Complex). However, if some interest in accessibility is shown, **practical solutions can be very simple and not expensive in many cases.** Only to mention a few: a simple wooden ramp, a railing, a lift mechanism (fig. 14-6), a phone placed deeper, the opening of a second entrance that so far remained closed, the choice of an alternative route, the public use of existing duty-elevators, the junction of two WCs lying next to each other, etc. Of course, alternative design has to prevail finally, as accessibility is a matter of security and comfort for every citizen and not an exclusive matter of market efficacy.

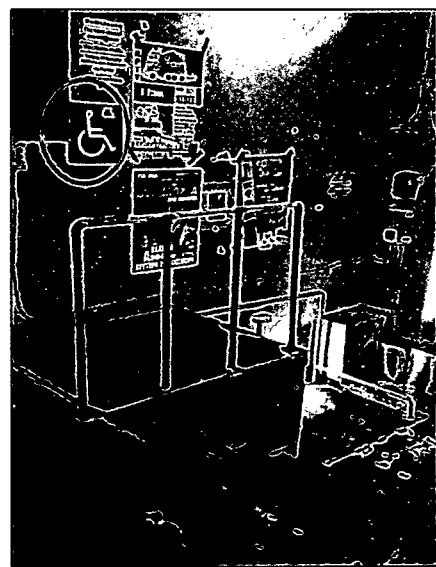


Fig. 14-6: A simple lift mechanism at the Medical University of Athens, but the railing is missing!

However, economic reality plays an important role today. Big enterprises and businesses do finally recognise that PwD are a growing part of the customer base. **"Simply put, we view a barrier to a PwD as barrier to making money."** (McCannell, 1998: 55) This can be best viewed at recent strategies in the tourism sector and especially with adapted UA conditions at international airport buildings and facilities. Awareness has risen, that PRM and PwD are an important part of its users and that they usually tend to travel with an escort or companion. In conclusion, business policies support access strategies and adaptations in favour of every traveller's comfort and safety. "We view the airport as a public facility and as such we think that everybody has a right to expect easy access – including PwD (fig. 14-7 and fig. 14-8). The reality is that an increasing percentage of our customers have a disability of one kind or another... and like anything else where you have change that permeates the whole organisation, the commitment really has to start at the top and get embedded in your business philosophy from there. (...) In North America, teenagers are being out-numbered for the first time by people over the age of 55. These numbers will continue to increase dramatically as baby boomers age. The US Department of Commerce already estimates that up to 80% of holidaymakers in the USA fall into this bracket. The number of elderly and disabled customers using the terminal facilities is growing rapidly." (McCannell, 1998: 54-55)

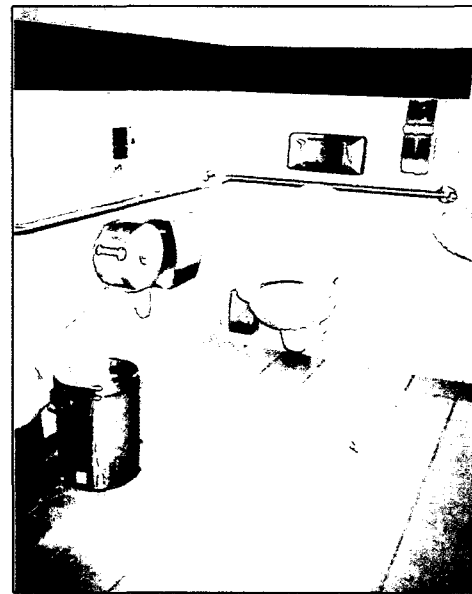


Fig. 14-7 and Fig. 14-8: UA at Athens' International Airport: tactile orientation marking at the departures hall and a family-size (PwD's toilet (not properly equipped!))

The example of accessible terminals gives also the picture of other economic advantages. Human resource department centres at airports, for instance, can now tap into a large and proven source of new employees: PRM and PwD. This transfers them from being part of the economic load of society to being part of the economic engine that drives it. **Accessible workplaces not only provide employment for PwD, but also can better adapt to growing needs of the ageing workforce.** As it is said, that average age of management and union staffs rises, the greater role barrier-free design will play in minimising staff turnover and the related replacement and training costs of new staff!

### 14.3 THE ROLE OF THE PUBLIC TRANSPORT SYSTEM (PTS)

One important link in the chain of accessibility is the Public Transport System (PTS) (fig. 14-9). Depending on many factors, like its efficacy and accessible nets, it can comprise one of the major aids for every citizen to gain mobility. "Many disabled people have little option but to stay at home, because the facilities to transport them around either do not exist and/or are difficult to schedule, or are prohibitive because a carer, who may not always be available, is required to accompany them" (Imrie, 1996: 15). **Transport is one of the key issues to eliminate discrimination against PwD and to reinforce independent living and community integration** as it provides access to education, employment, health and medical care, leisure, recreational and other societal activities.

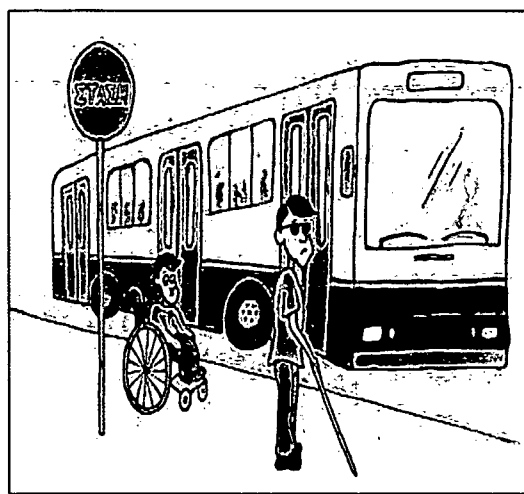


Fig. 14-9: The means of the Public Transport System (PTS) are an important link in the chain of accessibility

Like everything else, also the means of the PTS have undergone an evolution process. At its beginning, the PTS was provided with 'welfare' vehicles that often were offered by charitable organizations. Later on, structured approaches to 'specialised' vehicle operations appeared, which finally lead to the current goal trying to set up a fully accessible mainstream PTS network in every country.

During the last decades, vehicle technology specialists and designers have begun to plan starting from the users' point of view. This has helped them to realize, that **the needs of PwD "are no more than a case of the needs of all passengers"** (McKee, 1996: 9). These observations result in implementing the following elements in every means of PT (McKee, 1996: 3):

- provision of adequate handholds, in color-contrasted and easy-grip material (fig. 14-10);
- priority seating for disabled and elderly people near entrances/ exits;
- bell-buttons at low level, again in contrasting color;
- non-slipping floors (at one level wherever possible) (fig. 14-11);
- easy-to-operate door handles (fig. 14-10);
- clear marking of steps and projections (fig. 14-11);
- easy understandable signs;
- adequate seat pitches;
- etc.



Fig. 14-10 and Fig. 14-11: Positive examples of a bus interior of the Vienna PTS

It seems obvious, that the **general absence of steps whenever possible is of great advantage for every user**. On the one hand, as has already been discussed, all users benefit from stepless places. On the other hand, the general flow of passengers at large is speeded. There is evidence from low-floor bus trials in the UK that ramp operations cause increased boarding times of one minute. However, this fact seems to be only an additional cost factor for tightly scheduled routes (McKee, 1996).

It should be considered, that the **option to choose freely among more than one means of the PTS** shall be available whenever possible. Travellers' decisions are then determined by the following key elements (McKee, 1996: 9):

- total journey time (door-to-door);
- reliability;
- perceived personal safety;
- total journey cost;
- relative attractiveness.

However, the following **additional features** form further determinants, especially significant for PwD's choices (McKee, 1996: 3):

- accessibility of bus-stops, stations and termini (fig. 14-12);
- information systems, both prior to and during travel;
- facilities at termini and stations;
- understandable ticketing and fare structures;
- availability and attitude of staff.

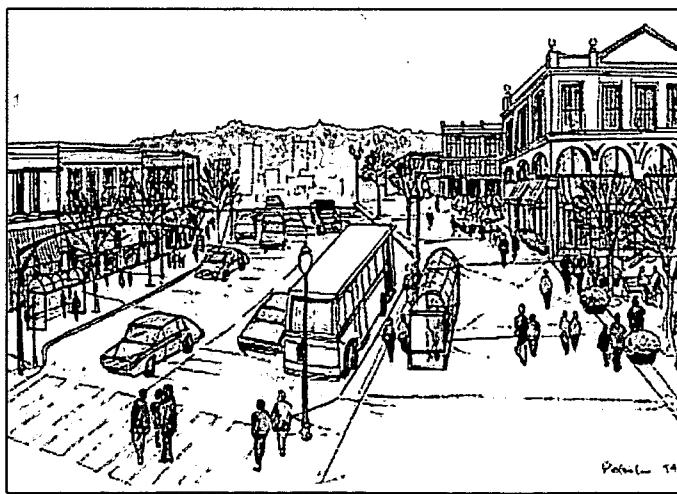


Fig. 14-12: Accessibility, comfort and security play an important role for choosing a means of the PTS

#### 14.4 THE PUBLIC TRANSPORT SYSTEM (PTS) TODAY

Today's societies are car-dominated to an enormous degree. Evidence, such as falling percentages of PTS users can be found in every country. For instance, in the UK, during the decade 1985-1995, the number of bus passengers has fallen by 2.5% per year (McKee, 1996). Thus, it is crucial **to attract and to support every possible user to consider the means of PTS as an alternative mode of travel (fig. 14-13) and not only as the last possibility.** This is the only way to keep the upgrading of the PTS ongoing and the market efficacy criteria satisfying.

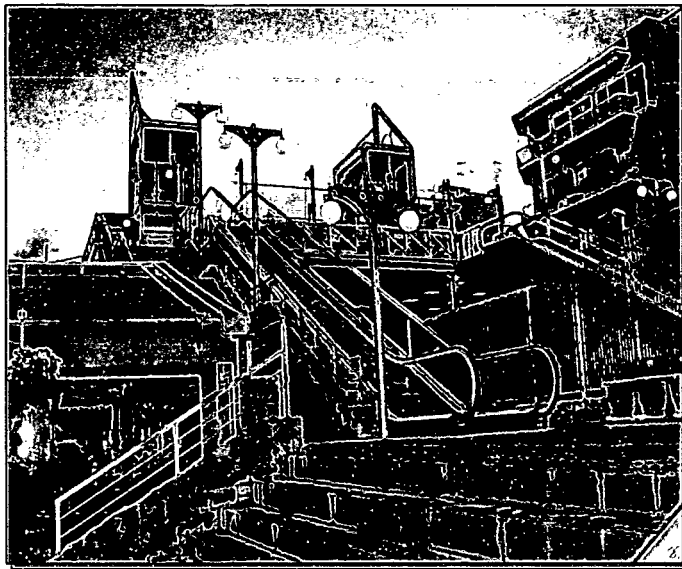


Fig. 14-13: An accessible railway-station in Athens, which allows every citizen to use the means of ISAP whenever convenient

Although the PTS face obvious problems today, the possible user-group of PRM and especially of PwD is continuously underestimated. Canada is one example revealing this fact. The programme of accessible intercity buses was reduced after years of use, due to the lack of increased ridership. **"It is this trade-off between the social need for accessibility and the financial assessment of its effects, which lies at the heart of the transport policy debate"** (McKee, 1996:1). But one-dimensional oriented financial decisions should be replaced by considerations like the following one: *"Clearly, the provision of wheelchair access will be uneconomic if taken in isolation. However, both the anti-discrimination legislation and the social policies behind it do not permit any evaluation or approach to accessibility, which isolates any group of people. Access must be taken as a whole, for all disabled people, including wheelchair users"* (McKee, 1996: 7).

Even researches underline the short-mindedness of clearly economic benefit trade-off situations. The research of Ph. R. Oxley (Centre for Transport Studies - Grandfield Institute of Technology) elaborated for the British Government in 1987, revealed **many positive long-term effects resulting from the provision and the realisation of independent mobility chains and fully accessible PTS.** In return, cross-sectoral profits and cost savings from accessible buildings, accessible free spaces, accessible means of PTS and so on will result. This theory is based on shifting expenses from the health and welfare sector (domiciliary care, medical and other services) to the domain of infrastructure and transport (Υπ. Εσωτερικών, 1999).

Furthermore, it is also the tourism sector, which will benefit from such transferred investments. **Tourism is first and foremost about the movement of individuals, to**

**PTS and finally to accessibility.** Therefore, it is directly linked to efficient transportation networks. The travel cost, being the combination of several elements ranging from the price of the journey to its length, comfort and safety, plays an increasingly important role in the choice of a destination (Costa, 1996). At European level, a first step has been made towards this direction by publishing the 'Citizen's Network Green Paper', which shows accessible transportation systems in European cities (McKee, 1996).

#### 14.5 MOBILITY CONDITIONS FOR PWD LIVING IN GREECE

Autonomous and safe mobility for PwD living in Greece is made difficult due to a variety of problems they encounter in moving, in approaching, in perceiving, in communicating, in adapting, in hearing and/or in seeing, etc. There is an overall **lacking provision for comfortable and safe access in Greece (fig. 14-14)**, which could help PRM and PwD to move in the built environment. As has been portrayed in previous chapters, it is estimated that at least 50% of the Greek population belong to the category of PRM. In relation to the vast problems concerning independent and secure mobility, circa 27% of the population is totally excluded in Greece today. The demands for an immediate improvement of the existing mobility conditions is absolutely necessary for infants, for most individuals belonging to the third and fourth age, etc. and in few words for all PRM and PwD.

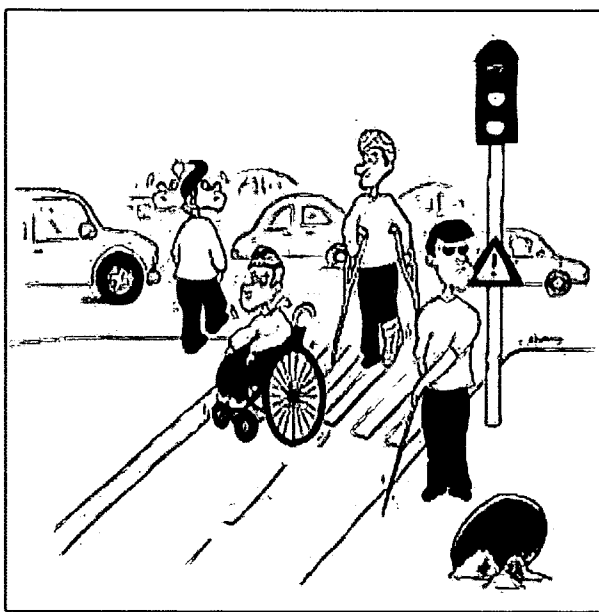


Fig. 14-14: Inaccessible and dangerous spaces can be found everywhere in Greece

The following diagram (fig. 14-15) gives the data the Greek Ministry for the Environment, Physical Planning and Public Works has released regarding the **population groups that have severe mobility problems or tend to get excluded due to the existing restrictive conditions in Greece's urban structures** (www.minenv):

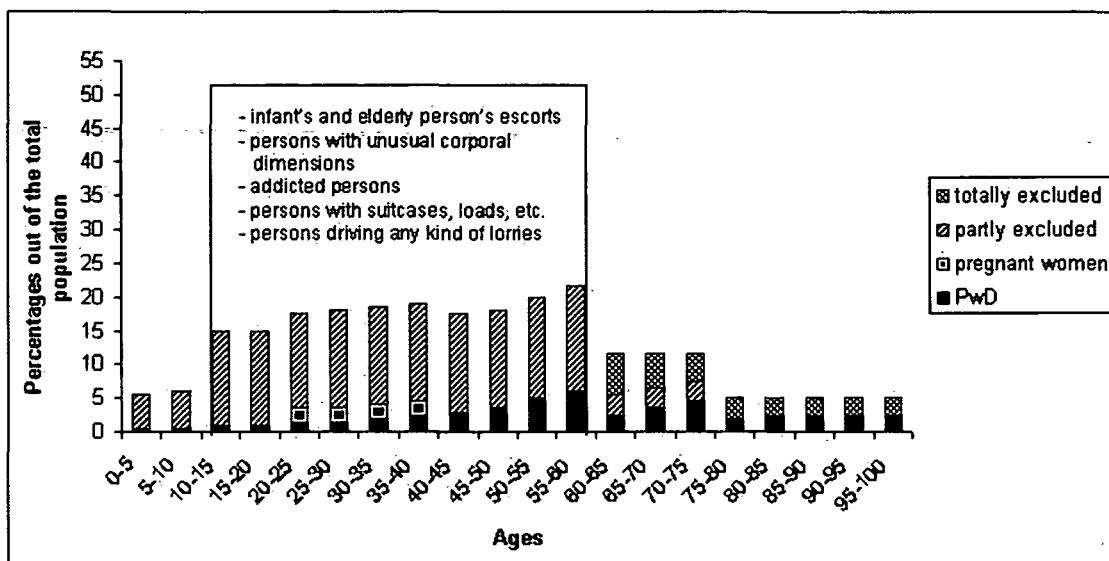


Fig. 14-15: Figure showing the percentages of persons facing severe mobility difficulties due to the existing restrictive conditions of the built environment in Greece

But consequences of unfriendly and inaccessible spaces do not only limit or prohibit the mobility of endangered population groups or PwD. **Barriers in the built environment bind all persons on a double level – a social and a psychological one.** On the one side, it is the fact of exclusion and the limitation of freely choosing how and where to walk, on the other side, this results in a sort of self-exclusion caused by the feeling of loss and weakness as one's wishes actually cannot be realised (Nikolaidou, 1999).

Difficulties in approach or access either will lead many PwD to resignation from many facets of life or to increased risks of accidents. **Besides built barriers, it is also the Greek population and the appropriate services that are not ready to accept PwD.** In conclusion, as has already been discussed, PwD usually remain enclosed in their homes or institutions, locked away from daily life, from the freedom to choose, from the possibility to move. A wheelchair in Athens or a student wD attending a regular school are rare sights. Situation in small villages and small towns is much worse, as conditions (small and uneven roads, stairs, insufficient lighting, etc.) make it impossible for PwD to leave their dwellings (Papadopoulos, 1996).

Due to this social exclusion from daily life, there are no recorded accidents involving PRM and/or PwD living in Greece, if one ignores figures for persons over the age of 65 for whom deaths from falls are recorded. At this point it seems important to note, that **the most common places where elderly persons fall in Greece are badly constructed pavements** (Papadopoulos, 1996). (fig. 14-16, fig. 14-17 and fig. 14-18)

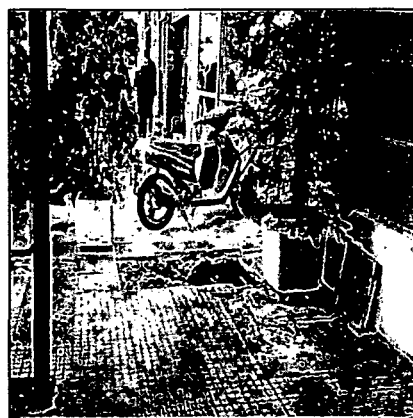






Fig. 14-16, Fig. 14-17 and Fig. 14-18: Badly constructed or yawning pavements are something 'ordinary' in Greece and can be found everywhere (ex. pavement with deep hole (up), loosened pavement covering (left) and sudden projection (right))

This little example shows the **unacceptable conditions in the built environment, all residents of Greece are confronted with and have to overcome daily**. As has already been mentioned earlier, the problem is, that most of the people have gotten used to these unfriendly and dangerous environments. On the one hand, this is closely linked to the knowledge that only superficial work, e.g. to repair such pavements, will be done, if at all. On the other hand, the fragmentary way works are done will rather seldom offer an acceptable picture and while on the one edge something is getting fixed, on the other side it already begins to get damaged again. Rarely a really practical, sustainable and durable solution can be observed when repairing works are done. Maintenance never seems to be the issue! Therefore, seldom a Greek will undertake actions to improve the general living quality!

## **15 THE CURRENT ACCESSIBILITY AND MOBILITY SITUATION IN GREECE**

<b>15.1</b>	<b>INTRODUCTION.....</b>	<b>209</b>
<b>15.2</b>	<b>SHORT OVERVIEW ON BASIC UD- AND UA-GUIDELINES IN GREECE .....</b>	<b>209</b>
<b>15.3</b>	<b>UD AND UA APPLICATIONS IN GREECE .....</b>	<b>211</b>
<b>15.4</b>	<b>THE DEVELOPMENT AND THE ACTUAL SITUATION IN GREECE'S CAPITAL .....</b>	<b>215</b>
<b>15.5</b>	<b>MOBILITY CONDITIONS IN ATHENS: PAVEMENT AND STREET SPACES .....</b>	<b>217</b>
<b>15.6</b>	<b>ATHENS' PTS.....</b>	<b>222</b>
15.6.1	INTRODUCTION.....	222
15.6.2	ATHENS' BUSESSES (ΟΑΣΑ/ ΕΘΕΛ) AND TROLLEYS (ΗΛΠΑΠ).....	224
15.6.3	ATHENS' RAILWAY (ΗΣΑΠ) AND ΑΤΤΙΚΟ ΜΕΤΡΟ (ΑΤΤΙΚΟ ΜΕΤΡΟ).....	224
<b>15.7</b>	<b>ARE PRIVATE CARS THE ONLY ALTERNATIVE FOR PWD LIVING IN ATHENS? .....</b>	<b>224</b>

### ABBREVIATIONS:

PRM:	Person / People with reduced mobility
PTS:	Public Transportation System
PWD:	Person / People with disability
UA:	Universal Access
UD:	Universal Design
wD:	with disability

## **15.1 INTRODUCTION**

From all, which has been discussed so far, it has become obvious, that **Greece's situation regarding accessibility conditions seems to be far behind all other European countries.** Therefore, it was decided, to suggest and develop "AccOrD-4u2!" (Accessibility, Orientation and guidance ~ for you too!) for the city of Athens, as there is urgent need for immediate measures to improve mobility conditions of PRM and especially PwD. This tool will be illustrated in the thesis final chapters.

In order to justify this decision and to offer more detailed information on existing conditions in Greece's capital, the following chapters specifically refer to the actual situation in Greece and Athens in 2003/2004, portraying also a series of studies on accessibility conditions carried out over the last years by various organisations.

## **15.2 SHORT OVERVIEW ON BASIC UD- AND UA-GUIDELINES IN GREECE**

Almost a decade ago, in 1995, after 10 years of work, the Greek Ministry for the Environment, Physical Planning and Public Works finally published the '**Designing for Everyone'-Guidelines.** These are the first regulations, which intervene with the General Construction Rules in Greece (Γενικός Οικοδομικός Κανονισμός - ΓΟΚ). The Ministry's motto corresponding to designing with care for everyone is:

*"Sow a thought and reap an action.  
Sow an action and reap a habit.  
Sow a habit and reap a character.  
Sow a character and reap destiny."*

As has already been mentioned, **these guidelines are quite similar to the ones existing in other European countries,** obliging design professionals in Greece to keep for instance:

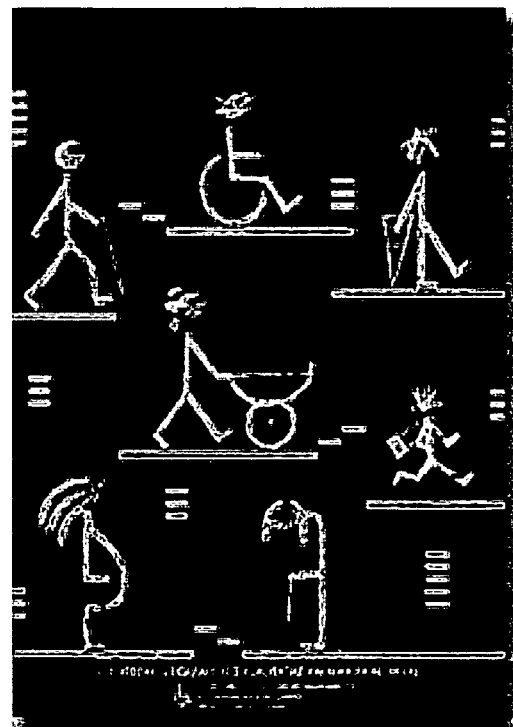
- ramp inclinations of max. 5% and 1,30m width (when leading to main entrances);
- elevator cabin sizes of at least 1,10m\*1,40m with entrance doors of 0,90m from the shorter side;
- at least 5% of all public toilets being especially designed for PwD (2,15m\*2,15m);
- tactile orientation marking on pavements;
- parking lots for PwD's cars;
- etc.

However, it seems important to refer to some extra regulations in Greece. Paragraph 18 of law 2831/2000 foresees that **all public buildings have to comply with regulations for horizontal and vertical access.** This is also effective for private buildings comprising four floors and over. The immediate compliance of all existing buildings is required. But the main problem remains that this law does not set a time limit for any of these adaptations.

Law 3057/2003 is one of the known 'Olympic' regulations. In the declared 'Olympic municipalities', which comprise of almost the whole basin of Attica, the cities of Thessalonica, Patras, Iraklio and Volos, **all buildings of public use and of course, sports centers of any kind, were to be adapted to accessibility conditions until December, 31<sup>st</sup> of 2003**, foreseeing fines, if UA was not established on time. The weak point of this regulation remained the penalties announcements. On the one hand, this has to be related to the general lack of knowledge and the lack of deciding on acceptance or rejection criteria. Therefore, ignorance on the part of control committees was observed and especially controlling authorities in Greece's districts were not able to decide when to announce fines. On the other hand, problems and delays were observed due to matters of building's propriety. For instance, if a public service is located in a rented building, adaptations cannot be undertaken easily. Thus, it remained in the good will of technical services and/or building-owners, if and what accessibility measures were to be implemented!

In some earlier paragraph (*see chapter 13.5*), consequences of law of 1929 'Recommendations on regulations of horizontal property in Greece' were already mentioned, when the example of a wheelchair bound woman, who wanted to place a ramp on the steps of the buildings she was living in Athens, was presented. This law required a 100% approval of **all** co-proprietors in order to install e.g. an elevator or to place a ramp. An alternation of this law has been embodied in the latest ΓΟΚ (law 1577/1985, article 21, paragraph 5 was added with article 18 in law 2831/2000 (A'140)). From then on, PwD have the right to enjoy measures which will guarantee their autonomy, vocational integration and participation in social, economic and political life. Thus, the **required majority fell to 51% of all co-proprietors in order to install an elevator.**

Informative prints and posters (*fig. 15-1*) on the topic of UD and UA have been published in Greece. They are supposed to circulate everywhere – however the author only found a publication in the Internet and at the Offices of the Greek Ministry for the Environment, Physical Planning and Public Works. As "*the heavy illness of Greek society is its total incapability to apply all those measures, which are being promised, the plans that are made, the things Greeks believe in and are announced*" (Παπαδόπουλος, 2000: 543), **seminars and informative lectures** are held all over Greece in cooperation with the Technical Chamber of Greece (Τεχνικό Επιμελητήριο Ελλάδος), local authorities, organizations and other carriers to inform engineers and other professionals involved in design and construction.



*Fig. 15-1: UD-poster*

The expected result is, on the one side that UD escapes from the frames of philanthropy and on the other side that essential concerns and responsibility of a more organised society settle down.

In order to up-date and expand building regulations and laws, two Greek teams continuously study and work on the normative level on applications according to European Standards. The first team gathers and formulates consultative guidelines, for instance for tidying up pedestrian movement zones, in order to guarantee autonomous mobility for PwD. The second team studies the formation of signs and the sensitisation of the public regarding UA and UD. Both of the teams are making real efforts, but nevertheless, they often remain fragmentary and the results are not possible to be executed. On the application level, the **proposals of these teams are forwarded only as suggestions to design professionals** and so far no further legislative steps have taken place (Nikolaidou, 1999).

Furthermore, the Greek Ministry for the Environment, Physical Planning and Public Works **suggests the creation of a 'control committee for UA'**. Once a year, it should examine all problems of UD and UA in buildings and outdoor spaces. But so far, only the Greek Ministry of Health and Social Welfare refers to the foundation of a National Observatory for PwD.

However, success will probably only be guaranteed by **establishing effective control measures, setting of tolerance levels and strict evaluation criteria, as well as the announcement of penalties**. As design and construction professionals do not seem to be really concerned in human ethics, the only means of enforcing applications probably are legislative steps. Therefore, the author proposes a qualified 'control team' dealing with the correct implementation of existing legislation and design regulations on-site. If effective inspections during design and construction are to be expected combined with important penalties, maybe UD and UA will be taken more seriously and implemented in all new projects on all levels!

### **15.3 UD AND UA APPLICATIONS IN GREECE**

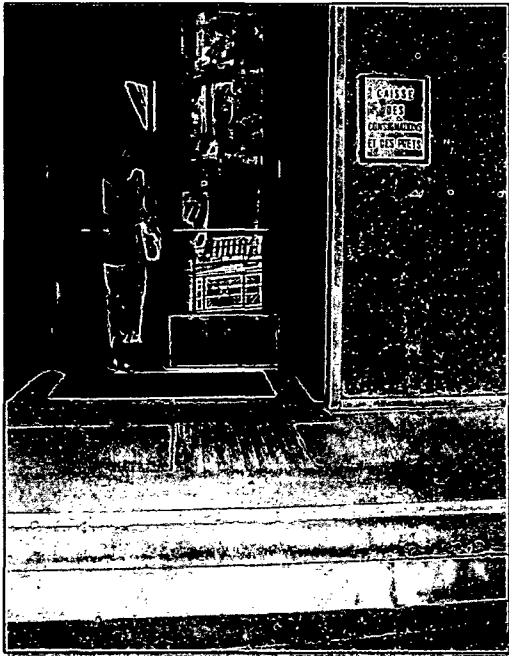
A short overview on some important UD application fields and UA failures in Greece will be given in this chapter. The evaluation studies in the preceding chapters deliver specific data on certain building categories. It is not intended to present an over-all picture, but to stress some rather important fields and to provide an insight in Greece's conditions.

As mentioned earlier, in Greece, in 2003, the time limit for the application of UD and UA measures to buildings with public use in the widest sense ran out. This category includes for instance public services, private companies, beneficial organizations, local government organisations, buildings with educational use, buildings of health and social welfare, offices and trade units, residence buildings over 9,00m height, as well as parking lots belonging to

such buildings in Greece. Adaptations of outdoor spaces, as well as the accessibility of indoor services had to be looked after. This equals to e.g. constructing curb cuts, ramps, stairlifts, elevators, acoustic signals, ramps at bus stops and stations, phone lines, priority to transactions, etc. But so far, **only few positive changes can be observed at certain public buildings** (fig. 15-2 and fig. 15-3).



*Fig. 15-2: Ramp with railing at the entrance of the Greek Ministry of Economy and Finance in Athens*



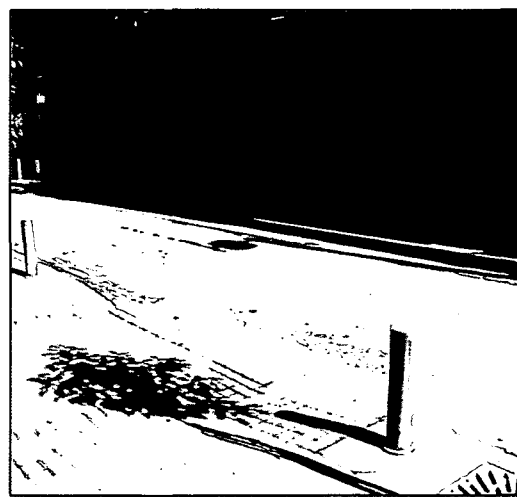
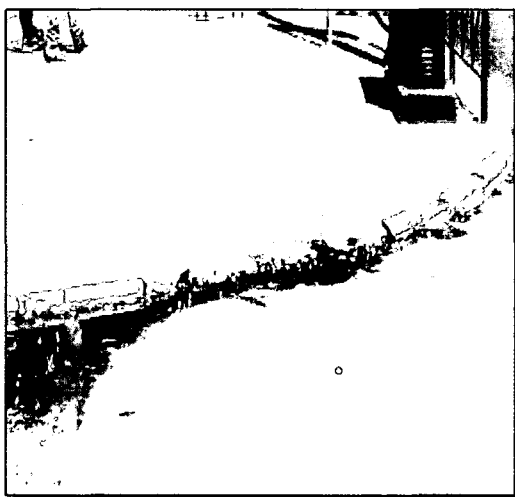
*Fig. 15-3: Tactile orientation marking and curb cut at the entrance of the Cash of Consigns and Loans in Athens*

The **lack of compulsory legislation concerning town planning**, respectively the construction of pavements and street areas is most prohibitive for UA-implementations. Although regulations exist (ΓΟΚ art.26, par.8), which request e.g. curb cuts and tactile orientation markings on pavements, the correct placing and signing of all urban equipment,

protection railings, acoustic traffic regulation systems, parking lots for PwD, etc. almost no such street spaces can be found in Greece. Besides that, there is no legislative protection for the exclusive use of pavements by pedestrians! They have to share them with driving motorcyclists and all other kind of obstacles.

One of the most contrasting problems lies in the **inability of all responsible services to co-ordinate in order to guarantee coherence and continuity** of measures and works in Greece. For instance, pavements and street spaces legally belong to a number of 'owners', like the Greek Ministry for the Environment, Physical Planning and Public Works, the relevant municipality, the 'EAXA' (Ενοποίηση Αρχαιολογικών Χώρων Αθήνας – Unification of Athens' Archaeological Sites), if the space is of archaeological significance, etc. In conclusion, if not all responsible services agree on the way of the modification of the pavement, no measures will be taken to finally gain accessibility!

Positive examples worth mentioning are those municipalities, which used European Programmes to apply some of these guidelines. With the financing of programmes such as 'Helios' and 'Horizon' many Greek cities have constructed curb cuts and made their pavements 'accessible'. This, however, often remains a myth, as even in recently constructed pavements and/or pedestrian zones **curb cuts' inclinations often exceed the 5%-limit (fig. 15-4) or are useless due to bad construction (fig. 15-5) or due to the missing continuation on the other side of the street! (fig. 15-6)**



*Fig. 15-4, Fig. 15-5 and Fig. 15-6: Examples of bad pavement constructions in Athens*

Today, several years after the enactment of the 'Designing for all'-guidelines in Greece, results in **new buildings** are rather disappointing. It is **mostly only elevator dimensions that are maintained**. Recent constructions often have dangerous steps at their entrances or ramps with inclinations being too steep (*fig. 15-7*). Access is looked at as a matter of subordinate importance. 'This weakness cannot be easily explained. Maybe partly it is the quality of education that can be blamed. Furthermore, buildings are only controlled during the design procedure and not afterwards during their completion. In consequence, inaccessible buildings continue to be constructed.' (Πολυχρονίου et al., 2003) Besides that, most new buildings are not provided with toilets for wheelchair users, although these toilets could also be used as family toilets, for instance, by a mother with a perambulator, or a person with shopping bags, etc.



*Fig. 15-7: Quite a rare sight in Athens: an private office building with a ramp – however, the ramp is much too steep to be driven up autonomously by a wheelchair user!*

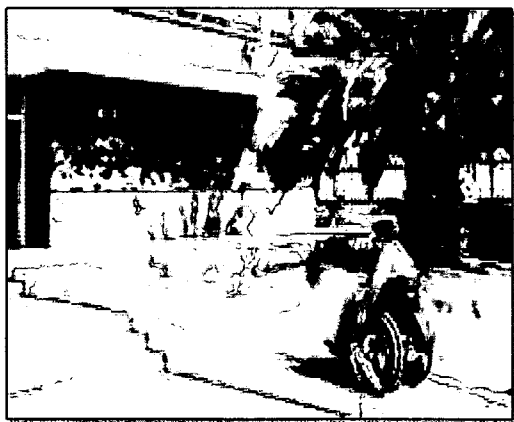
Of course, the **real problem remains the adaptation of all existing buildings**, as regulations hardly address older buildings, as well as the differentiation between public and private buildings. For recently built apartment houses legislation exists, which imposes the positioning of a ramp only if there is an inhabitant with mobility impairments. But for older ones, the implementation of this law is not obligatory as **in Greece ramps are considered dangerous for (playing) children!** It is not only at this point that legislation is extremely vague and weak. For instance, the possibility to embody a large sized elevator in an existing building, where a PwD resides, exists, but only 'if the picture of the environment is not excessively disturbed' (ΓΟΚ art.26, par.17). It seems obvious, that all proprietors' refusals will focus on the problematic functionality versus architectural and urban aesthetic.

The major restriction of UD- and UA-applications may source from the way these regulations are addressed. Instead of talking of 'measures for every citizen', the Greek Ministry of Interior, Public Administration and Decentralization continuously refers to 'accessibility for PwD'. This approach of the 'Designing for all'-guidelines leads only to



fragmentary implementation of the existing **UD and UA, if considered necessary for PwD (meaning exclusively 'wheelchair-user')**. Even other chairs, like perambulators, push-chairs, market barrow, etc. are not considered, **forgetting that every citizen is a probable PRM and every citizens' life would be facilitated!**

In conclusion, in Greece, **accessibility stands first and foremost for the placing of a ramp (fig. 15-8) – without paying attention to inclinations (fig. 15-9 and fig. 15-10) or railings!** Furthermore, UA is only tried to be achieved by constructive adaptations, (almost) never by functional changes (e.g. transferring a service from an inaccessible upper floor to the accessible ground-floor of a building). In addition, most implementations are fragmentary and in conclusion with little result, if at all. For instance, it is worth mentioning the private initiative of the Greek concrete enterprise Titanas, which built ramps for all school buildings in Patras during 2001-2002. However, no continuity was given to the project by the municipality. So today, school buildings in Patras may be accessible for children with mobility impairments, but the surrounding remains inapproachable. Thus, the 'chain of accessibility' has not been considered and makes this positive initiative unfortunately rather ineffective!



*Fig. 15-8, Fig. 15-9 and Fig. 15-10: Some bad examples: ramps without railings or too steep inclinations*

#### **15.4 THE DEVELOPMENT AND THE ACTUAL SITUATION IN GREECE'S CAPITAL**

**"Greece is one of the rare countries within the European Community where urban planning and environmental design hinder and often block the social integration of PwD"** (Nikolaidou, 1999: 442). Even Athens, Greece's capital, is a revealing example for the conditions to be found in most Greek urban areas. At a first glance, the basin of Attica is an inaccessible city, with means of PTS, streets and pavements, recreation areas, services and sights not suitable for the use and exploitation

by PRM and PwD. Athens' structure provides no accessibility for PwD, excluding them and complicating to an important degree their freedom of mobility. Unfortunately, Greek cities deprive e.g. wheelchair users of the many advantages and facilitations wheelchairs offer today.

During the end of the 19<sup>th</sup> century, Athens began to grow very quickly. The municipality was forced to intervene to organize the city's urban plan, proposing new streets and better design for all spaces. But this upgrading did not go hand in hand with the city's growth (Αντωνάρκου, 1997). In conclusion, at the beginning of the 20<sup>th</sup> century, Athens was in a very bad condition, as far as infrastructure is regarded. No real street networks existed, no sewage system, almost no lighting, bad communication between the city center and the suburbs, little services and so on. Many urban master plans were developed, however realization set in very slowly and fragmentary (Μαρμαράς, 1997).

After 1960, the vision of social evolution was made real by geographical displacements and social mobility for Greeks. Urbanism lead to the agglomeration of Greece's population in few urban centers, Athens being the major attraction pole. **About 70% of the total population of Greece (1991) is gathered in its capital today!** (Nikolaidou, 1999) Therefore, the current mobility and accessibility situation in Greece will be discussed on the example of Athens.

These recent population shifting and accumulations resulted in **"anarchic town developments in Greece, with no provision for PwD, but also no provision for some meters of green"** (Τσιούμπιος, 2000). Athens has been built without any organized urban plan. Almost no concern about land division has ever been expressed (land use, percentage of free spaces and green areas, complete road/ pavement/ pedestrian zones/ public services networks, etc.). Design or planning has nearly never been taken into account, not even as far as basic construction criteria are regarded. Violations of the building regulations were and continue to be common, as the commercialisation of urban space ruled and still rules every building procedure and as **state control is almost inexistent in Greece.**

**"In general, Athens is an inhospitable city"** (Μπαξεβανίδης, 2002: 54), a vast desert providing only few oases to PwD. Design on all levels, in the private and the public sector (public services, hospitals, entertainment and cultural centres, free spaces, houses, apartments, etc.), the PTS or the few installations on public areas, refer exclusively to persons with specific ideal characteristics, as far as age and height are concerned and who are theoretically not 'allowed' to undergo any alterations (*fig. 15-11*). Da Vinci's human prototype does not seem to have been replaced by the wheelchair user, who is considered the design basis in 'developed' countries today. It is as if Greece has been



*Fig. 15-11: Footbridge in Athens!!!*

stuck to the beginnings of the 20<sup>th</sup> century, like reported in an Athens' newspaper in 1910: 'A serious accident happened today, when a cart bumped into an old man, aged 40(!).'

**In the domain of accessibility, Greece** is far behind other European countries. It is **characterised by the non-accessibility of the pre-war period**. Greek urban areas exclude the daily use of their infrastructures to an enormous percentage of urban population, either temporary, as a result of an accident or as a result of a biological change, such as pregnancy, or permanently, as a result of an impairment or because of differences in the biological circle of each human being, regarding children and persons in the third and fourth age.

However, **within the last couple of decades some changes in perception** have sensitised organisations, which occupy themselves with PwD. Especially the 'Office for researches for PwD' belonging to the Greek Ministry for Environment, Urban Planning and Public Works has done some important work elaborating the already mentioned regulations 'Designing for All'. But UD implementations are far from being the habit. The general attitude continues to be almost only low-cost oriented, providing nearly no flexibility and only, if at all, short-sighted concern on UD and UA matters.

### **15.5 MOBILITY CONDITIONS IN ATHENS: PAVEMENT AND STREET SPACES**

Outdoor spaces are the major link in the 'chain of accessibility'. Thus, the condition of street spaces itself is as important as accessibility to buildings, to means of PTS, etc. But the **situation in Athens' environments is as unfriendly and inaccessible as for most of its buildings**. Pavements and pedestrian zones are inaccessible e.g. for any kind of chairs, because of:

- irregular widths (or inexistent continuity) (*fig. 15-12*);
- trees being planted in their midst (*fig. 15-13*);
- irregular and uneven levels of paving-stones (*fig. 15-14*);
- columns and railings (*fig. 15-15*);
- potholes;
- public phones and mailboxes;
- etc.



*Fig. 15-12: Typical pavement situation in Athens!*



Fig. 15-12, Fig. 15-13, Fig. 15-14 and Fig. 15-15: Constructional errors make pavements inaccessible

Furthermore, curb cuts and the few existing ramps are often obstructed by:

- cars (fig. 15-16) and motorcycles (fig. 15-17) being parked wherever a free spot is found;
- goods placed outside of shops;
- garbage containers and mounds (fig. 15-18);
- tables from restaurants or cafeterias;
- tree branches;
- awnings;
- flower-stands;
- etc.

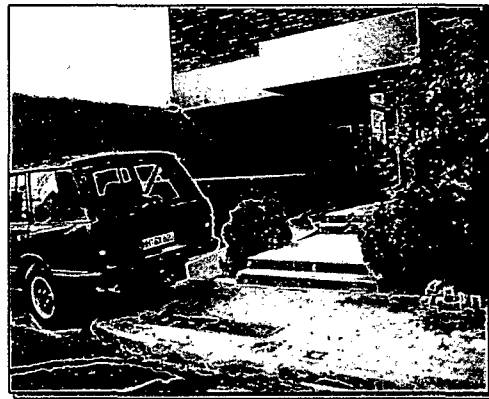
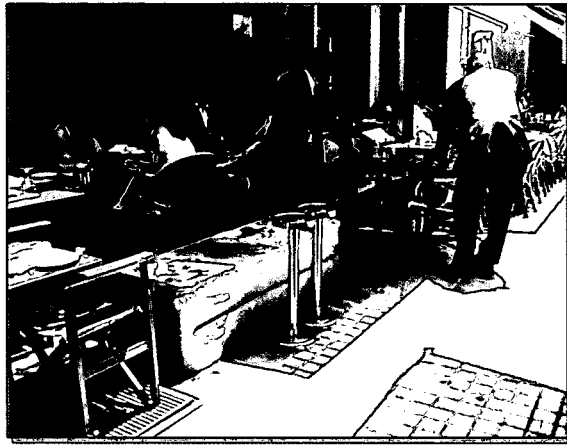


Fig. 15-16, Fig. 15-17 and Fig. 15-18: Thoughtless behaviours make pavements inaccessible, as well

Moreover, **only few public installations**, such as public toilets, benches (*fig. 15-19*), shadowed stopping places, drinking water fountains (*fig. 15-20*), etc. can be found in Greek urban spaces and in conclusion, no facilitations for the usurpation, e.g. for people belonging to the third and fourth age, are available. Of course, these few installations are not designed according to UD criteria.



*Fig. 15-19 and Fig. 15-20: Public installations are rare in Athens and seldom accessible!*

Referring to the **dangers persons with visual impairments may encounter** while moving around in the Athenian urban area, the list of bad examples seems to be endless. For instance, open holes due to temporary diggings of the Power, Telephone or Water Company often have enormous depths and are rarely shielded and properly signed (*fig. 15-21*). In many cases, a plastic tape is all that is set up to signalize the danger to pedestrians in some way (*fig. 15-22*). This is also the case with most construction sites (*fig. 15-23*). Moreover, traffic signs are often positioned much too low being a big risk to passing pedestrians as they might hit their heads. Bumping into card phones is also possible (only few adaptations to phones have been made in order to get detectable by white canes (*fig. 15-24*)). Most often these public phones are placed without having considered the pedestrians' movement, so they are set up in the middle of pavements or too close to street corners and passing street lanes, etc. Furthermore, at many kiosks, newspapers and even heavy objects (games, etc.) are hung up at low heights being a danger for each pedestrian's head (*fig. 15-25*).





Fig. 15-21, Fig. 15-22, Fig. 15-23 and Fig. 15-25: Dangerous obstacles can be found everywhere in Athens

Fig. 15-24: One of the rare positive examples: detectable public phones

In addition to all these risks mentioned above, **no person can count on fellow citizen's behavior according to the traffic code or on their solidarity.** The way of driving reflects the way Greeks live and think. Disregard of laws is widespread in Greek society and is a way of life, as a result to the lack of trust in the government. This disregard is well applied as far as traffic laws are concerned (Papadopoulos, 1996). In conclusion, the greatest danger for blind pedestrians in Greece is to cross a street. Even when pedestrians have the green light, at least 3-5 cars will pass or pull up in the midst of the pedestrian crossing (fig. 15-26). In addition, motorcyclists represent an enormous danger, as they often use pavements to drive on, especially when traffic is blocked on streets.



Fig. 15-26: Even when the green light is on in Greece, there is no guarantee that pedestrians can pass streets without any danger!

"There is no doubt that adaptation, even to dangerous environments, helps to decrease the chances of an accident. A young child who lives in Germany and who is used to the fact that drivers stop when she/he only approaches a pedestrian crossing, has a much higher risk to encounter an accident if she/he comes to Greece, where children and adults do not expect anybody to stop at a crossing even if the 'green light' for pedestrians is on. However, **more accidents certainly occur in a dangerous environment than in an environment with safe conditions**" (Papadopoulos, 1996: 15).

The number of **pedestrian fatalities in Greece** gives enough evidence on this matter. Motorists and the police do not take pedestrians into account sufficiently, if at all. Especially at rush hours, police only give priority to the smooth flow of traffic at important intersections and seldom give satisfying time intervals for pedestrians to cross. Greek pedestrians have gotten used to this and cross the road whenever they think of it being appropriate, usually among moving vehicles. Moreover, pedestrians often are forced to walk in the midst of the street, due to the existing prohibitive pavement conditions (fig. 15-27 and fig. 15-28).



Fig. 15-27 and Fig. 15-28: Greek pavements are most prohibitive for the use of persons with any kind of chairs

The following statistic data for Greece reveal this fact in a sad way. In 1991 pedestrian fatalities reached 457 with a further 4.317 injured pedestrians. The greatest number of deaths per 1.000 individuals by age was that of children up to 9 years and of aged persons over 65 (tab. 15-1):

Age	Fatalities	Pedestrians annual mortality (Fatalities/100,000 inhabitants by age category)	
		Boys	Girls
0-1	3	0,0	0,7
1-4	24	2,5	0,3
5-9	57	1,9	1,2

Tab. 15-1: Traffic accident fatalities in Greece in 1991 for the ages 0 to 9 years

The **primary cause for pedestrian deaths is the fact that they were not walking on pavements**. This of course has to be closely related to the prohibitive conditions existing in Greece. Furthermore, the lack of pedestrians' attention is mentioned, which includes infants and children, which are not able yet to estimate the degree of danger when walking on streets with high traffic. Moreover, the lack of pedestrian's ability to react is one further reason for pedestrians' accidents. This has to be related to the age of pedestrians and their reduced reaction mechanism, as well as to pedestrians walking under the influence of alcohol. Finally, there has to be mentioned also the lack to perceive

inabilities of some pedestrian groups on the part of motorists (Papadopoulos, 1996). The following table gives some numbers on the basic causes of pedestrian's accidents and the deriving fatalities (tab. 15-2):

Basic causes	Number of accidents	Fatalities	Fatalities/100 accidents
Not walking on pavement or pedestrian crossing	3.557	86	2,4
Under influence of alcohol (pedestrian)	61	3	4,9

Tab. 15-2: Two basic causes of traffic accident resulting in pedestrian fatalities in Greece in 1983

It is tragic and inexcusable, that street spaces continue to provoke so many accidents annually in Greece. But pavements are filled with merchandise, are blocked by open-air mobile green grocers, are arbitrarily covered with fixed carpets on small areas, are slippery due to oil or dripping water from air-conditioning, have holes for basement entrances without any railing or warning (fig. 15-29), are 'drilled' with potholes, paving-stones are loosened by tree roots, etc., forcing pedestrians to use the street instead of the 'safe' pavement. In conclusion, in general the mobility conditions for PwD are more or less prohibitive, as **pavements do not exist in their real sense of function in Greece!**

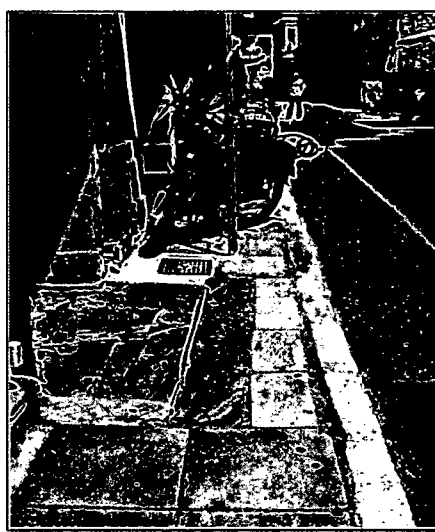


Fig. 15-29: Typical Athenian pavement

## 15.6 ATHENS' PUBLIC TRANSPORT SYSTEM (PTS)

### 15.6.1 INTRODUCTION

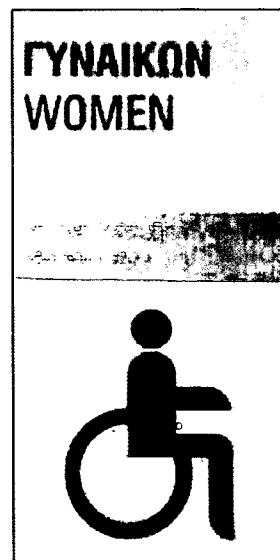
As the Greek Ministry of Interior, Public Administration and Decentralization states, **independent and secure transport is an important step towards the integration of PwD** as their dependence on other persons is reduced to an important degree. PTS, supporting PwD's mobility, favour the use and development of their talents, while equal participation in all activities of life can be aimed at. Resulting from these considerations, the Ministry claims, that independent living, mobility and transport for PwD means (Yn. Εσωτερικών, 1999):

- better health, in conclusion less dependence on medical care;
- mental health, in conclusion reduction on dependence on other persons, who become released and again productive;



- rising employment possibilities, in conclusion reduction of unemployment and need for disability pensions;
- possibility for PwD or aged people to live in their own houses instead of living in institutions or hospitals with a high daily cost;
- creation of new jobs in the sectors of infrastructure and transport.

In general terms, the recent complex of **Athens' International Airport Eleftherios Venizelos** at Spata is claimed to be accessible. Mobility in spaces for the public is possible, as ramps and elevators can be found everywhere, sliding doors were placed for the comfort of all users and certain specific equipment, like information desks, passport check-in counters and phone cabins have been installed on lower levels for the benefit of wheelchair users and small persons. Besides this, the use of toilets for PwD is very difficult, as half of all specially designed toilets have mistakes either in their dimensions, or in the door opening direction and/or the placing of washbasins and/or toilet-seats. Moreover, severe deficiencies regarding facilitations for blind persons and Pw visual impairments have to be noted. Only after ongoing complaints, tactile orientation markings were added at one entrance leading to check-in-desks in the departure hall, as well as some indexes in Braille on certain signs (*fig. 15-30*) and acoustic information in Greek and English. And that's all, as far as provision for this population group is regarded. No supplementary measures were taken, although it was pointed out to the management that e.g. color contrasts between doorframes and the building structure are missing, as well as at the beginning and end of stairs or on glass surfaces. It seems unjustified, that this so recently constructed complex is projected as a model and successful example regarding UD and UA implementations! And it has to be stressed, that it is not Greek companies' lack of experience, which can be blamed, as the project leader was a renowned German construction company!



*Fig. 15-30: One of the few measures taken for Pw visual impairments at the Athens' International Airport: Information in Braille*

The **Greek Railway 'ΟΣΕ'** reveals a displeasing picture as well. Although adaptations have been made to main station buildings, no accessible coaches run. Thus, 17 coach-lifts have been bought for major stations, but so far, no station has been provided with such an aid. Regarding Greek Shipping, many companies are available for passenger transport. Big companies with new ships in their fleets also have facilitations and cabins for wheelchair users. Nevertheless, as in all other domains, accessibility cannot be taken for granted, because there can never be a guarantee that for instance, elevators are working!

The **basin of Attica** is covered by the following means of the PTS (*fig. 15-31*): busses of 'ΕΘΕΛ', electric busses (trolleys) of 'ΗΛΠΑΠ', electric railway of 'ΗΣΑΠ' and the subway of 'ΑΤΤΙΚό Μετρό'. These carriers are state enterprises belonging to the ΟΑΣΑ (Organisation of Athens' Urban Means of Transport). The supervision lies in the hands of the Greek Ministry

of Transport and Communication. Besides these means, there exist local municipal bus lines that belong to municipal enterprises (Πολυχρονίου et al., 2003).

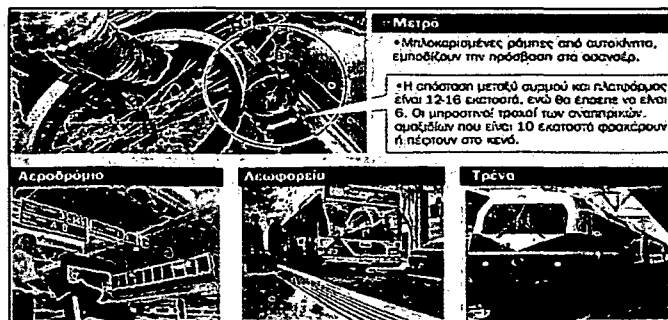


Fig. 15-31: Newspaper article: problem fields of the means of PTS in Athens

The **over-all picture in the means of the PTS today is quite displeasing**. The following detail seems characteristic: signs in busses pointing out priority seats for PwD say: 'Θέσεις για άτομα χρήζοντα βοήθεια', which means translated word by word: 'Seats for persons needing help'. However, the phrase has officially been translated into English saying: 'Seats for elderly persons'. This little example shows, that the only PRM using the PTS in Greece's capital seem to be persons belonging to the third and maybe fourth age. The rest of all PRM and PwD do not seem to be thought of moving around at all with public means!

In general terms, circumstances at bus stops in Athens, as well as inside vehicles, are most inappropriate. Besides the inaccessibility of many **bus stops**, they **often are not properly equipped** (fig. 15-32) and much too often over-crowded due to irregular timetables. Long waiting times and big crowds getting on and off vehicles, etc. make the use of busses for PwD impossible. In addition, bus drivers often conduct in much too aggressive ways (suddenly stopping and/or starting). This unacceptable behaviour turns **busses into a**



Fig. 15-32: It is unacceptable, that bus stops on wide pavements, do not possess any benches for the waiting public, especially if they could easily be fixed

**common place for falls and accidents occurring primarily to elderly people** (Papadopulos, 1996). Moreover in many cases, the PTS's network in faraway suburbs of the Athenian region is very poor. In conclusion, even persons without any corporal or mental impairment are forced to possess a vehicle on their own, if they do not want to get excluded and move outside their residential area.

These few examples already give enough proof, why **PRM and especially PwD suspend their exits from home or outside the reachable borders of their neighbourhoods in Athens**. Going out decreases pro rata to the distance PwD have to cover and the difficulties they may encounter using the means of PTS. Of course, improvement measures in Athens' PTS have been discussed over the last years. In the following a short overview on the implementation of facilitations and adaptations will be given.

#### 15.6.2 ATHENS' BUSES (ΟΑΣΑ/ ΕΘΕΛ) AND TROLLEYS (ΗΛΠΑΠ)

The picture, which Athens' PTS presents regarding its busses and trolleys is very good – even better than the one in other European cities. The trolley fleet comprises of 224 vehicles with kneeling mechanisms (*fig. 15-33*) and 140 vehicles with ramp (*fig. 15-34*). The bus fleet counts 1840 vehicles, in total. 1694 (90%) are equipped with a kneeling mechanism and 520 (30%) vehicles of 12m length are provided with electrically driven ramps. Another 614 busses of 12m length with hand-operated ramps, kneeling possibility and telematic devices (for bus announcements) have been bought by ΕΘΕΛ and are expected to operate soon all over Athens, making **80% of the total fleet accessible**. This percentage is much higher than the European average, where about 40-50% out of the whole fleet are expected to be accessible ([www.minenv](http://www.minenv)).



*Fig. 15-33 and Fig. 15-34: Vehicles of the new bus fleet of ΟΑΣΑ*

But reality is far from being so splendid as these numbers might suggest. A circular dating of 14 June 2001 makes the **use of kneeling mechanisms at all PTS stops obligatory**, in order to serve the passenger public at large. Although this operation would only require at most 10 seconds before opening each vehicle door, (almost) no driver makes use of it. This may be partly related to the fact, that at the beginning of their use, passengers' reactions were negative and they had objections, as they claimed delays and insulted drivers for taking their time. Certainly, drivers aim to serve the passenger public at best, so they have stopped to generally operate kneeling mechanisms and only enact it, if there is a

waiting passenger with visible needs (mother with perambulator, elderly person with crutches, etc.).

The **operation of ramps is even more problematic**. First of-all, they are considered dangerous for motorcyclists, as they often overtake stopped PTS vehicles from the right side and on pavements. Furthermore, vehicle controls have shown, that **only 10-40% of all vehicle ramps are really working**. So far, ramps were externally placed below the middle door and were loosened due to bad conditions of Greek streets (potholes, speed limit elevations, etc.). In addition, mud, dust, etc. block these electric mechanisms, due to their rare operation and make the use of the 54 accessible pilot bus-lines impossible. Although drivers seem to report all problems with ramps, machinists in coach-houses often do not look after such problems and even more often cannot find proper equipment and parts in order to fix external ramps. Thus, the latest commission has been made for busses with hand-operated ramps to guarantee their functioning. Because of all these technical problems, the attempt to schedule one accessible vehicle per hour remains an utopist vision. Thus, the **arrival of accessible PTS vehicles remains mostly accidental**. But even more problematic is the fact that passengers are not sensitized and will not give way to a wheelchair that wants to enter into an accessible bus during rush-hours!

But problems are not only detected with bus and trolley-vehicles. The **access to bus-stops is another problem in Athens**. Accommodating measures have been taken in this domain as well. In total, there are about 7000 stops all over Athens. At certain stops, where prohibitive parking does not allow bus-drivers to pull up their vehicles next to stops, the OASA built platforms of 9-12m length (according to the busses' lengths) (*fig. 15-35*). So far 270 (4%) stops have been equipped with such platforms and another 430 stops are planned to get accessible in the near future. However, this number is rather irrelevant, as only 10% of all stops will be accessible by these measures. And even more important is, that these adaptations are prohibited by the street circulation code (K.O.K. – Κώδικας Οδικής Κυκλοφορίας) and thus delays on any such measure must be expected. Moreover, controls showed, that bus drivers continue to stop in a distance of about 0,50-1,50m from pavements or platforms (*fig. 15-36*). On the one side, this is due to passengers' behavior, as they stand and wait for the bus or trolley in the midst of the street and on the other side due to Greek car drivers' behavior either parking at bus stops or not letting busses exit again from the bus stop into street circulation. Finally, at bus terminals, it is often the vehicles themselves, which block passengers' approaches (*fig. 15-37*). All these facts proof once more, that the most important work that has to be done is the sensitization and behavior improvement of Greece's citizens!



Fig. 15-35: Platform built at bus stops to facilitate passengers to get on



Fig. 15-36 and Fig. 15-37: Trolley stopping in the midst of the street and bus vehicles parked on pavements at terminal stops blocking passengers' approaches

More positive results derive from the **pilot programme 'Hear the Stop'** (Άκου την στάση), which was semi-financed (50%) by the European Community. Telematic installations with transmitters and receivers have been placed in vehicles and at stops, in order to announce the approaching bus-line for waiting passengers and bus stops' name inside vehicles. Because of the lack of electricity at many PTS stops, the system is powered by solar energy. Problems appeared on cloudy days, on shady spots due to skyscrapers, etc. and because of vandalisms, stealing and problems of maintenance. Today this system is back in use on 4 major bus lines in Athens: 450, 550, A1 and B1, which equals to 273 stops in total. Now the system **gives information in Greek and in English**. From spring 2004 this system was extended to the city center's tourist bus-lines 060, 100 and 200. In total, 32 mini-busses of 7m length have been added with an advanced system providing announcements only from the part of vehicles. Besides the stop-announcement in busses, another 50% of all trolleys provide written information on stops' names. Within the next 3 years, supplementary 400 electronic stops of ΕΘΕΑ and 150 electronic stops of ΗΛΠΑΠ with illuminated real-time information will be constructed.

"The provision of new appropriate busses may have occurred, but is our transport system ready to receive PwD? If we leave the lack of appropriate infrastructure apart, as far as access to bus stops is regarded, no training has been made to bus drivers, who will undertake the transport." (Κόκκινος, 1994β) Many PwD interviewed by the author state, that it is them who have to advise bus drivers how to handle bus ramps or in what way to operate bus lifts. **Travelling with Athens' PTS implies a daily struggle** to get on the few available accessible busses that operate. But even more forbidding is the access to bus stops. The short-minded positioning of urban equipment on pavements, the bad condition of many pavements, the lack of accessibility to many of them and the existence of mobile permanent and temporary obstacles on them, foremost motorcycles (*fig. 15-38*), make the use of PTS for PwD prohibitive. Moreover, new vehicles that are set into circulation do not possess ramps, although vehicles foresee mechanisms for external ramps, due to the reasons mentioned above. Besides this, many vehicles show further changes in their equipment, for instance missing restraint systems for wheelchairs. In some cases even supplementary railings are placed in the midst of accessible entrances, making the use of them completely prohibitive for chair-users.



*Fig. 15-38: Parked motorcycles on pavements at and around PTS stops are one of the major obstacles for all PRM and PwD*

"She asked the bus driver to remind her, when exactly she had to get off. But, accidentally and due to the intervening of another passenger, who had listened to this conversation, she realized, that the bus was continuing its route. Probably the bus driver forgot or had not paid attention to the passenger's demand. The bus stop stayed behind and the coincidence would have been of no importance, had it not been for another parameter. The girl who had asked to get informed was blind" (Διονυσοπούλου, 2001). Although such incidents happen and the mass media adore promoting this point of view, reality proves, that it is **blind persons that are served best by the PTS in Athens and that drivers in general are sensitized and helpful.**

Within the frame of all preparatory works done for the Olympic Games in Athens in summer 2004, the ΟΑΣΑ organized compulsory one-day seminars from October to December 2003. **1250 drivers of ΕΘΕΑ were trained and sensitised on matters of behaviour and conduct towards PRM and PwD (fig. 15-39).** The seminar was divided into 2 units, one being a two-hour introductory part on accessibility issues in general and the other, a three-hour part, dealing with specific situations of PRM and PwD, focusing on blind passengers or passengers with visual impairments, passengers with wheelchairs and passengers with mental impairments. Drivers' reactions were positive and revealed the problems that have been discussed so far.



*Fig. 15-39: Leaflet of the ΟΑΣΑ sensitization seminar*

Further positive actions of the ΟΑΣΑ can be mentioned. Apart from the already-mentioned sensitizing poster-prints on busses, trolleys and coaches with PwD's symbols, the organization engages in serving PRM and PwD. Daily a bus is disposed and used like a school-bus for children with mental impairments in order to bring them and return them from school. Moreover, the bus-line 911 operates all day long and serves primarily persons with visual impairments circulating between the railway station at 'Καλλιθέα' (Kallithea) and the 'Φάρος Τυφλών' (Lighthouse for the Blind) in Καλλιθέα.

As already mentioned, **positive initiatives can also be found in some of Athens' municipalities.** For instance, the municipality of Piraeus was one of the first municipalities of Athens that bought two accessible busses in January 1994. Ten bus drivers were trained together with employees of the municipality, which serve as accompanying persons on the bus routes of the **so-called 'Hephaistos' line.** These busses work 'door to door' like call-taxis, which means that PwD have to call one or two days in advance and depending on their destinations, the line's timetables and routes are set. Passengers are picked up at their homes and are driven to the market, the hospital, public services, working places or for visits. This line operates mainly within the borders of Piraeus' municipality and every person is allowed to make only a certain number of bookings every week (Κόκκινος,

1994a). Such an initiative was also working within Athens Municipality. But due to a lack of funds (European Community programme Horizon), the operation was stopped after its first year of service.

**International experience leads to the conclusion that accessible busses cannot be considered as a basic means of PTS for wheelchair users**, especially during rush hours. Thus, it is primarily railway nets that have to be considered as the appropriate means for PwD's autonomous and secure mobility.

### 15.6.3 ATHENS' RAILWAY (ΗΣΑΠ) AND ΑΤΤΙΚΟ ΜΕΤΡΟ (ΑΤΤΙΚΟ ΜΕΤΡΟ)

PwD living in Greece continue to claim, that there is no way of mobility for them, as progress is very slow and completely fragmentary. **Apart from travel by train, no other means of PTS can be used successfully by PRM and PwD in Athens**, as reliability on vehicles' running or on functioning of their equipment can never be really guaranteed.

During the last years, efforts to improve the existing conditions can be noticed on the part of **ΗΣΑΠ. The railway, Athens' most used means of PTS**, has been upgraded during 2003-2004 and **is now completely accessible**. Some of the recently completed facilitations at all railway stations are e.g. platform levels that have been adapted to train heights. Furthermore, elevators have been constructed as safety elevators (*fig. 15-40*), leading to the exit level, in the case of an emergency. Tactile orientation markings have been placed at all ΗΣΑΠ stations, as well as contrasting stripes on platform edges (*fig. 15-41*). In addition, it is aimed at marking vehicle doors with tactile orientation marking tiles in the near future, as well as to erect information spots in Braille. Acoustic announcements give stop names inside trains and wheelchair users are warned if the gap between the train and the platform is dangerous. This has to be related to the fact, that the ΗΣΑΠ line was built some decades ago and, therefore, at two stations it was impossible to eliminate constructive problems, like curved platforms. Thus, wheelchair users are reminded of using the first and the last wagon, in order to minimize gaps when exiting. Finally, toilets for wheelchair users have been integrated into every station (*fig. 15-42*).



*Fig. 15-40 and Fig. 15-41: The renovated ΗΣΑΠ stations are now completely accessible*



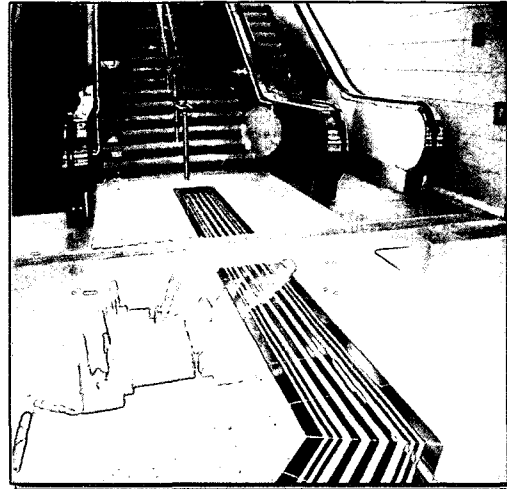


Fig. 15-42 and Fig. 15-43: The positive solution of the accessible ΗΣΑΠ-train stations in contrast to the slippery tactile orientation markings in the newly inaugurated Attiko Metro Stations

The **Athens' Metro** is a recent project in Attica and was inaugurated only few years ago. Nevertheless, **only provisions for passengers with mobility impairments** have been made. Although it is always advertised as being completely accessible, the subway does not really serve PwD. Spaces between the platform and vehicles differ from 4,5-10cm making their use for wheelchair users dangerous. At some stations, persons with electrical driven wheelchairs are only able to enter into elevators after serious manoeuvres, as space in front of the cabins is much too narrow. Station officers stated, that there are toilets for wheelchair users in some stations, but they are not signed and locked (!) and PwD claim, that equipment is badly placed. As far as passengers with visual impairments are regarded, it has to be said, that they have not been taken into account at all, although the inaccessibility was pointed out to the company from the beginning from various parts. Due to reasons of aesthetics (!), no tactile orientation markings have been placed in any of the older Attiko Metro stations. The newly inaugurated stations do have tactile orientation markings now, but reflecting black marble tiles are used (*fig. 15-43*), that are very slippery and dangerous! Apart from stops announcement, the only care that was additionally take is the colored marking of coaches' beginning and end, in order to indicate gaps to persons with visual impairments and disoriented passengers.

Although partly improvement is obvious and **ΗΣΑΠ and Attiko Metro are the most frequently used means of PTS by PwD**, many problems can be mentioned. The electric railway shows malfunctions in elevators, as they are not systematically checked. Tiles in metro stations are very slippery and dangerous for people facing mobility impairments. Signs are rare and in general people with visual impairments claim that they face problems using the stations' equipment and easily loose orientation. But the major problem is, that at almost every station, access to elevators is impossible for wheelchair passengers due to illegally parked vehicles and due to the lack of parking lots for wheelchair users. Once

more, it is the behavior of the public at large, which makes most, if not all improvement attempts and measures ineffective!

### **15.7 ARE PRIVATE CARS THE ONLY ALTERNATIVE FOR PWD LIVING IN ATHENS?**

Besides PTS, there are also taxis, which can serve as a means of transport. Although they are licensed for 'public use', Athenian taxi drivers seldom stop to take, for instance, a person with crutches. So, obviously, it is **only special taxis that transport wheelchairs and their users** (fig. 15-44). The Greek Ministry of Transport and Communication has issued 7 vehicles with the permission of accessible taxis in Attica. These are minibusses, which have the possibility to transport a wheelchair, as well. However, problems remain, as drivers will not transport electric driven wheelchairs. But these taxis are the **only means of public transport in Athens, which works on a 24 hours basis**. They operate only on scheduled calls and there is an extra fare to be paid supplementary to the indication of the taximeter (Greek MS Soc., 2003).



*Fig. 15-44: 7 special taxis circulate in Athens*

As this possibility of transport is rather expensive and only partly effective, **private cars seem to remain the only alternative for PwD living in Athens to move around on their own** whenever they need or please to. Within the framework of the European Community programme 'Horizon', Greece cooperated with Belgium and Italy during 1994-1995 and adopted the European evaluation system for PwD's driving licences. Since then, there exists a driving school for PwD in Athens called 'Iniochos' (Ηνίοχος). Abilities of every interested future driver are examined and a conclusive proposal is made, if she/he is considered to be in the condition to pass the driving license, to attend the preparative lessons, what supplementary equipment or adaptations her/his car will need, etc. In cooperation with this centre, the **programme 'Odigo'** (Οδήγώ) was set up.

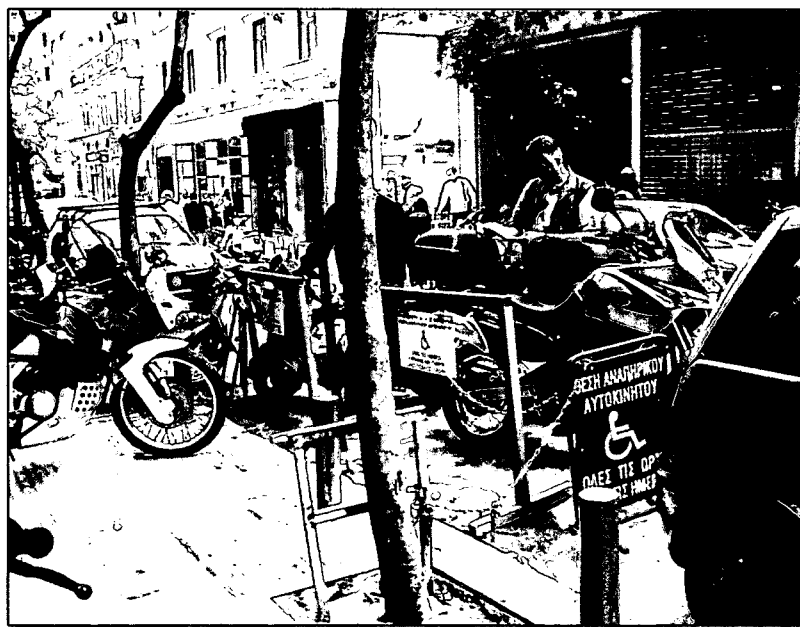
It is important to keep in mind, that modern **technology makes continuous progresses in the domain of autonomous vehicle movement**. In the near future, a combination of the so-called 'obstacle detection system' with the 'dynamic route guidance, navigation and lane keeping system' could take over driver's duties in total. In this case, even persons with severe impairments could become 'drivers' (Naniopoulos et al., 1994).

But **Greece does not seem to be ready at all for such advanced systems**. As has already been portrayed, Greek drivers' behaviors are totally unrespectable. The rate of

serious traffic accidents in Greece is the highest one in the European Community (this means mortalities and injured individuals per 100 accidents). During the decade of 1990-1999, 19.752 people died, 37.324 got seriously injured and 270.693 were slightly injured in traffic accidents (Παπαδόπουλος, 2002). Annually at least 800 persons are added to spinal injuries patients lists. But it is not only speed and driving drunk or sleepy that represents **irresponsibility and little respect towards fellow citizens**. Only in 2000, 2.629 wheelchair users' parking lots' violations were recorded and 669 number plates were removed (Παπαδόπουλος, 2002). This number, of course, does not correspond to the real extent of the problem (*fig. 15-45, fig. 15-46 and fig. 15-47*). Although there exists a State Service's number that PwD can call, if parking lot violations occur, interviewed PwD noticed, that they prefer to sound the horn for some time, in the hope to activate the violating driver to appear and remove her/his hindering vehicle. This solution is preferred, as the removal of number plates in Greece does not necessarily correspond to the picking up of obstacles. And in conclusion, it is of little use for a PwD, as she/he will not be able to park on her/his accessible parking lot in front of her/his house!



*Fig. 15-45 and Fig. 15-46: A rare sight: a PwD's parking lot kerow free (up)*



*Fig. 15-47: The usual picture in Athens: PwD's parking spaces taken by motorcycles and cars*

**16 RESULTS OF RECENT SURVEYS ANALYSING UD AND UA CONDITIONS IN ATHENS**

**16.1 INTRODUCTION..... 235**

**16.2 THE EVALUATION STUDY 'KAΘENΑΣ' (2001)..... 224**

**16.3 EVALUATION STUDY OF THE GREEK MINISTRY OF INTERIOR (2002)..... 224**

**16.4 AUTHOR'S COMPARATIVE STUDY ON ACCESSIBILITY CONDITIONS TO SPECIFIC BUILDING CATEGORIES IN ATHENS (1984-2004)..... 224**

16.4.1 GENERAL REMARKS ON THE FOLLOWING COMPARATIVE SURVEY 224

16.4.2 PUBLIC SERVICES: MINISTRIES..... 224

16.4.3 PUBLIC SERVICES: HOSPITALS..... 224

16.4.4 EDUCATIONAL BUILDINGS: HIGHER-DEGREE EDUCATIONAL ESTABLISHMENTS..... 224

16.4.5 CULTURAL BUILDINGS: MUSEUMS..... 224

16.4.6 CULTURAL AND ENTERTAINMENT BUILDINGS: THEATRES ..... 224

16.4.7 ENTERTAINMENT BUILDINGS: CINEMAS..... 224

16.4.8 CONCLUSIONS FROM THE PRECEDENT COMPARATIVE STUDY..... 224

## 16.1 INTRODUCTION

**"Certainly it is not accessibility, which is the biggest barrier, but society's attitude itself.** The problem lies not in the PwD or the wheelchair, but in stairs and the lack of spirit to place a ramp. The problem is not the blind person, but this unfriendly city (Athens), where garbage covers pavements, traffic signs are badly placed, trees are unfenced and basements are yawning." (Μπενάκη-Πολύδωρου, 1993)

Despite the fact, that in the last few years the Greek public has started to better understand the needs, particularities and equality of rights of PwD, a giant void still exists. As has been portrayed, legislation is weak and insufficient and implementation is not enforced or controlled. **"Free movement of PwD meets with great difficulties, like entering into the PTS with a wheelchair, with enormous problems using pavements due to the small number of curb cuts, with tremendous problems entering public, school and/or university buildings and insurmountable difficulties entering theaters, stores and churches"** (Papadopulos, 1996: 323).

The Greek Ministry of Interior, Public Administration and Decentralization notes, that seminars are being promoted as well as the publication of prints and electronic data showing necessary ergonomic arrangements for accessibility in inner and outer public spaces. A series of interventions for ergonomic arrangements in public spaces has been applied, too (Υπ.Εσ. 2000). For instance, in 1997, in almost all public buildings and State Services, plates were hung up saying: **'PwD are served on priority'** (fig. 16-1). This measure is combined with the employees' obligation to help citizens fill out applications, to forward them, to post confirmations, certificates and other documents to citizens wD, etc. (Υπ. Εσ., 1999).



Fig. 16-1: "PwD are served on priority"

The public at large claims that lately, **works aiming to make the environment more accessible have started, but progress paces still very slowly.** However, some articles indicate, that in Athens ½ of all ministries, ¼ of all hospitals, ½ of all university buildings, most theatres, cinemas and museums and almost all pavements are inaccessible to people with severe mobility impairments, especially wheelchair users. A series of evaluation studies have been carried out over the last years, giving the picture on accessibility conditions for PRM and PwD with mobility impairments in Greece's capital. They will be shortly presented in the following chapters.

## 16.2 THE EVALUATION STUDY 'ΚΑΘΕΝΑΣ' (2001)

The study 'ΚΑΘΕΝΑΣ' (Σύστημα Καταγραφής, Αξιολόγησης και Πληροφόρησης σε Θέματα κινητικότητας ΑΜΕΑ εντός Αστικών Συγκροτημάτων – System for registration, evaluation and information on mobility matters for PwD within urban complexes) was carried out in 2001 by the ΕΙΑΑ (Εθνικό Ίδρυμα Αποκατάστασης Αναπήρων – National Institution for PwD's Rehabilitation) in co-operation with Truth AE, the Aristotle University of Thessaloniki (Α.Π.Θ.), Athens-Piraeus Trolley Organization (Η.Λ.Π.Α.Π.), Automobile & Touring Club Greece (ΕΛΠΑ), Greek Paraplegic Society (Πανελλήνιος Σύλλογος Παραπληγικών ΠΑ.Σ.ΠΑ.) and Ciem Ltd. The programme leader was ΕΙΑΑ. For unknown reasons this programme was never finished.

This study comprised the evaluation of 124 buildings hosting public services belonging to the following 10 categories (number of evaluated buildings given in brackets):

- churches (17),
- schools (17),
- phone company (ΟΤΕ)/ electricity company (ΔΕΗ) (12),
- post offices (ΕΛΤΑ) (12),
- bank institutions (23),
- municipalities (8),
- tax offices (ΔΟΥ) (8),
- police stations (8),
- outpatient's departments (ΙΚΑ) (10),
- ministries / prefecture (8).

All services were selected at random out of 10 specific municipalities in the basin of Attica. Based on a questionnaire, conditions of autonomous mobility for wheelchair users were examined, emphasising especially on the accidental visit of any of these buildings. Thus, no discussions with employees or responsables of the services were undertaken, in order to simulate real situations when PwD visit such services on their own. Evaluation was divided into three categories: accessible, semi-accessible (e.g. no toilet sized and equipped for wheelchair-users) and inaccessible (e.g. ramp leads only to rooms on entrance level). As this survey evaluates only a small sample for each service type, percentages are indicative.

In the following table (*tab. 16-1*) the results as deriving from the last report of the ΚΑΘΕΝΑΣ-study are given:

Service (no. of evaluated buildings)	accessible	semi-accessible	inaccessible
Churches (17)	0	47,0% (8)	53,0% (9)
Schools (17)	0	47,0% (8)	53,0% (9)
Telephone company (ΟΤΕ) (8)	0	37,5% (3)	62,5% (5)

Electricity company (ΔΕΗ) (4)	0	75,0% (3)	25,0% (1)
Post Offices (ΕΛΤΑ) (12)	0	42% (5)	58% (7)
Bank Institutions (23)	0	35% (8)	65% (15)
Town halls (8)	25% (2)	37,5% (3)	37,5% (3)
Tax Offices (ΔΟΥ) (8)	0	38% (3)	62% (5)
Police Offices (8)	0	50% (4)	50% (4)
Outpatient's Department (ΙΚΑ) (9)	22% (2)	56% (5)	22% (2)
Ministries (7) Prefecture (1)	13% (1)	74% (6)	13% (1)

Tab. 16-1: Results of the ΚΑΘΕΝΑΣ accessibility evaluation study regarding 124 public services in Athens (2001)

Concluding from the ΚΑΘΕΝΑΣ-study, most examined buildings and services were inaccessible (50%) or only semi-accessible (46%) in 2001. The number of accessible buildings is insignificant (4%). No efforts seem to have been made to adapt any of the visited public buildings for their proper use by people with mobility impairments. The general overview gives the picture (fig. 16-2):

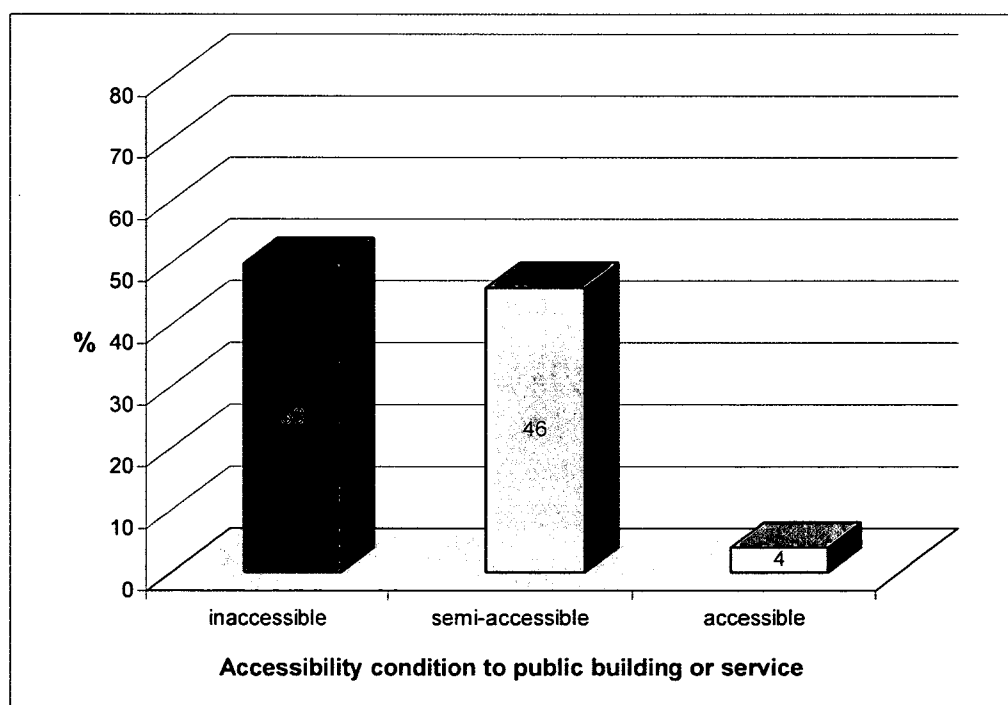


Fig. 16-2: Accessibility conditions as resulting from the ΚΑΘΕΝΑΣ-study

**16.3 EVALUATION STUDY OF THE GREEK MINISTRY OF INTERIOR (2002)**

In Athens' preparatory work on accessibility for the (Para-) Olympic Games of 2004, the General Secretary of the Greek Ministry of Interior, Public Administration and Decentralization engaged in a **survey on the existing accessibility conditions for PRM and Pw mobility impairments to buildings that host Ministries, Regions, Prefecture Governments, Municipalities/Communities and further State Services all over Greece.**

The survey was carried out via sending informative deeds and questionnaires to all public services. Relevant employees were asked to fill out all UD-adaptations and to register all existing deficiencies in buildings hosting public services. The study comprised of gathering information concerning the presence of ramps, parking lots for wheelchair users, elevators, large sized toilets and lowered counters. During two years, until the end of the year 2002, the General Secretary sent out papers reminding services on the necessity of immediate recording of the existing situations in public services and on their obligation to answer. But although it is state services, which should give the positive example, most employees forgot to answer the evaluation-documents and, therefore, almost no implementations of the required adaptations were fulfilled (Ισοτιμία, τεύχος 57). The general overview on the end results of the co-operating services, is listed in the table below (tab. 16-2):

<b>Carrier:</b>	<b>no. of buildings with available data until 20-03-2003</b>	<b>ramp/ access</b>	<b>PwD's parking lot</b>	<b>elevator</b>	<b>WC</b>	<b>lower counter</b>
<b>Ministries</b>	21	12 (57%)	9 (43%)	12 (57%)	2 (10%)	3 (14%)
<b>General secretariats</b>	7	5 (71%)	4 (57%)	7 (100%)	1 (14%)	1 (14%)
<b>Regions</b>	66	24 (36%)	36 (55%)	35 (53%)	14 (21%)	0
<b>Prefecture governments</b>	135	57 (42%)	93 (69%)	62 (46%)	13 (10%)	4 (3%)
<b>Municipalities /communities</b>	369	120 (37%)	236 (64%)	58 (16%)	59 (16%)	27 (7%)
<b>Further carriers</b>	244	66 (27%)	143 (59%)	39 (16%)	14 (6%)	10 (4%)

<b>Supervising Ministry:</b>	<b>no. of buildings with available data until 17-12-2002</b>	<b>ramp/ access</b>	<b>PwD's parking lot</b>	<b>elevator</b>	<b>WC</b>	<b>lower counter</b>
<b>Public Order</b>	541	179 (33%)	495 (91%)	96 (18%)	26 (5%)	36 (7%)
<b>Culture</b>	124 (53 services)	36 (29%)	44 (35%)	14 (11%)	8 (6%)	6 (5%)



<b>Mercantile Marine</b>	191	39 (20%)	126 (66%)	20 (10%)	1	12 (6%)
<b>Labour and Social Affairs</b>	87	32 (37%)	49 (56%)	49 (56%)	6 (7%)	6 (7%)
<b>Health and Welfare</b>	119	71 (60%)	93 (78%)	49 (41%)	46 (39%)	4 (3%)
<b>Justice</b>	36	6 (17%)	15 (42%)	7 (19%)	1 (3%)	0

Tab. 16-2: Results of the filled-in questionnaires distributed to its services by the Greek Ministry of Interior, Public Administration and Decentralisation (2002)

As no detailed information on the evaluation criteria could be gathered, no closer look will be made on the above data. However, it is worth mentioning, that almost ½ of all buildings have one or more parking lots for wheelchair users. Nevertheless, the general evaluation is rather disappointing: **only 4% of all public services in Greece were completely accessible for wheelchair users in 2002!** (Ισοτιμία, τόμος 57)

#### 16.4 AUTHOR'S COMPARATIVE STUDY ON ACCESSIBILITY CONDITIONS TO SPECIFIC BUILDING CATEGORIES IN ATHENS (1984-2004)

##### 16.4.1 GENERAL REMARKS ON THE FOLLOWING COMPARATIVE SURVEY

Two decades ago, in 1984, the 'Company for the Protection of Spastics' (Εταιρία Προστασίας Σπαστικών - ΕΠΣ) carried out the **study: 'Αθήνα - μια πόλη απροσπέλαστη για τους αναπήρους' (Athens - an impenetrable city for PwD)** (ΕΠΣ, 1989). This research was oriented towards existing **accessibility conditions (based on criteria for wheelchair users) in certain categories of public buildings in Athens**. The team comprised of 10 members, of whom six had mobility impairments, three were volunteers and one a social functionary. An architect supervised the whole team.

Investigations were based on a specific protocol evaluating the number of steps and stairs, the presence of ramps, railings and elevators, as well as the elevator cabins' size. Evaluation was scaled into five graduations from 'very good' to 'very bad'. It must be noted, that the **ΕΠΣ scaling is very gentle**, as the presence of up to 4 steps in public buildings without a ramp has been judged as 'good' accessible, respectively the presence of 5 to 8 steps as 'medium' accessible, 'bad' stands for 9 to 14 steps and 'very bad' for stairs with 15 steps or over or buildings without elevators or elevators that are too small for wheelchair users. Therefore, it has to be kept in mind, that in reality, only 'very good' stands for really accessible buildings! The general overview on this research's results is listed below, showing the sum of 'very bad' and 'bad' accessible buildings (in brackets is the sum of them plus 'medium' accessible buildings) (tab. 16-3):

Category of public building (number of evaluated buildings)	% of building conditions evaluated 'bad' or 'very bad' (in brackets plus 'medium')
Ministries (20)	30,0% (40,0%)
Hospitals (31)	19,4% (29,0%)
University faculties (12)	91,7% (100,0%)
Museums (12)	66,7% (75,0%)
Theaters (38)	63,2% (68,4%)
Cinemas (31)	32,3% (58,0%)

Tab. 16-3: Overview on results of the research of the ΕΠΣ showing the percentages of inaccessible public buildings in Athens in 1984: very bad + bad accessible (very bad + bad + medium accessible)

However, if the real extent of inaccessibility in 1984 wants to be shown, numbers of 'good' accessible buildings have to be added to these percentages, as well, as 'four steps without a ramp' cannot be considered accessible. The deriving picture of Athens is as follows (inaccessible is the addition of all categories except 'very good', which is accessible) (fig. 16-3):

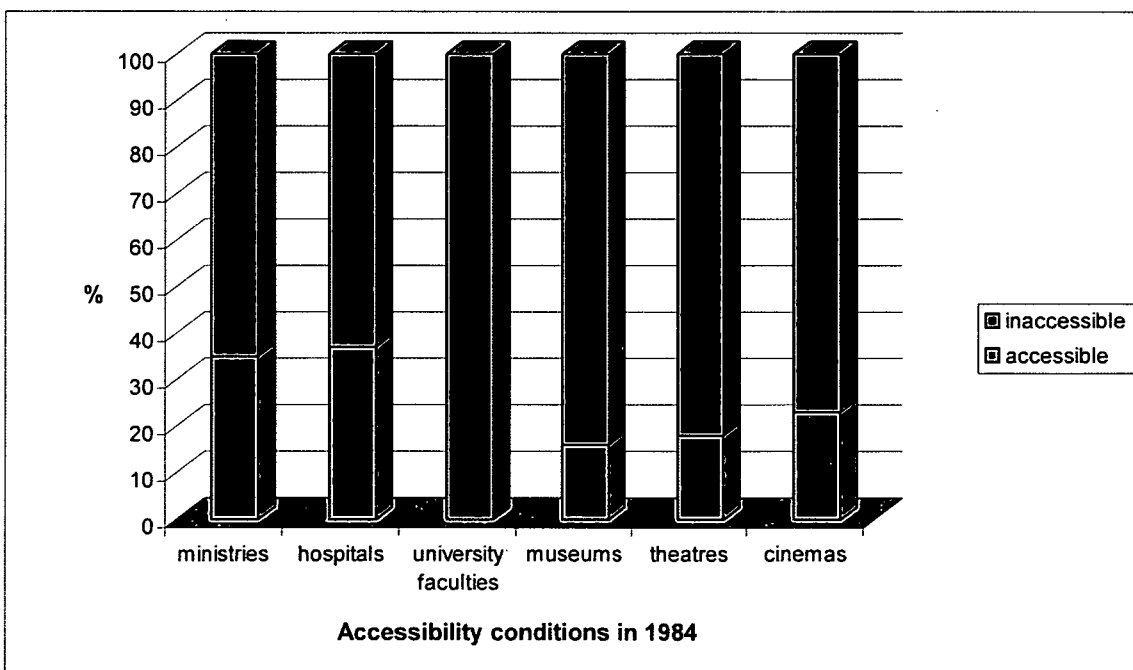


Fig. 16-3: Percentages of 'very good' accessible buildings compared to inaccessible buildings of the ΕΠΣ study (1984)

In few words, the **situation 20 years ago was very unfriendly for people with mobility impairments** and Athens indeed was an impenetrable city. Access to tertiary education was impossible (100% of all visited buildings were evaluated inaccessible), joining entertainment or cultural establishments was also almost prohibitive (84% of all examined museums, 82% of all visited theatres and 77% of all evaluated cinemas were impenetrable (fig. 16-3)), while ministries guaranteed access only to 65% of all examined buildings. Even hospitals, the most important public building type, especially for PwD, were at 63% inaccessible in 1984.

The following chapters will present the detailed result tables of the **ΕΠΣ study**. However, it has to be mentioned, that **some data is contradictory**. In some tables, certain buildings happen to be evaluated as 'very good' accessible, while the criteria seem to lead judging them 'very bad' accessible (or vice-versa). In these cases, the explanatory texts refer to different numbers of, for instance, very good and very bad accessible buildings, as the ones shown in the tables. The author judged, that the conclusive numbers in the explanatory texts seem to be more reliable and correct, if one has a closer look on the criteria. Mistakes in tables are most probably based on typographical errors. 'Καλή' (good) can easily turn into 'κακή' (bad) accessibility, as only one letter needs to be changed and moreover, it happens that 'λ' and 'κ' are placed next to each other on the keyboard. Thus, in the following paragraphs, the **tables of the ΕΠΣ study will be valid by their color-evaluation**, based on the numbers originating from the study's complementary texts (a short reference will be made for every suggested mistake).

After the official time limit ran out, that had been set for the adaptation of all buildings hosting public services in the wider sense, the **author re-evaluated the buildings** of the ΕΠΣ study two decades later. During December 2003 and January 2004, the author visited the same ministries, hospitals, tertiary educational buildings, museums, theatres and cinemas as had been in the ΕΠΣ study of 1984. The **evaluation criteria** have been kept the same:

- existence of stairs,
- number of steps,
- existence of a ramp,
- existence of an elevator,
- elevator cabin's size (no data on the dimensions is given).

**In addition**, the following data have been registered:

- placing of the ramp at the main entrance or at a side-entrance (e.g. fire-exit),
- existence of at least one toilet for wheelchair users in the whole building (complex),
- existence of at least one parking lot for wheelchair users.

In order to make a comparison between the two researches possible, the **new results were evaluated in the same way as proposed by the ΕΠΣ study**:

- **very good accessibility: no steps,**
- **good accessibility: 1-4 steps,**
- **medium accessibility: 5-9 steps,**
- **bad accessibility: 10-14 steps,**
- **very bad accessibility: >15 steps and/or no elevator and/or elevator too small.**

In the following paragraphs, the **results gathered 20 years ago, will be compared to the situation citizens can find in Athens today**, in order to investigate the degree of improvement regarding UD and UA for people with mobility impairments in Greece's capital over the last two decades. Further conclusions, drawn from the additional criteria examined in the visited buildings, are discussed, as well.

16.4.2 PUBLIC SERVICES: MINISTRIES

In the following, accessibility to ministerial buildings in Athens for people with mobility impairments is investigated. The table below gives the detailed data on accessibility conditions in **20 ministries in Athens in 1984** (tab. 16-4):

no	MINISTRY	ADDRESS	STAIR	STEPS	RAMP	RAIL	ELEVATOR	SIZE	COMMENTS	EVALUATION
1	National Economy	Πλατεία Συντάγματος	yes	4	no	no	yes	normal	1 landing 4 steps	good
2	Nat. Education	Μητροπόλεως 15	yes	15	yes	yes	yes	normal		very bad (?)
3	Public Works	Χαρ. Τρικοπού 182	no	-	no	no	yes	normal	new building	very good
4	Justice	Ζήνωνος 2	no	-	no	no	yes	normal		very good
5	Finance	Καραγεωργίου Σερβίας 10	yes	3	no	no	yes	normal		good
6	Transportation	Ξενοφώντος 13	no	-	no	no	yes	medium		very bad
7	Interior	Σταδίου 27	yes	2	no	no	yes	normal	entrance from Διονυσιακίου	good
8	Public Order	Κατεχάκη 1	no	-	no	no	yes	normal		very good
9	Agriculture	Αχαρνών 2	yes	11	no	no	yes	normal	wide stair	bad
10	Mercantile Marine	Βασ. Σοφίας 151, Πειραιάς	yes	2	no	no	yes	normal		good
11	Trade	Πλ. Κάνιγγος	yes	14	no	no	yes	normal	old building	bad
12	Health & Welfare	Αριστοτέλους 17	yes	6	yes	yes	yes	medium		very bad (?)
13	Social Affairs	Σταδίου 23	no	-	no	no	yes	normal	new building	very good
14	Energy & Natural Resources	Μεγαλοκασπούλου 30	no	-	no	no	yes	normal	new building	very good
15	Foreign Affairs	Ακαδημίας & Βασ. Σοφίας	yes	8	no	no	yes	normal	new building	medium
16	Labour	Παράλιος 40	yes	5	no	no	yes	normal	awkward door	very bad
17	Research & Technology	Ερμού 2	no	-	no	no	yes	normal	garage entrance	very good
18	Culture & Science	Αριστοτέου 14	yes	13	no	no	yes	big	new building	bad
19	Presidential	Ζαλοκώστα 3	yes	8	no	no	yes	normal	entrance door problematic	medium
20	Physical Planning & Environment	Αραλίδος 17	yes	4	yes	yes	yes	normal		good (?)

Tab. 16-4: Accessibility conditions in 20 ministries in Athens in 1984

It has to be mentioned, that there seem to be some errors in the table above. The original table marks, that the Ministry of National Education (row 2) and the Ministry of Health and Welfare (row 12) are 'very bad' accessible, although it was registered, that they are equipped with a ramp and normal-sized elevators (see evaluation criteria in the table above). This remark is also valid for the Ministry of Physical Planning and Environment (row 20), as it is marked 'good', although it fulfils all needed criteria to be judged 'very good' accessible.

As the explicative text of the ΕΠΣ research refers to 3 instead of 4 'very bad' accessible ministries and in consequence to 7 instead of 6 'very good' accessible ministries, the author changed only one of the 'very bad' accessible ministries by color into 'very good' accessible (Ministry of National Education), so as to keep to the data of the original publication of the ΕΠΣ.

During the last two decades, some ministries have changed their name, others have moved into new buildings, etc. For this research, the actual **17 ministries' main buildings in Athens** were visited and re-evaluated by the author in **2004**. It has to be mentioned, that entering some buildings was prohibitive and most of the gathered information derives from

questioning employees in the Technical Service Bureaus or the Security Staff at the information desks. These are the results (tab. 16-5):

a/b	MINISTRY	ADDRESS	STAIR	STEPS	RAMP	M.ENTR.	ELEV.	SIZE	WC	PARK.	COMMENTS	EVALUATION
1	Economy & Finance	Νίκης 5-7	yes	1+3+7	lift	yes	yes	6 pers.	yes	no	special cooler, special phone	very good
2	Nat. Education & Religious Affairs	Μητροπόλεως 15	yes	5	yes	yes	yes	6 pers.	yes	no	parking lot is created	very good
3	Justice	Μεσογείων 96	yes	8	lift	yes	yes	8 pers.	no	no	special courier	very good
4	Transportation & Communications	Αναστάσεως 2 & Τσιγκάνιτε, Παπάγου	yes	1+1	yes	yes	yes	10 pers.	yes	yes	special courier, special phone	very good
5	Interior, Public Administration & Decentralisation	Σταδίου 27	yes	2	yes	yes	yes	10 pers.	no	no	entrance from Stadiou	very good
6	Public Order	Π.Κανελλόπουλου 2-4	yes	1	yes	yes	yes	8 pers.	?	yes	special courier	very good
7	Agriculture	Αχαρνών 2-6	yes	6+5	no	-	yes	6 pers.	no	no	special cooler and phone, friending for WC and ramp	bad
8	Mercantile Marine	Γρ. Λαμπράκη 150, Πειραιάς	yes	2	yes	yes	yes	20 pers.	yes	no	space for (dis)embarkation, removable ramp	very good
9	Health & Welfare	Αριστοτέλους 17	yes	2+5	yes	no	yes	10 pers.	yes	no		very good
10	Foreign Affairs	Ακαδημίας 1	no	-	-	-	yes	6 pers.	no	yes	financing for WC and park lot	very good
11	Labour & Social Affairs	Πειραιώς 40	yes	1+3	yes	yes	yes	7 pers.	yes	no	special courier	very good
12	Culture	Μπουμπουλίνας 20-22	no	-	-	-	yes	5 pers.	yes	no	swinging door renovations in near future	very good
13	Environment, Physical Planning & Public Works	Αμαλιάδος 17	yes	3	yes	yes	yes	5 pers.	no	no	space for (dis)embarkation	very good
14	Development	Μιχαλακοπούλου 80	yes	3+3	yes	yes	yes	8 pers.	yes	yes	special cooler	very good
15	Nat. Defence	Μεσογείων Πεντάγωνο	no	-	yes	yes	yes	8 pers.	yes	yes		very good
16	Press & Mass Media	Ζαλοκώστια 10	yes	1	yes	yes	yes	7 pers.	yes	yes		very good
17	Aegean	Φιλελλήγων 9	yes	2+7	no	-	no	-	no	no		bad

Tab. 16-5: Accessibility conditions in 17 ministries in Athens in 2004

Considering the reference numbers deriving from the ΕΠΣ study's text, the following table gives a comparative overview on the changes in accessibility conditions to ministries in Athens between 1984 and 2004 (fig. 16-4):

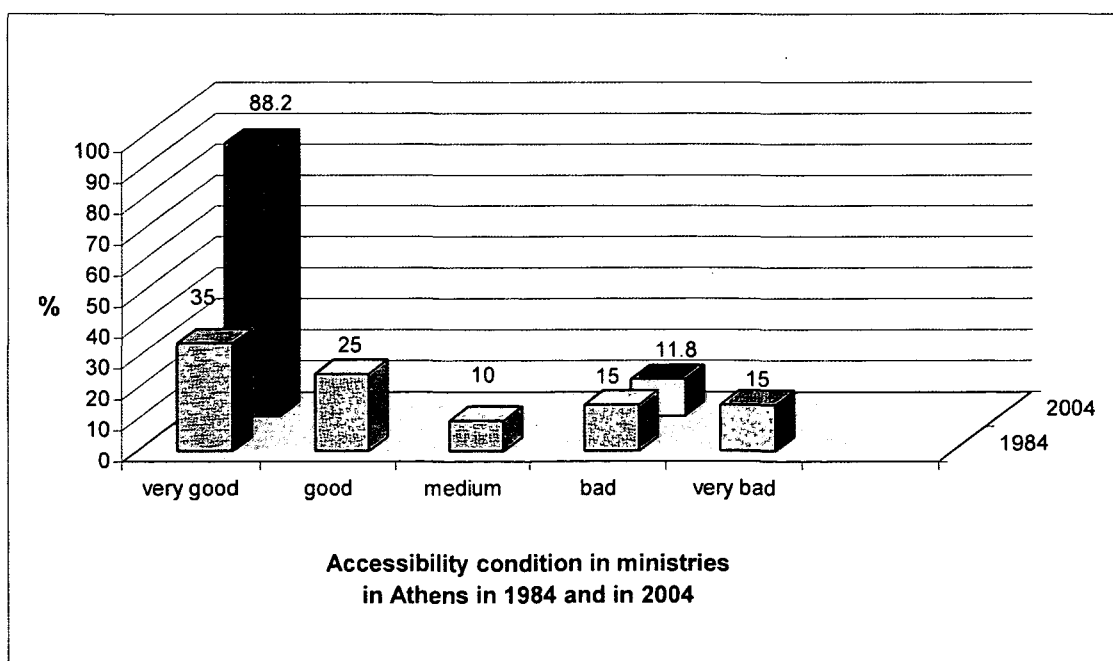


Fig. 16-4: Comparative evaluation of accessibility conditions in ministries in Athens in 1984 and in 2004

The **improvement in access conditions during the last twenty years** is obvious. Today, almost all ministries (88,2%) are wheelchair-accessible. It is worth mentioning, that almost all ramps have been placed at ministries' main entrances. The Ministry of Mercantile Marine (row 8) is provided with a removable ramp, because the extension of a permanent ramp is impossible, as it blocks pedestrian flow on the pavement. However, there remain two ministries (Ministry of Agriculture, row 7 and Ministry of the Aegean, row 17) located in very old buildings that are in a bad condition as far as accessibility is regarded. But, the one of these two (Ministry for Agriculture) only waits for the financing of the ramp, in order to become accessible. Finally, the Ministry of Culture (row 12) has a revolving door and therefore is not accessible. As this criterion was not set on the ΕΠΣ list, it has been evaluated 'very good' accessible. The one way or the other, the ministry hopefully meanwhile is accessible, as adaptations and a general renovation were scheduled for spring 2004.

The following table gives an overview on the **presence of facilitating equipment** as recorded during the evaluation in 2004 (*tab. 16-6*):

Facilitations	Special Parking Lot	Wh. WC	lowered Counter	Acc. water fountain	Access. Phone
Public Service	%	%	%	%	%
17 Ministries (in 2004)	35,3	58,8	23,5	17,6	17,6

*Tab. 16-6: Existence of facilitating equipment in 17 ministries in Athens (2004)*

It is alarming, that only about one third of all evaluated ministerial buildings (35,3%) do have parking lots for wheelchair users. But it must be mentioned, that two more ministries expect financing for the creation of such parking lots (Ministry of National Education and Religious Affairs, row 2 and Ministry of Foreign Affairs, row 10). Furthermore, in two additional Ministries (dis-) embarkation is possible in front of buildings (Ministry of Mercantile Marine, pt. 8 and Ministry of Environment, Physical Planning and Public Works, row 13).

The presence of toilets having enough space to be used by wheelchair users is more encouraging: 58,8% of all ministries has adapted some room to create at least one big toilet. Further equipment is very rarely found in Greek ministries. 23,5% of all ministries has lowered counters for wheelchair users and only 17,6% provides a lowered phone and/or drinking fountain respectively.

#### 16.4.3 PUBLIC SERVICES: HOSPITALS

This paragraph will look at accessibility conditions of hospitals in Athens. The following table shows the **access situation for 31 hospitals in Athens in 1984** as registered by the ΕΠΣ study (*tab. 16-7*):

no	HOSPITAL	ADDRESS	STAIR	STEPS	RAMP	RAILING	ELEV.	SIZE	COMMENTS	EVALUATION
1	Αεροπορίας	Τέρμα Κατεχάκη	yes	4	no	no	yes	normal		good
2	Αρσακίου	Βασ.Σοφίας 76	yes	4	no	no	yes	normal		good
3	Αιγνήτειον	Βασ.Σοφίας 72	no	-	-	-	no	-	3 upper floors without elevator	very good (?)
4	Άγιος Σάββας	Αλεξάνδρας 171	no	-	-	-	yes	normal	entrance of new building ok	very good
5	Αγία Όλγα	Βασ.Ολγας Ν.Ιωνία	yes	4	no	no	no	-	outpatients' dept. 4 steps to west	bad (?)
6	Αλεξάνδρα	Βασ.Σοφίας 80	no	-	-	-	yes	normal		very good
7	Γενικό Νίκαιας	Π.Ράλλη & Φαναριωτών 6	yes	2	no	no	yes	normal		good
8	Δρομοκάτω	Ιερά Οδός 343	yes	10\15	no	no	yes	normal	all entrances inaccessible	very bad
9	Δημόσιο Ψυχιατρείο	Δάφνη	yes	10\15	no	no	yes	-	many entrances inaccessible	very bad
10	Δημ.Νοσ.Αθηνών Ελπίς	Τριφυλιός & Δημητσάνης	no	-	yes	no	yes	normal		very bad (?)
11	Ερυθρός Σταυρός	Αμπελόκηποι	yes	3	no	no	yes	normal	ramp at outpatients' dept	good
12	Ευαγγελισμός Entr.1	Μαρόαλη	yes	1	yes	-	yes	normal		very good
	Ευαγγελισμός Entr.2	Ακρωτιάς	no	-	-	-	yes	normal		(very good)
	Ευαγγελισμός Entr.3	Υψηλάντου	yes	15	no	no	yes	normal	entrance impossible	(very bad)
13	Ε.Γ.Α.Α.	Λεωφ.Φυλής	no	-	-	-	yes	normal		very good
14	Ιπποκράτειο	Βασ.Σοφίας 114	yes	5	no	no	yes	normal		medium
15	Κ.Α.Τ.	Νίκης 2, Κηφισιά	no	-	-	-	yes	normal		very good
16	Λαϊκό	Αγίου Θωμά 17	no	-	-	-	yes	normal		good (?)
17	Μαξιά (Περαίας)	Μπότσιας 61	yes	4	no	no	yes	normal		good
18	Μακρυγιάννη Μ. Ηλιάδη	Πλ. Ελ.Βενιζέλου	yes	3	no	no	yes	normal	2nd entrance has many steps	good
19	Νήμις Entr.1	Μονής Πετράκη 10	no	-	-	-	-	-		very good (?)
	Νήμις Entr.2		yes	3\4	-	-	yes	small		(very bad)
	Νήμις Entr.3		yes	10	-	-	yes	normal	new building has many problems	(very bad (?)?)
20	Οφθαλμιατρείο	Ελ.Βενιζέλου 26	yes	6	no	no	yes	-	old building - ground-floor	medium
21	Πολυκλινική	Περαίας 3	yes	2	no	no	yes	normal		good
22	Παμμακαρίστos	Ιακωβάτων 43	yes	3	no	no	no	-		good (?)
23	ΠΙΚΠΑ Πεντέλης	Πεντέλη	yes	-	yes	yes	-	-		very good (?)
24	Παίδων Αγλ. Κυριακού	Θηβών & Λεβαθειάς	yes	10\15	no	no	yes	normal	old building	very bad
25	Παίδων Αγ. Σοφίας	Τέρμα Μ.Ασίας	no	-	-	-	yes	normal		very good
26	Ρυθμιστικό	Μεσογείων	yes	1	yes	yes	yes	normal		very good
27	Συγγρού	Δραγαζίμη 5	yes	5\6	no	no	no	-	ground-floor only	medium
28	Σωτηρία	Μεσογείων	yes	4	no	no	yes	normal	many independent buildings	good
29	Τσαγγάρη	Πλ.Τσαγγάρη, Μελάσσα	no	-	-	-	yes	normal		very good
30	401 Στρατιωτικό	Μεσογείων	no	-	yes	-	yes	normal		very good
31	Ναυτικό ΝΝΑ	Δεσφιάτου 70	no	-	yes	no	yes	normal		very good

Tab. 16-7: Accessibility conditions in 31 hospitals in Athens in 1984

In this table, as well, some errors have to be remarked. First of all, in the original table of the ΕΠΣ there is no evaluation available for the ΠΙΚΠΑ Penteli Hospital (row 23), although all criteria have been filled out. The author judged, that this hospital is 'very good' accessible, as there is a ramp available at entrances. Furthermore, the original table notes that the Aiginiteion Hospital (row 3), the Agia Olga Hospital (row 5) and the Pammakaristos Hospital (row 22) are evaluated 'very good', 'bad' and 'good' accessible respectively, although there seem to be no elevators available (see evaluation criteria in the table above). Besides this, the Elpis Hospital (row 10) and the Laiko Hospital (row 16) should have been judged 'very good' accessible, as they seem to fulfil all needed criteria.

As the explicative text of the ΕΠΣ research refers to 5 instead of 4 'very bad' accessible hospitals and in consequence to 9 instead of 10 'good' accessible hospitals, the author made only one change by the means of color in the table above (the evaluation of the

Pammakaristos Hospital (row 22) has been changed from 'good' into 'very bad'), so as to keep to the data of the original publication of the ΕΠΣ.

All 31 hospitals still exist and were revisited in 2004. The one change is that the Nimits Hospital (row 19) is accessible from only one entrance today. As building complexes are outspread and have more than one entrance, supplementary data and specifications derive either from the hospital's security staff at entrance gates or from employees in the hospital's technical services. The table below gives the detailed data (tab. 16-8):

a/a	HOSPITAL	ADDRESS	STAIR	STEPS	RAMP	M. ENTR.	ELEV.	SIZE	WC	PARK.	COMMENTS	EVALUATION
1	251 Γενικό Αιμορροϊδίας	Αλίου-Κατεχάκη & Μεσογείων	yes	1+1	yes	yes	yes	6 pers.	yes	yes	toilet only at outpatients' dept.	very good
2	Αρτάρειον	Βασ. Σοφίας 76	yes	4 to 5	yes	yes	yes	4 pers.	no	no	not all entrances accessible, project for toilet	very good
3	Αιγνήτειον	Δ. Αιγνήτιου 1	no	-	yes	yes	yes	8 pers.	yes	no	toilet on roof (outskld)	very good
4	Αγιος Σάββας	Αλεξάνδρας 171	no	-	yes	yes	yes	3 pers.	yes	no	not all entrances accessible	very good
5	Αγία Όλγα	Αγ. Όλγας 3-5, Ν. Ιωνία	no	-	yes	-	yes	10 pers.	no	no	special phone	very good
6	Αλεξάνδρα	Κ. Λούρου & Βασ. Σοφίας 60	yes	1	yes	yes	yes	8 pers.	yes	yes	sp. park. in front of hospital	very good
7	Νίκαιας-Αγ.Λαυτεντιμήμον	Φαναριωτών 6 & Πέτρου Ράλλου	yes	2 to 11	yes	yes	yes	10 pers.	yes	yes	not all entrances accessible, but stair-lift at kidney section	very good
8	Δρομοκαΐτιο	Ιερά Οδός 343, Χαϊδάρι	yes	1 to 15	yes/no	no	no	-	yes	no	old buildings with no access to 2nd or 3rd floor	very bad (?)
9	Δημόσιο Ψυχιατρείο	Λεωφ. Καβάλας 360, Χαϊδάρι	yes	1 to 5	yes	yes	yes	8 pers.	yes	yes	new buildings - all accessible	very good
10	Δημ.Νοσ.Αθηνών Ελπίς	Δημισιάνας 7	yes	9+3	yes	no	yes	13 pers.	yes	yes	is being renovated	very good
11	Ερυθρός Σταυρός - Κοργιαλίτιο-Μπινακείο	Ερ. Σταυρού & Αθανασάκη	yes	1+3	yes	no	yes	8 pers.	yes	no	ramp at outpatients' dept.	very good
12	Ευαγγελισμός Επίτ.1	Μαρσική	yes	4	yes	yes	yes	10 pers.	yes	no		very good
	Ευαγγελισμός Επίτ.2	1. Διαμαντή Πατέρα	yes	5	yes	yes	yes	12 pers.	yes	no		(very good)
	Ευαγγελισμός Επίτ.3	Υψηλώντου 45-47	yes	1+15	no	-	yes	5 pers.	no	no	access from other gates	(very bad)
13	Ε.Ι.Α.Α. (Εθν. Κέντρο Αποκατάστασης Ατόμων με Κινητή Αναπηρία)	Λεωφ. Χασιάς, Ίλιον	no	-	yes	yes	yes	15 pers.	yes	yes	toilets not properly equipped	very good
14	Ιπποκράτειο	Αγγ. Πυρρή & Βασ. Σοφίας 114	yes	3+7	yes	yes	yes	5 pers.	yes	no		very good
15	Κ.Α.Τ.	Νίκης 2, Κηφισιά	no	-	yes	yes	yes	14 pers.	no	no		very good
16	Λαϊκό	Αγ. Θωμά 17	yes/no	3+3	yes	yes	yes	8 pers.	no	no		very good
17	Μεταξά (Πειραιώς)	Μηροδία 51, Πειραιάς	yes	9+3	yes	yes	yes	10 pers.	yes	yes		very good
18	Μαιευτήριο Μ.Ηλιάδη & Ε.Α.Βενιζέλου	Πλ. ΕΑ Βενιζέλου 2	yes	2+1	yes	yes	yes	2 pers.	yes	no	spec.park. will be made, elev. too small in some buildings	very good
19	Νίμιτς	Βλαδ. Μπένση	yes	1+2+1	yes	yes	yes	10 pers.	no	no	not all entrances accessible	very good
20	Οφθαλμιατρείο	Σίνα 2	yes	2	lift	-	lift	-	yes	no	4-7 steps into some buildings	medium
21	Πολυκλινική Αθηνών	Παναγή Τσαλδάρη 3	yes	3	yes	yes	yes	14 pers.	no	no		very good
22	Παρμακάριστος	Ιακωβάτων 43	yes	1	yes	yes	yes	12 pers.	no	yes	acc. only up to 2nd floor (wards)	very good
23	Παιδών Πεντέλης (ΠΙΚΠΑ)	Ιπποκράτους 2, Παλαιά Πεντέλη	yes	1+7	lift	-	yes	10 pers.	no	yes		very good
24	Παιδών Αγλ.Κυριακού	Θηβών & Λεβαδιάς	yes	5+10+9	yes	no	yes	8 pers.	yes	yes	entrance from outpatients' dept.	very good
25	Παιδών Αγ.Σοφία	Θηβών & Παπαδιαμαντοπούλου	yes	1	yes	yes	yes	8 pers.	yes	yes		very good
26	Γενικό Γ.Γιωνματά	Μεσογείων 154	yes	1 to 5	yes	yes	yes	8 pers.	yes	no		very good
27	Συγγρού	Δραγομή 5	yes	1	yes	yes	no	-	no	no	upper floors inaccessible	very good
28	Σωτηρία	Μεσογείων 152	yes	2+3	yes	yes	yes	8 pers.	no	no		very good
29	Τσαγγάρη Αμ. Φλίμινγκ	25ης Μαρτίου, Μετσοβία	no	-	yes	yes	yes	6 pers.	no	yes		very good
30	401 Γενικό Στρατιωτικό	Αλίου-Κατεχάκη & Μεσογείων	yes	5 to 7	yes	no	yes	4 pers.	yes	no	toilet only in outpatients' dept.	very good
31	Ναυτικό ΝΗΑ	Δαναοκράτους 70	yes	3	yes	yes	yes	10 pers.	yes	no		very good

Tab. 16-8: Accessibility conditions in 31 hospitals in Athens in 2004



Considering the reference numbers deriving from the ΕΠΣ study's text, the following figure (fig. 16-5) gives an overview on the **degree of improvement of accessibility in hospitals in the municipality of Athens in 1984 compared to the situation in 2004:**

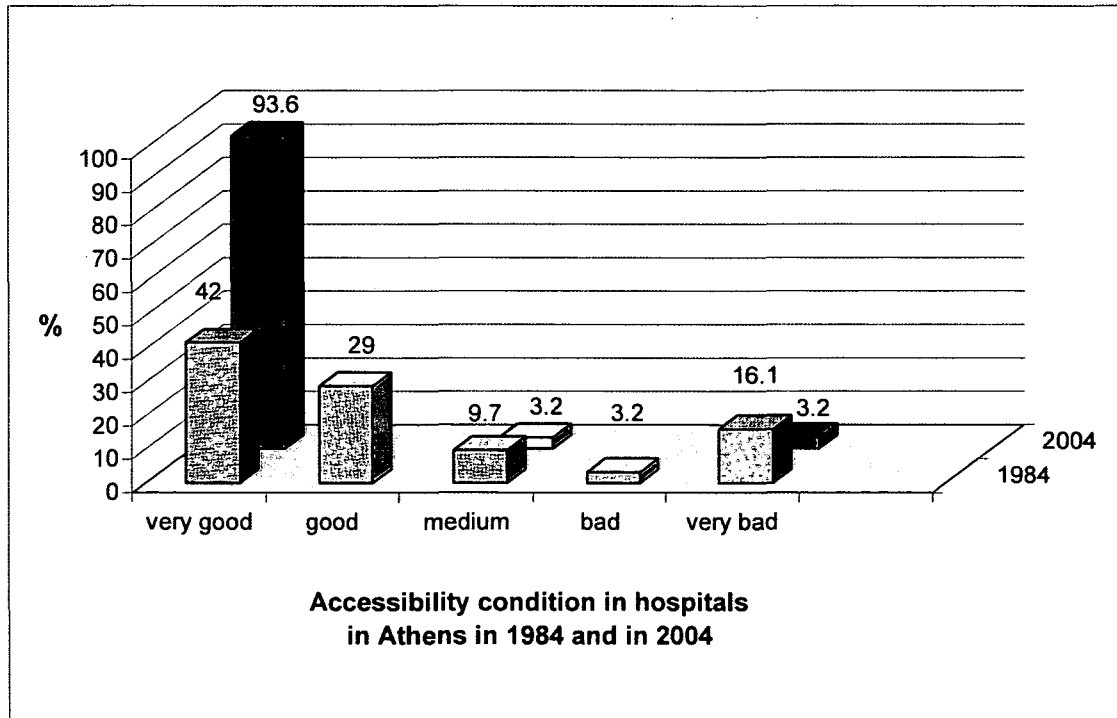


Fig. 16-5: Comparative evaluation of accessibility conditions in hospitals in Athens 1984 and in 2004

The present situation in Athens' hospitals regarding accessibility is quite alike the one found in the ministerial buildings discussed before. Today, **almost all evaluated hospitals are wheelchair-accessible** at least at one of their entrances (93,6%). The most significant example of the application of UD and UA guidelines is the Psychiatric Hospital complex at Daphni (row 9), where all buildings were severely damaged during the last big earthquake in Athens a few years ago. The whole area is being rebuilt and all new buildings are a positive example concerning accessible hospital buildings. Besides this, many hospitals do have interior corridors that link buildings that from the outside are inaccessible (e.g. Elpis Hospital (row 10) or 401 Hospital (row 30)). The medium example is the ophthalmologic clinic at Sina (row 20), which awaits financing in order to become completely accessible. Finally, the only exception is the psychiatric clinic of Dromokaiteio (row 8), a complex of many old, detached buildings, which remain only partly accessible, if at all.

However, it has to be mentioned, that most of these hospitals are situated in very old and sometimes even preservable buildings, where adaptations are very difficult to be made or where technical services have not managed to obtain the necessary permit to start adaptation and/or renovation works. Thus, in many cases, access to hospitals is only guaranteed through the entrance of the outpatients' department. Siggrou Hospital (row 27) is only accessible on its ground-floor (but there are no treatment sectors located on upper floors) or at the Pammakaristos Hospital (row 22) wards are only accessible up to the 2nd

floor. But, the most important **problem in many hospital complexes is, that administrative buildings, cafeterias and/or restaurants, remain inaccessible** until today (e.g. Ag. Savvas Hospital (row 4), Ippokrateio Hospital (row 14)).

Besides these adaptations, the **application of UD guidelines during the last twenty years has been rather poor in hospitals.** The following table gives an overview on the limited existence of facilitating equipment in hospitals as recorded during the evaluation in 2004 (tab. 16-9):

<b>Facilitations</b>	<b>Special Parking Lot</b>	<b>Wh. WC</b>	<b>lowered Counter</b>	<b>Acc. water fountain</b>
<b>Public Service</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
31 Hospitals (in 2004)	38,7	67,7	0,0	3,2

Tab. 16-9: Existence of facilitating equipment in 31 hospitals in Athens (2004)

The situation of parking is generally dramatic in Athens; the situation in hospital complexes represents no exception. Although most of the hospitals have some parking spaces inside the complex or in front of it, only about one third of all evaluated examples (38,7%) do have parking lots for wheelchair users. Even more alarming is the fact, that only in one hospital (Paidon Penteli (row 23)) the signed spaces were actually kept free. In all other cases, these lots were occupied by visiting cars sometimes even in two rows!

The existence of toilets usable for wheelchair users is somehow better: 67,6% of all hospitals has adapted some space to build at least one toilet for wheelchair users. However, it has to be noted, that often there is only one toilet available in a whole building complex, many times situated in the nurse's training building. Besides this, facilitating equipment is almost not available in Greek hospitals. Out of all recorded examples, only the Ag. Olga Hospital (row 5) is equipped with a lowered phone for wheelchair users.

#### 16.4.4 EDUCATIONAL BUILDINGS: HIGHER-DEGREE EDUCATIONAL ESTABLISHMENTS

This chapter investigates the accessibility conditions to higher-degree educational buildings in Athens. The following table gives the detailed data on accessibility conditions **in 12 university and technological education institute buildings in Athens in 1984** (tab. 16-10):

α/α	UNIVERSITY	ADDRESS	STAIR	STEPS	RAMP	RAIL	ELEV.	SIZE	COMMENTS	EVALUATION
1	Πολυτεχνείο	Παιτησίων	yes	5/more	no	no	no	-	many independent buildings	very bad
2	Νομική Εντρ.1	Μητροπόλεως 15	yes	15	no	yes	yes	normal	old building	very bad
	Νομική Εντρ.2	Σίνα	yes	10	no	no	yes	normal	old building	(very bad (?))
3	Πάντειος Εντρ.1		yes	3+8	no	no	yes	normal	independent buildings	bad
	Πάντειος Εντρ.2	Αλ.Πάντου	yes	13	no	yes	yes	normal	independent buildings	(bad)
4	Ιατρική	Γουδί	yes	5 to 15	no	no	no	-	3 independent buildings	medium (?)
5	Αρσάκειος Παιδ. Ακαδημία	Π.Ψυχικά	yes	26	no	yes	no	-	old building	very bad
6	Γερμανική Φιλολογία	Ιπποκράτους	yes	9	no	no	yes	normal		bad
7	Γεωπονική	Βοτανικός	yes	10	no	no	no	-	old buildings inaccessible, new ones ok	bad (?)
8	Γεωλογική	Πανεπιστημιούπολη	yes	10 to 15	no	no	yes	normal		bad
9	ΚΑ.ΤΕΕ Αθηνών	Αιγάλεω	no	-	-	yes	no	-	three floors, no elevator	very bad
10	Κ.Α.ΤΕΕ Πειραιώς	Ν. Φάληρο	yes	-	no	no	no	-	two floors, old building	very bad
11	Χαροκόπειος	Βενκζέλου 70	yes	11	no	no	no	-	two floors	very bad
12	Σιβηριανίδιος	Καλλιθέα	yes	20	no	no	no	-	old building, steps to upper floors	very bad

Tab. 16-10: Accessibility conditions in 12 higher-degree educational buildings in Athens in 1984

20 years later, the same universities and technological institutes in Athens have been visited and re-evaluated by the author. Supplementary data and specifications derive either from interviews with the porters or the technical services' employees. It has to be mentioned, that the Arsakios Pedagogic Academy does not function anymore as a higher-degree educational establishment (today, in its buildings there are located classrooms belonging to primary education), thus no evaluation has been made. Besides this, Athens' Law School (row 2 and row 3) and Pantios University (row 4 and row 5) are situated in two main buildings today, which have been evaluated separately. The Medical Science University (row 6) and the Agriculture University (row 8) are located in many independent buildings, thus a general judgement has been given. Finally, the German Philology Department has moved into one floor of one building on Athens' University Campus. In the following, there is the data on access conditions in tertiary educational buildings in 2004 (tab. 16-11):

α/α	UNIVERSITY	ADDRESS	STAIR	STEPS	RAMP	M.ENTR	ELEV.	SIZE	WC	PARK.	COMMENTS	EVALUATION
1	Πολυτεχνείο	Παιτησίων 42	yes	4/more	yes	yes	yes	3 pers.	no	no	stairlift (as elevator too small)	very good
2	Νομική Εντρ.1	Ακαδημίας 45	yes	2	no	-	yes	6 pers.	no	no		good
3	Νομική Εντρ.2	Σόλωνος 57	yes	1+1	yes	yes	yes	3 pers.	no	no	stairlift (as elevator too small)	very good
4	Πάντειος Εντρ.1	Αλ.Πάντου	yes	12	yes	yes	yes	4 pers.	yes	yes	new building	very good
5	Πάντειος Εντρ.2	Φραγκούδη	yes	3+8	yes	no	yes	3 pers.	no	yes	old building	very good
6	Ιατρική	Μικράς Ασίας 75, Γουδί	yes	3/more	yes (lift)	yes	yes/no	5 pers.	yes	yes	all lecture halls are accessible	very good
	Αρσάκειος	Π.Ψυχικά	-	-	-	-	-	-	-	-	turned into a first-degree school	-
7	Γερμανική Φιλολογία	Πανεπιστημιούπολη	yes	>15	yes	no	yes	14 pers.	yes	yes	toilets are locked	very good
8	Γεωπονική	Ιερά Οδός 75	yes	7/more	no	-	yes	5 pers.	yes	no	elevator does not reach basement!!!, library fully accessible with sp. toilet	very bad
9	Γεωλογική	Πανεπιστημιούπολη	yes	11	yes	no	yes	5 pers.	yes	yes	sp. park. locked	very good
10	ΤΕΙ Αθηνών	Αγ. Σπυριδώνα & Δημητσάνας, Αιγάλεω	yes	1 to 7	yes	yes	yes	5 pers.	yes	no	all buildings accessible (only 1 from side-entr.), 2 sp. toilets in total	very good
11	ΤΕΙ Πειραιώς	Θηβών & Π. Ράλλω, Αιγάλεω	yes	1 to 13	yes	yes	yes	6 pers.	yes	no	all buildings are accessible, sp. toilet in every building	very good
12	Χαροκόπειος	Θησέως 70, Καλλιθέα	yes	5+2+3	yes	no	yes	big	yes	no	elevator locked	very good
13	Σιβηριανίδιος	Θεσσαλονίκης 151, Καλλιθέα	yes	7+7	yes	no	yes	big	yes	yes	sp. park. leads to elevator (but locked)	very good

Tab. 16-11: Accessibility conditions in 13 higher-degree educational buildings in Athens in 2004

The figure (fig. 16-6) below gives the comparative data on the **degree of improvement to higher-degree educational buildings** as far as accessibility is regarded:

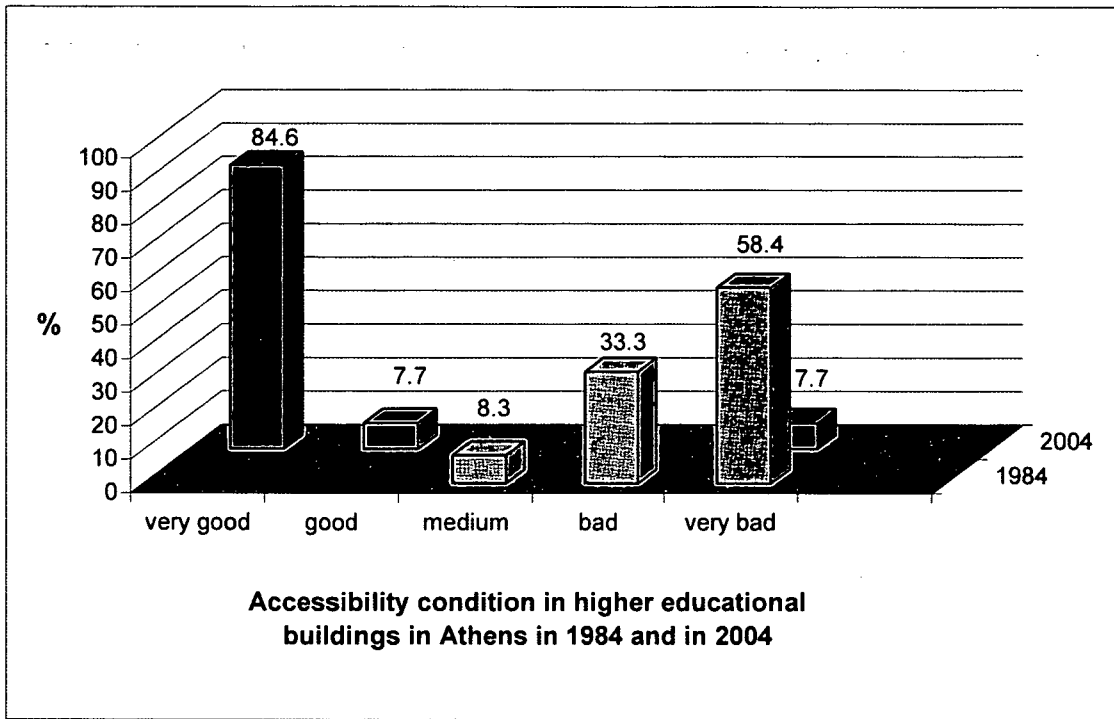


Fig. 16-6: Comparative evaluation of higher-degree educational buildings in Athens in 1984 and in 2004

Two decades ago, attending tertiary education was prohibitive for most PwD. Today, situation has changed to the best. Although most of the educational buildings are situated in old buildings, dating back to the beginning of the 20<sup>th</sup> century, some basic adaptations have been made during the past years to guarantee at least access for students with mobility impairments to lecture halls. However, **access to many administrative bureaus remains in certain cases problematic and sometimes even impossible** (Architecture (!) (row 1), Law School (row 2), University of Agriculture (row 8)).

Bad accessibility may be related to the following fact. For primary and secondary education buildings there exist guidelines for design, security measures and accident prevention proposed by the ΟΣΚ (Οργανισμός Σχολικών Κτηρίων - Organization for Educational Buildings), however not enacted, yet. For buildings used as ΚΕΚ (Κέντρο Ειδικής Κατάρτισης – Centers for Specialized Training) similar specifications enacted by the Greek Ministry of Labour are applied. But, **for third-degree educational buildings there are no all-over regulations published** by the Greek Ministry of Education and Religious Affairs. In conclusion, until today, some tertiary educational institutions continue to erect buildings without a construction permit. Other institutions have recently begun to apply for construction permits, but only for newer buildings. Furthermore, many services and departments are located in old, often preservable buildings, which make UA-implementations even more difficult (Πολυχρονίου et al., 2003).

In general, **efforts can be noted in almost every of the visited buildings**. Ramps have been placed at entrances and elevators have been integrated into nearly every building. Some faculties have even installed stair lifts, when the integrated elevator size is too small for wheelchair users (Architecture Faculty (row 1), Law School (row 3) and Medical Science University (row 6)). In some buildings, elevators were only usable by key (Charokopios University (row 12) and Sibitanidios School (row 13)). The only bad example remains the University of Agriculture (row 8), where even recent adaptations are short-minded. For instance, there was an elevator integrated into the main building, which does not lead to the basement, although several lecture halls are situated there!

As far as the existence of further equipment for wheelchair users is regarded, situation is rather disappointing (*tab. 16-12*):

Facilitations	Special Parking Lot	Wh. WC	lowered Counter	Acc. water fountain
<b>Higher-degree Education</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
13 buildings (in 2004)	46,2	69,2	0,0	0,0

Tab. 16-12: Existence of facilitating equipment in 13 higher-degree educational buildings in Athens (2004)

Only about half of all visited universities or technological institutes have parking lots for wheelchair users. It is remarkable, that the few existing spaces at the University Campus were padlocked, maybe in order to avoid their occupation by non-relevant users! Furthermore, out of the 69,2% of toilets for wheelchair users, most were not properly equipped and/or without light globes and others were even locked (University Campus)! But more **alarming is the fact, that Athens' Architectural School is not equipped with a toilet and a parking lot for wheelchair users, nor are the administrative offices and the library accessible for wheelchair users!** This fact underlines the ignorance of all engineers of the building sector towards UA questions. If it is not first and foremost inside their own department that future architects face positive building examples, where should it be then?

#### 16.4.5 CULTURAL BUILDINGS: MUSEUMS

In the following, the accessibility of museums will be investigated, representing a form of cultural education and entertainment. The table below shows in detail the accessibility conditions in 12 museums in Athens in 1984, as published by the ΕΠΣ (*tab. 16-13*):

αα	MUSEUM	ADDRESS	STAIR	STEPS	RAMP	RAIL.	ELEV.	SIZE	COMMENTS	EVALUATION
1	Εθνικό Αρχαιολογικό	Τουσίσα 1	yes	10	no	no	no	-		bad
2	Βυζαντινό	Βασ.Σοφίας 22	no	-	-	-	no	-	second floor inaccessible	very bad
3	Γουλιανδρή Φυσ. Ιστορίας	Λεβιάδου 13, Κηφισιά	yes	8	no	no	no	-	ground-floor and basement	medium (?)
4	Κεραμικός	Κεραμικού	yes	3	no	no	no	-		good
5	Λαογραφικό Χατζημηχάλη	Αγγ. Χατζημηχάλη 6	yes	16	no	no	no	-	two floors	very bad
6	Λαϊκής Τέχνης	Κυδαθηναίων 17	no	-	-	-	yes	normal		very good
7	Μπιπανάκη	Βασ. Σοφίας & Κουμπάρη	yes	13	no	yes	yes	normal		very bad (?)
8	Πολιμικό Μουσείο	Βασ. Σοφίας & Ριζάρη	yes	11	no	yes	no	-	ground-floor and basement	bad
9	Εθνική Πνακοθήκη	Βασ. Σοφίας & Βασ. Αλεξάνδρου	yes	10	no	no	no	-		bad
10	Δημοτική Πνακοθήκη	Παρακώς 51	yes	8	no	no	no	-	two floors; 30 steps	very bad
11	Ιστορικό Εθνικό Μουσείο	Παλιά Βουλή, Σταδίου	yes	20	no	no	no	-	ground-floor	very bad
12	Ναυτικό Μουσείο	Λιμάνι Ζέας, Φραειτούδα; Παρακώς	no	-	-	-	no	-	ground-floor	very bad (?)

Tab. 16-13: Accessibility conditions in 12 museums in Athens in 1984

In this table, as well, some errors seem to have occurred. The original table evaluates, that the Goulandri Museum (row 3) has 'medium' accessibility, though there is no elevator to serve wheelchair users to gain access to the exposition rooms in the basement. Thus, the author judges, that it should have been evaluated 'very bad' accessible. Moreover, the Benaki Museum (row 7) has been evaluated 'very bad' accessible, though its 13 steps should have lead to 'bad' accessibility. Finally, the Nautical Museum (row 12) is evaluated 'very bad' accessible, though its exposition is only on the ground floor and there are no steps to hinder entering the building.

As the explicative text of the ΕΠΣ study refers to 2 instead of 1 'very good' accessible museums and in consequence to 5 instead of 6 'very bad' accessible buildings, the author changed the accessibility evaluation of the Nautical Museum (row 12) by color into 'very good' accessible, in order to keep to the data originating from the ΕΠΣ publication.

In 2004, these 12 museums were re-visited and re-evaluated. Supplementary data and specifications derive from porters or employees at information or ticket desks. Hereunder are the recent evaluations and their criteria (tab. 16-14):

αα	MUSEUM	ADDRESS	STAIR	STEPS	RAMP	M. ENTR.	ELEV.	SIZE	WC	PARK.	COMMENTS	EVALUATION
1	Εθνικό Αρχαιολογικό	Πατισίων	yes	2	yes	yes	no	-	yes	no	no lift or ramp	very good
2	Βυζαντινό	Βασ.Σοφίας 22, Κολωνάκι	no	-	yes	-	yes	10 pers.	yes	no	special ramp to main floor, elevator to second floor (lift) (11/9)	very good
3	Γουλιανδρή Φυσικής Ιστορίας										no lift or ramp	(very good)
4	Κεραμικός		yes	3 (?)	yes	yes	no	-	no	no	no lift or ramp	(very good)
5	Κέντρο Λαϊκής Τέχνης & Παράδοσης	Αγγ. Χατζημηχάλη 6, Πλάκα	yes	3+13	no	-	no	-	no	no	entrance 2nd floor with 17 steps	very bad
6	Λαϊκής Τέχνης	Κυδαθηναίων 17, Πλάκα	no	-	-	-	yes	4 pers.	no	no	all floors except 2nd-floor accessible	very good
7	Μπιπανάκη	Κουμπάρη 1, Κολωνάκι	yes	2+3	yes	no	yes	6 pers.	yes	no	no lift ramp; ground floor can be used	very good
8	Πολιμικό	Ριζάρη 2, Κολωνάκι	yes	8+8	yes	no	yes	8 pers.	yes	no	elevator from ground floor; no lift or ramp; ground floor can be used with special ramp	very good
9	Εθνική Πνακοθήκη	Βασ. Κωνσταντίνου 50	yes	3+7	lift	yes	yes	8 pers.	yes	no		very good
10	Πνακοθήκη Δήμου Αθηναίων	Παρακώς 51	yes	1+9	no	-	no	-	no	no	no lift or ramp	(very good)
11	Ιστορικό Εθνικό	Παλιά Βουλή, Σταδίου 13	yes	21	no	-	no	-	no	no		very bad
12	Ναυτικό Μουσείο Ελλάδας	Ακτή Θεμιστοκλέους, Παρακώς	yes	1+1	no	-	no	-	no	no	no lift or ramp; ramp to 2nd floor	good

Tab. 16-14: Accessibility conditions in 12 museums in Athens in 2004

Considering the data of the ΕΠΣ study, the following figure provides an overview on **accessibility conditions to museum buildings in Athens in 1984 compared to the situation in 2004** (fig. 16-7):

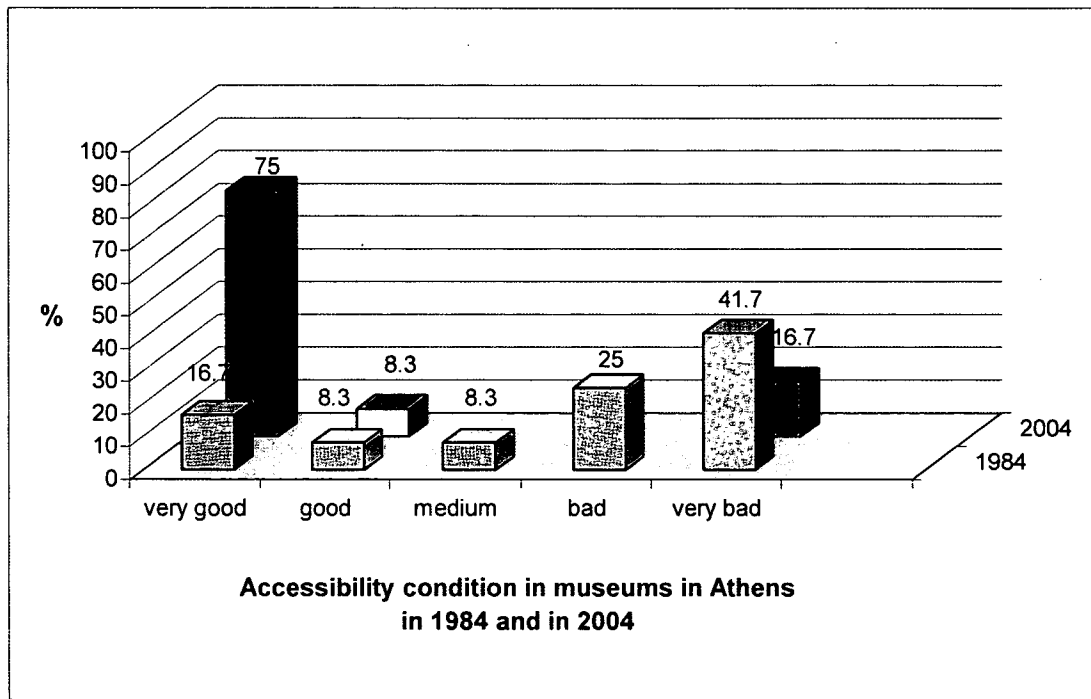


Fig. 16-7: Comparative evaluation of museum buildings in Athens in 1984 and in 2004

The **improvement of the accessibility situation is quite obvious**. Today, 2/3 of all museums are accessible. There remain two problematic buildings, both preservable ones, which do not have any facilitation at all for people with mobility impairments. These are the Folklore Art Centre (row 5) and the National Historic Museum (row 11), where exhibits are located on upper floors.

However, besides the improved situation in access, little supportive equipment has been installed. No explicit reference will be made, as during the survey's period three museums were being renovated and adapted. As regards parking lots, the Byzantine Museum (row 2) has applied for the creation of a parking lot for wheelchair users and this project was expected in the near future. Furthermore, wheelchair users can park in the War Museum's garage (row 8) with a permit. Finally, the Benaki Museum (row 7) and the Nautical Museum (pt12) do have (dis-) embarkation spaces in front of their buildings that can be used.

#### 16.4.6 CULTURAL AND ENTERTAINMENT BUILDINGS: THEATRES

In this chapter, accessibility of theatres will be looked at. The following table gives the detailed data on the accessibility conditions in 38 theatres in Athens in 1984, as published by the ΕΠΣ (tab. 16-15):

№	THEATRE	ADDRESS	STAIR	STEPS	RAMP	RAILING	ELEVATOR	SIZE	EVALUATION
1	Αθηνά	Δερρινού 10	yes	10	no	no	no	-	bad
2	Αθηναίων	Ακαδημίας 9	yes	25	no	no	no	-	very bad
3	Αθηνών	Βουκουρεστίου 10	yes	20-30	no	yes	no	-	very bad
4	Ακαδήμιος	Ιπποκράτους 17-19	yes	40	no	yes	no	-	very bad
5	Ακροπόλ	Ιπποκράτους 9	yes	3	no	no	yes	normal	good
6	Αλάμπρα	Στουρνάρα 53	yes	40	no	yes	no	-	very bad
7	Αλίκη	Αμερικής 4	yes	15	no	yes	no	-	very bad
8	Άλφα	Πατησίων 37	yes	25	no	yes	no	-	very bad
9	Αμυράλ	Αμερικής 18	yes	25	no	yes	no	-	very bad
10	Αναλύτη	Πατησίων 72	yes	15 to 20	no	yes	no	-	very bad
11	Αντιθέατρο	Κοδριγκιώνος 2	yes	10	no	yes	no	-	bad
12	Αποθήκη	Σαρρή 10	yes (?)	-	-	-	-	-	very good
13	Βεάκη	Στουρνάρα 32	yes	40	no	yes	no	-	very good (?)
14	Βέργη	Βουκουρεστίου 1	yes	15	no	yes	no	-	very bad
15	Βέμπο	Καρόλου 18	yes	6	no	-	no	-	medium
16	Βρετανία	Πανεπιστημίου 7	yes	45 to 50	no	-	no	-	very bad
17	Γκλόρια	Ιπποκράτους 7	yes	9	no	-	no	-	bad
18	Διάνα	Ιπποκράτους 7	yes	20	no	yes	no	-	very bad
19	Διονύσια	Αμερικής 10	yes	15 to 20	no	-	no	-	very bad
20	Εθνικό	Αγ. Κωνσταντίνου 24	yes	3 to 5	no	no	no	-	good
21	Ένα	Φιλολάου 178	yes	4	no	no	no	-	good
22	Έρευνα	Ιλισίων 21	no	-	-	-	no	-	very good
23	Πειραιά	Αλκιβιάδου 104-106	yes	20	no	no	no	-	very good (?)
24	Κάππα	Κυψέλης 4	yes	3	-	-	no	-	good
25	Κέα	Κακροπος 7	yes	5	-	yes	no	-	medium
26	Κυκλάδων	Κυκλάδων	no	-	-	-	-	-	very good
27	Λουζιζάνια	Ευελπίδων 47	yes	10	no	no	no	-	bad
28	Μίνωα	Ευελπίδων 47	no	-	-	-	no	-	very good
29	Μουσούρη	Πλ. Καρύση	yes	15	no	yes	no	-	very good (?)
30	Μπρόνγκουσαιη	Πατησίων & Αγ. Μελετίου	no	-	-	-	yes	-	very good
31	Όρβο	Βουκουρεστίου 16	yes	25 to 30	no	-	yes	-	very bad
32	Πορεία	Τρικάρφων 3	yes	3 to 4	no	no	no	-	good
33	Πόρτα	Μεσογείων	yes	10	no	no	no	-	very good (?)
34	Ρεξ	Πανεπιστημίου 48	no	-	-	-	yes	-	very good
35	Σούπερ Σιταρ	Αγ. Μελετίου	no	-	-	-	yes	-	very good
36	Στοά	1η Στάση Ζωγράφου	yes	10	no	-	no	-	bad
37	Τέχνης	Σταδίου 52	yes	20	-	-	-	-	very bad
38	Χατζηχρήστου	Πανεπιστημίου 38	yes	20	no	no	no	-	very bad

Tab. 16-15: Accessibility conditions in 38 theatres in Athens in 1984



It has to be remarked, that in this table some errors have been detected, as well. The Veaki Theatre (row 13), the Pirea Theatre (row 23) and the Mousouri Theatre (row 29) have been evaluated 'very good' accessible, although their criteria leads to the conclusion of 'very bad' accessibility. In addition, the Porta Theatre (row 33) has been judged 'very good' accessible, too, although it seems to be 'bad' accessible.

The ΕΠΣ text refers to 7 instead of 11 'very good' accessible theatres and in consequence to 6 instead of 5 'bad' and to 18 instead of 15 'very bad' accessible buildings. As these data correspond exactly with the mentioned-above mistakes, the author changed the evaluation of these four theatres by color into 'very bad' accessible.

As far as the **re-evaluation** is concerned, **certain changes** have to be remarked at this point. During the last two decades, eight theatres existing in the ΕΠΣ study's table have been closed. These are: Aliki Theatre, Vergi Theatre, Ena Theatre, Ereuna Theatre, Pirea Theatre, Louzitzania Theatre, Orvo Theatre and Superstar Theatre. Furthermore, three theatres did not have performances from November 2003 until January 2004 and thus could not be visited by the author (Alambra Theatre, Antitheatro and Kea Theatre). Finally, some theatres did change their names during the last years. This means that Athinaion Theatre turned into Tzeni Karezi Theatre, Dionisia Theatre turned into Dimitris Horn Theatre, Kikladon Theatre turned into Odou Kefallinias Theatre and Chatzichristos Theatre turned into Orfeas Theatre. The table below (*tab. 16-16*) gives the detailed data on **accessibility conditions of 27 operating theatre buildings in Athens in 2004**, as derives from the visit of the author and the information of owners, employees at ticket desks and/or usherettes/ushers:

αα	THEATRE	ADDRESS	STAIR	STEPS	RAMP	M.ENTR	ELEV.	WC	PARK.	COMMENTS	EVALUATION
1	Αθήνα	Δερignon 10 & Πατησίων	yes	3+2	no	-	no	no	no		medium
2	Τζένη Καρέζη	Ακαδημίας 3	yes	>15	no	-	no	no	no	changed its name	very bad
3	Αθηνών	Βουκουρεστίου 10	yes	>15	no	-	no	no	no		very bad
4	Ακάδημος	Ιπποκράτους 17	yes	>15	no	yes	lift	no	no	stairs after 1+3 steps	good
5	Άκροπολ-Νία Σκηνή Ε.Λ.Σ.	Ιπποκράτους 9-11	yes	1+3	no	-	no	no	no	changed its name	good
-	Alambra	Στουρνάρη 53	-	-	-	-	-	-	-	no performance	-
-	Αλία	Αμερικής 4	-	-	-	-	-	-	-	closed	-
6	Άλφα	Πατησίων 37	yes	>15	no	-	no	no	no		very bad
7	Αμυράλ	Αμερικής 10	yes	>15	-	-	no	no	no		very bad
8	Αναλήτη	Αντωνιάδου & Πατησίων	yes	>15	no	-	no	no	no	applied for curb cut	very bad
-	Antitheatro	Μουσουργών 35	-	-	-	-	-	-	-	no performance	-
9	Αποθήκη - ΑΛΓεωργούλη	Σαρρή 40, Ψυρρή	yes	1	no	-	no	no	no		good
10	Βεάκη	Στουρνάρη 32	yes	>15	no	-	no	no	no		very bad
-	Βέρμη	Βουκουρεστίου 1	-	-	-	-	-	-	-	closed	-
11	Βίμπο	Καρόλου 18, Μεταξουργείο	yes	3	no	-	no	no	no		good
12	Βρετανία	Πανεπιστημίου 7	yes	>15	no	-	no	no	no		very bad
13	Γκλόρια	Ιπποκράτους 7	yes	9	no	-	no	no	no		bad
14	Διάνα Refesh	Ιπποκράτους 7	yes	10	no	-	no	no	no		bad
15	Δημήτρης Χορν	Αμερικής 10	yes	3+6	no	-	no	no	no	changed its name	bad
16	Εθνικό-Πειραματικό	Αγ.Κωνσταντίνου 22-24	yes	1	no	-	no	no	no	2nd stage over 15 steps, theater is being renovated	good
-	Ενα	Φυλακού 178	-	-	-	-	-	-	-	closed	-
-	Ερευνα	Ιλίου 21, Ζωγράφου	-	-	-	-	-	-	-	closed	-
-	Περσέ	-	-	-	-	-	-	-	-	closed	-

no	THEATRE	ADDRESS	STAIR	STEPS	RAMP	M. ENTR	ELEV.	WC	PARK.	COMMENTS	EVALUATION
17	Κάππα	Κυψέλης 2	yes	1+3	no	-	no	no	no		good
	Ελέα	Κερατσός 7								no performance	
18	Οδού Κιφαλληνίας	Κιφαλληνίας & Κυκλάδων	no	-	-	yes	no	no	no	2nd stage moving to ground-floor, changed its name	very good
	Λουίζιάννα	Ευελπίων 47								closed	
19	Μίνωα	Πατησίων 91	yes	1	no	-	no	no	on		good
20	Μουσούρη	Πλ. Καρύτιση 6	yes	15	no	-	no	no	no		very bad
21	Μπρόντγουαση	Αγ. Μελετίου 61	yes	>15	no	-	yes	no	no		very good
	Ορφο	Θουκυραπίου 15	-	-	-	-	-	-	-	closed	
22	Πορτία	Τρικρόφων. 3-5, Πλ. Βικτωρίας	yes	1	yes	yes	-	yes	no	4 steps inside without ramp	good
23	Πόρτα	Μεσογείων 59	yes	15	no	-	no	no	no		very bad
24	Ρεξ - Εθνικό Κ. Παζανού	Πανεπιστημίου 48	yes	>15	-	-	yes	no	no	1 step in front of elevator	good
	Σούπερ Στιφ	Αγ. Μελετίου	-	-	-	-	-	-	-	closed	
25	Στοά	Μπισκινί 55, Ζωγράφου	yes	2+5+5	no	-	no	no	no	4 steps from emergency exit	good
26	Τίχνης - Υπόγειο - Κ. Κου	Πασαράζογλου 5	yes	>15	no	-	no	no	no		very bad
27	Ορφείας	Πανεπιστημίου 38	yes	>15	no	-	no	no	no	changed its name	very bad

Tab. 16-16: Accessibility conditions in 27 theatres in Athens in 2004

Considering the important changes in the number of still existing theatres, the following figure (fig. 16-8) provides a comparison between the 27 theatres, which do still operate and had performances in 2004:

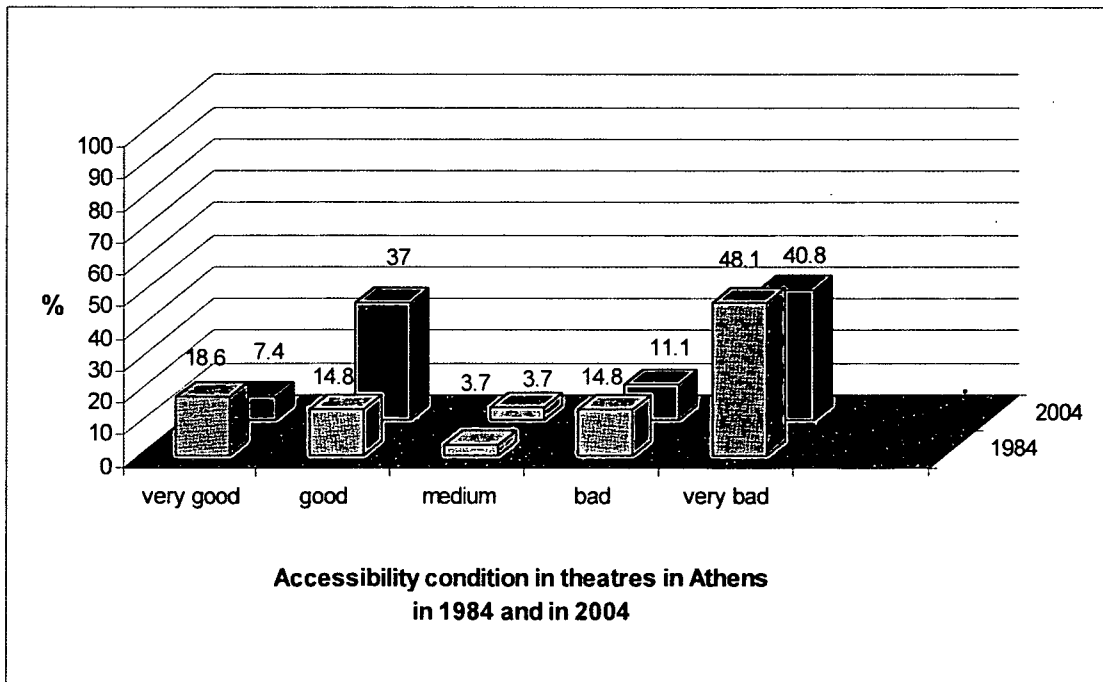


Fig. 16-8: Comparative evaluation of those 27 theatres from 1984 that still operate in 2004

This comparison clearly shows, that **almost no changes** have occurred during the last two decades in the sector of these cultural and entertainment buildings. One main problem lies in the fact, that most theatres are situated in basements. As theatres mostly belong to private owners, no subvention on the part of the state has taken place. It lies in the hand of its

owners to foresee access or not. In conclusion, the only theatre having made an adaptation as far as accessibility is regarded, is the Akadimos Theatre (row 4 in both tables), where a stair lift has been placed, in order to make this subterranean performance hall somehow accessible. However, the landing and three more steps have to be surpassed before reaching this stair lift!

It is the National Theatre (row 20 in the table of 1984 and row 16 in the table of 2004), where a renovation procedure has been started, in order to make its second stage accessible as well. The 2nd stage of the Odou Kefallinias Theatre (row 26 and row 18 respectively) will move also into another ground floor space until 2005, so as to become accessible for everyone without problems.

However, some of the theatres, that were evaluated 'very good' accessible by the ΕΠΣ research, in reality are only 'good' accessible, as it seems that the landing has not been taken into account in the older evaluation, for instance at the Apothiki Theatre (row 12 in the table of 1984 and row 9 in the table of 2004), the Minoa Theatre (row 28 and row 19 respectively) and the Rex Theatre (row 34 and row 24 respectively). Furthermore, the Porta Theatre (row 33 and row 23 respectively), has today 15 steps until the spectators reaches the theatre hall, thus it is 'very bad' accessible, instead of being judged 'bad' accessible twenty years ago. However, today, the Stoa Theatre (row 36 in the table of 1984 and row 25 in the table of 2004) can be entered from its emergency exit, where only 4 steps (instead of 10 steps) at its main entrance. In consequence, the theatre is now 'good' accessible, instead of 'bad' accessible two decades ago.

Besides this, the Webo Theatre (row 15 and row 11 respectively) turned into 'good' accessible, as less steps were counted in 2004. The Athina Theatre (row 1 in both tables) turned from 'bad' accessible into 'medium' accessible due to a reduction of steps, as well. Equivalent, the Diana Refresh Theatre (row 18 in the table of 1984 and row 14 in the table of 2004) and the Dimitris Horn Theatre (row 19 and row 15 respectively) from 'very bad' accessible turned into 'bad' accessible, as the number of steps until one reaches the performance hall has been reduced a little (or was wrongly counted twenty years ago).

It is obvious, that apart from one actor, who happens to be the owner of the Akadimos Theatre, **no interest in accessibility adaptations has been shown in theatre buildings over the last years.** As in general, Athens' theatres have no spectators' parking spaces, no parking lots for wheelchair users exist, but there are also no spaces for (dis-) embarkation in front of the theatre buildings available. Moreover, most theatres' toilets are either located on an upper or lower level as the stage and/or entrance level, thus further steps are obstacles to enter those rooms. The only theatre having created a toilet for wheelchair users is the Poreia Theatre (row 22). However, access into the performance hall is only possible by overcoming 4 steps and there is no ramp!

According to this comparative study, results deriving from a research published in a newspaper-article of 2003 will be given: out of 57 theatres only 7 (12,3%) were found

appropriate equipped for wheelchair users (whatever that means)! (Χαραλαμπίκης, 2003) But it is even more alarming, that not even the director of Acropolis Theatre (row 5), usherettes/ushers or ticket desk employees knew, that it is provided with a removable wooden ramp, which can be placed in the arcade when needed and therefore is 'very good' accessible!

16.4.7 ENTERTAINMENT BUILDINGS: CINEMAS

The last table of the ΕΠΣ study analyses cinemas, as another form of entertainment buildings. The following table (tab. 16-17) gives the **accessibility conditions in 31 cinemas in 1984** as registered by ΕΠΣ:

α/α	CINEMA	ADDRESS	STAIR	STEPS	RAMP	RAILING	ELEVATOR	SIZE	EVALUATION
1	Αθήναϊον	Βασ.Σοφίας 182	yes	9	no	no	-	-	bad
2	Αλεξάνδρα	Πατησίων 79	yes	20	no	yes	-	-	very bad
3	Αλκυονίδα	Ιουλιανού 42-46	yes	3	no	no	-	-	good
4	Άμιαι	Γ' Σεπτεμβρίου 106	yes	8	no	no	-	-	medium
5	Άνταμς	Ιερά Οδός 197	yes	1	no	no	-	-	good
6	Απόλλων	Σταδίου 19	yes	20 to 25	no	no	-	-	very bad
7	Άστωρ	Σταδίου	no	-	-	-	-	-	very good
8	Άστωρ	Μπότσαρη, Αιγάλεω	yes	4	no	no	-	-	good
9	Άστρον	Λ.Κηφισίας 37	yes	6	no	no	-	-	medium
10	Άστυ	Κοραή 4	yes	40	no	-	-	-	very bad
11	Άιγίκα	Πλ.Αμερικής	yes	3	-	-	-	-	good
12	Άιτικόν	Σταδίου 19	yes	8	-	no	-	-	medium
13	Δαναός	Λ.Κηφισίας 109	yes	6	no	yes	-	-	medium
14	Έλλη	Ακαδημίας 64	yes	8	no	no	-	-	medium
15	Έμπασσυ	Πατρ.Γαλακίου 5	yes	18	no	no	-	-	very bad
16	Έραϊον	Μόσχομησίων 4, Αιγάλεω	no	-	-	-	-	-	very good
17	Ιλίσκα	Βασ. Σοφίας & Παπιδιαμονιοπούλου	no	-	-	-	-	-	very good
18	Κόρονει	Φρύνης 11-13	yes	45	-	yes	-	-	very bad
19	Λητώ	Φορμίωνος 11	yes	20	-	yes	-	-	very bad
20	Μεταλλείον	Ευτυχίδου 44	yes	8	no	no	-	-	medium
21	Μίνι Ρεξ	Φορμίωνος 87	yes	4	no	no	-	-	good
22	Νηρβάνα	Λ.Αλεξάνδρας 192	yes	6	no	no	-	-	medium
23	Νιτάκι	Ιερά Οδός 234	no	-	-	-	-	-	very good
24	Όπερα	Ακαδημίας 57	yes	25	no	no	-	-	very good (?)
25	Ορφεύς	Βουλιαγμένης & Αρτέμιδος 57	no	-	-	-	-	-	very good
26	Παγκράτιον	Δαμάρεως 87	yes	2	no	no	-	-	good
27	Παλλάς	Βουκουρεστίου 1	yes	15	no	no	-	-	very bad
28	Παλλάς	Πλ.Παγκρατίου	yes	2	no	no	-	-	good
29	Πι Πικαλί	Βασ.Γαργίου Β' & Ρζάρη	yes	30	no	-	-	-	very bad
30	Ράδιο Σίτυ	Πατησίων 240	yes	6	no	yes	-	-	medium
31	Στούντιο	Σταυροπούλου 33	no	-	-	-	-	-	very good

Tab. 16-17: Accessibility conditions in 31 cinemas in Athens in 1984

This table shows also one typographical error. While the explicative text refers to 9 instead of 8 'very bad' and to 6 instead of 7 'very good' accessible buildings, the author assumed, that the evaluation of the Opera Cinema (row 24) has been typed wrongly and therefore was changed by color into 'very bad' accessible.

Two decades later, eleven cinemas of the list are closed and/ or changed their function into for instance a cabaret-restaurant or a supermarket. These are: Amlet Cinema, Astor Cinema, Iraion Cinema, Lito Cinema, Metallion Cinema, Mini Rex Cinema, Dalia Cinema, Orfeus Cinema, Pagation Cinema, Pallas Cinema and Radio City Cinema. Moreover, three cinemas are used as theatres today. These are: Alkyonida Cinema turned into Modern Theatre Alkyonis (row 3), Ilisia Cinema turned into Ilisia Theatre – Mimi Demisi (row 14) and Coronet Cinema turned into Coronet Theatre (row 15). The table below (tab. 16-18) gives the detailed data (deriving partly from owners and/or employees at ticket desks) on **accessibility conditions of the 20 cinemas in Athens that are still operating in 2004:**

α/α	CINEMA	ADDRESS	STAIR	STEPS	RAMP	MENTR	ELEV.	SIZE	WC	PARK.	COMMENTS	EVALUATION
1	Αθήναιον	Βασ. Σοφίας 124	yes	2+12	no	-	no	-	no	no		bad
2	Αλεξάνδρα	Πατησίων 77-79	yes	15	no	-	no	-	no	no		very bad
3	Μοντέρνο Θέατρο Αλκυονίδας	Ιουλιανού 42-46	yes	2+7	no	-	no	-	no	no	tuned into a theatre	bad
	Amlet	Γ Σεπτεμβρίου 186	-	-	-	-	-	-	-	-	closed	-
4	Άνταρς 1	Ιερά Οδό 197, Αιγιάλεω	no	-	-	-	no	-	no	no	Adms:2 (1st floor) inaccessible	very good
5	Απόλλων Renault	Σταδίου 19	yes	>15	no	-	no	-	no	no		very bad
6	Αστωρ Nes cafe	Σταδίου 28	yes	1	no	-	no	-	no	no		good
	Astor	Μπίτσικαρη, Αιγιάλεω	-	-	-	-	-	-	-	-	closed	-
7	Άστρον	Λεωφ. Κηφισίας 37	yes	>15	no	-	no	-	no	no	only 3 steps at fire exit	good
8	Αστού	Κοραή 4	yes	>15	no	-	no	-	no	no		very bad
9	Αττικά Cinema 1	Πλ. Αμερικής 5	yes	2+3	no	-	no	-	no	no	Atika2 (1st floor) inaccessible	medium
10	Αττικόν Renault	Σταδίου 19	yes	>15	yes	no	no	-	no	no		very good
11	Δαναός 1	Λεωφ. Κηφισίας 109	yes	6	no	-	no	-	no	no	Danaos1: fire exit has only 1step	good
12	Έλλη	Ακαδημίας 64	yes	>15	no	-	no	-	no	no		very bad
13	Εμπασσο Filmaet Οδον	Πατρ. Ιωακείμ 5, Κολωνάκι	yes	>15	no	-	no	-	no	no		very bad
	Iraion	Μοσχονηριών, Αιγιάλεω	-	-	-	-	-	-	-	-	closed	-
14	Θέατρο Ιλίσια - Μ. Ντεμισή	Βασ. Σοφίας & Παπαδιαμαντοπούλου	no	-	-	-	-	-	no	no	tuned into a theatre	very good
15	Κόρονετ	Φυρνής 11-13	yes	>15	no	-	no	-	no	no	tuned into a theatre	very bad
	Λητώ	Φαρμάκων 11	-	-	-	-	-	-	-	-	closed	-
	Μισαλλίδον	Ευρυκίδου 44	-	-	-	-	-	-	-	-	closed	-
	Μίνι Ρεξ	Φαρμάκων 87	-	-	-	-	-	-	-	-	closed	-
18	Μιρβάνια Cinemax	Λεωφ. Αλεξάνδρας 192	yes	1+7	no	-	no	-	no	no		medium
	Νιόλα	Ιερά Οδός 234	-	-	-	-	-	-	-	-	closed	-
17	Alpha Odeon Οπτεο	Ακαδημίας 57	yes	>15	no	-	no	-	no	no		very bad
	Ορφέας	Αρτίκωνος 57 & Πιπέρχου	-	-	-	-	-	-	-	-	closed	-
	Παγκράτιον	Δομάρως 67	-	-	-	-	-	-	-	-	closed	-
	Παλλάς	Ευουταραστίου 1	-	-	-	-	-	-	-	-	closed	-
18	Παλλάς	Υμηττού 109, Παγκράτι	yes	2	no	-	no	-	no	no		good
19	Πη Παλαί	Βασ. Γεωργίου & Ριζάρη	yes	>15	yes	no	no	-	no	no	ramp at fire exit	very good
	Ράδιο Σπι	Πατησίων 240	-	-	-	-	-	-	-	-	closed	-
20	Art Studio	Σταυροπούλου 33	yes	1 (3cm)	no	-	no	-	no	no	free entrance	very good

Tab. 16-18: Accessibility conditions in 20 cinemas in Athens in 2004

Considering the important changes in the number of still existing cinemas (theatres), the following figure (fig. 16-9) provides a comparison between the 20 cinemas, which do still exist and have performances today:

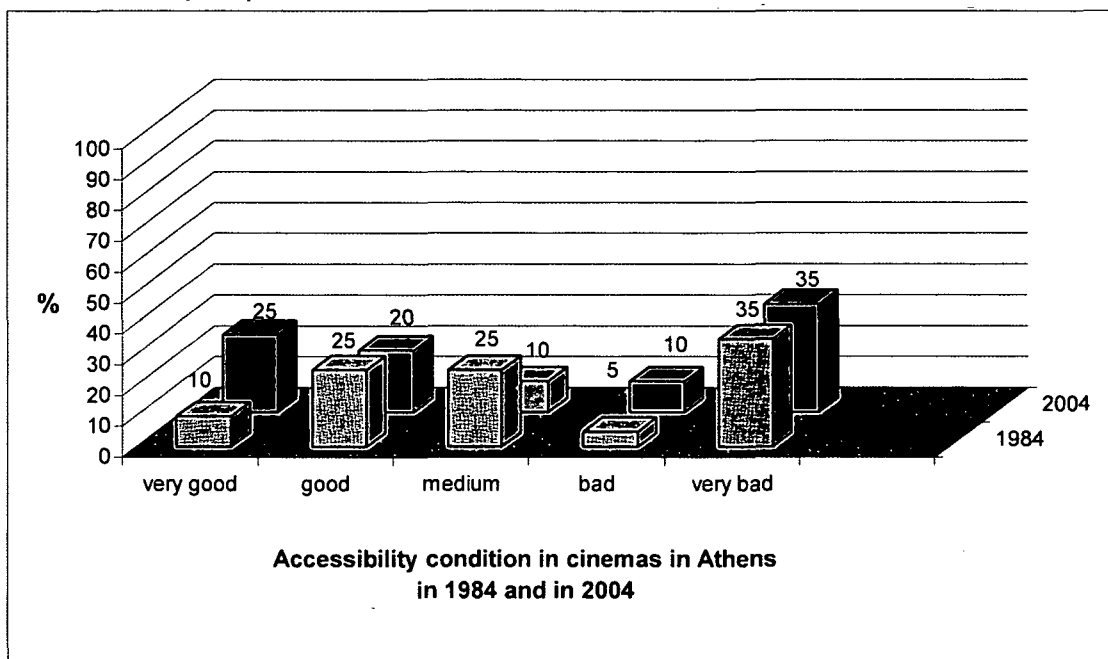


Fig. 16-9: Comparative Evaluation of those 20 cinemas from 1984 that operate in 2004

This comparison portrays, that **almost no changes have taken place during the last two decades in cinemas**. The same problems as already discussed with theatres, occur in these buildings as well. Many performance halls are situated in basements, or it is often only one performance hall that is somehow accessible. For instance, Adams 1 (row 4) is 'very good' accessible, while Adams 2, which is located on the first floor is inaccessible, as there is no elevator or stair lift. An identical situation can be found at Attika Cinema (row 9) and Danaos Cinema (row 11), where 'medium' or respectively 'good' accessibility is only guaranteed for the performance room 1, as the other room is located on the first floor.

As adaptations of cinemas lie also in the hand of their owners, **only two cinemas have made their performance halls accessible for wheelchair users**. The one is Attikon Renault Cinema (row 10), where a ramp was placed at a side entrance. The other is the Petit Palais Cinema (row 19), where a ramp was placed at its fire-exit and thus the performance room is accessible from this side entrance. Furthermore, the owner of Astron Cinema (row 7) mentioned, that he had applied for a subvention in order to make this cinema accessible, but the state and municipality showed no interest and denied the request!

Furthermore, the previous study seems not to have counted the landing of Astor Cinema (row 6), which, therefore, makes it only 'good' accessible. Besides this, the turning of the former Alkyonida Cinema into a theatre (row 3), added also some steps to the building, which today make it only 'bad' accessible. At Attika Cinemas (row 9) and Elli Cinema (row 12) some more steps were counted in 2004, as well, judging its accessibility only 'medium' respectively 'very

bad'. However, two cinemas became 'good' accessible, as entering through the fire exit is possible over less steps today. These entertainment centres are Astron Cinema (row 7) and Danaos Cinema 1 (row 11).

It is obvious, that **no further adaptations or facilitating equipment** can be found in Athens' cinema buildings. Like theatres, cinemas as well have no parking or (dis-) embarkation spaces for spectators and, none of the cinemas has adapted any space to create a wheelchair usable toilet, so far!

16.4.8 CONCLUSIONS FROM THE PRECEDENT COMPARATIVE STUDY

This overview might have given an almost perfect image on accessibility conditions in some of Athens' public buildings today. If one regards only UA criteria as determined by the ΕΠΣ research, important changes can be remarked. Nevertheless, the **application of UD guidelines during the last twenty years has been rather poor in Greece**. Most improvements have been made exclusively for people with mobility impairments and specifically wheelchair-users. All other impairments continue to have almost no accessibility facilitations at all.

Again, it has to be stressed, that the evaluation criteria as determined by the ΕΠΣ as presented in the precedent chapters are not considered appropriate. In fact, it is useless to talk of 5 degrees of accessibility. In reality there exist **only 'accessibility' or 'non-accessibility' and no status in-between**. All other evaluation degrees just make things appear better as they really are. In conclusion, if evaluation criteria are divided into these two categories (accessible – inaccessible) the real percentages of accessibility in the re-visited public buildings in Athens in 2004 are as follows (fig. 16-10):

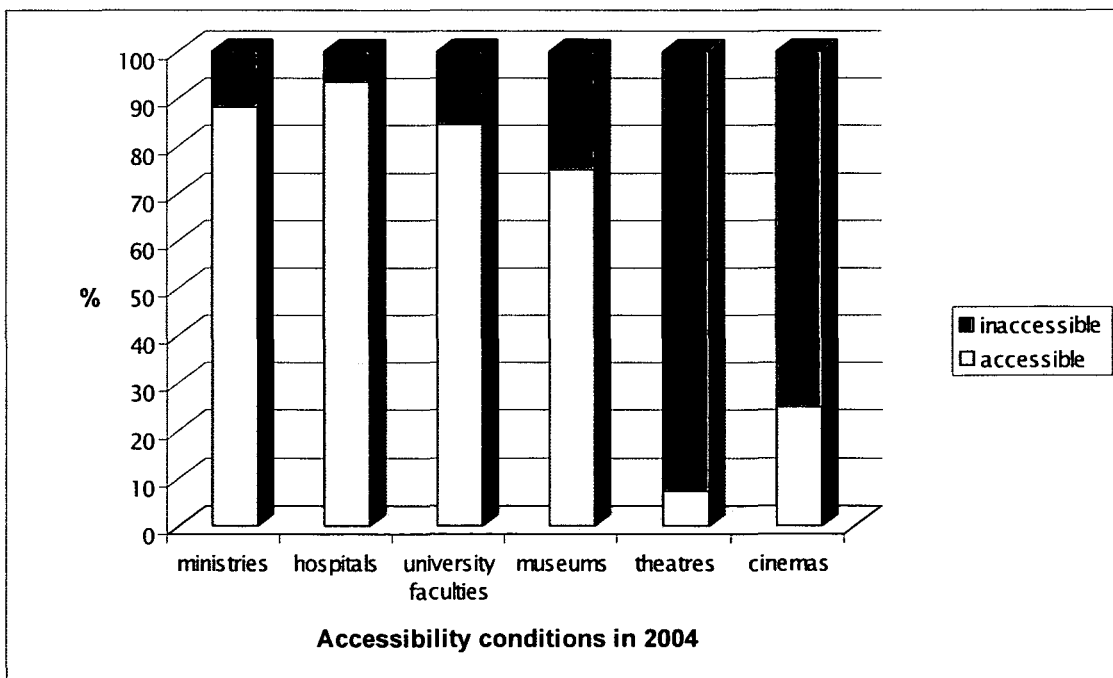


Fig. 16-10: Percentages of 'very good' accessible buildings compared to inaccessible buildings (2004)

And even these data do not reflect reality in Greece's capital. It has to be underlined once more, that **adaptations seldom are really efficient and functioning in the way it would be helpful for PRM and PwD**, unfortunately. 'Autonomous' in Greece seems to stand for moving with the help of only 1 person, instead of 4 or 5! Although many efforts can be remarked during the last years in public buildings hosting state services, constructions often remain bad and adaptations are rather short-minded. In addition, there is no provision for surveillance and maintenance, which leads to the fact, that, for instance, elevators often are out of order.

Amongst others, the following facts show how improvised adaptations to public buildings are. The presence of a ramp does not necessarily mean, that a wheelchair driver can really use it. In almost all cases of public buildings, where **ramps** have been placed during the past years, **inclinations are prohibitive for the autonomous mobility of wheelchair users**. Ramp inclinations often (if not always) exceed the 5-6 degree limit, as they only provide a platform, which is placed on top of steps (e.g. Aiginiteion Hospital, Polykliniki Athinon (fig. 16-11)). This has also been ironically remarked in the article: "Θα γίνουν Test events, για την προσβασιμότητα;" ('Will there be any test-events for accessibility?', *Ισοτιμία*, τεύχος 57: 16), where the subtitle notes: "37% of local governmental organisations, 57% of Greek ministries, 2% of theatres, 10% of museums, have... a ramp for access." Accessibility to Greek public buildings means granting access to a wheelchair user AND her/his escort!



Fig. 16-11: The ramp at the Polykliniki Athinon

Furthermore, 'accessible' as far as **toilets for wheelchair users** are regarded seems to stand sometimes for 'enough room to enter together with someone else'(!) in Greece, as they **rarely are properly equipped**. In many cases, there was only a toilet seat, but no handles, (e.g. even at the EIAA(!) (National Institution for PwD's Rehabilitation), Alexandra Hospital, etc.) An even more extreme example is the toilet at Aiginiteion Hospital, as it is placed on the hospitals' roof, without the provision of a shelter to get protected from rain, when accessing the toilet! The author detected proper toilets only in KEKs (Centres of Specialised Formation). Finally, many of the visited toilets were locked (e.g. Nikaia Hospital, University Campus, etc.), which leads to a humiliation, as PwD have to ask for the key in order to use the washroom!

**But in general, the situation in Athens' public buildings, especially those belonging to private owners, is alarming.** The precedent analysis of some theatres and cinemas gives the real image of this rather unfriendly city! As buildings are old and performance halls are often located in the basement, adaptations have not been made over the last years. There is no legislative ordinance, which forces existing buildings to become accessible. And even in those few cases, where owners showed some interest to adapt their building, no support or interest on the part of the state has been noted!



But besides such obvious obstacles and short-mindedness of UD-applications, **many more details are prohibitive for the final use of buildings by wheelchair users.** Only to mention a few:

- toilets for wheelchair users are used as storage rooms;
- lack of railings on the edges of ramps;
- elevators do not stop at floor level, but several centimeters above/below;
- spaces in front of elevators often are too small for wheelchair-rotation;
- uneven surfaces;
- a nurse or stretcher-bearer is supposed to always guide PwD inside hospitals, thus no need for her/him to move independently inside these buildings is expressed (of course this is far from being reality, due to the important lack of staff!);
- no protection against illegally parked vehicles or motorcycles on pavements and/or building entrances;
- etc.

However, the most important problem remains the **fragmentary way in which work is done.** No continuity is guaranteed, leading to a piecemeal of adaptations that finally serve nobody, as there is **no follow-up in the 'chain of accessibility'**. So far, only few pavements have curb cuts, which leads PwD to primarily use the road to move without obstacles. Parking lots for wheelchair users are almost never kept free – even the scientific staff violates such regulations! And police only gives tickets, if at all, to illegally parked vehicles, instead of ordering their pick up!

In general, **PwD are not expected to move around, in Greece and first and foremost not on their own!** For instance, hospital security staffs seldom pay attention to keeping the PwD's signed parking lots free. However, their answer always was, that they will allow the driver to enter into the hospital courtyard for (dis)-embarkation, but then the car will have to be removed, as no space is free! This leads to the fact, that every PwD will have to be driven by someone else to the hospital, as she/he will have no possibility to leave her/his car anywhere – even if parking lots exist!

The **few positive examples of UD and UA adaptations** can be mostly found in buildings, where a PwD is working or where PwD are expected to be trained. For instance, at Nikaia Hospital there is a doctor in a wheelchair. Next to his parking lot, a roofed stair lift has been positioned to make the entrance to the building he is working in possible. Another example are certain KEKs (*fig. 16-12*). The KEK Akmon is specifically user by persons with visual impairments, that get educated, therefore besides tactile orientation markings inside the building, a bas-relief overview plan can be found at the entrance for orientation.



*Fig. 16-12: A rare sight: a PwD's parking lot kerow free and a ramp with railing and smooth inclination*

In conclusion, it is **few entertainment buildings that can be used by wheelchair users in Athens today**. One famous is the Athens' Megaron Mousikis (Μέγαρο Μουσικής Αθηνών), which has been even awarded for its accessibility by the EEC (Κόλλιας, 1993). A further accessible entertainment building is the Athens' Opera House (Εθνική Λυρική Σκηνή), which happens to have a step of only 3cm height at its entrance! Moreover, the Village Cinema Centres are also completely accessible and frequently visited by wheelchair users. Finally, the buildings, which host the private collections at the Vorre Museum and the Jewellery Museum Lalaounis, are accessible, as well.

Finally, it is important to keep in mind that **besides these analysed service types many other buildings with public use are inaccessible in Greece**. For instance, banks often have only revolving doors at their entrances (*fig. 16-13*). Moreover, many entertainment buildings and centres, like bars, coffee shops, patisseries, nightclubs, restaurants, shops (*fig. 16-14*, etc. are inaccessible, due to dissuasive interior and exterior arrangements. Even tactile orientation markings are not always kept free from such temporary obstacles (*fig. 16-15*)!



*Fig. 16-15 and Fig. 16-15 and Fig. 16-15: Revolving doors, commerce objects and shop outfits are further obstacles for PwD's use of all kinds of services*

The discussed situation gets even more disappointing, if one keeps in mind, that **accessibility does not only support PwD to use services on their own**, but reveals also an **opportunity for these individuals to acquire a job in corresponding places**. In consequence, the small number of accessible buildings has also an important impact on exclusion of PwD from the labour market and the wider social integration of PwD in Greece! These are only a few reasons, why the idea evoked, to create an interactive tool, which provides accurate information for the autonomous mobility of wheelchair users worldwide. The following chapters give an overview on its principles and the range of its possible future utilisation.

**17 ACCORD~4U2**

**17.1 INTRODUCTION ..... 266**

**17.2 THE IDEA..... 266**

**17.3 AIM OF 'ACCORD~4U2!' ..... 269**

**17.4 WHY A GIS AND NOT AN ORDINARY MAP?..... 271**

17.4.1 SPECIAL GIS-DEMANDS FOR 'ACCORD~4U2!' .....273

**17.5 DATA COLLECTION FOR 'ACCORD~4U2!'..... 274**

**17.6 'ACCORD~4U2!' PILOT PHASE..... 284**

17.6.1 INTRODUCTION .....284

17.6.2 DEMO AREA .....285

17.6.3 PTS STOPS AND TERMINI IN THE DEMO AREA .....286

17.6.4 SERVICES OF PUBLIC USE INCLUDED IN THE DEMO.....287

17.6.5 URBAN EQUIPMENT AND FACILITATIONS RECORDED IN THE  
DEMO AREA .....288

17.6.6 OBSTACLES CONSIDERED IN THE DEMO.....288

**17.7 IDEAS FOR 'ACCORD~4U2!' FURTHER DEVELOPMENT ..... 289**

### 17.1 INTRODUCTION

In conclusion of all the research work, which has been presented and discussed so far in this thesis, it has become clear, that the **urgent need exists to find a way to successfully support and upgrade PwD's living conditions.** "If society as a whole wishes to provide some semblance of normal independent life for these populations, significant investments must be made both in terms of modifying the environment and in terms of getting information to disabled people" (Golledge quoted in Imrie, 1996: 49).

It seems that **visions of completely accessible environments are an utopistic point of view.** Costs of adapting and restoring today's inaccessible and hostile cities are tremendous and probably no government will ever come up for such investments. Undoubtedly, ameliorations can be achieved little by little, but it still will take years, if not decades, to obtain at least granted accessibility to all new built environments. In this domain, there is little a single person can do and nothing with immediate positive effect.

Thus, the idea emerged to provide a means for all PRM and PwD to acquire accurate information based on urban and architectural accessibility criteria. The example of the Petit Palais Cinema in Athens, where the owners had built a ramp on their own cost to make the performance room accessible, but complained for little response on the part of the public, was one of the many stimulants. The **public at large expects nothing to be accessible,** especially in Greece and thus, obviously, even isolated positive examples like the one just mentioned lead to frustration and freeze further improvement tendencies! This of course has to be hindered. And finding a way to propose a tool to channel information, inquiries, proposals and so on, seems to be the best contribution for all involved parties!

### 17.2 THE IDEA

So far, a **series of informing leaflets and publications based on UA criteria already exists for many cities.** It is mostly brochures and overview maps, that mark accessible buildings based on criteria for a wheelchair user and eventually give some supplementary information e.g. on equipment dimensions. For instance, in **Vienna,** the **tourist map of the city centre (fig. 17-1),** which is distributed at the Vienna Tourist Information Office, notes, whether a building of tourist interest is accessible or not. If the symbol of the wheelchair user is drawn next to a building's name, it is accessible, while the symbol of the wheelchair user with an accompanying person stands for buildings that can only be entered with the help of someone else.

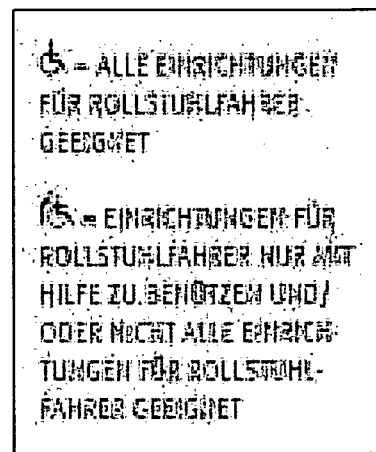


Fig. 17-1: Vienna city map legend

In Vienna, there exists also the 'Behindertenatlas der Stadt Wien' (Atlas of the city of Vienna for PwD) (fig. 17-2). This is a two-volume publication, comprising the accessibility conditions to establishments of public use in the widest sense. It gets continuously updated and is supposed to be available via the Internet today, but it was impossible to detect its site. UD criteria like the following ones are registered:

- existence of a parking lot for wheelchair users;
- main entrance and side entrance: number of steps, step edge, width of step, height of step, ramp available, door opening direction, door width, railing;
- elevator: available, number of steps, width of step, height of step, elevator door width, elevator cabin size;
- WC: wheelchair user toilet available, floor, steps, door opening direction, anteroom door width and toilet seat equipment.



Fig. 17-2: Vienna's PwD Atlas

The Vienna University of Technology provides information on barrier-free access to the complexes' buildings and lecture halls under the following internet address: [www.tuwien.ac.at/zv/beh/barrierefreie\\_zugaenglichkeit.html](http://www.tuwien.ac.at/zv/beh/barrierefreie_zugaenglichkeit.html). Texts and overview plans (fig. 17-3) show access routes and give information on:

- accessibility of buildings and lecture halls;
- existence of ramps;
- elevator sizes;
- wheelchair users' seats in lecture halls;
- wheelchair users WCs;
- wheelchair users parking lots and fees;
- and the availability of keys for locked elevators.

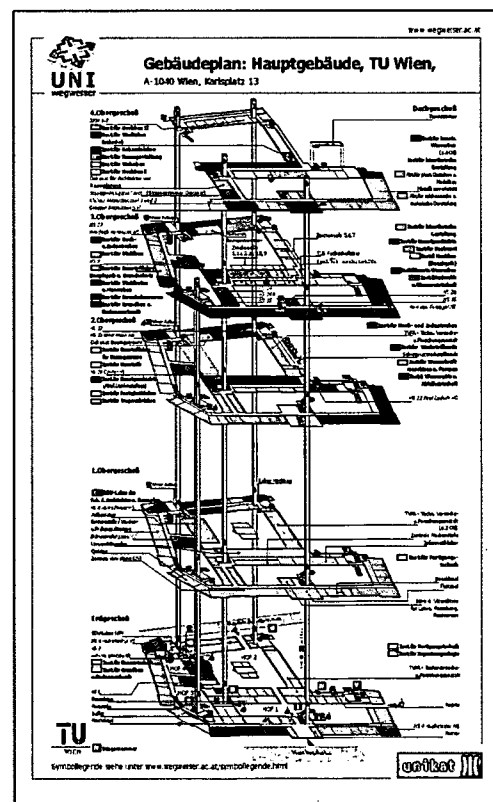


Fig. 17-3: TU Vienna: overview plan on the department of architecture

In Athens, apart from the Hellenic Festival SA and the International Airport Eleftherios Venizelos, where leaflets are available with information for wheelchair users, the only **informative guide** that was found **on accessibility**, was the one for **the municipality of Zografou** (fig. 17-4). This publication contains the accessibility conditions to public buildings and spaces belonging to this municipality and was elaborated within the frames of the programme 'Equal chances for PwD' in 1999. A map shows the location and pictures give an idea on access facilitations. Every building is described and lacks of UD are mentioned, as well as obvious dangers. Finally, for every inaccessible or only partly accessible building proposals of improvement are listed.



Fig. 17-4: Accessibility guide for the municipality of Zografou

The list of such publications world-wide is very long. As one last example it is worth mentioning the interactive classification-system of **'you too – find your best way'** (fig. 17-5). It can be visited under: [www.you-too.net](http://www.you-too.net). This service provides the opportunity to users to enter their personal criteria and needs (e.g. widths, sizes, heights, medical assistance, etc.) and in the following to search for an accessible service in one of the list's countries. The important advantage of this service is, that information is based on a variety of criteria differentiating between: accessible for wheelchair user, only partly accessible for wheelchair user and accessible for Pw mobility impairment.



Fig. 17-5: "You too"-logo

Attempts, to provide information on accessibility conditions and UD facilitations for PRM and/or wheelchair users, are appraisable. But the approach of all these guides or information providers is very confined and **the way they are formed is in fact insufficient and rather ineffective**, as they exclusively focus on certain spots and not on all involved links. It is only certain specific targets that are looked into, instead of trying to give (detailed) information on the over-all situation and targets' environments. The basic deficiencies and weaknesses of such existing publications are:

- no information on possibilities to reach the target autonomously (except by private car);
- not accurate, as not being regularly up-dated;
- exclusively focusing on wheelchair users demands as if this were the representative of all PRM and PwD, while other users' needs are neglected;
- little possibility for users to make choices according to their personal criteria;

- no real guidance or orientation aids to find target;
- little information on assistive devices and facilitating equipment;
- no interaction or queries possible;
- no alternatives;
- no emergency routes;
- etc.

These are some of the reasons, why a new programme needs to settle down, in order to grant accurate information and to successfully guide citizens to their targets, offering them a feeling of security and the possibility of multiple choices and ways. Thus, the **idea for a model** emerged, including geographically referenced data for guidance and orientation and detailed non-spatial data for descriptive and informative communication based on UA and UD criteria. It is named 'AccOrD~4u2!' (Accessibility, Orientation and guidance~ for you too!). The over-all goal is **to make the chain of accessibility work for everyone on a 24-hour basis** and in conclusion, to allow every person to function in the most independent and natural possible way!

### 17.3 AIM OF 'ACCORD~4U2!'

As has been underlined already, **correctly designed and accessible spaces are essential preconditions for safe and comfortable mobility for every citizen.** The figure on the right (fig. 17-6), published by the Greek Ministry for the Environment, Physical Planning and Public Works, underlines the significance of providing UA and UD facilitations for everyone. The satisfaction of all demands for independent and secure mobility seems essential for 27% of the population, substantial for 22% and improves life quality of more than half the population.

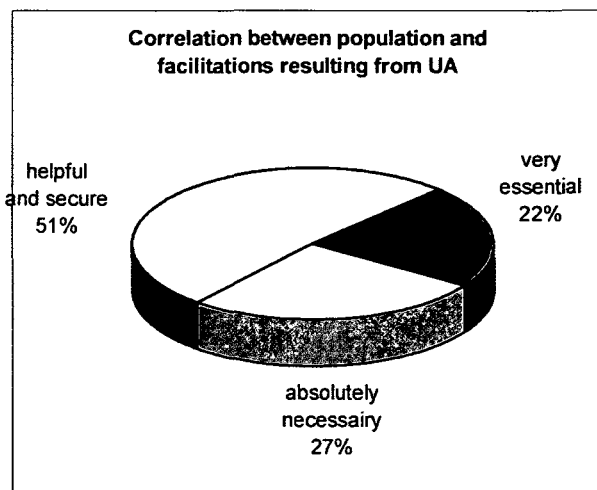


Fig. 17-6: Significance of providing UA facilitations for the whole population

But as the built environment remains hostile and partly inaccessible, at least 1 person out of 2 faces difficulties, when moving around and does not feel secure outside her/his dwelling. Dependence on others is not only augmented in the case of PwD. Also PRM often prefer to exit their homes accompanied, so as to feel safer. In conclusion, a tool like *AccOrD~4u2!* will not only enable PwD's integration, but **facilitate every citizens life and support everybody's independence.**

Apart from **providing picture and text information on indoor conditions**, like the location of accessible buildings, the position of accessible entrances, facilitating equipment and so on, *AccOrD~4u2!* will **additionally inform on the actual outdoor situation**:

- preferable accessible routes to reach the target;
- accessible PTS next to target;
- condition of routes chosen by user;
- temporary dangers and obstacles;
- users' positioning;
- alternative routes;
- etc.

Furthermore, the aim of *AccOrD~4u2!* is to provide accurate and up-dated information and to enable users, to define their own preferences, as well as to have this tool offer the ;best possible solution; to any kind of queries. The **query values of *AccOrD~4u2!*** include:

- **safety** (least crosswalks, most traffic lights, etc.);
- **time** (fastest route on foot, fastest route with means of PTS, etc.);
- **PTS–schedule** (best route with means of PTS to reach target at predefined hour, etc.);
- **cost** (cheapest way, price reductions for PwD, etc.);
- **distance** (shortest route on foot, shortest route by car, etc.);
- **outdoor orientation** (best signed way on foot, best signed way by car, etc.);
- **interest of journey** (most points of interest, quiet route, etc.);
- **PTS-changes** (least possible changes of means of PTS, changes at best equipped PTS stops, etc.);
- **linking possibility of a series of duties** (lining up of services of interest, etc.);
- **shadow** (route with most trees, route through arcades and under shelters, etc.);
- **traffic** (pedestrian zones, least cars / pollution, etc.);
- **urban equipment** (sitting possibilities, water fountains, etc.);
- **indoor orientation** (overview plans of service's location, supportive construction elements, etc.);
- **etc.**

In order to fulfil such demands, an approach was searched based on state of the art technology. As "*geographic information is front and centre when it comes to identifying, assessing, analysing, evaluating and affecting how, what, where, when and why people and the planet interact with each other*" (Thurston, 2002: 23), it was decided to combine the advantages of Geographic Information Systems (GIS), Global Positioning Systems (GPS) and General Packet Radio Services (GPRS) technology. In conclusion, ***AccOrD~4u2!* is designed and partially developed in a GIS environment.**

It has to be noted, that **the design of *AccOrD~4u2!* and the development of a system** (even in prototype or beta test status) **are beyond the scope of this thesis.** So, it is the idea's concept, which will be presented in the following chapters. Hopefully, the model will be adopted and applied in the near future e.g. within the frame of a research project.



### 17.4 WHY A GIS AND NOT AN ORDINARY MAP?

The following information has been taken from Frank (1999) and McKee (2002).

**Geographic Information Systems (GIS)** are much more than a tool to manage data. Some important **advantages, if compared to ordinary maps** are, that GIS:

- integrate spatial and other kinds of information within a single system;
- can be used as an inventory tool;
- can analyse, edit, chart and create data;
- can display and query;
- allow address-matching (finding of locations with given street addresses), location analysis, development of evacuation plans, etc., because of its street-based application possibilities;
- can be used as a decision support tool;
- generate information (like maps, lists, etc.) without any interaction of the user;
- offer electronic data display tools;
- can be provided via the internet, as they are digital information systems;
- are more economical and beneficial;
- etc.

**GIS data** consist of spatial (graphical) and aspatial (textual) data. **Spatial data** (fig. 17-7) describe the geometry (shape) of an object and its 3-dimensional location in space. Location is defined as referenced location in terms of xyz coordinates relative to a point of origin and as relational location within the hierarchy of a network topology. GIS systems normally have large numbers of data items (objects representations) as points, lines and polygons usually organised in groups as data types – e.g. 'buildings', 'roads' and 'network assets'. **Aspatial data** (tab. 17-1) describe the features (object classes) and their attributes (instance variables).

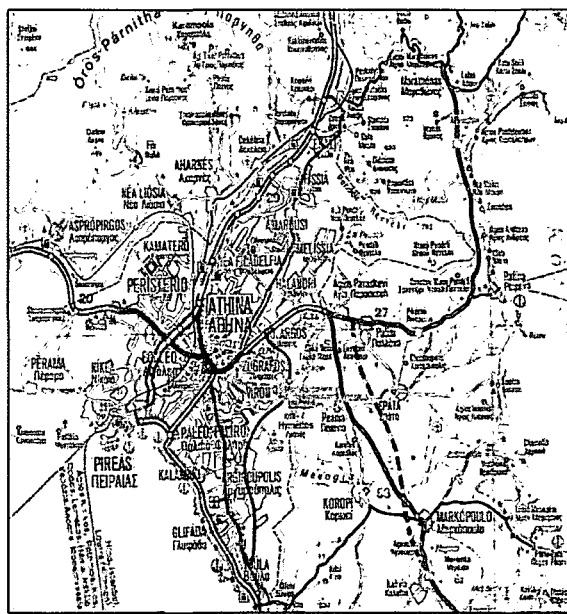


Fig. 17-7: Example of spatial data

DATE	OBJECT TYPE	SERVICE CATEGORY	SERVICE TYPE	NAME	LU.A	STREET I	NUMBER I
20040623	PUBLIC SERVICE	ADMINISTRATION BUILDING	MINISTRY	ΥΠΟΥΡΓΕΙΟ ΕΣΩΤΕΡΙΚΩΝ	Y	ΒΑΣΙΛΕΥΣ ΣΟΦΙΑΣ	1
20040623	PUBLIC SERVICE	ADMINISTRATION BUILDING	MINISTRY	ΥΠΟΥΡΓΕΙΟ ΕΣΩΤΕΡΙΚΩΝ	Y	ΑΚΑΔΗΜΙΑΣ	1
20040623	STORE	SHOWROOM	WEDDING AND BAPTISM AD	ΝΤΑΙΖΗ ΑΝΤΙΟΝΙΟΥΔΟΥ	Y	ΑΚΑΔΗΜΙΑΣ	3
20040623	PUBLIC SERVICE	ADMINISTRATION BUILDING	MINISTRY	ΥΠΟΥΡΓΕΙΟ ΕΣΩΤΕΡΙΚΩΝ	Y	ΕΤΟΔ ΑΚΑΔΗΜΙΑΣ 3 - ΖΑΛΩΚΙ	
20040623	PUBLIC SERVICE	ADMINISTRATION BUILDING	MINISTRY	ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΕΤΕΚΟΝ	Y	ΕΤΟΔ ΑΚΑΔΗΜΙΑΣ 3 - ΖΑΛΩΚΙ	
20040623	STORE	SHOWROOM	FURNITURE	ΜΑΡΙΝΑ ΓΓΛΕΖΟΥ	Y	ΕΤΟΔ ΑΚΑΔΗΜΙΑΣ 3 - ΖΑΛΩΚΙ	
20040623	PUBLIC SERVICE	PUBLIC TRANSACTION OFFI	CHAMBER	ΕΜΠΟΡΙΚΟ Κ ΒΟΜΒΟΚΑΝΚΟ ΕΠΙ	Y	ΑΚΑΔΗΜΙΑΣ	7
20040623	PUBLIC SERVICE	ADMINISTRATION BUILDING	MINISTRY	ΥΠΟΥΡΓΕΙΟ ΕΣΩΤΕΡΙΚΩΝ	Y	ΖΑΛΩΚΙΣΤΑ	1
20040623	EXHIBITION SPACE	ARCHIVE		ΥΠΗΡΕΣΙΑ ΔΙΓΛΩΜΑΤΙΚΟΥ Κ Ε	Y	ΖΑΛΩΚΙΣΤΑ	3
20040623	BUILDING	OFFICES / APARTMENTS			Y	ΖΑΛΩΚΙΣΤΑ	9
20040623	RESTAURANT AND RECREA	CAFE	INSIDE AND STREET	FRESH	Y	ΚΡΕΖΟΤΟΥ	12
20040623	STORE	GENERAL SHOP	SHOES [WOMEN'S ONLY]	ΠΑΛΑΒΑΝΗΣ	Y	ΚΡΕΖΟΤΟΥ	6
20040623	BUILDING	OFFICES / APARTMENTS			Y	ΚΡΕΖΟΤΟΥ	4
20040623	STORE	GENERAL SHOP	FABRICS / HOME DECORAT	ΚΑΡΑΤΖΟΥΔΟΥ	Y	ΚΡΕΖΟΤΟΥ	6
20040623	PRIVATE TRANSACTION CO	BANK		ΑΓΡΟΤΙΚΗ ΤΡΑΠΕΖΑ ΤΗΣ ΕΛΛΑ	N	ΚΡΕΖΟΤΟΥ	2

Tab. 17-1: Example of aspatial data

GIS are a set of **interrelated subsystems**, including on the one hand data processing, which is the acquisition of data (from maps, images or field surveys), the data input from the source material to the digital database and the data storage (how often is it used, how should it be updated, is it confidential?). On the other hand, there is data analysis, which is retrieval and analysis, providing information as output (the results displayed as maps, tables, plans, or fed into other digital systems). Moreover, a subsystem for information use is integrated, in order to provide the interaction needed between GIS group and users to plan analytical procedures and data structures, as well as management procedures playing an organising role.

For data input, a **data model** needs to be defined, as the geographical variation in the real world is infinitely complex (the closer you look, the more detail you see, almost without limit). Thus, data must be reduced to a finite and manageable quantity by a process of generalisation and abstraction. Geographical variation must be represented in terms of discrete elements or objects, the so-called data model. The choice of entities, which will be represented, depends on the scale of the study.

The display uses points and vectors displaying the locations of all objects stored. Attributes and entity types are displayed by varying colours, line pattern and point symbols. GIS offers **electronic data display tools** being a significant advantage over the paper map (possibility to browse across an area without interruption, ability to zoom and change scale freely, potential for the animation of time dependent data (show increase of accessible infrastructure), display in '3 dimensions', potential for continuous scales of intensity and the use of colour and shading independent of the constraints of the printing process, ability to change colours as required for interpretation).

The common purpose of a GIS is decision-making for any spatial distributed entities, while the connection between the elements of the system is geography (services' location). The most important advantage of GIS is the use of the **Standard Query Language (SQL)**. The user interacts directly with the system to obtain answers to questions or/and to get navigated. The GIS can handle different ways of identifying (through pointing to map, street address, subdivision plan, etc.). Phrase structures can be extended to make spatial queries. The importance lies in the fact, that the criteria for them can include searching within the radius of a point, within a bounding rectangle or within an irregular polygon. **Typical queries** are:

- **simple recall of data** through identifying the object by unique attributes (name, street address, etc.) => user gets a list of attributes;
- **Where is object XY?** Identifying the object by unique attributes (name, street address, etc.) => the location of the object and its surroundings are shown on the screen (the scale of the surrounding depends on the application), e.g. address matching (finding the location of a house from its street address);
- **What is object XY?** Object is identified ('picked') by pointing with an interactive device, like a mouse, cursor, light pen => the system returns the attributes of the object;

- **Summarize attributes of objects within distance x** => a point is identified (pointed on screen) and the system gives a summary of attributes of objects within distance x of this point;
- **Summarize attributes of objects within a region** => user outlines polygon on screen;
- **What is the best route** based on criteria like least cost, least impact, fastest, etc.? => this database model should be discrete (link attributes are constantly updated to include road construction, maintenance, congestion, etc.), otherwise it is continuous (using route transmission corridors, etc.);
- **Show all of the objects satisfying the criteria** => based on aspatial criteria, all relevant objects are listed;
- **Use of relationship between objects** (topologies) makes direction criteria like left / right or orientation criteria like North / South / etc. possible;
- and so on.

17.4.1 SPECIAL GIS-DEMANDS FOR 'ACCORD~4U2!'

In general, GIS use vector data and people are accustomed to read vector maps (e.g. street maps, tourist maps, etc.). These are based on vectors and use discrete line segments or points to identify locations (fig. 17-8). Connecting points with straight lines creates objects and areas are defined by sets of lines (polygon). In conclusion, a vector database is capable to calculate measures (area, distance, etc.) from coordinates of objects or points and operations, like estimations, are more accurate. Therefore, the **advantages of vector GIS** have been also used in *AccOrd~4u2!*.

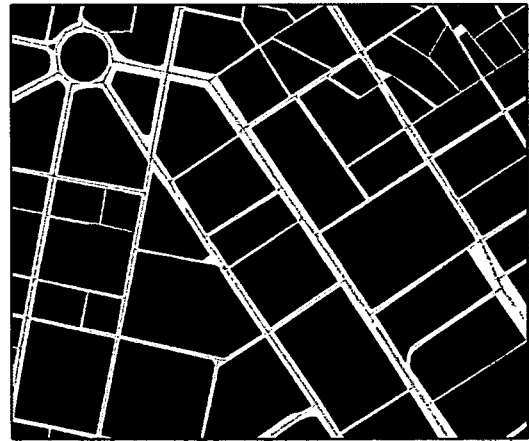


Fig. 17-8: Example of a vector database

But as 'One picture is more than a thousand words!', images (raster data) have also been integrated into *AccOrd~4u2!*. Generally, raster data play an important role in orientation within cities or known environments and can more easily be understood by persons in a hurry, confused people or Pw mentally impairments. Therefore, the traditionally used vector GIS was extended with raster data, establishing a **vector-raster GIS database**. This was achieved by **introducing a digital orthophoto** (fig. 17-9) as an additional layer into the



Fig. 17-9: Example of a digital orthophoto (raster data)

**GIS.** The orthophoto has to be geo-referenced in the same reference system as the vector database and the scale has to be chosen adequately to the aimed detail scaling.

Apart from the importance of measuring accurate distances, the *AccOrd~4u2!*-GIS needs to offer information on surface inclinations, for instance for wheelchair users. Therefore, three-dimensional information has to be added to the database. *AccOrd~4u2!* needs **to include a Digital Elevation Model (DEM)**, which approximates the real terrain surface with a mathematical surface model, including elevations, critical points (like peaks and pits), faults (sharp discontinuities of elevation), fronts (sharp discontinuities of slope), etc. The advantage of such an integrated DEM could support the estimation of elevation at given points, for instance of (light <5% and sharp >5%) slopes, hillsides and so on.

The introduction of **Location-Based Services (LBS)** has contributed to an increase in the significance of GIS recently. LBS enable more effective real-time data collection and improve database accuracy and the general efficiency of operations. Using the GIS database in combination with LBS, e.g. authorities can quickly locate materials and schedule the workforce, thus minimising service interruptions resulting from accidents or repairs. This obviously is of major significance for the accuracy of *AccOrd~4u2!*.

Finally, the **Global Positioning System (GPS)** can play a major role in the *AccOrd~4u2!*-programme (fig. 17-10). Including the positioning and navigation systems of today (e.g. GPS) into the proposed concept, other advanced technologies (e.g. mobile communication to receive information outside home) can be integrated, as well. Apart from giving information to the user concerning her/his location, a more advanced system can also provide information on the user's position to a coordination/guidance centre (like the one of the ISAAC-Project). Such a development could enable Pw the Alzheimer disease or mentally impairments to move autonomously and finally reach integration.

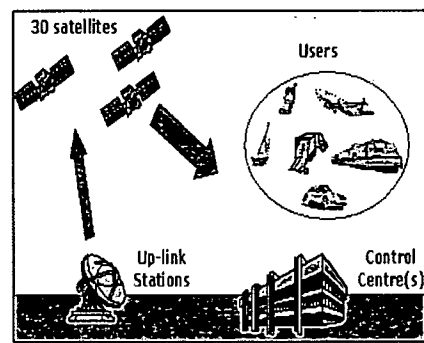


Fig. 17-10: Scheme on the functioning of satellite radio navigation and GPS systems

## 17.5 DATA COLLECTION FOR 'ACCORD~4U2!'

The data collection for the creation of a GIS database is based on several data sources. The **primary source for *AccOrd~4u2!* constitutes of existing spatial data**, like digital maps, digital orthophotos, DEMs, statistical databases and so on, for the area of interest.

The **secondary data source comprises of non-spatial data**, for instance collected via field sampling. For *AccOrd~4u2!*, street areas and accessible targets have to be registered. In addition, detailed information on important points in space (geo-coding) and parametric values have to get recorded in picture, as well as in text.

First of all, locations of significant targets for everyday life have to be gathered and integrated as points into the geo-coded vector and raster databases. The **proposed categories and service types**, which should be considered at a minimum, are the following ones:

**1. Service of public use:**

**public administration building:**

- town hall,
- prefecture,
- police station,
- registry office,
- law court,
- Ministry,
- embassy / consulate.

**public transaction office:**

- post office,
- post savings bank,
- phone company,
- electricity company,
- water supply company,
- tax office,
- accounts office,
- Citizen's Service and/or Information Centre,
- chamber.

**private transaction-commercial offices:**

- bank,
- insurance,
- finance company,
- lawyer,
- notary,
- building society,
- estate agent.

**2. Health and Welfare:**

**general health services:**

- hospital,
- clinic,
- community clinic,
- sanitary station,
- outpatient's department,
- mental clinic,
- health institutions.

**health and welfare offices/ shops:**

- private doctor office,
- physiotherapy,
- specialized medical shop (chemists/pharmacy, orthopedics, optician, hearing aids, acupuncture, etc).

### 3. Education:

**general education:**

- nursery school / kindergarten,
- primary school / secondary school,
- university or higher technological education institute,
- centre of vocational training.

**specialized education:**

- tutorial school,
- language school,
- music school,
- vocational education / specialization,
- private higher educational institute.

### 4. Store:

- super- and hyper-market,
- kiosk/ tobacconist,
- general shop (bakery, art & craft, bookshop, butcher and fishmonger, cards, gifts, clothes, delicatessen, discount, fabrics, fashion accessories, florist, greengrocer, home decorating, housing utilities, jeweller, motor accessories, music, photographic, photocopying & printing, shoe, sweet, toys, wine & beer, cosmetics, etc.),
- shopping mall,
- department store,
- showroom (carpets & furniture, wedding dresses, wedding accessories, etc.),
- specialist shop (dry cleaner, hairdresser, etc.),
- miscellaneous.

### 5. Sports Facility:

- stadium / arena,
- training hall,
- drill hall,
- swimming-pool,
- sport's club / athletic society,
- sports field,
- children's play-ground.

### 6. Facility for Social, Cultural and/or Scientific Events:

- association / club / etc.,
- communal centre,
- dance hall,
- casino,
- multi-purpose hall,
- congress hall,
- community centre.

### 7. Entertainment:

- theatre/opera,

- cinema,
- concert hall,
- cultural centre,
- ticket office.

**8. Restaurant and Recreation:**

**restaurant:**

- restaurant,
- self-service,
- patisserie,
- café,
- take-away.

**recreation:**

- bar,
- disco.

**9. Exhibition Space:**

- museum,
- exhibition hall,
- gallery,
- library,
- archive.

**10. Special Use / Leisure:**

**place of worship:**

- church,
- other place of worship (mosque, etc.).

**leisure:**

- park,
- square,
- beach,
- adventure park / tourism infrastructure,
- car parking (multi-storey and underground car parks),
- tourist information office.

**transport / travel:**

- station house,
- waiting hall,
- travel agent / ticket office.

**11. Temporary Residence:**

**tourism:**

- hotel,
- room for rent,
- guest house / youth hostel.

**local residence:**

- boarding school / dormitory,
- old people's home.

Furthermore, criteria and elements supporting mobility, comfort, security and orientation in **outdoor spaces** have to be captured and integrated into the *AccOrD~4u2!*-database, as well. Thus, the following points have to be added to the list:

**12. Stops and Termini of PTS:**

**national means of PTS:**

- airport,
- train station,
- harbour.

**regional means of PTS:**

- bus,
- trolley,
- railway/underground,
- tram.

**private means of transport:**

- taxi stand,
- parking lot for wheelchair user,
- park house or park area,
- (dis-)embarkation space.

**13. Public Convenience / Urban Equipment:**

**Public convenience:**

- curb cut / ramp,
- pedestrian overpass / passage,
- arcade,
- tactile orientation marking,
- pedestrian zone,
- safe street crossing (acoustic traffic light).

**urban equipment:**

- kiosk,
- public toilet (for wheelchair user),
- public phone,
- bench,
- shade (natural or technical),
- lighting at night,
- drinking water fountain,
- city map.

**14. Place of Interest:**

- archaeological site,
- historic monument,



- historic building,
- castle.

These sets of targets are nothing more than points on a map. To provide supplementary basic information for the use of *AccOrD~4u2!*, further detailed attributes for all points have to be gathered via field sampling, revealing, for instance, UD implementations. If added to the database, **extended attribute tables** (with e.g. address, function, access, nearest bus stop, etc.) can then be viewed for each point independently. Investigations for targets of *AccOrD~4u2!* include preferably the most detailed possible information on existing UA and UD implementations and the over-all conditions (like dimensions, facilitating equipment, etc.). The following **descriptive building questionnaire** (*tab. 17-2*) (based on the Greek UD guidelines: [www.minenv.gr/1/16/162/16203/g1620300.html](http://www.minenv.gr/1/16/162/16203/g1620300.html)) gives an idea on the most important domains, where accurate data has to be collected:

GENERAL BUILDING INFORMATION	
Date:	
Name	
Address:(Main Entrance)	
Address:(Accessible Entrance)	
Opening hours	
Nr.:Of floors for public use	
Service category	
Service on which floor?	
Nr. Of buildings belonging to this service:	
Other service in same building?	
name	
Service category	
Service on which floor?:	
Communication responsible for PwD (name, tel-nr)	
Overview map with services/facilities? (location)	
Hoist available? (office nr, level)	
Wheelchair available? (office nr, level)	
Medical room? (with qualified nurse? With first aiders?) (office nr, level)	
Visit notification in advance necessary? (tel-nr)	

APPROACH ROUTE		
Next PTS Stop		
Alternative PTS stop		
Distance from PTS stop to entrance		
Number of crosswalks		
Actuated signal controls at crosswalks?	Yes:	No:
Refuge islands (1,50m length)?	Yes:	no:
Refuge island with warning edges for blinds?	Yes:	no:
Approach route on pavement to building entrance without steps or obstacles?	Yes:	no:
Pavement width (>1,50m/1,30m)		
Through-pedestrian-zone width (>1,50m or >3,00m on pedestrian zone)		
Through-pedestrian-zone without obstacles?	Yes:	No:
Continuous access axis? (>0,90m)		
Continuous blind guideline (0,50m from edges)?	Yes:	no:
Pavement inclination (<4%/5%)?	Yes:	no:
Obstacles over 2,20m?	Yes:	No:
Pavement surface continuous, smooth, self-draining, non-slippery?	Yes:	no:
Curb ramps on pavement edges (1,50m, 5%/1,20m, 8%)?	Yes:	No:
Warning for blinds at curb ramps?	Yes:	No:
Curb ramp landing ends at parking or through-pedestrian-zone?	Yes:	no:

APPROACH ROUTE FACILITIES		Obstacle detection with blind's cane (heightened base >0,05m)	
	Yes	No	
Traffic signs?	Yes	No	Yes No
Parking signs?	Yes	No	Yes No
Warning poles?	Yes	No	Yes No
Parking meter?	Yes	No	Yes No
Neighbourhood map?	Yes	No	Yes No
Urban infrastructure: bench / table / transit shelter?	Yes	No	Yes No
Public phone (telephone kiosk)?	Yes	No	Yes No
Drinking water fountain?	Yes	No	Yes No
Trash receptacles?	Yes	No	Yes No
Letter boxes?	Yes	No	Yes No
Automatic salesman?	Yes	No	Yes No
handrail?	Yes	No	Yes No
lighting?	Yes	No	Yes No
Bollards?	Yes	No	Yes No
vegetation: trees (for shade)?	Yes	No	Yes No

OUTDOOR PARKING LOT (DIS-)EMBARKATION SPACE			
Number of outdoor parking lots for employees			
Number of outdoor parking lots for visitors			
If 0: (dis-)embarkation bay in front of building (within radius <50m)?	Yes	No	
Number of outdoor parking lots near building (within radius <50m)			
Number of outdoor special parking lots (5,00*3,50m) (min 1 or 5% of total)			
Way of car parking (frontal, side, 60 grade, 30 grade)			
Parking bay marked for the use of drivers wD?	On floor	On column	
Orientation signs leading to spl (fashes)?	Yes	No	
spl surveyed / kept free (unauthorized parking measures)?	Yes	No	
Curb ramp from spl to through-pedestrian-zone?	Yes	No	
Distance from spl to accessible entrance			

MAIN ENTRANCE ACCESS			
Main entrance reachable from through-pedestrian-zone?	Yes	No	
Number of steps at main entrance? (height / width)			
Handrail at both sides of staircase?	Yes	No	
Stairlift or ramp at main entrance?	Yes	No	
Ramp inclination (<5%)			
Other accessible entrance for public use? (radius max: 10,0m, unlocked)	Yes	No	
PwD sign pointing out accessible (secondary) entrance (and leading to it)?	Yes	No	
<b>RAMP (outdoor)</b>			
Length of ramp (max: 10,0m; than landing of 1,50m)			
Height of ramp			
Width of ramp (1,30m - 1,20m between handrails)			
upstand (0,05m/0,10m) at left and right?	Yes	No	
Handrails at both sides of ramp? (at 0,70m and 0,90m)	Yes	No	
Handrails extending staircase at bottom and top (for 0,30m)	Yes	No	
Landing at ramp's lowest point? (Ø1,50m/length 1,80m)	Yes	No	
Landing at ramp's highest point? (Ø1,50m/length 1,80m)	Yes	No	
Landing at ramp's turning point? (Ø1,50m/length 1,80m)	Yes	No	
Yellow warning tiles at beginning and end for blinds?	Yes	No	
Lighting?	Yes	No	
Non-slippery surface?	Yes	No	
Self-draining or water-run-off?	Yes	No	
<b>STAIRLIFT OR PLATFORM</b>			
Platform size (0,90*1,20m)			
Kg (125kg)			
Security handrail (opening/closing)	Yes	No	
Free space for entrance/exit (1,50m*1,50m)	Yes	No	
Control device at top and bottom of route?	Yes	No	
Autonomous use possible?	Yes	No	

ACCESSIBLE (MAIN) ENTRANCE - DOOR			
Door opening (>1,20m/0,90m)? (with 1 or 2 sheets separately)	Yes	No	
Threshold? (<2cm)	Yes	No	
Swinging door?	Yes	No	
Distinguishable entrance? (colour, detail, pattern, paving)	Yes	No	
Entrance door material			
If glass: with metal or wooden frame?	Yes	No	
If glass: with warning stripes (tape, etc.)?	Yes	No	
Door opening to the outside?	Yes	No	
Easy to open?	Yes	No	
Time delay door closer?	Yes	No	
Space for wheelchair turning cycle on both sides of door? (Ø1,50m)	Yes	No	
Door at least 40cm from corner?	Yes	No	
Handle material			
Handles height (0,90-1,20m)?			
Door handle: bar (not spherical)?	Yes	No	
canopy?	Yes	No	
Non slippery ground?	Yes	No	
Water run-off?	Yes	No	

INDOOR PARKING LOT			
Number of basement parking lots			
Number of basement spl (5,00*3,50m) (min 1 or 5% of total)			
Spl marked with the international sign of PwD?	On floor	On column	
Orientation signs leading to spl?	Yes	No	
spl near elevator?	Yes	No	
Approach route to elevator without steps or obstacles?	Yes	no	w. flesh
Lighting?	Yes	no	

SECURITY EXITS			
Door opening >0,90m?	Yes	No	
Opening to the outside?	Yes	No	
Steps in exit way? (height/width)	Yes	no	
Lighting?	Yes	No	
Signs at door?	Yes	No	
Steps at door? (height/width)	Yes	No	
Handrails?	Yes	No	
Orientation signs (fleshes) leading to exit?	Yes	No	
Lighted danger signals?	Yes	No	

HORIZONTAL CIRCULATION - CORRIDORS			
Stairs from accessible entrance to elevator?	Yes	No	
How many steps? (height/width)			
If stairs: is way accessible by ramp, stairlift or elevator?	Yes	No	
Stairs from accessible entrance to public space?	Yes	No	
How many steps? (height/width)			
If stairs: is way accessible by ramp, stairlift or elevator?	Yes	No	
Corridor width (>1,50m/1,30m)			
Corridor height (>2,20m)			
Space for wheelchair turning cycle available at corridors beginning/end/middle?	Yes	No	
Surface continuous, smooth, non-slippery?	Yes	No	
Lighting?	Yes	No	
Heated/ cooled?	Yes	No	
Indoor door widths?			
Colour / texture contrast between door and wall?	Yes	No	
Colour / texture contrast between floor and wall?	Yes	No	
handrails height? (0,90-1,00m and 0,70m)			
Signs height (max 1,40m)			
Stopping possibility (with seats)? (0,80*1,30m)			
Turning possibility in rooms? (Ø1,50m)			

VERTICAL CIRCULATION – ELEVATOR			
Elevator?	Yes	No	
Waiting space in front of cabin: 1,50*1,50m?	Yes	No	
Elevator door width? (>0,85m)			
Automatically opening of doors?	Yes	No	
Double doors?	Yes	No	
Sliding doors?	Yes	No	
PwD sign for accessible elevator cabin?	Yes	No	
Entrance 0,40cm from corner?	Yes	No	
Cabin's entrance from smaller side?	Yes	No	
Elevator cabin's size? (min 1,10*1,40m)			
Handrails on 3 sides of cabin?	Yes	No	
Handrails at 0,90m?	Yes	No	
Mechanism / buttons height? (0,90-1,20m)			
Horizontal position of buttons?	Yes	No	
Buttons 0,40cm from cabin corner?	Yes	No	
Button: colour contrast for exit level?	Yes	No	
Button: colour contrast for emergency button?	Yes	No	
Braille indicator?	Yes	No	
Inside cabin: Voice announcement of floors and direction?	Yes	No	
Inside cabin: Illuminated floor number and direction flash?	Yes	No	
outside elevator: Voice announcement of floors and direction?	Yes	No	
Outside elevator: Illuminated floor number and direction flash?	Yes	No	
Stop exactly at floor's level?	Yes	No	
Colour contrast between door and wall?	Yes	No	
Lighting?	Yes	No	

VERTICAL CIRCULATION – STAIRCASE			
Straight staircase (not spiral)?	Yes	No	
Number of steps:			
Step's dimension: $2h+b=64$ (b min 28cm)	H=	B=	
Step's nosings of contrasting colour & texture, non-slippery?	Yes	No	
Landing every 10-12 steps?	Yes	No	
Landing width? (1,60m)			
Warning stripe at beginning and end of staircase?	Yes	No	
Warning stripe at beginning and end of every landing?	Yes	No	
Upstand on both sides? (>0,05m)	Yes	No	
Handrail (or wall) on both sides?	Yes	No	
Handrail height at 0,90m and 0,70m?	Yes	No	
Handrails extending staircase at bottom and top for 0,30m?	Yes	No	
Handrails continuous at 1,00m (0,90m?) height at every direction change?	Yes	No	
Handrails at landings?	Yes	No	
Stairlift?	Yes	No	
Non-slippery, smooth surface?	Yes	No	
Lighting?	Yes	No	

VERTICAL CIRCULATION – RAMP (indoor)			
Length of ramp (max 10,0m; than landing of 1,50m)			
Height of ramp:			
Width of ramp (0,90m between handrails)			
upstand (0,05m/0,10m) at left and right?	Yes	No	
Handrails at both sides of ramp? (at 0,70m and 0,90m)	Yes	No	
Handrails extending staircase at bottom and top (for 0,30m)?	Yes	No	
Landing at ramp's lowest point? (0,1,50m/length 1,80m)	Yes	No	
Landing at ramp's highest point? (0,1,50m/length 1,80m)	Yes	No	
Landing at ramp's turning point? (0,1,50m/length 1,80m)	Yes	No	
Yellow warning tiles at beginning and end for blinds?	Yes	No	
Lighting?	Yes	No	
Non-slippery surface?	Yes	No	

<b>SERVICES – WC (family WC = PwD's WC) unisex</b>				
Special toilet? (at least 1 on every floor)	Yes	No		
Special toilet on every floor? (min 10% of all)	Yes	No		
On which floor is special toilet?				
Marked with PwD sign at door?	Yes	No		
Sign in Braille writing?	Yes	No		
Door width? (>0,90m/0,82m)				
Door opening to outside?	Yes	No		
Sliding door?	Yes	No		
Toilet room size? (1,50*2,20m)				
Pre-room? (steps? Width/height)				
Distance of toilet seat from wall to the left? (either 0,50m or 1,00m)				
Distance of toilet seat from wall to the right? (either 0,50m or 1,00m)				
Space on left of toilet seat free of obstacles?	Yes	No		
Space on right of toilet seat free of obstacles?	Yes	No		
Height of toilet seat face? (0,45m)				
Special handles for toilet? (length 0,75m, height 0,70m)	Yes	No		
Space in front of toilet seat? (0,1,50m)				
Lowest point of wash basin? (0,83-0,85cm without siphon)				
Button for hanging up bags? (at 1,20m and 1,80m)	Yes	No		
Switches at 0,90-1,20m?	Yes	No		
Waste basket?	Yes	No		
Lighting?	Yes	No		
Infant changing bench?	Yes	No		
Help calling device?	Yes	No		
Emergency call device?	Yes	No		
Visual-acoustic announcement of information?	Yes	No		

<b>SERVICES –EQUIPMENT</b>				
<b>LOWERED COUNTER</b>		Yes	No	
Lowered desk at entrance level?	Yes	No		
Height of upper surface of lowered desk? (0,80-1,00m)				
Width of lowered desk? (1,20m)				
Space for PwD's feet at desk's bottom?	Yes	No		
PwD sign at lowered desk?	Yes	No		
Lighting?	Yes	No		
Corridor width in front of desks? (0,90-1,00m)				
<b>PUBLIC PHONE</b>		Yes	No	
Public phone at entrance level?	Yes	No		
Height of buttons of lowered public phones? (0,90-1,20m)				
PwD sign at lowered phone?	Yes	No		
Free space in front of phone				
Message Phone for blinds (κείμενηλέφωνο)?	Yes	No		
Lighting?	Yes	No		
<b>PUBLIC DRINKING WATER COOLERS</b>		Yes	No	
Water coolers at entrance level?	Yes	No		
Height of mechanisms of water cooler?				
Free space in front of water cooler?	Yes	No		
Lighting?	Yes	No		
<b>STOPPING SPACE FOR WHEELCHAIR</b>		Yes	No	
Size? (0,80*1,30m)				
In combination with other sitting possibilities?	Yes	No		
On entrance level?	Yes	No		
<b>ATM AT LOWERED HEIGHT</b>		Yes	No	
ATM at entrance level?	Yes	No		
Height of buttons of lowered ATM?				
PwD sign at lowered ATM?	Yes	No		
Lighting?	Yes	No		

OTHER FACILITIES				
Special changing room?	Yes	No		
Height of mirror? (0,45-1,40m)				
Reduced ticket for PwD?	Yes	No		
Reduced ticket for accompanying person?	Yes	No		
Special shopping trolley?	Yes	No		
Delivery service?	Yes	No		
Leaflets in Braille?	Yes	No		

Tab. 17-2: Proposal of a questionnaire on UA and UD criteria for detailed field sampling

## 17.6 'ACCORD~4U2!' PILOT PHASE

### 17.6.1 INTRODUCTION

As has already been noted, it is beyond the scope of this thesis to design and develop *AccOrD~4u2!*. Therefore, a **demo has been elaborated for the city centre of Athens** using the GIS environment of ArcViewGIS 3.2, in order to show the functioning of the idea.

The tool *AccOrD~4u2!* is of major significance, especially in only fragmentary barrier-free environments and manages to improve every citizen's life quality. Athens is an example of an almost not urbanely planned and under-developed European city, which tried to reach international accessibility standards within a short period of time and fragmentary even managed to do so. As most, if not all, cities today grant **to achieve the best possible accessibility, *AccOrD~4u2!* is the solution, as the major matter is to restore the general functioning of a city for everybody!** The search for solutions to make cities work again for all their citizens and support communication between their residents, tourists, facilities and services, lead to the work out of *AccOrD~4u2!*

Athens has been chosen due to several reasons. Although lately, Greece's capital has made some **anguished attempts to grant accessibility and implement UD guidelines at least to the most important buildings, establishments and institutions, conditions still do not seem to enable autonomous mobility.** It is exactly this kind of hostile and partly obstructive environments, that will first and foremost gain immediate improvement and profit from *AccOrD~4u2!*. Perhaps tourists wRM and wD managed to survive during the (Para) Olympic Games in 2004, but everyday-life for PRM and PwD in Athens has not changed much. Greece lost its chance to mould its own new European model for disability, based on social prototypes and enriched with powerful discrimination fighting legislation, parallel to the adaptation and construction works done during the preparation for this mega event in summer 2004. This is what makes the implementation of *AccOrD~4u2!* so very important, as everybody's integration can be supported in a very positive way!

For the pilot phase it was decided, to elaborate a **demo, which focuses solely on UA for Pw mobility impairment**. Thus, **conditions in street spaces were captured, as well as transition spaces from pavements to building entrances**. As only little has been done for Pw visual impairments in Athens, except existing tactile orientation markings on pavements and at curb cuts, as well as the few acoustic traffic lights were noted in the *AccOrD~4u2!*-pilot phase. Because of the encountered difficulties in obtaining detailed information on interior facilitations, partly due to mistrust and suspicion of service's staff or shop owners, **the demo neglects UD inside buildings**.

The one way or the other, the importance of this tool lies in **creating a basis for every user to manage to reach the accessible target autonomously and on time**. It is first and foremost outdoor conditions, like inaccessible means of PTS or PTS-stops, temporary obstacles (e.g. work sites) and so on, that hinder especially PwD to approach a building. So, if accurate information on surrounding environments is not available, it is of little use to know, for instance, where a service can be entered. Of course, it is important to be informed on e.g. the existence of a lowered counter, but inside a building it will be probably easier to obtain any kind of help. It has to be stressed, that the demo's focusing on outdoor conditions has not to be considered the optimal solution, but it is the major link of the chain of accessibility and the first important step to work against social exclusion and to favour autonomous mobility.

For the *AccOrD~4u2!* pilot phase, the vector database and the digital orthophoto for the city centre of Athens were kindly offered by GEOMET Ltd, Athens. The demo's field survey investigated street spaces and building entrances of Athens city centre, as described in detail in the following. The **data was collected during June and July 2004**. The area of interest was chosen on the one side, because it provides a maximum on facilities for public use (e.g. public services, educational buildings, entertainment and recreation facilities and so on) and on the other side, because it can be taken for granted, that every resident knows how to reach the city centre from her/his dwelling, either by private car or by means of PTS.

The demo version of *AccOrD~4u2!* **provides the possibility to view targets on a map, to acquire certain informative details**, such as location's name and address or kind of obstacle and **to view images** of accessible building entrances or obstacles. The attributes, which all targets have in common, are:

- service's name;
- address (defined by street 1 with number (if needed also Street 2 with number) and the area's postal code);
- date of last visit and information capturing.

#### 17.6.2 DEMO AREA

The **demo area's boundaries** follow in the North Satobriandou Street and Beranzerou Street, in the East Koletti Street, Navarinou - Skoufa Street and Irodotou Street, in the South Basilisis Sofias Avenue, Souri Street, Navarchou Nikodimou Street and Adrianou Street and in the West Aiolou Stret, Athinas Street and Sokratous Street (*fig. 17-11*):

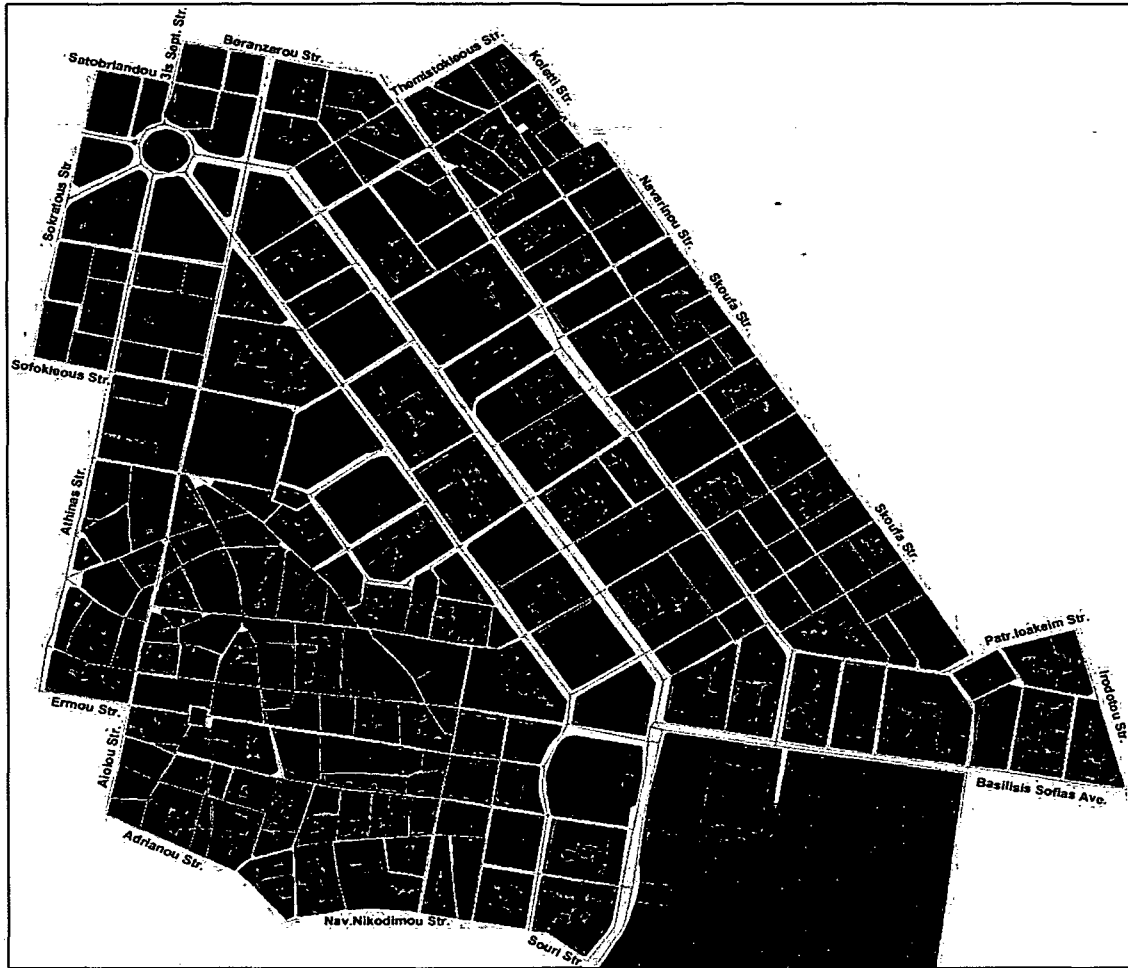


Fig. 17-11: The demo area for the AccOrD~4u2! pilot phase

### 17.6.3 PTS STOPS AND TERMINI IN THE DEMO AREA

The demo area was also chosen in such a way, so as to incorporate most possible means of PTS. The object type of this target is 'PTS-stop' (fig. 17-12) and according to the means of PTS the categories that can be found in the demo area are:

- bus;
- trolley;
- metro;
- metro with elevator;
- interurban bus.

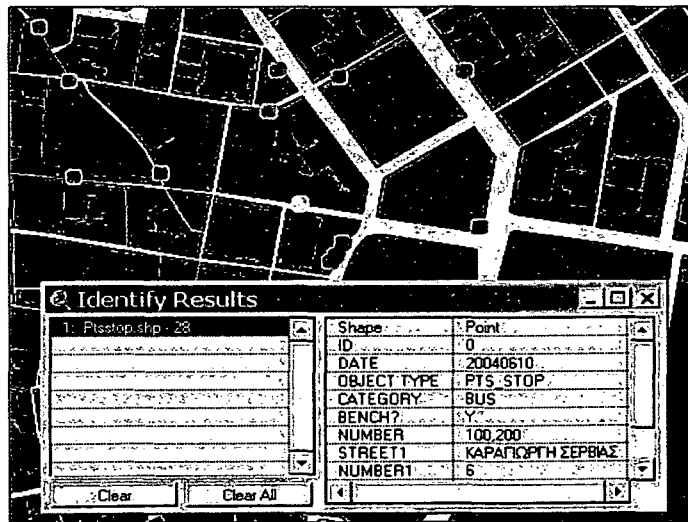


Fig. 17-12: Example of PTS-stops in the demo area (blue points) and attributes of a selected PTS-stop (yellow point)



Supplementary information that is available on PTS stops (fig. 17-14) is:

- the PTS line's number;
- if a bench is available at the PTS stop.

#### 17.6.4 SERVICES OF PUBLIC USE INCLUDED IN THE DEMO

The demo for Athens' city centre includes a series of important services for everyday life. The object types and categories are kept as presented in 17.5. The **totality of the following service categories in the demo area has been registered:**

- public administration building (ministry, embassy, consulate);
- public transaction office (security institution, chamber, post office, phone company, electricity company);
- private transaction office (bank, outdoor ATM, insurance);
- health and welfare shop (hospital/clinic, pharmacy, orthopaedics);
- education (general, private, vocational)
- super market;
- kiosk;
- restaurant and recreation (café, self-service, restaurant);
- entertainment (theatre, cinema, ticket office);
- special use (park);
- place of worship (church);
- facility for social, cultural and/or scientific use (community centre, association/ club/society)
- temporary residence (hotel);
- exhibition space (museum, library, archive);
- place of interest (historic building, living monument).

Further information can be looked at (fig. 17-13) regarding the following criteria:

- if universal access is available at the building's entrance;
- if a picture of the entrance situation is available (fig. 17-14).

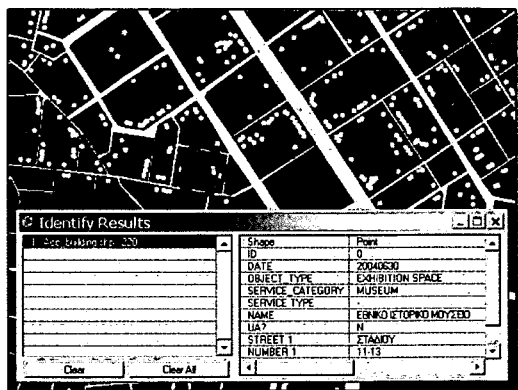


Fig. 17-13: Orange points sign buildings belonging to the categories included in the demo and the yellow point marks the selection for which the attribute table is available



Fig. 17-14: If a picture on the entrance situation of the selected building is available, it can be viewed at by clicking on the marked point

**Services belonging to all other categories**, for instance: general stores or showrooms, buildings hosting offices and/or apartments, car parking, etc., have only been recorded, **when entrance conditions were judged accessible**. As has already been pointed out, accessibility in this demo means step-free access and door opening width over 0,85m.

#### 17.6.5 URBAN EQUIPMENT AND FACILITATIONS RECORDED IN THE DEMO AREA

As the importance of detailed conditions in the built environment wanted to be pointed out in this demo, the following **urban facilitations were captured**:

- tactile orientation marking;
- curb cut (e.g. with tactile orientation marking);
- pavement lowering (e.g. at parking entrance);
- traffic light (e.g. with acoustic device);
- bench (in green area or at PTS stop);
- drinking water point;
- public phone;
- public toilet (e.g. with wheelchair user room);
- mailbox;
- pedestrian zone;
- alley.

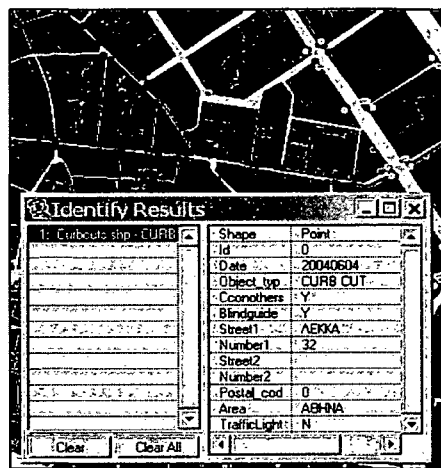


Fig. 17-15: Example of urban equipment and facilitations: Brown points show curb cuts, yellow points mark traffic lights and blue points show benches

**Attributes belonging to these facilities vary from one category to another.** For instance, at tactile orientation markings it can be viewed, if older types of guidance tiles have been used or new ones, so as to provide a distinction in the easiness of detection. The additional information for curb cuts gives data on the crossing situation, e.g. if a corresponding curb cut can be found on the other side of the crossing, if a tactile orientation marking leads to the curb cut and if it includes danger warning tiles and if a traffic light is available at the crossing (fig. 17-15). The attributes of traffic lights inform whether an acoustic device is installed or not and whether a curb cut goes together with the traffic light.

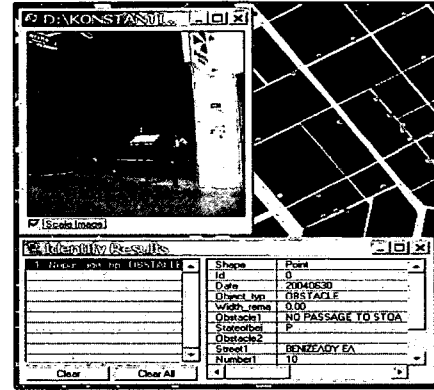
#### 17.6.6 OBSTACLES CONSIDERED IN THE DEMO

Last, but not least, is the marking of obstacles. An obstacle was considered everything, which narrows pavement widths below 0,90m and, therefore, hinders the passing of a wheelchair. A division has been made between temporary and permanent barriers and the remaining widths were measured, so as to allow, for instance, persons with children prams, to use the pavement, if the width remains satisfying. Most obstacles have been captured in images, so as to provide a concrete picture on the actual situation and a basis for individual judgement.

**Permanent obstacles** that were recorded belong to the following categories:

- step in pavement / ramp;
- sign pole / lighting pole / electricity pole;
- lodge;

- baluster;
- tree;
- steps to building entrance or basement;
- basement window;
- grid;
- narrow pavement;
- no passage to arcade (fig. 17-16);
- kiosk / stand;
- electricity box.



**Temporary obstacles** that were considered in the demo are:

- removable plant pot;
- merchandise (fig. 17-17);
- uneven pavement surface;
- worksite;
- container.

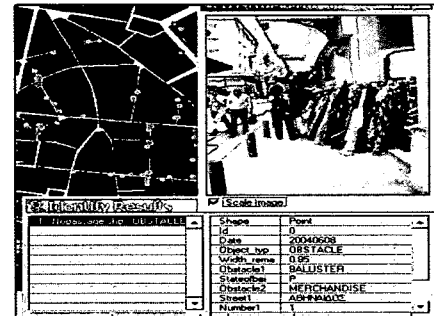


Fig. 17-16 and Fig. 17-17: Example of permanent and temporary obstacle

### 17.7 IDEAS FOR 'ACCORD~4U2!' FURTHER DEVELOPMENT

In this pilot phase, *AccOrD~4u2!* was developed for the city centre, as it is impossible to capture the total area of the whole city in a first step. The **city centre** was chosen, as it can be assumed, that every resident knows how to reach it and as it provides high density of services and facilities, the best PTS network, grouped infrastructure, environments of specific interests and so on. Furthermore, the detailed data regarding city centres enables also the **immediate use of *AccOrD~4u2!* for tourism** and in conclusion, provides an important commercial value.

In a further step, ***AccOrD~4u2!*-criteria have to be extended for all other PwD**, so as to enable all persons to use it properly. This is especially important, as the variety of criteria will be of advantage for every user, for instance the marking of obstacles below clear heights will not only serve persons with visual impairments, but also tall persons.

Moreover, the results deriving from the data capturing of *AccOrD~4u2!* have to be worked out. This means, that **weak points in the built environment have to be marked and improvement solutions have to be elaborated**. For instance, crossings, where traffic lights and curb cuts are not at the same sides or missing tactile orientation markings on pavement sections can be easily remarked through *AccOrD~4u2!*. Any such unfavourable conditions should than be pointed out to corresponding municipalities, in order to solve all problematic spots and areas.

Furthermore, **accessibility of services and buildings have to be evaluated** in the *AccOrd~4u2!*-area. It is suggested, to define three categories, differentiating between:

- accessible,
- accessible after few low-cost adaptations,
- accessible only after expensive adaptations.

Especially, buildings belonging to the second category should be gathered and proposals should be elaborated, so as to force owners to have their building or service become accessible. In order to support such activities, it is proposed, to establish a way of **certificating and visibly indicating accessibility**, e.g. through an accessibility sticker of the municipality or the city. Signing accessible services will maybe also lead other owners to undertake something towards UA, due to e.g. reasons of comparison, competition and displeasure.

*AccOrd~4u2!* also offers the possibility to have an overview on the **spreading of accessible services and facilities**. It is suggested to elaborate a scheme, based on which maximum distances between similar accessible services are determined. For instance, at least one accessible pharmacy has to be located in a radius of 100m from a metro station or a hospital. This means that either an existing service has to be adapted, or that the next one to open up will solely get its permission, if properly designed and equipped according to UD criteria.

In order to support the commercial value of *AccOrd~4u2!*, it is proposed **to integrate the programme on city's websites and enable active interaction** with services, associations, users and so on. The advantage of *AccOrd~4u2!* as a digital database will than be available for everyone. In a more advanced step, it is suggested to create a basis, where, for instance, municipalities will be able to daily inform, where a temporary public worksite is planned. Furthermore, linking with services being on duty should be aimed at, for instance pharmacies. Finally, users themselves should have the opportunity to log themselves into the site and report where obstacles were detected or where mistakes in the data have been located.

It is estimated, that ***AccOrd~4u2!* is an excellent way, which will enable city nets to work for every user, without having the whole environment re-built**. Taking advantage of all related information and data deriving from this database, besides its commercial value, *AccOrd~4u2!* provides a perfect basis to start well-aimed adaptations and improvement works and to support and channel progressive ideas and projects regarding UA and UD!

## **18 CONCLUSION - SUGGESTIONS**

<b>18.1</b>	<b>INTRODUCTION .....</b>	<b>292</b>
<b>18.2</b>	<b>SYNOPSIS OF BASIC PROBLEM FIELDS .....</b>	<b>292</b>
<b>18.3</b>	<b>POSITIVE TENDENCIES AND EXAMPLES IN ATHENS .....</b>	<b>294</b>
<b>18.4</b>	<b>LEISURE AND TOURISM FOR PWD AS A NEW MARKET OPPORTUNITY .....</b>	<b>297</b>
<b>18.5</b>	<b>AUTHOR'S PROPOSALS FOR URGENT FUTURE MEASURES .</b>	<b>302</b>

### ABBREVIATIONS:

PRM:	Person / People with reduced mobility
PTS:	Public Transportation System
PwD:	Person / People with disability
UA:	Universal Access
UD:	Universal Design
wD:	with disability

## 18.1 INTRODUCTION

This chapter presents some conclusive considerations as a result of this thesis. As has become obvious, situation in all more or less 'developed' countries is about the same. Accessibility conditions only slightly differ in the degree they have been achieved and imposed so far, however **no paradise for PwD exists so far!** Some countries may offer a bigger variety on supportive services and laws, on accessible environments and certain well working links of the chain of accessibility, but no guarantee for unhindered mobility, for successful suppression of discrimination, etc, can really be expected anywhere. The basic problem fields are nearly similar in all countries, so are the problems' roots.

As it is much easier and more effective, to address concrete ideas and proposals based on an example, this chapter will refer to conditions in Greece and **suggestions are expressed for the immediate improvement.** But, of course, these conclusions do not only recommend actions, which should be launched soon in this country, but give an idea, on the dimension of activities that should be started all over the world, if they have not, yet. The impact and the aid of *AccORD~4u2!* will be clearly stressed, wherever necessary.

## 18.2 SYNOPSIS OF BASIC PROBLEM FIELDS

The source of most problems and difficulties, which PwD have to face today are false ideas, prejudices and disrespectful mentalities of the wider public that downgrade many persons, so that they finally become 'disabled'. Especially in countries like Greece, where annually about 3.200 PwD can be added from the about 23.000 traffic accidents per year, awareness has to rise and replace ignorance and indifference! The public at large in all countries has to start to consciously be confronted with all matters related to PRM and PwD and **to understand that**

### **PwD:**

- do not look for pity,
- do not seek for compassion,
- should not rise anxiety in their surrounding,
- should not be avoided or stigmatized,
- are not victims, neither a failure on the part of their mother or their family, nor a matter of bad luck,
- are not a curse from God or cursed by God,
- etc.

Besides the public at large, it is also persons in positions of power, which have to renew their thoughts and adapt their vocabulary. For instance, church's representatives have to stop to speak of 'persons with virtues', when talking about PwD or politicians have to cease address to 'citizens wD'. Informative actions may have started and awareness may be rising on higher national levels during the last years, but regulations, legislations, etc. still refer exclusively to PwD, instead of **addressing every citizen as a possible PRM or PwD!**

Moreover, policies should not exclusively support economic measures, like pensions, benefits, etc. (which mainly raise dependency), but **action has to be directed towards improvement in infrastructure, public services and supportive measures (for instance *AccOrD~4u2!*), because PwD demand:**

- the 3\*α: αξιολρέπεια - αυτονομία - αυτοδυναμία (self-respect – autonomy – self-reliance)
- integration into society,
- equal rights and chances like all citizens as regards: knowledge, education, specialization, labor, independent living, autonomous mobility, personal and individual living, property, etc.
- acceptance,
- chances to develop their personal capabilities,
- chances to take over their own responsibilities,
- chances to develop their mental and corporal powers,
- personal experiences,
- possibilities of individual choices,
- etc.

On the part of design professionals, the existing social and architectural barriers have to be demolished. **Society has to fight against its:**

- indifference to face 'different' situations,
- ignorance on matters of disability,
- disrespect and underestimation of minorities and fellow-citizens,
- weakness to integrate feeble groups into today's way of life,
- miscomprehension of the meaning of attitudes' changes,
- denial of cruel reality and the fact, that at least one person out of two faces problems in mobility (either her/himself or as an escort),
- etc.

Besides systematic information and awakening of the public at large, (future) **design and construction professionals have to understand the meaning of UD and UA and the wider positive influence on everybody's life.** Good mood is not enough in order to avoid architectural and environmental barriers; knowledge and implementation are needed first and foremost! Awareness has to root in design professionals' minds, so that the built environment ceases to:

- hinder PRM's autonomous mobility,
- provoke dangers for everyone,
- block possibilities to lead independent lives for minorities,
- reflect ignorance on existing legislations, regulations, etc.,
- mirror the miscomprehension of the importance of making everybody's life more friendly, secure, safe and easy,
- reveal the gap between design and implementation on site,
- etc.

### 18.3 POSITIVE TENDENCIES AND EXAMPLES IN ATHENS

The problem in Athens remains the fragmentary way, any initiatives are realised. **“Reformations do not cover the gap between theoretic research and scientific dialogues, so far”** (Μπαξεβανιδης, 2002: 54). Besides this, the immense lack of leading and progressive architectural and urban design solutions in Greece’s capital is noticed. The acceptance and integration of PwD needs to be enforced by any means, so as to become self-evident in all future measures and adaptations. Immediate plans, especially focusing on long-term conditions, have to start to prevail, as well as care for maintenance and enforced control. But as has been clearly seen already, slow progress can be remarked thanks to some very patient and obstinate Greek professionals.

One such example is the Municipality of Athens. A series of positive tendencies can be reported: main streets are turned into pedestrian zones, big central squares get reformed, old buildings are aesthetically and functionally upgraded, archaeological sites are shown off and much more. With the EC-programme Horizon over 1000 curb cuts were constructed in Athens. **Athens’ Municipality** has worked out and designed **3 typical solutions for curb cuts with cement slabs** (fig. 18-1), which are applied lately in all pavement reconstructions. However, as ridiculous as this may sound, these typical solutions do not integrate tactile orientation markings, if pavements are narrower than 1,40m, as legislation foresees at least 1,00-1,50m obstacle-free pedestrian movement axes. The first completed example in Athens, where these solutions were implemented is the entity of Alexandra’s Avenue (Λεωφόρος Αλεξάνδρας).

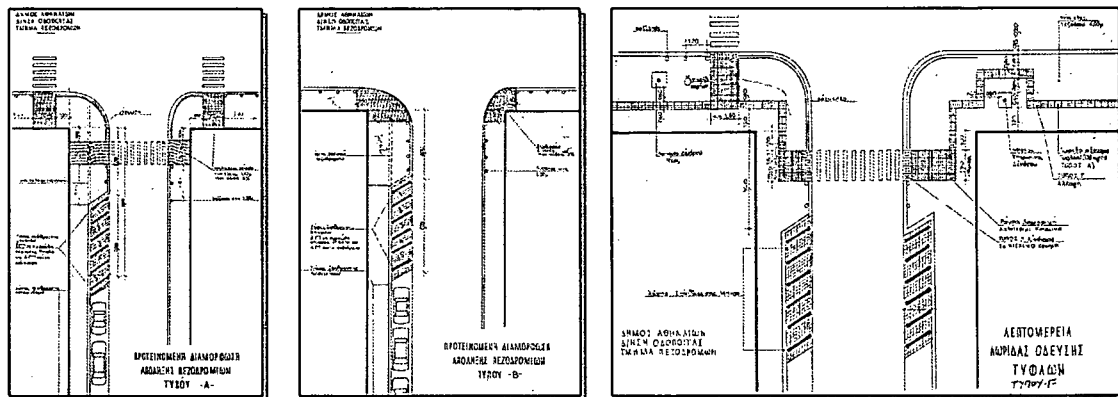


Fig. 18-1: The three typical solutions for curb cuts with cement slabs, as designed and implemented by the Municipality of Athens

Another important initiative in order to create more pleasant walkways and open spaces for cultural and recreational activities is the example of the aesthetical and functional ‘Reformation of the historical centre of Athens’ by EAXA (Ενοποίηση Αρχαιολογικών Χώρων Αθήνας – Unification of Athens’ Archaeological Sites). The project **‘Reformation – Construction of a network of pedestrian zones and free spaces of public use in the area of the Acropolis’** included the pedestrianising of the Dionisiou Aeropagitou Street and Apostolou Pavlou Street. This project was semi-financed by the Greek Ministry of Culture (50%) and the Greek Ministry for the Environment, Physical Planning and Public Works (50%).

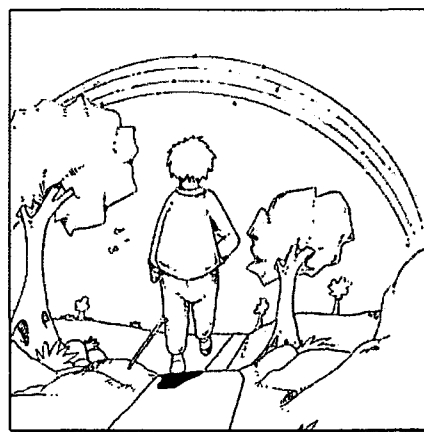


The creation of this pedestrian zone (2 km long!) has been the **most important urban intervention ever undertaken in Greece's capital**. Inclinations on Apostolou Pavlou Street do not exceed 5,5% and maximally reach 3% on Dionisiou Aeropagitou making the whole zone wheel-chair drivable. The project incorporates the first successful tactile orientation marking in one of Athens' new pedestrian zones leading from the metro station 'Akropolis' to the ΗΣΑΠ station 'Thisseio'. This was of particular significance, because of the area's specific characteristics, like stairs at houses' entrances, lines of trees, dug areas of archaeological excavations, etc. As the area is considered being an archaeological site, neither strong color contrast, nor any material except white marble was permitted for the creation of this tactile orientation marking. The surrounding road surface of cobblestones and its joints create a very rough effect and thus make it impossible to detect usual tactile orientation marking tiles. In co-operation with the Panhellenic Association of the Blind a specific stone texture was developed. Marble without any bars would have been the best solution, but as it is too slippery when wet, **the guideline consists of three bars (four ditches)** (fig. 18-2). This guideline was **proofed to be successful** and is now used in every project of the EAXA (Verykokaki, 2003).



Fig. 18-2: The recently developed marble tactile orientation markings, which is used in every adaptation and reconstruction in areas of archaeological importance

The initiative in this project was extraordinary on the part of all involved parties and work did not stop with the successful development of this new tactile orientation marking element. Again in co-operation with the Panhellenic Association for the Blind leaflets were distributed in the whole area, in order to **inform the public on the use of the tactile orientation marking and on the importance of keeping this lane free from any kind of obstacles** (fig. 18-3), like parked cars or motorbikes, tables of cafes, etc. The public was re-informed on the International Day of the White Cane on 15<sup>th</sup> October 2001 and 2002.



The list of positive initiatives in Athens is long. However, the question always remains the correct realization and wider acceptance of any measure. So, for instance, the municipality of Kallithea in Attica was one of the first ones to construct **tactile orientation markings on its pavements**. However, due to reasons of cost, a kind of tile was used, which is not easily

distinguishable with the white cane, but low-cost for replacements. Although the idea of providing facilities for persons with visual impairments is excellent, it is questionable, if it is appropriate to try to find inexpensive solutions, which finally do not support the over-all purpose!

On the one side, it is reasons of cost, which often block every positive attempt. On the other side, it is the obvious lack of the public's acceptance at large, as can be observed with the placing of **acoustic signals at traffic lights** at some few street crossings in Athens. As the noise of these common systems annoyed Greek fellow-citizens and due to reasons of vandalism, the acoustic mechanisms had to be placed inside the light columns or on their tops. In conclusion, today, only holders of wireless remote control devices can activate the acoustic signaling of traffic lights at these specific crossroads. Again, it is doubtful, if this is a successful way of implementing facilitating urban equipment. Tourists with visual impairments, for instance, will have no profit of these devices, if they do not possess such a control device!

As far as **successful building adaptations and barrier-free constructions** is regarded, it can be mostly observed in special design projects, especially when the goal is to serve PRM or PwD. So, for instance, the Old People's Home (ΚΑΠΗ) in the municipality of Zografou can be mentioned, as well as the KEK AKMON, a vocational training centre, where the programme EQUAL is taught to people with visual impairments.

Another positive initiative, that has to be reported, is the one of the **Greek Post Offices (EATA)**. Lately, the EATA has started to renovate all their offices and **besides barrier-free access with lowered counters, adaptations also include the integration of tactile orientation markings** (fig. 18-4). The first such implementation was achieved with granulated tiles at the Post Office in Aiolou Street. However, ever since, self-adhesive orientation markings are used (e.g. Syntagma Square Post Office). Furthermore, the company has trained all staff members on matters regarding PRM and PwD, so as to serve them on priority, to help them whenever necessary and so on.



Fig. 18-4: The EATA also support customers with visual impairment

A further positive example is the 'Touch Museum' of the Lighthouse of the Blind in Athens. It is one of the rare exhibition spaces, where Pw visual impairment are allowed to touch and feel sculptures (fig. 18-5). In Thessalonica, the Museum of Byzantine Civilization also runs a programme in favour of visitors with visual impairment, where some special tours guide these visitors through the museum's halls and allow them to touch certain exhibition elements. During the Cultural Olympiad, **some theatres enabled spectators with visual impairments to watch plays**, in providing them audio-description through the plays, informing them on the stage-design, actors' entrances, their gestures, mimic and all relevant details, in order to understand the play's plot.



Fig. 18-5: 'Touch Museums' are very rare

#### 18.4 LEISURE AND TOURISM FOR PWD AS A NEW MARKET OPPORTUNITY

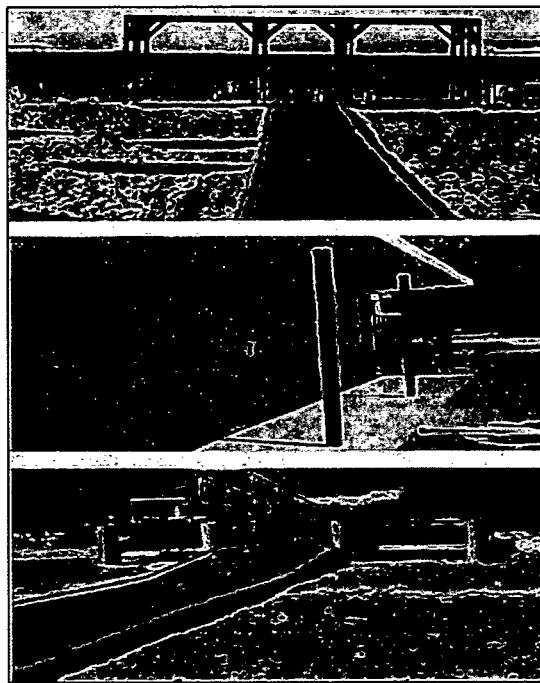
As society does not seem to be ready to accept and get convinced by reasons, like to restore and guarantee every person's dignity, it is concepts of new profit opportunities and perspectives of market efficacy, that have to get stressed, when talking of and enforcing correct UD and UA implementations. The just mentioned **positive initiatives can of course also serve and gain further profit from leisure and tourism**, if accessibility is established in the wider sense and in conclusion, enables every interested person to stay in Athens and to visit and use its infrastructure and facilities.

Of course, first and foremost, access from homes to main infrastructural buildings and services has to be guaranteed, but recreation is a very important link in the chain of accessibility as well, especially in 'developed' societies, where early retirements are becoming the habit and reduced working hours offer more and more spare time to every individual. As **part-time employment seems to be the prevailing tendency and partly the only solution for PwD's integration into the labour market**, this chapter will present leisure possibilities for PwD in Greece, a country, which primarily lives from tourism.

The **changed aging pyramid has made mobile the mostly wealthy over 60 generation**. In conclusion, nowadays, an important rise in annually visits can be achieved through proper adaptations of tourist businesses. The elimination of unnecessary steps, the placing of missing handrails and enlarging of door widths would already contribute on an important degree to any of these barrier-free goals. Turkey, for instance, has already taken advantage of such thoughts. Today, already 4 resort centres for renopathy patients exist on

the Turkish coast providing haemodialysis possibilities for these special visitors! Greece still is a step behind.

However, as regards leisure facilities for PwD, some efforts can be noticed lately. Since 1999, PwD and PRM can use the former grounds of the Athens' American Base in the area of Ellinikon for physical exercise and athletics (Nikolaïdou, 1999). For many years, the only accessible beach for PwD was the one belonging to the Greek National Tourist Organisation (E.O.T.) in Athens' suburb Vouliagmeni. In 2003, the Hellenic Tourist Properties Company (Ελληνικά Τουριστικά Ακίνητα) inaugurated the programme **'Everybody in the Sand'** (Όλοι στην Άμμο) providing access for PwD on organized Greek beaches. This programme launched technical specifications and supports their pilot realization on 4 Greek beaches. So far, the beach Agia Triada near Thessalonica (*fig. 18-6*) has been materialized.



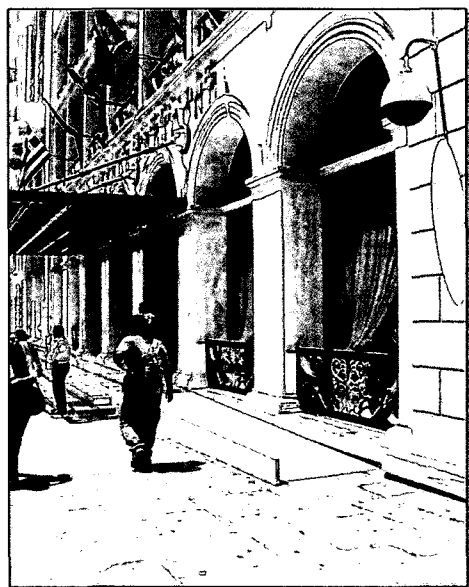
*Fig. 18-6: Accessible beach at Agia Triada - Thessalonica*

But this rather remains the oasis, as the general situation in the tourist sector in Greece is as disappointing as in every other domain that has already been discussed in this thesis. For instance, statistics show, that only 3% of all restaurants in Greece are accessible (Χαραλαμπάκης, 2003), if at all. Evaluation criteria vary and actually there is **no guarantee on accessibility conditions in buildings having the international sign for accessibility on their front door in Greece.**

Some thought of the Olympic Games in 2004 being the solution and salvation to all problems in Athens and the other Olympic municipalities. This, of course, is far from being reality. Due to the usual lack of funds, the inter-ministerial committee for the Olympic Games decided the reduction of projects and activities in many involved municipalities. However, *"five actions did survive amongst whom **works regarding accessibility for PwD, which is the one of lowest cost, but of immediate social reflection**"* (Κρουστάλλη, 2003: 52).

As positive as this message may have sounded, the situation portrayed in this thesis has revealed the real image, which is not rosy at all. All actions seem to be guided by an inexplicable and unjustified short-mindedness. The **major (and solely) aim seems to have been the momentary satisfaction of visitors and the positive image that was presented to the world during this mega-event.** Few, if at all, considerations on the long-term use of interventions, adaptations, etc. were expressed or realized.

Already since 1987 and especially with the Olympic Laws, all hotels in Greece are obliged to build or adapt 10% of their rooms for PwD (at a minimum two rooms per building and ten rooms at a maximum). Free horizontal and vertical mobility has to be guaranteed from and to main public facilities within the building. But 'accessible' hotels often do not meet the required criteria, e.g. bathrooms in rooms for wheelchair users are seldom properly equipped and showers often are built on a higher level, in order to avoid water to spill-over. **Accessibility in the tourist sector at large seems to remain a vision.** It is only hotels belonging to A' (or B') class or the Lux category, that have adapted their buildings and made them accessible for PRM and PwD (*fig. 18-7 and fig. 18-8*). In the frame of preparatory works done for the (Para) Olympic Games in Athens, subventions were announced from the Greek Ministry of Development for adaptations in hotels belonging to category C' and D'. At least one room with its bathroom had to become barrier-free, as well as all spaces of public use. It is unknown, how many hotels applied for this fund.



*Fig. 18-7 and Fig. 18-8: It is only Lux, A' or B' class hotels that are accessible in Athens*

As far as UA applications in the built environment are regarded, works were only pushed forward in the 14 'Olympic' municipalities. This means, that in each such municipality one certain route was chosen and constructed or adapted to become barrier-free. Criteria for these route-choices were estimations relying on expected numbers of visitors during the Games. Again, the only goal was the temporary positive image, which was presented to the world during August and September 2004. There are supposed to **exist 250km of accessible pavements in Athens, but where are they?** The short-mindedness and improvisation of interventions has led to the malfunction of all such adaptations and works in the after period, as on the one hand no considerations on long-term were expressed as regards for instance maintenance. On the other hand, these accessible routes have mostly become useless after this 1-month-event, as their construction was oriented strictly towards access to training halls, stadiums, hotels and points of tourist interest. In conclusion, **no elementary condition improvement has resulted from these access interventions for the daily struggle of PRM and PwD living in Athens!**

A more useful initiative launched during the preparatory period for the (Para) Olympic Games in Athens was the programme 'Ermis (Ερμής): **accessible choice – accessible enterprise**' (fig. 18-9). The aim was to gather all accessible services of Athens in a guide (Οδηγός Προσβάσιμων Επιχειρήσεων) and to raise awareness on the 'new' market expansion possibilities, if services are accessible to PwD, PRM, their families and friends. It was an **opportunity to upgrade services belonging to the tourist sector as regards access conditions for PRM and people with visual impairments**. After an advertising campaign in the mass media over 6 months, interested enterprises had to fill out a questionnaire until the end of 2003, which interrogated on entrance and building conditions regarding door widths, thresholds, steps, ramps, elevators, toilets, corridors, free space for induction loops, visibility of glass surfaces, etc.

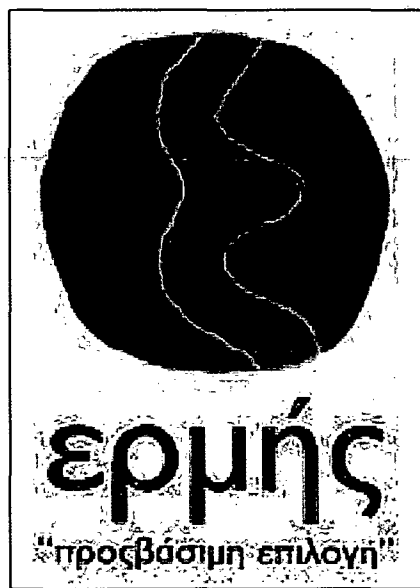


Fig. 18-9: 'Ermis – accessible choice'

Many problems occurred, for instance regarding restaurants and cafeterias. It was only few such services that had an accessible toilet and so there were almost no replies. In this case, special measures were taken and suggestions were made to municipalities, to **temporarily install one common public toilet for wheelchair users in areas, where several services are lying next to each other**. Easy and low-cost interventions, such as creating passages and corridors, placing simple ramps (fig. 18-10), widening entrances, etc. were suggested from the committee of the Ermis programme, wherever necessary. Finally, during the first months of 2004, PwD controlled all services that had declared to be 'accessible' before publishing the guide. It remains unknown, if such a guide really was distributed, as the author failed in getting one.



Fig. 18-10: Simple low-cost solutions granting UA

Apart from services of any kind, it is also **entertainment and cultural sites** that promote tourism in Greece and offer leisure possibilities. But **in-situ visits of archaeological sites still are extremely difficult for PRM and PwD**, due to uneven paths, missing lighting, railings or indications, etc. However, archaeological sites could easily become accessible, if only correct circulation studies were made. Choosing some routes and covering them slightly, already can enable PwD to move around sites independently, if widths, railings, ramps, etc. are designed and constructed according to UD and UA standards. This movement channelling

would, amongst others, additionally control visitor's anarchic movement and vandalism on historic sites (Vozikis, 2002).

Within the plethora of recent cultural projects, the **Athens' Acropolis was made accessible for visitors with mobility impairments** (fig. 18-11). An enormous budget flew into this project (10 mio drachmas only were spent for the preliminary study, this corresponds to E???) and finally a lift was installed to elevate visitors wD on top of the Ancient hill. Some wonder, if this project only was another demonstration action due to the Olympic Games, because the question already arouse: 'How soon is the lift going to be out of order due to damage, lack of maintenance or indifference?'



Fig. 18-11: Today the Athens' Acropolis is accessible, but for how long will this be the case?

Similar questioning seems justified, as it has been clearly revealed, that Greece's capital is in general terms not accessible. Therefore, such aims, like making all cultural sites accessible are much too high set. Once more, the only concern seems to be Greece's image outside its borders, instead of improving real living conditions of Athenians with or without impairments. Spending such huge amounts on elite projects, like the accessibility of the Acropolis, should get replaced by interventions, which primarily focus on ameliorating every day living conditions of permanent residents and in conclusion enabling tourists to visit the city. But even if this short-mindedness and elite way of seeing and decision taking is the habit, **of what use can an accessible monument be, if a tourist wD is not able to reach it within the impenetrable chaos of the city of Athens?**

The final result of every measure and adaptation has to be guaranteed accessibility and this means not only UA to specific spots, but also to their environments. In a further step to the basic functioning of classifications like the 'European Transport Accessibility System', the promotion of reliable tools has to be aimed at, so as to serve all tourists wD. The **significance of AccOrD~4u2! is high**, as the major issue of all such tools is the reliability and updating of any provided data.

**AccOrD~4u2!** could be launched as a **commercial product** (e.g. installed in a mobile phone or a palmtop) and turn everybody's travel into a comfortable visit, even in foreign countries! Besides providing accurate information on existing facilities and services, guidance and orientation aids, the autonomous use of every kind of entertainment and leisure activity, such as sports, artistic and cultural events and museums, exhibitions, archaeological and cultural sites and all other kinds of expression (sculpture, painting, architecture, theatre, movies, television, tourism, etc.) could be achieved for residents, as well as for tourists!

## 18.5 AUTHOR'S PROPOSALS FOR URGENT FUTURE MEASURES

Reality proves that Greece, like many other countries, still is far behind the desired conditions regarding accessibility, autonomy, safety and comfort. In order to create proper foundations for UD and UA implementations and to improve and up-grade living conditions for every citizen, but especially PRM and PwD, a series of measures and activities have to be taken. The list is long and the author proposes to focus on the following ones.

First of all, immediate focus has to be set on **sensitization and information of the public at large**, for instance of:

- children and youth, as they are the future citizens,
- design and construction professionals,
- shop owners,
- reporters,
- etc.

In addition, it seems important, that several centres and carriers are founded, so as to guarantee the smooth flow of information, the control of UD and UA implementations, the issue of penalties, the rising of awareness, the support of charges from PwD and so on. So far, only the Greek Ministry of Health and Welfare approved the creation of an observatory. But this action, once more, addresses all issues under the bonnet of 'PwD' and not as accessibility matters for every citizen (Βλάχος, 1991). On the part of the Greek Ministry of Interior, Public Administration and Decentralization a co-operation with the Greek Ministry for Transport and Communication can be reported, which has launched the idea of **setting up an accessibility board, in order to enact an action plan to co-ordinate all ministries and services**. So far, the idea remains a vision.

Obviously, measures have to be taken to fill all gaps of lacking knowledge and problems in acquiring relevant information on matters related to disability in the widest sense. Therefore, the founding of an **information centre on matters of impairment and disability** is proposed (aiming also at its integration into international networks) for parents, PwD, relatives, etc. providing:

- information on legislative regulations and changes, new services, quality and variety of services, further support centres, mobility aids, etc.
- information on precautionous interventions, educational services, benefits and pensions, domestic and personal aids, old people's homes, etc.
- pieces of advice as regards matters of disability, independent living, architectural apartment facilitations and adaptations, support at home, accessible buildings and recreation centres, etc.
- solidarity and communication through experience exchanges between PwD and their social surroundings,
- publications, training, information of the public at large,
- suggestions to responsible services on issues like: PwD's parking spaces next to public spaces, acoustic traffic lights, etc.,
- etc.



For the support and spreading of all positive attempts and actions, the author suggests the creation of a **register and evaluation centre on matters of impairment and disability** in order to register:

- the quantity of PwD living in Greece,
- disability's causes,
- PwD's social circumstances,
- problems PwD encounter,
- PwD's ways of being confronted with matters of impairment and disability,
- the use and functioning of services PwD utilize,
- and to evaluate services and programmes for PwD,
- etc.

aiming at:

- continuously up-dating and cross-checking of all data,
- the creation of a data base with public, volunteering and private services, careers and programmes as regards matters of health, social welfare and rehabilitation, etc.,
- the revision of a unified classification of disabilities, inabilities and impairments, especially regarding the harmonization or unification of national health systems,
- the development of tools to maintain this classification, its target being the analysis of needs and the harmonization and knowledge exchange on European level, in order to abolish discrimination and to guarantee free mobility for PwD and their families.

Furthermore, state services soon will not be able to cope with required necessities of changes in the constellation of populations' aging pyramid, etc anymore. Thus, the **support of informal nets** has to be launched through:

- elevating the family's function in the support of PwD and their integration,
- providing aids in the proper functioning of these informal nets,
- rising awareness that these nets take over an important degree of PwD's care,
- attracting persons who provide informal care, help, etc. with additional economic bonuses,
- emphasizing on women's continuously changing and multiple function (as mother, sister, wife) as the person of primary responsibility and care for PwD,
- etc.

In this sense, it seems important, to establish a **support (and integration programmes) centre for PwD**, whose goal should be:

- health support for PwD,
- psychological support for PwD and their families,
- social and entertainment support,
- support in the job-finding-task for PwD and during their integration in the labor market,
- encouragement and support for PwD to develop their abilities with the help of appropriate measures in order to enable PwD to lead their own personal way of life,
- support and suggestions for the use of programmes for PwD on a (inter-)national level,
- etc.

Moreover, a **scientific co-ordination carrier** is of immediate necessity combining the domains of:

- health,
- education,
- employment,
- housing,
- welfare,
- etc.

aiming at:

- action co-ordination,
- accelerating the successful taking of decisions,
- control and register of applied legislation,
- register all national access consultants,
- consultative support for any interested persons (e.g. in UA and UD matters, etc.),
- introducing immediate changes in problem zones (e.g. over-signing on streets, etc.)
- announcement of penalties (e.g. if public elevators do not work, etc.)
- continuous adjustment of actions (e.g. therapies, educational approaches, infrastructure, etc.), as population's nature changes all the time,
- etc.

As far as UD and UA are regarded, a **model research centre for buildings** in Greece (or in Europe) has to be established. Already in the 4<sup>th</sup> century BC, the first European building patterns in force were effective in Greece. On a table found in Elefsina in 1893, technical specifications for 'the erection of columns' saw the light (Mávoç, 1991). This fact shows that in Ancient Greece, the terms 'model construction', 'standardization' and 'quality certification' were wide-spread and contributed to early Greek architecture. After having projected today's situation in Greece, the urgency of re-creating similar conditions is obvious. Thus, the suggested centre should especially deal with the:

- preparation of prioritized programmes,
- theoretic research on building matters,
- development of accessibility policies, technical specifications and guidance,
- control of functioning of infrastructure, of adaptations, etc. (e.g. rehabilitation services, etc.) at design level and when buildings are taken-over,
- appraisal of building, adaptation, surrounding public spaces, etc.
- new scientific proposals,
- control certificates,
- publications,
- scientific dialogues,
- etc.

Such a research centre should be closely linked to **units, which can develop and test new facilitating equipment**. The co-operation with industrial sectors is of basic importance, so as to provide the necessary equipment for UD building infrastructure, like prefabricated curb

cuts and ramps, stair-lifts, elevator equipment with visual and acoustic means, housing equipment, WC equipment, acoustic traffic lights, signs in Braille, tactile orientation marking tiles, etc.

The situation will only improve drastically for every citizen and make all our lives friendlier, safer and more comfortable, if:

- effective organization replaces chaotic bureaucracy (e.g. when old pavements are dug for conductors, etc. to achieve the additional construction of curb cuts, etc.),
- state control is guaranteed (e.g. to pick-up all illegally parked vehicles on tactile orientation markings, curb cuts, PwD's parking lots, etc.),
- state services stop to do everything just for a country's image abroad (e.g. building tactile orientation markings in Athens' city centre without taking the already placed acoustic traffic lights into account, etc.),
- private and public organizations start to co-operate (e.g. tactile orientation marking of ΗΣΑΠ should continue at changing points with Attiko Metro, etc.),
- companies are hindered from producing and providing imperfect products (e.g. Austrian elevators with extremely shiny bas-relief buttons, that are impossible to be read by persons with visual impairments, etc.),
- design and construction professionals think of UD and UA as of something self-evident and unavoidable,
- and so on.

If all these goals are achieved, situations like portrayed in the sketch on the right (*fig. 18-12*), will stop being daily reality for many fellow-citizens. **But as long as UA and UD conditions are not correctly implemented and accepted from the public at large, tools like *AccOrD~4u2!* will remain the only way to immediately upgrade and improve every human being's life, at home and abroad!**

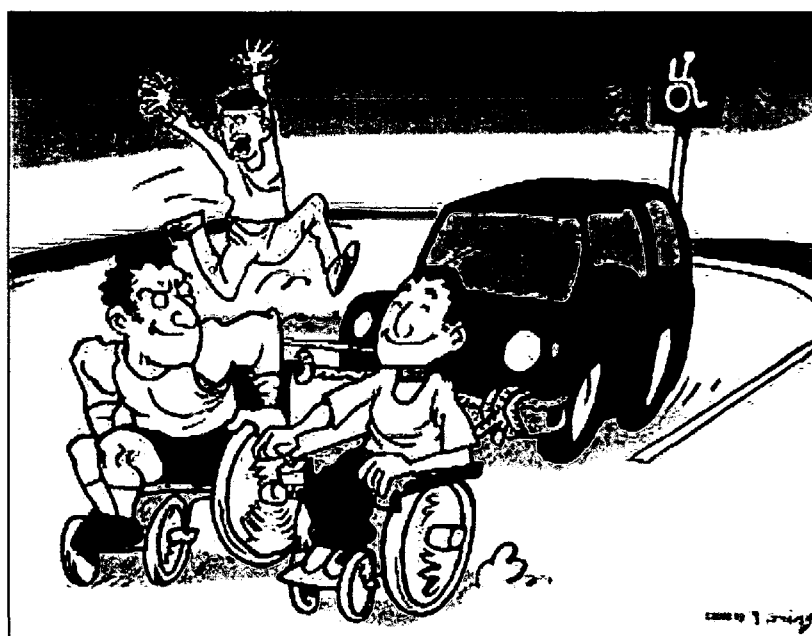


Fig. 18-12: Cartoon – speaking for itself!

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Υπουργείο Περιβάλλοντος, Χωροταξίας και Δημοσίων Έργων: ??????  
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Υπουργείο Υγείας και Πρόνοιας: Προσβασιμότητα. Υπεύθυνη Πολιτεία, Υπεύθυνοι Πολίτες.  
Δίκτυο Κοινωνικής Αλληλεγγύης. Folder.  
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## FIGURE INDEX

Fig. 1-1 to 1-4: author's archive

Fig. 1-5: CCPT: European Manual for an accessible built environment. 1990. Page 19.

Fig. 1-6 to 1-8: author's archive

Fig. 1-9: Connex, 1994, issue 8, Page 5 and author's archive

Fig. 1-10: [www.minenv.gr/1/16/162/16202/g1620201.html](http://www.minenv.gr/1/16/162/16202/g1620201.html) (last accessed on 2004-08-24)

Fig. 1-11: Σταυριανόπουλος, Σπ., Χαιρετισμός. In: Πρακτικά 4<sup>ου</sup> πανελλαδικού κοινωνικό-τεχνικού Συνεδρίου. Προσβασιμότητα «Προϋπόθεση δια βίου εξασφάλιση θετικής ποιότητας ζωής του πολίτη». 25-26 Νοεμβρίου 2000. Πανελλαδικός Σύνδεσμος Παραπληγικών και Κινητικά Αναπήρων. Page 14.

Fig. 2-1: Neufert, E.: Bauentwurfslehre. Vieweg. Braunschweig/Wiesbaden. 1998. Page 27.

Fig. 2-2: Imrie, R.: Disability and the City. International Perspectives. PCP. London. 1996. Page 82.

Fig. 2-3: [www.i.f.alexander.users.btopenworld.com/reviews/dreyfuss.htm](http://www.i.f.alexander.users.btopenworld.com/reviews/dreyfuss.htm) (last accessed on 2004-08-25)

Fig. 2-4: Go for it. Cardiff City Guide. 1987. Page 85.

Fig. 2-5: Στεφάνου, Ι., Στεφάνου, Ι., Τσουδερός Ι.: Ο ηλικιωμένος και ο χώρος. Πολεοδομική και κοινωνίο-ψυχολογική έρευνα της χρήσης του χώρου από την τρίτη ηλικία. Εθνικό Μετσόβιο Πολυτεχνείο. Υπουργείο Υγείας και Πρόνοιας, Αθήνα. 1993. Page 13.

Fig. 2-6: Go for it. Cardiff City Guide. 1987. Page 58.

Fig. 3-1: Αθήνα – μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη της Εταιρίας Προστασίας Σπαστικών. In: Ενημερωτικό Δελτίο Τ.Ε.Ε. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 31.

Fig. 3-2: author's archive. Vienna, 1<sup>st</sup> district, Baeckerstrasse. (January 2005)



Fig. 3-3: Αθήνα – μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη της Εταιρίας Προστασίας Σπαστικών. In: Ενημερωτικό Δελτίο Τ.Ε.Ε. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 33.

Fig. 3-4: author's archive. Vienna. Strassenbahn. (January 2005)

Fig. 3-5: author's archive

Fig. 3-6: Αθήνα – μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη της Εταιρίας Προστασίας Σπαστικών. In: Ενημερωτικό Δελτίο Τ.Ε.Ε. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 46.

Fig. 3-7: author's archive. Vienna, Kuenstlerhaus am Karlsplatz. (January 2005)

Fig. 3-8: Rollstuehle. In Bewegung bleiben. Katalog Ortopedia. Kiel. 1999. Page 10.

Fig. 3-9: [www.minenv.gr/1/16/162/16202/g1620201.html](http://www.minenv.gr/1/16/162/16202/g1620201.html) (last accessed on 2004-08-31)

Fig. 4-1: author's archive

Fig. 4-2: Rollstuehle. In Bewegung bleiben. Katalog Ortopedia. Kiel. 1999. Page 52.

Fig. 4-3: author's archive

Fig. 4-4: Ειδικές Υπηρεσίες και Ιδρύματα για παιδιά 0-18 ετών με κινητικά, νοητικά και αισθητηριακά προβλήματα. Περιοχή Αττικής. Εθνικό Κέντρο Κοινωνικών Ερευνών. Ινστιτούτο Κοινωνικής Πολιτικής. Αθήνα. 2000. Front page.

Fig. 4-5 and 4-6: author's archive

Fig. 5-1: [www.kzu.ch/fach/as/material/Texte\\_lat/musik/descr/descr\\_oedip/oedip\\_05.htm](http://www.kzu.ch/fach/as/material/Texte_lat/musik/descr/descr_oedip/oedip_05.htm) (last accessed on 2004-08-31)

Fig. 5-2 to 5-4: author's archive

Fig. 5-5: cartoon by courtesy of Prof. W. Zagler, Fortec-Institute. TU Vienna. Vienna, 1040. Picture by courtesy of A. Scharter and N. Haiden. Vienna, Gasometer. (September 2004)

Fig. 5-6: City of Portland: Portland Pedestrian Design Guide. 1998. Page B-2.

Fig. 5-7: author's archive. Vienna, Schottenring. (January 2005)

Fig. 5-8: author's archive. Athens, pavement works (?) at Kolokotroni Street . (June 2004)

Fig. 5-9: [http://www.pezh.gr/index\\_intro2.htm](http://www.pezh.gr/index_intro2.htm) (last accessed on 2004-11-30)

Fig. 5-10: Αγωγή Υγείας, Υπουργείο Υγείας και Πρόνοιας.

Fig. 5-11: [www.topeiros.gr/spiti/index.html](http://www.topeiros.gr/spiti/index.html) (last accessed on 2004-09-01)

Fig. 6-1: author's archive

Fig. 6-2: author's archive. Athens, International Airport Eleftherios Venizelos. Phone with text display. (July 2004)

Fig. 6-3: author's archive. Vienna, International Airport Wien-Schwechat. Lowered phone. (May 2004)

Fig. 6-4 and 6-5: author's archive

Fig. 7-1: author's archive. Vienna, Hauptschule in 1160, Grundsteingasse 48. (May 2004)

Fig. 7-2 and 7-3: author's archive. Vienna, Juridicum in 1010, Hessgasse. (May 2004)

Fig. 7-4: author's archive. Athens, 35<sup>ο</sup> Δημοτικό Σχολείο, Άγιος Νικόλαος. (April 2004)

Fig. 7-5 and 7-6: author's archive

Fig. 7-7: author's archive. Athens, Library of the TEI Αθηνών. (February 2004)

Fig. 7-8: [http://www.ntua.gr/gr\\_about/pages/emprn01\\_jpg.htm](http://www.ntua.gr/gr_about/pages/emprn01_jpg.htm) (last accessed on 2004-11-30)

Fig. 7-9: author's archive

Fig. 7-10 and Fig. 7-11: Pictures from the brochure of 'Η Θεοτόκος'. Ίδρυμα. Θεοτόκου 2. Ίλιον. Αττική.

Fig. 7-12: Front cover of the brochure of 'Μαργαρίτα'. Εργαστήριο Ειδικής Αγωγής. Μεσολογγίου 4-6. Νέα Πεντέλη. Αττική.'

Fig. 7-13: author's archive

Fig. 8-1: author's archive. Vienna, Integrationsstelle, 1010. (January 2005)

Fig. 8-2: author's archive. Athens, Patisson. (April 2004)

Fig. 8-3: Picture from the brochure of 'Η Θεοτόκος'. Ίδρυμα. Θεοτόκου 2. Ίλιον. Αττική.

Fig. 8-4 and 8-5: author's archive

Fig. 8-6: Ίσες ευκαιρίες για όλους. Υπουργείο Εσωτερικών, Δημόσια Διοίκησης και Αποκέντρωσης. Γενική Γραμματεία Δημόσιας Διοίκησης. Ειδική διυπουργική επιτροπή για τα άτομα με ειδικές ανάγκες. 1999. Page 2.

Fig. 8-7: author's archive

Fig. 9-1: Ισοτιμία. Issue 57. Σεπτέμβριος /Οκτώβριος 2003. Page 6.

Fig. 9-2: [www.eypd2003.org/eypd/index.jsp](http://www.eypd2003.org/eypd/index.jsp) (last accessed on 2004-09-05)

Fig. 9-3: Ισοτιμία. Issue 57. Σεπτέμβριος /Οκτώβριος 2003. Page 17.

Fig. 9-4: Albayrak, M.: Etchings. Arkadas Matbaacilik. 2000.

Fig. 9-5: author's archive. Vienna, Donaukanal, Schottenring. (January 2005)

Chapter 9, sidebar: [www.allmovie.com](http://www.allmovie.com) (last accessed on 2004-01-27)

Fig. 10-1: Albayrak, M.: Etchings. Arkadas Matbaacilik. 2000.

Fig. 10-2: Γεωργοκόστας, Γ., Μπέλλας, Θρ., Μπενέκος, Αντ., Σκόπας, Δ.: Εμείς και ο κόσμος. Μελέτη του περιβάλλοντος. Δεύτερη Τάξη. Οργανισμός Εκδόσεως Σχολικών Βιβλίων. Αθήνα. 2003. Page 144.

Fig. 10-3 to 10-5: Γεωργοκόστας, Γ., Μπέλλας, Θρ., Μπενέκος, Αντ., Σκόπας, Δ.: Εμείς και ο κόσμος. Μελέτη του περιβάλλοντος. Δεύτερη Τάξη. Οργανισμός Εκδόσεως Σχολικών Βιβλίων. Αθήνα. 2003. Page 153. Sketches 5,6 and 7.

Fig. 10-6: Γεωργοκόστας, Γ., Μπέλλας, Θρ., Μπενέκος, Αντ., Σκόπας, Δ.: Εμείς και ο κόσμος. Μελέτη του περιβάλλοντος. Δεύτερη Τάξη. Οργανισμός Εκδόσεως Σχολικών Βιβλίων. Αθήνα. 2003. Page 154.

Fig. 10-7: Verykokaki, A.: A guideline to History: Ancient Greek monuments accessible to visually impaired people. In: Proceedings CD of the 11<sup>th</sup> International Mobility Conference (IMS11). 30 March-4 April 2003. Stellenbosch. South Africa.

Fig. 10-8: by courtesy of the Panhellenic Association of Blinds (Πανελλήνιος Σύνδεσμος Τυφλών).

Fig. 10-9: [www.eypd2003.org/eypd/march/index.jsp](http://www.eypd2003.org/eypd/march/index.jsp) (last accessed on 2003-01-07)

Fig. 10-10: author's archive. Athens, Attiko Metro. (January 2004)

Fig. 10-11: author's archive. Athens, ΟΑΣΑ bus. (June 2004)

Fig. 10-12 and 10-13: author's archive. Athens, ? and Patission. (July 2004)

Fig. 10-14: author's archive. Vienna, U3 Simmering. (January 2005)

*Chapter 11 - Questionnaire:*

*Question 1: Ιωσήφ Στεφάνου, Ιουλία Στεφάνου, Ιωάννης Τσουδερός, Εύα Φραντζή: Τα άτομα μειωμένης κινητικότητας και ο χώρος. ΕΜΠ. Υπουργείο Υγείας, Πρόνοιας και Κοινωνικών Ασφαλίσεων. Αθήνα. 1990. Front cover.*

*Question 10 a-f: Johannes Stern: Bauen ohne Barrieren. In: CONNEX. Oesterreichische Fachzeitschrift fuer nationale, europaeische und internationale Normen. Nr.8/ August 1994. Page 5.*

*Question 10 g: sketch by the author*

*Question 11: author's archive*

*Question 12: Αθήνα – μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη της Εταιρίας Προστασίας Σπαστικών. In: Ενημερωτικό Δελτίο Τ.Ε.Ε. Τεύχος 1581. 4.Σεπτεμβρίου 1989. Page 31.*

*Question 13: Αθήνα – μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη της Εταιρίας Προστασίας Σπαστικών. In: Ενημερωτικό Δελτίο Τ.Ε.Ε. Τεύχος 1581. 4.Σεπτεμβρίου 1989. Page 44.*

*Question 14: Αθήνα – μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη της Εταιρίας Προστασίας Σπαστικών. In: Ενημερωτικό Δελτίο Τ.Ε.Ε. Τεύχος 1581. 4.Σεπτεμβρίου 1989. Page 46.*

*Question 15: Αθηνά Γιαννάκου, Μαρία Γρηγοριάδου: Σχεδιασμός για άτομα με ειδικές ανάγκες. Παραδείγματα εφαρμοσμένου έργου. Τ.Ε.Ε. Τμήμα Κεντρικής Μακεδονίας, Θεσσαλονίκη. Απρίλιος 1994.*

Fig. 11-1: by courtesy of Geomet Ltd. Athens

Fig. 11-2: by courtesy of Geomet Ltd. Athens

Fig. 11-3 to 11-62: author's archive

Fig. 11-63: author's archive. Stickers in PTS in Athens and Vienna. (spring 2004)

Fig. 11-64: author's archive. Vienna, U2 Rathaus. (May 2004)

- Fig. 11-65: author's archive. Vienna, Burggasse - Museumsquartier, 1070. (May 2004)
- Fig. 11-66: author's archive. Athens, Attiko Metro station. (September 2004)
- Fig. 11-67: author's archive. Athens, Dionisiou Aeropagitou pedestrian zone. (July 2004)
- Fig. 11-68: author's archive. Vienna, 1010. (March 2004)
- Fig. 11-69: author's archive. Athens, city centre. (July 2004)
- Fig. 11-70: [http://www.pezh.gr/index\\_intro1.htm](http://www.pezh.gr/index_intro1.htm) (last accessed on 2004-11-30)
- Fig. 12-1: Ομάδα υπαρκτής ιατρικής – Εργαστήριο Φαρμακολογίας Ιατρικής Σχολής. Φυλλάδιο για 3.Δεκεμβρίου, Παγκόσμια Ημέρα ΑμΕΑ. Front cover of brochure.
- Fig. 12-2: CCPT: European Manual for an accessible built environment. 1990. Page 16 and Page 17.
- Fig. 12-3: Κορμάρης, Π.: Μουσείο Αφής. Ψηλαφίζοντας της ιστορία. Έψιλον Κυριακάτικης Ελευθεροτυπίας. Ιούνιος 2004. Page 54.
- Fig. 12-4: author's archive. Vienna, Karlskirche, 1040. (January 2005)
- Fig. 12-5: author's archive. Vienna, Traffik, 1010. (January 2005)
- Fig. 12-6: CCPT: European Manual for an accessible built environment. 1990. Page 17.
- Fig. 12-7: brochure of: Πανελλήνιος Σύνδεσμος Τυφλών. Font cover.
- Fig. 12-8: author's archive. Vienna, library entrance of the TU, 1040. (January 2005)
- Fig. 12-9 to 12-11: by courtesy of Prof. W. Zagler, Fortec-Institute. TU Vienna.
- Fig. 12-12: author's archive. Athens, War Museum. (June, 2004)
- Fig. 12-13: author's archive. Vienna, Naturhistorisches Museum am Ring, 1010. (May 2004)
- Fig. 12-14: author's archive. Vienna, Erste Bank am Graben, 1010. (January 2005)
- Fig. 13-1: City of Portland: Portland Pedestrian Design Guide. 1998. Sketch by Doug Klotz. Page 4. Revised by the author.
- Fig. 13-2: CCPT: European Manual for an accessible built environment. 1990. Page 28 and Page 33.

- Fig. 13-3: CCPT: European Manual for an accessible built environment. 1990. Page 18.
- Fig. 13-4: author's archive. Chalkida, ramp at the promenade. (September 2004)
- Fig. 13-5: author's archive. Vienna, ramp at the Hauptpost, 1010. (January 2005)
- Fig. 13-6: author's archive
- Fig. 13-7: CCPT: European Manual for an accessible built environment. 1990. Page 19.
- Fig. 13-8: Behmel, A., Hohensteter, G.: *Barrierefrei Wohnen*. Allgemeine Unfallsversicherungsanstalt AUVA. Wien. 2000. Page 26.
- Fig. 13-9 and 13-10: Detail. *Zeitschrift fuer Architektur und Baudetail*. Mai 2004. Pages 586 and 588.
- Fig. 13-11: by courtesy of Prof. W. Zagler, Fortec-Institute. TU Vienna.
- Fig. 13-12: author's archive. Vienna, Karlsplatz, 1040. (March 2004)
- Fig. 13-13: Goldsmith, S.: *Universal Design. A manual of practical guidance for architects*. Architectural Press. Oxford. 2000. Page 3. Revised by the author.
- Fig. 13-14: Riley, T: *The un-private house*. The Museum of Modern Art. New York. 1999. Page 95.
- Fig. 13-15: author's archive. Vienna, Museumsquartier, 1070. (May 2004)
- Fig. 13-16: by courtesy of Prof. W. Zagler, Fortec-Institute. TU Vienna. Vienna, Drogerie Markt, 1040.
- Fig. 13-17: author's archive. Athens, Nikaia Hospital. (February 2004)
- Fig. 13-18: Imrie, R.: *Disability and the City. International Perspectives*. PCP. London. 1996.
- Fig. 13-19 to 13-21: Riley, T: *The un-private house*. The Museum of Modern Art. New York. 1999. Page 92, 93 and 94.
- Fig. 14-1: author's archive
- Fig. 14-2: CCPT: European Manual for an accessible built environment. 1990. Page 19.
- Fig. 14-3: author's archive

- Fig. 14-4: author's archive. Vienna, shop in 1020, Ennsgasse and in 1010. (May 2004)
- Fig. 14-5: T.E.E. Ενημερωτικό Δελτίο. Issue 1580. 28. Αυγούστου 1989. Page 20.
- Fig. 14-6: author's archive. Athens, Medical School, Goudi. (March 2004)
- Fig. 14-7 and 14-8: author's archive. Athens, International Airport Eleftherios Benizelos (May 2004).
- Fig. 14-9: Brochure of the Greek Ministry of Health and Welfare: Φίλε εμποδιζόμενε επιβάτη, φίλε επιβάτη με αναπηρία. Αγωγή Υγείας. Αθήνα. 2003. Front cover.
- Fig. 14-10 and 14-11: [www.members.chello.at/u-bahn](http://www.members.chello.at/u-bahn) (last accessed on 2004-09-25)
- Fig. 14-12: City of Portland: Portland Pedestrian Design Guide. 1998. Page A-22.
- Fig. 14-13: by courtesy of Mr. Liappis, OASA. Athens, ISAP station at Petralona.
- Fig. 14-14: Brochure of the Greek Ministry of Health and Welfare: Φίλε εμποδιζόμενε επιβάτη, φίλε επιβάτη με αναπηρία. Αγωγή Υγείας. Αθήνα. 2003. Last page.
- Fig. 14-15: [www.minenv.gr/1/16/162/16202/g1620201.html](http://www.minenv.gr/1/16/162/16202/g1620201.html) (last accessed on 2004-08-31)
- Fig. 14-16 and 14-17: author's archive. Athens, 3is Septembriou Street. (April 2004)
- Fig. 14-18: author's archive. Athens, Likourgou Street, Perissos. (June 2004)
- Fig. 15-1: [www.minenv.gr/1/16/162/16202/g1620201.html](http://www.minenv.gr/1/16/162/16202/g1620201.html) (last accessed on 2004-08-31)
- Fig. 15-2: author's archive. Athens, Zalokosta 1, Greek Ministry of Economy and Finance. (July 2004)
- Fig. 15-3: author's archive. Athens, Akadimias 40, Cash of Cosigns and Loans. (July 2004)
- Fig. 15-4 to 15-6: author's archive. Athens, curb cut at Aristeidou Street, at Basilis Sofias Avenue and at Kolokotroni Street. (July 2004)
- Fig. 15-7: author's archive. Athens, office building at Kaplanon and Sina. (July 2004)
- Fig. 15-8: author's archive. Athens, exterior ramp at the 14<sup>th</sup> Gymnasium of Pireus. (February 2004)
- Fig. 15-9: Πρόγραμμα δράσης για την υποστήριξη των παραολυμπιακών αγώνων. Υπουργείο Πολιτισμού. Γενική Γραμματεία Ολυμπιακών Αγώνων. Αθήνα. 2003. Page 12.

- Fig. 15-10: author's archive. Athens, interior ramp at the Technological Education Institute of Athens. (February 2004)
- Fig. 15-11: footbridge at Agios Nikolaos, Athens. (January 2004). Author's archive.
- Fig. 15-12: author's archive. Athens, narrow pavement on Nikopoleos Street. (February 2004)
- Fig. 15-13: author's archive. Athens, narrow pavement on Aitolias Street. (April 2004)
- Fig. 15-14: author's archive. Athens, uneven pavement on Didotou Street. (May 2004)
- Fig. 15-15: author's archive. Athens, pedestrian passage at Kifisias-Katechaki. (May 2004)
- Fig. 15-16: author's archive. Athens, parked car on ramp at Sina Street. (May 2004)
- Fig. 15-17: author's archive. Athens, parked motorcycles on curb cut at Kolokotroni Street. (May 2004)
- Fig. 15-18: author's archive. Athens, garbage mounds on Akadimias Avenue. (May 2004)
- Fig. 15-19: author's archive. Athens, blocked bench at Milioni Street. (May 2004)
- Fig. 15-20: author's archive. Athens, drinking water point at Akadimias-Ippokratous Street. (May 2004)
- Fig. 15-21: author's archive. Athens, temporary works at Mpenaki-Arachovis Street. (May 2004)
- Fig. 15-22: author's archive. Athens, temporary work marking at Patision Street. (May 2004)
- Fig. 15-23: author's archive. Athens, construction site marking at Euripidou Street. (June 2004)
- Fig. 15-24: author's archive. Athens, kiosk at Patision Street. (June 2004)
- Fig. 15-25: author's archive. Athens, adapted public phone to be detectable with the white cane on Akadimias Street. (July 2004)
- Fig. 15-26: Εκπαίδευση στην κινητικότητα – προσανατολισμό και τις δεξιότητες καθημερινής διαβίωσης. Πανελλήνιος Σύνδεσμος Τυφλών. Αθήνα. 2002. Page 12.
- Fig. 15-27 and 15-28: author's archive. Athens, mothers with pram forced to move on the street. Karitsi Street and Vorreou Street. (Spring 2004)



- Fig. 15-29: author's archive. Athens, pavement with basement yawning without waning, sign pole in the midst of it, parked motorcycle on it and cafeteria seats blocking the route of any pedestrian. Adrianou Street. (July 2004)
- Fig. 15-30: author's archive. Athens, International Airport Eleftherios Venizelos, information sign in Braille. (December 2003)
- Fig. 15-31: Χαραλαμπάκης Μ.: Δεν έχει δρόμο να διαβούν... «Εικονική» η πρόσβαση σε δημόδιους χώρους για άτομα με κινητικά προβλήματα. In: Τα Νέα. 29 Οκτ 2003. Page 16.
- Fig. 15-32: author's archive. Athens, bus stop without bench at Patriarchou Ioakim Street. (July 2004)
- Fig. 15-33: [www.4troxoi.gr/news/closeup.php?id=2125&part=1](http://www.4troxoi.gr/news/closeup.php?id=2125&part=1) (last accessed on 2004-10-01)
- Fig. 15-34: [www.4troxoi.gr/news/closeup.php?id=2093&part=1](http://www.4troxoi.gr/news/closeup.php?id=2093&part=1) (last accessed on 2004-10-01)
- Fig. 15-35: author's archive. Athens, platform at a bus-stop. (May 2004)
- Fig. 15-36: author's archive. Athens, bus terminal at Riga Ferraίου Street. (June 2004)
- Fig. 15-37: author's archive. Athens, bus terminal at Akadimias Street. (June 2004)
- Fig. 15-38: Εκπαίδευση στην κινητικότητα – προσανατολισμό και τις δεξιότητες καθημερινής διαβίωσης. Πανελλήνιος Σύνδεσμος Τυφλών. Αθήνα. 2002. Page 16.
- Fig. 15-39: Leaflet from the one-day seminar for bus drivers of ΕΘΕΛ. Fall 2003. ΚΕΚ ΙΑΣΩΝ.
- Fig. 15-40: author's archive. Athens, elevator at ΗΣΑΠ-station Marousi. (September 2004)
- Fig. 15-41: by courtesy of Mr. Liappis of the OASA. ΗΣΑΠ-station Monastiraki.
- Fig. 15-42: author's archive. Athens, PwD's toilet at ΗΣΑΠ-station ΚΑΤ. (September 2004)
- Fig. 15-43: author's archive. Athens, Attiko Metro station at Ag. Dimitrios / Alexandros Panagoulis. (September 2004)
- Fig. 15-44: Πρόγραμμα δράσης για την υποστήριξη των παραολυμπιακών αγώνων. Υπουργείο Πολιτισμού. Γενική Γραμματεία Ολυμπιακών Αγώνων. Αθήνα. 2003. Page 12.

- Fig. 15-45: author's archive. Athens, free PwD's parking space at Zaloggou Street, Zografou. (September 2004)
- Fig. 15-46: author's archive. Athens, false occupation of a PwD's parking space at Aristeidou Street. (July 2004)
- Fig. 15-47: author's archive. Athens, occupied PwD's parking space at Kanari Street. (July 2004)
- Fig. 16-1: author's archive. Patras, sign at the OΣE-station. (September 2004)
- Fig. 16-2 to 16-10: author's archive
- Fig. 16-11: author's archive. Athens, main entrance of Polykliniki Athinon, Pireaos Street. (February 2004)
- Fig. 16-12: author's archive. Athens, ramp and parking lot for wheelchair users at the KEK, Zaloggou 11. (June 2004)
- Fig. 16-13: author's archive. Athens, swinging front door of the Pireos Bank, Korai Street. (July 2004)
- Fig. 16-14: author's archive. Athens, obstacle in front of shop at Perikleous Street.(July 2004)
- Fig. 16-15: Verykokaki, A.: A guideline to History: Ancient Greek monuments accessible to visually impaired people. In: Proceedings CD of the 11<sup>th</sup> International Mobility Conference (IMS11). 30 March-4 April 2003. Stellenbosch. South Africa.
- Fig. 17-1: Legend of the Vienna City Map, 2003.
- Fig. 17-2: Cover of the Behindertenatlas der Stadt Wien. 1997.
- Fig. 17-3: [www.wegweiser.ac.at/plaene/gif/E\\_Hauptgeb.gif](http://www.wegweiser.ac.at/plaene/gif/E_Hauptgeb.gif) (last accessed on 2004-10-04)
- Fig. 17-4: Οδηγός προσβασιμότητας κοινόχρηστων κτιρίων και χώρων Δήμου Ζωγράφου. Κ.Ε..Κ. Ηριδανός. Αθήνα. 1999. Front cover.
- Fig. 17-5: [www.you-too.net](http://www.you-too.net) (last accessed on 2004-10-04)
- Fig. 17-6: [www.minenv.gr/1/16/162/16202/g1620201.html](http://www.minenv.gr/1/16/162/16202/g1620201.html) (last accessed on 2004-08-24)
- Fig. 17-7: Euroatlas Hellas. Efstathiadis Group. RV Reise- und Verkehrsverlag GmbH. 1992. Page 45.

Fig. 17-8 and 17-9: kindly offered by Geomet Ltd, Athens. By courtesy of Geomet Ltd, Athens.

Fig. 17-10: [http://europa.eu.int/comm/dgs/energy\\_transport/galileo](http://europa.eu.int/comm/dgs/energy_transport/galileo) (last accessed on 2003-12-01)

Fig. 17-11 to 17-17: author's archive

Fig. 18-1: by courtesy of Δήμος Αθηναίων, Γραφείο Ανάπλασης Πεζοδρομίων.

Fig. 18-2: Verykokaki, A.: A guideline to History: Ancient Greek monuments accessible to visually impaired people. In: Proceedings CD of the 11<sup>th</sup> International Mobility Conference (IMS11). 30 March-4 April 2003. Stellenbosch. South Africa.

Fig. 18-3: by courtesy of the Panhellenic Association of Blinds (Πανελλήνιος Σύνδεσμος Τυφλών).

Fig. 18-4: Verykokaki, A.: A guideline to History: Ancient Greek monuments accessible to visually impaired people. In: Proceedings CD of the 11<sup>th</sup> International Mobility Conference (IMS11). 30 March-4 April 2003. Stellenbosch. South Africa.

Fig. 18-5: Κορμάρης, Π.: Μουσείο Αφής. Ψηλαφίζοντας της ιστορία. Έφιλον Κυριακάτικης Ελευθεροτυπίας, Ιούνιος 2004. Page 53.

Fig. 18-6: Ισοτιμία. Issue 57. Σεπτέμβριος /Οκτώβριος 2003.

Fig. 18-7 to 18-8: author's archive. Athens, Hotel Grand Bretagne and Hotel Ledra Marriot(?). (July 2004)

Fig. 18-9: Ermis:Brochure of Athens 2004, Paralympic Games Commiette: Ερμής, Προσβάσιμη επιλογή. Front cover.

Fig. 18-10: author's archive. Athens, shop on Adrianou. (September 2004)

Fig. 18-11: Προσβάσιμη η Ακρόπολη. In: ΤΕΕ. Ενημερωτικό Δελτίο. Τεύχος 2309. 6 Σεπτεμβρίου 2004. Αθήνα. Page 6.

Fig. 18-12: by courtesy of Prof. W. Zagler, Fortec-Institute. TU Vienna. Vienna, 1040.

**TABLE INDEX**

- Tab. 7-1: Kassotakis, M., Papapetrou, S., et Fakiolas, N.: Limits in the Education and Professional Choices of the Handicapped in Greece. In: Καραντινός, Δ., Μαράτου-Αλιμπράντη, Λ., Φρονίμου, Ε. (eds): Διαστάσεις του κοινωνικού αποκλεισμού στην Ελλάδα. Κύρια θέματα και προσδιορισμός προτεραιοτήτων πολιτικής. Τόμος Α'. ΕΚΚΕ. Αθήνα. 1999. Page 458.
- Tab. 7-2: Kassotakis, M., Papapetrou, S., et Fakiolas, N.: Limits in the Education and Professional Choices of the Handicapped in Greece. In: Καραντινός, Δ., Μαράτου-Αλιμπράντη, Λ., Φρονίμου, Ε. (eds): Διαστάσεις του κοινωνικού αποκλεισμού στην Ελλάδα. Κύρια θέματα και προσδιορισμός προτεραιοτήτων πολιτικής. Τόμος Α'. ΕΚΚΕ. Αθήνα. 1999. Page 459.
- Tab. 11-1 to Tab. 11-4: author's archive
- Tab. 13-1: [www.minenv.gr/1/16/162/16202/g1620201.html](http://www.minenv.gr/1/16/162/16202/g1620201.html) (last accessed on 2003-11-06)
- Tab. 13-2: Balourdos, D., Teperoglou, Afr., Fakiolas, N.: Aged People in Conditions of Social Exclusion. In: Καραντινός, Δ., Μαράτου-Αλιμπράντη, Λ., Φρονίμου, Ε. (eds): Διαστάσεις του κοινωνικού αποκλεισμού στην Ελλάδα. Κύρια θέματα και προσδιορισμός προτεραιοτήτων πολιτικής. Έκθεση για το Ευρωπαϊκό Ταμείο. Τόμος Β'. ΕΚΚΕ. Αθήνα. 1999. Page 94.
- Tab. 15-1 and 15-2: Papadopoulos, J. St.: Accidents: Prevention is feasible. ASPE. Athens. 1996. Page 72.
- Tab. 16-1: by courtesy of Truth AE
- Tab. 16-2: by courtesy of the General Secretary of the Greek Ministry of Interior, Public Administration and Decentralization
- Tab. 16-3: author's archive
- Tab. 16-4: Εταιρία Προστασίας Σπαστικών: Αθήνα – Μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη. In: Ενημερωτικό Δελτίο ΤΕΕ. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 37.
- Tab. 16-5 and 16-6: author's archive

Tab. 16-7: Εταιρία Προστασίας Σπαστικών: Αθήνα – Μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη. In: Ενημερωτικό Δελτίο ΤΕΕ. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 40.

Tab. 16-8 and 16-9: author's archive

Tab. 16-10: Εταιρία Προστασίας Σπαστικών: Αθήνα – Μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη. In: Ενημερωτικό Δελτίο ΤΕΕ. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 45.

Tab. 16-11 and 16-12: author's archive

Tab. 16-13: Εταιρία Προστασίας Σπαστικών: Αθήνα – Μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη. In: Ενημερωτικό Δελτίο ΤΕΕ. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 47.

Tab. 16-14: author's archive

Tab. 16-15: Εταιρία Προστασίας Σπαστικών: Αθήνα – Μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη. In: Ενημερωτικό Δελτίο ΤΕΕ. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 49.

Tab. 16-16: author's archive

Tab. 16-17: Εταιρία Προστασίας Σπαστικών: Αθήνα – Μια πόλη απροσπέλαστη για τους αναπήρους. Μελέτη. In: Ενημερωτικό Δελτίο ΤΕΕ. Τεύχος 1581. 4. Σεπτεμβρίου 1989. Page 50.

Tab. 16-18: author's archive

Tab. 17-1 and 17-2: author's archive