

Master's Programme in Urban Studies and Planning in Architecture

Public participation and aesthetics in decision-making in Helsinki and Moscow.

Nyurguyana Pavlova

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Author Nyuguyana Pavlova

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Department Department of Architecture

Thesis supervisor Hossam Hewidy

Thesis advisor Susa Eräranta

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Abstract

In this thesis, I explore the relationship between participatory practices in urban infrastructure planning and the possible aesthetics of the infrastructural objects that are created as a result. The relation between the two can be traced through the concept of technical artifacts. I take the notion of technical artifacts as it was described in the 20th century by Gilbert Simondon and Langdon Winner. Simondon saw technical artifacts as a manifestation of a technical worldview, and Winner associates technical artifacts with political systems they were developed in. One can consider a technical artifact any tool that was developed by a human, both physical and digital, such as bridges and online maps. The aesthetic value of such artifacts is not inherent but gained according to Simondon.

Participatory and communicative planning exist in different conditions in Helsinki and Moscow, reflecting the democratisation levels of the states' political systems. To compare the use of traditional face-to-face and online participation methods in both cities I will review the planning context in two countries and evaluate participatory practices of two cases. I have chosen the Raide Jokeri line as a precedent taking place in Helsinki and Chords motorways for Moscow - they are both large-scale ongoing construction processes that go through residential and public spaces, interrupting the established urban environment. The planning context is studied through legislative procedures and a review of existing articles. For the evaluation of participative input, I use Nico Carpentier's analytical model that was developed for participatory media evaluation but can be reapplied to other participatory processes as well.

Comparing the two cases I aim to find commonalities and differences in value sets of the two cases, providing a link between the resulting physical infrastructural objects and ethics through the democratic participatory tools efficiency. Without being technologically deterministic and assigning a certain aesthetic to objects produced with public participation, I delve into the resulting aesthetic features in two chosen cases and explore them.

Keywords Participatory planning, urban aesthetics, technical objects, aesthetic objects, urban infrastructure, legitimacy and ethics

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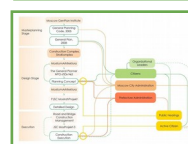
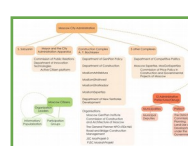
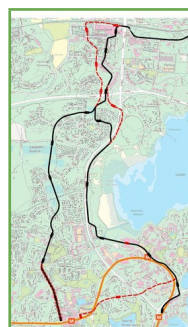
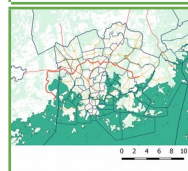
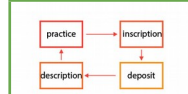
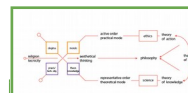
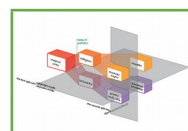
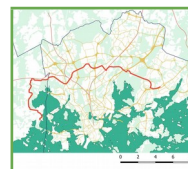
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Table 1. Case studies' comparison.

	Helsinki	Moscow	Coefficient, %
Total Project Budget (est.), mln €	580	7070	20.7
City Population, people	656 631	12 650 000	19.3
Agglomeration Population, people	1 290 541	17 400 000	13.4
City Area, km ²	213.0	2561.5	11.9
Project Length, km	16 / 28 (total)	133	6.3 / 5.3
City Budget Expenditure in 2016, mln €	5 500	20 450	5.8



0. Introduction

0.1. Prologue

My first encounter with a large Ring Chord motorway in Moscow happened from the passenger seat of an uncle's car, in 2018 when the construction had already been going on for several years. Like many Moscow citizens, my uncle spends about one and a half hours commuting from a residential district to his place of work. The new addition of the connecting motorway provides an immediate and tangible improvement in his daily life. For me – not having lived in Moscow for five years already – its disruption of familiar places and routes felt more uneasy and less rationally justifiable.

0.2. Research Framing

On the other hand, the complicated junctions where the new motorways intersect with the Moscow ring road hold a certain undeniable aesthetic appeal. Sights of layered overpasses seem like something to be featured in a science fiction movie, not the city that I grew up in. Such monumentality brings with it several implications and associations. On a societal scale, it indicates a process of high technologisation of the city with a fast-developing economy, where everyone needs to be able to travel fast everywhere. Urban aesthetics is often a mix between the familiar and the strange due to fast technologization rates (Lehtinen S. and Vihanninjoki V., 2021, pp.16, 23).

While there is an emphasis on the individual self-reliance on private cars and the aesthetics of rationality, Tim Edensor raises a similar sentiment in his article *Defamiliarizing the Mundane Roadscape* (2003), as he notes that in a long time motorways were considered a non-space and laments over anti-car campaigns. Street infrastructure is seen as unwelcoming to everyday life in a city, although public transport is now recognised as a public space as well. Road infrastructure composes a crucial and ever-larger part of the built environment in cities. In a private car-focused society, it is arguably one of its most vital features, determining the physical flows of people and goods, their rhythms, and the character of the areas and industries they serve. It can be only constructed by public authorities, affects all citizens in various ways and instigates public discussion. Due to its centralized nature, it also represents power dynamics and decision-making processes present elsewhere in a clear manner. In Helsinki and Moscow governing of public spaces is often conducted with the involvement of participatory or communicative planning. And

although the main focus is usually on residential and public spaces, infrastructural projects are also starting to engage more citizens during the planning stage.

The challenges of public participation have been long recognized and studied under participatory theory (Arnstein S., 1969). In its most general, criticism of participation derives from the same arguments as Aristotle's critique of democracy in *Politics* (1999, pp. 84-94). The tolerance of all opinions allows also the less noble human drives to proliferate, and sometimes thrive over what could be thought of as a greater good. Participants driven by individual gain are more likely to both try to influence others and be prone to manipulation by those with more resources and the ability to do so. The ensuing discussions then suffer from populism and oligarchy, where careful consideration is supplanted by personal and emotional appeal. Often the advantages and disadvantages of different parties in this struggle remain unclear until the process has already concluded, making it very difficult to ensure their participation on equal ground.

The resulting participative and communicative planning practices grow differences from all the variables such as goals of the managing institution, methods used and degree of involvement by stakeholders. Besides these differences, Finnish and Russian cases have different historical backgrounds. Participative planning was introduced to the Finnish planning system in 1999 with the Building and Land Use Act, while in Russia it took another decade. As will be discussed later, the participative tools used in two studied examples of participative practices in the two countries are similar, relying on an early investigation, face-to-face discussions with residents and online questionnaires, but the following impacts on planning decisions differ. Although the city strategies and planning goals stated by the planning institutions are similar, the power balance plays an important role in decision-making events. As written by Arnstein (1969, p. 282), 'participation without redistribution of power is an empty and frustrating process for the powerless'.

So does the fairness of participative and communicative planning influence the perceived aesthetics of infrastructural projects? I am not ready to work on this question, but I find it can be an interesting discussion. But to open a path to it, in this thesis I look at the current understanding of the relationship between technical artifacts, aesthetics and ideology in works by Gilbert Simondon, Langdon Winner and Sanna Lehtinen.

Figure 1. Ring Chord motorways (red) in old Moscow, original scale 1 : 300 000.

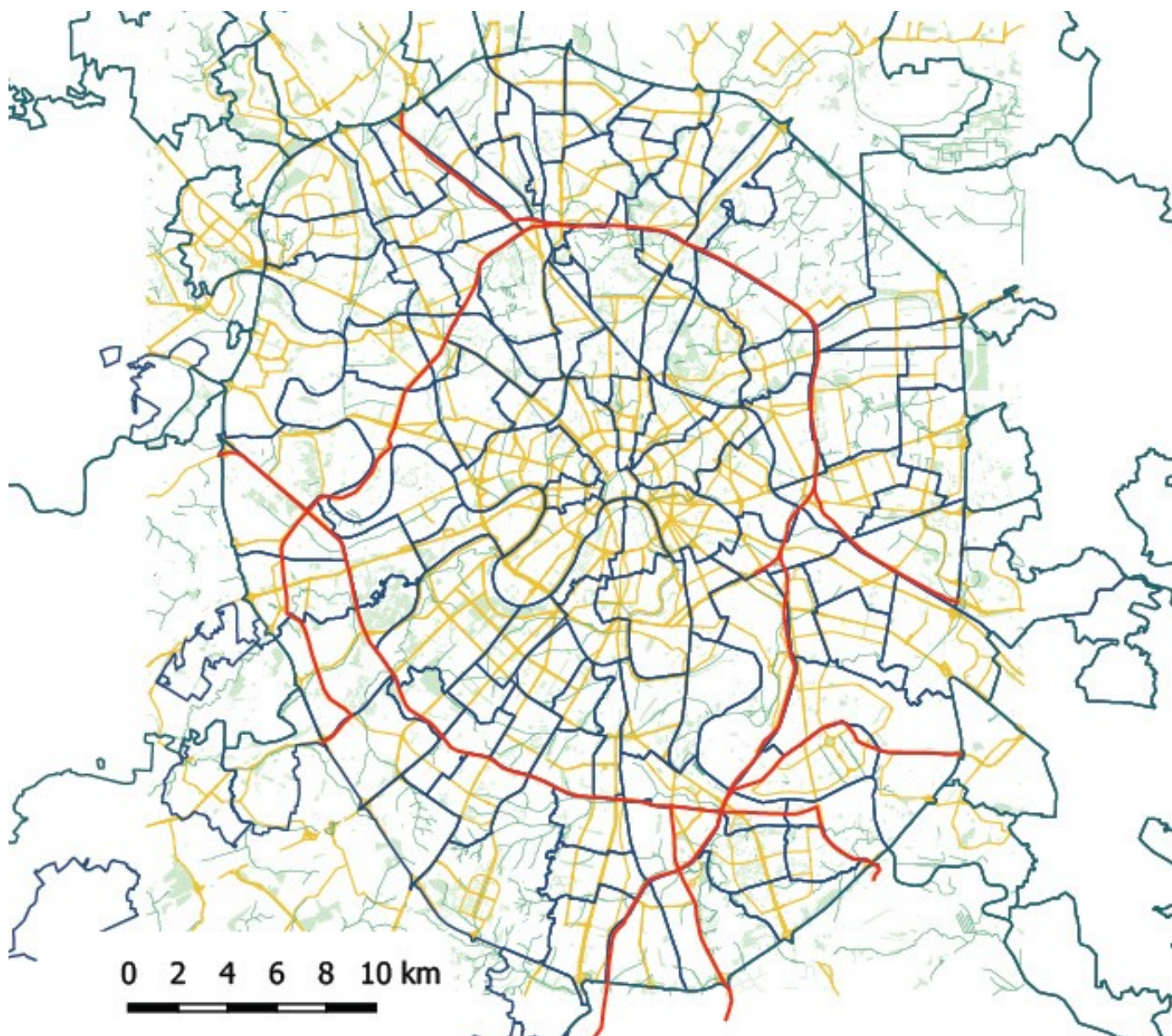
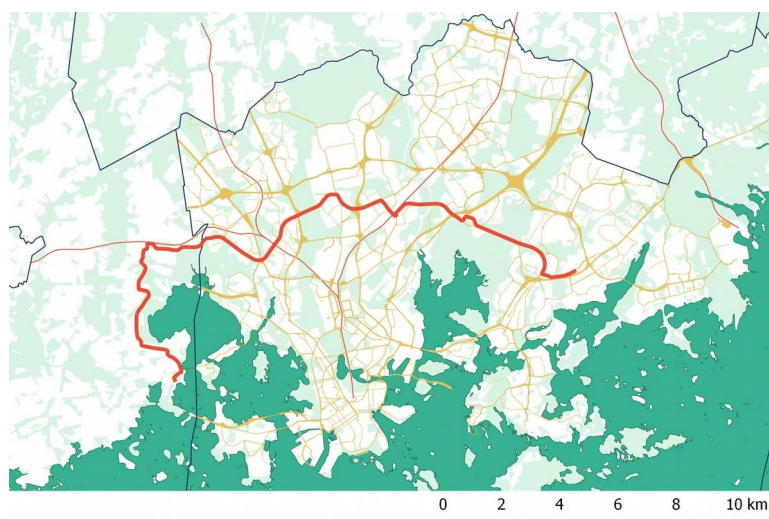


Figure 2. Raide - Jokeri route (red) in Helsinki, original scale 1 : 250 000.



Then I want to explore the current position of participative planning in Helsinki and Moscow from the position of power balance. Both cities have been executing large infrastructural projects, using similar participatory tools and having similar strategies for development, but according to Langdon Winner (1986), the state political system inadvertently influences the designed technical artifacts, both material and social tools. I have chosen one case study for each city, one example won't be a true representation of the planning institutions functioning but it can present the main features and faults.

Both precedents are transport infrastructure projects that are still in the construction phase, and participatory tools have been used in the planning process. Both projects span through multiple neighbourhoods, they are mostly located on existing roads and verge on residential and green areas besides industrial ones. The project chosen in Helsinki is the Raide-Jokeri light rail line, a 25 km long public transport line connecting Helsinki and Espoo. The case from Moscow is the Chord Ring road, a group of four motorways that create another ring road to help with the increasing traffic flow. Now the scale and the budgets of the projects are different with planned lengths of 133km and 16 km in Moscow and Helsinki accordingly, and with estimates for 2018 being 7'975 and 386 million euros. But compared to the difference in cities populations and areas, the projects are major interventions in both cities. In Table 1 I have collected general numbers and estimates from both projects, with the last column where I show the quotient, the number of times that Moscow's data value is larger than the value from Helsinki. While cities' budget expenditures in 2018 show that the Raide Jokeri project is less demanding from overall expenditure, the amount of budget spent on the project per person is similar. Similarly, the projects' length differences are comparable to the difference in the cities' areas.

Table 1. Case Studies' Comparison

Table 1. Case Studies' Comparison	Helsinki	Moscow	Coefficient, k
Total Project Budget (est.), mn €	386	7975	20,7
City Population, people	648 042	12 409 738	19,1
Agglomeration Population, people	1 279 096	17 mn - 20mn	13,2 - 15,6
City Land Area, km ²	214,29	2561,5	11,9
Project Length, km	16 / 25 (total)	136	8,5 / 5,4
City Budget Expenditure in 2018, mn €	4456,3	29 117,1	6,5

Note. The coefficient represents how many times the data from Moscow is larger/smaller than Helsinki. $k = \text{Moscow} \div \text{Helsinki}$. The data for the total estimated project budget of the Jokeri line is from the *Jokeri Light Rail project proceeds to cities decision-making*, by Raide-Jokeri, 21.01.2019 (<https://raidejokeri.info/en/jokeri-light-rail-project-proceeds-to-cities-decision-making/>). The data for the Chords ring road project budget is from *The Chord Ring Road Will Cost Moscow 630 MM Rubles*, by RIAMO, 13.03.2019 (<https://riamo.ru/article/345774/hordovoe-avtomobilnoe-koltso-obojdetsya-moskve-v-630-mlrd-rublej.xl>). The data for the Helsinki city population in 2018 is from *Väestönmuutokset ja väkiluku alueittain*, by Tilastokeskus, 1990-2020 (https://pxnet2.stat.fi/PXWeb/pxweb/fi/StatFin/StatFin_vrm_kuol/statfin_kuol_pxt_12au.px/table/tableViewLayout1/). The data for Moscow population in 2018 is from *Moscow*, by World Population Review, 2021 (<https://worldpopulationreview.com/world-cities/moscow-population>). The data for Helsinki agglomeration population in 2018 is from

Helsinki, by World Population Review, 2021 (<https://worldpopulationreview.com/world-cities/helsinki-population>). The data for the Moscow agglomeration population in 2018 is from *Fundamental Key of Each Metropolitan Area, Moscow Metropolitan area*, by Metropolitan Governance Expert Group, 2019 (<https://www.eurometrex.org/wp-content/uploads/2019/03/%D0%9C%D0%9C%D0%90-metrex.pdf>). The data for Helsinki land area is from *Tilastot, Pinta-alat kunnittain*, by Maanmittauslaitos, 2021 (<https://www.maanmittauslaitos.fi/tietoa-maanmittauslaitoksesta/organisaatio/tilastot#Pinta-alat-kunnittain>). The data for the Moscow area is from *Total Moscow Area*, by Statistics and Index. Regional and Federal (<https://rosinfostat.ru/ploshhad-moskvyl>). The data for the Jokeri line is from *Mikä Raide-Jokeri?*, by Raide-Jokeri (<https://raidejokeri.info/mika-raide-jokeri/>). The data for the Chord Ring Road is from *the System of Chord Motorways Will appear in 2022-2023*, by the Complex of Urban Policy and Construction of Moscow, 30.11.2019 (<https://stroj.mos.ru/news/sistema-khordovykh-magistraliei-v-moskvie-poiavitsia-na-rubiezhie-2022-2023-ghodov>). The data for the estimated Helsinki city budget for 2018 is from *Kaupunki ja Hallinto, Talouden Julkaisut, Talousarvio 2018*, by Helsinki City Administration, 2021 (https://www.hel.fi/static/kanslia/Julkaisut/2017/HKI_TA_2018_web.pdf). The data for the Moscow city budget in 2018 is from the *Main Budget Parameters*, by Open Budget of Moscow, 2021 (https://budget.mos.ru/budget?analitc_year=2018&analitc_stage=approved&version=1206&level=moscow&execution_date=16%20%D0%9E%D0%BA%D1%82%D1%8F%D0%B1%D1%80%D1%8F%202021&execution_date_ts=). The real expenditure in 2018 was 2 315,1 bn rubles or 29 117,1 mn e for the end of the 2018 exchange rate.

Exploration of the two projects is taken through two disparate angles: first of the motorway as a potentially aestheticized technical object, and secondly as a product of power tensions and political tensions in participative planning processes. These quite different perceptions supplement each other, as the political and phenomenological dimensions of the intervention. Roads are the urban infrastructure that ensures and support the physical mobility of people and goods, but at the same time, their construction blocks existing flows and creates impermeable environments. Phenomenological views based on the readings of Gilbert Simondon can be useful to better understand the motorways as aesthetic artifacts, by which governing through design is implemented. On the other hand, the idea of the political artifact was described by Langdon Winner, who pointed out the political qualities that technologies have without being deterministic.

For Viktor Vakhshayn urban spaces are not the representations of the social structures and elites, manifesting through coded public spaces, but the results of accumulations of various interests (Viktor Vakhshayn, 2014, p. 18). It is important to remember that any message that urban objects and environments can carry is not a direct representation of a current situation, but a product, an interpretation, that is related to the political and cultural contexts. Here he also reinforces the opinion of Winner that no technology is determined to influence society but can assist or reject changes.

Together these findings will help me to build a picture of state values being formed into aesthetical spaces through urban planning democratisation in the form of participatory and communicative planning. To avoid making the research question and results look technologically deterministic, I am not looking for a correlation between the three but suggesting a way to look at the urban political environment through public space aesthetics and aesthetics of urban artifacts.

0.3. Research Structure

This thesis consists of three chapters, dealing with the theory of participative and communicative planning and aesthetics of urban infrastructure, a review of case studies and a discussion of their relation.

In the first chapter of this thesis, I conduct a literature review of the general concepts that I use in the study. First, I describe what participative and communicative planning theories are, their history and the work by Sherry Arnstein (1969). Participation in planning has been discussed for a few decades and the amount of power delegated to the public is one of the key topics in Arnstein's work. Secondly, I recount the view on technical artifacts and their relation to the political system. Later, I acquaint the reader with the view on technical artifacts and aesthetics by Gilbert Simondon (1980). In the last part, I review what speculative design is and how it is used.

In the second chapter, I analyse the two chosen cases using a model introduced by Nico Carpentier (2014) for evaluating participatory practices. This method requires insight into the context of the process and the urban planning field history, so each case will involve a review of planning practices in each country and city. This will be done through a review of the literature and the legislative process. Then the projects will be laid out through their actors, decision moments and power balance. In conclusion, I will sum up the main similarities and differences in processes and values

In the third chapter, a discussion is started between the second chapter practice and the theory of aesthetics from the literature review.

1. Literature Review

1.1. Participative and Communicative Planning

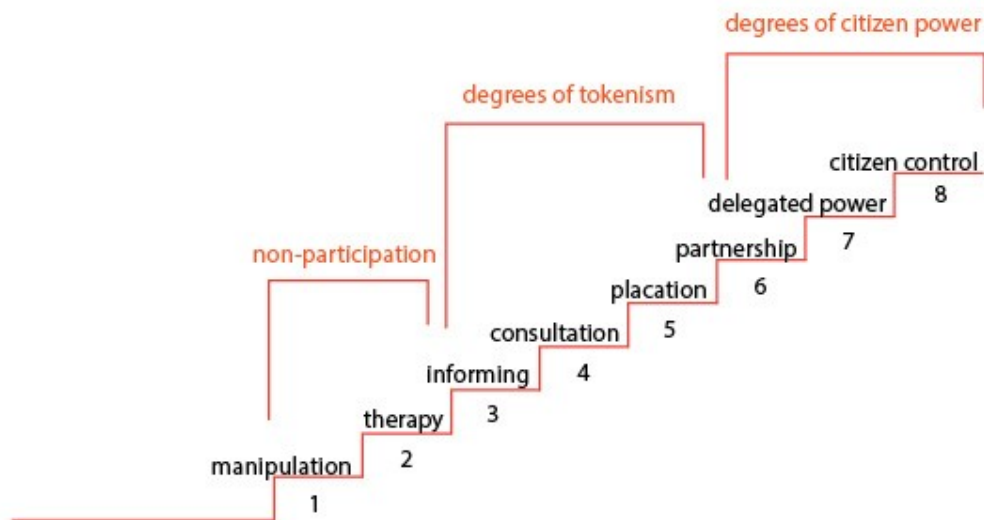
1.1.1. Background

Participatory planning theory was a response to traditional rational planning in the 1960's. Sherry Arnstein's article 'A Ladder of Citizen Participation' (1969) is often cited as she had built a simplified step-by-step model of public involvement in urban planning from manipulation of public opinion by the authorities to the citizen control stage when all decisions are made by citizens. Public participation can take different forms but Arnstein wrote that giving citizens more power is the essential feature, without which informing and surveying will just increase frustration as in the example with French students and their protest poster (1969, p. 216). The eight levels from nonparticipation to participation are grouped into nonparticipation, tokenism and citizen power.

According to Argenbright (2016) citizens have limited time, energy and other resources for participation in political and urban environment spheres. In the perfect world a small portion of citizens would like to be actively involved in governance while the others would like to be minimally involved while the planning activity runs its course according to their preferences. Argenbright refers to Grindle's (2004) concept of 'good enough governance' that would allow people to be always well informed and to get engaged in the decision-making at any moment that they feel like it is required, but have low responsibility for the most time unlike of situation of 'full citizen control' governance type. Citizens oppose perceived negative alteration of collective memoryscapes and incommensurables that are marked with emotional attachment.

At the lowest levels of the Arnstein's ladder (1969), the citizens have minimal influence on the decision-making process. These are the least favourable levels from the view of participatory planning theory as the citizens do not hold any real power, are misinformed and can not take part in the creation of the city. The middle levels provide the citizens with more information about the planning agenda, but the disclosed information might be not full or otherwise slightly manipulated, and the input of the citizens is still minimal. Arnstein calls this tokenism, as it might seem that there exists some citizen engagement and the opinions of the public are listened to, but the main decisions are still made by city officials.

Figure 3. The Ladder of Citizen Participation, Eight rungs on the ladder of citizen participation (Arnstein, S., 1969)



At the top levels of citizen participation, the citizens have an equal or higher amount of power in decision-making than the administration. They can form their own organisations that hold power, can create a planning agenda and system framework, and manage the budget. However, Arnstein notes that although at the levels of citizen power the public has the most control, there is a lot of responsibility and work to be done. Due to the high effort needed to run the planning system, many citizens might opt out for low engagement in participatory planning and activists might need to form a full-time employment organisation. An alternative administration can be formed from the body of former activists, but with mirroring disadvantages of the previous one - lack of open information, slow decision-making, poor judgement and corruption. Therefore even with the elevation of citizen power, the same problems can repeat.

Another problem that Arnstein (1969) mentions is a case when there is no leading group formed among the participating residents, and the decisions are taken very slowly or not taken at all to avoid a conflict of contradictory opinions. There is a need to find a balance between such a situation and formation of a corrupt administration in practice.

In a new introduction to the article in *The City Reader* by the editors Richard T. LeGates and Frederic Stout (2015) add that citizen power level steps have been criticised for being inefficient and destabilising, separating public services and bringing only symbolic change.

Therefore modern democratic governments prefer to run the tokenism level participatory practices, learning the citizens' preferences but leaving most of the decision-making power to themselves and elected representatives. Citizens still express their opinions not only to their representatives in the local governments but also through public, private and non-profit organisations. According to LeGates and Stout (2015, p. 280), these organisations are getting more popular and can be placed on higher ranks of the ladder. That is because multiple organisations that join planning organisations can bring forward more citizens' views.

Later, communicative planning theory that drew on the communicative rationality theory of Jürgen Habermas was introduced. It bases on participative planning but adds that the truth or consensus between stakeholders can be found after a dialogue, where everyone can expose their opinions and wishes. Communicative planning theory acknowledges that besides rational knowledge there are other types of knowledge that should be considered. Therefore as many stakeholders should be invited that will represent various views. In communicative planning participation of each actor is not required, accepting representatives from each group. Deliberative planning supposes that the true consensus between all involved parties can not be reached but that it is enough for the stakeholders to have a neutral dialogue where all parties express their views and share knowledge. In the best scenario, the stakeholders involved in the discussions will form a mutual understanding of everyone's point of view even without specifically agreeing with each other. However, the newer agonistic planning believes neither in the possibility of consensus nor in neutral dialogue. It is similar to the ideas of Wittgenstein that to reach an agreement the parties have to share a common language, but due to differences of lived experience and contexts, such common language can not be achieved, therefore the communication will be always flawed and there can not be an understanding between the parties (Mouffe, C., 1999, p. 749). Agonistic planning also recognises that power is always spread unequally, with some actors being able to voice their opinions louder or to larger audiences (1999, p. 751) and strives to diminish that inequality while accepting its existence.

1.1.2. Features

Co-production

The participation ladder's partnership and delegated power levels can be related to the co-production of public services as understood by Tony Bovaird and Elke Loeffler (2012). In their article 'From Engagement to Co-Production', the authors list the benefits that users can bring to the planning and design of public services: user lived knowledge, better knowledge of requirements for the service, resources as time and energy, various assets through their

skills and capabilities, and legitimation. Bovaird and Loeffler separate service management into commissioning and provision. In traditional service planning, citizen input to both is low, and in co-produced services, input would be high in both instances. Co-production consists of different parts - co-planning, the first stage, where the service projects are deliberated between the management and citizens; co-design, where service users can be consulted for better design solutions; co-prioritisation, discussion of available budgets; co-financing, collection of the budget through taxes and fundraising among the community; co-managing, finding public assets in the citizen community; co-delivery, with the use of community resources and support groups; and finally, co-assessment, the last stage at which the citizens can assign inspectors among the community to rate the completed work and the service quality.

In this work, the authors highlight the potential of citizen communities as commissioners and providers of public services, but also acknowledge possible barriers. Besides legitimation that communities bring in such projects, added value is also produced through common effort and increased social responsibility. The barriers of co-production are cultural and systemic - uncertainties in funding and organisation, low practical evidence of co-production value, the need to develop professional skills among citizens and risk aversion strategies, and the last barrier is distrust from the local administration, as the shared responsibilities might affect the institutional credibility, diminishing their status and control. On a similar note, the complexity of public service institutions shouldn't be dismissed, as both structure and culture of government can be challenging to understand not only for citizens but for institutional workers as well (Blomkamp, E., 2018, pp. 737-738). Any disruptions to the established routine will take time to plan, approve and implement.

Power and learning

Part of public participation is not only in engagement in design solutions but also in the construction of design problems - Daniel Opazo, Matías Wolff and María José Araya call that political imagination in their article 'Imagination and the Political in Design Participation' (2017). They pose the community's ability to rethink and change itself to be a way to solve the wickedness of design and planning problems. Such rethinking should lead to new solutions but requires insight into the working of institutions and institutional complexity as well as imagining both real and unreal possibilities while being able to distinguish them. The resulting design has the potential not to be '...limited by the choices of the free market and the imperatives of neoliberal governmentality' (2018, p. 77).

The wickedness of the planning process is also mentioned in the article by Schmidt-Thome and Mäntysalo (2014). They describe social power as divergent into 'power to' and 'power over'. 'Power to' emerges from the human ecosystem that consists of consciousness,

social environment and physical environment. The 'power to' provides the ability to learn and to be aware. At the same time the 'power over' is the ability to change that ecosystem, to control and constrain it and it stems from the subsystem of human consciousness. The 'power over' has three dimensions as the authors cite Steven Lukes. The first dimension of the power influences direct conflicts and decision-making, the second dimension touches upon silencing issues and controlling available information. The third dimension of the 'power over' covers situations of collective silence and ignoring of existing issues due to compliance to domination. Therefore the three levels of learning to exercise social power over are related to the ability to control and change all three dimensions of power in planning processes, the third being the most obscure for the general public and being one of the 'wickedness' of planning problems, as one needs to change the planning framework to be able to control it. The first level of learning consists of an iterative process when the outcome of the chosen way of action is assessed and the next action is chosen accordingly to achieve better results. The second level of learning is similar, but takes into account a possibility of misinformation or wrong assessment information, re-evaluating available choices and being more critical than the first level of learning. The third level of learning deals with the 'wickedness' of planning problems and requires the learner to evaluate themselves and if needed change their own identity.

Public participation is meant to increase the legitimization of planning institutions' activity. The traditional planning system relies on institutional legitimization provided by citizens' trust in the professionalism of planners. Traditional planning practice uses rational knowledge to justify its designs and decisions. Bent Flyvbjerg raises an argument about the relativity of rationality that is influenced by power (1998). In the chapter Rationality and Power, he raises ten propositions on the relation of power to rationality. Flyvbjerg notes that powerful agents have the ability to define reality by using a favourable interpretation of rationality, rather than discovering it. Therefore rationality is dependent on the context moulded by the power figure. In these circumstances, rationality becomes rationalisation without acknowledgement. Rationalisation presented as rationality is then a strategy utilised by powerful agents, and the stronger the power they hold, the less rational such rationalisation can become. Therefore in case of confrontation between power and rationality, power will subdue rationality as well as knowledge. Flyvbjerg writes that rationality will have more impact in systems where power relations are stable and non-confrontational, as in confrontations rationality yields to power. Another chapter by Wa-Chul Sen on efficiency poses similar sentiment (2013, p.54). Wa-Chul Sen indicates that the term efficiency is still surprisingly vague, although it is extensively used in governmental projects. The term does not refer to specific input-output values but considers numerous economic and time factors, which are different in many

cases and not monitored. Therefore the term efficiency is used for justification, as much as the wider notion of rationalisation in power legitimization.

Here I want to add the understanding of legitimacy described by Arild Wæraas (2018). Wæraas bases his understanding on Max Weber's works (1968, p. 215), classifying legitimacy to the legal-rational, traditional and charismatic. Unlike Flyvbjerg, Weber (1968, p. 946) considers domination to be a more useful term than power. While power is an ability to carry will despite resistance, domination is the actual act of power and it requires compliance. Dominance is separated to dominance by virtue of authority and voluntary compliance, where the subjects comply even if they have a choice not to and to leave the influenced environment. Such dominance-compliance model is referred to as legitimacy. When someone is deemed to be a legitimate ruler, they are perceived to be deserving compliance due to some factors. Such factors are already mentioned as rational - following existing rules and laws, such as elections; traditional - following traditions and beliefs; and charismatic - heroism or other exceptional identity of a person/organisation. These descriptions are fluid and can all exist at once in one ruler, but it is in the nature of Weber's (Grafstein, 1981) concept of legitimacy - legitimacy is what is perceived and rulers/institutions have it as long as society in its majority believes there is legitimacy. I think this concept and classification will be useful later during the case studies to differentiate legitimacy types and how they change.

Legitimacy

Another angle on legitimacy and efficiency is presented in an article by Raine Mäntysalo, Inger-Lise Saglie and Göran Cars (2011). The reasoning of input legitimacy has tension with the reasoning of output efficiency. Is the efficiency of a final result worth the low legitimacy of the project? The authors refer to works by Healey and Mouffe to distinguish between input legitimacy and output efficiency preferences in governance procedures and aspects of democracy. Governance procedures are separated into bureaucratic and managerial, depending on if the input legitimacy is the deciding factor due to bureaucratic regulations and laws, or if the output efficiency is preferred by a managerial strategy in models of the private sector. Democracies divide between deliberative democracies, where equality in the public sphere is more important, and (neo)liberal democracies, where individual rights (for example, those of landowners) are emphasised (ibid., 2011, p. 2111). That being so, input legitimacy would be a stronger argument in bureaucratic governance types within deliberative democracies, and the opposite for managerial governance and neoliberal democracy.

Both approaches to decision-making being present in modern states make it confusing for planning actors to commit to a single preference, creating a double-bind situation (ibid.,

2011, 2119). The authors suggest agonistic reflectivity as an answer to this contradiction. Trying to reach a political consensus would be alienating groups of actors, while agonistic planning enables political debate, promotes respectful acceptance and stimulates to find a partial consensus.

Input and output legitimacy in public-private partnerships was previously discussed by Raine Mäntysalo and Inger-Lise Saglie in the context of Finland and Norway (2010). Tensions between input and output legitimacies arise from preliminary schemes and public accountability, that are used to satisfy each accordingly, but in a liberal democracy with bureaucratic governance happen to oppose each other. The authors turn to Scharpf's normative theories perspectives to differentiate between ideals behind input and output legitimacies (ibid., 2010, pp. 327-328). Input oriented democratic thought is based on government by the people, favouring the process of decision-making and, therefore, procedures based on laws and regulatory norms and bureaucracy. On the other hand, output-oriented democratic thought is based on the government for the people. In that case, the product of services is more important rather than the process. The challenge of this approach is the ability to survey the quality of the product if it suits all users. And, according to Heather Campbell and Robert Marshall (2002), the notion of public good varies a lot among utilitarian and liberal societies, based on the priority of either personal freedom or human rights (Foucault, 2008, pp. 27-47).

Hanna Mattila (2018) reviews legitimacy and public participation through works of Jurgen Habermas. She argues that his theory of legitimacy was misinterpreted by communicative planning theorists. While they tended to focus on the actions of individual planners as a source of justification issues like in the 'Deliberative bureaucrat' by Puustinen et al. (2017), not enough emphasis was put on 'public institutions or social orders' (p. 310). Mattila notes that individual planners still have to rely on systemic and institutional legitimacy. Using system-level legitimacy public institutions might be creating a false image of democratic legitimacy. The image can be created by presenting communicative planning tools while still being non-transparent, corporatist and exclusive.

The reason governmental institutions focus so much on systemic legitimacy is that after the decline of traditional-based values, they have to address democratic and deliberative processes. However, Mattila points out that the use of such justification allows neoliberal governance as well as late-capitalist welfare states to prefer economic reasonings to deliberative public values and to avoid conflicts by provision of material compensations. She argues that in this way of action and justification, exclusivity and corporatism, late-capitalist states and neoliberal governances form hybrids, rather than being obviously distinguishable.

The author starts her analysis by referring to Habermas and the early development of liberal capitalism that lay routes to the connection between the public sphere and free market ideals. Since then concentration of capital and oligopolism had started to overpower the public sphere, leading to interventionist state capitalism and further decline of the public sphere through the emergence of numerous political bodies from the private sphere. After that the increasing inequality between classes formed the modern welfare state. Habermas stated that in the advanced capitalist state the economic growth becomes an imperative, involving the government in the economy and creating new legitimization needs to avoid the legitimization crisis.

Urban planning becomes one of such intervening instruments, allowing it to complement and partially replace the market mechanism, according to Habermas. Welfarist planning provides not only material welfare but also intervenes in the everyday life of private people, who return loyalty for fulfillment of their demands. While the public sphere provides the basis of legitimization as mass loyalty, the requests arising from it can be contradictory to the interests of the market, creating contradictions that the government has to solve. Unlike formal and representative democracy, participatory democracy would create more contradictions in the late-capitalist welfare state and make them more visible.

Role of the individual planner

Sjöblom and Niitamo (2018) specifically clarify the difference between equality and equity, equality standing for the approach when the planner treats all stakeholders the same, and helping certain groups of citizens in equity approach, taking in account their experiences and capabilities to participate.

The authors of the article appeal to the classification used by John Forester (1989) to analyse the role of an urban planner in mediating and handling information. In his paper Forester defines five ways in which a planner can use the information as a source of power:

'technician, incrementalist, liberal-advocate, structuralist and progressive ... In the technician approach, power lies in expert information and supplies solutions to technical problems; here, planners think that political judgments can be avoided. In the incrementalist approach, information responds to organisational needs to have a project approved with minimal delay ... Under the liberal-advocate approach, information can be used by under-represented or relatively unorganised groups to enable them to participate more effectively in the planning process ... In the structuralist approach, the planner's information is a source of power because it legitimises the existing structures of power and ownership but allows people no freedom to participate in planning processes. Finally, information in the progressive approach is a source of power because it can

enable the participation of citizens and avoid the legitimising functions of the structuralist approach' (2018, p. 712).

As long as the mediating role of urban planner isn't specified in the guidelines or policies, it will be dependent on individual planner and overall ideals of the planning community.

Forester comments that it is not only enthusiasm of an individual planner that matters, but also their communicative skill, knowledge of existing particular citizen groups and access to them, ability to overcome language barriers, and more. Other difficulties are likely to come up in practice and many argue that the perfect balance between citizen groups is impossible, thus creating an unsealable gap between theory and practice. Projects are going to be very different to each other, concerning various groups and rising different problems, all of them have to be managed by individuals on micro-level planning, making it impossible to find a communicative planning methodology that can apply to all practices. The solution to this controversy seems to be to set communicative planning theory as an ideal which doesn't have to be attained, but to which practices should strive. That poses a big responsibility and broad power to individual planners, with hopes of open assessment, as the power inequality of different stakeholders turns the process into a more political one. Urban planners tracking citizen interactions online and especially in various social media resources was potentially considered as a new tool to increase democratic elements in planning practice.

1.1.3. Reflection

Participative planning has a long-established history in Anglo-Saxon and European planning practice. One of its main concerns is citizen dissatisfaction with the decisions taken by local governments and planning institutions together with an inability to impact both structural framework and decision-making processes. To distribute the power more evenly, it is important to consider all stakeholders who will be impacted by a project - local government, residents of the area and people who work there, landowners and business owners in the area, and frequent visitors. Besides them, there will be people who are indirectly impacted, such as residents of neighbouring areas who can experience a negative spillover effect, both environmental and economic (Saarimaa, T., personal communication, 08.10.2018). It can be experienced as gentrification - and the following rise of prices of rent and services or loss of a collective object of importance, sharp worsening of air and noise pollution, loss of a social and geographic neighbourhood connection. To reach more stakeholders John Forester (1989) suggests using face-to-face, letter and online communication in different languages if there are considerable minorities in the area, reaching out to schools, community gathering spaces and informal groups. These are not the full list of measures and Forester advises planners to be active. There is also a

standpoint of inclusion of non-human stakeholders in the planning process such as rare and common animal species, natural objects and other parts of a natural environment (Phillips, R. A., Reichart, J., 2000), but I am going to focus only on human agents in my cases.

Multiple actors taking part in a planning process will benefit it by bringing in more viewpoints, challenging each other. Traditional planning relies on rational knowledge, and, according to Bent Flyvbjerg (1998), the authority or a powerful agent uses rationality in decision-making as power can define reality. Therefore rational knowledge in planning context can be flawed or be false, presenting rationalisation as rationality. One of the objectives of communication in planning is to find the truth that can be obscured by context (Mouffe, C., 1999). Rational knowledge can be juxtaposed with lived or lived experience knowledge that differs from person to person and generally from one citizen group to another. In participative planning, planners give up the role of experts and turn to managerial activity. Planners in the managerial role hope to be neutral agents, bringing equal opportunities to everyone, but any individual will be bringing their own ethics and beliefs to the process (Bäcklund, Mäntysalo, 2010). One has to be mindful of that when analysing cases.

Both chosen cases involve some degree of participative planning, involving citizens, non-profit organisations and elected representatives in the process through more traditional methods such as face-to-face meetings and also online tools as voting platforms. Sherry Arnstein had outlined the vertical ladder by which it is possible to classify participatory practices by the degree of power that the citizens are led to have. Although it is simplified and does not require considering wider context and process complexity (Carpentier, N., 2016), it is useful to understand the variety of possible degrees of citizen engagement in urban planning. At first glance the participatory instruments used in Helsinki and Moscow cases are similar, so in the second part, I will review the power balance in projects' decision-making. The insight into participatory planning allows us to understand the reasons why it emerged and what values exist in it - fairness and equality of democratic governance expressed by full and accessible information, transparency, two-way communication between the local government and any citizen group, and an influence level of citizen groups on decision-making that satisfies them. I will look into how the case studies of participatory practices follow the values and what objects and spaces are produced as a result.

1.2. Technical Artifacts

1.2.1. Politics of Technical Artifacts

Langdon Winner (1986, p. 668) begins his essay 'Do Artifacts Have Politics?' with a critique of Lewis Mumford's understanding of the political qualities of technologies. Winner argues that Mumford's thesis of technological determinism is naive; one cannot expect a straight correlation between technology and the social and economic systems in which it had been developed. Likewise, the technology and instruments which evolved in a certain way cannot enforce decisive changes in society. But still, he agrees that developed societies have a certain momentum, which can rein the development of technologies in a certain way. The developed technologies might end up having overlapping qualities in democratic and authoritarian systems. Authoritarian systems due to their structure tend to facilitate more system centred and powerful technologies, with strong vertical core and fast responses, but with a letdown of being fragile and not very responsive. The technologies developed in democracies, however, have opposing qualities, such as being man-centred, weak and slow, but also resourceful, resilient and durable, as separate components are more independent, having their assets and more freedom to act.

Likewise, technological determinism speculates that the technologies can change the social and economic systems after the way they are designed. Thus a democratically developed technology will change society if introduced into an authoritarian context. Although determinism is not sophisticated, some technological imperatives might be transferred to modern societies back from the past when they were implanted into the process behind a technology. In the following text Winner showcases a few case examples of the politics in technologies, dividing them into two groups - the technologies developed to support existing hierarchies and the technologies which are 'inherently political'.

Winner's first group of technical arrangements is straightforward, consisting of those building order in the world and directing human activity. He brings up an infamous example of Robert Moses' plans for the New York city centre and specifically the Triborough Bridge that was designed in a way that the private cars of wealthy citizens would comfortably drive through and park, but not the buses, which working classes ride. The road infrastructure, in this case, is a tangible boundary between social classes, allowing preferred citizens to enjoy better-developed parts of the town more easily. Langdon Winner states that this kind of technical arrangements reflect and maintain the social order, but are not specific for this type of social order and can be used in different contexts without many transformations. These

technologies are not political themselves but can be locally designed to influence social ordering. Another example that he presents is the way mechanisation in a factory was used in Chicago. The steel moulding machines do not necessarily support inequality and larger profit for the owner of the manufacturing plant, on the opposite, they produced less product with less quality, but by the introduction of that technology at the right time, the manufacturer had destroyed a growing professional union. The machines were operated by unskilled labour and the skilled workers lost an opportunity to create a union to protect their rights.

These types of technical arrangements are straightforward and flexible as they can easily be rearranged into different configurations and reimagined in various contexts. The machines and bridges matter less politically than the places and times they are situated in.

Winner's second order of technology is inherently political. The political element is given in them, in the way they are produced, operated and accessed. The technical solution of the way a certain technology develops is defined by the social context, but what more, it requires and pertains to such a social order that is beneficial for its maintenance. The commitment to a particular order of things is passive and executed as the flexibility of choice of technology vanishes. The flexibility slowly reduces after a material equipment choice was made, money invested and a habit was developed in favour of one of the technologies. After some point, the development and maintenance of a prevalent choice become easier and cheaper than investing in a range of different options.

As an example of such differentiation between opposing technologies Winner takes solar and nuclear energy sources. They can be seen as having inherently political qualities by the way they are operated. While nuclear energy requires large nuclear plants operated by trained professionals, it is centralised and often controlled by governmental institutions, providing power tools for secretive research options and military regulation. When the risks of nuclear power are calculated and discussed, the positive decisions are pushed by the centralised governments, while the public tends to be more reluctant. The power handles that the centralised source of energy presents are centralised and can be repressive, being dependent on egalitarian groups, and being susceptible to terrorist attacks and extortion. On the other hand, solar energy is presented as more decentralised when many inegalitarian consumers can influence and choose how they use solar panel technology. While that type of solution is going to be slower, more reliant on individual circumstances and possibly present worse quality services on average, each unit will have much more freedom and the system overall will have more stability.

Winner continues his argument by writing that these technologies only have their qualities, such as decentralisation but do not require certain social structures. Solar panels

can be used in autocracies, and still would bring some decentralising effect, providing decentralising power patterns.

Bernward Joerges (1999) had written a comment on Winner's article, noting that many misinterpret the power that lies in artifacts. He points out that the politics of artifacts is in the way they have been designed, the norms and laws of the society they have been created in, rather than in themselves and how they affect the environment (*ibid.*, pp.414-416). The objects themselves can be repurposed or their context may change, but their politics represent institutional culture and the ideals of the people they have been created by, they are the physical deposit. They rarely force but often encourage a certain practice, like motorways encourage private car traffic, but not prohibit public transport. However, the interpretation of their power can change in different political and ideological worldviews.

Joerges sees a combination of discourses of control and contingency in political artifacts. The artifacts rarely have the attributed side-effects as a conscious design choice, and similarly, they are not exactly just products of blind consequences (*ibid.*, p.422). At the same time, artifacts and built-spaces are always authorised and belong to someone. They are maintained and can be changed. Consequently, their politics consist more of how they are treated and who has control rights over them (*ibid.*, p.424).

In his other essay, Winner (*Political Ergonomics*, 1995) expands on his understanding of political artifacts and ergonomics, bringing the topic closer to its use in governing strategies. Political artifacts, unlike technical ones, can take immaterial or written forms of laws and methods. And L. Winner defines them as "tools, instruments that condition the experience of power, authority, order, and freedom" (Winner, 1995, p. 147). Those tools can be designed and used through engineering, urban planning and statecraft. Planning and statecraft introduce governing through the design of social consequences, patterns, institutions and the introduction of new political actors, affecting socio-political environments and embedding certain technical artifacts and solutions.

Statecraft and engineering have opposing qualities, whereas one poses questions and influences social and political currents, the engineered solutions offer certain performance. In my work I want to study the new motorways and railways as technical objects, testing their relation to spaces and political powers.

1.2.2. Technical Artifacts and Aesthetics

Aesthetics in technology

Sanna Lehtinen and Vesi Vihanninjoki wrote a chapter about aesthetic perspectives on urban technologies (2021). As new technologies enter the urban environment they bring

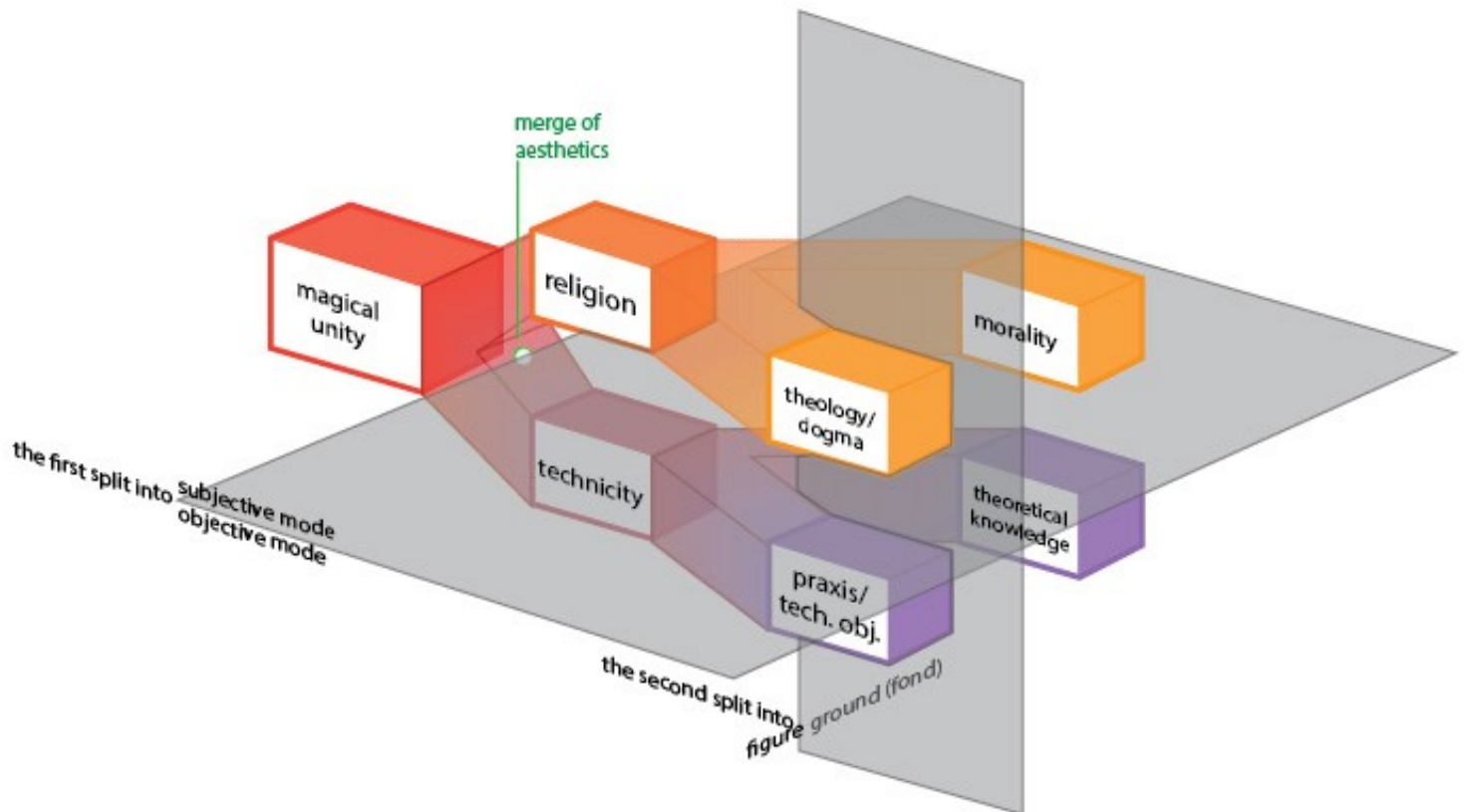
some change that is perceived as strange and unfamiliar to the everyday environment and are judged by their visual aesthetic and experience through functioning. At the same time technology coexisted with humans for a long time, with urban environments being expected to be more technologised and to have a fast pace of change (2021, p. 23). The process of technologisation goes along with ‘...the lengthy and laborious development of concrete engineering and design practices, taking place in certain particular societal contexts, thus exemplifying the prevailing ideologies and values of the time’ (ibid., 2021, p. 19).

In the book chapter, the authors take online maps as an example of a technology that changes the urban landscape but any type of technology can be relevant. New tools and technologies intervene in the daily routine, becoming a focal point for discussion of aesthetics. The everyday environment is considered to be familiar, its aesthetic is ignored and serves as a background to judge the new technologies (ibid., 2021, p. 28). At the same time while new technologies are embedded in the urban environment and create new behaviour patterns and affordances, changing the aesthetics of the city. These changes are not contradictory, as the authors have noted earlier that urban lifeforms are co-evolved with changing technologies. They also introduce the Gibsonian theory of affordances, where repeated human activity forms a normativity of actions that later result in artifacts that embody human intentions. Skilled agents know how to use them in the right way in the reality-to-us, rather than in the reality-in-itself, forming affordances (ibid., 2021, p. 26). This view on technical artifacts is similar to the political one by Langdon Winner (1989). Through further reading on technical objects and aesthetics, I want to explore the relationship between technical objects and urban aesthetics and aesthetics and politics.

Aesthetics and technicity

In the third chapter of ‘On the Mode of Existence of Technical Objects’ (1980/2017) Gilbert Simondon explores relations of technical objects, technicity and humans. He developed a worldview similar to the one in Sir James George Frazer’s work ‘The Golden Bough’ (1955) that had been in publishing with editions from 1890 until 1915. To better understand technical objects and their relation to people and government, I will introduce some of his ideas here. Simondon suggests that in prehistoric times the relation of a person to the world, their milieu would exist as a magical unity until converging forces didn’t make the magical world to fragment into objective and subjective modes of primitive mediation. The magical phase separated into technicity and religion, each carrying its own relation between a man and the world. Technical objects stood between a person and the geographical world, while religion mediated between a person and human groups.

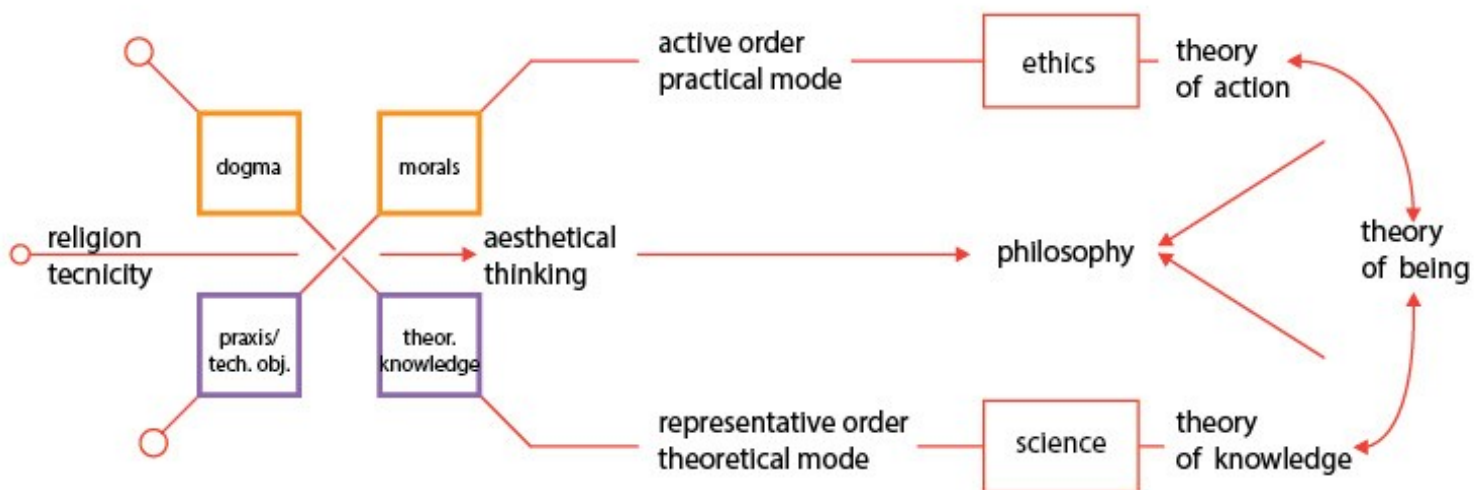
Figure 4. Split of magical unity by Simondon (1980/2017).



Before the split between technicity and religion, the magical reality would relate to people as figure and ground - figure being key-points in time and space such as equinox, sunrise, a mountain peak - the entities that are privileged from the ground - the everyday time and space, the rest of the world that exists to bear the key-points. Such key-points exist today as well, such as holidays and resorts, they also depend on a subjective perception of individuals as well - if one lives in a resort town then their key-point could be a big city. The ground is a milieu for figures, key-points, which are detached and abstracted from it. Once the objective figures became too far detached from the ground, the split occurred, turning the objective mediation points into technical objects and the ground embodied the demand of totality that the magical realm did possess. Religion brings the unity that the technicity lacks, operating subjective ground powers.

At the convergence point when the technicity had separated from religion, then aesthetic thought appeared, as an analogue to the unity of magical reality. The aesthetic thought mediates between technicity and religion, existing in the void between them and attempting to reunite two modes of existence. The works of art surpass the limits of technicity and religion, combining the physical perfection in the geographical world and religious sacredness in the human world. The aesthetic epiphany can appear spontaneously in simple technical objects that achieve perfection of completion while operating. Simondon agrees that all technical objects might possess some degree of aesthetics, but they are not inherently beautiful. The aesthetic thought has to be integrated through the human world for aesthetic quality to be noticed in technical objects. Only by existing, aesthetic thought reminds us about the gap between technicity and religion. It is a neutral point which is prolonging magical reality and searches for future unity.

Figure 5. Aesthetics in relation to the theory of being by Simondon (1980/2017).



But the technicity and religion did not stop developing and after being overloaded both split into modes of theory and praxis. The theoretical mode of technicity became theoretical knowledge as a science independent from individual applications. Theoretical knowledge took the ground functions of totality. The practical mode of technicity became the individual schemas, carrying the figural functions. Similarly, the theoretical mode of religion became religious dogma, but it was carrying the functions of figure, while the practical mode of religion became morality, carrying ground functions. Simondon also refers to the theoretical modes as representative order and to the praxis as active order. Theoretical knowledge and theological dogma in representative order can have a relation, forming science and scientific

thinking. And technical praxis also relates to morality, becoming ethics and producing ethical thinking. The science and ethics appear both from ground and figure, thus having a resemblance of the original unity but also an inherent ambivalence. Simondon (2017) suggests that philosophical thought becomes another mediator between these two modes of thinking, after the aesthetic thought being a second analogue to the magical unity. If science and ethics could converge, the relation between man and the world would reunite surpassing the need for mediators.

Paces and aesthetics

One can look at aesthetic objects in urban environments in the way Christian Norberg-Schulz (1979, 1980) describes *genius loci* - the concretisation of existential space, which can be related to the combination of the sacred and objective qualities in the aesthetic object of Simondon. The key-points, as well as *genius loci*, exist in the geometric world but carry intrinsic subjective value, transcending to magical reality.

A new introduction of aesthetic view on technical objects happened to infrastructural objects again a few years ago as drone shot photography became more available. The aesthetics of brutalism, industrial photography and such also experience mass revival in visual social media channels as [tumblr.com](https://www.tumblr.com/) and [instagram.com](https://www.instagram.com/). That specific view on geometric forms that structure territory around them was described by Georges Teyssot (2016), technical objects gain aesthetic quality, bringing meaning to landscape - the milieu and ground. The technical aesthetic objects become cultural figures.

The re-evaluation of the aesthetic quality of infrastructural objects during the rise of digital media can be linked to the idea of architecture as a mass medium by Antti Ahlava (2002). In this case, infrastructure can also be seen as architecture, gaining an 'enchantment of appearance' through the camera's lense, becoming a signifier for those who see it as a figure, rather than use it as a ground while driving in a car. Through visual media infrastructural objects become images that are 'mental representations' of appearance in the eye of the photographer, rather than technical representations for example in drawing specified for civil engineering purposes. They utilise separate language and become simulacra that show a situation, not form. This sentiment echoes the description of romantic space by Norberg-Schulz (1980) when he describes it as not geometrical but topological. Mental representations of appearance develop the degree of the abstraction from geometrical space to topological to just a situation in a 2d image. But unlike *genius loci*, such simulacra do not last long, as long as a system of values in which context they were created. However, the power of such images is to bring the needed integration of technical objects into aesthetic reality, making them cultural figures in the real landscape.

Ahlava points out that long term projects can change values throughout their life, changing the way they are represented and viewed, gaining and losing aesthetic quality. The said values of efficiency, economic profit and morality change because they are a part of larger myths around rationality and signification. The role of mythologies is similar to the one described by Jean Baudrillard (2005) as the functionalist myth that is used to justify the relation of furniture to the abstraction of the human body. As those myths change, the values change too. Ahlava argues that there exists a myth of consumption that became more important than the consumption itself. These myths support science, adding faith to it. Science requires aesthetic and mythological narrative besides technical usability in order to function. This idea is close to the comparison of morality and technical praxis by Simondon (2017), which creates ethical thinking. The myths of rationality and consumption appear in the mode of religious theory in an attempt to create a milieu for technical objects before they gain aesthetic value.

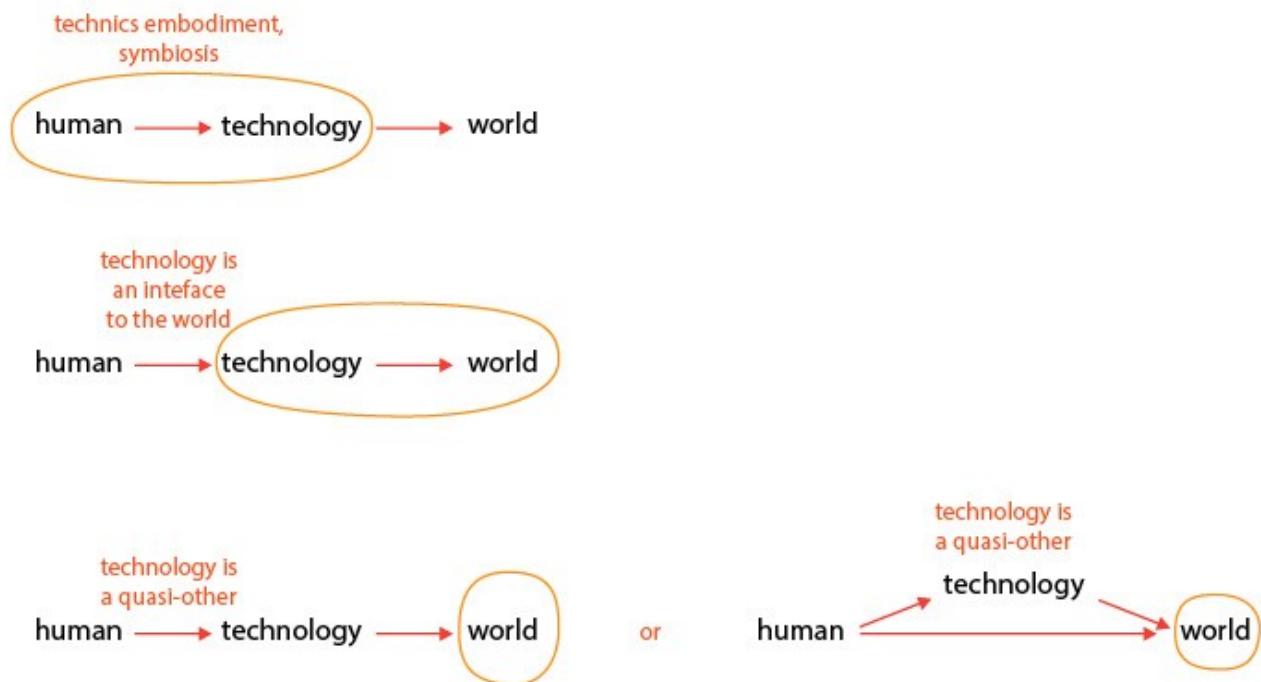
Human - technology relation

Similar to Simondons view on technical objects being mediators between individuals and the physical world, Don Ihde (2014) describes human-technology relations as an embodiment relation. If a person is a body and sees the world through an artifact, the technical artifact is not an embodiment but a mediator between a human and the world. But in the case of a person relying on the artifact as an extension of their senses, in a similar way that Uexküll (1936) describes umwelt, the sensory field that humans can abstract from, and read symbols as an extra sense. In such a case a polymorphous body image appears, exchanging human senses to symbolic ones. The artifact becomes an extension of a human body, becoming non-neutral. The examples that Don Ihde (2014) gives are glasses and a car - when one drives a car, they have to feel the body of a moving car as their own to be able to navigate. The glasses wearer also relies on them, a symbiotic relationship appears. Ihde shows this relation as $(I \rightarrow \text{technology}) \rightarrow \text{world}$.

Another example of technology is writing or cinema; writing is a technologically embedded language that became a part of the world. In this case, if the artifact becomes connected to the world experienced by the body, the relation gains an isomorphous sense. Here the technology and the world form a unity and the person has to use a connector to use the artifact, the relation is hermeneutic, the relation between the technology and the world is enigmatic, $I \rightarrow (\text{technology} \rightarrow \text{world})$.

The third relation type Ihde describes as $I \rightarrow \text{technology} \rightarrow (\text{world})$ when the technology becomes the quasi-other, rather than the world itself. That variant is an alterity relation, when technology is advanced enough to simulate the world in the way to provide meaningful interaction, in the way computer games do, creating a semblance of a real world.

Figure 6. Human - technology relations, Don Ihde (2014).



These types of relations between people and technology expose the possibility for technical objects and key-points to move between being more figure-like or ground-like. The roads can be perceived both as cultural objects on the landscape, being a figure, or they can be experienced through driving a car and becoming the (technology-world) ground-like entity, the milieu for cars, as much as railroads are milieu for trains. On the other hand, they can be seen as an extension of the human body, an interface through which the person relates to the world. That is a later stage of familiarity with technology, when it is no longer strange, but familiar and neutral in its aesthetics (Lehtinen, Vihanninjoki, 2021).

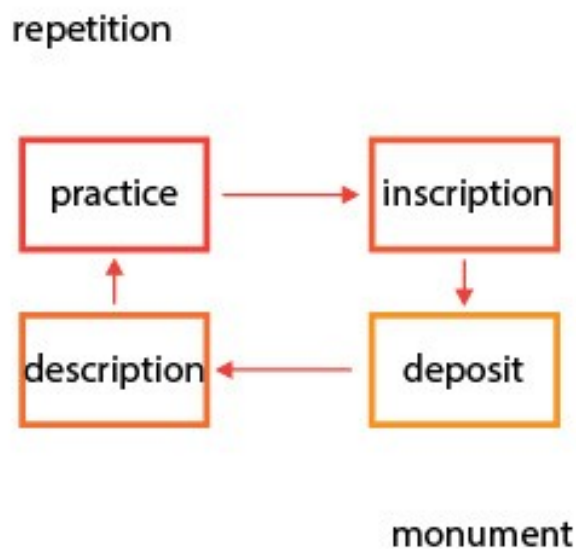
Similarly, Benjamin Bratton in his book *The Terraforming* (2019, pp. 31-32) specifies the relation between technology and humans as amalgamation. At the high rate of technologisation in current society, people without access to technology and infrastructure become disabled and excluded from the rest of the human world. Technologisation becomes strategic and biopolitical, excluding human factors from intervening in large processes, starting as simple as architectural corridors to automated factories. But as Bratton (2019) notes, ecologies always produce prostheticised bodies, so the technological prosthetisation of the human body is a new type of modern-day ecology. In this course, one can see transport systems and infrastructure as a prolongation of humans without which they would not be able to survive in the form that we exist now.

In a grimmer way, Debashish Banerji and Makarand Paranjape (2016) view the increased closeness of human-technology relation, describing technology as an amputation of human capacity. The problems and functions that used to be within human ability are exteriorated and delegated to technology, thus amputating them from the body.

Technology in every-day

To tie the review up I want to add the reading of Hartmut Winkler's article 'Discourses, schemata, technology, monuments: Outline for a Theory of Cultural Continuity (2002) where he seeks similarities between monumental structures and media repetitions such as oral traditions and rituals. Winkler refers to continuity discourse by Jan Assmann but argues that there is a systematic connection between monumental objects and repetitions. While monuments instil certain normative actions and daily practices in humans by the sheer physicality and solidity, repetitions ensure continuity through identity and repressions, forcing people to follow traditions (ibid., 2002, pp. 94-95).

Figure 7. Relation between daily practices and deposits by Winkler (2002).



Winkler (2002) argues that the repetitive actions that are caused by monumental objects are similar in spirit to the inscriptions and collective memories that follow repetitions. They have a cyclical movement of causing and following each other, thus continuities having both physical and social forms. Practices become inscriptions that become monuments. Monuments are deposits of the practices that caused them and the deposits result in continuing those practices. Such systems of actions become conventions (pp. 97, 101).

1.2.3. Reflection

In a way, conventions are similar to affordances that Lehtinen and Vihanninjoki talk about in the chapter on urban aesthetics. Both concepts are related to the connection between daily human practices and material objects or technologies. Technologies and artifacts are created to support existing practices and they also support and enforce the existence of those practices. Skilled agents know how to use the technologies in a normative way and new groups of people are educated on how to practice the normative system of activities through observation and interaction with the technologies, ensuring that the practices are continuing.

After comparing these discourses with the writings of Langdon Winner, I wonder if political tools which are topical to democratic political systems will become repetitive not only through legislation and written word but also through material objects and technologies. Participative planning is an instrument within democratic systems, which propagates certain participatory practices among citizens and governments. These participatory practices come along with stronger community networks and trust (Schulmann, 2016). Repetitive communication acts are inscribed and deposited as manuals and communication guidebooks (Sjöblom, J., Niitamo, A., 2020) in organisations, both planning and non-profit. Digital tools are created such as voting platforms and applications with maps where citizens can leave their reviews or complain and mark a specific spot in the city. And built infrastructure also can be viewed as a material deposit that can enforce certain behaviours and practices.

While road infrastructure by itself is planned and designed with numerous manuals and big data processing as sources of rational knowledge, the manuals themselves can be influenced by current ideologies and ethics. Dogmatic texts have religious roots and can be transitioned to scientific knowledge by Simondon. Humans and technologies affect each other and their relation is intertwined in many ways. The relation between participatory planning and the aesthetics of resulting infrastructure can be explored through human-technology bonds. Politics and aesthetics of Jokeri line and the Ring Chords will be explored in the third chapter after their introduction and power balance analysis in the second.

2. Case Studies

2.1. Methodology

In this chapter, I will analyse the participatory practices of the two case studies in Helsinki and Moscow. The analysis is based on a model developed by Nico Carpentier to provide a better understanding of participatory practices in media. Carpentier criticises the ladder of citizen participation by Arnstein, noting that it does not take into account the complex nature of such processes, based on their field context, history, various actors and stages. As can be seen from the literature review of participatory planning, there are many factors that can be analysed - stakeholders' involvement, actors' engagement and power, planners' impact and neutrality, different learning strategies, institutional framework, and power availability. In this section first, I will describe the method used by Carpentier. Second, I will describe how I will use this model in my cases.

2.1.1. The Analytical Model

In the article 'Beyond the Ladder of Participation: An Analytical Toolkit for the Critical Analysis of Participatory Media Processes', Nico Carpentier (2014) develops a new analytical model framework to help with the evaluation of participatory practices through a political lens. He defines the problems within participatory research as ambiguity in the theorisation of participation, vague understanding of participatory research conduct, and overall evaluation of the participatory research results. The political approach of the analytical model focuses on power like the critical perspective that Carpentier discusses later.

The author distinguishes sociological and political approaches as the main debates about participation. He criticises the sociological approach as too broad, including many types of human and technological interactions. At the same time, the political approach allows restricting the notion of participation to power relations and equalisation of powers in decision-making. There are maximalist and minimalist versions of participations that he characterises more thoroughly in the earlier work 'Media and Participation' (2011), with varying participatory intensities that are used differently in different ideological projects and by their proponents. Carpentier (2011) defines concepts related to participation such as engagement, access and interaction - all being closely related and sometimes used interchangeably with participation.

Carpentier (ibid., 2011, p.74) describes critical perspective in the case of this study in its broader sense as one focused on 'social change and (thus) social struggle', therefore always ideological and related to utopias and 'not-places'. One of the ideals is equality of power, linking the critical theory close to the political approach and making them easier to use together. Carpentier also writes that the previous researchers who used political approaches also belonged to the critical tradition, making them comfortable to combine.

Sherry Arnstein was one of such writers, Carpentier (2014) focuses on her 'A Ladder of Citizen Participation' (1969), discusses it and brings forward the problems associated with the model: simplified categorization of complex processes with suggested 'cut-off points between dichotomised positions', similarly, the difficulty to capture the multi-layeredness of participatory processes; thirdly the participatory processes have many actors with varying perspectives, defining which they make the processes more dynamic; then there is too little distinction between political and critical; finally the black-box of power is not prodded enough in the ladder-based approach. Therefore Carpentier (2014) suggests a new analytical model that consists of four levels and twelve steps, the thirteenth optional step being a critical perspective.

The first level of the model is the identification of the process and its fields in which the participation takes place. In his article, Carpentier (2016) puts importance on defining what process and fields stand for. In such a large and complicated development project one could define the participatory practices as separate processes benefiting the whole cause. To provide better field and process context, I describe planning histories in Moscow and Helsinki based on legislation and literature review. The first step is identifying a particular media process and its goals. The second step is to select fields. The third step is to analyse the position of the defined process in those fields. Carpentier (2002) notes that there exists trans-field participation – when participation in one field affects participation in another, or action in one field results in participation in other fields. Carpentier (2002) refers to Bourdieu's field theory, concluding that the specific interests and knowledge of the actors that belong to a specific field contribute to the processes within fields. He states that fields have interconnected politics, economics, cultures, social relationships and communication structures as societal fields (2016). The contemporary spatial planning field is inherently political (Carpentier, 2002) and economical (Mattila, 2018), strongly relying on rationality and rationalization (Flyvbjerg, 1998) and therefore on producing planning institutions and informing media channels.

The second level concerns actors. The fourth step is to identify active actors and their relations. The actors can be both individuals and groups (social actors, supra-individuals and social-organisational actors). The fifth step is to analyse their identities and identifications; material positions and roles. The sixth step is to understand if the chosen actors have

privilege in the field if they belong to elites or clusters. One aspect of spatial planning and the urban environment is that the decisions made in these fields affect a wide group of people, and rarely do all of them become even minimally influential actors in participatory processes. While in the media field they can be either less impacted or difficult to reach, in the cases that I am reviewing, it is important to mention the stakeholders of the processes and how many of them have an opportunity to become actors, get correct information, participate and impact the output. The stakeholders among the public in planning processes are not only residents of affected areas, but also their neighbours, who can experience spill-over effects in an urban environment, traffic or economy.

The third level delves into decision-making. One must remember that the decisions can be fixed outside of the designated official timings. The moments of fixation can be planned or not, formal, informal, explicit and implicit, short and long term, general, particular, strategic, tactical, operational and so on. The seventh step is to identify decision-making moments within the process and their significance. It is helpful to chart who has access to the participatory process and has access to physical spaces, technology, information and other actors. Finally, who can influence the organisation of the participatory and decision-making processes? Who can interact with the decision-making, produce relevant content and represent it? The eighth step is the analysis of the action within those moments and relations to the actors' identities. The actions can be discursive and material, which relates to the discursive and material powers that Carpentier describes in 'Media and Participation' (2011, pp. 141-145).

The fourth level talks about power. Carpentier utilises Giddens's power model, where transformative power has three components – restrictive, generative and resistant. The transformative capacity of power is related to human agency, free will and domination, power as a structural quality. It later can be compared to 'power to' and 'power over' as Schmidt-Thome and Mäntysalo (2014) had described them. The domination aspect of the transformative power relates to 'power over', while the exertion of free will and resistance to 'power to' (ibid., 2014, p.117). The relationship between power and learning explored by them will also be helpful to analyse the processes. Carpentier then matches the notions of restrictive and generative powers with similar concepts explored in Foucault's strategic power model. The resistant aspect of power contrasts both of them.

The ninth step is to analyse the power positions of actors in decision-making micro-processes, dividing the power into generative, restrictive and resistant. Step ten is a comparison of actors' power positions and equality in each decision-making moment. The eleventh step is such comparison in the whole process. The twelfth step is the evaluation of the power positions of the actors, their level of access, interaction and defining the participation as maximalist or minimalist. The last thirteenth step can evaluate the desirability

of the whole participatory process, moving from a political approach that had evaluated the power positions and equality into a more ideological area. Carpentier says that normativity differs in political and critical ways.

As Carpentier says this framework model approaches participatory processes in media having in mind the layeredness and complexity of such processes. The organisation and stages of participatory practices all might have varying quality of engagement, access and interaction for the actors, and thus fluctuating power distribution, as in an example with YouTube platform, where anyone who has access to the internet and recording equipment can share videos, but the rules and management of the platform depend on the private organisation. Although this model focuses on media participation, it can be adapted to other fields of participation such as spatial planning as they are also political in the broad sense and happen within defined organisations (Carpentier, 2002, p. 41, 352).

2.1.2. Application

Following Carpentier's analytical model, at the beginning of each case, I will review a history of participatory planning in each country and the legislation of the planning process using existing writings on the topic and legislative documents. That will help me to understand where the participatory processes can take place and which actors are involved. Also, the dive into the planning institutions framework will allow understanding what flexibilities in the process exist, what has changed recently and how similar projects have been handled. Looking at described existing practices will allow spotting already described problematic characteristics of the local planning practices and paying more attention to them. Such points can be minority groups involvement or consolidation of powerful stakeholders.

In the Moscow's Ring Chords case I also asked a few questions from an NPO that took part in raising public awareness of the project in 2012-2013. That took the format of email communication in August 2021, where a manager answered me a few questions in written format. I have asked a few questions that I consider to help me understand the role of the NPO in civic activism better. What instruments they use in work, and how.

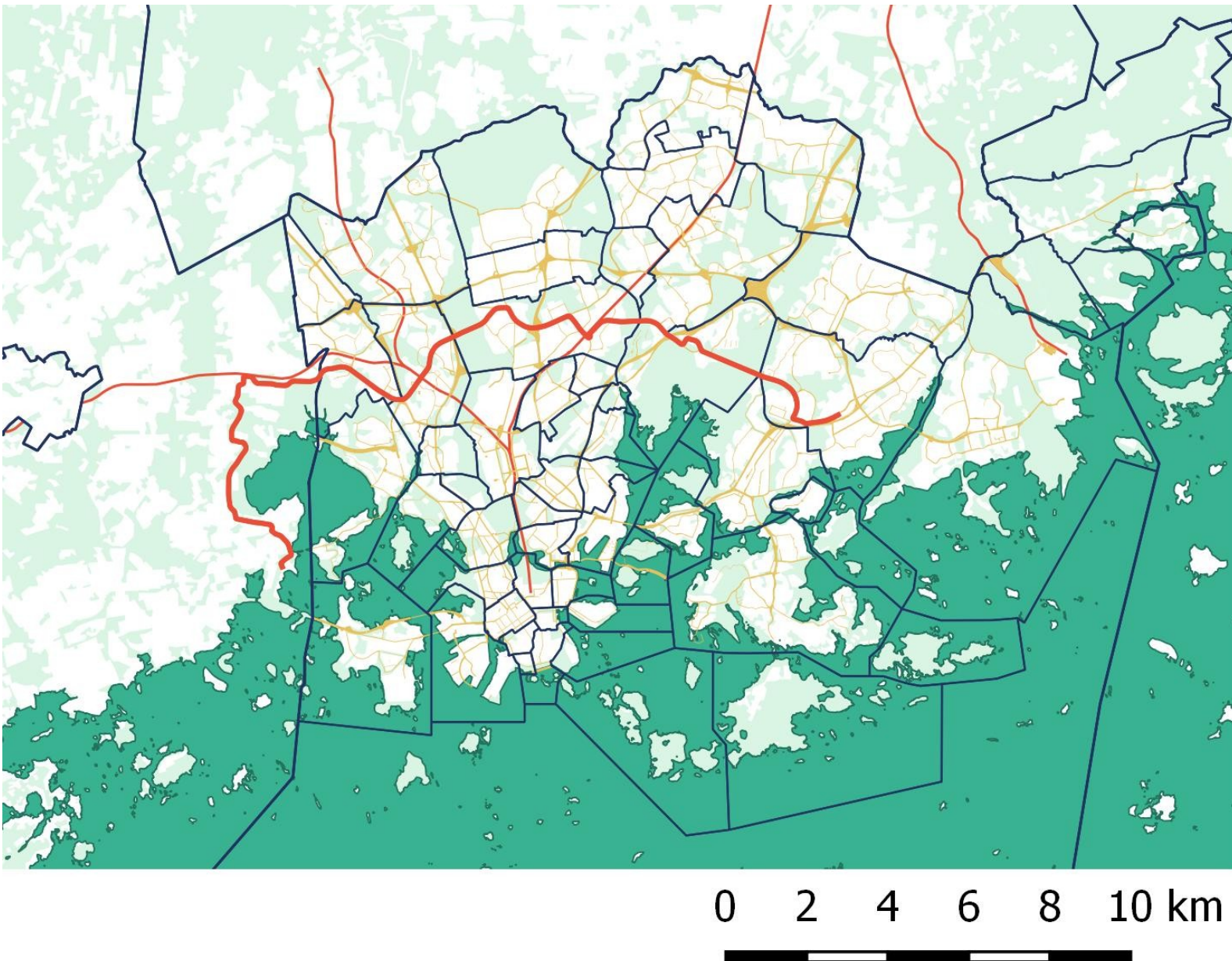
It was mentioned in the 2015 introduction to Sherry Arnstein's 1969 article that non-governmental and non-profit organisations are playing a larger part in participatory planning, allowing more marginalised voices to be heard and being able to provide better information on the inside workings of the public institutions for the citizens. The NPO that I contacted and got a response from is City Projects. Although they are not involved in the Ring Chords project now, they are one of the few more well known registered organisations that were involved in the case. The urban planning context in Moscow has changed considerably

during the last eight years and their answers can provide an insight into NPO's motivations, social standing and perceived impact on the project.

I will define actors and their standing in each process and instruments that they can use to achieve hoped results. Later I will look at the decision-making moments and see if access and engagement were equal for all actors. At last, the power relations can be analysed with the given context for each case and compared on how they manage the power imbalance.

2.2. Helsinki

Figure 8. Raide-Jokeri line.



Note. The original image had a scale 1 : 500 000.

2.2.1. Urban Planning Field

Legislation

The National Land Use Guidelines (Valtakunnalliset Alueidenkäyttötavoitteet) of Finland were developed in the Ministry of the Environment in 1999 and enacted by the Parliament in 2000, getting into action in 2001 in the form of the Land Use and Building Act (1999). It has

been in force for twenty years with the most recent revision on the national land use guidelines from 2017. The Land Use and Building Act outlines the system of regional and local planning, the objectives, and planning processes. Currently there is work being done preparing a new Land Use and Building Act that has to be completed in 2021, focusing the objectives on environmental sustainability and participation (Ympäristöministeriö, n.d.). The designated section on the website of the Ministry of the Environment regularly publishes news and reports on the work done and offers the public to give feedback and to take part in webinars. The pages are easy to understand and offered in Finnish and Swedish languages that are both official languages in Finland.

The Regional Plan (Maakuntakaava, 1:150 000) is developed by the joint municipal board (regional council) in order to adapt the national objectives to the regional development goals. That consists of a regional scheme, plan and a development programme as defined by the Land Use and Building Act 1999 for all regions. The Regional Strategic Plan and Regional Land Use Plan are long term and the recent Helsinki-Uusimaa Vision 2050 was accepted in 2020 by the Association of Uusimaa (Uudenmaan liitto). The previous plan had been in force since 2007. A Regional Programme is issued every four years, and a Smart Specialisation that focuses on innovation is active until 2035. The precise Regional Implementation Plan is issued annually. There are Uusimaa Structural Plan (Uudenmaan rakennesuunnitelma), and Regional Plan (Seudun maakuntakaava) for three areas until in the Uusimaa Plan (Uusimaa-kaava) 2050 (Uudenmaanliitto, n.d.).

The Regional Land Use Plan covers all types of land use, and can be further developed into phase regional plans (vaihekaava, 2010-environmental hazards, 2014-growth of HMA, 2012-wastewater treatment in Espoo, 2017-competitive region and wellbeing). The planning process for it consists of six steps - at the initiation of the process by the regional board background information and reports are collected, on the second step objectives are defined and displayed for the public. After that the public feedback is evaluated and impact is assessed. On the fourth step the draft is prepared and exposed to the public again. Then the plan proposal is prepared and displayed. At the final step the plan is approved and the public can appeal with an administrative court and then to the Supreme Administrative Court. There is also a Transport System Plan separately for Western, Eastern Uusimaa and Helsinki regions with the recent document from 2019 until 2023. It includes not only public transport, private car traffic and freight, but also walking and cycling.

The next step before development is a Master Plan (Yleiskaava, 1:40 000) accepted by a local council in Helsinki and went into force in 2018. It has schemes with functional areas, concept plans, and a vision for 2050 (Helsingin Kaupunki, 2016). During development of the City Plan, public opinions were successively collected in all phases - the start in 2012 by information sessions and seminars, in the draft phase in 2014 during information sessions

and workshops, and the proposal development phase in 2015 in information sessions. Besides event participation, citizens could discuss the master plan on a website and by contacting planners or officials.

The city also has a City Strategy 2017-2021 (Kaupunkistrategia) and a Land Policy Guideline 2017 (Maapolitiikka) which realises the goals of the city strategy. The Land policy guideline influences policies of plot sales and management (City of Helsinki, n.d.).

A Local Detailed Plan (Asemakaava, 1:2000) is approved by the local council or municipal board / committee. The Detailed Plan must include a report, boundaries of the area, public and private uses of land and water areas, building volume, foundation and type of construction.

The planning procedure for a detailed plan is outlined in the Land Use and Building Act in Chapter 8. The drafted plan has to be published for all interested parties including affected neighbours, and all interested parties have an opportunity to propose negotiations to an environmental centre. The public presentation method is dependent on the significance of the plan. Once all negotiations are settled and the plan is approved, the approval decision also has to be publicized.

In Chapter 12, Section 85 it is noted that streets construction is approved by local authority, and in Sections 126 and 128 it states that acquisition of an action permit is not needed for any street or road action according to the Public Road Act 1954, as long as it adheres to a road/master plan. The Public Road Act defined roads as highways and local roads that are used by public transport (1954, §1, 2). The Public Road Act of 1954 was repealed by the Highways Act by the ministry of transport and communications of Finland in 2005 with amendments from 2009. But the highways act (2005) touched only upon highways that are separated to classes I and II and highway ferry routes, and also their accessory and service areas (Sections 4-8). Section 13 on the construction specifies that highways must be following land use plans and be as economically efficient as possible. Later, road safety and environmental factors are also mentioned as important. Sections 16 and 27 make provisions that the beginning of area research, drafting of preliminary and final engineering plans have to be relayed to the local municipality. In their turn the municipality should organise a public announcement and notify real estate owners and other stakeholders whs living, working and other conditions might be impacted by the highway. All defined stakeholders must be able to follow the research and drafting processes, engage in these processes, declare their opinions and object to decisions during the thirty days that plans are exhibited.

Planning system's development

Similarly to the rest of Europe, the planning system in Finland in the 20th century was traditional and based on rationality. As Sari Puustinen, Raine Mäntysalo, Jonne Hytönen and

Karoliina Jarenko describe in their article (2017), the change towards communicative planning had started in the 1990's. The Land Use and Building Act (1999) encourages planners to engage the public in official planning projects, and to take a more managerial role, rather than one of an expert. The change of the planner's role was slow, and communicative planning became widespread among practitioners in 2010's.

Puustinen et al. write that the current level of trust that citizens give to planning institutions is high although declining. They explain that the high institutional trust is based on the historical relationship between the government and citizens that had been evolving since the beginning of the 19th century (ibid., 2017, pp. 77-78). After the country was occupied by the Russian Empire, it gained a status of Grand Duchy, meaning that it was governed autonomously and had its own government and legislation. The sense of its own superior state developed then, allowing the separate Finnish government to enjoy citizens' trust. Later attempts from the Russian government to russify Finland led to further appreciation of autonomy and created striving for full independence that was gained in 1917. The authors stress that this route of national liberation and development led to '... strong positive trust in law, administration and administrative institutions, such as the planning system' (ibid., 2017, p. 78), unlike in other liberal democracies that '...emerged from distrust of governmental authorities...' (ibid., 2017, p. 77).

To answer such trust, planners and other governmental authorities took responsibility to create a 'good environment' and developed high standards of professional ethics (ibid., 2017, p. 79). The given responsibilities meant that planning institutions wielded greater jurisdiction and creative and decisive power. During the 20th century the planning institutions had a strong top-down model of governing, which later was challenged by the neoliberal elements of the 1999 Land Use and Building Act (ibid., 2017, p. 71).

Pia Bäcklund and Raine Mäntysalo write about the planning theories prevalent in Finland in the 20th century (2010). They list comprehensive-rationalistic, incrementalist, communicative and agonistic (ibid., 2010, p. 333). Comprehensive-rationalistic planning theory is the earliest, it relies on experts in the planning field to collect and analyse information and then public administration makes decisions based on those results. One of the weak sides of such an approach was that the gathered knowledge is value-free, so the separate party could take objective decisions based on rational data. Not only the planners who collect the data but also the citizens who possess the knowledge and opinions could little influence the decision making.

The incrementalist approach promoted by Lindblom since late 1950's and Lindblom had attached the value to the planner's knowledge. Incrementalism suggests that groups of people who have their own interest and agenda have to defend their values against other

groups of interest in a political arena, therefore providing an aggregative democracy to planning. Decision-makers in such a model focus on a certain problem, investing in various sides and forming a subjective opinion after listening to negotiations by all sides, providing space for all participants. Later communicative planning theorists have argued against this theory as the interest groups are less motivated to reach consensus through understanding each other and also as incrementalism provides better ground for established powerful actors. Incrementalism is susceptible to corporatism and strong political coalitions also called democratic elites have an upper hand over smaller groups who more often bring a change.

The communicative planning theory was based in early 1990's on deliberative consensus seeking between interest groups through habermasian communicative action. The citizens are valuable actors in this discourse, but the critics argue that the power relations are not fully considered in this theory, as deliberation of the problem can be conducted through persuasion. Thus, the found consensus might be rejected after the social conditions change and the power relationships are destabilised. The authors refer to Mouffe (2000) for whom the deliberative model ignores political struggles and tries to reach a transcendental reason.

The agonistic theory considers actors as both non-political and political in the two perspectives of thin and strong democracy. Thin democracy is similar to the aggregative democracy discussed in the article together with incrementalism in planning theory, where people start acting once their interests and individual liberties are at stake. Strong democracy supposes that in political communities all interests are common, affecting all people without differentiation of interest groups. Combination of these two views of actors helps to resolve tensions created by aggregative and deliberative models of democracy. The agonistic planning theory does not strive for an universal consensus as true mutual understanding is doubtful, but prioritizes mutual respect of all parties coming from different experiences. Thus creating partially consensual decisions, when all stakeholders acknowledge that a true consensus can not be reached.

Participatory and communicative planning challenges

Going back to the article by Puustinen et al. (2017), they note that the change of urban planning towards communicative objectives and the perception of planners' role was not met enthusiastically by the practitioners. The transition was slow and planning practitioners still viewed themselves as field experts who set norms, formulate problems, design solutions and control decision-making moments during the first decade after the new Land Use and Building Act (1999) had been implemented (ibid., 2017, pp.47). The Land Use and Building Act imposed some contradictions to the established planning practice. It not only brought the communicative planning ideals such as bottom-up participation, but also its neoliberal elements suggested introduction of market economy concerns to urban planning. The

neoliberal reduction of governmental authority together with the departure from long built professional ethics and ideals, leads to a loss of institutional trust (ibid., 2017, p.78).

Puustinen et al. suggest that a solution for that problem can be growth of a deliberative 'bureaucrat'. Deliberative planner should possess good communication and negotiation skills and support creativity of stakeholders, besides having an expert insight (p. 74). The authors hope that a personal stance and the expertise should allow planning practitioners to approach interactions with private stakeholders and prevent those with monetary goals from taking advantage over citizens. The authors also note that due to quite radical shift towards neoliberal governance, Finnish society was not well prepared for such reality unlike Western European and Anglo-Saxon counterparts. Nevertheless, planners who manage to learn how to be organisational, rather than occupational professionals, can build a new culture of interaction with citizens. Together with weaker institutional trust, such deliberative practice can develop a warranted trust, the trust that is voluntarily given to planning institutions, but with clear understanding that it can be taken away when citizens feel it is ought to be (pp. 79-81).

However, researchers Jonas Sjöblom & Annaliina Niitamo (2020) see deliberative bureaucracy in planning as not enough. They write that being a deliberative bureaucrat, who is already not a rational technocrat, but not a fully collaborative mediator, urban planner in Helsinki still represents a top-down, rational-functionalistic institution. Striving for a communicative planning approach, planners should assess and reflect on their role and use of power, and take the intermediating role for various participants, encouraging them to enhance democracy, justice, environmental and social sustainability. Here the authors call for a 'civic friend' to take place instead of a neutral bureaucrat. I read this not as a critique of the deliberative bureaucrat, as researchers like Puustinen et al. (2017) did not expect neutrality from a planning practitioner, but a benevolent contribution of skills to help citizens to counter private developers and stakeholders.

Civic friend is a practitioner with moral values, but how close are they to the incrementalism described by Bäcklund and Mäntysalo (2010)? Irish researcher Mick Lennon (2020) argues that at the current state of discourse and design practice focused on public good is reliant on 'the complexity of relationships between debates at different scales and among multiple agents on how to understand and manage our interactions with each other and our environments' (2020, p. 805). Such complexity of existing justifications results in the influence of those who rationalise what public interest could be through achieving authoritative identities. Lennon M. concludes that: 'planning is the activity of justifying: (1) the identification of decision situations; (2) how decisions should be made in such situations; and (3) the decisions that should be taken' (2020, p. 805) To avoid exceeding the amount of

such reflections Lennon (2020) suggests to turn to normative justifications and to criticise the planning methods in specific contexts, rather than to analyses of what planning 'is'.

Lennon (2020) urges planners to reconsider the utilitarian and planning theorists to reconsider possibility of reaching publicly positive goals only through suppression of private stakeholder and economically driven actors. Lennon (2020) hopes for the planners to find better resolutions where public good can be achieved along with improvement of information management and use. The lense which separates public service delivery (ends) and private sector and property companies (means) are unnecessarily correlated, to the extent that one can not be achieved without suppressing the other, like in a zero-sum game. Not coming from a Nordic planning context, this view can be criticised as being unfamiliar with the post-welfare state, especially looking at the article by Niitamo (2021), where she describes positive effects of the 2008 crisis on the quality of urban planning in the Netherlands.

The shift of losing the role of an expert and becoming a mediator between stakeholders and economic interests lasted until 2010's. However, Annaliina Niitamo still sees an issue in the market dependency of urban planning decisions (2021). In her article she explores the current state of the communicative planning discourse among professionals in three European countries, one of which is Finland.

All the cases were recent brownfield developments of roughly the same scale near city centres. There are many private and public stakeholders in development projects, so Niitamo defines participation only as planner-led inclusion of citizens in the process. Niitamo also introduces terms of discretion and street-level bureaucracy. Street-level bureaucracy is a process where the planners interpret existing policies and decide on the level of public involvement in a project after the participatory guidelines are met. Discretion is the degree of freedom in the legislation that the planner can wield to design the participatory process. Thus, having the knowledge of opportunities in the legal framework, the planner can start helping stakeholders by consulting, becoming an 'active facilitator and mediator'. Depending on time and resources, planners are able to selectively help those stakeholders that they prefer. Niitamo (2021) of the article sees that both as an opportunity and a flaw of the current organisation, depending on the values and personal views of the planner.

The feature of brownfield development is that as the territories being developed are empty beforehand, there are no current residents that would be taking part in the planning process. Niitamo warns that the rest of the citizens, especially those who live in the neighbouring areas should be also involved in participation. Not only will they be deprived of the possible previous uses of the redeveloped territory, but they will be likely to experience the economic spillover from the new area. Niitamo (2021) points out that the negative

outcomes can be gentrification, lack of useful and also new unwanted land uses. However, there are few guidelines that exist to help and navigate planners through public involvement in brownfield redevelopment projects. Without current residents and private landowners, the planner has to determine what public they want to involve, how to do it and if it is needed, which gives a lot of discretion, but not much help in guiding and setting limits.

Unlike in Denmark and the Netherlands, in Finland, citizen participation is not deeply rooted in the 20th century, but it is required by law. However, Niitamo A. mentions that recently urban renewal projects have been used for commodification of housing, rather than welfare housing provision and democratic engagement in Copenhagen and Amsterdam. Such strategic growth planning is tied with the global growth regime, which can affect the situation in Finland as well, so it has to be considered in the future communicative planning projects. As Niitamo refers to Mattila H. (2018), the transformation from previous form of welfarist planning to more neo-liberal has been happening since the 1990's. And although it does not mean a departure from municipal government, as more new actors are included, developers and construction companies have strong economic drivers to decision-making. Another issue that Niitamo (2021) addresses is the lack of direct citizen inclusion in planning processes in Helsinki. The institution of citizen representation is well established as advocate groups and elected government bodies constitute collaborative rather than participative practice.

As a result of nineteen expert interviews and two group interviews with twenty three informants from municipal planning organisations, Niitamo A. determined three discourses of brownfield participation processes between planners.

First one is unchallenged professionalism, which in Finland is based on a historically strong rational planning method which resulted in high technicality and complexity of urban planning. Further Niitamo (2021) expands the examples of the discourse such as: '(1) expert knowledge, (2) participation as conflict management, (3) maintaining control of uncertain issues, (4) one-way informing, (5) lack of stakeholders, and (6) temporal disparity in participation.' These examples refer to cherry picking of data gained from participation to support already predetermined goals, presenting citizen interaction and informing as participatory process, legitimation through choosing citizen knowledge, control of presented data and can be described as planner centred staged participation. This opinion clashes with a more optimistic view that was shown in the article by Puustinen, Mäntysalo, Hytönen and Jarenko (2017). Puustinen et al. have based their perspective on the earlier research done by Puustinen in the 2000's, concluding that the unchallenged professionalism is less of a problem in 2010's.

Second, institutional ambiguity. Long established institutions with many branches and divisions are often hard to navigate. As Sugar was encouraging planners to take more responsibilities as mediators and navigators within institutions, legislations and possibilities for various stakeholders, Niitamo had noticed that navigation within organisational structures is challenging for planners as well. Niitamo lists four main struggles: '(1) the incomprehensibility of organizational structure, (2) lack of shared vision, (3) institutional conflict, and (4) practical organizational challenges'. The internal institutional conflict is especially present in Helsinki as a cross-sectoral power struggle and the struggle of getting support from the financial department. The leaders and managers have to be as involved in participatory discourse as the citizens and the planners, helping with organisation and implementation of projects. Nico Carpentier (2016) also noted that one of the main struggles of analysing participatory processes is the complicated nature of human and organisation interactions. Planners as the experts who work in that field are expected to guide stakeholders through complexities of the planning processes, but even for long-time practitioners the navigation can be difficult.

Similarly, Bäcklund and Mäntysalo (2010) discuss Finnish administrative system, stating that as municipalities exercise self-governance, the participatory practices are also dependent on politics of a given municipality. Such a complicated and independent administrative system has its strengths and drawbacks. Each municipality can decide what strategy they want to follow according to resources and goals, but it creates an opportunity for conservative inaction and keeping rationalist planning. Until now representational democracy plays a large role, and comprehensive-rationalist planning which was dominant in the previous century still influences the current situation. At the time of writing the article, the representatives were thought to form an objective opinion on the planning proposals, and then the proposals were either approved or rejected, as only those options are available at such a late stage of planning process. New ideas and complementary views are not widely accepted in this practice. The results of this article's research show that the five cities have very varying approaches placed in all the described planning theories. The example that interests me, Helsinki, is evaluated as having disorganised approaches from different departments for 2009. Niitamo (2021) worries that such disorganisation leads to poor coordination. While some departments used new communicative approaches, others lacked initiative and couldn't handle citizens' responses and were comprehensive-rationalist. However, the council strategy that was issued for the years after 2009 was more keen to explore participation.

Bäcklund and Mäntysalo conclude that in 2009 Finnish planning system still carried a rationalist model of planning as the institutional structures had not changed much. They suggest that some core values have to be reviewed, questioning the settled institutional

structures, as the planning theory keeps separating from the practice creating tensions and institutional ambiguity. As seen from the 2021 article by Niitamo, that problem was not completely solved in a decade and kept similar features such as inconsistent values and competitiveness, not only in different municipal planning organisations but also between divisions..

The third issue for Niitamo (2021) is constraining economic rationalism. She had focused on it more in depth than Puustinen et al. (2017). The rationalism is exhibited through: '(1) economic fluctuations,(2) need for speedy construction and (3) the high cost of developable brownfield land.' Although the competitive environment of global companies and skilled workforce is not as pronounced in Helsinki as in Amsterdam and Copenhagen, these challenges exist in neoliberalising Finland. Moreover, the construction of housing for the growing population of the city coupled with a large amount of government subsidised housing is considered a de-politicised issue. The speedy construction time hasn't been opposed much, as it is seen as a universal good. But following the experience of Amsterdam during the recess years, slowing down the building process allows more time for deliberative design and closer cooperation with the citizens, better analysis and judgement, better organised processes. Slowing down the rush of construction companies and other economically driven actors could allow more discussions and more space for imagination.

In the conclusion, Annaliina Niitamo writes that the existing participation practices are imperfect, and even among planners participation is vaguely used as a term, with some experts doubting the need of citizen impact in urban planning. Finnish planning practice is less involved in the early-phase participation, as further discussed in the article by Eräranta S. et al. and aimed at evening material inequalities. Eräranta S. et al. instigates individual practitioners to get more involved in value-based discourse and take more responsibility as actors, broadening participative process further from only the urban planning stage.

Hanna Mattila (2018) discusses the applicability of Habermas' theory of legitimacy, public participation and market mechanisms to the Finnish welfarist urban planning. The differences from Anglo-Saxon democracies started as the Finnish state emerged later and developed more harmoniously with the civil society. This sentiment is similar to the one by Puustinen et al. (2018), although Mattila specifies that the land use policy became connected to the economic goals mainly in mid-twentieth century along with starting urbanisation of the country, and not at the turn of the millenium. That led to an exclusive way of planning new urban and suburban areas with little trace of publicly open documents left, which later was called 'Finnish consensualism'. That represents a culture where deliberation and consensus are reached between few political and economic groups, not involving the

broader public. Such culture caused private interests to overshadow public good ideals, resulting in cheaper planning solutions, where the future residents had to be responsible for consequences such as long commutes and transport unavailability. This way of urban planning was disputed in the 80's, leading to so called 'neo-liberalisation' of the planning system in the 90's and 00's.

In Finland the neoliberal shift of power from the state to municipalities, rather than competing regions, was milder than in other countries as the welfare state would compensate the less fortunate municipalities, so the local governments could still provide to citizens, getting legitimacy to their actions and avoiding management crises. Municipalities have freedom to choose the extent and methods, so the public participation by cities is mainly held as consensus building with interest groups rather than adversarial participation. Public-private partnerships are carried out through land use agreements, but often important planning decisions in them are made before involvement of the public and then avoid discussions on those topics. Although the well-established interest groups and development companies had been influential in recent decades, it seems that activist groups and smaller companies were able to push the government for regulations, adding a wider public into the planning framework. However Mattila points out that activism and discourses in the public sphere is different from organised participatory planning. She concludes that while there are problems in the way Finnish planning system is organised, it still holds system-level legitimacy, and with the increasing interest from the public, there will be less space left for the economic imperative in favour of the public sphere concerns.

Online participation in Finland

Sjöblom J. and Niitamo A. (2018) use online discussions of Helsinki citizens and interviews of planners to study relations and tensions urban planners have while taking part in online discussions with citizens. The authors state that for the last two decades the online presence of Finnish citizens has grown drastically. Some urban planning and self-organising citizen discourses had moved online, mostly to Facebook groups, one of which has over 18000 members. In theory such massive digitalisation was supposed to democratise planning practice, bringing the voices that have not been heard before and involving diverse groups of citizens. However, authors note that in practice the representation in web discourses is still limited, preferring older, well educated and higher income citizens who are competent in planning and are tech-savvy. The groups that had been overlooked are 'young people, citizens with an immigrant background and citizens with lower income or education levels'. Also the engagement of families with young children, young people and immigrants was found to be overall low in Helsinki.

It is important to note that in Finland citizens' activity online is not an official source of information, isn't regulated and can be used through initiatives. Governments' Facebook groups gather attention and interaction through likes, shares and comments from the public, but are not considered an integral part of official communication, causing some confusion and leaning to mostly only one way communication.

According to the research the most common practice was 'social media listening'. Here planners have to know how and where to conduct observations, reflect on them and find a way to put results in official reports. Others are spreading information, hybrid strategies including offline and physical communication with links to online material. But in order to reach more marginalised groups, it was still necessary to use 'offline interventionist strategies' such as meeting people in town squares, schools and malls. The problems that have been found are active and passive roles of planners in social media, equality and equity in participation and resource allocation.

As it had already been noted, social media discussions are not regulated through legislation or manuals, so individual planners have to determine their involvement in such discussions and the influence of the discussion for each project. Therefore many are confused by the role of the planner, do planners have to actively search for technical solutions advised by citizens, do they extort some informed opinions from the citizens, is there a need to get involved in dialogues on social media. Not all groups of participating citizens have technical knowledge in the urban planning field, so a more technocratic approach will be harmful for the less informed groups of citizens. Some planners complained that the social media listening is happening after the working hours and involves personal social media accounts. That makes communication more personal, but the planners become more vulnerable and emotional aspects can become involved. Some feel that face-to-face communication provides significantly better results with more involved and empathetic discussions. However advantages are reaching younger citizen groups, early surveys of public opinion and possible discontent, and more positive communities of activists that produce ideas and push for change rather than oppose anything suggested by planners. It seems like producing more research about methods and creating guidelines for discussions online can help urban planners and normalise such discussions, making them a reliable tool.

Secondly, equal and equitable opportunities for participation are viewed differently. Planners encountered that residents' communities differ from each other by their interest and investment in the change, positivity, their overall informedness and ability to pinpoint problems and suggest solutions. As previously stated, more affluent citizens with higher education level engage more in discussions and can offer more knowledge in form that is easier for planners to understand and use later. Such groups reinforce incrementalist

approaches, but some professionals complain that marginalised groups are more difficult to recruit to create better balanced discussion.

Thirdly, when planners have tight timeframes and insufficient resources, the discussions and effort to produce them will be less. Promotion of information and debates in a few languages among different groups of citizens on multiple platforms require specialists' time and funding. Communication with the financial department could also be easier and include participatory practices expenses in guidelines.

The authors conclude the article by saying that online participation has its cause and has positive effects as increasing comprehension among citizen groups and allows citizens to initiate more. They suggest taking steps toward anonymisation of 'social media listening' planners under company names, or legitimising the use of social media by the planning institutions to provide determined platforms for further citizen discussion.

Susa Eräranta, Pilvi Nummi and Maarit Kahila (2015) write about the role of web-based participation in planning competitions in Finland. Participation became even more accessible for citizens when Internet access became very wide, covering all age strata in the early 2010's. In the two case studies, participation was implemented already in the project competition stage. They are of different scale and use - one urban renewal competition and another a housing area project.

The authors point out, the use of web tools requires new approaches and resources from the organisers - planners, researchers and software developers. And after the participatory tools were used, there is a need for the results to be interpreted, be it researchers or experienced planners and passed further to the organisers, competitors and general public. The authors mention that during the projects' evaluation phase the respondents did not always read extra materials about the entries. As planner's role in participative planning leans towards helping out and mediating rather than decision-making as argued by Niitamo A. (2021), it will be important in future projects to find a balance between simplification, completeness, standardisation and the amount of effort that such presentation requires.

In one of the studies the main focus of the participation was the resident survey, which used softGIS ('soft' - for the soft subjective information which is collected along with 'hard' objective locations and other data). The focus of the other one was in public evaluation of the entries. Public evaluation of the entries also happened in the first study, but only after the competition results were announced by the jury, resulting in lower impact and interest from the respondents. This confirms the sentiment of Arnstein (1969) that citizens want to feel empowered and are less interested in participation when their impact is not obvious. Here Eräranta et al. are reflecting on the topic of a possible clash between democratic values and

jurys' independence. There is a danger of the jury's partiality if the public evaluation of competition entries is announced first, leading to unwanted populism.

2.2.2. Raide Jokeri Line

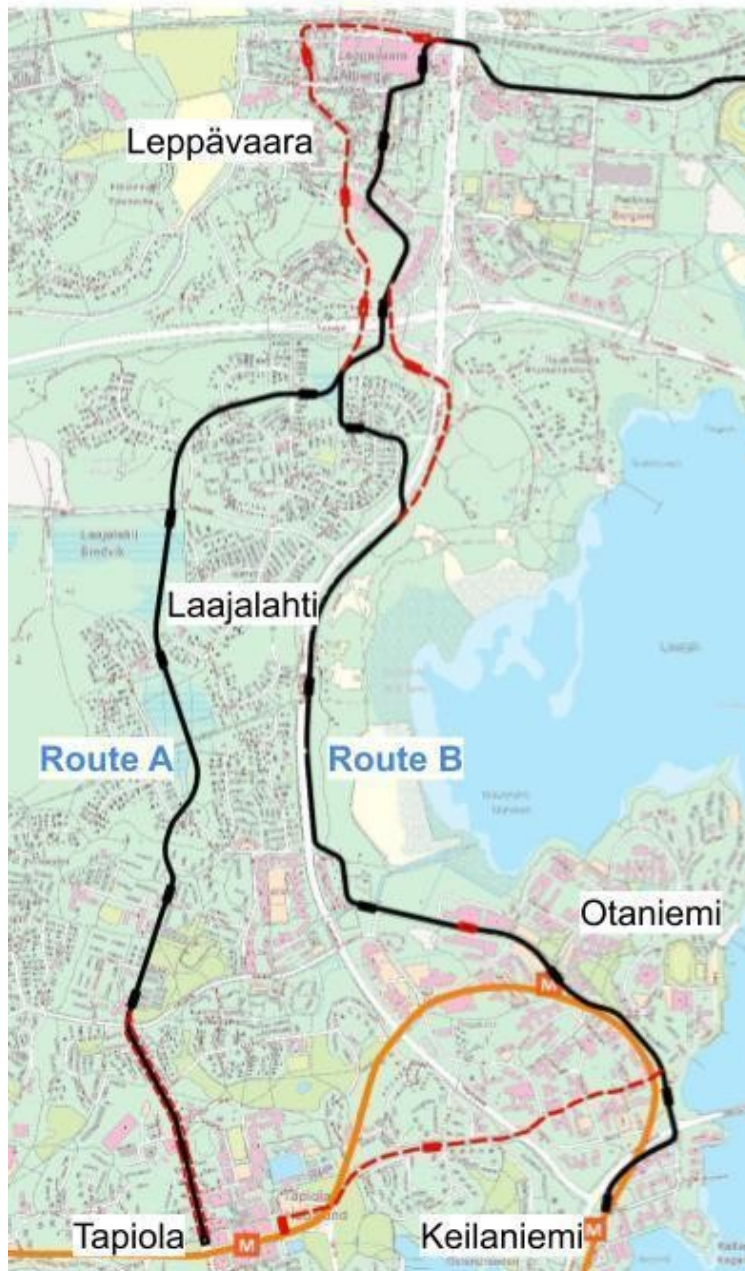
Raide Jokeri is a large-scale light-rail project that has been in discussion for more than a decade, spanning for 25km between Espoo and Helsinki; the route is expected to transfer 100 000 passengers by 2040. The similar bus route is transporting 40 000 commuters a day. The light rail system is considered to be faster than trams, safer and more sustainable than private vehicles, with stops at main destinations and transport hubs of the two municipalities (City of Helsinki, 2015).

The idea for the cross-town route has been there for a long time, the Jokeri bus line was developed and funded to start operating by the Helsinki City Plan (1992). It was implemented in the 90's. Later, in the turn of the millenia there were plans to conduct a study on feasibility to expand a tram line along the Jokeri route. The Helsinki City Plan (2002) had reserved some areas for the future Jokeri line construction. With the lack of intercity connections, the multi- nodal strategy for the city needed better connectivity from Itäkeskus and Viikki to Tapiola and Otaniemi with stops through Oulukylä and Maunula to create better possibilities for businesses. In the 2004/2006 Uusimaa Regional Plan, the first one that had been developed after the new Land Use and Building Act (1999), did mention the importance of the cross-border light rail line again. The Regional Plan was developed until 2025, with 2030 as a revision date. The 2007 Commentary to the Uusimaa Regional Plan had already mentioned the Raide Jokeri as a light rail project that has to be implemented after the similar bus route is well established.

In 2009 the route and stops of the Jokeri line were revised together with a feasibility study, stating that the bus line was exceedingly successful along with the Espoo City light rail studies that were conducted in the 1990's. The 2009 Raide-Jokeri Report was ordered by the two cities, the ministry of transport and communications, HKL (Helsinki City Transport) and YTV (Helsinki Metropolitan Area Council; current - HSL, Helsinki Regional Transport Authority) from a private consultant WSP Finland Oy. The report states the responsible members of the working teams, making it more transparent. The studies on the impact on residential areas were made, along with some dialogue with residents of Helsinki and Espoo. The report does not delve into details, stating that the feedback was mostly positive and taken into account in the design. Some feedback was collected through a designated project website in late 2008 and early 2009. The criticism was focused on local design solutions, rarely questioning the project as a whole.

In 2013 the Espoo route was changed, initially it was planned to have Tapiola as an end point, but was changed to Keilaniemi after citizen complaints and the Espoo branch of the Green Party (Espoon Vihreät) supporting them (Elo, 2013, June).

Figure 9. Two investigated route options (Tutkitut linjausten alavaihtoehdot).



Note. By Trafrix, Sito, WSP. (2014, January 17). Selvitys Raide-Jokerin linjausvaihtoehdoista Espoossa.

Both Helsinki and Espoo city websites have a page with information and news relevant to the Raide-Jokeri project since May-June 2015. They are easy to find with displayed contact details of the responsible project managers.

Another study was commissioned by the cities in 2015 from Ramboll Oy and WSP Finland Oy and completed in 2016. The cost estimates were calculated in 2015 and 2019 with the construction starting in late 2019. At the same time a separate website for Raide-Jokeri Light Rail started operating with updates on the schedule and other news. The website has links to popular social media pages of the project with the Facebook page having the most followers and the page manager answering to people's commentaries.

Urban planning field and the Jokeri line planning process

The Jokeri line project was intended to provide two cities with a fast, secure, affordable for users, sustainable commuting option. The attributes of light rail in contemporary cities are efficiency and high tech, comfortable urban environment due to quietness and lack of pollution, and overall cleanliness. Like the metro system, light rail is a symbol of a successful metropolitan city, and that city image is another contribution of the Jokeri line (S. Laine, 2019). Participatory

The planning and construction of the light rail line takes place in fields of spatial planning and urban environment. It belongs to the urban environment not only as the light rail is constructed and placed in it and affects urban integrity of public spaces and distant parts of the city, but as public transport trains and train stops will be a part of public spaces as well. Similarly to the Moscow case, it is a large project so it is connected to the media field as well but with a weaker relationship. The field of spatial planning in Helsinki was discussed in the previous chapter, the key points of difference are that the participatory discourse had started in Finland earlier than in Russia allowing more time for implementation and development. The planning contexts were similar in the sense of institutional trust in rationality of planning experts, although the trust in the government was much higher in Finland. The Nordic welfare system has left after its value of common good, which is referred to multiple times in the Land Use and Building Act (1999). Nowadays the municipal and city planning institutions state their priorities as strategic plans and besides the common good, other values and goals are sustainability, decreasing the energy consumption, provision of housing and comfortable urban environment in addition to economic growth, which should be achieved through multicentricity in Helsinki, development of businesses, attraction of investors and bettering the transport connectivity.

Participatory stage of the planning process took place during the feasibility studies in 2008 that engaged local residents, then in 2016 after the city plan updates included a scheme for the light rail system, and in 2018 as the detailed design was developed. The resident events were organised by the Helsinki and Espoo Cities in groups of neighbourhoods and were preceded by the project schemes being presented for two weeks, announcements in local news and social media channels. The resident events took place in

early evenings and accommodated 20-70 people. During the events the project was presented and afterwards discussions were held in presence of architects, project managers and planners for about two hours. Later emails with queries could be sent to be answered by competent members of the team. Report documents with the results are sometimes published on the city's website.

Other processes involving participation did not focus on the Jokeri line project. These include the participatory stages of the Helsinki City Plan (2002) and the Uusimaa Regional Plan (2004) with the commentary. The development of the regional and city plans and strategies have to involve public participation but the plans have minimal mention of the upcoming light rail project as it was not a decided priority at the time and even the route was approximate.

Actors

The organising parties of the project are the cities of Helsinki and Espoo with their planning and transport departments, HKL - Helsinki City Transport. They have formulated an objective and hired or held a competition in order to hire private companies to do the research, design and construction. These design companies were Ramboll Finland Oy, Sito Oy (currently - Sitowise Oy), VR Track Oy (currently - NRC Group Finland Oy) and YIT and VR Track proceeded with the construction. Besides them other consultant companies WSP Suomi Oy and FLOU did cost and efficiency evaluations in 2016 and 2019. Separation of the actors who have different agendas, hierarchy and budget priorities into different groups such as client, designer and constructor might be less efficient in some cases, but overall should contribute to a more stable and possibly democratic system (Winner, 1986).

The local area residents who were present at the project's presentations and discussions in 2008, 2016 and 2018. According to the studies by Bäcklund and Mäntysalo (2010) and Sjöblom and Niitamo (2020) the effort by the cities to increase engagement in development projects has been improving and a wider public is being reached in recent years through multiple channels.

In 2012 the Espoo Green Party also took interest in the project when the citizens of the detached housing area Laajalahti complained about the future construction, arguing that it won't only disturb the residents but also the Nature area in Laajalahti (Elo, 2013, May).

Decision-making

The idea of intermunicipal connection existed for decades, included in the Helsinki masterplan of 1992 and the approximate route was implemented in the 1990's as a 550 Jokeri bus service after a decision by both cities. At the same time Espoo city conducted studies on light rail service, getting more convinced on the project. The decision in the 1992 Helsinki masterplan can be seen as unplanned, as although the inter-city rail proposal wasn't

new, it was the first moment of fixation that set off the following studies, experiments and implementation.

After the Jokeri bus route proved practical, the light rail suggestion was implemented in the Helsinki City Plan of 2002, but that can be considered only as a general or strategic decision moment, as more studies about feasibility and impact were required. Same argument can be used for the 2004 Uusimaa Regional Plan and its commentaries, although the deadline for the project goal was set as 2030.

The continuation of the Regional and City masterplans was a 2007 Helsinki Metropolitan Area Transport System Plan. It was developed by YTV, Helsinki Metropolitan Area Council, a transport and waste management council between three municipalities. The Jokeri light rail was scheduled for the period between 2016 and 2030, but preparations were to be started in the 2008-2015 period for the implementation to be ready at the second period. This decision was a tactical one, not setting the project in stone, but leading up to it. The following research and feasibility study that was ordered by cities of Espoo and Helsinki, YTV and the ministry of transport and communication from WSP Suomi Oy resulted in a positive result featuring positive feedback from the locals, and the next design stage was set in motion.

A preliminary master plan was published in 2009 by the City of Helsinki, the City of Espoo, YTV, the ministry of transport and communications, and WSP. The report stated that after residents' meetings, there was no strong negative feedback (City of Helsinki et al., 2009, May, p. 10). But in 2012 tensions arose from residents of Laajalahti. Another nature study and planning report were made in late 2012, raising the opportunity to move some parts of the light rail route from parks and residential areas to an existing ring road. An Espoo City Council meeting was held in June 2013, where besides all the opportunity to change the route was discussed, supported by the Green Party members (Kivekäs, 2013). Another report comparing the two alternative routes was published in 2014 (Trafix, Sito, WSP, 2014, January 17) and stated that there will be little economical difference in both routes construction. Eventually the less invasive route to Keilaniemi was chosen.

The plans developed by Ramboll, Sito and VR Track were ready in 2016, with two of these companies being private. After organised resident events in 2016 and 2018, the scheme was approved and the construction had started in 2019.

The resident events were open for the locals with no required pre-registration, those who can not attend often are able to watch recordings, send questions online or take part in online questionnaires. For that reason, not only residents registered in the questioned areas can contribute but anyone who was informed about the event and has sufficient Finnish language skills. The information about upcoming events is published in newspapers, cities websites and the HSL website, and their social media blogs and channels. The public is

presented with relevant information, although often the events are not solely about the Jokeri light rail line, but also other changes in city plans or public transport routes.

Residents in resident meetings can learn about the presented project and leave commentaries, and also there is no deeper cooperation along with the outlined engagement scale by Bovaird and Loeffler (2012). There are opportunities for the residents to get familiar with the happening changes to the plans and the planners are interested in learning residents' opinions through multiple meetings, online questionnaires and comments made in online media channels. However, the planners have complete control over the project's framework, procedures and goals, if one does not count the participatory events and workshops on the stage of municipality and city level masterplan development, which are not included in this project. The final decisions are not made with the citizens, but with their elected representatives - a traditional set up for Finland.

Helsinki residents seem to be comfortable with this situation and satisfied enough not to question the planners' authority according to reports (City of Helsinki, 2019 / 1; City of Helsinki, 2019 / 2). Most of the feedback is addressed by the planners and there are no large discussions or citizen movements that would propose drastically different solutions to the existing ones (City of Helsinki et al., 2009, May, p. 10). However, not everyone is happy. Laajalahti association complains about numerous trees being cut down, and Otaniemi residents have taken the matter to the court, as the light rail line passes close to the residential buildings (Takala, 2019). Espoo citizens complain that their opinions are not answered, while officials say that not all feedback can be answered.

Robert Argenbright (2016) would suppose that this is the case of a 'good enough governance', when the decisions made by the planners don't disturb the citizens enough for them to spend their energy. And according to Schulmann E. (2018), the strategy of public engagement long before the start of the project, letting the citizens get accustomed to the possible benefits and negative effects after thorough discussions calms them and sedates the 'not in my backyard' response. Constant public engagement builds trust among citizens and government, it reduces negativity and the citizens believe that they can discuss and stop the unfavourable actions the moment they feel the need.

Power balance

The planning institution and Helsinki Metropolitan Area governance holds the most transformative power, being able to generate regulatory framework and schemes, restrictive power due to ownership of large areas. However, the created project procedure allowed private companies to partially develop plans and design and to construct the light rail, giving the private sector generative power and thus an input in final decision-making. As the private design and construction companies are hired through a tender system and not along public-

private partnership, the companies will not own the developed project. The generative power is also spread between all the companies and the city planners, decreasing the chance of monopolisation.

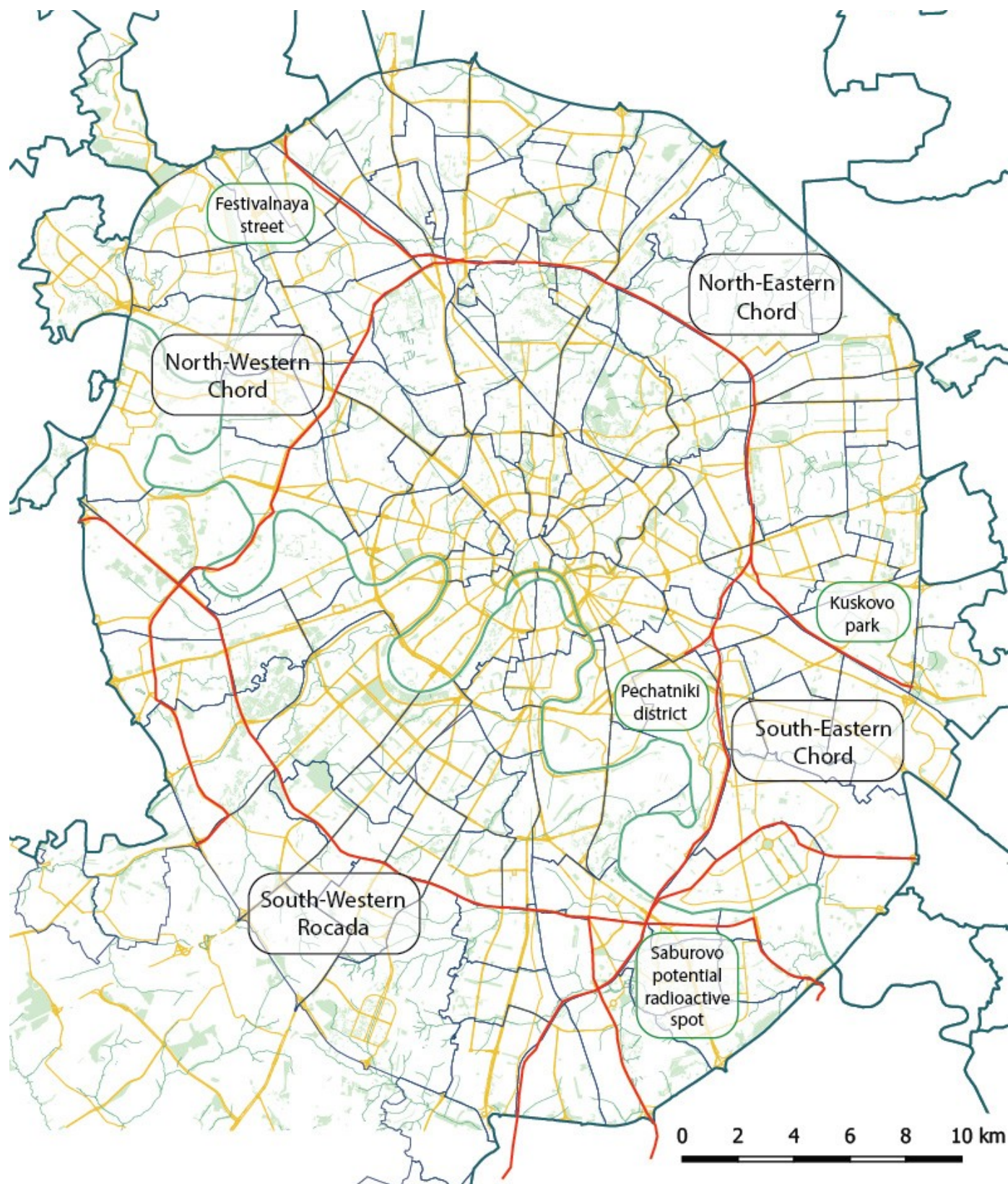
The citizens have opportunities to follow and comment on the project, but the resident meetings are not designed in a workshop or co-design model, so the generative power of the public is low. The public also lacks the restrictive power, as there was no opportunity to choose which private companies were hired through direct participation. Espoo citizens being able to change the route in 2014 after two years of discussion, is a positive example of the power of citizen opinion. Local residents were able to find support in a local party, who helped them through the process, adding focus on the nature preservation agenda. The alternative route was planned and implemented at a similar cost as the initial one.

Reflection

The resulting image of the participatory quality during the Jokeri light rail planning and construction contributes to the established growth of participatory planning in Helsinki. There were plenty of opportunities for residents to learn about the project and voice their concerns about costs, urban quality and construction inconveniences. However their input did not include direct interaction with the planning stage and only representatives are directly present at the moments of decision-making. The transport system is considered to be a part of public services, so both commissioning and provision levels are low, setting it to traditional management style by Bovaird and Loeffler (2012), however, more effort in commissioning could change it to co-commissioned phase. To move to a co-produced management system, financing, managing, delivery and assessment stages of projects would also need to be addressed. However, the request for such change in management system is not pronounced in the general public as the existing services are satisfactory and additive co-production isn't demanded.

2.3. Moscow

Figure 10. Ring Chord motorways. The original image had a scale 1 : 500 000.



2.3.1. Planning Context

Legislation

The city has several levels of design planning documents that are based on the federal level Town Planning Code of Russian Federation that was accepted by the State Duma (the lower house of the Federal Assembly of Russia, the highest national legislature) and approved by the Federation Council (the upper house of the Federal Assembly of Russia) in 2004 in place of the previous TPC taken in 1998 (Digital Fond, n.d.). It is a legislative act that regulates all relations related to town planning in the country. The most relevant part of the urban planning legislation is placed in the 26th chapter of the Federal Town Planning Code named Federal Standards of Town Planning Design. It specifies the index of provision and territorial accessibility of infrastructural objects. Both the Town Planning Code and the Standards of Town Planning Design have two levels - regional and local (municipal district, settling, or a town district type). (Genplan Institute, n.d.)

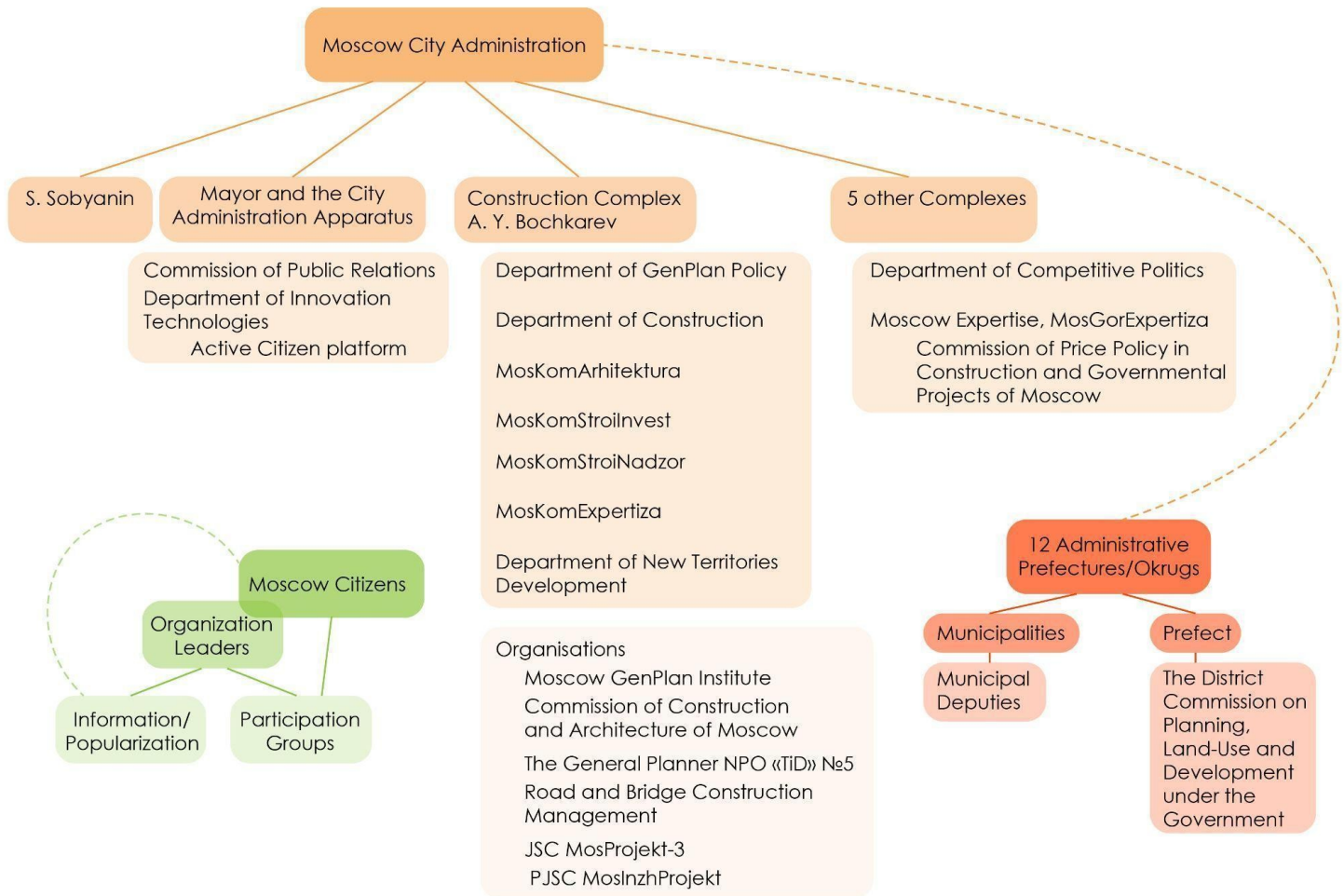
Later, in accordance with the 2004 Federal Town Planning Code a Town Planning Code of Moscow was developed in 2008. It was created by the Moscow Genplan Institute and accepted by the Moscow mayor, the head of Moscow Government, the highest executive body of the city (Digital Code, n.d.). The Moscow Government consists of the mayor, deputies and ministers. The numerous departments are grouped into complexes, with the Complex of Urban Planning Policy and Construction of Moscow or the Construction Complex consisting of seven departments and committees that focus on urban planning and architectural standards, policies, development and implementation of shared-equity constructions.

One of those committees is the Committee of Architecture and Town Planning of the City of Moscow, shortened - Moscomarchitektura. That committee had requested a development of the next Moscow Genplan (General/Master Plan) from its subordinate Genplan Institute of Moscow, which had been responsible for the previous iterations of GenPlan development since the mid-twentieth century (Genplan Institute, n.d.). The previous Genplan of 1993 took in consideration the rapid changes that had been happening in the country and was the first one to be discussed with the citizens before being approved by the city's government.

The current Genplan was presented to the public and went through the public hearings process in two weeks during the summer 2009. According to VTsIOM, the Russian Public Opinion Research Center, 17% of citizens were informed in various degrees about the developed Genplan and 1% took part in the discussions (Zaitseva, 2010). Genplan and the following Scheme of Territorial Development define locations and boundaries of settlements, divisions, facilities (capital construction, public provision infrastructure, territories claimed by

local authorities for further functioning, objects of cultural, historical, natural, economic importance), functional zoning and special areas. They are normally valid for the next twenty years.

Figure 11. City administration structure.



Genplan and the following Scheme of Territorial Development define locations and boundaries of settlements, divisions, facilities (capital construction, public provision infrastructure, territories claimed by local authorities for further functioning, objects of cultural, historical, natural, economic importance), functional zoning and special areas. They are normally valid for the next twenty years.

Based on the Genplan and the Scheme of Territorial Development, the more detailed document is prepared, called the Regulations of Land Use and Development of the city. This document specifies functional purposes of areas and the regulations of their development. The regulations can slightly differ from Genplan, as they are focused on the immediate

possibilities, rather than goals of the future decades. The document is developed by committees in the local administrations of okrugs and the Moscow Government, taking in consideration opinions expressed by the citizens on public hearings (MosOpen, n.d.).

Based on all the mentioned documents, two projects are designed, the Project of Territorial Planning and the Project of Territorial Survey, which develop Genplan further on a local scale and add coherent projects' timeline, and define all the zoning borders. All these documents are developed by the Governmental committees or local administration and are supposed to guide developers, planners and architects. For them to get a desired construction project approved, the developer needs to write and get approved a Town Planning Project of a Land Lot.

The TPPLL is developed along with planners/architects and a project manager, defining a brief, technical information, functions and public facilities, proposed boundaries, cost, stages of the intended project and site ownership documents (the business plan is unnecessary if the project is already mentioned in the relevant Genplan, which is more often a case with the governmentally initiated designs). (The Town Planning Code of Russian Federation, n.d.) That document has to follow the standards set by all the aforementioned regulatory documents and planning schemes, and includes both a report and schemes of the future project and is approved by the local authority, such as administrations of municipal okrugs/districts in Moscow (currently, there are a 146 such districts in the city, each has a dedicated website based on a general mos.ru template, the application for the Town Planning Project of a Land Lot can be submitted online since 2019).

Participatory planning manuals

A Federal Program 'Comfortable Urban Environment' was set off by the Ministry of Construction, Housing and Utilities in 2017. Along with the program that identified goals and standards of the urban environment that had to be reached by 2025, more regulations had been developed to improve public spaces, including recommendations to involve residents in planning. In 2019 two standards had been developed - a Standard of Territorial Development by ДОМ.РФ, Ministry of Construction, KB Strelka and Russian Government, and a separate Standard of Citizen's Involvement in Development of Urban Environment by Agency of Strategic Initiatives, the Ministry of Construction and Russian Government. These are the first official documents that encourage public participation in town planning projects during early stages and not as an informing tool about ready designs. Due to the Kazan city administration's initiative (Gilmanov, 2019), Kazan has well known participative projects of urban development. Kazan based urban design bureau 'Project Group 8' was one of the first to widely promote participatory design in Russia. Their projects reflect that principle, and they educate planners and citizens.

The fifth book of the Standard of Territorial Development is called 'The Manual for Project Development' out of which I will review chapters 6, 9, 11, 12 and 13, as they include participatory planning recommendations.

The guidance begins by advising to involve sociological and ethnographical specialists in the projects' preliminary stage, where the opinions of district residents are explored. Afterwards, the difference is explained between the traditional method of citizen involvement in territorial development and the participatory method.

The traditional model suggests that the project decision-making is carried out only by the initiator, and any stakeholders can only influence the project. It does fall into the standard model of previous town planning projects, where it is a local or city government that initiates a construction project, another governmental institution is hired to develop a solution and a design scheme in an institutional 'black box', and the final scheme can be presented for a brief discussion at a municipal public hearing. The participatory method suggests that neither of the parties, initiator nor any of the stakeholders, hold the final power of decision-making, influencing each other and the project development. That simplified model seems idealistic and is not clearly explained in the manual.

Later, the authors describe possible levels of participation. There are five levels which seem to be a modified version of Sherry Arnstein's (1969) 'Ladder of Citizen Participation' - informing, consultation, involvement, delegation and partnership. The three missing steps from Arnstein's ladder are two bottom practices of 'nonparticipation' - manipulation and therapy, and the top level of citizens' power - citizen control. As the manual is a practical guide book, nonparticipation and citizen control which address more theoretical levels are skipped.

Manipulation and therapy are less relevant steps for planning practice. As these steps present veiled attempts of participation prevention, skipping them in the manual for project development is sensible. The top participatory step, the citizen control is not mentioned either, it could be because that level of citizen power does not present the government as a participating entity but also because the governmentally developed manual does not aspire for such levels of public independence. Even in Arnstein's article, she does point out possible struggles of such an approach. Full citizen control would require reforms, as most land in Moscow belongs to the government and citizens usually rent land lots on which an apartment building stands.

Subsequently, the manual expands on the variety of stakeholders, including economic, political, expert and citizen bodies. The citizen representation is divided into three groups - residents, users and others, others being political and non governmental organisation members and activists. The stages of project development are described - planning

preparations, planning, development, post-construction analysis and event co-organisation. These two chapters show a leap in view of planning from traditional technocratic and legitimising towards more democratic. Nonetheless that document presents participatory practices only as recommended ones, letting the project initiators decide if they want to get any citizen involvement in territorial development projects.

Similarly, the Standard of Citizen's Involvement in Development of Urban Environment, suggests that citizen involvement is a recommended practice but isn't required for project approval. This standard delves further into different forms of involvement and possible citizen groups and admits that it is not a full list of possible participatory practices and can and should be developed further. The two documents set participatory standards for the future but are conscious of the current state of planning practice and push for change slowly.

Planning system development and issues

The new agenda of improving urban quality had started being largely introduced in Moscow in the early 2010's. That process had been largely influenced by the new mayor of Moscow Sergey Sobyenin and a perceived unrest of the citizens. The previous mayor became largely unpopular among Moscow residents after his almost two decades long time in the office, the most prevalent problem being traffic congestion in the city. The traffic problems had started already in the 90's, when previously empty roads of the city designed for a drastically smaller number of private vehicles got filled with newly imported private cars, and the problem had gotten worse since then (Argenbright, 2011). According to Argenbright, although there were large efforts by the previous Moscow mayor to build more infrastructure, the 600% increase in private vehicles couldn't be alleviated due to overall cooperation between regions, as part of the problem was the amount of daily commuters from nearby satellite towns (2011).

When the new mayor entered the office in 2010 he started active programs improving the comfort and liveability of the city. However the previous mayor had approved a new GenPlan, the city's major planning document for the next 15 years, just before being released from office, so global changes such as a vast expansion of Moscow territory by one third had to wait until a new planning document could be written (2019). The beginning of the decade in Moscow had been marked with the rise of urban planning institutions (e.g. Strelka KB), simplification of bureaucracy for private needs of citizens (such as better designed city administration websites, clear hierarchy, new integrated offices for face-to-face interaction), some liberalization in two-way communication between city administration and residents. For example the new Moscow Department of Information Technologies along with the mayor had released two websites - Our City in 2011 and Active Citizen in 2014.

Jan Gehl in Helsinki (personal communication, October 04, 2018) talked about visiting Moscow in 2010-2013 as a consultant, meeting the mayor in the Government of Moscow and supervising 'humanisation' of the city. Part of it was reducing car traffic in the city centre, creating public waterfronts, but also advising to create two-way interaction tools that became the Our City website. By July 2021 there are 1,7 millions registered users (compared to 12 655 050 registered residents in Jan 2021 [Mosstat, 2021]), who can submit the local problems as proposals, which get processed and answered in 8 days and then might be sent to an executive agency. If the problem is solved, the citizen who complained can check the intervention and accept it. After ten years there are 5 million problems solved (Our City, n.d.).

The Active Citizen platform has 5,2 million users (41% of registered population), who can vote for various urban planning projects or take part in preliminary and concluding project polls. The website registration requires some basic anthropological data for statistics as well as the place of residence and work, urban interests and profession for statistics. As a part of platform's gamification and popularisation, when a person takes part in voting, depending on the project they can get three to twenty points that can be collected and exchanged for shopping and entertainment coupons, various city merchandise, car parking payments or a selection of charities. All the insensitives and simple user-friendly design have helped the project to gather 160,2 millions of opinions and realise 3400 projects (Active Citizen, n.d.). Both websites require a person to first register on a general website of the Moscow Government, mos.ru. From the same place one can find the pages of municipal administration and the district government with local news and notifications including construction projects.

Participation tools. Public hearings.

In general cases if the project goes according to the previously planned schemes, the process of approval should take 14 days by the architectural and town planning committee of the municipal administration and be valid for three years. However, projects that are public and affect not only landowners will be presented for the public discussion at a public hearing process organised by the municipal administration. Public hearings must take place at least a week after the project has been publicly announced and exposed in a local administration building. The whole process from the project announcement until the result announcement must take at least a month and three months at most (Town Planning Code of Moscow, 2008).

Then, the citizens who are registered to have residence in the municipal okrug / district can voice their opinions and suggestions about the project or leave them in a written format in a journal or send it as a letter during the following week. In case if the public hearings

were not organised or promoted, the residents might dispute the approved Town Planning Project of a Land Lot in one of the 35 district courts, or appeal later in the Moscow City Court (Moscow City Court, n.d.) during three months after the decision (Civil Procedure Code of the Russian Federation, 2021).

In general, the information about upcoming events can be spread at the administration building and apartment buildings information boards, at the municipality website, in the form of printed notes, in local newspapers or television, additional information as town or district committee phone numbers and website addresses where the information can be found. Recently with the rise of the social media channels, they are used as well - social networks (vk.com, twitter.com and instagram.com as the most popular) and public messenger chats. Their use is only advised in the Town Planning Code of Moscow (2015) but not required and each district committee can choose which channels they are comfortable with. However, the use of the official municipal website for project introduction and any relevant announcements is expected.

Development of other instruments

Other participatory practices became more common during the last ten years as well, starting both from civic activism and initiatives from professionals. Overall unease among Moscow citizens had begun during the last few years of the previous mayor's time in office, mainly as local initiatives. Citizens were opposed to radical changes and construction projects where decision-making was non-transparent and favourable to car owners (Zakirova, 2017). Later, after the 2008 economic recession and decrease in government's popularity for five years, protests started appearing, including ones against redevelopments of Moscow residential areas. Schulmann Ekaterina (2018), a politologist with specialisation in studies of lawmaking, notes that often active inclusion of citizens in political activities starts with the urban environment and movements such as 'not in my backyard'. After such movements gain traction and achieve positive results, they can grow into larger democratic institutes, non governmental organisations or be incorporated into existing institutions. The important outcomes are increased trust between citizens, development of working tool sets of informing, decision-making and action (Schulmann, 2021).

Smoleva Elena (2020) states that even today the major barrier for more active public participation is unwillingness of citizens to take part in it. She explains it by low motivation to any civic activity due to emotional and practical alienation. Citizens often don't believe in the success of such activity, distrust in government and other activists. That is combined with little to no experience in such activity, networking in communities and communication.

According to Nadezhda Snigiryova, an architect, urban activist and a member of an Expert Council at the Ministry of Construction, Housing and Utilities of Russian Federation, a

wave of environmental activism had occurred in Russian towns around 2012, after years of sporadic cases (Snigireva, 2019). They started as local physical improvements of urban spaces, such as mediations between citizens and district administration to let the volunteers improve a waterfront and create spots for sitting and gathering. Already in 2013 Strelka Institute and Moscow Urban Forum had organised a crowdsourcing platform 'What does Moscow Want?' - a year long project, where ideas on the city improvement were collected during summer months, then professionals had a few months to suggest a solution for the found problems and the best projects were presented in December. It was one of the first widely advertised communication channels for Moscow citizens, encouraging them to take part in urban development.

2.3.2. Ring Chords Motorways

The case study takes place among the ongoing construction of a group of new motorways in Moscow. The four motorways are linked into a Chord Ring. Traffic congestion is a constant problem and a topic of discussions in the city, with the main problem being identified as the medieval type of city structure, when it had been growing in concentric circles around the centre, with main highways being radial and ring roads. The construction plans of the new Chords are more than a decade old, the implementation had partially started in 2008, continued in 2014 and gained speed in 2016. The planned submission date is 2025 (Construction Complex, n.d.), but many separately finished sections are already in use. The city administration had promised that there will be no delays in project submissions related to the current pandemics (StroiMos, 2021, October 11). I am interested in the overall perception of such a large urban construction process, adding new multiple level intersections and 39 km of overpasses (Construction Complex, n.d.).

The "Complex of urban planning policy and construction of Moscow" or Construction Complex had revised earlier plans and designed the new outline for the Chord Ring, after the new city mayor took his position in 2010 (Argenbright, R. 2016). The plan was developed within the Complex, and, according to the experts' opinion within, the ring will improve the traffic situation by 15% (Shugaev, 2019). The author also notes that after opening a few sections of the motorway, congestion has significantly decreased compared to the period before the start of construction.

Meanwhile, several groups of activists and affected citizens protest against the construction, as according to some studies (Duranton, G., Turner, M. A., 2011), motorways will not significantly improve congestion in the long run, and citizens are worried about air pollution, noise levels, a radioactive threat from an old burial ground, and unauthorized tree cutting in a nature reserve. In that situation, I find the administration's approach on the

legitimation of the construction procedure in public opinion interesting, as it bases mostly on the promoted online voting rather than direct feedback of residents from affected areas.

When, in 2019, in the Active Citizen (AC) polling platform there was a voting to determine if the citizens were happy with the Chords under construction, 69% of votes were in favour, and only 8% were against. Traffic congestion has been a problem in Moscow for two decades, as the private cars suddenly overflowed the city.

The citizen protests and participation in public hearings have been gaining popularity for the last decade. The activists include urban planners and believe that further development of the public transport system and support of existing roads would be more beneficial for the city. One of the organisations is Urban Projects, which became famous through educational articles and videos on YouTube. Urban Projects aims to build trust through communication, regular meetings and open field work

Urban planning field and participatory process in the project

The Chords planning and development is a broad subject, so to narrow it I will choose two main participatory processes within it. The process of the project approval had to go through public hearings in each municipality that was affected, that being the first participatory case. Another one is organised within the Active Citizen platform, which is supported by the city administration. These two separate processes present late stage participation practice, the earlier stages would include public hearings during the preparation of the city's masterplan – the GenPlan, but the current one was developed in 2008 with not much information left about the proceeding of the hearings. As I already described, the public hearings of the GenPlan happen only on the last approval stage with the planning scheme ready and only minor changes are conducted after the feedback from the attended citizens. That practice of informing and engaging the public had started in the 1990's and started changing only in 2010's, after the current masterplan had come into force.

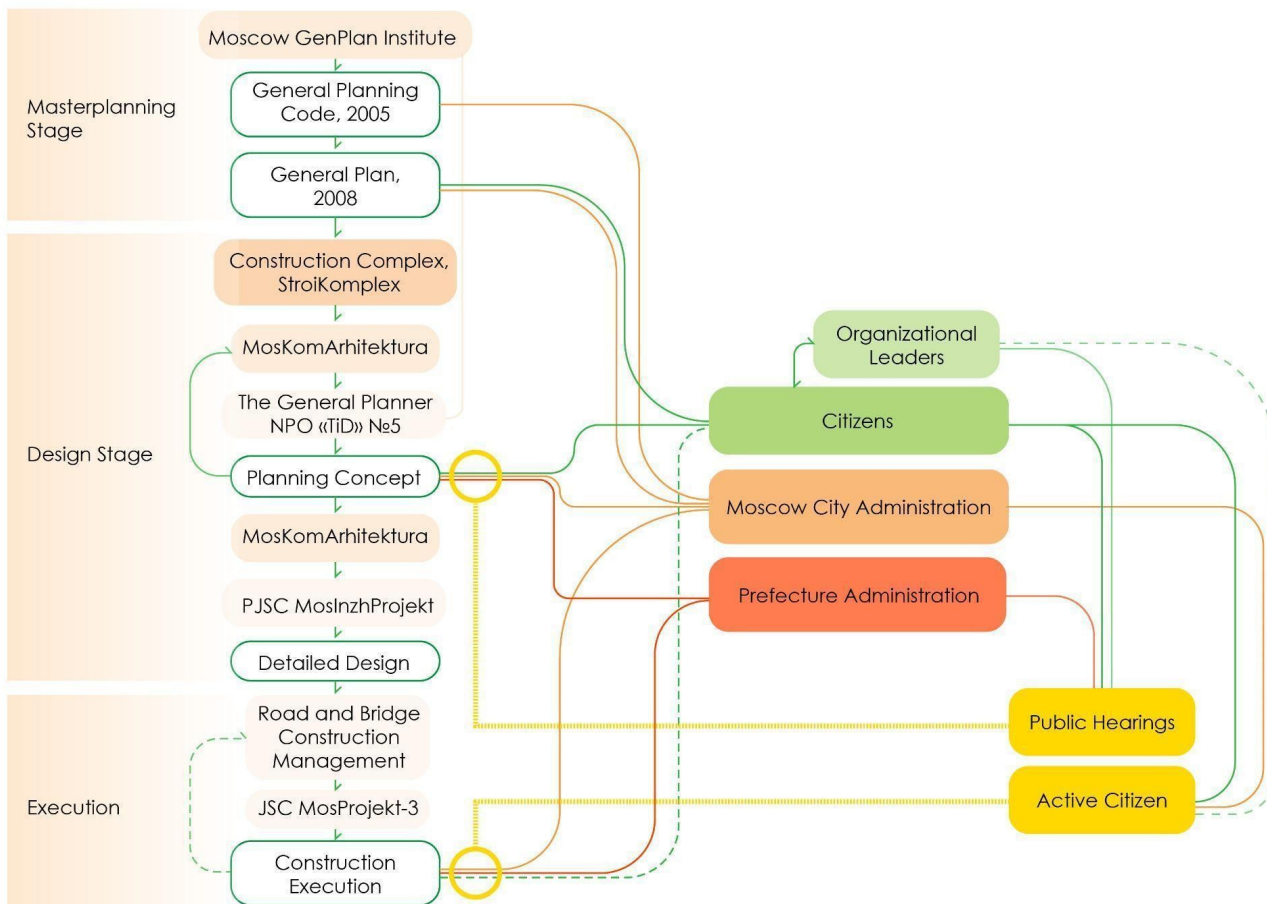
The public hearings processes for the Chords were organised by the district administrations (prefectures) and MosKomArchitektura (the Committee of Architecture and Town Planning of the City of Moscow) that is overseeing the planning and design of the motorways system. The district administration prepared spaces to exhibit the detailed projects and had announcements on notice boards of administration and residential buildings, local newspapers and online media. The dates of the hearings were also published and those who want to attend have to pre-register. To be able to attend one must be an official resident or work in the area. On the public hearing day a room in the administration building is prepared where everyone who wants to attend has to come before the start of the event and register. Then the presentation by planners starts after which a discussion starts and comments can be left. If one did not have comments or did not attend,

they still can write a letter or an email with feedback to the local responsible committee or administration officials. In a two weeks period the local administration publishes a report with transcripts of the hearings and discussions and later a conclusion paper with the revised comments that were raised by the residents and stating if the requests had been answered or will be redirected to the planners. Among the negative sides of the public hearings processes can be mentioned complicated bureaucratic language of the reports and professional jargon of the planning documents, making them inaccessible. There are often complaints about late notification about the meetings and vague project presentations. There are suspicions about decisions being unofficially fixed prior to the public hearings in order to speed up construction and lessen costs of the projects. Numerous failed attempts to bring changes through the hearings result in low trust and involvement.

The online participatory event happened as a multiple choice poll on the Active Citizen platform in 2019. One can open it in a browser or as an app. The poll was conducted during one month in November and December with the main question: 'Does Moscow need the Chord motorways?', with a few standard responses and a free comment field, which will be described later. As other polls in the platform, this one had a few points in-system award for participation. Afterwards a short report was published with some results grouped by the district, age and gender of contributed residents. The report showed a very positive opinion of the citizens towards new motorways. Overall 213 835 citizens had taken part in the poll out of 12,6 mil registered residents (Mosstat, 2019).

There were no other actions taken by the administration and planners to involve the public in one of the largest infrastructure development projects. The Chord construction gets mentioned and the progress is followed in the local news outlets, it has a dedicated tag in a blog of the "Complex of urban planning policy and construction of Moscow" (the Construction Complex), and notably gets updates on social media channels of the moscow administration officials and groups such as the mayor Sobyenin and the Construction Complex. The followers of instagram channels sometimes leave comments but two way discussions are rare.

The few opposing civic movements did not get much attention in the media and little influence on the construction process. There are a few social media groups that were focusing on specific local issues as a reduction of Kuskovo park, noise near residential areas or the danger of radioactive waste disturbance in a construction area and some of them are still active with discussions, meeting and hiring independent consultants. However there is no active dialogue between them and the administration.

Figure 12. Project stages.

The Chords construction project is a process that does offer participation but it is not one of its greater goals. The goals of the Chords construction are as stated improvement of the city's traffic condition through the change from circular city plan to chordial, allowing better circulation. That will benefit both the residents of the city and allow them to spend the budget for a good cause.

The development of motorways belongs to the field of urban environment and spatial planning that will define the specific stakes and interests of the processes, as they are placed in the fields' particular context.

The urban planning priorities that are stated by StroiComplex (the Construction Complex) are development of Moscow as one of international financial, scientific and cultural centres; reservation of historical image and development of territories; creation of opportunities for investors; and further development of the urban planning system. These include provision with housing options, public transport and public services, workplaces, and transport networks.

Although not directly related, the eco-environmental, mass media and social media fields play small roles within this process. The topic of an ecologically clean environment has been

getting more attention in the last decades with the public being concerned about immediate factors such as air pollution, healthy food, and waste disposal in landfills and recycling. As the large construction projects influence the quality of urban environment and health, most anti-Chords groups are using urban ecology as their main argument. The mass media field is touched as most official offline and online Moscow newspapers belong to the United Editorial of Moscow Media that was created by Sobyenin in early 2010's, following nationwide media centralisation in 2000's. Therefore the information published by them can be not full or influenced by the same interests. Less freedom in mass media affects other fields including spatial planning. The quick development and spread of social media and instant messengers in recent years have increased engagement of common citizens, requiring them less time and effort to communicate and get informed about current affairs. Self-organisation between local citizens who usually can not meet face-to-face increases the possibility of democratic participation according to Schulmann E., as it becomes easier to share problems, share knowledge and to cooperate (2018). The high popularity of YouTube and other channels about urban planning shows general interest of the public towards a better urban environment and popularises the idea of it.

Spatial planning and urban environment fields in Moscow depend both politically and economically on the city administration. The main factor is that the city owns most of the lands in the city with very few private landlords becoming the main decision-maker. The road infrastructure follows governmentally commissioned city masterplans developed by supported planning institutions. The commissioning bodies are the architectural and construction departments, and the consulting, detailed design and construction are done by companies that win open and closed tenders. One can see all the governmental tenders with the competitors and winners on the United Information System of Procurement Sphere website. The tender system depends on the project, but usually invited companies already have established relationships with the commissioning departments. In other spheres of urban environment field (as residential and public areas) the private research, planning, design and development companies often collaborate with the city administration. There are very few public-private partnerships in the infrastructural development sphere in Moscow, as the budget of the city has been plentiful since the new mayor came to power (Argenbright, 2016), and the conditions under which private companies would join the PPP are considered to be adverse.

The PPP could be more accepted by the construction department, but the budget of the administration that is coming mainly from taxes has been growing since the late 2000's. Moscow is by far the largest city in Russia, with St. Petersburg being in second place with a population of 5,4mil citizens, while Moscow has 12,6mil citizens and 8% of the country's population (Rosstat, 2019). According to Maria Koroleva and Maria Chernova (2017) the

2011 wave of Moscow based protests laid a foundation for less political and more urban activism among citizens. That process highlighted the importance of keeping up the image of Moscow as an affluent, successful and just city among the citizens, resulting in a quality increase in public services, public spaces and infrastructure (Schulmann, 2018).

Besides the city and district administration, there is an opinion of the city residents that can sometimes influence spatial planning process and results. The citizens strive for a comfortable urban environment, healthy urban nature and peaceful residential areas. In terms of road infrastructure both a well developed street network and a quiet clean environment are desired, which can be contradictory. Different groups of citizens prefer development of roads or public transport. Opposing views are presented in different cases such as protests against metro line construction in favour for more roads (Academicheskii district against Kommunar'skaya line in 2019), or protests against motorway construction.

The most distinct example of citizen power is the 2016 case of movement against a massive renovation project. The renovation of residential buildings was meant to demolish and rebuild 7934 apartment blocks and to relocate 1,6 million residents to new apartments (Voronov, 2017). As even the apartment owners do not own the land on which the building stands, it was possible. But after massive waves of organised and self-organised protests, a voting system in Active Citizen platform and in local municipal service centres was established, where residents of each individual building had to decide if they want to forgo the renovation process. The voting that was conducted in May-June 2017 resulted in a reduction of the renovation project by four thousand buildings (Voronov et al., 2017).

The NPOs stay in this struggle between individual and economical-political interests as actors whose interest in the urban environment field is least uniform, varying from gaining political momentum to genuine interest in the 'better urban environment' defined by themselves. They are also less predictable with few precedents of actions in this field and few solidified relations to other groups.

Actors

The Moscow Chords project was advertised as an initiative by the new mayor's office in order to better everyday life of citizens. The mayor's legitimation type by Max Weber (1968) can be described as both rational-legal and charismatic. After the president's suggestion of his figure and successful elections, Sobyatin carried out active improvements in public services and the urban environment, becoming very popular among the citizens. One of his notable moments was his strong stance against abolition of public hearings in 2013 and creation of two-way online communication platforms that were mentioned earlier.

The chord construction was suggested in an earlier city master plan by the Genplan Institute and later was supported by the mayor in 2011. Later MosKomArkhitektura of the

Construction Complex took the task and hired the General Planner NPO 'TiD' №5 to produce plans and detailed designs based on the schemes by the Genplan Institute. The plans then were assessed by formed committees and by the residents of affected areas during public hearings. Starting from 2013 residents were creating local groups to alter or stop the existing plans. Reactionary groups were formed after face-to-face meetings, in social media and other online communities such as online forum Roads.ru, discussing the planning, public hearings and construction processes. A still active group of local residents is ЯМы Против Хорды (I/WE Against the Chord). Another mentioned organisation is NPO City Projects.

The assessed plans were accepted by MosKomArhitektura and PJSC MosInzhProject was hired to develop technical drawings of each area separated into working sites. After the technical designs were produced they were handled by Road and Bridge Construction Management and they hired JSC MosProject-3 and Mostotrest to execute the projects. These design and development companies are regularly hired for infrastructure construction projects led by the city administration. After the main construction had started in 2013 the polls in Active Citizen were run in 2017 engaging all Moscow citizens.

There was an attempt to invite a private development company for a late stage of the construction, and negotiations were held after a tender with a company called Lider, but after all they were unsuccessful, resulting in the whole project being led and funded by the city.

The city administration can be viewed as a single organisation or a consolidation of various actors each having their own small agendas and priorities. It could be possible to differentiate groups within the city administration if different departments were concerned with the construction. But as the mayor had created the Construction Complex by joining few related departments and as the development process of this project follows a formed habitual path, there is not much space for inter institutional struggle for the power and resources from the budget (Schulmann E., 02.06.2019). Therefore it is possible to consider the whole planning institutions and all levels of the city administration as one actor group, as the planning organisation has a strong top-down structure (Argenbright, 2016). The part of the governmental machine that can deviate from the common course are municipal deputies. The individual deputies who are usually elected as a part of non main party members pursue closer relations with the local residents and support them in matters like this to gain popularity and be elected again.

The charismatic image of the Moscow mayor translates to his projects, attaching rational, innovative and technocratic image (Argenbright, 2016). The perceived efficiency clashes with the weaker rational-legal legitimacy. The groups opposing the project bring up short

notice time before the hearings take place, and rationalisation of arguments in pursuit of personal gain rather than rational decisions (Koroleva, Chernova, 2018).

The citizens who attend public hearings are limited to only those who reside or work in the area in question. The groups gather around outspoken figures that are often professionals in planning, road construction or local municipal deputies that are sympathetic to the cause. To influence the decisions made by planners, citizens discussed problems at the public hearings, filed complaints, signed petitions, contacted deputies and inquired to the court. On one of the most attended hearings in the Pechatniki area with 86 thousand residents there were 545 participants – 461 residents, 70 employees, 14 landowners, 3 deputies (A. V. Cibirin, 16.04.2019).

The I/WE Against the Chord movement is formed by residents who meet and hire experts to conduct on-site research of the former radioactive area. Their argument is that the construction of a motorway on top of a former radioactive land plot might pollute nearby areas. The movement is often seen as reactionary but also one with scientific evidence behind their claims besides more general dissatisfaction with changing environment and living conditions. They gained some attention in media getting covered in news channels and have considerable following on social media. The owners of the City Projects NPO who had tried to bring attention to the issue have large YouTube channels of 1,5 million subscribers that can also influence the publicity of the case.

The participants of the Active Citizen platform are anonymous and have no organised structure besides the framework of the poll system. Any Moscow resident could participate in the poll and gain in-system award points. Although nowadays the gained points can be exchanged for a big selection of options, in 2019 the main exchange alternatives were the city merchandise and time for parking in the city centre. That selection could easily bring a disparity in the poll results. If the larger number of private vehicle owners voted in 2019, they would more readily vote for the expansion of the road network.

One might question the incentive behind taking part in the poll of non-affected residents. As the general consensus favours the development of the road network and most Moscow citizens do not face consequences of motorway construction, predictably only 10% of the respondents weren't supporting the construction of the Chords.

At the same time if one looks at the residents of the Pechatniki area, about a third of them are against the Chords project. When one looks at the citizens who reside and work in other areas, the amount of dissatisfaction drops to 3%. After the poll results were obtained, a report was published about a generally positive outlook towards new Chords, continuing to create a positive image of the project. It is unclear how much weight such a poll could introduce to the decision-making process, but seeing low amount of communication between

participants, no engagement during the design stage of the poll and little feedback, the impact would be small. The administration could perceive the general sentiment of the voters and act accordingly. With the outcomes the written report played another legitimising role.

The governmental institute in this case has a rigid vertical system, having most of the decision-making power, but one can not overlook that the citizens have some power of numbers.

Decision-making

The numerous decisions that have to be taken in a large project are complicated to track down, but the main fixation moments are the decisions on the city master planning stage about the street network at current point needing new Chords, initial investigations and approval of the decision by the mayor's office, individual areas design and tender approval at the detail design stage by municipal committees and later by the locals, technical design solutions development and tender approval and the start of construction, and as the construction time is several years long, there are project control points including the poll among Moscow residents and commissioning of ready sectors.

Each decision moment has varying access, interaction and participation degrees. Next, I will describe which actors were involved in each step and to what level.

Development of the city masterplan Genplan (2008) was solely open only to the members of the Genplan Institute, making it a very closed process. Its approval by the administration and citizens allowed access to public hearings for deputies and those citizens that were reached by published notifications and media. As mentioned earlier, around 17% of Moscow citizens were informed about the 2008 Genplan and 1% were more actively engaged. The plans of the Chords were mostly written at that point and no focused feedback had been registered. At this point the interaction for the individual citizens consisted of being informed of the new masterplan, viewing exhibited documents, listening to presentations and leaving commentaries. It seems as if no organised groups with representatives were concerned about the motorway development at that time. Consequently, there was no influence on the regulatory framework and organisation of discussions and meetings from the public did not happen.

During the development of the detailed design by the general planning NPO 'TiD' No5 again only the planners were involved. One can argue that after the detailed schemes were ready and accepted by MosKomArchitektura, the fixation moment had happened with the public hearings process afterwards not being involved in actual decision-making. However, the public hearings have been happening during the years with active participation of the public in discussions. The information about the upcoming events is considered to be readily available for everyone but the extent of information publication changes from one

municipality to another. Often it is accessible only to those who are already interested in the topic and actively follow physically published updates on a day to day basis. Common complaints about low mass media coverage are speculated to be based on the centralisation of official media channels. The structure of the official media sources can be another limiting feature for unbiased information distribution, as they are united into the United Editorial of Moscow Media and experience influence from the city administration. The access to the physical events of the public hearings is given to citizens registered or working in the area under discussion and landowners. Citizen groups who have municipal deputies on their side have better access to information and better representation during decision-making. Understanding the exhibited schemes and presentations requires some previous knowledge of planning documentation. The public hearings happen in evenings to allow easier access after working hours, but that also means that planners who present projects and other municipal representatives have to attend it in their after-work time, resulting in their general disinterest and cutting discussion time short.

Organised citizen groups have an advantage of being better informed and having access to professional expertise, better ability to propose alternative designs during feedback sessions. Citizen groups can organise protest meetings and gather media attention. Even in the United Editorial of Moscow Media members will do little coverage, there are alternative channels that can present their cases. Smaller official and unofficial media channels have small audiences and often lack established name and trust. Concerning participation in the process' procedures and goals establishment, citizen groups can not do much except pushing for repeating public hearings, getting additional expert opinions and contacting the court. That would change only the usual proceedings of the project acceptance process but still follows the regulatory framework.

The successful example of citizen activity happened in 2019 near Festivalnaya street, where the motorways will be as close as 20 m to occupied apartment blocks (District committee on town planning of the North administrative division, 2015). The citizen complaints at public hearings in 2015 about possible noise and pollution from the Chords motorway construction were answered by administration funded installation of double-glazed windows in residential buildings along the planned motorways (District committee on town planning of the North administrative division, 2015; Orehin, P., 2019, July 11). The newspaper article also mentions construction of acrylic noise barriers on the sides of the motorways, renovation of pedestrian crossings and planting trees as a standard practice.

The participants of the online poll are the citizens of Moscow with access to the internet and to according technology. Access to the city free Wi-Fi is available on main streets and all public transport since 2016, the mobile internet providers are cheap in the capital too with 86,6% of Moscow households having broadband subscriptions, and almost 100% of the

Moscow residents were predicted to have a smartphone in 2020 (TASS, 2017), so the digital inequality in the city is low and almost everyone had a technological basis to have an access to the poll. Although, to be a Moscow citizen one has to be permanently or temporarily registered in a city. Registration is required of anyone who stays in a city for more than 90 days. According to one of the city department heads, the amount of people who lived in Moscow in 2019 is 15 mil, contrasted to registered 12.5 mil people, and 20 mil in Moscow agglomeration (Regnum, 2019). The extra population can be assumed to be guests of the city, residents of Moscow suburbs, and illegal migrants. The last group is especially vulnerable, as up to 20% does not speak Russian (Florinskaya, 2017). So even if almost all registered citizens in Moscow have internet access, the amount of real population that does not is still unknown. Similarly to vehicle owners having more incentive to take part in all polls in 2019, the I/We Against the Chord organisers in Saburovo encouraged their members to take part in the poll as well, so it is possible that the personally interested citizens were also a more prevalent group than they would be otherwise.

However, the interaction levels during the poll are lower, one could only choose one ready answer at the multiple choice option and could leave a written commentary. The question itself was phrased as 'Does Moscow need the Chord motorways? Do you support the Chords construction project?'. The suggested options were 'Definitely, Mostly supportive, Supportive but with admonitions, Supportive but not a priority, Do not know, Leave the decision to experts, and Not supportive at all'.

The reply options seem to cover possible opinions towards the Chords project, the question itself might give a wrong impression without more context. Although one could argue that the construction and progress updates about the Chords are well covered topics in the news and social media channels, there is little coverage on disadvantages, protest groups and alternative solutions. The poll question asks if the Chords construction is a needed project, but within limited resources of the city, it could be possible to phrase it along with comparison with other ongoing and postponed infrastructural projects such as expansion of bus fleet, construction of new metro lines or tram lines. The City Projects NPO did not take active part in decision-making moments, but as the answer I received from their office, their prerogative is to bring awareness to the project on social media, educate the public about transport infrastructure and suggest alternative options on much earlier planning stages.

Power balance

In most of the micro-processes the restrictive and generative powers belong to the city administration and planning institutions. The planning institutions generate schemes and studies on which the subsequent rationalizations are based. The planners have the

restrictive power to accept and consider the suggestions that were made by the public and they can choose to exercise resistant power against solutions that lack participation. The city government creates the demand for those studies, generates the project's framework and timeline, generating the participatory processes and allowing or restricting access to them. Individual municipal deputies also can resist unfair decisions and generate more inclusive environment, engaging more public and advocating for changes in projects. Similarly, in the vertical hierarchy of the city administration and planning institution, the committees, individuals and offices that have higher ranks, restrict the lower ones from contribution to decisions. They can shape the discourse, present information in flattering way and often keep their anonymity as in a research by Maria Koroleva and Maria Chernova that was conducted in Moscow and Tomsk (2018).

In the time before decisions accepting a certain plan, scheme or design are made, educating actors such as NPO City Projects can generate engaging content and produce scheme suggestions that can be taken in action or referred to later on the detail design stage. The education programmes on popular urbanism invites more imagination and creativity to the established spatial planning field from the citizens.

During public hearings the participants exercise their rights and present a resistance to governmental domination and 'power over' them, as a common rhetoric repeats that the solutions developed by planning experts shouldn't be argued, the city administration is competent on its own and the citizens do not want to be involved in such events (Zimuldinova, 2018). In that context, showing up in large numbers to the public hearings events shows a certain resistance and low trust in institutional legitimacy. At the discussions at face-to-face events, online discussions between citizen groups and sending written complaints and suggestions, the individual citizens and citizen groups use generative power. They are restricted from being present at the moment when the actual decisions are made, both from the place and the event.

The users of the Active Citizen platform can only express their stance on the topic, thus generating data that can later be used by the IT department and the Moscow city administration. They lack tools to show resistance and can not influence how the platform's framework operates, however the advantage of the poll system is that the platform being a project by the mayor, lets the poll results to easier reach the ears of the high ranking officials.

In the end, the power balance is nowhere near equal in the whole process. Co-production is not the stated goal of infrastructural projects due to their high cost and requirements of professional knowledge, it is useful to look at the co-production stages. Even if the citizens do not take immediate part in these steps, more participative practice would let them

examine and question all the stages, opening information, reports and maybe creating local committees that could oversee the happening micro-processes and decisions.

Reflection

The use of Nico Carpentier's (2016) method allowed to dive deeper into the nature of the physical and online participatory processes in the given case. Both have stronger and weaker sides regarding informing, involvement and impact, and can be improved in the future, for example starting to collect citizen opinions on earlier design stages. The public hearing tool can benefit from all three levels of learning described by K. Schmidt-Thome and R. Mäntysalo (2014, pp. 121), and that would be possible if the city government would allow citizens to exercise more power, as the activists who are willing to make change are already present.

The online voting platform, however, does not fully represent the first learning level, where the poll results could reverse planning and development processes to new alternatives. The feedback loop works for projects that have not been started yet or the ones with more predictable outcomes. The whole polling platform concept could be benefited from giving more initiative to the voters, letting them to choose more diverse options in polls and the polling subjects themselves without censure by the website moderators. Political imagination is obstructed in such conditions, not letting the voters to question the phrasing of the polls, but also the legitimacy of the platform itself.

The two participatory instruments are not designed with a maximalist version of participation (Carpentier, 2002) that would aspire for an equilibrium between actors. Both cases seem to engage interested residents, but in late stages of the planning process and in case with the Active Citizen poll, only after the construction had already started. If the direct input in the designs by the citizens is not a priority for these processes, then there is left conflict management and creation of input legitimisation according to the normative theories by Scharpf (R. Mäntysalo, I.-L. Saglie, 2010, p. 327).

Ekaterina Schulmann (2019) says that often urban environment conflicts are caused because the citizens feel ignored, as the city government rarely consults the public before making drastic decisions that influence their daily life. She also noted that several attempts of Moscow citizens to stop and reverse the decisions made by the city administration were successful, just not widely exposed in the media. One of the examples being the large wave of protests in 2016, disputing against the old housing renovation project (20.09.2019). That argument belongs to the discourse of agnostic planning, where the process of deliberation and agonism transcends consensus, which might alienate participant groups (R. Mäntysalo, I.-L. Saglie, G. Cars, 2011, p. 2120). During more active discussion the stakeholders can hear each other's opinions and easier accept the final decision, as being asked is often

comforting enough. Robert Argenbright had expressed a concern about the time and resources that citizens have to utilize to participate, but the current events demonstrate how citizens are already willing to spend them to gain more power.

As noted by Argenbright, initiative groups tend to solidify around incommensurables, places that bear collective memoryscape, like cultural heritage objects, nature reserves, homes, places with emotional attachment (2013, p. 12). Those opposed to non-places, places which do not belong, everyone's and at the same time nobody's places. The Chords, which mostly go through industrial zones, rarely touching residential districts and green areas, have a smaller chance to gather broad attention.

Although there are not many successful civic movements against spatial planning projects, there are a few¹. Residential and public space projects gain the most attention as the altered spaces carry more significant emotional attachment than non-spaces such as closed industrial areas (Argenbright, 2016). Protests that achieve success usually either gain the attention of millions of citizens or are easier to alter due to low city density.

The lack of open information resembles the lower nonparticipation steps on the Arnstein's (1969) ladder of participation – manipulation and therapy. When most of the published information supports the case, it is easy for an ordinary citizen not to question the positive impact that the Chords will bring.

¹ One can find most of them on an activist website activatica.ru, led by a group Activatica that is tracking most civic movements in Russia.

2.5. Comparison

The two cases are large scale long term ambitious projects with large budgets and high importance in each city. They have few comparable projects that are executed at the same time with the same level of priority in the field of urban environment and transportation in Moscow and Helsinki. The domination of the city administrations are resemblant, with a high percentage of city owned land, city-owned organisations and the history of rational planning thinking. However, the Finnish planning institutions started the change towards participatory planning earlier and have progressed more, including public engagement deeper in the system framework. The resident events happen at all stages of new plans development and after changes to the existing plans. The resident meeting reports include the variety of ways how the meeting was announced and all present representatives, both from public services and private companies. Although the complaints against announcement practice of resident meetings and ignoring residents' requests still exist (Takala, 2019, November 09).

In both cities the online announcements and other relevant information are clearly displayed on relevant websites and blogs. In Moscow the advantage is that most relevant sources are interconnected under one mos.ru umbrella website and the same account can be used for most of them. In Helsinki one of the difficulties is the array of online sources, partially due to the Jokeri project being developed by two cities and organisations owned by them but still having autonomy. However, the project has its own website and the services Päätökset at dev.hel.fi and kartta.hel.fi or kartta.espoo.fi provide great detail which is more difficult to find in Moscow. Both projects are well followed in social media such as instagram and facebook to cover larger audiences, and in Helsinki the responsible authorities gladly answer questions and communicate with the users of these platforms.

The goals of both processes are also similar - they are directed towards future development of the cities, making them more competitive on an international scale, improving the image of the city and improving daily commute for residents. The projects intervene in already developed residential areas of the cities, so communication with local residents is necessary to inform involuntary stakeholders. Any urban planning participatory process has a side goal of legitimization of the project under a question, and Hanna Mattila (2018) describes the participatory practices in Finland as imperfect, lacking direct participation and influenced by agenda of economic growth, but still having a chance to become better. Online participatory tools are described positively by Eräranta (2015) and Sjöblom & Niitamo (2020) but mostly as additional to traditional face-to-face discussions. For the Russian case Kabanov (2016) and Schlauffer (2020) argue that online participation platforms have low legitimization value due to low trust, and the best result of governmentally

led participatory process in a hybrid government would be an 'authoritarian deliberation' instead of democratisation.

The actors of the Chords project are the city administration, local residents and organisations formed by them, and all citizens. The actors of the Jokeri project in Helsinki are the city administration, HSL, private developers, local residents and the rest of the citizens. While the Helsinki case includes interests of private companies and thus stronger economic incentive, the Moscow case presents overwhelming power of the government which resulted in reactive citizen movement. While the presence of private companies does not indicate low citizen trust, a larger number of actors can be an indicator of a more democratic process. Unsurprisingly the institutional trust in the Helsinki administration is quite high, while Moscow citizens believe less in the government's pursuit after the public good.

The procedure of public engagement is better developed and followed in Helsinki, with a clearer structure of report system and active two-way communication through online platforms. The public holds generative power to bring in agendas and restrictive by electing representatives, the projects not approved by majority of residents have to be reconsidered, presenting resistant power which is incorporated into the planning framework. Comparatively to residents of Moscow, they have better position in getting necessary information in time and from various sources, the planning system has several stages in which the public preferences are explored, and the transformative power of the public is far from the top level of Arnstein's ladder of participation, but the citizens seem to be content with their input and the results that the government is producing. Helsinki residents have higher input in planning, design and prioritisation stages of the transport network, moving them a bit further from the traditional planning management system.

The Moscow Chords case might be touching the first and the second learning levels, while it seems as in Helsinki these two levels are known by residents. The first *rote* level of learning through trial, error and feedback had significantly improved by introduction of online feedback platform Our City / Nash Gorod, while the second *deutero* learning had both benefited and hurt from the rise of online tools and media. The easy to use channels with fast response loop and effective problem solving on the level of urban comfort and tidiness improves views on the city administration and builds trust for other requests as well. But as Kabanov (2016) and Schlauffer (2020) noted, these platforms are designed and operated by the city administration inside an authoritarian/hybrid political system. The communication channels within non-democratic systems tend to be used as democratic legitimization tools while raising and solving only those problems that the government wants to focus on. That system is flawed on the second learning level, allowing the powerful agents to disclose

information and redirect public discourse. That could be changed by the opposition groups creating and designing frameworks for similar communication platforms and online tools.

The third level of learning can not come easily, as any planning system will have its drawbacks and the public has to always be following context and reevaluating its own identity. The wickedness is in the need to constantly repeat that process, and empathetic help from the governments and planning agencies in order to resolve problems is essential. The planning institutions in Moscow and Helsinki have similar urges to cater to the public, create an image of comfortable and successful cities for people and businesses, and to provide financially profitable projects. The neoliberal approach to the urban environment results in speedy planning and development, the choice of the most effective solutions and private companies that can provide those, and, therefore, less chances of well designed participation, higher economic drive and more input in decision making from private design and development companies. In a similar streak Mick Lennon (2020) urges planners to reconsider an almost hostile view on private stakeholders.

From the surface view, the participatory tools that are used in both projects are very similar, both resident events and online instruments. They engage a large section of residents, have similar use algorithms, stated goals, techniques and image of progressive and caring public services. But the design of their regulatory framework, processes, management and impact on decision-making show that the same tools can be used with different results. The example being that residents of Laajalahti convinced Espoo council to change the light rail route to a preferable one. The interventions to the Chords plan were smaller. These are only two cases from two cities, so quantitative data is skewed, so there could be many factors in play such as financial and spatial constraints in the second case or the citizens could have been more satisfied with the presented plans.

3. Discussion

3.1. Raide-Jokeri and Ring Chords as technical artifacts

Out of Winner's (1989) categories of political artifacts, both cases would fit the first type, much resembling Moses' designs but not quite as straightforward. The public polls on online platforms and social media involvement show that the project generally evokes a positive reaction, being a timely resolution of existing problems and increasing citizens' satisfaction with the activity of city administration and the mayor specifically.

The most active adversaries of the project have two main arguments against it. The first disagreement is mainly technical objections to the master plan, in places where the chords interrupt the integrity of the environment, disturb green areas, located too close to the residential buildings and pass through a contaminated land plot and general contradictions to the 2010 city master plan (Genplan) (Butuzova, 2019, May 20). The second block of objections derives from the theory that the most effective solution for traffic-heavy cities is to develop a public transport network (Duranton, G., Turner, M. A., 2011). In this flow of argument, more advanced road infrastructure will only culminate in a stronger private vehicle culture, increasing the number of cars and resulting in the same level of traffic congestion in a few years. In this second understanding of the project, roads can be interpreted as being designed mainly for private car use. In this case, the motorways could be hanging between the two technological types. While roads are a universal concept, which can be used for any kind of transport, more specified elevated motorways with little access to the pedestrian routes and acting as a quick way to commute from the outer districts to the centre, promote private transport, which on its own is inherently political and belongs to the second type by Langdon Winner.

Private transport in comparison to public transport systems is more individualistic and decentralised. This is especially true in Moscow, where most public transport is owned and funded by the city administration. A few private companies exist and they mainly focus on taxis, car- and scooter-shares, and the fixed-route taxis, 'marshrutkas'. And even they are slowly going through a process of unification and becoming accessible with the city travel cards. Public transport is authoritarian by Lewis Mumford (1964), satisfies a more leftist socialist agenda which is getting more popular these days among urban planners, meeting stricter requirements of eco-friendliness and sustainability, while the alternative of private transport is considered democratic in this example and has capitalistic nature. These

qualities transfer to the connector between the world and the transport technology, and one can argue if motorways are the specific milieu for private transport, or can be rearranged and reused for other purposes, as technology from the first group by Langdon Winner (1989).

The Raide-Jokeri line is also the first type out of technical objects. Similarly to Ring Chords it carries echoes of the legislation and institutional culture of the municipality in its shape. The city strategy to create a modern multi-nodal city resulted in the execution of the light rail line project, tying together two cities and a few future hubs. Moscow also has a multi-nodal city as a goal, having expanded its territory dramatically in 2013, but there are yet no major transport network developments in that direction. Another question is if the participatory process used in the project planning altered its form, and if the technical object carries that practice in itself? The action of protest leaves a memory in its participants. The collective memory of Helsinki citizens can fade if the participatory practices stop in the future, but those residents who managed to change the route of Jokeri line will have a positive experience, and might be more willing to take part in other civic activities.

3.2. Aesthetics

There has been plenty of exploration of the relationships between the human and technical artifacts, and between artifacts and the state. According to Langdon Winner the state's political system has a direct impact on the technological artifacts developed in its context. However, he is sceptical towards technological determinism, and the reverse statement that the developed technology can impact the political system. Participatory practices can be considered political artifacts - they are tools embedded in governing patterns, often producing less radical solutions and changes of urban environment. Looking at the case studies I suppose that better executed participatory planning practices produce better public spaces from the point of view of immediate residents. Most of the complaints on both sides were focused on the space quality that used to have different functions prior to the projects' constructions. Therefore democratic aspect of participation does influence the technical artifacts, being an extension of a democratic political system. Similarly the less democratic processes have to offer other rationalia and rationalisations behind their decisions. Those reasonings have to follow the notion of public interest to be accepted as legitimate in the view of citizens.

The different approaches to assuring public interest were described by Heather Campbell and Robert Marshall (2002), pointing out that the focus for the interest base can be in the spectrum from outcome-based to procedurally based. The procedural focus provides democratic legitimation while the focus on the outcome might summon false rationalisation. According to Foucault (2008), utilitarian based anglo-saxon states view the individual rights as the basis of the law, binding the state and individual power by mutual no harm rule; while French liberalism defines the boundaries of state control by the extent of human rights. Mäntysalo and Saglie (2010) call it input and output legitimacy types, where input equals the process, involves democratic participatory practices, and output targets the product, promoting common welfare. The government in the output legitimacy model poses as being for the people, not by the people and possesses knowledge and capital as main resources. Consequently, the public interest definitions vary a lot from one political system to another, bringing the notions of ethics and ideology very close together.

Both ethics and ideology play a normative role in the design and maintenance of political tools, therefore having an impact on technical artifacts. By Simondon (2017) morality is a grounding force of religious reality that together with technical praxis creates ethical thinking. Ethical thinking does not relate to aesthetic thinking directly, but as Simondon concludes, all modes of thinking can be related through the technicity, as it is the initial divergence from the

magical unity. Aesthetic thinking is primitive compared to the technical praxis and morality and has not diverged into pure representative or active orders including both.

Ethical thinking is born from applying morality / ideology along with creation of technical objects, while aesthetic thought applies to existing key-points and technical objects when they transcend the geographical world into the human world. Using this model on the Moscow Chords project, the parts of the motorways can be seen at first as key points in urban landscape, often being raised over the topographical surroundings in the shape of estacades and multilevel junctions. Visual representations of the project becomes a graphical simulacrum with an attached symbolic significance in accordance to the current ideology / ethics. Such representation can integrate the motorways in the aesthetic reality, giving them cultural value. But as the motorways are created through political artefacts they also influence political reality as statements and signifiers of the current political regime, allowing private vehicles primary access compared to pedestrians beneath estacades, contributing to the reduction of public spaces in residential areas that are not as economically profitable as central or touristic public spaces, and generally having more rationalisation of bettering traffic than actually solving the traffic problem.

After some time the motorways stop being a novelty, for drivers they are milieu, and not an object to gaze at as a tourist. Aesthetic quality of public spaces surrounding the motorways declines as the political system is not democratic enough for the residents to defend their interests against rationalisations based on economic drivers. At the same time, a powerful non-democratic system had created a chain of monumental objects with lower sustainability levels than a democratic system would, very similar to the image of the political system itself. The resulting monumentality might have a beneficial side in the future as Joergen writes that the maintenance and the authority who owns the artifact matter the most.. As Alois Riegl (1982) writes, monumentality can be both intentional and unintentional, gaining historical and artistic value over time. The changing morality together with ideology create new values that are either presented or not in the existing mega structures. Hal Foster (2009) supposes that monumentality becomes desirable when the architectural body wins over architectural image, and Lucia Allais (2012) sees infrastructural objects as antagonising both to nature and human. They are seen as alien or as quasi-other as phrased by Don Ihde (2014), becoming romanticised and entering the aesthetic niche of monumental.

The built parts of the Jokeri line reveal their monumentality far from residential areas, allowing comfortable public space and becoming the public space in the immediate surroundings of human urbanity. Democratic ethics of the Helsinki participatory process ensures that the Jokeri light rail will be conforming to current aesthetic values within the inhabited areas, no matter of their direct economic impact. One sees the light rail as a more

sustainable alternative but this project of public transport is inherently more sustainable in the current ideological environment.

The change of the route that occurred in 2012, moved the light rail's surroundings in Espoo further from residential and green areas, preserving those neighbourhoods from the sudden change and letting the residents to live in a chosen more comfortable environment. Compared to the positive case in Moscow, where the nearby residents' houses were altered, communicative planning involved in this case resulted in a more industrial location. Future passengers of the line will have a different visual perception of Laajalahti region. The milieu of light rail won't introduce them to more secluded areas of the neighbourhood, leaving the transit route more monotonous. The communicative planning in this case preserves the aesthetic pleasure of the Laajalahti residents to live in a less urbanised area, while imposing the more transit like environment on commuters. Unlike trams that occupy mostly lively centres of towns, light rail might get a different association of the environment they are inserted to and form a new aesthetic expectation. That expectation does not have to be definitely positive or negative, as Edensor (2003) writes about both possible attachment to and alienation from roadscape.

Following the visual identity of both projects in social media, they both present many pristine photographs of the completed section from drone birds-eye view with either lively bright colours or stylish toned down saturation. The delivery creates a high tech, modern and toy-like image of geometric patterns created by transport systems embedded in thriving neighbourhoods or green areas. Such aesthetic representation goes well with the narrative behind both projects - a part of a young, modern, busy but clean, economically successful metropolitan city.

The similarities in the aesthetic presentations between the two projects reveal close relations between values of the two states. The strategies of the two cities both talk about comfortable urban space, solving housing problems, catering to citizens' demands, and most important - bringing international investors and promoting business within the city CBD areas. Both countries promote the image of modernity, democracy and thriving economy. Although Russia is rarely described as a truly democratic country, the hybrid political systems often implement democratic tools in order to avoid authoritarian labels in the international community and in that way unwillingly allowing more citizen power. The economic drive in post-capitalist welfare states and natural resource dependent states in the age of decreasing value of oil and gas is high, especially in the capitals of the countries that have to uphold the image of the whole country. Although the histories and deep values of Russia and Finland are not the same, this situation results in surface images that resemble each other.

Anthony Dunne and Fiona Rabe in *Speculative Everything* (2013) pose a similar idea that ideology can shape technology, bringing an example of Soviet artifacts which were developed outside of Western ideals. They write that “...technology is as much embodiment of ideology, politics, and culture as science” (p. 167). That view is strikingly similar to the relation between science, ethics and technological artifacts by Simondon (2017), if one collates the ideology and ethic with religious dogma. The relation of ideology and innovation that Dunne and Rabe brought up, makes me wonder about the actors who create the innovation. Creating something new requires a degree of imagination, political imagination in this case. Daniel Opazo, Matias Wolff and Maria Jose Araya (2017) put stress over What to design rather than How, writing that reinterpretation of design problems is often more important than solving them. During participatory processes the designer is advised to acknowledge that and help the public to use right methods of design, but let the community be a mediator between the design and the expert.

Another technology covered in this work is the Active Citizen polling platform. This technology can alter the urban environment and its perception as the GIS navigation tools described by Lehtinen and Vihanninjoki (2021) and McQuire (2019). The application and website are not exactly tangible but they are a form of deposited inscription. It is not a physical extension of a human body, but can change the perception of the urban environment, making it more familiar through regular voting. The environment becomes more understandable, but only if the voter can see the changes in urban fabric that happened according to their vote. That is a more direct influence on the environment compared to the case by Lehtinen and Vihanninjoki (2021), but more subtle impact can start from the administration and municipal decision-makers who will expect more feedback from citizens and choosing the more popular plans, or using the early engagement to introduce new projects, familiarising and engaging pollers. Such two way communication might alter some citizen's perception of the project to be more favourable and make them less irritable (Schulmann, 2018), similar process as introduction of new aesthetic through photographs (Ahlava, 2002). After projects' realisation, there will be less strangeness to it, and there will be mental representations of appearance to be linked to an existing object.

Appendix. Communication with City Projects

NPO

Nyurguyana Pavlova: According to your website, the project 'Road Revolution' only publishes articles relevant to the topic, right?

City Projects: That website was made for the launch of that project and played its role in gaining attention to the problem. Now only posts from the main blog with a relevant hashtag appear there. One can be active in different ways: tell them that construction of motorways is not needed, ask for their demolition and conversion into streets. The goal is always the same - to let the urban streets be streets.

N: Do you cooperate with other organisations in your activity?

CP: No, we usually don't.

N: What kind of people are involved in City Projects?

CP: We have politicians - the project leaders and Daria Besedina, Anastasia Bryuhanova, many municipal deputies from Moscow, Saint Petersburg and some other towns and regions (for example, deputy David Avetyan at first became a leader of City Projects in Tomsk and then got elected in Tomsk Duma). Otherwise, many people from different regions of Russia (and Russians who live abroad) and professional backgrounds are interested in our activity and fund us.

N: Which communication methods are most effective for you?

CP: Posting in social media, group chats in messengers, also videos from Varlamov and Katz [the City Project leaders and founders] about urbanism are popular.

N: How do your members participate except donations to your fund? Are there different activities from different interest groups?

CP: We invite professionals to work on our projects [City Projects translate relevant research, plan and design urban solutions, conduct urban research, publish handbooks, etc.]. In Moscow they work for a salary (except maybe some volunteers who help us with field research), in periphery regions there are many volunteers. The majority of members help us monetarily :) They listen to our ideas and are ready to donate for us to advocate for them.

N: At what stages the projects are more effective?

CP: We succeed in gaining attention to modern urbanism trends. After that, our suggestions can be taken to be implemented in practice.

N: What instruments do you use to achieve your goals?

CP: We impact the media agenda.

N: Maybe this is too institutional, but are there any manuals in your work on how to interact with citizens, on the streets and online?

CP: We write in social media, we used to have a table about interactions with governmental services, once a year we publish a video report on YouTube. Once a year we publish an audit report on our website. But we do not have a formal system - it depends on the current situation.

N: Thank you for your time.

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