Orit Rotem-Mindali / Izhak Shemesh

Mobility and accessibility concerns for tourists in Tel Aviv-Jaffa area

Abstract

This research aims to study the mobility and accessibility challenges tourists confront within a central tourist district. The subjects of mobility and accessibility have been studied extensively, particularly in relation to individual commuting flows, or shopping. However, for both commuting and shopping activities, individuals are dealing with a familiar area. On the other hand, the tourist's spatial experience occurs in a far less known environment and has less been examined. The study focuses on the domestic tourist experience in the Tel-Aviv-Jaffa area. In depth face-to-face interviews were conducted to evaluate how considerations of spatial mobility and accessibility are perceived among domestic tourists in comparison to other aspects of the tourist experience. In addition, interviews with planners and policy makers on the municipal and national levels were conducted to evaluate the services given to tourists, existing and future plans, and the care for tourists' needs. The research depicts that the spatial mobility challenges tourists face have a great influence on tourist satisfaction, even greater than the tourist product itself. Moreover, the study points to the correlation between land-use density in tourist places of residence and their perception of spatial challenges.

Key words: urban; spatial behavior; mobility; travel; domestic; tourist experience; Israel

Introduction

Tourists, as individuals exploring new surroundings in a limited period of time, often invest much effort in orientation. They are placed in a new surrounding where they are disconnected from both their familiarity with the place and its rules and norms. For a tourist, visiting an unfamiliar destination, in comparison to their home area, compels them to deal with viewing various attractions in a limited amount of time and often with a limited budget (Hall & Page, 2002; Stein, 2012). Hence, one needs to consider how tourists spatially adapt under time constraints in unfamiliar environments. Mobility and accessibility, as the cornerstones of spatial behavior, have been studied extensively, particularly in relation to individual commuting and shopping activities, where the mode of travel has been studied and chosen by users for relative efficiency and ease over a period of time. On the other hand, the role of an efficient transport system and the spatial challenges experienced by most tourists have rarely been dealt with in transportation research (Israeli & Mansfeld, 2003; Khadaroo & Seetanah, 2007). This study will attempt to reveal these challenges, and to examine mobility and accessibility considerations and perceptions of tourists as the focal group in this study.

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Understanding the spatial challenges confronting tourists has important applications in the development of tourist destinations and of transportation. Mobility and accessibility matters also concern the planning of new tourist attractions and the management of the social, environmental and cultural impacts of tourism, especially in the urban environment. The significance of these issues increases when tourists comprise a large proportion of both vehicular and pedestrian traffic. Edwards, Griffin and Hayllar (2008) interviewed tourism professionals and academics to identify what they considered the most important components for urban tourism development. The tourist's urban spatial behavior experience was considered the main contribution to the success of tourism. This includes the experience of spatial relationships, i.e., understanding and identifying distance, time and the relations between them. Parsons (1966) defined spatial behavior as a visible action taken by an individual as the result of an external or internal stimulus, and transmitted through physiological, cultural, social, psychological or environmental secondary systems (Parsons, 1966). Therefore, spatial behavior concerns the different ways of using spatial information. Researchers of spatial behavior deal with the questions: who, what, where. In other words, *which* individuals behave, in *what* fashion, and *where* they do so. Frequently, additional questions are posed: When are certain behaviors enacted, why are they enacted, and what are the consequences of these actions. In addition, the observation of spatial behavior involves the analysis of general behavioral principles of human interaction (Walmsley, 2004).

Transport planning, product development and impact management were identified as the three major areas which have the largest impact on understanding spatial behavior of tourists (Lew & McKercher, 2006). *Transport planning* is the understanding of tourists' planned daily routes which helps transportation providers to meet their needs more efficiently, and in so doing, to offer accessibility. This information can be used to identify traffic jams or bottlenecks in areas of tourist attractions. Modeling behavior can develop scenarios of possible tourist behavior, which can then affect changes in transport and tourism infrastructures. *Product development* reveals the paths and destinations preferred by specific groups of tourists. These can be used to market the already existing tourist product, and to plan future tourist attractions. It then becomes possible to develop clusters of attractions catering to specific groups of tourists, and to manage a specific branding of these clusters. *Impact management* implies that by considering the time and space movements of tourists, any negative impacts can be decreased. With this knowledge, it becomes possible to divert resources during peak times, and to develop alternate routes and times.

Another important aspect of the study of tourist behavior involves understanding tourists' needs and expectations and 'tourist experience'. The concept of tourist experience has much been dealt in academic research. A wide debate about what comprises the tourist experience has initiated many studies. Since tourism is considered a service industry, the concept of tourist experience and satisfaction has gained much importance (Otto & Ritchie, 1996; Quan & Wang, 2004; Ritchie & Hudson, 2009). The literature presents several approaches to define the tourist experience. The social science approach explains it as being opposite to daily experiences, and thus understood as a "peak" experience, mostly resulting from attractions, rather than daily perceived activities, such as transport or accommodation related activities (Quinlan, Cutler & Carmichael, 2010). On the other hand, the management approach considers it from a consumer perspective, viewing the tourist experience as regarding the total consumption of the tourist product (Quan & Wang, 2004). Various studies also address the psychological aspects of the tourist experience and focuses on the emotional effects or learning experiences

of individuals (Aho, 2001). Hence, they emphasize the subjectivity of the experience as reflected by specific interpretation of the events by different individuals in specific settings (Jennings, 2006).

Research shows that service providers react instinctively to the transportation, lodging and entertainment needs of their tourist customers, and endeavor to keep expenses, frustration and wasted time to a minimum. But along with this, strategic decisions should consider the whole range of the tourist experience, particularly the aspects of time and space necessities for a positive tourist experience (Lew & McKercher, 2006; Moutinho, Albayrak & Caber, 2012). It is also important to stress that other studies do not find transport and spatial consideration as main contributor to the positive performance of tourism (Assaf & Josiassen, 2012)

Tourists usually express a desire to see the main attractions, even if these are located in an inconvenient venue. Although travel may be considered as a pleasurable experience, journeys to visitor attractions are a derived demand. Transportation therefore represents an essential component of a positive tourist experience (Robbins & Dickinson, 2008). It is useful to divide the tourist population into two groups when examining the component of time in the tourist experience. In the first group, time wasted is equal to money spent. Their budget is fixed in advance of arrival, and is difficult or impossible to alter during the trip itself. Therefore, this group tries to maximize the time spent by reducing transit-time as well as time spent at an attraction. These tourists will prefer the most direct route available, while avoiding side trips which demand more transit-time (Dickinson & Peeters, 2012; McKean, Johnson & Walsh, 1995).

Those in the second group, on the other hand, see time spent travelling as a value in itself, and tend to choose the longer, more "picturesque" route, travelling to outlying areas in order to explore unknown destinations (Chavas & Sellar, 1989; Dickinson & Peeters, 2012). One element that can change the perception of time is the improvement in the level of transportation system service to main tourist destinations. Transport facilities are of interest to both tourists and to the local population (Ashworth & Page, 2011). For tourists this can create a pleasant, frustration-free experience using accessible public transportation. That said, the demand for transportation by tourists in touristic cities enhances the everyday accessibility difficulties for the local population. Consequently, it may increase the negative externalities generated by the transport system and experienced by locals (Israeli & Mansfeld, 2003)

The International Association of Public Transport (UITP), in its directive from 2003, stated that the public transportation sector must adapt itself to the growing needs of tourism and leisure. These changes do not necessarily require substantial investment, as public transport activities can utilize existing staff, fleet, and infrastructure during slow periods of the day or week, after the local commuters have arrived at their destinations and during holiday periods, when the local population has no need for public transport. These are often the times when tourists travel to tourist destinations: weekends, holidays, and vacations. If public transport planners continue to ignore the needs of tourists, the destination city may be faced with loss of prestige and reputation, and will be perceived as a less welcome attraction for tourists. In light of the great competition for tourists, this should of course be strictly avoided (Albalate & Bel, 2010). Prideaux (2000) asserts that public transport experts are aware of the relationship between public transport and tourism satisfaction, but they tend to ignore this in their planning. It can safely be assumed that if tourists are frustrated in their search for accessible public transport, they will choose another destination in the future (Prideaux, 2000). Albalate and Bel (2010) contend that city

planners and public transport planners do not factor in the number of tourist entries into their cities as a component in their planning. The principle components, in their eyes, are financial considerations, the needs of the local population, and aspects of the specific city itself.

An additional aspect that may affect spatial mobility for tourists is spatial information. Tourists also need local tourist information centers. For example, the employees of the Southeastern Welcome Center in Shallotte, North Carolina, have been interviewed during the last decade. The Center, which opened in 1992, has become a major part of the tourist experience in the area. Employees travel often and extensively in order to familiarize themselves with the area for which they are responsible. They visit the local attractions, eat in the restaurants, and thus are proud to report that their recommendations to tourists are "first-hand". One of the employees was proud to state that the Center improves the tourist experience and tourist satisfaction (Hall, 1999; Hanner, 2005). However, it is important to point out the rising impact of information communications technology (ICT) in tourism. ICT has introduced many changes that significantly affect the ways tourists search for information services and also express their satisfaction/dissatisfaction with their tourist experience. Smartphones and tablets enable interaction and two-way communication. They make it possible to express opinions and experiences and facilitate the ability to share and access information and consequently have demonstrated remarkable growth in recent years (Somero 2012). Studies also highlight the role of ICT in promoting local cultural heritage. ICT is considered an important tool to improve the diffusion of cultural heritage information for both tangible and intangible resources designed for tourists (Chiabai, Paskaleva & Lombardi, 2013).

When trying to determine tourists' needs, their heterogeneity must be considered. Tourists' spatial behavior in a tourist destination can differ within the space, even if their interests are identical, and driven by the same motivations (Walmsley, 2004). In another study, Fennell (1996) indicates that the spatial behavior of tourists in an organized group differs from the spatial behavior of individual tourists. Within an organized group, the individual's desire is often not taken into account, either because of the time budget or consideration of the entire group's will. Age is also a factor in certain studies. Age and physical fitness affect the level of activity in the tourist space. Younger tourists will usually be more interested in greater physical activity than older tourists (Fennell 1996; Mill & Morrison 1985).

Research framework and methodology

This study originates in the need to understand the mobility and accessibility challenges tourists cope with in an unfamiliar/less familiar area. Tourists are many times compared to young children travelling by themselves for the first time to an unfamiliar location. For many tourists, time not spent in "fun" or "touring", but rather in acclimatizing oneself to the unfamiliar surroundings, is time wasted, and can contribute to an overall negative tourist experience. The challenge, then, is to understand how tourists deal with spatial experience, and to make it as pleasant and as easy as possible.

As stated earlier, according to the literature, understanding tourists' spatial behavior is increasingly given higher priority as an impetus for improving urban tourism (Edwards et al., 2008; Israeli & Mansfeld 2003). For that reason, in this study, we will attempt to identify the spatial challenges encountered in an urban destination and which particular groups experience which particular difficulties. The study attempts to characterize specific aspects, such as difficulties with signage and directional signals,

parking-related difficulties, and struggles with public transport, that affect accessibility and mobility. We will examine how individuals perceive the spatial challenges according to specific tourist groups and compare the experience of each group. The comparison considers age, education, home location and type (urban, rural) to judge relative success in dealing with spatial mobility in the urban environment. Finally, an analysis of the relative effects of the spatial challenges tourists' confront on the over-all satisfaction with the tourist destination will be conducted.

The study focuses on the domestic tourist experience in the Tel Aviv-Jaffa area. The city was chosen by UNESCO as a "World Heritage Site", and, as such, must meet international standards for tourism. Because of this designation, it is expected that tourism will increase more rapidly in Tel Aviv than in other cities in Israel not so named. The Tel Aviv-Jaffa municipality is promoting projects aimed at heritage conservation in order to raise the level of tourist attractions. In addition, Tel Aviv-Jaffa is highly heterogeneous, composed of a variety of ethnic groups, living in multi-layered social spaces, and exposed to Western globalization and culture (Schnell, 2009). It should be noted that Tel Aviv makes an interesting subject for study, as it attracts many different types of tourism: holiday in the sun, cultural activities, heritage tourism, business tourism, etc. (Ben Dalia, Collins-Kreiner & Churchman, 2012). Moreover, Tel Aviv's uniqueness is expressed not only in its heritage-historical background, but in its role as the leading city in Israel in terms of economy; it can boast of the added attraction of the Mediterranean Sea to the west as well (Shoval, 2009).

In their 2012 study of Tel Aviv as a touristic product, Ben-Dalia et al. pointed to Tel Aviv's transportation system as a weak component in the tourist experience, as evidenced by tourist response. This conclusion underlines the importance of examining mobility and accessibility issues and problems in Tel Aviv with an eye to increasing tourist satisfaction.
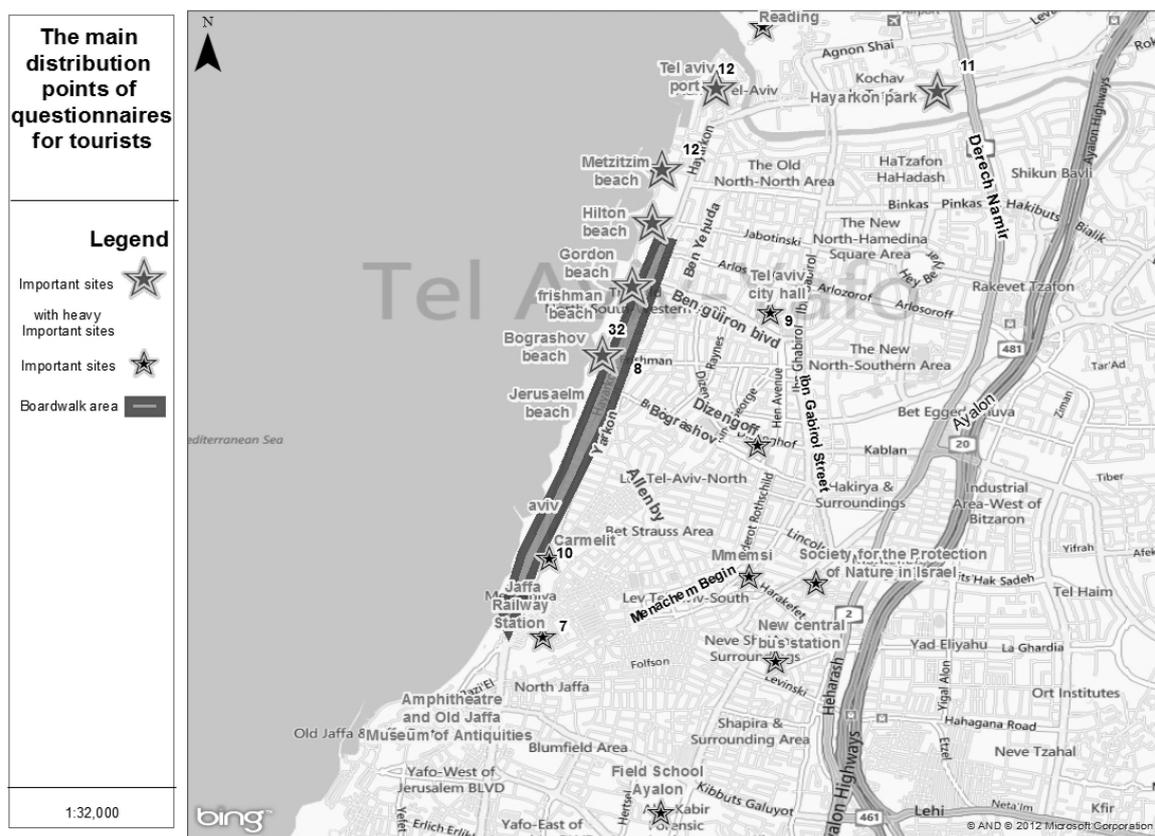
Because this study required us to understand the tourist experience, we chose to use face to face interviews. One hundred and twenty subjects were interviewed and asked about their relative satisfaction with their experience. Questions were asked about the purpose of the visit, means of transportation, level of mobility in the city and at tourist attractions, parking, living expenses and prices, climate, seating and shade facilities, lodging location and reasons for choosing particular lodging, signage, use of city maps and tourist information centers. In addition, the respondents were asked to share their perceptions and feelings towards different spatial experiences occurring during their stay.

The study was conducted during March – June 2011 with tourists who stayed at least one night in a hotel in Tel Aviv, which accords with the definition of a tourist (Gee & Fayos, 1997). Most respondents were located around the Central Tourist District (CTD). This is an area identified by Shoval (2001) in Tel Aviv-Jaffa as a small area within the large city, where most of the tourist activity takes place, and land use is primarily for tourist purposes (Ashworth & Tunbridge, 1990). This area was chosen for the large concentration of hotels and accompanying tourist-service facilities, as well as for the nearby beach. In terms of domestic tourism, three separate areas can be defined. The first is the area for fun and entertainment, congruent with the CTD. The second is the national-historic area, from which the city developed. This includes historical buildings, monuments, cemeteries, and City Hall. The third area is cultural, scattered throughout the city and includes many museums (Shoval, 2001).

The sample consisted of 120 tourists, five of whom were found to be unsuitable for the research since two of the respondents had, until eight years previously, actually lived in the city, and three respondents refused to answer all questions

Naturally, the perceptions and experience of the tourists represent a single point in time. We find it important to evaluate not only the present programs and current ways to tackle these spatial challenges, but also future ones. In order to examine the services given to tourists, both existing and future plans and the concern accorded to tourists by authorities, in-depth interviews were also conducted with policy makers on the municipal level, representatives of the Ministry of Tourism and of several planning agencies.

Figure 1
Tel Aviv research area

Findings

This section will first give a short description of respondents participating in the survey, followed by an explanation of the purpose of their trip and of the tourists' experiences and impressions the availability of spatial aids in the their activity area. Subsequently, the study examines the spatial element correlations to tourist satisfaction, followed by a discussion of the relative importance of spatial elements in the overall tourist experience. This section closes with a discussion of the authorities' attitudes and actions related to tourist spatial challenges discussed earlier.

Table 1 offers a short description of the respondents' characteristics according to age, gender, education, and place of lodging.

Table 1
Breakdown of respondents according to variables (n=115)

Category	Variables	%
Age group	21 and under	18.3
	22-35	27.8
	36-59	39.1
	60+	14.8
Gender	Male	51.3
	Female	48.7
Education	High school	33.9
	Academic	51.3
	Non-academic	14.8
Place of lodging	Relatives	20.9
	Friends	14.8
	Hotel	53.0
	Motel/Hostel	7.0
	Close proximity to city[1]	1.7

As explained in the introduction, different trip purposes may have an effect on experience and satisfaction. Table 2 describes the main purpose of respondents' visit to Tel Aviv. The interviewees were asked about the purpose of their visit and were allowed to state more than one possibility. Those who did state more than one option were asked to arrange their responses according to importance. About thirty-six percent indicated that their chief purpose was *sun and sea*, i.e., beach, suntans, swimming. Only about twenty-two percent came to the city for *culture*, museums, concerts, plays, galleries, etc. The remainder indicated *business* (conventions, meetings, etc.), *sports* (either participation or spectator), *shopping, and night-life* (appropriate to Tel Aviv, which bills itself as "the city that never stops").

Signage and directional signals are considered to be a significant element in understanding a new space. Signs directing tourists to their destination, and maps with clear street names and indications of tourist destinations are important for the tourist. Maps today are varied, and one must consider all of the different types, including not only the traditional printed map, but also the Internet map, the cellular-phone map, the laptop map, and the GPS. Only forty-eight of our respondents (about 42%) reported using maps.

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Table 2
Main purpose for visiting Tel-Aviv (n=115)

	Sun and beach	Culture	Friends and family	Business	Sport	Night	Shopping
Purpose (%)	36.5	21.7	18.3	5.2	6.1	9.6	2.6

The survey attempted to determine which of the various maps was the most helpful to the tourist, and showed clearly (χ^2 = 9.463, df = 2, p < 0.01) that 71% of GPS users reported its helpfulness in managing their visit through space (Table 3) This is not surprising when one acknowledges the flexibility and accessibility of this technology, although it is surprising to note that 85% of the respondents did not choose to use GPS. The 68% who used printed maps reported that these were not helpful to them.

Table 3
Map type: How useful are they?

	Printed (n=21)	Electronic (n=13)	GPS (n=14)
Assisted	33.3%	15.4%	71.4%
N-assited	66.7%	84.6%	28.6%

In order to understand tourists' spatial mobility, the study raised questions concerning signage, tourist information centers, pedestrian activity, public transport, and how these affected over-all satisfaction.

Table 4 shows the tourists' perception of different factors intended to aid their mobility in the tourist space. The table represents the parameters related to pedestrian tourists and various difficulties faced by them, as well as level of satisfaction, existence or need for facilities (such as shade from the sun or protection from rain), and characteristics of public transport use.

Respondents who indicated low satisfaction in walking in the city were asked to list what was missing, or what would have made their walk more enjoyable. The following is a sample of answers:

• "I missed romantic corners without lots of people around."

• "Benches to sit on and buses to reduce the need for walking."

• "It's slightly frightening after dark."

• "In south TelAviv, the streets are disgusting, and it's frightening to walk around. It wouldn't hurt to have wider streets, so that bicycles and café tables wouldn't take up all the walking space!!!"

• "Shade, air, breeze".

• "Large parks with places for dogs to run about".

• "Nothing. Just not to stand about for an hour waiting for the red light to change on Yarkon Street."

• "The tall buildings hide the sea."

• "I'm afraid to walk at night in south Tel Aviv. The people scare me."

A primary concern in the responses to the survey was rest areas, including benches and areas with protection from the weather. Approximately 38% of the respondents reported a lack of benches in areas where they were needed. Only thirty percent reported on the existence of shelters, and of these, only 38% described these shelters as giving adequate protection from sun or rain. Overall, 70% reported on the lack of shelter where it was needed.

One of the main challenges faced by tourists is the relatively long transit from one attraction to another. These passages are usually affected by some kind of motorized transport. Tel Aviv has four railway stations, located in the eastern part of the city, quite distant from the CTD and from the beach. This prevents the use of the railway for intra-urban tourist purposes, and is therefore irrelevant to our present study. There are also four lines of taxi service dedicated to serving the tourist areas, as well as two more taxi lines along two main traffic axes (Menahem Begin and Namir). The main form of public transport is bus.

More than half of the respondents reported use of public transport through the city. Not one used "Israel Rail". Only ten respondents reported use of taxi service, and eleven used special taxis as their principal mode of transport in the city. In contrast, 36% of the tourist reported using public buses. Therefore, our analysis will concentrate on the use of buses, which constitute the largest sector of public transport used by tourists. As a point of contrast, 37% reported using private cars.

Table 4
Coping with spatial mobility

Subject	Specification	Category	Percentages
Street signs	Existing signs (n=115)	Available	22.6
		Moderately available	47.8
		Scarce	29.6
	Clear signs (n=115)	Very Clear	37.4
		Moderately clear	38.3
		Not at all	24.3
Information centers	Tourists' need an Information center (n=109)	Yes	44.0
		No	56.0
	Information center in vicinity when needed (n=101)	Yes	39.6
		No	60.4
	Information center open when needed (n=44)	Yes	59.1
		No	40.9
Walking	Enjoy walking (n=101)	Very much	57.4
		Moderately	33.7
		Not at all	8.9
	Existing benches (n=109)	Yes	62.4
		No	37.6
	Existing shade shelter on benches (n=105)	Yes	30.5
		No	69.5

Table 4 **Continued**

Subject	Specification	Category	Percen-tages
Public transportation	Bus-winding (n=51)	Yes	78.4
		No	21.6
	Congested bus (n=51)	Yes	60.8
		No	39.2
	Available seat at station (n=50)	Yes	44.0
		No	56.0
	Existing shelter at station (n=46)	Yes	34.8
		No	65.2
	Existing place card at station (n=51)	Yes	49.0
		No	51.0

A number of different challenges were taken into account: whether one specific bus line answer all of the tourists' needs; length of the journey; which line was preferred by the tourists; the availability of seating on the bus; variables concerning length of waiting-time, seating and shelter availability at the bus stations; variables concerning proper maps and signage to clearly direct passengers; aid from bus drivers for directions; night bus service; accessibility of the beach to bus passengers and to private vehicle passengers.

Respondents were asked about the bus route itself: winding, reasonable, or direct from starting point to destination? Most reported on a winding route. The literature allows us to predict that tourists prefer a winding route, which enables a panoramic view of the city and especially of the tourist area. In order to examine whether the winding route actually added to the tourists' difficulties and therefore to their dissatisfaction, or whether Tel Aviv tourists enjoyed the additional ride and saw it as an added attraction, we asked the tourists if they preferred a winding or a direct bus route. Analysis of the questionnaires shows that 82% of the respondents preferred a direct route, and only 18% thought the winding route was more attractive.

Sixty percent of the respondents indicated another problem of bus transport: lack of enough seating on the buses. Lack of sufficient seats at the bus stops and lack of proper shelters also contributed to dissatisfaction in using public transport.

Spatial factors and tourist's satisfaction

An additional question which examined overall satisfaction with the tourist experience was: "Are you satisfied with the spatial factors in the city (travelling from one point to another, finding the correct destination, accessibility, time expended, etc.)?" It was explained to the respondents what factors were included in the general term, "spatial factors', as well as being detailed in the questionnaire. Table 5 displays the parameters which showed pronounced correlation between them and overall satisfaction, and those which showed some correlation or only partial correlation.

Significantly, the older group of tourists (60+) encountered more difficulties and experienced more frustration in dealing with these difficulties. Additionally, overall satisfaction did not exceed the 50% mark in any age group. We can see a relatively high level of dissatisfaction among all groups with factors affecting spatial mobility. We can also see that the level of satisfaction varies with the purpose of the visit. For instance, when shopping is the primary motive for the visit, satisfaction is relatively high. This can be explained by the fact that the main shopping attractions are concentrated in a relatively small area, facilitating spatial mobility. In contrast, sports attractions are located on the outskirts of the city. Arriving and touring in the southern districts of the city were reported in negative terms by the tourists, who cited fear and disgust at the state of the area. Tourists whose primary motive was enjoying the nightlife in Tel Aviv also reported a lower level of satisfaction, which can be traced to the lack of public transport in the later hours of the night. Only a very few bus lines run after midnight, and even then, at a rate of only one every thirty minutes. Some respondents mentioned their feelings of fright while walking in the city late at night.

Place of residence was also examined as a factor influencing satisfaction. Our hypothesis was that the type of residence and the level of previous exposure to the tourist destination would influence the level of satisfaction.

Indeed, we found a pronounced relationship between place of residence and level of satisfaction. Those who live outside the metropolitan area, in a rural region, expressed the lowest level of satisfaction (31%) with spatial factors. In contrast, 46% of those living in an urban environment outside the metropolitan area expressed their satisfaction with the same spatial factors. That is to say, urban residence tends to positively affect the tourist experience in an urban space. Additionally, the distance from place of residence and Tel Aviv, as it increases, decreases the level of satisfaction and pleasure in the urban tourist experience. Seventy-seven percent of those living within metropolitan Tel Aviv expressed overall satisfaction in experiencing the spatial mobility factors within the CTD. The distance from Tel Aviv to place of residence can be understood not just as a physical distance, but also as a distance from, and unfamiliarity with, the realities of the Tel Aviv space. Familiarity with Tel Aviv reduces the difficulties in dealing with spatial mobility in the CTD. It must be emphasized that this result was not dependent upon characteristics of age, gender, or level of education.

Table 5
Overall satisfaction with spatial characteristics

	Group	Satisfaction with spatial characteristics (% of category)	"Wasted" much time (%)	"Wasted" some time (%)	Didn't "waste" time (%)	N
	n=98					115
	Younger than 21	43	42.90	28.60	28.60	21
Age	21-35	50	31.30	40.60	28.10	32
	35-59	47	20.00	53.30	26.70	45
	60+	27	41.20	35.30	23.50	17

Table 5 **Continued**

	Group	Satisfaction with spatial characteristics (% of category)	"Wasted" much time (%)	"Wasted" some time (%)	Didn't "waste" time (%)	N
Place of residence	n=93					110
	Non-urban periphery	31	39.5	37.2	23.3	43
	Urban periphery	46	30.6	40.8	28.6	49
	Urban MTA*	77	16.7	44.4	38.9	18
Purpose of visit	n=98					115
	Sun & beach	47	19.0	57.0	24.0	42
	Culture	57	32.0	32.0	36.0	25
	Friends & family	44	48.0	29.0	23.0	21
	Business	50	0.0	33.0	67.0	6
	Sport	33	57.0	29.0	14.0	7
	Night	10	14.0	55.0	36.0	11
	Shopping	67	50.0	50.0	50.0	3

*Metropolitan area of Tel Aviv

We also examined the question of time use as a factor in levels of tourist satisfaction. We phrased this on the questionnaire as a question of "time wasted". The focus was on the time the tourist *perceived* was taken to reach a tourist destination, rather than on the real time. The perception of time includes both the positive and negative aspects of spatial mobility. For instance, if tourists feel that the time spent in travelling allows them to enjoy the view, they will not feel that the time was "wasted". The perception of wasted time is actually a component of dissatisfaction with the conditions surrounding spatial mobility. Thus, 40 percent of respondents whose place of residence is not metropolitan Tel Aviv or another urban area attested to wasting time in reaching various attractions, while only 17% of those living in metropolitan Tel Aviv indicated such a response. When we analyze the perception of wasted time according to the two age groups from either side of the spectrum (under 21 and over 60) reported the highest perceptions of wasted time (42.9% and 41.2%, respectively). But in comparing these groups' responses to the direct question of overall satisfaction, we see a certain difference. A high percentage of respondents in the youngest group attested to overall satisfaction with factors affecting spatial mobility, while expressing a perception of wasted time.

We can see an opposite trend when we examine the category of purpose for visit. While only ten percent of the tourists whose primary purpose was enjoying nightlife were satisfied with spatial mobility factors, only 14% reported a perception of time wasted. Again, it should be emphasized that the perception of time wasted does not relate to feelings of fear or insecurity within the surrounding space (as a number of nightlife tourists attested to). So we can explain these conflicting trends among various groups.

One of the main targets of the research was to examine how much influence the level of spatial difficulties encountered by the tourists have on forming tourists' over-all satisfaction. Does it have more or less effect than other components, such as price, number and quality of attractions, etc.? In order

to discover whether considerations of spatial mobility are important to the Israeli tourist, we examined aspects of spatial mobility in relation to other aspects of the tourist experience: *the city as a tourist product* (variety and number of attractions, cultural institutions, entertainment centers); *aesthetics* (clean sidewalks, architecture, clean beaches, etc.); *environment* (climate, noise, green areas, etc.); *shopping and prices* (prices of attractions, prices in cafes and restaurants, accessibility to shopping areas, etc.); *spatial factors* (feelings of security, opportunity for pedestrian activity, signage, etc.). These characteristics were graded by the respondents according to the influence each had on over-all satisfaction; they were asked to grade each on a scale of one to four, with one being "heavily influenced satisfaction", and four being "did not influence satisfaction at all".

Table 6
Components of tourists' experience and their effect on tourists' contentment (n=115)

	Greatly influenced (%)	Moderately influenced (%)	Scarcely influenced (%)	Not influenced (%)
Spatial elements	38	32	20	10
Prices and shopping	24	28	28	20
Surrounding	30	30	24	16
Aesthetics	20	28	32	20
The touristic product	30	32	22	16

Table 6 shows the relative importance of spatial mobility factors in comparison to other aspects of the holiday, including level of tourist attractions, lodging and food services, prices, etc. We can see that the highest percentage of "Greatly influenced" is the category of "Spatial factors". The next category in importance, and with a significantly lower percentage, is "The tourist product", and the "Surroundings". In contrast, those components with the highest percentage in the category "No influence at all" are "Aesthetics" and "Prices and shopping", followed by "Surroundings", "The tourist product" and finally "Spatial elements".

Tourist spatial challenges: Authorities attitude and actions

To understand how the different agencies responsible for tourists perceive and deal with, the spatial challenges described in this research, interviews with public agencies and decision makers were conducted, The Association for Tourism in Tel Aviv is the principal organization responsible for the handling of tourism and tourists on behalf of the City of Tel Aviv.

The Vice President of the Association made it clear in an interview that tourism is given the same priority by the Tel Aviv municipality as in other great tourist cities of the world, and that the city makes a concerted effort to maintain international standards. The Municipality conducted a comprehensive survey focusing on the clarity of signage, as well as accessibility for the disabled. The survey attempted to discover what tourist expectations were concerning signage, as well as which museums, sites, and beaches of the city are attractive to tourists. The aim of this survey, as expressed by the vice-president: "We assume that the city is not welcoming enough to the visitor, and that s/he tends to get lost; in

which case, a map is not enough. We want Tel Aviv to be similar to other tourist cities in the world, where the tourists do not find themselves helpless and perplexed."

An additional project, headed by an architect, is intended to raise the standard of signage in the city, and to adapt to the specific needs of different types of tourists (visible by both pedestrians and by vehicular passengers, for instance). Concurrent with this survey, the Tourist Association also undertook a survey, and distributed questionnaires in order to determine levels of satisfaction with the following:

• Signs in English, in proven tourist-attractive areas, such as beaches, as well as signs at both the entrance to and the exit from the city

• The bicycle-renting scheme of the city, and designated bicycle lanes

• Parking facilities

• Parks and gardens

• Public toilet facilities

• Public trash-disposal facilities

• General tidiness of the city

• Disabled-friendly accessibility

The survey broke down the responses by age and country of origin.

In the tourist information centers, maps and leaflets are distributed, explaining the layout of the city, and pointing out the main tourist attractions. The Tourist Association has also developed a free GPS-based iPhone application with which the tourist can map out his individual tourist plan, displaying restaurants, cafes, bars, hotels, attractions, walking tours, etc. in the physical radius of the user.

The Tourist Association operates three tourist centers throughout the city, in proximity to each other. There is one center on the promenade, one at "The Station", and a third in Jaffa. This leaves many parts of the city unprovided for. The Association is aware of this problem, and hopes to solve it by equipping a mobile center which travels throughout the city during the peak tourist season. The mobile center is equipped with an iPad, so that with a press of a button, the tourist can know about all the attractions offered in his vicinity. The main purpose of this mobile center is to overcome the obstacles presented by poor signage and directions in the city, and by the concentration of the existing three permanent centers in one part of the city. Service in all of the centers is free.

In 1999-2009 the municipality undertook a project known as Infrastructure Rehabilitation and Improvement. This project included improvement of signage and directional signals in the city, and was budgeted at 60 million dollars.

We included Jaffa in our study, due its growing influence as a tourist attraction in the past few years, with its rich history, its beaches, and other sites. Jaffa is located at the southern tip of Tel-Aviv and as such, is less accessible to the tourist. The Municipality recognizes its importance and has established a "Jaffa Auxiliary" unit. The unit operates a separate Internet site devoted to tourism around the area, as well as a shuttle service to Jaffa. However, there are no immediate plans to add pedestrian services such as benches or shelters. We learned from an interview with the head of special projects in the Municipality that plans to improve signage in Jaffa are in their earliest stages.

Private corporations, such as the Hotel Association of Greater Tel Aviv are also involved in improving tourist satisfaction. The head of the organization expressed his opinion of the state of signage in the city by stating that "[t]here just aren't signs", "[t]he City of Tel Aviv has the responsibility for signs", and that he himself has communicated his dissatisfaction to the Municipality a number of times. "The Hotel Association can only do so much – we can't put up signs ourselves; only the City can do that," he emphasized.

He also mentioned the lack of printed information concerning public transportation, since the Transport Ministry and the various bus companies have not printed any information for tourists. The Association has devoted a small section of its own information booklet, which is distributed in the hotels, to the subject of public transport, but this is very general.

On the other hand, the Association makes available all the many individual flyers printed by the City advertising tourist attractions, including parking information available at each site. This serves those tourists with private cars. Before the distribution of this information, according to the Head of the Association, tourists were served with parking tickets throughout the city.

Before the last reform in bus transport, reception clerks were able to help guests in understanding the bus schedules and the location of bus stops. Since the reform, the clerks themselves are not up-to-date on all the changes and cannot offer much assistance until they familiarize themselves with the new system.

Finally, a presentation for the Association of Hoteliers Conference in January 2010[2] expresses disappointment in the low growth of tourism in Israel in relation to that of other countries, and concludes that the solution lies in more aggressive marketing of the tourist product. The presentation makes no mention at all of the tourist experience with the space (spatial aspects) of the city, or that the success of the tourist experience could depend on successfully meeting the challenges of spatial mobility.

Conclusion

Similar to other tourist cities in the world, Tel Aviv presents the tourist with many challenges in spatial mobility. The main challenges which have contributed to the tourists' overall satisfaction with the city were found in this study to include the use of electronic maps, walking at night in the city, lack of adequate shelter or benches for the pedestrian, insufficient public toilet facilities, and lack of adequate parking. Public transport, i.e. travel on buses, also presented difficulties, including lack of seating, length of route, time wasted waiting for buses.

Other parameters which presented a medium level of difficulty included signage, use of printed maps, number of available information centers, and satisfaction with guided tours.

In contrast to these conclusions, there were other components of spatial mobility which were not perceived as difficult. These include use of GPS, the assistance of bus drivers, and the range of pricing in hotels close to tourist attractions.

Successful coping with the challenges of spatial mobility is likely to boost the positive image of the city. Satisfied tourists will be likely to recommend visiting the city to their friends. Moreover, those tourists who reported general satisfaction indicated that they would visit the city again. On the other

hand, those who were dissatisfied with their experience indicated that they would report their negative impressions to friends and acquaintances, and they would not visit the city again. It is therefore imperative that all the agencies dealing directly or indirectly with tourism in Tel Aviv work to improve the experience of spatial mobility in the city. Tel Aviv, after all, competes with many other cities which can offer a similar experiences, both in Israel and in the Mediterranean area.

The tourist is a "consumer" who consumes the tourist "product". Thus, it follows that not only the obvious components of the tourist product such as attractions, restaurants and lodging must be attended to, but also the services essential to the tourist "consumer": clear and effective maps and signage of the city, efficient and understandable public transport, and others.

This study can be applied practically in an effort to encourage domestic tourism in the large tourist centers. Application of these conclusions by the relevant agencies and policy-makers, would assuredly improve the tourist experience in Tel Aviv. The city's image would be enhanced, and tourists would develop a loyalty to the city, which they would then communicate to their friends. In certain instances, we have indicated that financial investment in improvement can lead to profit in the long run, and additionally, to growth in tourism and in tourist satisfaction.

During the course of this study, a reform in public transport was initiated in Tel-Aviv. Electronic signs now announce the expected arrival of the bus at stations along the route, dissemination of information concerning routes has been improved, as have services for the blind and the deaf. At the same time, bicycles for hire have been distributed at a number of points throughout the city. Another mobile tourist center is planned as well. With the perspective of only a few months, the bus reform has yet to show positive results and has drawn much criticism. The electronic signs have been posted at only a small number of bus stops. The bicycle stations, however, are spreading throughout the city. It will be interesting to see how these changes affect positively the tourist experience of spatial mobility in Tel Aviv in the near future.

Notes

[1] The questionnaire considered those whose destinations were in the Tel Aviv-Jaffa area. So respondents who lodged in surrounding areas (Ramat Gan bordering Tel Aviv, City Tower) were included, as all their destinations were within Tel Aviv-Jaffa.

[2] http://www.israelhotels.org.il/Articles.aspx

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