

CITY RHYTHM PROJECT

RESPONSIBLE INNOVATION

Student Project Groups Rhythm Findings & Representations

Gathered by Caroline Nevejan & Pinar Sefkatli



This is a collection of student project groups' results on discovering and visualizing different rhythms. It contains the work that the students carried out in the first quarter, in their selected project areas.

In this overview, some of the results are the students' findings themselves, while some other results have been integrated in order to test various types of rhythm analyses that can be considered for different case studies.

ZAANSTAD

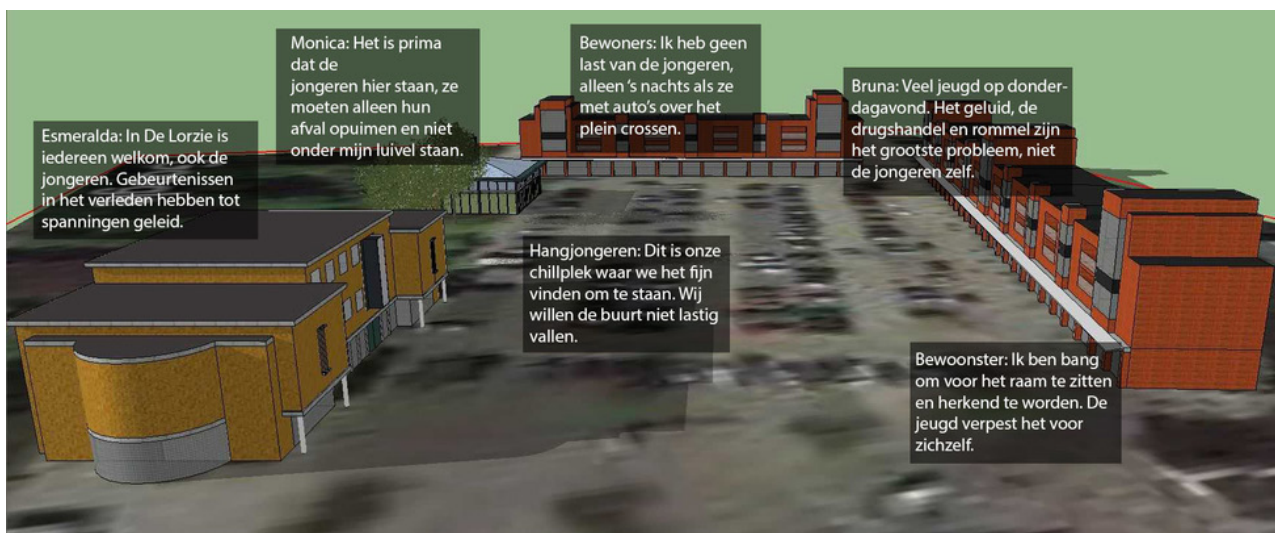
Rhythm in Wormerveer

The two Zaanstad Students Project Groups were given precise locations for their research. In both areas, the main issue was about the perceived safety which was being negatively effected by the actions of the young residents.

The Zaanstad 1 Group's project area was the Central Square in Wormerveer. Here are the first impressions of the students about the square:

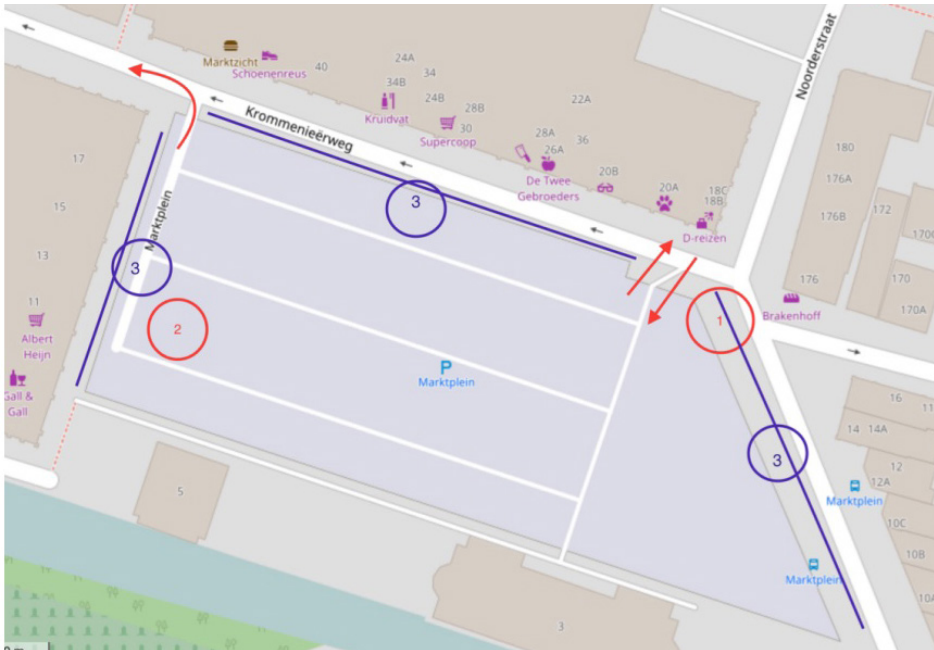
"The town square of Wormerveer has a central role in the village, all the streets lead to this place. In our opinion this square is out of proportion, looking at the size of the population. There are several shops around the square such as a Hema, a Bruna and two different supermarkets. Besides this, on top of the shops there are houses, mostly inhabited by elderly people. The houses all have a great view on the big square. There is a continuous flow of cars going in and out, since the whole square is actually a big parking area. This also gives the square a boring grey image. It is always filled with many cars; only in the night, after eight o'clock, when the shops are closed, the square is empty. Due to the parking area, the shops are always well visited and the square is always crowded, not only by inhabitants of Wormerveer, also from outside the village."

These impressions were received from the interviews the students have done in the area, and on preliminary visual observations. Their findings were reflected on the following image:



Zaanstad Image 1: 3D Visualization of Town Square with the documentation of quotes that have been registered during the interviews

These findings influenced the students to be interested in showing how the daily life in the square took place: who visited the square, how does the traffic in the square work, what are the functions around the square, etc. In the following map these findings have been roughly sketched:



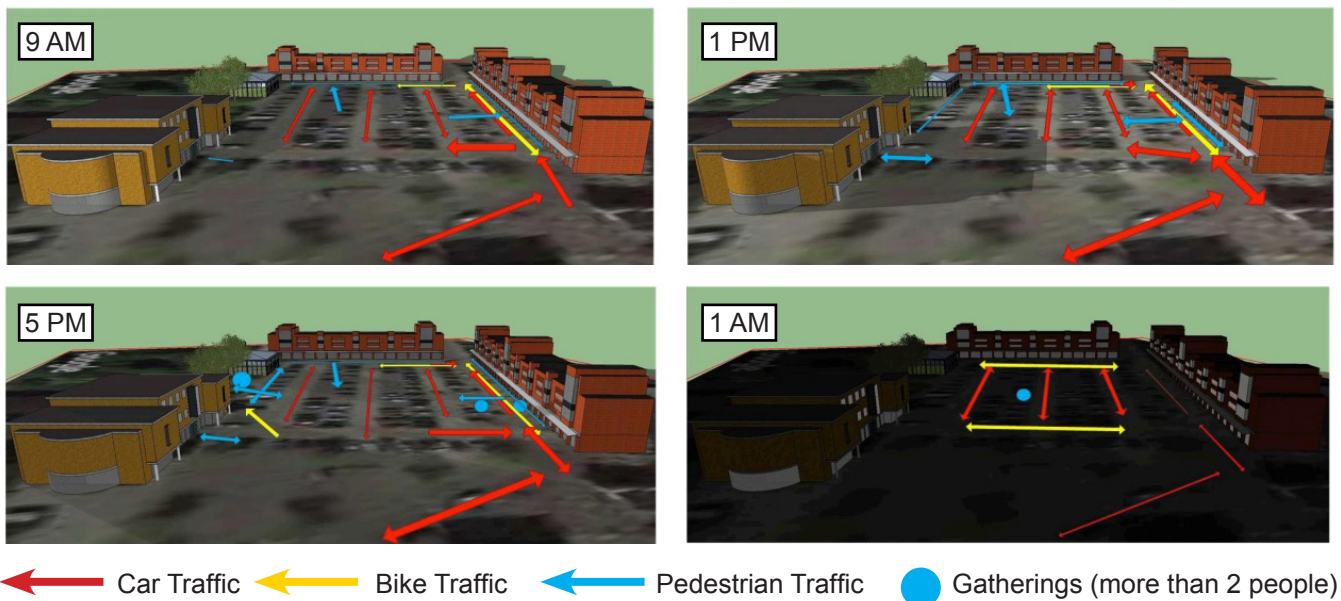
1- Two way traffic

2- Most busy parking places, close to Albert Heijn

3- Unclear Separation between pedestrian and bicycle lanes

Zaanstad Image 2: Map of the town square, showing the different functions and different flows of traffic.

In addition to the map, the students analyzed the flow of the people throughout the day in the square. They took into consideration three actors to analyze: The car traffic, the bike traffic and the pedestrian traffic. Their findings have been represented on a 3D visualization of the square with arrows.



Zaanstad Image 3: 3D Visualization of Town Square with the documentation of arrows indicating the direction and intensity of each traffic flow.

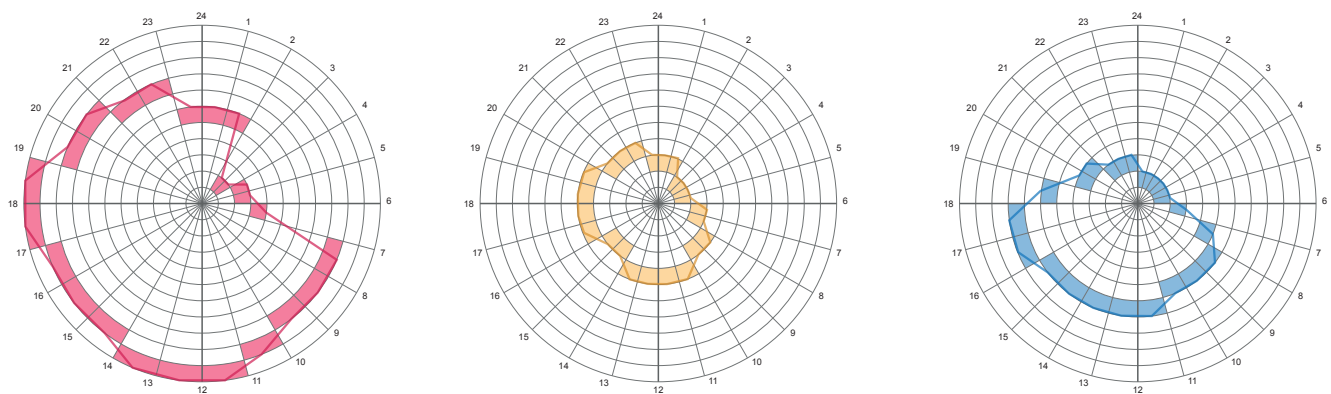
Although the visualization above gives a certain information about how the flow of people work in the square, the findings of the students have been mostly based on visual observations. This situation limits the results into being rough images, rather than a good representation of the ground rhythm of the neighborhood.

Representing the rhythms in the square would be very interesting in the analysis, and would help us to put in comparison the three main flows. According to the municipality, the town square of Wormerveer is

one of the areas in which the citizens are supposed to come together, it is a public space. On the other hand, looking at a flow map can give us an impression of what functions dominate the square, and how the conditions in the square can be improved in order to become a more socially attractive place.

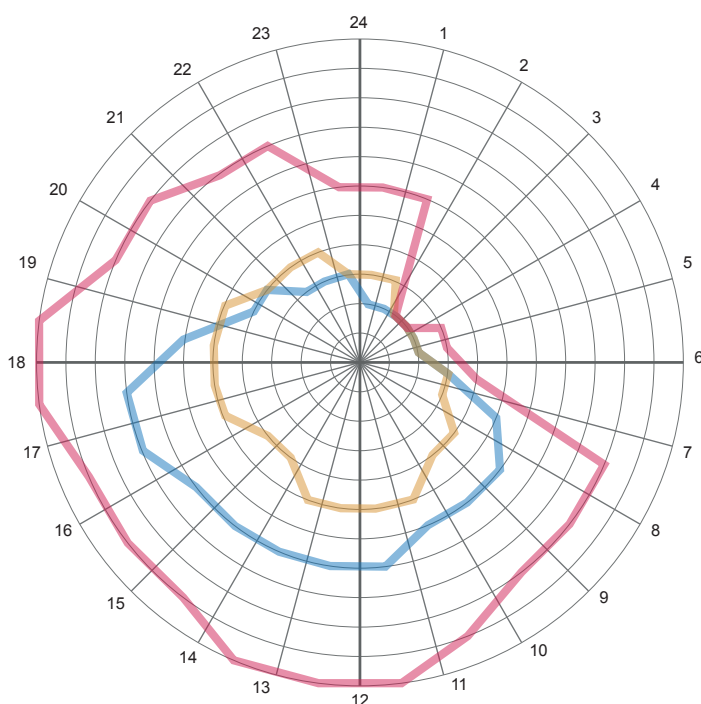
The image below shows how a rhythm analysis can be established in the square, based on the three main flows that the students observed. These three flows are car traffic (marked in red), bike traffic (marked in yellow) and pedestrian traffic (marked in blue). The graph indicates how these three flows change throughout the 24 hours of the day. The graphs contain a scale from one to ten, making it possible for the observer to number their findings on the three flows.

In order to do this study, an accurate data on the traffic in and around the square has to be used. The parameters that put the findings into a scale from one to ten, can be decided based on this data.



Zaanstad Image 4: Representation of each flow in 24 hour graph.

The first flow, represented in red, is the car traffic. In the maps drawn by the students, we can see that the amount of car traffic increases throughout the day and results to be more than bike or pedestrian traffic. The second graph shows the bike traffic (in yellow). Based on the maps the students made, the bike traffic is quite limited throughout the day. Finally, in blue has been represented the pedestrian traffic, which increases during the day time, and dramatically decreases when the shops are closed.

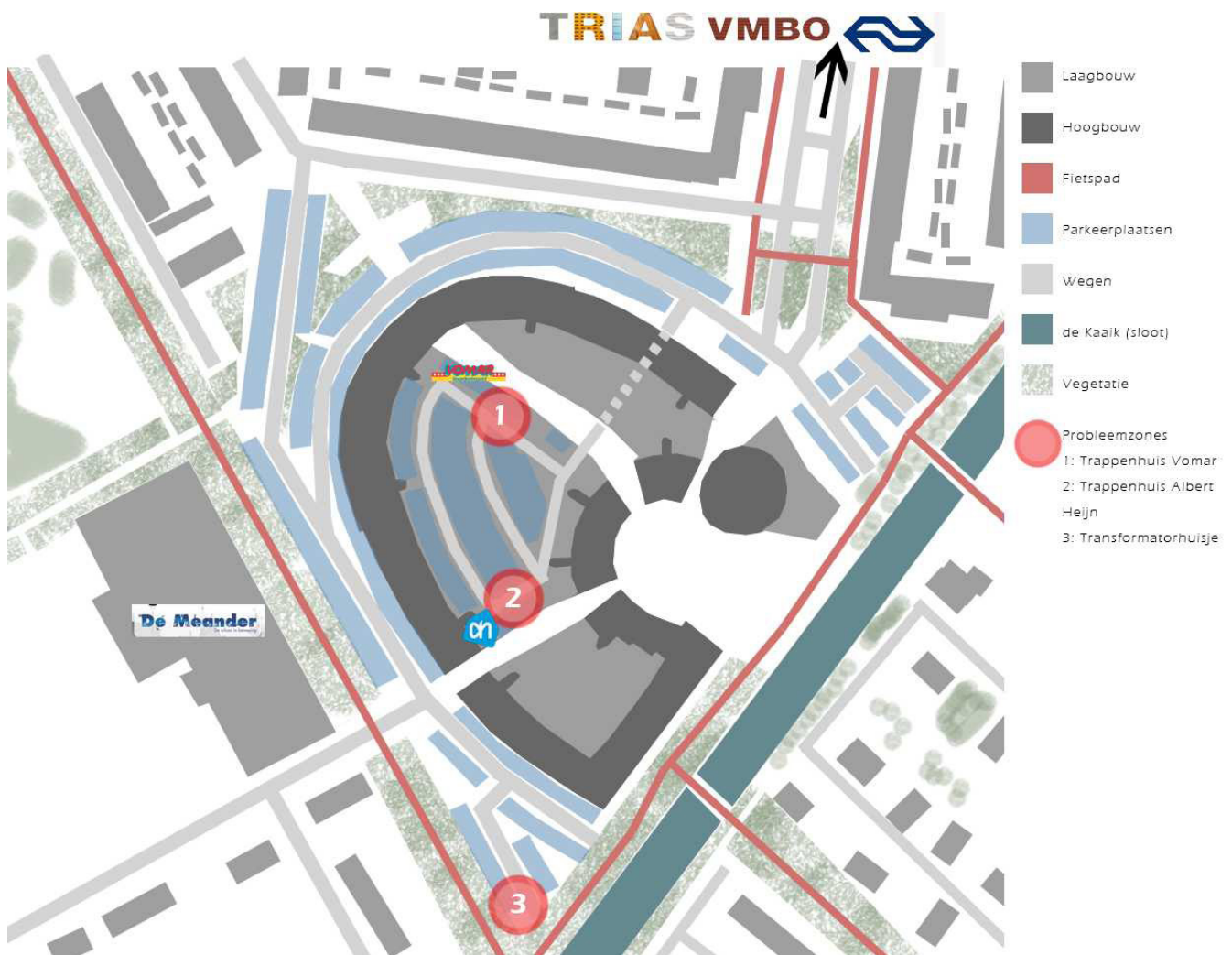


When the representations of three different flows in the square are transferred into the same graph, we get the ground rhythm of the square. It gives an overall image of what kind traffic takes place in the square and when the traffic increases or decreases throughout the day.

These graphs have been drawn as a pilot, to show how a rhythm study can be done inside the town square in Wormerveer. In order to do an actual study, as mentioned above, the car, bike and pedestrian traffic data of Wormerveer has to be available.

Zaanstad Image 5: Potential rhythm visualization of Wormerveer

Rhythm in Assendelft



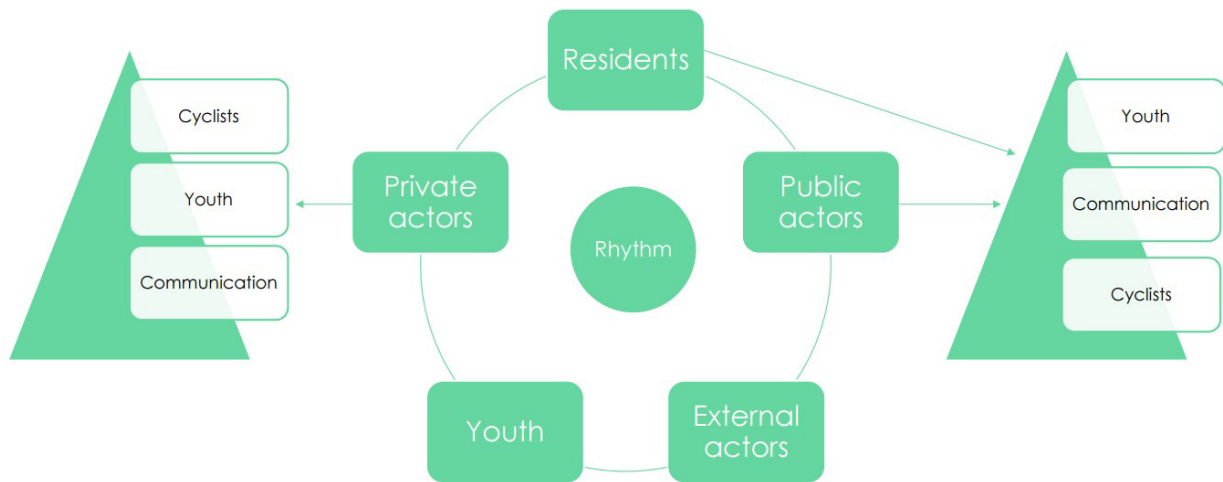
Zaanstad Image 6: Map of The Saen Shopping Center showing the spatial analysis

The Zaanstad 2 Group's project area is the shopping mall called 'The Saen' in Assendelft. Above, there is a map indicating The Saen's nearby functions.

Here are the students' first impressions on safety in Assendelft:

"First of all, the local residents indicated that during midday they feel safe (7 or 8 on a scale from 1-10), but in the evening/at night not really (5 or 6 on a scale from 1-10). This of course has an effect on their living comfort, which they all characterized as moderate (6 on a scale from 1-10). The residents indicated that there are three main issues that cause their perceived safety to fluctuate and living comfort to be moderate; traffic safety, loitering youth and an unwilling municipality."

Thanks to the interviews the group has done on the perceived safety in Assendelft, the following diagram has been created, showing that many actors were involved in creating the negative perceived safety of the residents. The main actors were the youth and the cyclists, and in addition there was a lack of communication between the residents and the municipality.

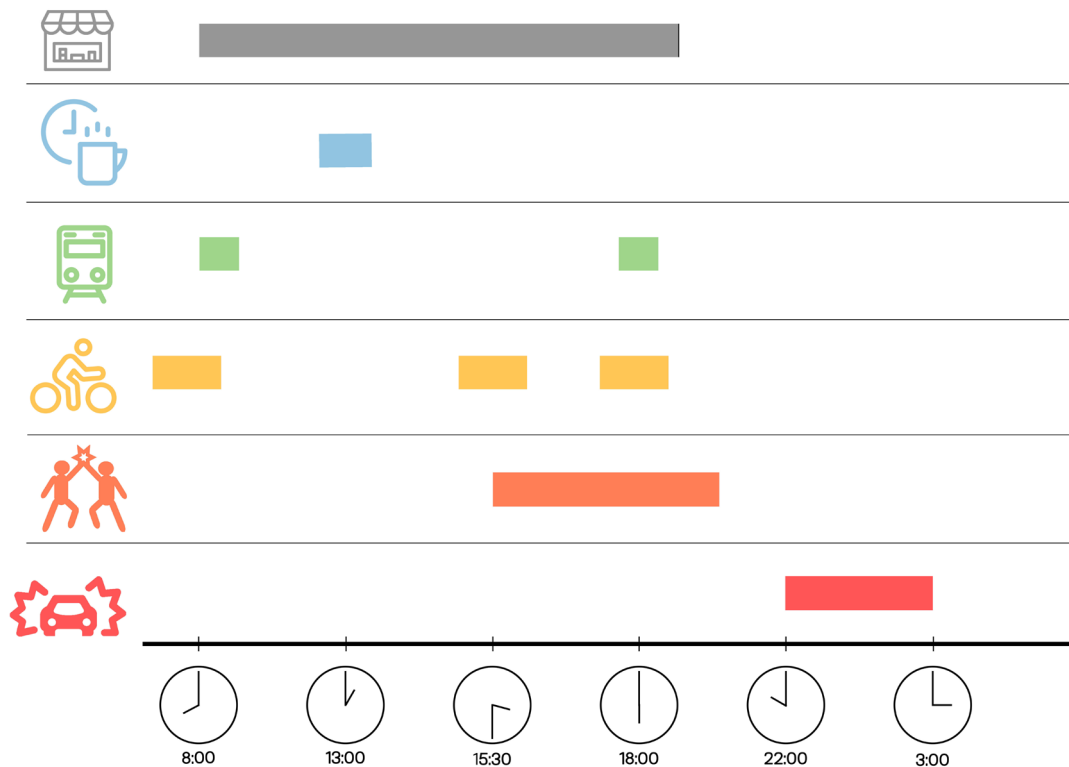


Zaanstad Image 7: Actor Map

These findings influenced the students to explore how the activities took place in The Saen, for establishing a good understanding on the daily life in Assendelft. In order to analyze and represent what happens throughout the day, the students used different activities as parameters, pointing out the rhythms in the neighborhood as a conclusion.

The diagrams show the five activities that the students chose to include in their analysis. These were the main activities that they saw happening in the project area; store's opening hours, coffee break, transportation hours, hours in which the cyclists are present in the shopping center, the time period in which the youth is present and the time period in which there is traffic.

The time periods in which the five main activities take place throughout the day was indicated first in a linear diagram:



Zaanstad Image 8: Linear documentation of the daily activities

ROTTERDAM

Rhythm in Keizerswaard

Rotterdam 1 Project Group's research question was 'How to increase the sense of safety of the elderly people living in Keizerswaard'. After the initial interviews, the students found out that one of the main reasons that the sense of safety was lacking was due to the poor interaction of the target group with other parties and with their surroundings. Therefore, they chose to analyze and put in comparison the three main weekly rhythms: Keizerswaard Shopping Center (the biggest public space in the neighborhood), the rhythms of the elderly and the rhythms of the youth.

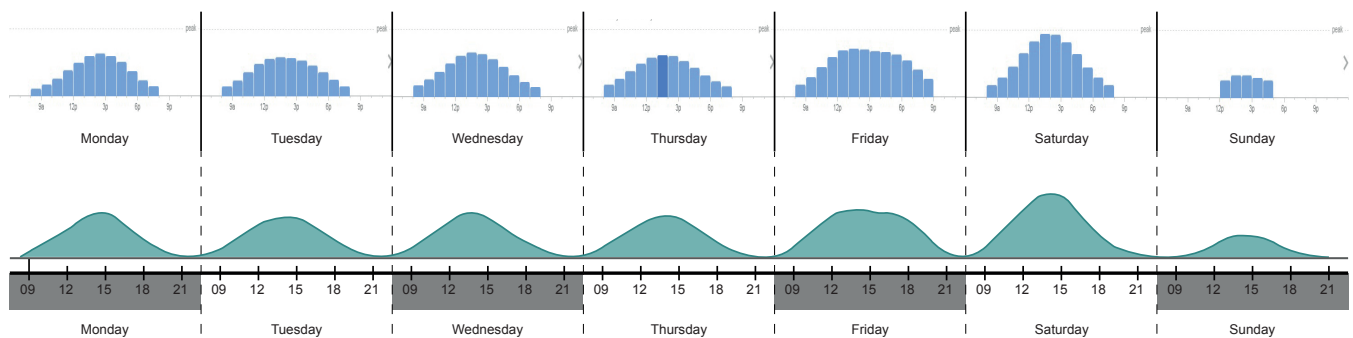


Rotterdam Image 1: Photos from Keizerswaard shopping center and surroundings

Their analysis started with finding out the flow of shopping mall's visitors throughout the week. Then, they made a study to document their main focus group elderly people's daily activities. Out of this study they sketched the daily rhythms of the elderly people in Keizerswaard. Following the same method, the daily activities of the youth have been documented and their daily rhythms have been sketched.

In this article, you will find two different versions of each representation. In the first graph, you will find the data that the students used in order to achieve the three different rhythms in Keizerswaard. Following that is the conclusive graph that display the weekly rhythm.

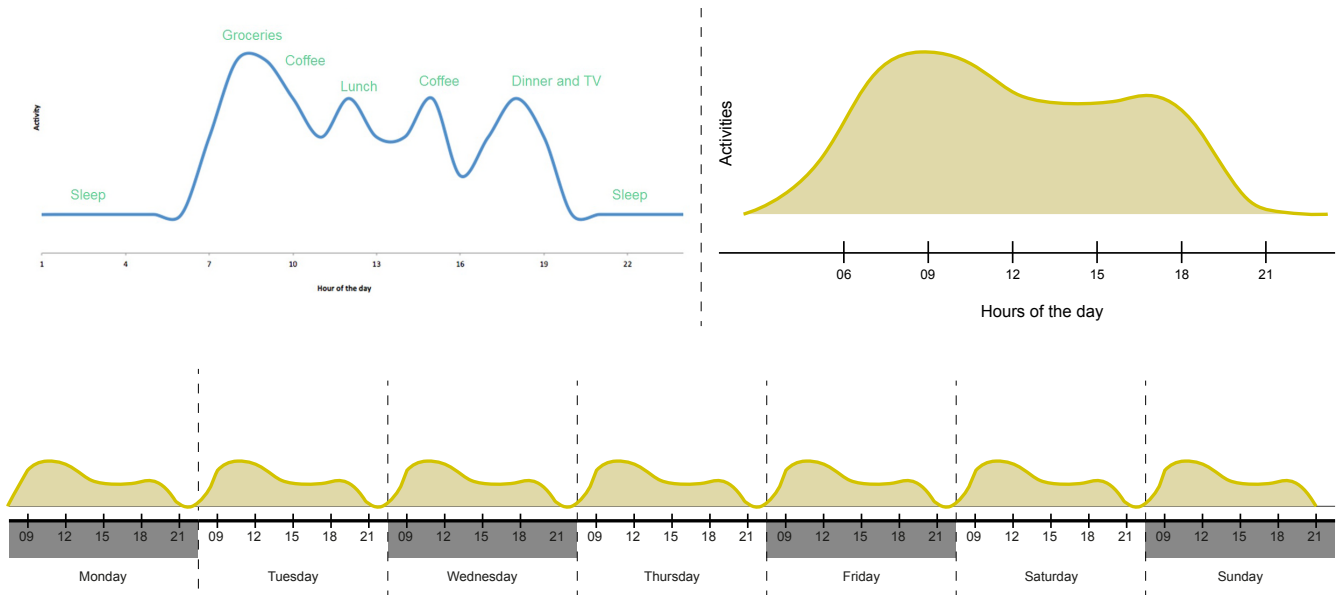
For making the rhythm visualization of the shopping mall, the students used the Google data in which the number of visitors throughout the week has been documented. Based on this, we sketched the following weekly graph:



Rotterdam Image 2: Diagram made by using the Google data on the number of visitors during the opening hours of the shopping center.

The weekly rhythm of the senior residents of Keizerswaard:

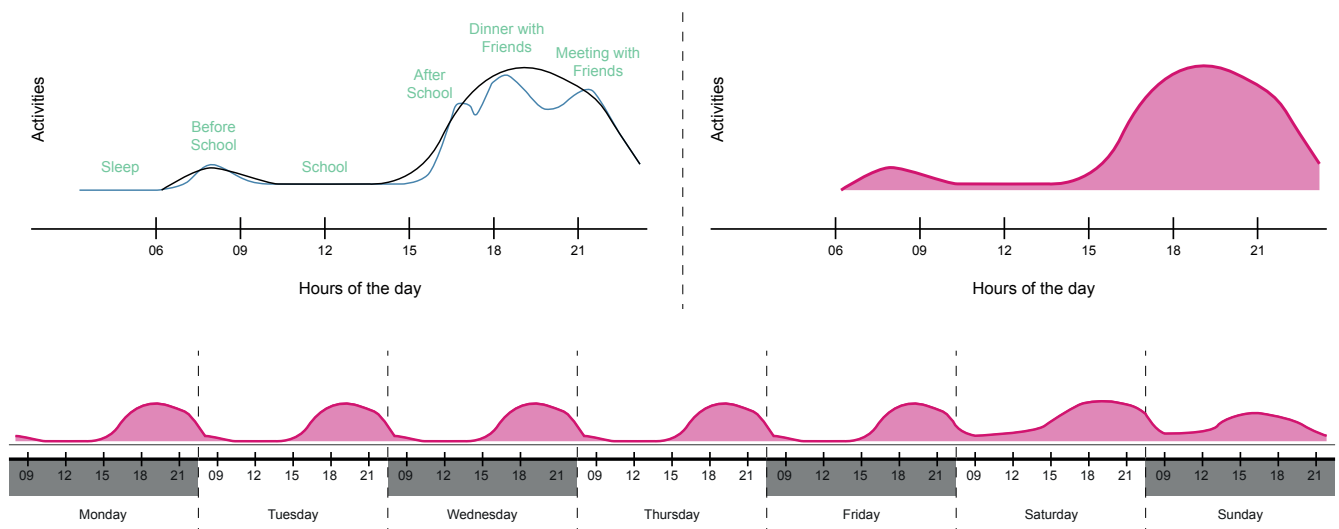
The students made the following analysis based on the activities that the elderly residents have in common throughout the day. They created a fictional persona living in Keizerswaard, Jan, to tell us about the daily life of the elderly group they analyzed. Following this, the graphs below have been sketched that show the number of elderly people carrying out these common activities during the day, and the weekly visualization of this documentation.



Rotterdam Image 3: Diagrams showing the rhythm of Jan; his daily activities and the repetition of these activities into creating his weekly rhythm.

The weekly rhythm of the youth in Keizerswaard:

Outside the opening hours of the Keizerswaard shopping center, the students observed that the youth preferred to spend time outside the shopping center, but still on the same street. The elderly residents had also reported in the interviews that the younger residents' actions in these hours made them feel uncomfortable. The students established the activity analysis also with the youth living in the neighborhood, producing the following daily and weekly activity graphs:



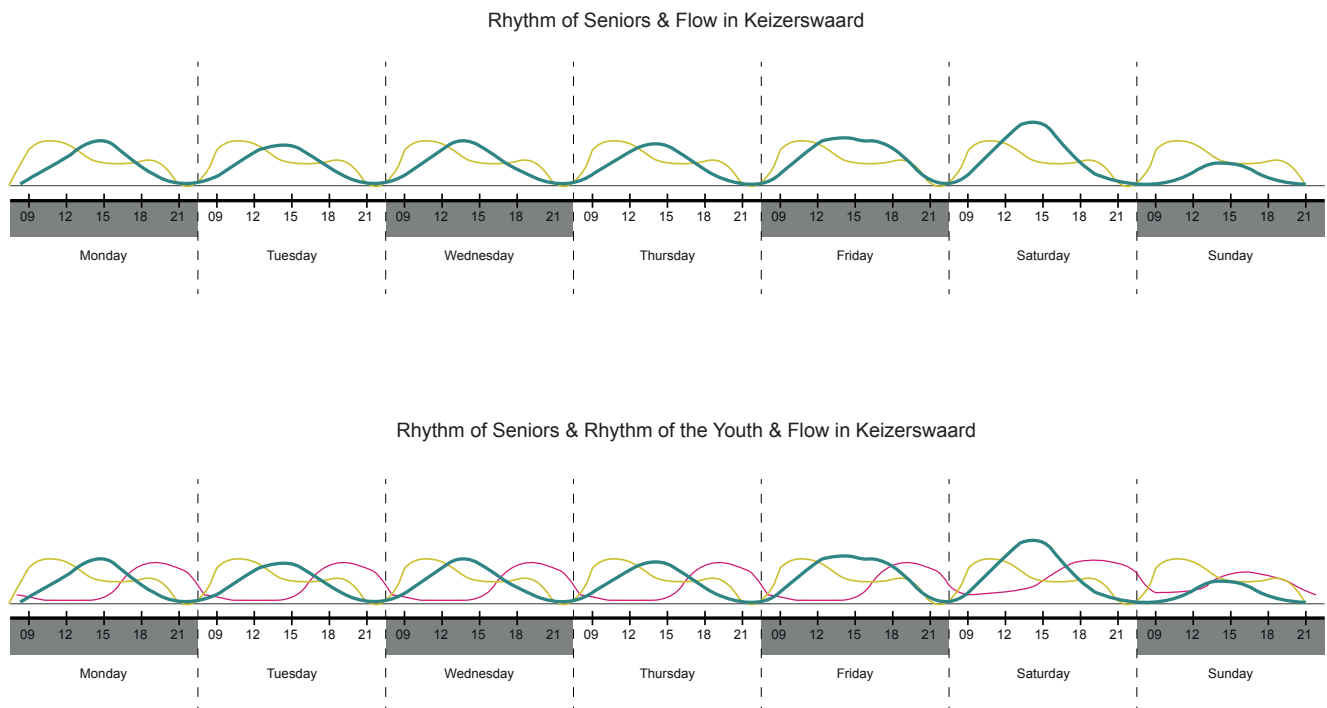
Rotterdam Image 4: Diagrams showing the rhythm of Youth; their daily activities and the repetition of these activities into creating his weekly rhythm.

In these graphs, different parameters have been put into comparison. The first one is the number of people visiting the Keizerswaard shopping mall throughout the week. Considering that Keizerswaard Shopping Center is one of the few public spaces in the area, this data can be read as the hours during the day in which the interaction between the residents of the neighborhood take place.

The second parameter shows the activities carried out by the analysis of the two different groups; the elderly residents and the youth. In the activity graphs, the intensities of the activities have been represented, where the highest point of the graph represented the larger number of people doing that activity. The students themselves decided on representing the intensities of the activities, in order to see the hours in which the different groups socialize, go outside their homes, or carry out individual activities.

Conclusion: Rhythm in Keizerswaard:

Below, there is the comparison of the daily rhythms of the senior residents and the shopping center.



Rotterdam Image 5: Diagrams showing the ground rhythm of Keizerswaard, which is achieved through the comparison of different analyzed rhythms

These findings turn out to be interesting when they are put in comparison altogether. The elderly people who reported complaints on not feeling safe in their neighborhood have very different daily rhythms than the young people living there. The flow of the people inside the shopping mall worked as a ground rhythm, or a backbone while making the comparison, indicating when the average people spend their time inside the public spaces.

DEN HAAG

Rhythm in Zwaardvegersgaarde

The research of Den Haag 2 Project Group is dealing with social cohesion in the neighborhood of Zwaardvegersgaarde. The students analyzed different aspects of the neighborhood by making spatial and ecological analyses, with the aim of mapping out the social systems.

Following this approach, the students created seven different fictional persona's based on the interviews they did. These persona's came from all around Den Haag and they had different lifestyles and interests. The personas helped the students in their analyses in explaining different views on safety and social cohesion in the city based on the lifestyle of the persona's, however they were not completely successful in defining a neighborhood profile.

The students considered only three of these personas living in the same area: Rita, Ghazi and Azra. They drew their neighborhood profile based on the presence of these three characters, while it could have created a richer outcome to consider them all. In this article, you will be presented a different situation in which all these fictional characters live altogether in the same fragment of the Zwaardvegersgaarde. Here is a quick view of each persona:



Stefan van Beiting: 38 years old and works as a police officer. Stefan is married with Jet. They have been together for 19 years and married for 11 years. They have two daughters, the older one is 10 years old and the younger one is 7. In the weekends they like to do family trips with their motor bikes. His hobbies are sports, reading and motor cycling. He has been living in the area for 13 years.



Azra Celik: 31 years old and works part time as a desk clerk at ING Bank. She is married to Akif and together they have two children, Ahmet and Ela. Ahmet is 8 years old and Ela is 5. Her parents live close by and she is still in contact with her other family members in Turkey. She has been living in the area for 9 years. She likes to cook and to take care of her kids.



Jeroen Timmerans: 27 years old and works as a teacher in a junior high school. He lives with his girlfriend Sarah, who is also working in the education sector. They would like to have children together but they think it is still early. His hobbies are reading, doing volunteer work and travelling. He has been living in the area for 3 years.



Rita Schilder: 53 years old. She is a housewife. She is married to Pieter and they have been together for 34 years. Together they have two children. Her son is 29 years old and her daughter is 26. Their children are not living with them anymore. Rita and Pieter have a dog, whose name is Sproet. In her free time, she like to do gardening, to knit and to take care of her dog. She has been living



Gerard Hoogveen: 54 years old. He works in the municipality. He is married to Marjan, who is a housewife. They have been married for 27 years. Their children are not living with them anymore. One of them is 22, and the other 19 years old. His hobbies are watching football, fishing and automobiles. He has been living in the area for 17 years.



Johannes Doornkamp: 33 years old. He works at the municipality. He is married with Tess, who is working as an elementary school teacher. They have been married for 9 years. They have three children who are 11, 8 and 6 years old. Johannes's parents come from Suriname, but he was born and raised in the Netherlands. His hobbies are football, cooking and doing volunteer work.



Ghazi Alfia: 27 years old. He is unemployed. He has been married with Tira for six years. His wife stayed in Syria with their 5 year-old daughter. He is hoping to reunite with Tira and live together in The Netherlands. He has been living in The Netherlands for three years and he just received his residence permit to stay in the country. In his free time, he likes to play chess and football and he is learning

Den Haag Image 1: Verbal definition of each persona, extracted from the student work.

Besides working on the personas, the students did a visual observation in a fragment of Zwaardvegersgaarde, which can be seen below, in order to have a good understanding of how the residential spaces in the neighborhood have been structured. They found out that in the area there are not many different functions and the public spaces mostly consisted of open green areas.

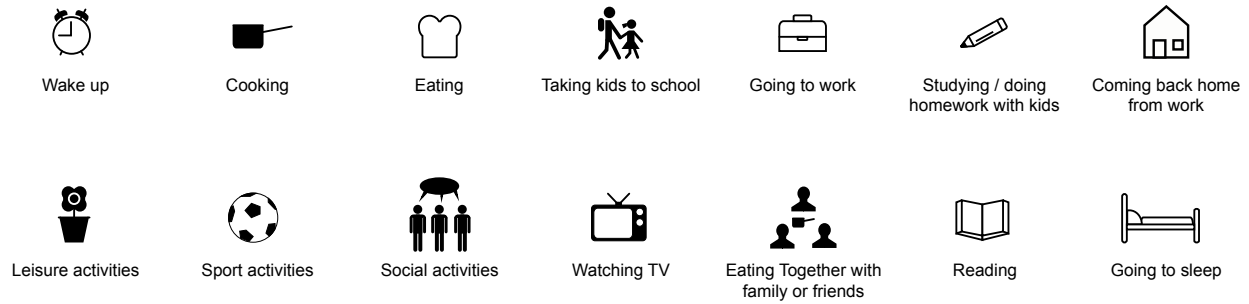


Den Haag Image 2: Diagram showing the spatial analysis in Zwaardvegersgaarde.

What is interesting in this research is to consider the actor analysis which has been established through the creation of fictional personas as the rhythm analysis itself. If the daily activities of each persona can be represented in a clear way, the ground rhythm of the neighborhood can be visualized.

The students had already made an attempt to do this by using icons. Based on the interviews they did, they found out the general activities that were carried out and assigned an icon for each activity. In the following graph you can see the legend of activities:

DAILY ACTIVITY LEGEND



Den Haag Image 3: Diagram showing the common daily activities in Zwaardvegersgaarde.

Later on, the activity icons were used for representing the daily rhythms of each persona. For creating an overall image of the neighborhood, the activity documentation of each persona has been brought together into the following graph, and represented in an hourly basis:



Den Haag Image 4: Daily activity map of the persona's, displaying the ground rhythm of the neighborhood.

The graph above gives us a good understanding of the lifestyle of different types of people living in the area. Since the project group was dealing with the issue of social cohesion, this can be seen as a good methodology to visualize the various daily rhythms. It is very interesting to see how the diversity of these rhythms and the similarity of the daily activities results in a dynamic daily pattern.

The question that arises from this research is that, does the solution for creating social cohesion lie in creating a more homogeneous pattern or in creating a tolerant environment where this pattern can survive?

HELMOND

Rhythm in Tulpstraat

The Helmond group's project area was the Beisterveld neighborhood. The students were given the research question of 'how to improve the sense of safety'. After the initial observations and interviews, they found out that there was not a remarkable sense of 'unsafety', and the problem could be defined as disconnection of residents with each other and with their environment.

Here are their findings from their surveys on the sense of safety in Beisterveld:

"To get a better idea of people's engagement with the neighborhood, we will take a look at the survey we took in Beisterveld. A thing that we saw is that the people of Beisterveld are relatively busy during their day with a 5,5 average from 1 to 10 with 50% of the answers being between 4 and 8. On the other hand the people gave the influence that they have on the neighborhood with their day to day activities an average of 2,6 with 50% being between 1 and 3. And when looking at the average that came out the question of how engaged the people felt to the neighborhood, it was a 4,7 with 50% being between 3 and 6. So this isn't that high and when combining this with the influence people feel they have on the neighborhood that seems logical."



Helmond Image 1: Diagram showing the spatial analysis in Tulpstraat.

In order to observe better the disconnection between the residents and their living environment, the students established a rhythm analysis in a typical residential street, the Tulpstraat. They did the analysis twice a day: from 9:00-10:00 in the mornings and 18:00-19:00 in the evenings. The analysis was done by visually observing the streets and their findings were documented in the following excel sheet:

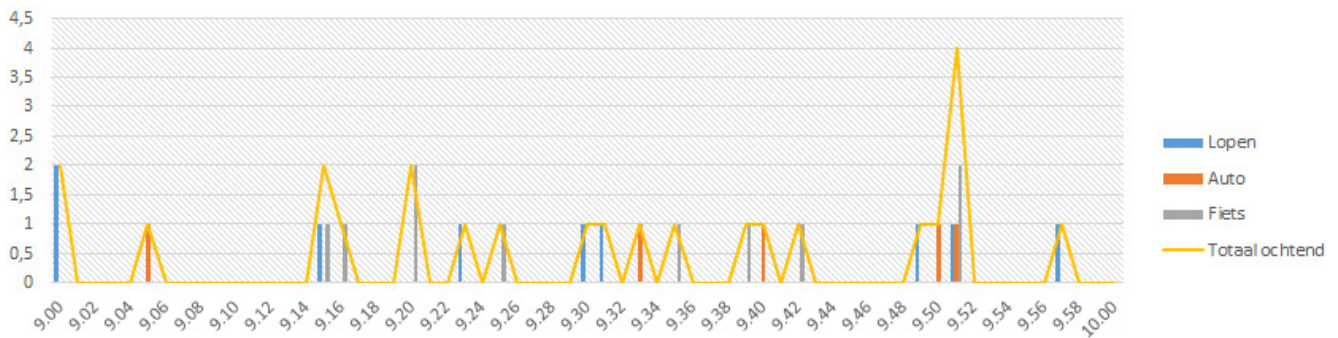
Tijd	Lopen	Auto	Fiets	Totaal ochtend
9.00	2			2
9.01				0
9.02				0
9.03				0
9.04				0
9.05		1		1
9.06				0
9.07				0
9.08				0
9.09				0
9.10				0
9.11				0
9.12				0
9.13				0
9.14				0
9.15	1		1	2
9.16			1	1
9.17				0
9.18				0
9.19				0
9.20			2	2
9.21				0
9.22				0
9.23	1			1
9.24				0
9.25			1	1
9.26				0
9.27				0
9.28				0
9.29				0
9.30	1			1
9.31	1			1
9.32				0
9.33		1		1
9.34				0
9.35			1	1
9.36				0
9.37				0
9.38				0
9.39			1	1
9.40		1		1
9.41				0
9.42			1	1
9.43				0
9.44				0
9.45				0
9.46				0
9.47				0
9.48				0
9.49	1			1
9.50		1		1
9.51	1	1	2	4
9.52				0
9.53				0
9.54				0
9.55				0
9.56				0
9.57	1			1
9.58				0
9.59				0
10.00				0

Tijd	Lopen	Auto	Fiets	Totaal avond
19.00	1			1
19.01				0
19.02				0
19.03		1		1
19.04			2	2
19.05	2		2	4
19.06	1			1
19.07				0
19.08				0
19.09				0
19.10		1	1	2
19.11	1			1
19.12			1	1
19.13				0
19.14				0
19.15	1			1
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19.18				0
19.19				0
19.20				0
19.21				0
19.22	1	1		2
19.23				0
19.24	1	2		3
19.25				0
19.26	2		1	3
19.27		1		1
19.28				0
19.29				0
19.30				0
19.31				0
19.32				0
19.33		1		1
19.34			2	2
19.35	2		2	4
19.36	1			1
19.37				0
19.38				0
19.39				0
19.40		1	1	2
19.41	1			1
19.42			1	1
19.43				0
19.44				0
19.45	1			1
19.46				0
19.47				0
19.48				0
19.49				0
19.50				0
19.51				0
19.52	1	1		2
19.53				0
19.54	1	2		3
19.55				0
19.56	2		1	3
19.57		1		1
19.58				0
19.59				0
20.00				0

Helmond Image 2: Excel sheet showing the documentation of the activities in Tulpstraat

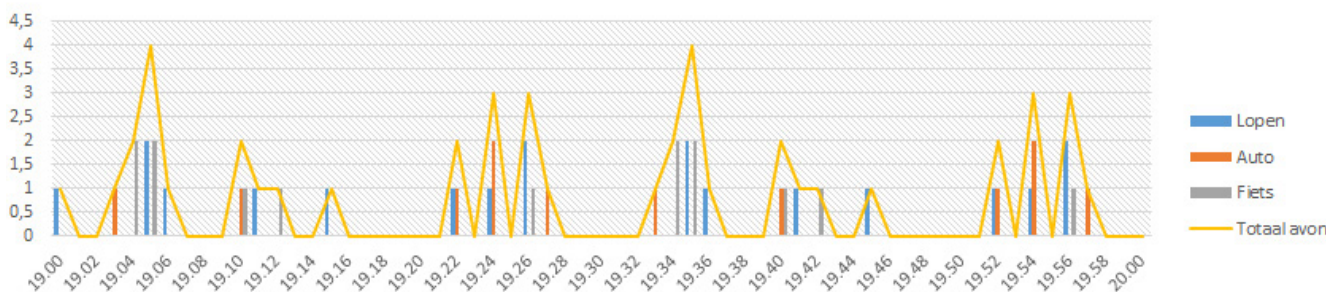
After this documentation on site, the students of the Helmond group transferred their findings into the following graphs:

Morning Hours / 9:00-10:00:



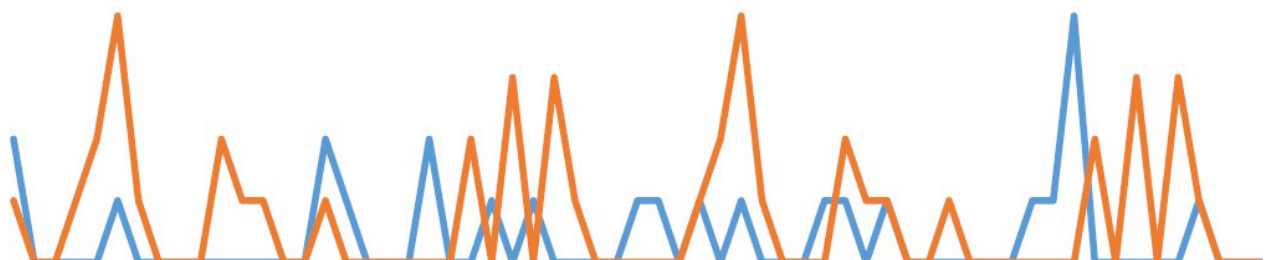
Helmond Image 3: Diagram showing the documentation of morning rhythms of Tulpstraat

Evening Hours / 18:00-19:00:



Helmond Image 4: Diagram showing the documentation of evening rhythms of Tulpstraat

From these graphs two main conclusions can be made. The first one would be about the activities that take place on this street. They are only based on movement and do not present any social aspect. This can be a good validation of the interviews; there is indeed a lack of interaction between the residents. The second conclusion would be about the difference of flows between the morning and evening hours. In the morning hours the street seems to be silent, and the reason can be that the students chose to do this observation during work hours. Based on this information, we can get the understanding that the people living in the neighborhood are not socially engaged with the area they live, they use it only for residential activities, although we do not know the activities that can be happening during noon hours.



Helmond Image 5: Diagram showing the documentation of daily rhythms of Tulpstraat

The result is a rhythm analysis of the residential street, Tulpstraat. Although with this data we can see quite clearly the ground rhythm of the documented area, the result would have been more concrete if the documentation was done during lunch time or afternoon hours. Nevertheless, the methodology used for this documentation can be a good example for a visual rhythm analysis.

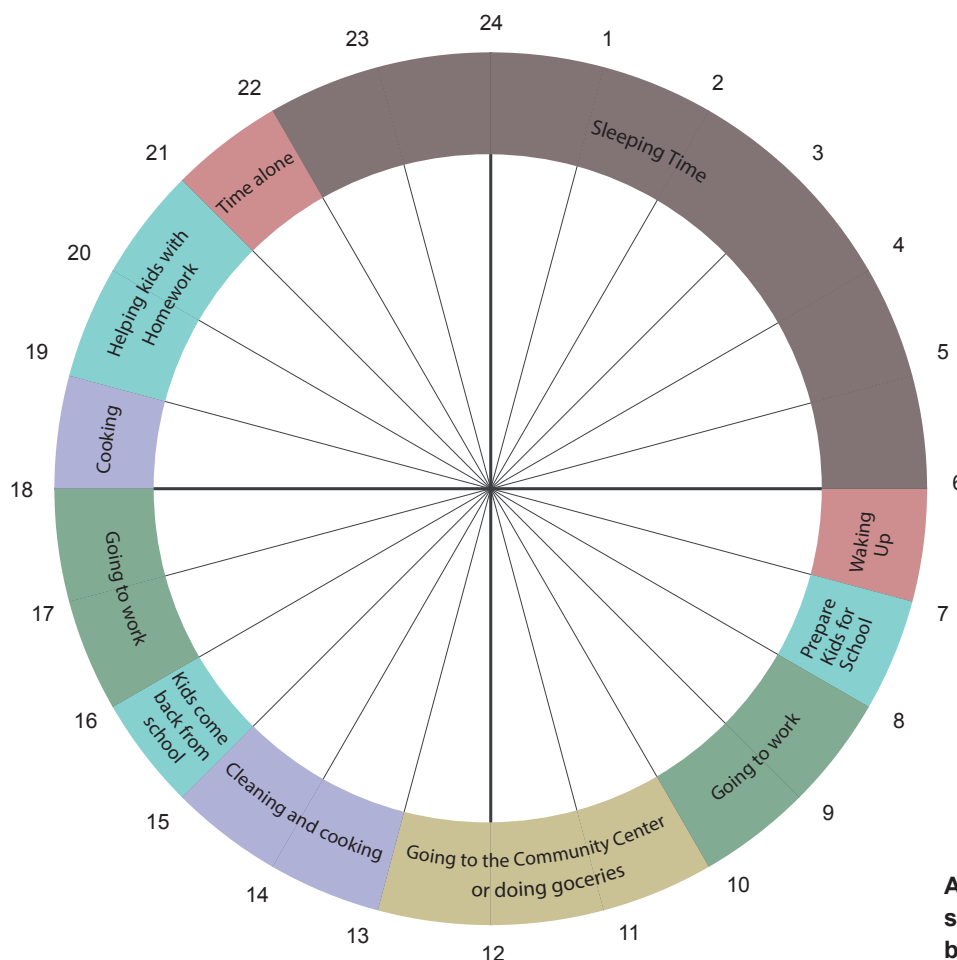
AMSTERDAM

Rhythm of Single Mothers in Amsterdam Zuidoost

Asmterdam group is focusing on the single mothers in Zuidoost, with the research question on how they can be involved more actively in the community. Unlike the other groups, they were given two different neighborhoods in Amsterdam Zuidoost to do this research: Holendrecht and Venserpolder.

At the beginning the students worked on getting to know the single mothers. they found out that many of them were rather emotional about the requests from the municipalities, and were extremely concerned from the consequences of not being able to fulfill their responsibilities. Based on the interviews that they did with the single mothers, community members and school teachers, they drew a fictional profile of a single mother with four kids, Nathaly.

Nathaly's daily activities can be represented as in the graph below. Her day mainly consists of preparing her kids for going to school, going to her part time job and then to the community center, doing some house work, picking her kids up from school, then going to work again and coming back to prepare dinner for her kids. Since her younger children go to sleep around 19:00, she can't leave the house after that time.

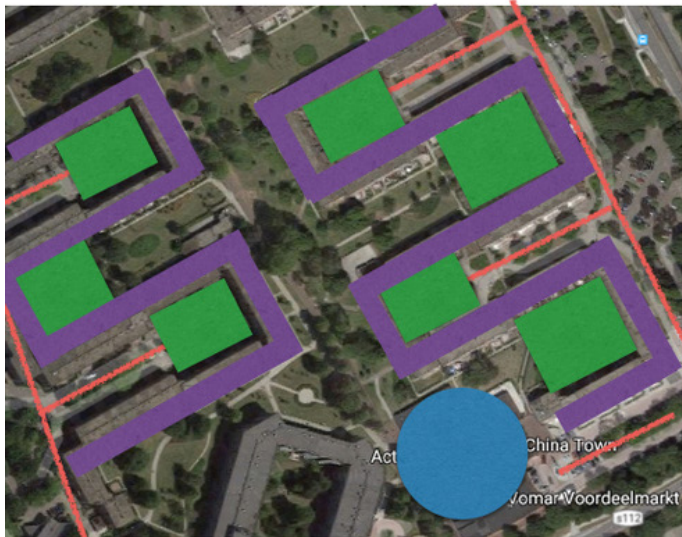


Amsterdam Image 1: Diagram showing the activities carried out by single mothers throughout the day

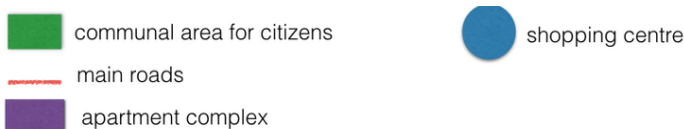
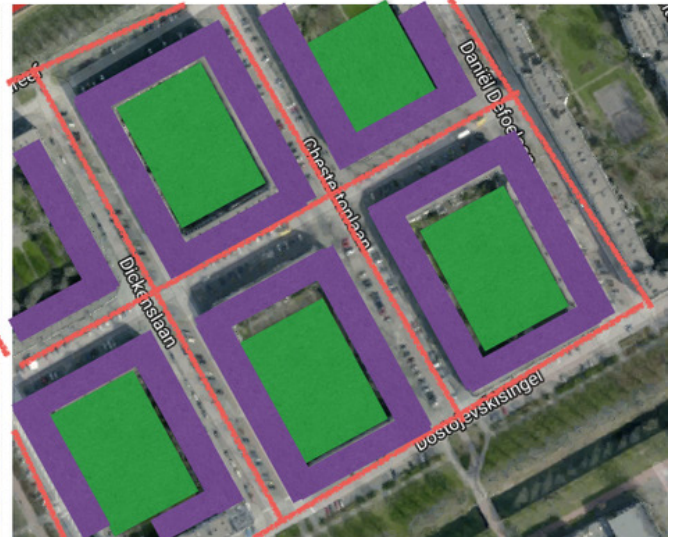
On the other hand, the students were interested in the organization of these two neighborhoods of Amsterdam Zuidoost. They wanted to find out why the complaints of the residents from the two areas were so similar and why there were almost the same negative issues.

The findings of their visual and geographical analyses show that the spatial organization of the neighborhoods are almost the same, containing large scale social housing blocks and green areas that fill the spaces in between. The daily functions in these two neighborhoods were gathered in one location, leaving the rest of the space to residential buildings.

Holendrecht

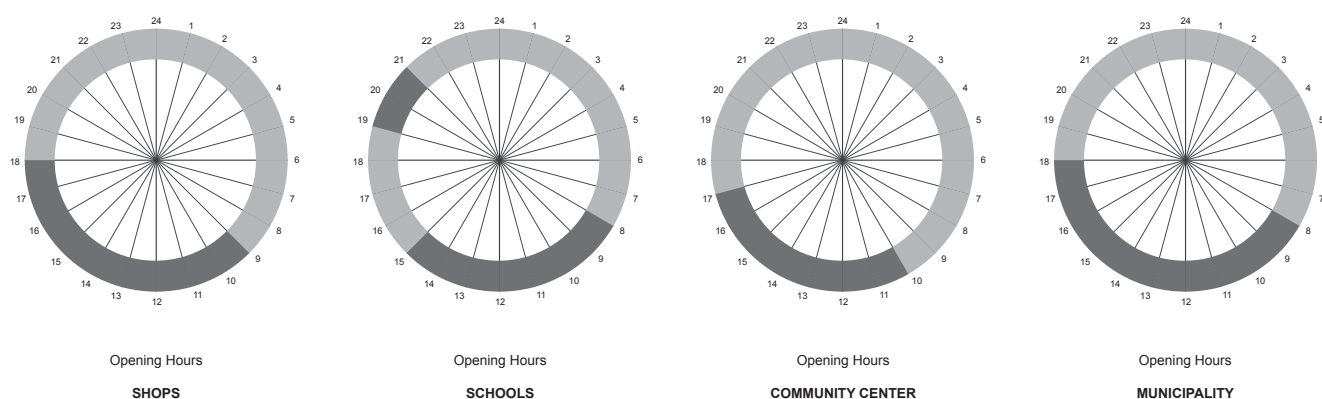


Venserpolder



Amsterdam Image 2: Spatial analysis of Holendrecht and Venserpolder

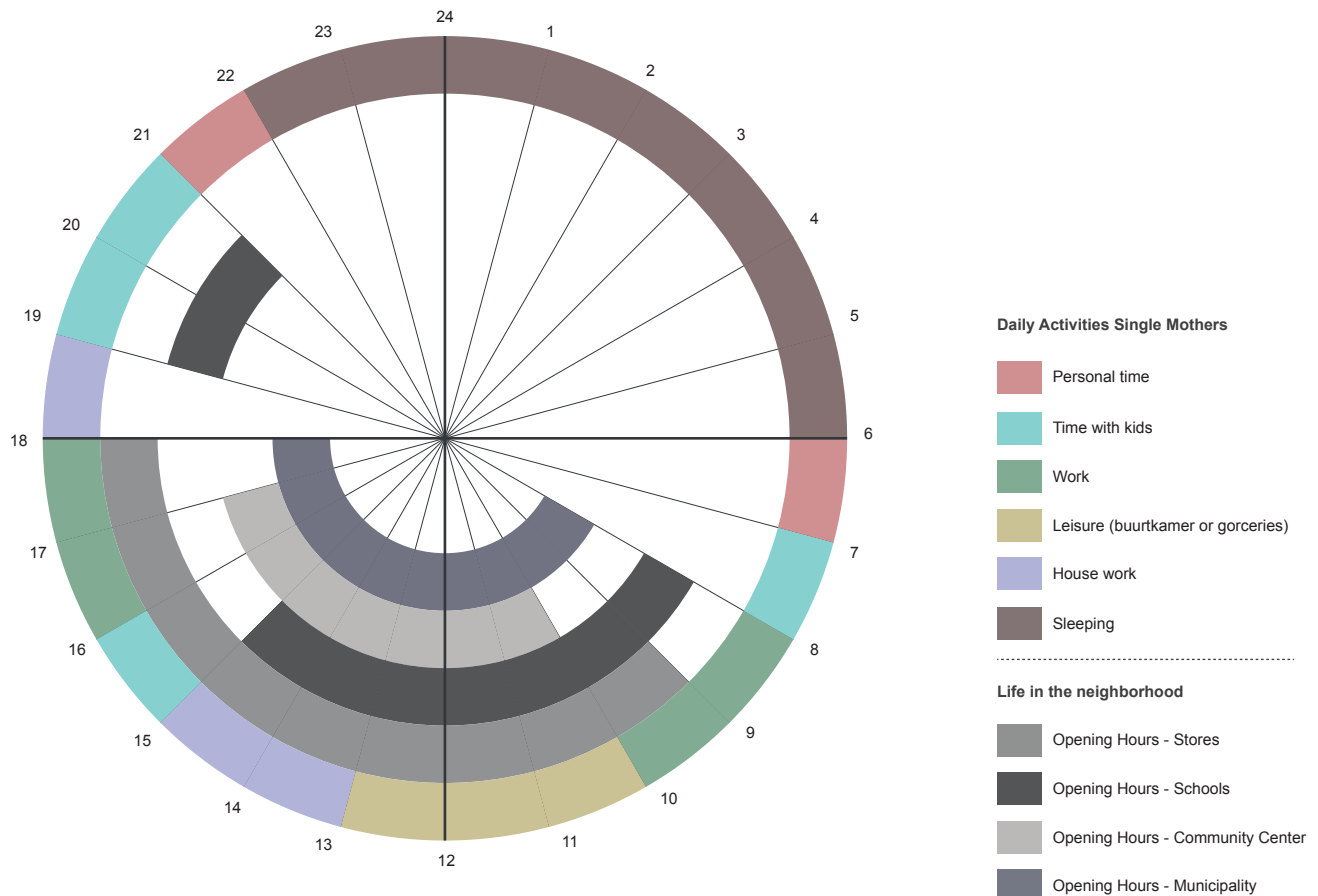
The conclusion was that the organization of the neighborhoods was rather “mechanic”. Funnily enough, the daily life in both neighborhoods works within the opening hours of the stores or the municipality and/or the community center. The following graphs represent this.



Amsterdam Image 3: Diagrams showing the opening hours of the main functions in Zuidoost

When the different graphs were brought together, they put in comparison different rhythms inside the neighborhood. The conclusion is the mismatch of the rhythms of the single mothers and the mechanical rhythms of the neighborhood.

A good example for this can be seen between 19:00-21:00, which were the hours that the parents were called from the schools for monthly meetings. Nathaly could not attend these meetings since she had to stay with her younger children at home. This was one of the findings from the interviews.



Amsterdam Image 4: Diagrams showing the comparison between the daily activities of the single mothers and the opening hours of the facilities.

The conclusion of the students was that there could be a different way of communication from the municipality or other organizations that keeps into account the emotional situation of the single mothers.

This analysis is a good example of putting into comparison the daily rhythms of different parties.