

MAIN SECTION

Mapping Walking Interviews in a Gentrifying Port City Neighborhood through Space-Time Paths

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ABSTRACT

Contemporary redevelopment and gentrification of urban waterfront areas has stimulated research on local residents' recollections regarding changes in their direct living environment. The peninsula of Katendrecht in Rotterdam, the Netherlands' main port city, constitutes a peculiar case in this respect, as its legacy of notorious maritime pleasure quarter has been overtaken by the neighborhood's recent urban renewal and waterfront regeneration processes. This article investigates how residents who have witnessed Katendrecht's decline as pleasure district experience walking through the redeveloped neighborhood nowadays. This case study demonstrates the potential for interdisciplinary synergy between different scholarly fields, through a specific mapping approach that links together the methodologies of walking interviews and time geography. By focusing on spatio-temporal 'standstills' in mapping the walking interviews' non-predetermined routes, overarching interview patterns are uncovered and participants' matching observations are identified, revealing a range of responses to a waterfront area's characteristics caught up in processes of gentrification.

KEYWORDS

gentrification; mapping; port city; time geography; walking interviews

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Introduction

To talk about port cities nowadays means to talk about waterfront regeneration. In the context of classic longitudinal planning perspectives on port city developments, as for instance put forward by Brian Hoyle, waterfront regeneration is perceived as one of the latest phases in reconsidering the relations between port and city entities: a logical outcome of the seaward expansion of many modern ports and the simultaneous abandonment of harbor areas located near city centers.¹ In this respect, “[t]he disuse of port areas and waterfronts, often dramatized in Europe, can be considered a normal process that will, at best, lead to rapid reutilization,” Dirk Schubert remarks.² However, to talk about contemporary waterfront regeneration also means to talk about gentrification. As Alice Mah states: “(...) critics of waterfront development (...) argue that dominant development models are embedded in an uneven geography of capitalist development and result in the gentrification and cultural homogenization of urban landscapes.”³

The global diffusion of waterfront redevelopment schemes throughout approximately the last half century has resulted in striking similarities when it comes to spatial and architectural transformations of waterfront zones. Urban waterfront renewal processes have also brought socio-cultural frictions to the fore, which often already lay dormant within specific local and historical contexts.⁴ A seemingly purely infrastructural reshaping of waterfronts can thus be further connected to fundamental changes in their socio-cultural fabric. In this article, ‘gentrification’ is therefore not merely understood in terms of a neighborhood’s changing housing stock and related municipal policies, but also in terms of its potentially wide-ranging socio-cultural ramifications and local residents’ varying views thereon.⁵ As Hoyle further highlights, “[r]evitalization [of waterfronts] sometimes pays a great deal of attention to commercial opportunities but not much to the social needs of resident communities,”⁶ whereas “[t]he relative success of such developments will depend [among others on]

1 Brian Hoyle, “Global and Local Change on the Port-City Waterfront,” *Geographical Review* 90, no. 3 (2000): 402-3, <https://doi.org/10.1111/j.1931-0846.2000.tb00344.x>.

2 Dirk Schubert, “Ports and Urban Waterfronts,” in *The Routledge Handbook of Planning History*, ed. Carola Hein (New York and Abingdon: Routledge, 2018), 342, <https://doi.org/10.4324/9781315718996-29>.

3 Alice Mah, *Port Cities and Global Legacies: Urban Identity, Waterfront Work, and Radicalism* (Basingstoke and New York: Palgrave Macmillan, 2014), 57, <https://doi.org/10.1057/9781137283146>.

4 See for instance Astrid Wonneberger, “The End of ‘Community’? Concepts of Locality and Community Before and After the Spatial Turn in Anthropology: A Case Study of the Dublin Docklands,” *Localities* 1 (2011): 125-58; Philip Boland, John Bronte, and Jenny Muir, “On the Waterfront: Neoliberal Urbanism and the Politics of Public Benefit,” *Cities* 61 (2017): 117-27, <https://doi.org/10.1016/j.cities.2016.08.012>; and Heleni Porfyriou and Marichela Sepe, eds., *Waterfronts Revisited: European Ports in a Historic and Global Perspective* (New York and Abingdon: Routledge, 2017).

5 This is in line with Ruth Glass’ initial coining of the term ‘gentrification’ in the 1960s. See Rowland Atkinson and Gary Bridge, “Introduction,” in *Gentrification in a Global Context: The New Urban Colonialism*, eds. Rowland Atkinson and Gary Bridge (London and New York: Routledge, 2005), 3-4.

6 Hoyle, “Global and Local Change on the Port-City Waterfront,” 403.

(...) integration of communities and localities involved. All of this demands (...), above all, a geographer's sense of place."⁷

In light of the above, the southern peninsula of Katendrecht in Rotterdam, the Netherlands' main port city, constitutes a peculiar research case. Katendrecht's twentieth-century history of notorious maritime pleasure quarter has been overtaken by the neighborhood's contemporary revitalization. The discrepancy between Katendrecht's past as a deviant district and its current situation as one the port city's most coveted areas has become a recurring point in critical discussions about the gentrification processes unfolding along Rotterdam's waterfronts.⁸ It therefore proves relevant to ask how residents who have witnessed Katendrecht's life phase as disreputable pleasure zone regard the neighborhood's contemporary transformations, even more so because it were local inhabitants themselves who initially called for giving the district a more livable residential appeal during the post-war period.

This article centers on the mapping of interviews conducted in today's redeveloped Katendrecht, with residents who have witnessed Katendrecht's decline as maritime pleasure district in the 1970s. This rather specific case study approach is adopted to demonstrate the larger potential for interdisciplinary synergy between different scholarly fields, particularly oral history and urban geography. In this article's case study, the methodologies of walking interviews⁹ and time geography¹⁰ are connected to each other in a specific mapping approach that holds potential to be developed further for other research contexts and spatial scales. The adopted mapping approach lays bare the analytical potential of the dimension of time, often neglected in geospatial research. Compared to 'space', 'time' has also only recently been taken into account in critical investigations of gentrification.¹¹

After first introducing Katendrecht's modern history and the adopted research methods, the case study is operationalized by considering individual walking interviews of one hour each with twelve local residents that were conducted in the neighborhood. The interview routes were not

7 *ibid.*, 415.

8 Eelkje Christine Bosch, "Gentrifikatendrecht," *Vers Beton*, July 2, 2020, <https://www.versbeton.nl/2020/07/gentrifikatendrecht/>; Tessa Hofland, "Katendrecht wordt hipper en hipper (en daardoor onbetaalbaar voor de oorspronkelijke bewoners)," *AD*, July 31, 2023, <https://www.ad.nl/rotterdam/katendrecht-wordt-hipper-en-hipper-en-daardoor-onbetaalbaar-voor-de-oorspronkelijke-bewoners~a4215dd9/>.

9 Also called 'go-along'. See Margarethe Kusenbach, "Street Phenomenology: The Go-Along as Ethnographic Research Tool," *Ethnography* 4, no. 3 (2003): 455-85, <https://doi.org/10.1177/146613810343007>; and James Evans and Phil Jones, "The Walking Interview: Methodology, Mobility and Place," *Applied Geography* 31, no. 2 (2011): 849-58, <https://doi.org/10.1016/j.apgeog.2010.09.005>.

10 See Torsten Hägerstrand, "What about People in Regional Science?" *Papers of the Regional Science Association* 24 (1970): 7-21, <https://doi.org/10.1007/BF01936872>; and Shih-Lung Shaw, "Time Geography: Its Past, Present and Future," *Journal of Transport Geography* 23 (2012): 1-4, <https://doi.org/10.1016/j.jtrangeo.2012.04.007>.

11 See Suleiman Osman, "What Time is Gentrification?" *City & Community* 15, no. 3 (2016): 215-9, <https://doi.org/10.1111/cico.12186>.

predetermined, and participants were instead given the autonomy to spontaneously decide the trajectories themselves. The generated data of the interview routes combine spatial and temporal dimensions, which have been mapped as space-time paths, inspired by the framework of time geography. By focusing on spatio-temporal 'standstills' in mapping the routes, overarching interview patterns are uncovered and participants' matching observations are identified, revealing a range of responses to characteristics of this waterfront area caught up in processes of gentrification.

Katendrecht: From Stigmatized to Gentrified Port Neighborhood

In present-day Rotterdam, Katendrecht is often still observed and understood through the lens of particular maritime urban legacies stemming from its long-standing stigmatized position in the port city.¹² In the post-war period, the neighborhood became synonymous with the designation of 'red-light district' after it had taken over the majority of prostitution activities in the port city, following the destruction of related Rotterdam neighborhoods throughout the first half of the twentieth century.¹³ During this earlier time period, Katendrecht's role as Chinatown district already took the upper hand in characterizing its deviating profile. From the 1910s onwards, Chinese migrants arrived in Rotterdam, initially to be employed as strikebreakers in the port. They were stationed in Katendrecht, where their numbers quickly added up to a few thousands by the 1930s. Katendrecht therefore became known as "the largest Chinese colony in the Netherlands."¹⁴

The isolated position of Katendrecht in Rotterdam can be pinpointed to a more fundamental level still, related to the layout of the port itself. The modern peninsular shape of Katendrecht emerged through the creation of two new port basins in the early twentieth century, the Rijnhaven and Maashaven, respectively north and south of its territory (Fig. 1). Katendrecht's population was therefore entirely surrounded by the industrial port complex: railway tracks and warehouses encircled the peninsula's core residential area, which comprised only a handful of streets (Fig. 1).

12 Karel Davids, "De 'rosse' Kaap: Over het stigma van een Rotterdamse buurt, 1900-1985," in *Onderscheid en minderheid: Sociaal-historische opstellen over discriminatie en vooroordeel*, eds. Herman Diederiks and Chris Quispel (Hilversum: Uitgeverij Verloren, 1987), 150-73; Han Meyer, *Operatie Katendrecht: 'Demokratisering' van het sociaal beheer van de grote stad* (Nijmegen: SUN, 1983), 55-7.

13 Vincent Baptist and Paul van de Laar, "Pleasure Reconsidered and Relocated: Modern Urban Visions in the Wake of Rotterdam's Discontinued Amusement Areas," in *Hustle and Bustle: The Vibrant Cultures of Port Cities*, eds. Carola Hein, Robert Bartłomiejski and Maciej Kowalewski (Leiden: Brill, 2025), 108-12.

14 Paul van de Laar and Arie van der Schoor, "Rotterdam's Superdiversity from a Historical Perspective (1600-1980)," in *Coming to Terms with Superdiversity: The Case of Rotterdam*, eds. Peter Scholten, Maurice Crul and Paul van de Laar (Cham: Springer, 2019), 47, https://doi.org/10.1007/978-3-319-96041-8_2.

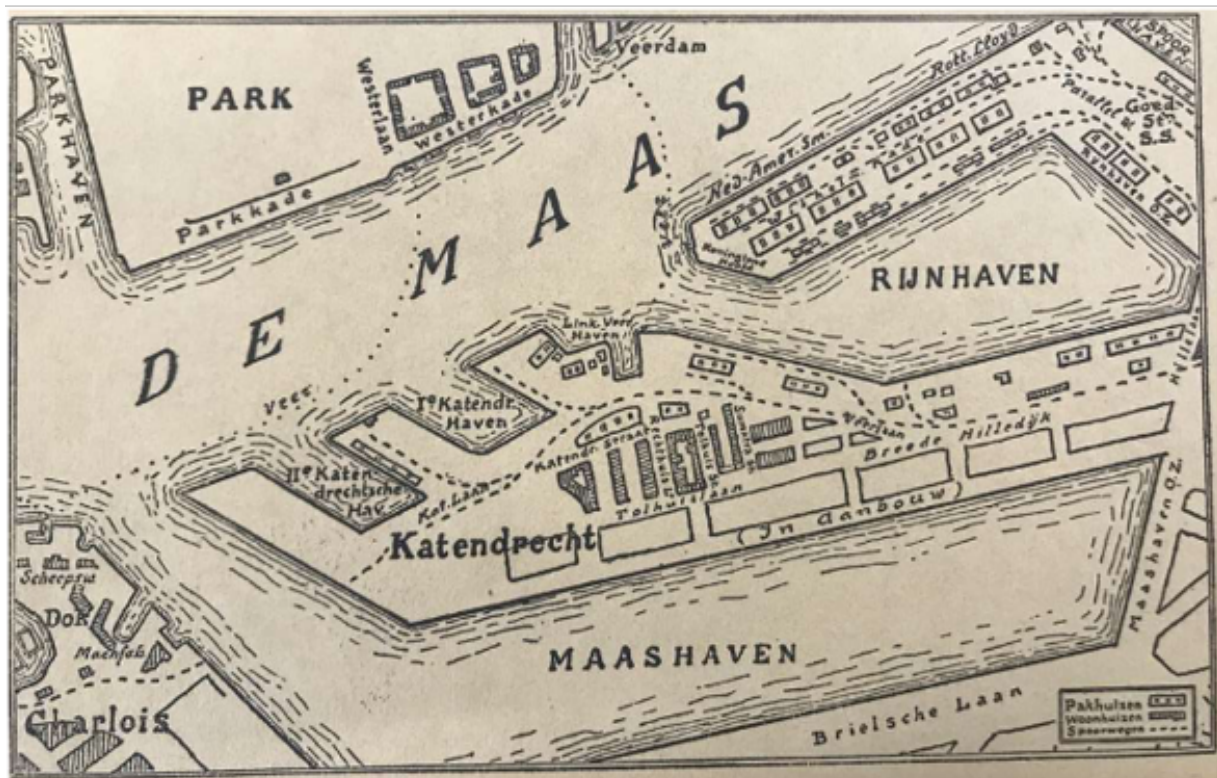


FIG. 1

Historical map of Katendrecht, with dark hatchings in the middle indicating the neighborhood's original central residential area (Source: De Jongh et al., 1904)

In contrast, a recent neighborhood map hanging at Katendrecht's main entrance shows how the local landscape is now dominated by numerous high-rises along the waterfronts (Fig. 2).¹⁵ These new buildings' housing capacity easily surpasses the couple of thousands of inhabitants that historically populated the district. The type of gentrification that Katendrecht has become subjected to seems in line with the phenomenon's most advanced stages, characterized by corporate real estate schemes and municipal policy facilitation.¹⁶ Rather than direct physical displacement of its original inhabitants, Katendrecht's recent redevelopment particularly manifests itself in a recomposition of the district's population, accompanied by the establishment of new, trendy enterprises for culture and commerce.¹⁷

Before these transformations, another shift in character was first fought out in Katendrecht. The neighborhood's transition from red-light zone to a more normalized residential area was initially sparked by growing local

15 For a more detailed analysis of changes in Katendrecht's built environment, see Vincent Baptist and Yvonne van Mil, "Open Waterfronts or Closed Water Forts? New Ways of Mapping Redeveloped Waterfronts' Accessibility," in *The Port Cluster Landscape*, ed. Beatrice Moretti (Berlin: JOVIS, forthcoming).

16 Manuel B. Aalbers, "Introduction to the Forum: From Third to Fifth-Wave Gentrification," *Tijdschrift voor Economische en Sociale Geografie* 110, no. 1 (2019): 2-6, <https://doi.org/10.1111/tesg.12332>.

17 Cf. Jan Rath, *Hippe ondernemingen, culturele consumptie en nieuwe stedelijkheid: Effecten van commerciële gentrificering* (Rotterdam: Erasmus School of Social and Behavioural Sciences, 2022), 7-21.



FIG. 2 Contemporary poster of Katendrecht, highlighting high-rise projects key to recent neighborhood transformations (Source: Stichting Historisch Katendrecht, "Transitie")

unease over the increasingly criminalizing and commercialized role of the district's sex industry in the 1970s.¹⁸ Nevertheless, the nuisance of prostitution activities was not the sole reason for Katendrecht's deteriorating situation. During the 1970s, different policy-related reports were commissioned to better understand neighborhood issues regarding livability and social well-being. These reports singled out the poor, neglected housing conditions of the district, causing people to consider moving out of the area and Katendrecht's population to decrease faster than that of the port city as a whole at the time.¹⁹ In later years, this resulted in a focus on improving Katendrecht's residential facilities, especially at the expense of the neighborhood's previously dominant, notorious pleasure offerings, which were substantially reduced by the 1980s.²⁰ The local insistence on these urban renewal processes during the post-war period provides motivation to investigate how Katendrecht's current transformations are viewed by residents who populated the neighborhood during its final phase as infamous maritime district.

18 Davids, "De 'rosse' Kaap," 164-9.

19 K. Kapitany, *Rapport onderzoek Katendrecht: Een onderzoek onder wijkbewoners* (Rotterdam: Raad voor het Maatschappelijk Welzijn, 1973), 36-7, Rotterdam City Archives, <https://hdl.handle.net/21.12133/BC3FDC9990BD49CFBB6696A13FAB1429>; Projectgroep Katendrecht, *Beleidsplan Katendrecht* (Rotterdam: Projectgroep Katendrecht, 1977), 40-1, Rotterdam City Archives, <https://hdl.handle.net/21.12133/FA082FB495B74FE58799A93D9A823CFB>.

20 Davids, "De 'rosse' Kaap," 169.

Walking Interviews: Multidimensional Mapping Potential

Contemporary redevelopment and gentrification of urban waterfront areas has stimulated research on local residents' recollections regarding changes in their direct living environment. Interviews are often used in such studies to collect resident perspectives and opinions on neighborhood changes.²¹ Some scholars have taken this a step further by conducting walking interviews, as "walking and talking can intimately capture people's feelings about place, and act as a powerful way of communicating about (urban) memories."²² Methodologically, walking interviews necessarily comprise a simultaneity of actions, from walking along with interviewees to listening to (and often asking for further clarifications of) their descriptions and recollections of the traversed environment, as well as perceiving this very environment on the basis of participants' on-the-spot contextualizations.²³ Adopting this methodology comes with making certain trade-offs regarding the course of the interviews and the depth of obtained information, among others. This further relates to the degree of autonomy granted to interviewees in determining the walking route, but also to the particular types of data (and their level of structuredness) one wants to single out from the walks, and by which means these are further investigated.²⁴

In some of the previously referenced studies, maps are used to mark significant sites of memory and routes of local culture, as foregrounded by interview participants. In this way, maps serve rather descriptive purposes,²⁵ while leaving their more intricate spatial-analytical potential largely untapped. Other studies build on the layering potential of maps to incorporate different types of, participant-specific, data, which often requires

21 See for instance Philip Kasnitz and David Hillyard, "The Old-Timers' Tale: The Politics of Nostalgia on the Waterfront," *Journal of Contemporary Ethnography* 24, no. 2 (1995): 139-64, <https://doi.org/10.1177/089124195024002001>; Wonneberger, "The End of 'Community'?"; Laura Balderstone, Graeme J. Milne, and Rachel Mulhearn, "Memory and Place on the Liverpool Waterfront in the Mid-Twentieth Century," *Urban History* 41, no. 3 (2014): 478-96, <https://doi.org/10.1017/S0963926813000734>; and Brian Doucet and Daphne Koenders, "At Least It's Not a Ghetto Anymore: Experiencing Gentrification and 'False Choice Urbanism' in Rotterdam's Afrikaanderwijk," *Urban Studies* 55, no. 16 (2018): 3631-49, <https://doi.org/10.1177/0042098018761853>.

22 David Adams and Peter Larkham, "Walking with the Ghosts of the Past: Unearthing the Value of Residents' Urban Nostalgias," *Urban Studies* 53, no. 10 (2016): 2007, <https://doi.org/10.1177/0042098015588683>.

23 Jean-Paul Thibaud, "La méthode des parcours commentés," in *L'espace urbain en méthodes*, eds. Michèle Grosjean and Jean-Paul Thibaud (Marseille: Editions Parenthèses, 2001), 81. See also Kusenbach, "Street Phenomenology," further framing the method's potential from an ethnographic research perspective; and Maggie O'Neill and Brian Roberts, *Walking Methods: Research on the Move* (Abingdon and New York: Routledge, 2020), for a more comprehensive overview of this research methodology.

24 Maciej Kowalewski and Robert Bartłomiejski, "Is It Research or Just Walking? Framing Walking Research Methods as 'Non-Scientific,'" *Geoforum* 114 (2020): 60-1, <https://doi.org/10.1016/j.geoforum.2020.06.002>; Evans and Jones, "The Walking Interview," 849-58.

25 Balderstone, Milne, and Mulhearn, "Memory and Place on the Liverpool Waterfront," 480-4; Adams and Larkham, "Walking with the Ghosts of the Past," 2007.

more structured and survey-like research approaches,²⁶ and may potentially impede the spontaneous nature central to walking interviews.²⁷ In addition, previous map-based studies seem to forego another dimension inherent to the act of walking, namely 'time'. As walks rarely progress uninterrupted, taking into account the accompanying temporal dimension can add additional insights to a certain spatial trajectory.

Here, it proves fruitful to highlight the classic methodological framework of time geography, originally developed by Torsten Hägerstrand in the 1960s-70s, which has taken both spatial and temporal dimensions into account in investigating people's quotidian transportations and interactions.²⁸ Hägerstrand formulated his central objective, to "understand better what it means for a location to have not only space coordinates but also time coordinates,"²⁹ particularly with an eye on transportation planning contexts. His proposed methodology for instance proved suitable for research on daily commuting, even up until today when such studies have also started to focus more on individual experiences of space, thereby actually bridging some ground with walking interview methods.³⁰ While Hägerstrand's time geography framework came with an extensive scientific notation system, its core methodological elements have been taken up and adapted across different disciplines.³¹ For the Katendrecht walking interviews, the construction of space-time paths has been adopted to map and investigate the different individual walks after they were conducted.

Space-Time Paths: Interview Setup and Mapping Outcomes

Twelve individual walking interviews of approximately one hour were carried out in Katendrecht during the summer season, when the weather did not impose any issues on the walks themselves. The twelve respondents who participated had initially reacted to an interview call that was advertised across local media, history and community platforms in

26 See for example Julie Bergeron, Sylvain Paquette, and Philippe Poullaouec-Gonidec, "Uncovering Landscape Values and Micro-Geographies of Meanings with the Go-Along Method," *Landscape and Urban Planning* 122 (2014): 108-21, <https://doi.org/10.1016/j.landurbplan.2013.11.009>; and Angeliki Gazi, Charalampos Rizopoulos, and Yiannis Christidis, "Localizing Emotions: Soundscape Representations through Smartphone Use," *Psychology: The Journal of the Hellenic Psychological Society* 23, no. 2 (2018): 69-85, https://doi.org/10.12681/psy_hps.22791.

27 Bergeron, Paquette, and Poullaouec-Gonidec, "Uncovering Landscape Values and Micro-Geographies of Meanings," 119.

28 Hägerstrand, "What about People in Regional Science?" 7-21.

29 *ibid.*, 9-10.

30 See for example Julia McQuoid and Martin Dijst, "Bringing Emotions to Time Geography: The Case of Mobilities of Poverty," *Journal of Transport Geography* 23 (2012): 26-34, <https://doi.org/10.1016/j.jtrangeo.2012.03.019>; and Heike Marquart, Uwe Schlink, and S. M. Shiva Nagendra, "Complementing Mobile Measurements with Walking Interviews: A Case Study on Personal Exposure of Commuters in Chennai, India," *International Journal of Urban Sciences* 26, no. 1 (2022): 148-61, <https://doi.org/10.1080/12265934.2020.1871060>.

31 Shaw, "Time Geography," 1-2.

Rotterdam. The respondents were selected for the interviews on the basis of the fact that they had lived in Katendrecht in the 1970s, when local protests against the sex industry and in favor of urban renewal intensified. Respondents were given instructions before the walks and signed an informed consent form guaranteeing their voluntary and anonymous participation. The total group of interviewees consisted of eight male and four female participants, with ages ranging from 60 to 86. Further information on respondents' social background was not recorded, to keep participation thresholds low while acknowledging the local sensitivity that still surrounds Katendrecht.

As became evident during the interviews, the twelve participants made up a rather homogeneous group. The majority of participants were born in Katendrecht and had moved out of the district during the 1970s. Most participants would still frequently visit Katendrecht nowadays. The majority of participants also shared the fact that they had attended schools outside of Katendrecht. While the interview call was openly distributed, it arguably remained prone to effects of (self-)selection and response biases: people who look back on their time in Katendrecht more positively, for instance because they were able to receive education outside of the neighborhood that potentially benefited their personal development later on, may have been more inclined to revisit the district for an interview. The group of respondents may thus have produced a positive bias in evaluating Katendrecht's current state. While the obtained interview outcomes may therefore not simply be generalized, different personal views on Katendrecht's past and present were elicited through the walks. These could be detected afterwards by mapping the interview routes and uncovering their spatio-temporal overlaps.

"In time-space the individual describes a *path*," Hägerstrand remarked.³² As mentioned before, participants were given the opportunity to freely determine their interview paths themselves, starting from their past or current family address, while a sound recorder and GPS tracker were used to capture the interview data. Questions posed during the interviews were also not predetermined, but primarily revolved around asking participants further clarifications on particular viewpoints they expressed about the neighborhood, in such ways as to retain the flow of a natural, open conversation. Temporal interruptions during the walks were explicitly accepted and acknowledged, not only to provide a comfortable atmosphere for participants and install a sense of 'shared authority' in carrying out the interviews,³³ but also for the comparative mapping purposes.

32 Hägerstrand, "What about People in Regional Science?" 10 (emphasis in original).

33 Bergeron, Paquette, and Poullaouec-Gonidec, "Uncovering Landscape Values and Micro-Geographies of Meanings," 119-20. For more info on 'shared authority' in the context of oral history research, see Alistair Thomson, "Sharing Authority: Oral History and the Collaborative Process," *The Oral History Review* 30, no. 1 (2003): 23-6, <https://doi.org/10.1525/ohr.2003.30.1.23>, building on Michael Frisch, *A Shared Authority: Essays on the Craft and Meaning of Oral and Public History* (Albany: State University of New York Press, 1990).



FIG. 3 Overview of Katendrecht walking interviews, mapped as space-time paths, with ephemeral standstills highlighted in black.

To further grasp the temporal dimension of the walks, it proves necessary to distinguish between ephemeral and more substantial ‘standstills’, as this also further informs the interpretation of participants’ perspectives on the neighborhood, as discussed later. Some pauses during the walks simply occurred because of the crossing of streets, the general pace of some of the walks, or because it was easier for participants to briefly halt when explaining something. Other temporal interruptions carried more meaning and were often lengthier, when it involved a particular place or observation in the neighborhood that a participant wanted to explain in more detail.³⁴ In considering how the walking interviews not only unfolded in space but also through time, the resulting paths “can easily be shown graphically if we agree to collapse three-dimensional space into a two-dimensional plain (...) and use perpendicular direction to represent time.”³⁵ These directives were followed in mapping the walking interviews: **Figures 3-5** show the visual representation of all Katendrecht walking interviews as space-time paths, mapped in QGIS, whereby the time passing during the interviews is represented through the upward movement of paths along a perpendicular z-axis. Through this particular mapping approach, standstills thus manifest themselves as vertical interruptions in the space-time paths.

Mapped as space-time paths, the collection of walking interviews reveals different overlaps in terms of routes that were taken and types of standstills that occurred along the way. While Hägerstrand stated that “a living body subject, [is] endowed with memories, feelings, knowledge,

34 In general, ephemeral standstills lasted no longer than a couple of minutes, while substantial standstills could last much longer.

35 Hägerstrand, “What about People in Regional Science?” 10.



FIG. 4 Overview of Katendrecht walking interviews, mapped as space-time paths, with substantial standstills highlighted in black.



FIG. 5 Overview of Katendrecht walking interviews, mapped as space-time paths, with substantial standstills highlighted in black and arrows capturing clusters of standstills around Rijnhaven park entrance (left arrow) and Deliplein square (right arrow).

imagination and goals (...) decisive for the direction of [its] paths,”³⁶ an aggregation of this kind of information can move beyond individual perspectives and uncover broader patterns. The remainder of this article analyzes the space-time paths in this vein, i.e. by identifying main trends that the walking interviews’ mapping makes visible, and subsequently linking this to commonalities expressed by participants during the interviews about certain spots and features in redeveloped Katendrecht. The following analysis therefore only limitly quotes interview excerpts, which were

36 Torsten Hägerstrand, “Diorama, Path and Project,” *Tijdschrift voor Economische en Sociale Geografie* 73, no. 6 (1982): 324, <https://doi.org/10.1111/j.1467-9663.1982.tb01647.x>.

automatically transcribed after the walks,³⁷ and instead builds its arguments on key spatio-temporal insights.

First of all, different patterns can immediately be observed in the interview walks' ephemeral and substantial standstills across Katendrecht (Fig. 3-4). Ephemeral standstills are spatially scattered across the neighborhood: they do not immediately link to central spots in the area, although a large share occurred during interview passages through Katendrecht's core historical streets. At present, Katendrecht's central streets only house few retail shops. During the interview walks, various interviewees considered this a prominent lack (Respondent 1 (R1), R2, R5, R11, R12), especially when drawing comparisons to the many local retail businesses that marked Katendrecht's street sceneries in the past. Many of the ephemeral standstills during the walks arose when interviewees took a short break to reminisce over which local business used to be housed in a certain building. Often going hand in hand with such recollections were positive observations about recognizable historical facades that were recently renovated.³⁸ These ephemeral standstills thus produced interruptions during the walks in which participants balanced off and regarded typical signs of contemporary gentrification processes (the disappearance of local enterprises and the upgrading of historical buildings) in opposing ways.

Moving to the overview of substantial standstills, the space-time paths provide a less scattered impression (Fig. 4). Along the mapped time dimension, two perpendicular clusters of standstills can even be discerned, pointing to two nearby places in Katendrecht. The first one of these is Katendrecht's Deliplein square (Fig. 5, right arrow). Functioning as epicenter of the district's notorious pleasures until the 1970s, this square in the middle of Katendrecht now concentrates many of the neighborhood's new establishments, both commercial (bars and restaurants) and cultural (theater and museum venues). The interview mapping suggests that the Deliplein's role as cornerstone of Katendrecht's current socio-cultural revitalization cannot be overstated: the aggregation of mapped interview paths indicates that almost all interviewees made a prolonged stop near the Deliplein. In doing so, they often described the square's change of character since the 1970s. Also eagerly sought out by many interviewees was a park by the Rijnhaven waterside (Fig. 5, left arrow). This small open park repeatedly facilitated reflective standstills among participants. One respondent (R7) for instance recalled youthful swimming adventures

37 For an accompanying study that does use interview excerpts as main source of analysis, specifically to investigate issues concerning authenticity during the walks through Katendrecht, see Susan Hogervorst and Vincent Baptist, "Urban Redevelopment and the Role Played by Former Inhabitants in the Authentication of Katendrecht, Rotterdam," in *Urban Authenticity and Heritage after 1945: Creating and Contesting Identities and Images in European Cities*, eds. Achim Saupe, Christoph Bernhardt and Daniel Hadwiger (Abingdon and New York: Routledge, forthcoming). At the time of writing, a selection of the Katendrecht interview material was also being prepared for archiving in the Rotterdam City Archives collections.

38 See Hogervorst and Baptist, "Urban Redevelopment and the Role Played by Former Inhabitants," for further arguments linked to 'urban authenticity'.

by the park's quays, while also remarking how dangerous Katendrecht's past industrial landscape used to be for children left unattended. In that respect and with an eye on the future, R7 felt strongly about the area's recent clean-ups, despite nostalgic sentiments that arguably also keep playing a role:

Nothing is forever... Things become different at some point, and that is not bad at all. Those older generations who live or used to live here, they always have a longing for the past, but also a longing for a better future.³⁹

Lastly, the opposing connections between the Rijnhaven and Maashaven docks can be highlighted. As the northern Rijnhaven side partially maintains an open view through the aforementioned park, appreciated by former residents, the southern Maashaven waterfront has instead systematically been filled up with new housing blocks, replacing old industrial storage facilities. This transformation started a few decades ago, and is emblematic of contemporary waterfront redevelopment processes in other port cities too. Many interviewees (R2, R3, R4, R7, R12) stood still at some point during their walks to comment at length on the Maashaven buildings' physical properties and spatial layout, although they always did so while keeping a substantial distance from the newly built constructions. This attitude during the interviews seemed to tie in with shared critical comments about various of the Maashaven's housing projects, which participants often considered disproportionate and aesthetically unpleasing in appearance. One respondent (R1) for instance lamented the buildings' rather asocial grouping and orientation blocking the water:

Those harbor sheds weren't as high as those houses. And when it was evening, you could see the lights on the other side [of the water, in the past]. (...) Now people come home in the evening, and they have the kitchen downstairs next to the outside door, but the living room is at the back. And when the children then go to bed, all the lights go out. So when you arrive [in this street at the Maashaven side], it's all black, all dark...⁴⁰

The fact that none of the interviewees felt inclined to cross the street along the Maashaven to approach its new buildings can be discerned from the mapped walking routes. Keeping their original three-dimensional structure in mind, none of the space-time paths end up closely to the Maashaven side, leaving it an empty area on the overview. Aided by this mapping approach, geospatial 'gaps' can thus also be identified and further investigated.⁴¹

39 Vincent Baptist, *Interview with R7* (2022).

40 Vincent Baptist, *Interview with R1* (2022).

41 Cf. Carola Hein and Yvonne van Mil, "Mapping as Gap-Finder: Geddes, Tyrwhitt, and the Comparative Spatial Analysis of Port City Regions," *Urban Planning* 5, no. 2 (2020): 152-66, <https://doi.org/10.17645/up.v5i2.2803>. See also Bergeron, Paquette, and Poullaouec-Gonidec, "Uncovering Landscape Values and Micro-Geographies of Meanings," 120.

Conclusion

In a recent report of the PortCityFutures research group, a visit to Katendrecht's Deliplein turns into the question of who is most responsible for gentrification processes occurring along Rotterdam's waterfronts: is it the architects and planners who envision the neighborhood's new facilities, or rather the politicians and policymakers instructing them, or even other parties altogether?⁴² This is telling for the discussions that often arise about gentrification. This article's case study has followed a different approach by conducting participatory research with old Katendrecht residents themselves, through walking interviews with non-predetermined routes. This methodological setup does come with limitations and biases, and ultimately "can never be completely spontaneous, as it always involves a minimum degree of deliberate co-construction on the part of the researcher and the participant."⁴³

Nevertheless, the conducted interviews have generated a range of opinions on local neighborhood changes, from rejection of new building projects by the waterfront to appreciation of old building facades' renovations, and more ambivalent reflections between nostalgic local sceneries and future-oriented neighborhood improvements. The adopted mapping approach, combining interview walks' spatial and temporal data dimensions, has allowed to identify patterns that go beyond individual testimonies. It reveals a new topography of Katendrecht as gentrifying port city district, where the meaning and significance of certain local spaces connect to the duration and frequency of people's standstills during the walks. The underexplored dimension of time in both geospatial analysis and gentrification research is directly activated through this methodological approach, but its potential for further implementation also reaches beyond the specific context of gentrification or port cities. In the case of Katendrecht, at least, the mapping of interview routes for overarching interpretations of underlying patterns better illuminates the paths taken by this maritime urban district, navigating its way out of past controversies and into new ones defining the contemporary port city.

42 Sabine Luning, Carola Hein, and Paul van de Laar, "PortCityFutures in Rotterdam: Conversations on the Waterfront," *Leiden Anthropology Blog*, February 9, 2021, <https://www.leidenanthropologyblog.nl/articles/portcityfutures-in-rotterdam-conversations-on-the-waterfront>.

43 Bergeron, Paquette, and Poullaouec-Gonidec, "Uncovering Landscape Values and Micro-Geographies of Meanings," 120.

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