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Making Sense of Segregation in Public Space

Quantitative Data: Documentation

Hannah Widmer, 17.04.2024

Content of dataset

The dataset consists of three separate datasets on the users and usees of the three public squares Lindenplatz, Hallwylplatz, Idaplatz (in Zurich, Switzerland).

Data collection was carried out with three different methods which – for some variables – can be triangulated:

- Screening (structured observation: counting people in the squares, and some of their observable characteristics)
- Behavioural mapping (structured observation: recording people carrying out stationary activities in the square, and some of their observable characteristics)
- Intercept survey with square users (passers-by and those staying longer) on their use of the square, their relationship to the neighbourhood, and their profile

Fieldwork

General remarks:

- Fieldwork was organised in two waves, in summer 2021 (one before and one after the summer holidays). It started on 25th May and lasted until 13th September 2021.
- The times of the day in which the squares were studied was limited to the period from 8 a.m. to 6 p.m.
- Fieldwork was carried out by Hannah Widmer (PhD student), and, in the case of the intercept survey, by additional help of student assistants (up to five people interviewing at the same time, depending on the volume of people in the squares).

Screening:

- 'Screening' was developed as a more elaborate method of counting people at regular intervals throughout the day to get an idea of the intensity of use, and the square's rhythm.
- Screening took place every full hour, from 8 a.m. to 6 p.m. I circled the square along a pre-defined path (Figure 1).
- The screening was carried out once on a Tuesday or Thursday, and once on a Saturday during both waves of fieldwork.
- Sampling: Every person in the researcher's visual field was noted on a screening tally sheet (see additional documentation).
- A special system of annotation was used, allowing to capture not only the number of people, but also documenting the apparent age and gender, a rough indication of their activity (sitting, standing, walking, biking) and whether they are on their own or in a group of people.
- The paper forms were later digitized and brought into the form of a dataset consisting of individual data (e.g. one row per person, and variables indicating age, gender, activity, and group size, $n_{Lindenplatz}$ = 2,322, $n_{Hallwylplatz}$ = 956, $n_{Idaplatz}$ = 1,183; n_{total} = 4,461).

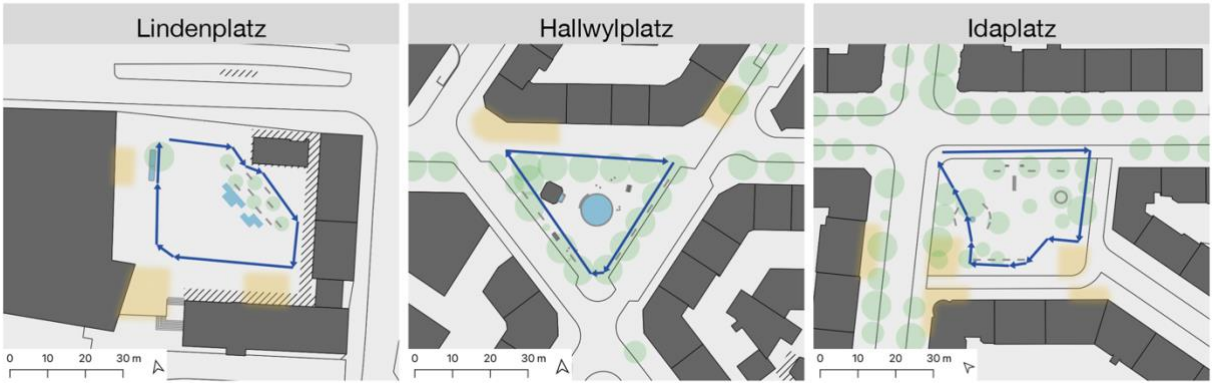

Figure 1: Screening routes in the three squares (blue arrows). Source: author's own.

Behavioural mapping

- Mapping was carried out in 2-hours-slots (12 p.m. – 2 p.m., 4 p.m. – 6 p.m.). Each timeslot was mapped once during each wave.
- Mapping was *not* carried out on Saturdays, due to a lack of resources (and Saturdays were used for the intercept survey).
- Sampling: all the people involved in stationary activities were mapped.
- Their approximate geographic location as well as different characteristics were recorded via QField, an app that is built as an extension for the QGIS software.
- One datapoint for one person was entered. Dispersion of stationary activities (e.g. playing) could therefore not be captured. Persons who moved in the course of their activity, were mapped with the location where they were spent most of their activity.

- The output of this data collection method are stored in a dataset containing the observed people's characteristics and their geographic location. The final datasets combined behavioural mapping data from both waves, ($n_{Lindenplatz}$ = 707, $n_{Hallwylplatz}$ = 320, $n_{Idaplatz}$ = 419; n_{total} = 1,446, from a total of 24 hours of behavioural mapping).

Intercept survey

- To gather data on users' characteristics and habits that are not observable, an intercept survey was carried out.
- The survey entailed a paper-and-pencil questionnaire administered by the researchers.
- The theoretical population consists of all the people staying in or crossing the square. For practical and ethical reasons, however, the study population was limited to people who look to be over the age of 18 and are present in the squares at the time of surveying.
- Sampling: interviewers were spread out over the square and tried to approach all people in the square. To keep track of possible biases in the data, refusals have been recorded by the interviewers by filling out a simple tally sheet, differentiating between different apparent age groups and genders.
- Response rate: 36 %
- Interviewers were trained and given instructions on how to approach people and who to code their responses (see additional documentation).
- Interviewers were not wearing a uniform but had a name tag with the logos of the University of Lausanne and the ETH Zurich.
- The questionnaire contained closed or semi-closed questions on the use of the square, the participant's relationship to the neighbourhood, and sociodemographic characteristics (see additional documentation).
- The questionnaire took about three to five minutes to answer (not including chatter and explanations)
- The questionnaire was designed in German, and then translated to English and French to account for the high percentage of people with different native languages in Zurich. Depending on the abilities of the interviewers, some interviews have also been carried out in Italian or Spanish.[1]
- Timeslots for the survey were fixed to 8 a.m. – 10 a.m., 12 p.m. – 2 p.m., 4 p.m. – 6 p.m. on a normal weekday (Tuesday or Thursday) and 12 p.m. – 2 p.m. on a Saturday.[2] Each timeslot was surveyed once in each wave.
- The paper questionnaires were digitized and put together into one master dataset. It contains a total 1,474 individual questionnaires, 492 for Lindenplatz, 464 for Hallwylplatz, and 518 for Idaplatz.

[1] Considering the very factual nature of the questions, mistakes or inaccuracy during translation are not considered an issue.
[2] In the case of Lindenplatz, the timeslot had to be moved to 2 p.m. – 4 p.m. due to the farmer's market taking place in the morning.

Consent and anonymisation strategy

Structured observations (screening and behavioural mapping)

No consent was sought ‘being visually observed by others’ is generally accepted as part of being in public space. The gathered observed characteristics do not allow identification.

Intercept survey:

Seeking informed consent was tricky because of the time pressure.[3] Participants were informed of the broad objective of the project, and that data was used for research only. Interviewers also explained more in case people had questions, or they handed out a letter containing information on the project, or directed the participants towards Hannah Widmer, PhD student and project leader, who was always present during fieldwork.

No sensitive questions were asked, and personal data was gathered in broad categories which makes identification hard. Nevertheless, data on the place of residence of the participants (question 11 in the questionnaire) was deleted from the original dataset to make identification harder.

Since people did not actively consent to the archiving of the data, the data is only available with restricted access.

Variables

A full list of variable names, variable description, and values for response categories can be found in the additional documentation. The following list of variables simply provides an overview.

Screening

- Square
- Wave
- Date
- Hour
- Day of the week
- Group size
- Age group
- Gender
- Posture

[3] People in public space are usually headed somewhere or trying to enjoy their time. In both cases, they are more willing to participate if the surveying time is kept short.

Mapping

- Square
- Wave
- Location
- Date
- Day of the week
- Timeslot
- Arrival
- Departure
- Group size
- Age group
- Gender
- Posture
- Attribute (‘things’ people have with them)
- Activity
- Duration of stay

Intercept survey

- Language of the questionnaire
- Wave
- Activity
- Time spent in the square
- Relationship to the square
- Modes of transport used to get to the square (and mode of transport of the last stretch)
- Frequency of visits
- Knowing people/familiar strangers
- Year of birth
- Number of adults/kids in the household
- Current occupation/employment status
- Main language
- Country of birth (categorised)
- Highest level of education
- Household income
- Gender
- Type of company (alone, partner, friends, kids, etc.)
- Square
- Date & time of the interview
- Day of the week
- Timeslot
- Interviewer ID

- Age
- Household size
- Group size

Question 7 and 8 of the questionnaire are not included in the dataset because the data is of poor quality and difficult to interpret.
Question 11 of the questionnaire is not included because it could facilitate identification of the participants.

Derived data

Screening

No derived data.

Mapping

- Duration of stay: obtained by calculating the difference between the time of arrival and departure.

Intercept survey

- Age: derived by calculating the difference between year of birth (f10_year) and the year of fieldwork
- Household size: derived by adding number of adults and number of kids in the household (f12_adults, f12_kids)
- Group size: derived by combining variables on the company of the interviewed person (f19_alone, f19_partner, f19_kids, f19_friend, f19_other)

Attribution of missing values

Since screening and behavioural mapping were observations, there are no missing values.

For the intercept survey, missing values are not coded specifically, but simply missing in the csv-File (i.e. ‘NA’). Questions were simple and answers could usually be given without problems. Only for question 17 (household income) there is a category ‘does not know’. In the other cases, missing values mean the participant did not want to answer the question, the questionnaire could not be finished (e.g. due to time pressure), or the interviewer forgot to ask the question.

Information on access and use conditions

The datasets collected via screening, behavioural mapping and the intercept survey are available with restricted access, for academic research and teaching only, and only with prior agreement of the author.

Additional documentation

The following documents complete this documentation:

- Tally sheet (screening, in German)
- Questionnaire (intercept survey, in German, English, and French)
- Instructions for interviewers on coding (intercept survey, in German)
- Variable description screening
- Variable description behavioural mapping
- Variable description intercept survey

List of publications (17.04.2024)

Widmer, H. (2023). Conviviality in Public Squares: How Affordances and Individual Factors Shape Optional Activities. *Urban Planning*, *8*(4). https://doi.org/10.17645/up.v8i4.6237

One book chapter forthcoming:

Widmer, H. (forthcoming). Mixed neighbourhoods, mixed squares? Exploring the diversity gap in public squares. In A. Latham & J. Layton (Eds.), *Social Infrastructure: Studying The Facilities that Sustain Community, Social Networks, and Trust in Neighbourhoods and Cities.* Policy Press.