Change in Use and Development of Public Squares Considering Daily Temporalities.
The Case of Emir Abd El Kader Square in Algiers

Dounia Cherfaoui and Nadia Djelal
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Introduction

1 Cities are constantly changing. To understand their social, economic and political transformations, spatial-temporal studies are essential (Gwiazdzinski 2012, Lefebvre 2013, Guy 2015). These studies take into account spatial and temporal dimensions. They consider the space as an urban component with relational quality (Thrift 2006, Beaude 2015). Planners approach it through its environments and all entities that interact with it (Pattaroni 2016). The time is another essential dimension for urban dynamics and transformation (Gwiazdzinski 2014a) and for individual and collective experiences (Haicault 2014). The introduction of time in social and urban studies addresses the notion of urban temporalities (Tomas 2003). This notion indicates the how and when things are taking place (Larousse Dictionary) and express the relation of time with urban spatial dimensions (Bouquet 2011). Urban temporalities are multiple, overlapped and in conflict with other times. These characteristics increase the pressure on spatial practices that include material dimensions such as the built environment or open spaces and the dimension of uses and experiences of diverse urban actors (Haicault 2014).

2 Public spaces are an ideal case of study for urban temporalities. They are open spaces where uses and experiences occur thanks to their fluidity, co-presence, and accessibility (Breviglieri and Stavo-Debauge 2007). They are subject to temporalities that are daily and/or exceptional created by events (Soumagne et al. 2013). In fact, temporalities are the main attribute of public spaces and particularly of public squares (Wunderlich 2013). These spaces reflect different social and urban transformations and allow the observation of different temporalities. Moreover, they can accommodate different phenomena such as
conflict trigger and conflict resolution (Pattaroni 2016). Conflicts represent a state of opposition between individuals or groups (Rui 2011) and thus represent broader urban dynamics. In sociological studies, there are two approaches to address conflicts: (1) to question causes of conflicts and (2) to seek out dynamics and interactions caused by conflicts (Vitale 2009). These interactions have led to thinking about actions and engagements in conflicts by individuals or groups. Drawing on Thévenot’s work, Gardella (2006) identifies three regimes of engagement: (1) the regime of justification requires principles to legitimize the position; (2) the regime of the plan refers to the adaptation of means and participation in the project and (3) the familiar regime that relies on the commitment of a person to coordinate its actions. The institutional dimension also considers conflicts (Simmel 1995; Vitale 2009) taking into account three ways to handle with them such as the order of magnitude grammar, the liberal grammar and the grammar by affinity (Thévenot 2014; Pattaroni 2016). The order magnitude represents the differences between people and objects. In this grammar, territorial planning addresses spatial justice and corrects inequalities. In liberal grammar, the divergence of opinions and competing interests interpret the differences. It requires the implementation of negotiation processes. The affinity grammar refers to the sharing of affinities and experiences in a plurality of places.

Returning to order of magnitude grammar, planning and urban development have to meet users’ expectations and find solutions to conflicts. The development is at the base of the fabric of cities and metropolises (Lefèvre et al. 2013). It takes into account spatial aspects and temporal scales.

Studies of temporalities and public spaces have analyzed daily temporalities through sharing of public spaces according to the accessibility, circulation, and parking of vehicles (Royoux 2007), the movements of different population groups (Du 2010; Haicault 2014), and the management of ephemeral public spaces in events (Miranda-Arias 2010). These studies have largely focused on movements of pedestrians and vehicles and their spatial distribution (Edensor 2010). Few studies on temporalities have addressed the uses of public squares in daily temporalities. What are the uses of these spaces and their distribution in different times of daily temporalities? What are the development-approaches considering these uses and conflicts?

This article explores these questions using observations and a survey conducted in a central public square in the Algerian capital of Algiers. The objective of this study is (1) to broaden spatial-temporal analyses through a detailed study of uses of a public square and their distribution in time; (2) to consider conflicts in the use of public squares and (3) to examine development approaches regarding the distribution of uses and conflicts.

Change in use of public squares considering urban temporalities

Political, cultural, social and environmental changes influence cities and their components. Public squares are a vital component of cities that undergo these changes through the transformation of their uses (Wunderlich 2008, 2013; Carmona 2010). These changes in uses occur in different temporalities (year, seasons, working days and weekends, days and nights) (Gwiazdzinski 2007). The daily changes in uses interest researchers who distinguish different forms of use. “The everyday use of public space has
been changing- from necessary uses to optional, recreational uses” (Gehl and Matan 2009). In contrast to other urban spaces, public squares are central or significant public spaces in the city (Memluk 2013). They are places where people meet and where many activities occur. They host different users and activities that overlap and lead to conflicts (Loukaitou-Sideris and Ehrenfeucht 2009). These conflicts appear among groups of users who have various interests in the same space. The most widespread forms of conflicts are between individuals and groups of different genders, ages, socio-economic classes, but also between pedestrian and car traffic. There are also conflicts between uses and the layout of public squares. For example, the presence of obstacles and inadequate urban furniture constrains the use of public squares. However, conflicts are not always negative (Loukaitou-Sideris and Ehrenfeucht 2009). According to Simmel (1995), they represent dynamic configurations that have institutional dimensions. Designers and developers of public squares use conflicts to develop approaches reducing their effects in the use of public squares.

The build-up of temporal approaches and concepts in developing public squares

7 The development of public squares often refers to the idea of aesthetics and laying out urban furniture and greenery, but the question of use remains essential for the functioning and the animation of squares. Development approaches considering the temporalities are temporal. They derive from temporal politics that take into consideration the variety of uses in squares including nightly ones (Mallet and Burger 2015). These politics give rise to temporal urbanism (Mallet 2013). This urbanism requires municipalities and organizations such as offices of time, spaces of time, or houses of times.

8 The chronotopic approach is such a temporal approach. It focuses on the chronotope that is defined as a place of convergence of spatial and temporal dimensions (Gwiazdzinski 2014b; Stabilini, Zedda, and Zanettichini 2013) and introduces a temporal architecture of the city (Bonfiglioli 1990) or a chrono-urbanism (Gasnier 2015; Mareggi 2001). This urbanism aims at more human, accessible and welcoming metropolises (Gwiazdzinski 2013). It is also qualified as sensible urbanism because it enhances the quality and the legibility of public spaces considering the plurality of rhythms in territorial development (Mallet 2013). The temporary development is another temporal approach. It is interested in the ways of partial occupations of space and time in the city. In other words, this approach focuses on the agendas of cities (Gwiazdzinski 2013). It requires new actors and managers of times such as temporal town planners and users. The role of these actors is to look for ways to adapt the cities to temporalities and their impacts.

9 Debates on temporal approaches lead to practical concepts in urban development such as Adaptability and Flexibility. These concepts appear very close, but there is a nuance between them.

10 “Adaptability refers to the potential of space to accommodate different uses without any significant modifications to its physical attributes, while flexibility refers to a space that accommodates different uses by being easily changed” (Fernando 2006, 55). Harlfinger (2006) explains that flexibility offers possibilities to meet user’s expectations. It makes it possible to reach short-term changes of uses with few interventions and at little expense.
The architect Knirsch (2004) speaks about flexible public squares as spaces that can react to changes and are capable of animating spontaneous actions and provoking them. He suggests three types of flexible public squares: the carpet-square, the island-square, and the empty square.

11 The carpet-square describes a square with a large capacity of adapting to future uses. It has accessible and flexible elements that can constantly change for different uses (Knirsch 2004). Its specific ground coverings reinforce the spatial connection and dissimulate existing limits between the square and the street. The urban furniture and plantations often occupy the borders of the square.

12 The islands-square is the type of square with a large surface that supports specific uses. It often takes the form of a square divided into islands or zones. These zones should be clear and distinct in order to assure the control of uses. The division of the square depends on functions and uses, situation, environment, the capacity of reception, nuisances and socio-economic aspects related to profitability. The division can be spatial but also temporal by placing temporary activities inside a specific zone. The advantage of this division is the decrease in conflicts between different categories of users.

13 The empty square refers to a space that offers immense flexibility in changing uses. It has technical infrastructures, but it lacks urban furniture, and its density (Knirsch 2004). According to the architect Dissmann (2014), emptiness can be material or immaterial. Material emptiness concerns the content, the structure, the layout, and the functions of a public square. Immaterial emptiness provides information, metaphors, and remembers events.

14 Other authors add to Kirsch's typologies temporary public squares (de Smet 2013). These squares host unexpected and spontaneous uses (Andres 2011). They can be originally an urban wasteland, vacant or temporary open space (de Smet 2013).

15 The concept of flexibility cannot only break up the rigidity of traditional planning but also offers a range of possibilities and alternatives for the use of public squares (O'Connor and Maury 1997, Hadji 2012). It allows actors to discuss and have several opinions (Ryu 2009). But are there the same changes in use and developing public squares in Algeria?

### Public squares and urban temporalities in Algeria

16 Public spaces in Algeria have common characteristics. They are multiple and of colonial origin. In the past, men frequented these spaces. The presence of women was rare. Temporalities have impacts on the use of public squares that host now different categories of users and uses (Chiffouleau and Madœuf 2007). The different uses and conflicts occur at different times of the day (Navez-Bouchanine 2005). To understand these changes in uses and in development of public squares in daily temporalities, the case of the Emir Abd El Kader square in Algiers seems interesting, because it had different transformations over time and has a new plan of redevelopment from the strategy of Algiers 2030.
Change in use of Emir Abd El Kader square and its development considering daily temporalities

The Emir Abd El Kader square (former Bugeaud square) is a central place in Algiers. It is close to the city hall, the Senate, a private school, and is near the most famous café terrace. It is rectangular with a side length of about 60 meters. Two perpendicular roads cross the square. The intersection of these roads shapes the oval form of a place or platform raised by stairs. In its center stands the statue of the national hero Emir Abd El Kader. This configuration makes the square a roundabout.

Figure 1: The plan of the Emir Abd El Kader Square

Source: Autocad Map of Algiers 2014, processed by Cherfaoui.
In order to understand the changes affecting the development of the Emir Abd El Kader square, a review of the evolution of the square is necessary because it has changed and will change in the future. In the colonial era, one street accommodated a tramway crossed the square. This street divided the square into two parts. One part had a fountain, and the other part included the statue of Bugeaud that was close to the city hall. Users frequented these two parts regularly. After the Algerian independence in 1962, there were changes in the configuration of the square, transforming it to a roundabout supporting the statue of Emir Abd El Kader. This latter replaced the statue of Bugeaud. In the dark decade (the 1990s), there were no great changes in the Emir Abd El Kader square with the exception of the statue. A bigger one replaced the first statue of Emir Abd El Kader that seemed to have small proportions compared to the size of the square. In this period, the square was often vacant because of terrorist attacks that threatened pedestrians. After this dark decade, the square was empty for a while and then gradually reused by men and women.

Survey method

For this research, we chose an exploratory approach or an intelligent study of a case (Schneider 2007). This approach requires a case study (Lamoureux 1992) and treats the questions: what is happening in a space? How does it function? (Marshall and Rossmann 1955). The square Emir Abd El Kader is a representative case of study because it represents a central and accessible square in Algiers. To study this square, we chose the tools of observation and the questionnaire. We used an observation grid (Table 1) to
identify the distribution of users and uses at different times, and questionnaires (Table 2 and Table 3) to complete previous information about the provenance of users, the reasons, the duration and the frequency of their presence in the square. The questions also concern conflicts, the degree of satisfaction of users and planers with the design, the positive and the negative aspects, the adaptation, and the proposed development of the square. We also worked with photos and graphics documents from City Hall to analyze the evolution of the square over time.

**Table 1: Observation grid used for observing and counting users and uses in Emir Abd El Kader square**

<table>
<thead>
<tr>
<th>Place</th>
<th>Date</th>
<th>Children</th>
<th>Teenager</th>
<th>Adult</th>
<th>Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>girls</td>
<td>boys</td>
<td>women</td>
<td>man</td>
</tr>
<tr>
<td>8am-10am</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
</tr>
<tr>
<td></td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
<tr>
<td>10:30am-12pm</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
</tr>
<tr>
<td></td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
<tr>
<td>12:30pm-2pm</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
</tr>
<tr>
<td></td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
<tr>
<td>2:30pm-4pm</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
</tr>
<tr>
<td></td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
<tr>
<td>4:30pm-6pm</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
</tr>
<tr>
<td></td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
<tr>
<td>6:30pm-8pm</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
<td>Number:</td>
</tr>
<tr>
<td></td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
</tbody>
</table>

Source: Cherfaoui, 2016.
Table 2: Questionnaire intended for the users of the square

<table>
<thead>
<tr>
<th>Place</th>
<th>Time</th>
<th>Date</th>
<th>Gender</th>
<th>Age</th>
<th>Preoccupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why do you visit the square?</td>
<td>To travel</td>
<td>to wait</td>
<td>to rest</td>
<td>to meet someone</td>
<td>other</td>
</tr>
<tr>
<td>To linger</td>
<td>to walk</td>
<td>to buy</td>
<td>to sell</td>
<td>to consume</td>
<td></td>
</tr>
<tr>
<td>How long do you stay in the square?</td>
<td>Less than 10 min</td>
<td>from 10 min to 30 min</td>
<td>1 hour</td>
<td>from 2 hours to 6 hours</td>
<td>All the day</td>
</tr>
<tr>
<td>When do you visit the square?</td>
<td>morning</td>
<td>noon</td>
<td>afternoon</td>
<td>evening</td>
<td>working day</td>
</tr>
<tr>
<td>How many times?</td>
<td>1 time/week</td>
<td>2 time/week</td>
<td>everyday</td>
<td>1 to 2 times/month</td>
<td></td>
</tr>
</tbody>
</table>

Do you think that the place adapts to the change of uses?

... (continued)

Do you find conflicts in the Emir Abd El Kader square? Which ones and why?

... (continued)

Source: Cherfaoui, 2016.

Table 3: Questionnaire intended for the planners of the square

<table>
<thead>
<tr>
<th>City hall</th>
<th>Time</th>
<th>Date</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do you think that the place adapts to the change of uses?

... (continued)

Are you?

... (continued)

Could you describe the redevelopment of the square Emir Abd El Kader?

... (continued)

What are uses supported by this proposal?

Multiple uses | temporal uses | event uses | reducing conflicting uses | other | |

Source: Cherfaoui, 2016.

We conducted this survey in the last two weeks of May 2016. We chose four working days and one weekend day. We questioned a total of one hundred twenty users and three planners. The sample included men and women of different age groups as shown in table 4.
Table 4: The questionnaire sample used in the survey

<table>
<thead>
<tr>
<th>Emir Abd El Kader square</th>
<th>Children</th>
<th>Teenager</th>
<th>Adult</th>
<th>Seniors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>girls</td>
<td>boy</td>
<td>girls</td>
<td>boy</td>
<td>women</td>
</tr>
<tr>
<td>The first week</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First working day</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Second working day</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Third working day</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Forth working day</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Weekend day</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>The second week</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First working day</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Second working day</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Third working day</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Forth working day</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Weekend day</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>17</td>
<td>11</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: Cherfaoui, 2016.

Changes in users of the Emir Abd El Kader Square

The observation of Emir Abdel Kader’s Square in at different times of the day reveals a relative balance between the number of male (55 percent) and female (45 percent) users (Figure 9). On weekends, the results of the observation are quite similar to those of weekdays. However, there are fewer people present in the morning. The age of users varies between 20 and 60 years old. They are mostly people who work in Algiers. The square further hosts other users, such as retirees, teenagers, and schoolchildren (Figure 3).

Throughout the day (morning, noon, afternoon and evening), we observed no homogeneous distribution of users. We noticed a strong presence of women between noon and 2 pm, while the schoolchildren were present after school from 4 pm and the elderly between 5:30 pm and 6 p.m. The presence of users constitutes its social content. However, the square of Emir Abdel Kader was empty in the black decade between 1990 and 2000. There were only passersby and car drivers that drove quickly around the square. The presence of users in the square is due to the feeling of security but also to the introduction of women in different work sectors. This aspect has encouraged women to use public spaces and to extend their stay in these spaces. This interpretation supports the results of the questionnaire that reveals that the interviewed women are mostly employees and students. Unlike men, the number of women decreases in the evening. Between 7 pm and 8 pm, women are rare or accompanied by men between 20 and 65 years old. We conclude that the Emir Abd El Kader square hosts a diversity of users in different daily temporalities but their distribution at different times is heterogeneous.
Figure 3: The average percentage of women and men in working days in Emir Abd El Kader’s square

Gender

Source: Cherfaoui 2016

Figure 4: Percentages of age groups on weekdays in Emir Abd El Kader’s Square

Age categories

Source: Cherfaoui 2016

Changes in uses of the Emir Abd El Kader Square

Observations of the Emir Abd El Kader Square further reveal a diversity of uses such as walking, resting (sitting on a bench), eating, playing, lingering (standing and admiring), meeting and foot traffic. Figure 4 represents their distribution on weekdays. In the morning, the traffic is dominant, and there is an almost equal distribution between meeting, resting and lingering. At noon and in the afternoon, some people had lunch and
children played. The traffic remains important. In the evening, the uses of resting, meeting, and lingering are rare, and the traffic is predominant.

To understand this distribution of use patterns, we further analyze data from our questionnaire and observations. Responses to the questionnaire indicate that users frequent the square in the morning for several reasons. Forty percent come for services of the City Hall, thirty percent go to work, twenty percent accompany children to the school and, ten percent come to rest. These different purposes account for the uses patterns of meeting, resting, lingering, and movement. We also noted that the Emir Abd El Kader Square is becoming the second favorite square after the Grande Poste Square for visitors to the city. At noon, the Emir Abd El Kader Square accommodates yet other users, when schoolchildren come to play and enjoy their lunch break and employees meet there after work. In the afternoon, and especially after school that lets out at 4 pm, schoolchildren return to the square where their parents are waiting for them and where they can play. In the evening, the residents come to rest and socialize. They represent eighty percent of the respondents.

With regard to conflicts, seventy percent of all users consider the automobile traffic as problematic. Car traffic hinders pedestrians to cross the streets and reach the square. It is heavy in the morning, afternoon and evening as shown in figure 5. The intensity of the traffic is related to the peak hours and the square’s configuration as a roundabout.

The distribution of uses at different times of weekdays in the Emir Abd El Kader Square depends on the city’s rhythm, especially on the working and school hours. It also depends on the square’s spatial configuration and provenance of users. The constant heavy automobile traffic represents a challenge to users of the square.

Figure 5: The distribution in percentage of uses in the Emir Abd El Kade Square in working days

Source: Cherfaoui 2016.

Figure 6 represents the distribution of uses on weekends that is less heterogeneous. Here the morning is marked by traffic and less resting, and lingering take place. Starting at noon, there is a fair distribution of resting, traffic, and lingering. Around noon, we observed more people eating and children playing than later in the afternoon. In the evening, we observed children playing and adults walking, meeting, and lingering. The distribution of these uses is almost equal. On the weekend, there was no dominant use other than in the morning when car traffic was heavy.

To understand this use distribution, we focused on the observation of the square, the characteristics of weekend days and in response to our questionnaire. On weekend mornings, stores open around 10 am and public transportation starts late which accounts for the heavy traffic of private cars and taxis and less pedestrian use on the square. Sixty-
five percent of the interviewees who were present on the square on weekend mornings waited for shops to open. Thirty-five percent of the interviewees, who were visiting the city, came to the square to take pictures in front of the statue of Emir Abd El Kader. At noon, the restaurants and café are full. Fifty-five percent of the respondents prefer to meet their friends on the square and buy food from stores and eating on the square because the surrounded cafés are often overcrowded. The square becomes an extension of these cafés and stores, where children can play while their parents watch them. In the afternoon, the square hosts users who come to rest after shopping because the square is on the main shopping street. Sixty percent of the interviewees prefer to rest on the square after shopping. In the evening, the square continues to be animated by the play of children and the socializing of neighborhood residents. On weekends, cafés and restaurant close late. Sixty percent of our respondents noted that these open businesses near the square provide a feeling of security. Concerning the conflicts, ninety percent of the interviewees do not notice any conflict on the square. We conclude that the uses of the square on weekends are dependent on the opening hours of shops and services on and around the square.

Figure 6: The distribution in percentage of uses in the Emir Abd El Kader square in weekend days

Source: Cherfaoui 2016

Comparing the distribution of uses in the Emir Abd El Kader Square at different times on weekdays and weekends, we note that there are similarities and differences of uses. On weekdays and weekends, we find traffic, resting, walking, or meeting. We observed that during noon and afternoon hours there were more children playing and people eating. The differences occurred in the morning and evening. Weekday mornings are more animated than those of weekends, and weekend nights are livelier than those of weekdays. We also observed conflicts of use on weekdays because of the dominance of the car traffic.

We deduce that the distribution of the uses in the Emir Abd El Kader Square at different times of the day and week refers to the city’s rhythms, which include work, school, traffic, public transportation, and shops hours. It is furthermore related to the environment of the square such as restaurants, cafés, school, and City Hall. We also found an influence of the provenance of users. The animation of the square in the evening is mostly because of neighborhood residents. Regarding the conflicts, they are related to the dominance of automobile traffic on weekdays.
Changes in development of the Emir Abd El Kader square

At present, the square continues to be marked by the platform with the statue of Emir Abd El Kader and by the four palm trees and public benches placed in the four sides of the oval platform. The square has also floor lamps and lampposts that light the statue and its surroundings at night. With the relative dominance of car traffic in the square, we conclude that the development of the square remains oriented toward functional aspects of mobility and not toward the temporalities of the city.

However, do these present developments meet the pedestrian users’ expectations? Do they allow adaptations to change of uses? Do they reduce conflicts? To answer these questions, we analyzed users’ and planners’ degrees of satisfaction with the design of the square, their opinions about adaptations, and their expectations for the square’s redevelopment. Responses to our questionnaire indicate that fifty percent of the interviewees (users and planners) think that the square can adapt to changes in uses. Sixty percent are satisfied with the design of the square as shown in figure 7. Thus, users and planners like the design of the square but think there is room for improvement. Positive aspects of the square are the presence of the statue and the possibilities to meet people, play, and consume food. Users expect improvement of the accessibility by way of reducing car traffic and using ramps and anti-slip flooring. They also hope for more comfort by installing benches in the shade and adequate urban furniture, and by expanding the statue’s platform.

Figure 7: The degree of satisfaction of users of the Emir Abd El Kader square

The Algiers 2030 development strategy includes plans for the redevelopment of some public squares. The plane of the Emir Abd El Kader square proposes an aesthetic and functional reconfiguration. The transformation of the square requires the use of modern materials, the relocation of the statue near the City Hall and the management of automobile and pedestrian flows. These interventions can change the configuration of the square from a roundabout to a carpet square (see figure 8), which demonstrates the decision-makers’ interest in the concept of flexibility. This new reconfiguration does not meet users’ expectations in term of comfort and visibility of the statue. Therefore, this proposed development of the square necessitates the engagement of users in these redevelopments.

We suggest this proposition because commitment is part of the flexibility that offers different alternatives and allows actors to give their opinions, and because we noticed
that users are important actors who influence the distribution of uses at different times in the square and ensure its animation.

**Figure 8:** The proposed plan of the Emir Abd El Kader square inspired by the carpet square model
Conclusion

35  This research approached the changing use and the development of public squares considering daily temporalities. The survey conducted in the Emir Abd El Kader Square in Algiers revealed different information. Through the observation and the questionnaire, we observed differences in the distribution of users and uses on weekdays and weekends. Diverse users frequented the square, and their distribution is heterogeneous at different times. The distribution of uses is equal on weekends. In the evening, the square is livelier on weekends than weekdays. We also observed the dominance of car traffic on weekdays that represents a challenge for pedestrians. We conclude that this distribution of uses is related to the city’s rhythm, the environment of the square and its users’ provenance.

36  The consideration of the temporal aspect of the Emir Abd El Kader square not only allowed the identification of uses, conflicts and tensions between the different groups of users of the square but also specified their appearance in the time. At what time do these conflicts become intense and visible and for whom.

37  We noticed varying degrees of satisfaction among users, the adaptation and the positive and negative aspects of the square. Most interviewees are satisfied with the design of the square, but also think that it can be improved. Half of the respondents said that the square is adaptable to changing uses. The analysis of the development of the Emir Abd El Kader square in different temporalities (past, present, and future) reveals that much development was oriented towards the mobility (tramway and cars) and not towards temporal approaches.

38  The redevelopment of the square aims at its modernization by using the carpet-square model. This configuration has the advantage of reducing conflicts of traffic and
improving accessibility for people with reduced mobility. This proposal, however, does not take into account the users’ expectations regarding comfort and the statue’s visibility. The question of expectations and the common good is the object of several recent research projects on collective actions that often take the form of participatory initiatives and citizen engagement in projects (Vitale 2011, Thévenot 2014, Müller et al. 2017, Pattaroni 2017). These previous researches demonstrate the importance of the commitment of citizens to the success of design and development projects of a public spaces. They also highlight the consideration of social interactions and inequalities in daily situations (Eliasoph and Lichtermann 2010). Therefore, we recommend that this new configuration should be discussed with users as part of flexibility in developing the square, which allows the commitment of users to design public squares.

The results of this study can serve architects and planners to improve and adapt the square’s development to the changing uses considering the daily temporalities. The study has some limits. We did not take into account the spatial distribution of uses and their sorting by gender. The integration of these parameters can refine our suggestion for the square’s redevelopment. However, the study presents perspectives for future research on temporalities and flexibility and their evaluation in developing public squares.

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ABSTRACTS

Cities are constantly changing. Spatial-temporal studies are essential to understanding these changes. Notions of urban temporalities introduced in these studies reveal changes in the mobility and movement of diverse groups of users in public spaces and particularly in public squares. What are the concrete changes of uses and conflicts in public squares? What are the development approaches that consider the changes of uses and conflicts? This article explores these questions using the case of the Emir Abd El Kader Square that is a central square in Algiers. A survey was conducted in the last two weeks of May 2016, considering working and weekend days. It required the observation of users and uses in the square at different times, and questionnaires distributed among users and urban planners. This study identifies use patterns in this public square as they occur during different times of the day and week and discusses the proposed re-development and improvement of the square. The results highlight the impacts of the daily temporalities and the influence of users in changing the distribution of uses and the development of the square.
INDEX

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