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Architecture & Dwelling

Embracing temporality in the urban

RESEARCH PLAN
Master of Architecture, Urbanism & Building Sciences

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The world is urbanising at a fast rate. While currently already 56% of the world population lives in cities, it is estimated that this will only grow, leading to more than 67% by 2050 (Ritchie, 2018 & Statista, 2020). While in Europe and North-America, this number is currently already over 75%, the growth will mostly be in developing countries, like countries in Africa, where 43% live in cities right now. In Ethiopia, 21.7% of the population is urbanised, growing at a rate of 4.63% per year over the last five years (CIA, 2020). In the whole of Ethiopia, with a country population of 108 million and an urban population of 23.4 million, every year an additional 1.1 million people move the city. In the capital and main city, Addis Ababa (population 4.78 million), the urbanisation rate is slightly lower, the city itself growing at 2.1% per year (UN Habitat, 2017). This is however still an absolute growth of 100 thousand people per year.

With this population growth, the city borders extend outwards, into the former agricultural lands. This growth of surface area is not unlimited: Addis Ababa has a fixed boundary. Outside this boundary, land is property of the different regions in Ethiopia, and not of the city itself. Growth of surface area can pose a different problem as well: a population sprawl over a large area results in a higher relative cost, or a lower quality, of infrastructure and services (Glaeser, 2012). Thus, for these, it would be most efficient to provide a high density, and a structured pattern of expansion.

But in Addis Ababa, the (less structured) informal urban is playing an important role. According to UN Habitat (2010:5), up to 80% of Addis Ababa can be classified as a 'slum', using the UN Habitat slum definition. Of the people that move to the city, a large amount will end up in informal settlements, part of which are slums. The UNCHS (United Nations Centre for Human Settlements) estimated in 2003 that 40-70% of the urban growth in developing countries is informal (Abagissa, 2019:1).

The amount of people living in informal settlements in Africa is increasing by around 5% every year for the past 30 years, for Ethiopia this is with 5,4% even a little bit higher. This means that in between 2015 and 2020, the population living in informal settlements in the whole of Ethiopia increased by 5,4 million (UN Habitat, 2020).

Addis Ababa has had several strategies regarding these informal areas (Abagissa, 2019:14-18), aiming at leaving them as they are, demolishing them, or regulating them. In the mean time, the city also wanted to create adequate housing, and has developed several strategies in the past decades. The latest scheme, the Cities without Slums (post-2000), will be further elaborated in the statement of the general problem. To understand the life in the informal urban, this paper will look at two keywords: informality and temporality. These keywords will be further developed in the specific problem statement.

The research question combines the general problem with the specific problem. This question is split into four sub-questions, which will each be developed in the theoretical framework.

The Cities without Slums program started as a reaction to the current shortage in available dwellings. However, the result of this program falls short of the set ambitions. Aiming at building 400.000 housing units between 2006 and 2010, Addis Ababa managed to build (only) 80.245. While this is a respectable number, it is not enough to provide housing to all the citizens already looking for a dwelling, as well as all the newly arriving citizens.

There is not only a shortage of housing units, these units built by the Cities without Slums program are also unaffordable for a large part of the population. As stated in a report by UN Habitat (2017:51), 45% is perceived as 'not affordable', an additional 20% as 'unaffordable over time' and 15% 'somewhat affordable', leaving only 20% for the category of 'affordable'. On top of that, even in the specially allocated dwelling units in the condominium projects,

almost half of the inhabitants of a condominium dwelling has fallen short of paying their mortgage. The consequence of the construction of these units is the relocation of the people previously living on the site, leaving them vulnerable to losing their income. 57.9% states that their ability to earn income has been affected, and even 86.5% states that they are not able to sustain their business at the new location (UN Habitat, 2017:66). Same problems appear in maintaining social relations.

With the problem of the shortage of housing units, people tend to react by building unplanned, or informal settlements. These settlements are known as *Chereka Bet*, or moonlight houses (Abagissa, 2019), and are mostly built during the night. The consequences of the inability in dealing with this urban poor population is a strong growth of the urban land, due to the inefficient way of building dwellings, taking over agricultural and rural lands. It therefore increases the pressure on the infrastructure, and decreases the availability of land for growing food. Also the quality of built environment in these areas is low. As stated before, up to 80% of Addis Ababa consists of these informal areas, having the following characteristics:

> *"inadequate access to safe water, inadequate access to sanitation and other infrastructure, poor structural quality of housing, overcrowding, and insecure residential status"*
> *(UN Habitat, 2003, quoted from Okyere & Kita, 2015:7)*

Since the urban population is growing rapidly and the already existing shortage of housing, mainly these informal areas accommodate spaces for urban migrants, resulting in overcrowded areas. Aside of these aspects, a relative large share of people living in this area lives below the poverty line, has no educational background, and is more vulnerable to diseases. Poor environmental quality is estimated to account for 25% of preventable ill-health (Shibata et al., 2015 & Pugh, 2001).

Therefore there is a dilemma in creating housing for all new urbanites. The previous housing schemes, one of which is the current Cities without Slums program, don't incorporate the challenges created by the huge growth of the urban population and the limited availability of land. The informal housing, *Chereka Bet*, is affordable, but lacks quality of life and quality of built environment. The general problem therefore is the lack of dense affordable housing units for an increasing amount of urban people, and the inadequacy in providing for the needs of the urban poor population (figure 1).
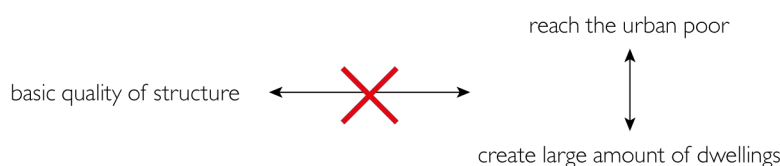

Figure 1, general problem statement (own source)

To cope with this informal built environment, it is necessary to understand the processes that define these areas. African cities are very much different than European cities, and in this situation, we cannot completely legitimatise to compare the urbanisation in countries in Africa with the urbanisation in countries in Europe, as stated by Pieterse (2010) and Myers (2018). The danger is very much apparent that there is a tendency of seeing the current state of European cities as a goal for African cities, while the other directions are overlooked. While African cities certainly could have improvements, it is important to consider not only the urbanisation of these cities in Africa from a Eurocentric perspective, but also compare them

within their own referential framework. By doing this, the urban life of the people and systems that play a role in these cities can be better understood.

How do people live in informal settlements, how do they dwell, generate income, have their social life? In other words: how do the complex systems of the city take shape in informal areas? What is the difference between formal and informal settlements, and how can these be defined? These questions will be further developed with the help of literature of informality as a whole, and temporality in specific.

Different aspects are playing a role in the informal urban. Following Okyere & Kita (2015), the following aspects will be looked at: economic, legal, social forces, behavioural and sustainability. The economic includes labour flows and income generation. The legal investigates relations between official and unofficial, legal and illegal activities. This includes occupation, transfers, interaction or negotiation. The social forces aspect deals with social activities and actions. The behavioural aspect is one that relates well to temporality, but here it will mainly focus on mobility: moving from the informal to the formal and the other way around, blurring the boundaries of these worlds, adding complexity and nuance to these definitions. Lastly, sustainability deals with the ability to deal with the vulnerability to climate change and weather events.

Temporality is an aspect which is not included in the above, although it does relate well to the behavioural aspect. Following Lombard (2013), temporality can be understood as looking at an area as a process, rather than an output. In this way, the traditional forms of the 'static' city, the built environment as seen as the output, become the background of the 'kinetic' landscape (Lutzoni, 2016). The temporality in the urban is built upon the static: landscape, roads, existing structures. An example of this interrelation between static and kinetic is the Torre David. An existing, deserted high-rise building is occupied by people informally, creating their own dwellings, shops and facilities in the concrete frame of an unfinished tower.

More importantly, this interrelation is not necessarily manifested in something physical: temporality is very much related to "instability, indistinctiveness, dynamism, mobility, recyclability and reversibility" (Lutzoni, 2016:2). While this built environment might be the basic background of the urban life of the people living in informal areas, it is much more defined by their economic relations, social activities, dynamic locations, and sudden changes in the environment. It is in constant reaction to its environment, gradually building up an area.

In conclusion, there is need for a translation of the knowledge of the informal and temporal aspects of a city, into planning and building practices. The current practices neglect the complexity and dynamism of the informal areas, and their interrelation within the city. An oversimplification of the informal urban leads to a biased duality of formal versus informal, therefore condemning the informal being the negative counterpart of the formal, overlooking the movement and actions of people. A better understanding of temporality can concretise this complexity and bridges the planning and building practices with the informal urban.

research question

Combining the general problem and specific problem, it leads to both a research question and design challenge: how can the urban use temporality, as one of the aspects found in urban informality, in accommodating space for as many dwellers as possible, while adding basic quality of dwelling as well as living to those who are either naturally attracted or condemned to these places, most of the latter being the urban poor (figure 2).

4

reach the urban poor

basic quality of structure

create large amount of dwellings

integrate strengths
of informal areas
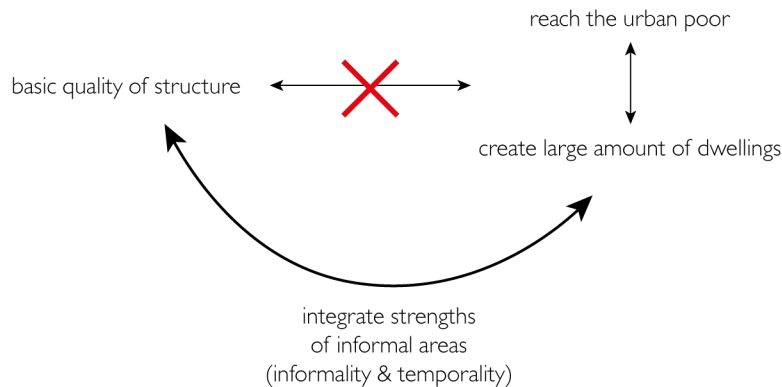(informality & temporality)

Figure 2, diagram of the research question (own source)

This question will be answered through the following sub-questions:
1. How can we understand informality and in specific temporality? (theoretical analysis)
2. What are the spatial patterns in informal areas? (spatial analysis)
3. What are methods of dealing with housing for the urban poor? (referential analysis)
4. What are methods of creating a high density area in a city? (referential analysis)

These sub-questions will each be further developed in the theoretical framework.

theoretical framework

1. theoretical analysis

There are several ways of looking towards informality and temporality. In distinguishing the main perspectives this paper will follow Okyere & Kita (2015). They list the economic, legal, social forces, behavioural and sustainability perspective. Over time, the amount of perspectives, and the perspectives itself, have evolved, and the theme of informality has transformed and passed through different stages, amongst others dualistic, popular, relational and temporary. In this paragraph, the understanding of informality will be developed, while temporality can be extracted out of the later (relational) definitions of informality. Figure 3 gives an overview of the transforming perspectives of informality.
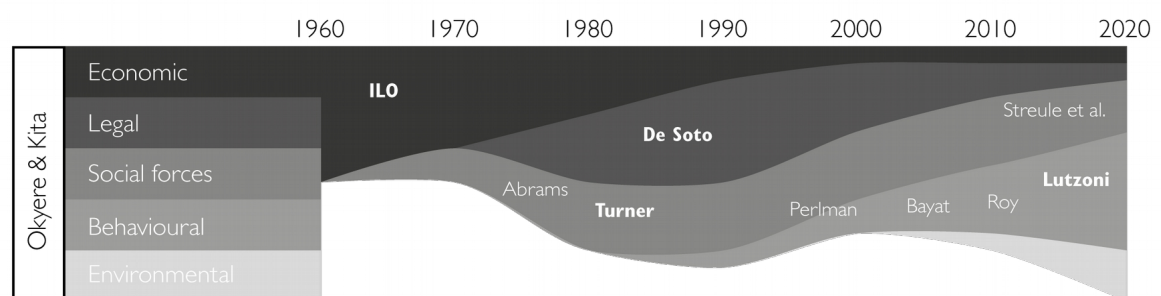

Figure 3, transformations in the understanding of informality (own source)

The start of the recognition of the informal sector was rooted in the movement of labour to cities in the 1950s and 1960s. Reynolds identified these sectors as the state sector and the trade service sector (Roy & Alsayyad, 2004). The trade service sector consisted of the people hanging around the city streets, sidewalks and back alleys in developing countries: street

vendors, small artisans, shoe-shine boys, and many more. In a 1972 report, the ILO (International Labour Organisation) made the same division, representing a way of doing (economic) things characterised by the following aspects: ease of entry, reliance on indigenous resources, family ownership of enterprises, small scale of operation, labour-intensive and adapted technology, skills acquired outside the formal school system, and unregulated and competitive markets (Roy & Alsayyad, 2004:11). Thus, the informal is defined on the basis of the economic aspect. Furthermore, the division is quite rigid: the duality between the formal and informal defines the two aspects, therefore the informal is excluded from the formal, condemned to being a set of marginal activities (Lutzoni, 2016).

In 1994, Cathy Rakowski (Roy & Alsayyad, 2004) showed two different approaches: first the economic dualism of the ILO, of which advocates of the underground economy were a spin-off. Secondly, there was Hernando De Soto and advocates of microenterprise perspectives, which focused more on the legal side of informality: defined by a status of labour, a condition of work and a form of management (Roy & Alsayyad, 2004:12). De Soto regards informality as a survival strategy, seeing the informal economy as "including all extralegal activities – both market and subsistence production, as well as trade" (Roy & Alsayyad, 2004:13). Interestingly, a growth in informal (extralegal) activities can be attributed to a growth of state regulations. The more rules there are, the more activities there are that avoid (parts) of these rules. Informality gives a means for breaking down legal barriers. It is thus a response to the existing situation (market demand), rather than born out of unemployment.

A different approach to understanding the informal was done in the 1960s, when researchers started seeking an on-location understanding of self-build and self-help in squatter housing (Pugh, 2001:402). Charles Abrams was one of these, describing the poor condition of the dwellings, and blaming the government for neglecting these areas. During the same time, John F. Turner focused on the qualities of life in these areas, and mentions the self-fulfilment and the freedom of shaping your own house and home. Turner sees the incrementalism of these neighbourhoods as a strength, being affordable, flexible, and facilitating the human creativity in seeking value in life. In this regard, it is in contrast with the top-down approach of many (socialist) governments in providing standardised housing for the urban poor population, aiming for income equality. With his approach, it is essential that people are given basic services and tenure rights (Pugh, 2001), either actively, or by creating a 'tacit agreement' between state and neighbourhoods (Streule et al.,2020). Thus, the informal is defined by which activities can happen, and how these aspects of the informal can be used in creating dwellings for people. Streule et al. (2020) further define the informal rather as *popular urbanisation* (originating from *urbanización popular*, as defined by Latin-American scholars), focussing on "the crucial role of everyday experiences and on the agency of subjects in their production of space" (Streule et al., 2020:658). Popular urbanisation can challenge the well-known (hegemonic) standards of producing a space, mainly based on market mechanisms or state strategies. Moreover, experiences and processes of learning are constantly shaping popular urbanisation, and thus constantly change the way in which a space is defined and shaped.

In this approach, quoting Turner with "housing as a verb", informality can be seen as an activity rather than a static output. Therefore it clearly relates to the definition of temporality, as given by Lombard: seeing something as a process rather than an output.

In her study in Rio de Janeiro, Janice Perlman continues on this tradition of on-location understanding of informal. When questioning and interviewing people, she concludes:

> "Favela residents do not have the attitudes or behaviours supposedly associated with marginal groups. Socially, they are well organised and cohesive and make wide use of the urban milieu and its institutions. Culturally, they contribute to the 'mainstream', are highly optimistic, and aspire to better education for their children and improved homes and living conditions. Economically, they do the

worst jobs for the lowest pay, under the most arduous conditions, with the least security. Politically, they are neither apathetic nor radical. They are aware of and keenly involved in those aspects of politics that affect their lives, both within and outside the favela, but they are politically intimidated and manipulated in order to maintain the status quo. (…) They have the aspirations of the bourgeoisie, the perseverance of pioneers, and the values of patriots. What they do not have is the opportunity to fulfil their aspirations. The closed nature of the class structure makes it extremely difficult to achieve the hoped-for social mobility." (Roy & Alsayyad, 2004:122)

The quote shows that on the basis of the social aspect, the cultural aspect, the economical aspect and the political aspect, people in informal areas are not distinguishable as such in a city. The difference only manifests itself in the social mobility, being partly that of the behavioural aspect as defined by Okyere & Kita. Asef Bayat (Roy & Alsayyad, 2004) dives into the behavioural aspect of people. He describes four possible ways of looking at the behaviour of people living in the informal, and adds his own way: passive poor, survival strategy, urban territorial movement, everyday resistance, and quiet encroachment. The passive poor describes people in the informal as a marginal group, without connection to the formal city. Secondly, the survival strategy reacts on the previous one in that it doesn't portray the people as 'waiting' for something to happen, but actively dealing with the situation. However, this ends up in theft, begging or prostitution. A culture of poverty prevails. Thirdly, the urban territorial movement takes it one step further. People in informal areas are actively seeking for a better world, partaking in political organisations and grassroot developments. The fourth, everyday resistance, deals with the relation between power and counterpower, and states that these are not in binary opposition, but in a more complex and entangled relation. It states that wherever there is power, there is resistance. It shows that this resistance can be flexible and manifested in multiple ways. It distinguishes large-scale activism with tax-dodging; singing protest songs with writing down in a diary, a physical act with mental awareness.

Finally, Bayat adds his own way: quiet encroachment. He continues where everyday resistance left off:"a silent, protracted, but pervasive advancement of ordinary people in relation to the propertied and powerful in order to survive and improve their lives" (Roy & Alsayyad, 2004:90). It therefore allows for a resistance which is not consciously resisting against the powerful, but merely aiming for improving ones life. It is the tapping of electricity, not as an act of activism, but to make their living situation a better one. It exposes the balance between staying out of trouble, while doing something 'illegal', and actively seeking attention to create political awareness.

Lutzoni (2016) also emphasises the relation of informality with the lives of people (behaviour), and the freedom to define their own space (popular). In her article, temporality plays an important role in informality. Informal settlements are relational spheres in which in-between space materialises. The informal is "an intermediate space between two conditions in which different forms of creativity may become manifest" (Lutzoni, 2016:5). Lutzoni not only describes the informal areas as being mainly in the Southern Hemisphere, but rather sees it as a phenomenon which is integrated in every city in the world.

The focus with informality should not be on the *borderlines*, where the formal is separated from the informal, but on *borderlands*, where the two coexist together in a hybrid space. Even more: these borderlands should not be designed as a single place accommodating a multiplicity of events, but rather designed for accommodating 'fracture phenomena', consisting "no longer of the transformation that lasts, but that of transformations that serve as a foundation" (Michel Foucault, Lutzoni, 2016:9). Thus, the act of transformation should be the heart of the design. The quality of the space is therefore not determined by the quality of the design, but rather by the quality of the relations existing between two spheres, being a home with another home, a home with a workspace, or a workspace with a transportation hub. Since a relation is something that is flexible and therefore temporal, the *borderland* should accommodate temporal processes, and embrace temporality.
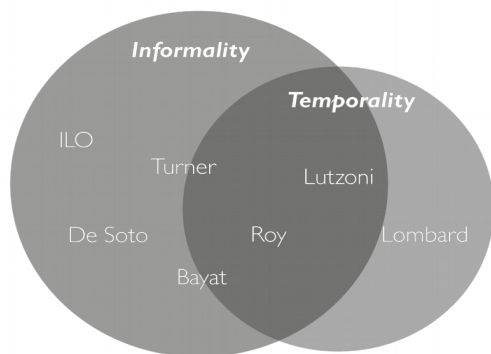
Figure 4, the overlap of temporality with informality (own source)

Temporality emerges out of informality as an important element (figure 4). It relates to the built environment not by its physical, but relational way of designing a space. In this design process, the poles of these relations, as well as the activities that take place, are as important as the space itself.

II. spatial analysis

To make the translation from the theory to the morphological and spatial, patterns in informal areas are analysed. This can be done at different scales. Going from a large scale to an increasingly small scale, the general patterns are discerned, to small scale activities happening on the street, with their relational patterns. Zapulla et al. (2014) discern several patterns in, what they call, slums, both formal and informal, both on a macro level and micro level. In figure 5, these patterns are shown and illustrated. As can be seen, the structure in informal areas can greatly vary, going from something rigid towards something very organic. Also, a rigid macro-level pattern does not necessarily mean a rigid micro-level pattern, and vice versa. However, the temporal mostly manifests itself in the smaller scales, the aforementioned *borderlands* between two spheres. Kamalipour (2016) describes these patterns as a combination of the aspects density (1), amount and location of access networks (2), and mix (3), related to sociocultural activities and place-making. Density is a 'multi-scalar multiplicity' that cannot be reduced to buildings, open places, or people only. Access networks are mainly about movement, connectivity and permeability. Mix includes the formal, functional and social mix, concerning differences and multiplicities: formal mix is related to the built environment (grain size and building age), functional mix by the flows (between housing, working and amenities), and social mix by the people (age, culture, gender, etc.). These form the parameters that influence the spatial patterns, either directly visible and 'static' (as is the case with the built environment and road networks), or flexible (as is the case with flows of people and mix), which relates well to temporality. In his study on informal neighbourhoods in Bangkok, Kamalipour draws the following main conclusions in the relationship of these aspects:

- The ways in which fine-grain plots (formal mix) have the capacity to accommodate differences (social mix) resonates with 'spatial capital' as a measure of urbanity
- Higher building density cannot necessarily predict a high level of street intensity (functional mix)
- Loose parts (elements of functional mix, i.e. cars, motorcycles, or furniture, stored materials) are not necessarily correlated with a specific type of interface, concentration of entrances, or height of buildings (formal mix)
- Loose parts are more concentrated in the area with higher street-life intensity (functional mix)

In her observations in Favela Grota de Santo Antonio, Cavalcanti (2017) makes interesting relations between activity and physicality. She concludes that most commercial spaces are located closest to the 'formal' part of the city, and activities which may cause nuisance, are

taking place in back yards or courtyards. She also notes the blending together of people in their search for cheap products and services.
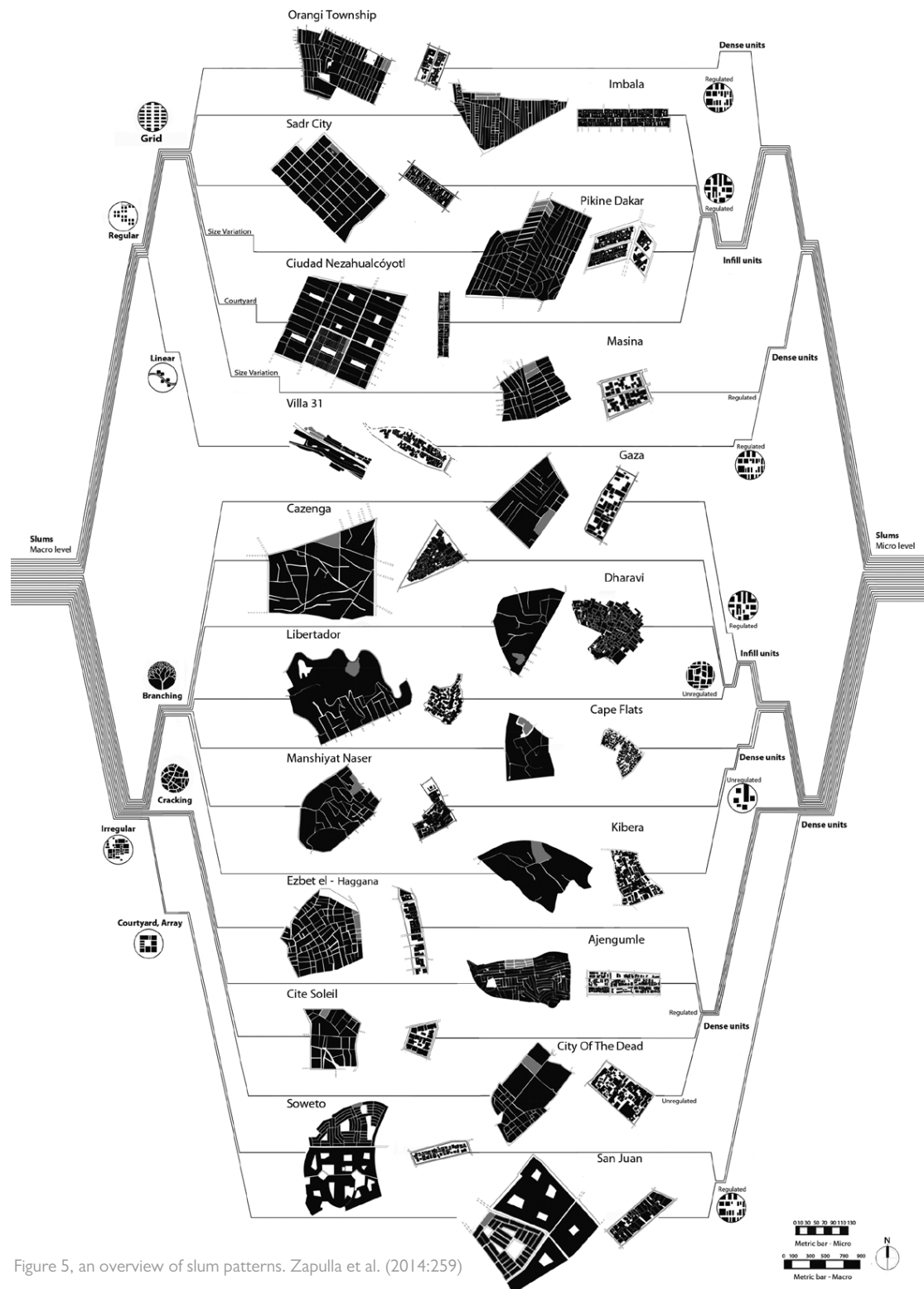

Figure 5, an overview of slum patterns. Zapulla et al. (2014:259)

III. referential analysis – existing strategies regarding informal areas
Addis Ababa has had several strategies in dealing with informal areas. The most important of these are the Sites & Services scheme (1970s) and the Cities without Slums (post-2000s). Aside these particular strategies, there are in general three ways of reacting to informal areas:

leaving them as they are (*laissez-faire*), demolishing them (2) and regulating them, including upgrading (3).

The Sites & Services scheme was adopted in the 1970s to provide planned and serviced housing land to low-income people. The government provides the site and the basic infrastructure, as well as simple facilities on the site itself, and people can build their own dwellings around these. The main idea of the scheme is thus a government acting as a facilitator, rather than as a provider, inspired by theories of John Turner. Through this self-help form of building dwellings, the scheme aims at combining a set quality with affordability, cost-recovery and replicability (Pugh, 2001).

The scheme achieved varying results, but overall it has created many dwellings which are still functioning today (Mota, 2015). A well functioning scheme can provide affordable dwellings, freedom for dwellers to provide their own house, and a large amount of dwellings. Cost-recovery can be a problem, since it can be hard for planners, engineers and policy-makers to accept relative low-quality standards of services, raising the prices of a unit and becoming less and less affordable for the urban poor (Pugh, 2001). Also, the scheme works best when land is excessive, and land prices are low. When land and housing is scarce, the scheme is not providing enough housing for the urban poor: either by accommodating not enough people (taking too much land per unit), or by mostly accommodating dwellings for the middle-class. In the current situation, Addis Ababa has a limited city surface area and an increasing pressure on available land, as well as a high shortage in housing units. The sites and services scheme, as it was organised in the 1970s, seems to be not suitable for this situation.

The Cities without Slums scheme has already been developed in the general problem statement, and it would be superfluous to repeat it here. To take the conclusion: the scheme creates efficient dwelling opportunities for a part of the urban population, but falls short of the set ambitions, and becomes unaffordable for a large amount of people. This is mainly caused by the lack of economic opportunities in the new dwellings and neighbourhoods.

Aside of these schemes, the *laissez-faire* strategy (leaving informal areas as they are) was mostly dominant in the 1950s and 1960s, when authorities turned a blind eye towards informal areas, regarding them as a temporal phenomenon which would dissolve over time. It therefore marginalised and ignored the urban dwellers living in these areas (Abagissa, 2019).

Demolition of informal areas was used as a means of realising a dominant masterplan design. Politicians embraced this as a nation-building strategy. Needless to say, it didn't make the informal settlements disappear, but only moved them to the periphery of the city or accelerated the overcrowding of inner city informal areas.

Regularisation of informal areas is usually addressed through legalising and upgrading individual structures in order to meet certain environment, health and safety criteria. This could take shape in multiple different scales, and was a reaction to the recognition of informal areas and the increasing awareness of the living situation of the urban poor population. The downside of this approach is the large and the unclear costs of upgrading these areas, without a direct return. Aside of this cost factor, it also fails to address the root causes of informal urban problems, thus informal urbanisation will continue to grow (Abagissa, 2019).

As stated in the general problem statement, there is a lack of dense affordable housing units for an increasing amount of urban people, and the inadequacy in providing for the needs of the urban poor population. While there are interesting approaches done in the past, none seem to fit the current challenge, integrating density with incrementalism, and quality with affordability. A key factor in this can be the mobilisation of informal resources and the integration of the underlying characteristics of informal areas in creating a dense and accessible environment.

IV. referential analysis – achieving density
There are multiple ways in achieving a high density in a certain area. Visagie & Turok (2020) list several aspects of measuring and defining density: which unit is used (amount of households, firms, workers, buildings), spatial scale (density of a plot, neighbourhood, precinct, city), process of densification (vertical, horizontal) and the type of impact (what is the goal: social, physical, environmental, economic). Increasing a building density has consequences for an area, of which some can be very straightforward, others complex and unpredictable: increasing the pressure on the services and street networks, possible overcrowding certain areas, possible property rise. The most present consequence is the increasing pressure on services and street networks. With an already underdeveloped street network in many informal areas, this requires special attention. Since the temporal activities and relations form an important part of informal areas, these activities need space as well. UN-Habitat (2012) stresses the importance of a well-functioning street network as a basis for improving informal areas, supporting incremental growth, providing social spaces, and tools for inclusion, security and prosperity. Kim et al. (2010) analysed the pedestrian (dis)comfort level for different street widths, and give guidelines for different areas. Iovene et al. (2019) give a reference for the ratio between street width and building height. While these are not specified for informal areas, they can give a reference for street dimensions. This information can be compared to the information of the analysis of Addis Ababa, done in previous Global Housing Studios (Holtslag, Chang & Lelieveld, 2016; De Man & Cherry, 2016; Bassi, Tossuti & Van der Meulen, 2016).

The research question will be answered with the help of different media (figure 6). First, there are the articles, papers and books. These will aid in developing the design guidelines: defining the theoretical starting points. Secondly, there are analyses of existing informal areas and reference projects for building dwellings for the urban poor population. These help in translating the theoretical starting points (temporality) into physical space (design). Thirdly, there are photos and videos of Addis Ababa and existing informal areas all around the world. These give a contextual relevance, framing and shaping the design. Lastly, there are stories, narratives, interviews and musical fragments, which can help in ordering both the theoretical starting points, as well as the physical space, setting the priorities for the project.
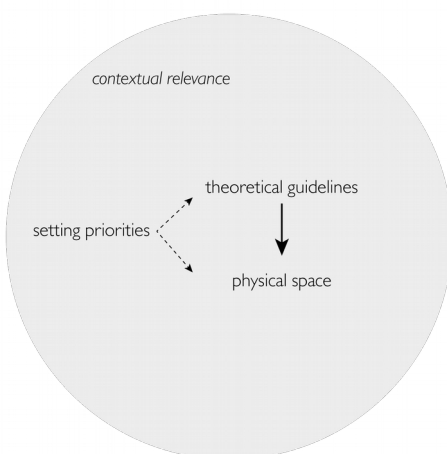

Figure 6, relation of the different methods (own source)

Looking at the theoretical framework, it seems clear that there is a lot of attention to rethinking the informal urban at the moment, while temporality is still only partly discussed or considered. However, this is mainly done from a theoretical perspective: it defines the keywords that are playing a role, and it gives these a deserved amount of nuance and complexity. It therefore helps city-makers and planners in redefining their policy towards the (re)development or strengthening of these areas. But there is not yet a clear relation between the theory and practical design implications of this theory. The complete translation would then not only include the maintaining of strong elements of an area, but actually start from these elements: using temporality as a key principle in making a design (figure 7). This research plan investigates into these keywords, forming a basis for making the translation into morphological patterns and a new housing design.

reach the urban poor

basic quality of structure

create large amount of dwellings

integrate strengths
of informal areas
(informality & temporality)
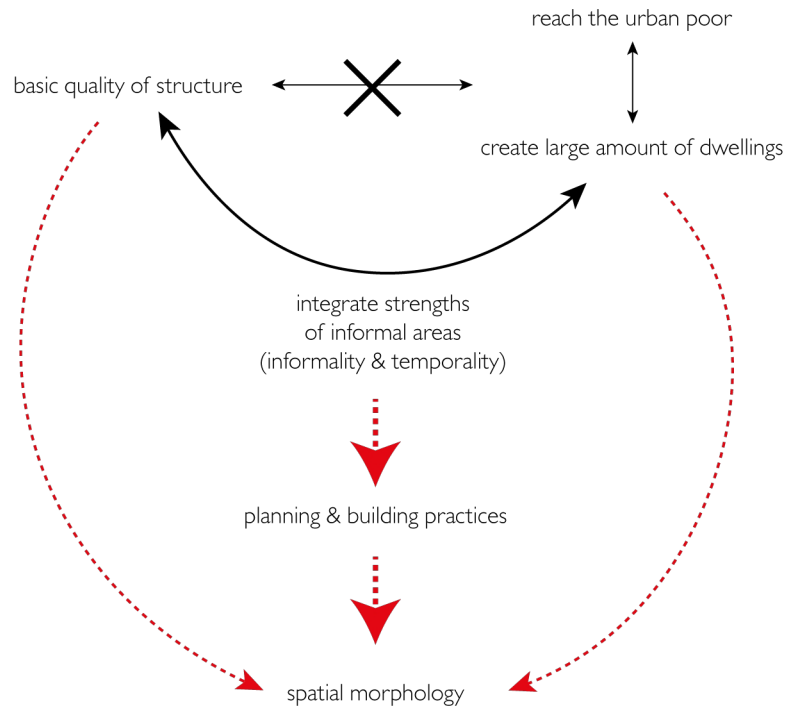
planning & building practices

spatial morphology

Figure 7, the relation and relevance of the understanding of informal areas and
temporality on the creation dwellings: a new spatial morphology (own source)

There are different types of references: theoretical, spatial, referential (following the research
sub-questions) and contextual (retrieving specific information). The main theoretical reference
sources are Turner (1976), Roy & Alsayyad (2004), Lombard (2013), Okyere & Kita (2015)
and Lutzoni (2016). The main spatial reference sources are Kamalipour (2016) and Cavalcanti
(2017). The main referential reference sources are Pugh (2001), Mota (2015) and Abagissa
(2019), as well as UN-Habitat (2012) and Visagie & Turok (2020). The main contextual
references are *know your city* data (SDI, 2016) and the Resilient Cities Network (2020), as well
as the previous Global Housing Studios, including Van Gameren & Mota (2020), as well as
documentaries by, among others, Heisel & Kifle (_Spaces series on Addis Ababa). On the
following page there is a complete overview of references.

Abagissa (2019) Informal Settlements in Addis Ababa: Extent, Challenges and Measures Taken. Journal of Public Administration, Finance and Law, 2019:15.

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