ABSTRACT

Title of Document: EXPLORING SOCIO-CULTURAL

DIMENSIONS OF SUSTAINABILITY. HOW CULTURAL AND SOCIAL FACTORS INFORM A SUSTAINABLE REDESIGN OF WHITMORE PARK (ANNAPOLIS, MD).

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Landscape Architecture

Even though sustainability is defined by four parameters – ecological, economic, social and cultural, sustainable design is essentially reduced to ecological and economic aspects (Nadenicek et al., 2000). That narrowed focus ignores people and their physical manifestation, culture. But sustainable design depends on both economic and ecological health, and cultural vitality (Lister, 2007).

This design-research thesis focuses on the socio-cultural aspects of sustainable design and the role of participatory engagement in identifying the social and cultural layers of Whitmore Park. It explores how cultural and social factors can inform a sustainable redesign of the neglected 0.7-acre site in Annapolis, MD. The project also helps the community to save the park's existence through creating a common long-term vision for it. In order to create that vision, the designer used various community engagement methods. The park's new design is driven by the common vision, and the SITEs (Sustainable Sites Initiative) design recommendations.

EXPLORING SOCIO-CULTURAL DIMENSIONS OF SUSTAINABILITY. HOW CULTURAL AND SOCIAL FACTORS INFORM A SUSTAINABLE REDESIGN OF WHITMORE PARK (ANNAPOLIS, MD).

By

Elisabeth Jane Walker

Thesis submitted to the Faculty of the Graduate School of the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Master of Landscape Architecture

2014

Advisory Committee: Professor Victoria Chanse, Chair Associate Professor Ronir Eisenbach Assistant Professor Hooman Koliji © Copyright by Elisabeth Jane Walker 2014

Preface

"Adaptive ecological design is by definition, sustainable design: long term survival demands adaptability, which is predictaded on resilience. But the discussion of sustainability must not be limited to merely "surviving" in an ecological context. It is a fitting metaphor for thriving and therefore must include economic health and cultural vitality."

As Lister (2007) observes, the thriving of sustainability depends on the combinations of different, interdependent factors, which are, due to the latest definition of sustainability, social, economic, ecological, and cultural aspects.

However, even though this "holistic" definition of sustainability is widely acknowledged, there is still a strong ecological tendency in the planning world.

Sustainable practices often fail to address the cultural and social dimension as much as they do ecological and economic.

Within the past few years, this narrowed focus has been broadened, but not to its full extend. The SITES initiative encourages designers and planners to address all four aspects alike as sustainable development: "Create and implement designs that are responsive to economic, environmental, and cultural conditions with respect to the local, regional, and global context." Even though they mention cultural sustainability, and define it in terms of fostering traditions, history, the vernacular, stewardship, community engagement and community empowerment, it does not have

¹ Lister, 2007

² Guidelines and performance benchmarks SITE, 2009

its own grading rubric, as the other three aspects do.

The socio-cultural aspect seems to challenge the profession, since it is hard to grasp and put into measurable evaluation. However, understanding that the key of sustainability is to work with all four aspects, and the fact that we are planning for and within the present culture and for the future generations, calls for a better understanding of what cultural and social sustainability in landscape architecture mean.

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I. Theoretical Framework

The designer approached the exploration of socio-cultural aspects of sustainability and sustainable design, by organizing the literature review based on two questions:

What is socio-cultural sustainable design?

How does culture inform design responses for a sustainable community park?

In order to gain a better understanding of socio-cultural sustainable design, the designer first explored dimensions of social and cultural sustainability. The second part of the review focused on how designers can identify the socio-cultural layers.

The third part explores how design firms deal with culture informed design and socio-cultural sustainability.

I.1.Definition of social and cultural factors in sustainability

I.1.1.Need for and challenging of defining social and cultural factors in sustainability

Social and cultural dimensions of sustainability are, other than economic and ecological factors, soft facts and therefore hard to define. Furthermore they go hand in hand, which makes the individual definition even more challenging.

However, it is necessary to distinguish and define their characteristic features, in order to provide a clearer understanding of their unique attributes and consequences for design decisions. As a word study and cluster analysis (2000) of the sustainable vocabulary used by the ASLA for their members' handbook and the magazine

Landscape Architecture reveals, professionals are "speaking multiple languages of

environmentalism."³ Due to that confusion- "there is no agreement as to what it really is or should be."⁴ This confusion hinders a fruitful dialogue about the character and consequences of sustainable design. And even if the article primarily focused on ecological and socio-ecological factors, the quintessence can also be drawn for social and cultural sustainability. Therefore the definitions serve to create a framework for the professional dialogue. And lastly, the definitions reveal the designer's understanding of socio-cultural dimensions and how they informed the thought and design process.

In order to distinguish social from cultural aspects, the designer used a definition from White that was cited in a report about a Swedish research project by Robert Axelsson et al., which made an effort to define and map social and cultural factors for political decision-making in sustainable planning. White observes, "The term social relates to the individual, family, or individuals in a society, the term cultural relates to higher societal levels, i.e., properties of groups of people, communities, and regions or systems."⁵

-

³ Nadenicek et al., 2000

⁴ Conan, 2000

⁵ White, 1975, quoted in Axelsson et al., 2013, p. 215

I.1.2. Social sustainability

Axelsson et al.(2013) narrowed their definition of social sustainability down based on several conferences and research papers. Due to the Brutland Report of the World Commission on Environment, a report from the United Nations Conference on Environment and Development in 1992 in Rio, social sustainability encompasses the right to live a decent life characterized by social justice, welfare, safety, personal health, a healthy environment, education, identity, sense of place, and public participation. In 2002 Thin adds in his paper Social progress and sustainable development the factors solidarity, security, and equity. Murphy complemented the scope with the factors happiness and quality of life in 2012.⁶

Along the lines of the right to live a decent life and quality of life is the definition of Dr. McKenzie from the School of Management at the University of Australia. He defines social sustainability as "a life-enhancing condition within communities, and a process within communities that can achieve that condition." He breaks the definition down into indicators that include equity of access to key services. He defines key services as health, education and recreation, equity between generations, a system of cultural relations that foster and protect cultural diversity,⁸ and a sense of community ownership, community action and participation in local and political decision-making.⁹ The Swedish study also listed community participation in the local development process as an indicator for sustainable social values. Another indicator was a living environment that is characterized by safety,

⁶ Axelsson et al., 2013, 215-217

McKenzie, 2004, p.12
 McKenzie, 2004, p.12
 McKenzie, 2004, p.23

aesthetic values, education, equal rights and opportunities. 10

Defining key terms

In order to clarify a few key terms of the given definitions, the designer included factors into social sustainability that were not mentioned as such.

Safety and Sense of place Place Attachment, Place Identity and Community Identity

Sense of place is an ambiguous term. In order to break it down, the designer equated it with place attachment and place identity. Altman and Low (1992) define place attachment "as an affective bond between people and places." ¹¹ Manzo and Perkins emphasize that our feeling about a place impacts our behavior towards and in a place, and our willingness to participate in planning efforts. ¹² Involvement in and interaction with a place create a place identity, which is also emphasized by Hester in, what he calls, an enabling form. Enabling forms connect people through an inclusive design process and through the establishment of centers, where people can meet, connect, and form a local identity. He also highlights the importance of ecological awareness and stewardship, which promote place identity, because they connect people to their physical environments. ¹³ A good place identity and attachment influence one's sense of community. And strong senses of community and place attachment create a feeling of safety. Place attachment fosters a sustained attention for both the environment and people, and safety, because it "can help inspire action because people are motivated to seek, stay in, protect, and improve places that are

¹⁰ Axelsson et al., 2013, 218

¹¹ Manzo and Perkins, 2006, p. 337

¹² Manzo and Perkins, 2006, p.335

¹³ Hester, 2006, p.277 and 9

Community participation: empowerment and social capital

However, in order to encourage citizens to act and get involved in a place through acquisition and decision-making, they have to be given local power through community participation. The role of community participation in sustainable design is discussed in depth in another paragraph. The only aspects that are mentioned here are empowerment and social capital. Community participation is an expression of empowerment, which is defined by Rapoport as "a mechanism by which people, organizations and communities gain mastery over their affairs". 15 The importance of community control for the success of public space was also emphasized in a compiled LAF case study about the success and failures of urban open spaces. ¹⁶ Where citizens are given control, they develop a place attachment, and get involved, connected and act. This process builds social capital. Empowerment is an expression of this triumvirate of place attachments, social capital, and action. ¹⁷ Putman defines social capital as "social networks and norms that enable collective action." Collective action is an important mark of Ecological Democracy, which was coined by Hester in 2006. He defines ecological democracy as "the best possible life we can achieve," 19 because it fuels personal freedom, connection to place and community, and a sense of responsibility. In order to enable ecological democracy, cities and landscapes must enable their citizens to act.²⁰

¹⁴ Manzo and Perkins, 2006, p. 348

¹⁵ Rapoport ,1987, p.122, cited by Manzo and Perkins, 2006, p. 342 ¹⁶ Francis, 2003, p.28

¹⁷ Manzo and Perkins, 2006, p. 342

¹⁸ Putman, 2000, cited by Axelsson et al., 2013, 219.

¹⁹ Hester, 2006, p.2

²⁰ Hester, 2006, p.8

I.1.3. Cultural sustainability

"Culture is a basic need. A community thrives through its cultural heritage, it dies without it." ²¹

Thesis definition of culture

The definition of cultural sustainability is challenging because there are many contradicting definitions of culture. 22 The root of the word comes from the Latin word colere, which means tilling, plowing or developing. Sorvig explores in her article Nature/Culture/Words/Landscapes the ambiguity of the terms culture and nature. Her findings, based on dictionary and literature reviews, can be paraphrased as such, that culture is: a correlation between landscape and human development, where the development occurs based on a set of learned behaviors and beliefs.²³ Based on this broad scope, this thesis defines culture according to Williams as "a system that maintains, communicates, and reproduce the characteristics of a society, and that allows for people to participate in it."24

The evolution of cultural sustainability

The concept of cultural sustainability was first mentioned at the World Commission on Culture and Development(WCCD) in 1995. But it was not included in the definition of sustainable development until 2001. In 2001 UNESCO passed a universal declaration on cultural diversity to add culture as the fourth sustainability dimension. Scholars and an international cultural working group called Rio+20 supported the declaration.

²¹ The International Federation of Library Associations and Institutions (IFLA), www.ifla.org/culturalheritage, accessed: 03/04/2014

²² Axelsson et al. 2013, p. 218, Sorvig, 2002,p.1

²³ Sorvig, 2002,p.6

Williams 1981, quoted in Axelsson et al. 2013, p. 217

Cultural resources and cultural heritage

Before the common definitions of cultural sustainability are discussed, an important aspect of cultural sustainability is shortly addressed. Throughout the literature review, cultural resources and cultural heritage went hand in hand. UNESCO defined cultural heritage as "the entire corpus of material signs – either artistic or symbolic - handed on by the past to each culture and, therefore, to the whole of humankind. "25 In 1972 and 2003 UNESCO added the distinctions of tangible and intangible aspects of cultural heritage. Tangible parts include architectural monuments, art, human made landscapes²⁶, whereas intangible features encompass practices, representations, expressions, knowledge, and skills that people recognize as parts of their cultural heritage.²⁷ The International Federation of Library Associations and Institutions (IFLA) adds to these aspects, that the "Access, preservation, and education around cultural heritage are essential for the evolution of people and their culture."²⁸ Based on the definitions and meaning of cultural heritage the designer equalized cultural heritage and cultural resources, in order to clarify the first definition of cultural sustainability in the next paragraph.

²⁵ UNESCO 1989 ²⁶ UNESCO 1972

²⁸ IFLA, www.ifla.org/cultural-heritage, accessed March 8,2014

Cultural sustainability

From 1995 until today, the definition of cultural sustainability has gone through various evolutions. The World Commission on Culture and Development (WCCD) defined it as "an inter- and intra-generational access to cultural resources." In 2011 Culture 21 expanded the definition by adding the following intangible features: "capabilities such as literacy, creativity, critical knowledge, sense of place, empathy, trust, risk, respect, and recognition." In short: local habits, skills and traditions. In accord with these immaterial characteristics, the Swedish research team also listed participation and social capital to their list of indicators of cultural sustainability. 32

Even though the definition of cultural sustainability has evolved towards these more immaterial aspects, the main indicators for cultural sustainability are still commonly associated with heritage objects and landscapes³³. Heritage objects and landscapes are "bearers of the place identity, or genius loci"³⁴. Aspects of cultural landscapes are aesthetic qualities due to stewardship or naturalness, as well as contemporary recreational activities, and self-provisioning activities.³⁵ The latter ties into the original definition of culture expressed as learned agricultural activities.

These aspects tie into Nassauers' (1997) definitions of cultural sustainability.

She says, "Survival that depends on human attention might be called cultural

²⁹ WCCD. 1995. Our creative diversity, p. 64.

³⁰ Culture 21. 2011. Lobbying for culture as the 4th pillar of sustainable development in the process of the Rio+20 summit. Agenda 21 for culture.

³¹ Niskasaari, 2008, p.4

³² Axelsson et al. 2013, p. 218.

³³ Ibid

³⁴ Dramstad et al. 2001; Aluame et al. 2003 cited in Axelsson et al. 2013, p. 218

³⁵ Axelsson et al. 2013, p. 219

sustainability."³⁶ Because "the health of the landscape requires that humans enjoy and take care of it."³⁷She explains, that in order to provoke this sustained attention, there is a need to redefine the relationships between culture and ecological functions, by making ecological patterns visible in a way that they turn into cultural values.³⁸ Stewardship, care and aesthetic qualities play an important part in that process, and therefore, are also important components of cultural sustainability. They also hone and foster the mentioned intangible aspects of the Culture 21 definition, as well as community participation and social capital.

Defining key terms

In order to clarify a few key terms of the given definitions, the designer included factors into cultural sustainability that were not directly listed as indicators for cultural sustainability. Since the factors sense of place, participation and social capital were already discussed in the paragraphs about social sustainability, they are excluded from the following terms.

Care, stewardship and pride

Due to Nassauer (1997) and Hester (2006), care, stewardship and pride correlate. Aesthetics is another important aspect, but because of its ambiguity, it is addressed in an extra paragraph.

Nassauer (1997) and Mozingo (1997) highlight the fact, that people pay attention to landscapes, when there are displays of care. Mozingo (1997) calls these highlights iconic signs; Nassauer calls them, "cues of care" which are a cultural

³⁶ Nassauer, 1997, p.69

³⁷ Nassauer, 1997, 69. ³⁸ Nassauer, 1997, p.67

necessity³⁹. Those cues of care must be aesthetically pleasing and conceptually well developed. However, these cues must be local: "Care may be a global construct of aesthetic quality that is exhibited in different forms in different local conditions. If so, identifying forms of care and introducing new forms of care may be a useful tool for landscape ecology and sustainable development." ⁴⁰ Through perceivable and beautiful care for a landscape people develop pride for it and even a sense of ownership-either as a personal property or as a social identity ⁴¹. And that inspires stewardship, which guarantees sustainability, because "We want landscapes that evoke our care over generations." ⁴²

Stewardship

"No city-design project is complete

until a group is formalized to steward the place."⁴³

Under the chapter of social equality in site development, construction, and use, in the SITEs handbook, Calkins says, "Long term sustainability of any site depends upon the stewardship provided by local residents." Hester (2006) defines stewardship as an "informed caring for the land or a community, based on an intimate knowledge of and love for it." Stewardship and culture are, based on their definition, interweaved. Good stewards were originally overseers at farms that were in charge of the land and the laborers. Only when both prospered was the steward

⁴⁰ Nassauer, 1988b, p. 27

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³⁹ Nassauer, 1997, p. 67

⁴¹ Nassauer 1997, p. 75; Hester, 2006, p.186

⁴² Nassauer, 1997, p.77

⁴³ Hester, 2006, p.370

⁴⁴ Calkins, 2012, p.440

⁴⁵ Hester, 2006, p.364

considered to be a good steward.⁴⁶ Therefore stewardship does not only include caring for the land but also for its inhabitants, which is mostly ignored in the common understanding of stewardship as an ecological overseeing and managing. Due to Nassauer (2011), the difference between caring and stewardship are dimensional, as stewardship refers to the bigger ecological and social realm, whereas care is an inclusive term that relates directly to everyday behaviors. 47 However, both care and stewardship require visibility and beauty.

Aesthetic quality: aesthetic experience through iconic signs "The place should let us know, that we should care for it." 48

Mozingo emphasizes that point in her article *The Aesthetics of Ecological* Design: Seeing Science as Culture. She says that landscapes must become "iconic", in order to evoke people's attention, curiosity and care. She describes iconic designs to be "characterized by notable aesthetic quality, resonate over decades, even centuries. They are admired, preserved, and (...) imitated. They manifest and promote environmental change."49 Iconic signs are to be artistic cues of care and educators of local and ecological characteristics. In many cases, ecological design blend into the landscape, instead of standing out, which diminishes their "readability" and therefore sustained attention. Lyle points out, that humans "yearn for persuasive aesthetic experience in the landscape". 50 The authors do not mean an overdesign of landscapes, but rather for designs that cause an artful dialogue between the landscape and people. Because aesthetic experience does not just merely serve visual attraction,

⁴⁶ Hester, 2006, p.364 ⁴⁷ Nassauer, 2011, 321

⁴⁸ Mozingo, 1997, p.57

⁴⁹ Ibid., P.46

⁵⁰ Ibid., quoted on p.49

but, due to Muelder Eaton's definition it is also marked by "reflection upon intrinsic properties of objects and events that are a community considers worthy of sustained attention. "51 Nassauer explains that the aesthetics of care express both stewardship and personal pride.⁵²

To be iconic does not just mean to call for attention, but also to grant its visitor a positive aesthetic experience. Both Mozingo and Nassauer emphasize the importance of aesthetic pleasure for sustained attention for a landscape. Moreover, aesthetics also foster cultural identity and a sense of place, because they reflect cultural values and hone traditions and prestige⁵³.

⁵¹ quoted by Nassauer, 1997, p.74 ⁵² Nassauer, 1997, p.68

Nassauer, 1997, p. 33 Marcia Muelder Eaton, cited in Nassauer, 1997, p.74; Mozingo, 1997, p.46

I.2.Socio-Cultural aspects in sustainable design

How do designers identify, and incorporate (and represent/map) the sociocultural layers in sustainable design?

In order to bridge theory and design, the designer broke the question down into:

- How do designers identify socio-cultural layers?
- How do the mentioned aspects of social and cultural sustainability inform design decisions?
- And how do design firms deal with the topic of culture- informed design?

I.2.1. How do designers identify the socio-cultural layers?

Socio-Cultural literacy

An important prerequisite to identify socio-cultural characteristics, the designer has to be able to recognize and read them. Cleveland (2013) calls that ability cultural literacy. She defines cultural literacy as follows: "Through daily life experiences, one acquainted a certain level of cultural literacy to "read" and make sense of these markers. Cultural literacy is visually oriented and lends itself to art historical methodology, namely semiotics." Therefore, signifiers of a culture are arbitrary unless the spectator can grasp their meaning.

Chang (2005) wrote an article for the Landscape Journal, where she promoted that same point, and also tapped into the language metaphor. She says that transcultural awareness, and culture sensitive design are based on the designer's "multilingual design" and its transcultural vocabulary. In order to design a multilingual design, the designer has to be aware of and understand the different

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⁵⁴ Cleveland, 2013, p.40

culture's habits in using a space. It is necessary to be aware of the unique differences in order to weave them together to a new patchwork that innovatively adapts both cultural ways of using space. She criticized, that many American landscape architecture firms who work cross culturally, replicate their American patterns that don't address the daily needs in respect to how the residents use the space and how it impacts their every-day life. The author emphasizes that this cultural insensitive process is not sustainable, because it cannot adapt to change.

Local habits, skills and traditions: addressing user needs

Design alone doesn't make successful space: addressing user needs does! ⁵⁷

Therefore, the designer has to become part of the scene⁵⁸ through the standard analysis, but also through actively immersing oneself in the community. Only then can the designer develop a cultural literacy, and understand socio-cultural characteristics and specific user needs, that differ in culture specific approaches and expectations to use space⁵⁹. Being responsive to local and socio-cultural specific user needs is one of the three broad dimensions of a good, sustainable open space.⁶⁰

To address these needs is one important aspect of developing a socio-cultural sustainable design that hones local habits, skills and traditions.

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⁵⁵ Chang, 2005, p.141

⁵⁶ Ibid.

⁵⁷ p.41 laf

⁵⁸ Hester, 2006

⁵⁹ Francis, 2003, p.4; Forsyth, 2005, p.78; Chang, 2005.

⁶⁰ Francis, 2003, p.1

I.2.2. How socio-cultural sustainability informs design

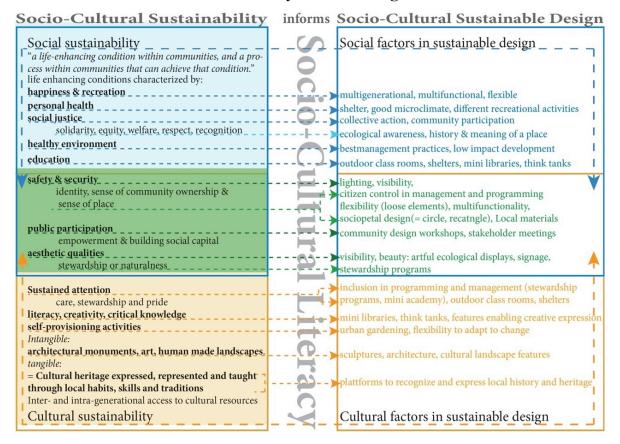


Figure 1 Socio-cultural factors and how they inform sustainable design. Graphic created by the author.

The diagram shows, how the theory can inform design decisions, by breaking the socio-cultural aspects down into programming aspects, design features and feature characteristics. The most important aspect is to develop a socio cultural literacy in order to read and comprehend socio-cultural specific cues, and to translate them into programming and design elements.

Besides these locally unique habits and aspects, Forsyth (2005) found that, based on several American studies, there are certain cross cultural preferred aesthetic elements, such as water, spreading trees that create a high over story and little understory, smooth ground covers, curving sight lines, water, balance of openness

and enclosure, spaces that are not too wide and not too dense, as well as many separate elements.⁶¹

In order to develop the socio-cultural literacy, it is necessary to acknowledge the community as the real expert (Condon, 2008)⁶², and based on their needs and knowledge, as well as the local unique history and ecological features, create a place that enables the community to meet, work together, and thereby keep shaping the place through ongoing acquisition and care. Hester (2006) emphasizes the importance of enabling spaces that are the basis for ecological democracy, and therefore, sociocultural sustainability: "To achieve and effective ecological democracy, we must first create places that enable citizens to connect with neighbors in their localities. (...) Until we have social environments that enable us to work together, there can be little additional progress in ecological health."63

Therefore the role of the planner is mostly to be an observer, listener, learner, people connector, and idea sparker, who combines needs based on the common site analysis and the community interaction, with visionary solutions and the community desires. And lastly, to organize and visualize the needs and ideas through simple graphics that are easy to read.

⁶¹ Forsyth, 2005, p.34 (she quotes:Schroeder 1989, 90, 94, 96, 101, Gobster 1994, Ulrich 1986) ⁶² Condon, 2008, p.13

⁶³ Hester, 2006, P.16

I.3. The importance of civic engagement for sustainable design

"The word sustainable has roots in the Latin subtenir, meaning 'to hold up' or 'to support from below.' A community must be supported from below – by its inhabitants, present and future. Certain places, through the peculiar combination of physical, cultural, and, perhaps, spiritual characteristics, inspire people to care for their community. These are the places where sustainability has the best chance of taking hold."

"To support from below" means to include and empower the citizens. This happens through public participation in the decision-making, the programming, and management processes. Condon stresses the importance of community engagement in sustainable design, because sustainable design deals with ambiguous problems and challenges, and therefore needs an ambiguous, flexible, and inclusive problem solving-process. Public participation is both an important aspect of, and a great vehicle to explore and foster socio-cultural sustainable design because it fosters the intangible aspects of socio-cultural sustainability, as explained later in this chapter. Participatory design can also help the designer to address multicultural differences, and thereby to avoid conflicts and tensions because it "can handle both the physically quantifiable elements of the problem and those that cannot be quantified." 100 participation in the decision-making, the problem and those that cannot be quantified.

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⁶⁴ Muscoe ,1995, p. 1

⁶⁵ Condon, 2008, p.11

⁶⁶ Hou + Kinoshita, 2007, p. 302

⁶⁷ Condon, 2008, p.9

I.3.1.Pre design & design involvement

There are different ways to empower the community in the design and post design process. The following two paragraphs explain different methods, their challenges and opportunities, before two intangible aspects of socio-cultural sustainability that can result from community involvement are addressed briefly.

Types of and requirements for a sustainable successful public participation In the SITEs handbook Calkins (2012) lists several strategies how to assess human needs and perceptions. Besides public meetings, displays, and stakeholder education she suggests email and Web-based surveys for communities who are able to access them, and to conduct charettes (community visioning and design workshops) and workshops with stakeholders. ⁶⁸Hou calls these two approaches informal and formal participatory planning.

The formal, institutionalized participation processes have been a common method to include public opinions into political and planning decision making. The benefits of surveys are that they can score high participation scores without demanding a lot of planning effort, organizational and operational requirements and time, and they don't require a lot of time for the participants. However, the institutionalized participation processes do not achieve the mentioned benefits of the informal community involvement, as it is hard to track who participated, does not deal with cultural differences since the designer cannot negotiate with the participant, and it oversteps social processes and dynamics within the community.⁶⁹

⁶⁸ Calkins, 2012, p.434 ⁶⁹ Hou + Kinoshita, 2007, p.302-310

In contrast offers the alternative informal participation a wide range of engagement, and negotiation opportunities, by creating dialogues and interactions. Face to face planning can overcome cultural and social barriers and address community issues that cannot be put into a questionnaire. Therefore it can help to bridge community differences as well as and cultural and social barriers.⁷⁰

Hou compared an informal and a formal participation process, and concluded " that in the informal process the citizens established neighborhood organizations and stayed on tune even after the planning process was over."⁷¹ However, the informal approach requires a long time, and energy commitment from both planners and participants, and mostly results in smaller participation numbers.

Another challenge of public participation is to filter out the most pressing conflicts that will be addressed. It is impossible to address each mentioned issue, because communities are diverse, both social and cultural. "Asking people what they want can lead to some problems. (...) Community process work can unfortunately be the means of making a public place less public." The designer therefore has to keep the focus on the big picture that satisfies the majority's needs. He or she has to set priorities, and make decisions which concerns and desires shall be addressed and taken into account for the sake of the best possible socio-cultural-ecological and economic design and programming solutions. The decisions then will be organized, developed and visualized in a design-combination of both the designer's and user's visions and user needs.⁷³

⁷⁰ Hou + Kinoshita, 2007, p.311 ⁷¹ Ibid. p.309 ⁷² Hester, 2006, p.66

⁷³ Francis, LAF, p.41

Another challenge is to create a visionary design, and not allow the community involvement to narrow the design focus. It is the designer's role to be sensitive to the community's concerns and desires, but at the same time to be proactive, push the boundaries realistically, and to keep promoting inclusion in order to advocate for a larger public good. The designer experienced firsthand, how exclusive the community behaved towards teenagers and homeless people, by demanding a design that will attract neither one of the two, which would abolish a playground, and certain sociopetal place typologies.

As shown, formal and informal approaches have their advantages and disadvantages. Therefore, in order to hone the desired community commitment, place bonding and stewardship, as well as take as many community voices into account as possible, a mixed method of both informal community charretes and formal surveys is suggested. The designer used this approach.

Post design involvement

The community involvement does not end with the design and visioning workshops. They are rather spark sustainable, long-term community involvement, which also entails direct local control of community-centered space⁷⁴, through the inclusion of the community into the programming of the park and into management process⁷⁵. Therefore, the designer has to create straightforward management plans that trained volunteers can follow, and to give the stewards constant educational opportunities.⁷⁶

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 74 Calkins, 2012, p.441 75 (Hester 1990, Kertzman et al. 1993) quoted by Francis in LAF p.41; Forsyth

⁷⁶ Forsyth, 2005,p.47

I.3.2. How community participation fosters socio-cultural sustainability

The following two paragraphs address two examples of intangible aspects of socio-cultural sustainability that are fostered by community involvement.

Sense of community

The greatest benefit of community involvement can be a stronger sense of community, which is crucial for socio-cultural sustainability. Several studies revealed that there is a clear link between community participation and sense of community.⁷⁷

Stewardship and care

A stronger sense of community in turn can increase not only the commitment to care for one another, but also for the commonly shared public spaces. Hester (2006) and Forsyth(2005) emphasize, that public participation can enhance the willingness to take responsibility for a place, and be committed in maintaining it. 78

Manzo and Perkins, 2006, p. 339; Hester, 2006, p.59
 Hester, 2006, p.371; Forsyth, 2005, p.97

I.4. How Design Firms Address Cultural Dimensions in Design

In order to gain a better understanding about culture informed design in the profession, the designer researched the Sustainable site initiative (SITES) case studies, the Landscape Architecture Foundation (LAF) case study briefs under the rubric of cultural heritage projects, as well as the design firms Michael Van Valkenburgh Associates, and Design Collective who were the only firms found by the designer with a project category of "cultural", respective "civic & cultural". A broad research for case studies in the common journals of the landscape architecture profession did not yield any results.

The cultural aspects in the 11 certified SITE case studies under the rubric open space/park (SITES 2014)⁷⁹ have a strong focus on tangible aspects, such as the use of local materials, the preservation of historic structures. But there are also several projects that furthermore entail intangible socio-cultural sustainable aspects such as an integrative design process (stakeholder meetings and/or community design workshops), hosting of educational events about the project's ecological sustainable features, economic sustainable funding and maintenance, and the Charlotte Brody Discovery Garden at Sarah P. Duke Gardens at the Duke University also includes the public in the site's maintenance and plantings of the vegetable beds.

The two case studies that form the LAF rubric "cultural heritage" again have a strong emphasize on tangible features of heritage. The projects are Castiglion del Bosco by EDSA in Italy (the site is on the UNESCO World Heritage List), and the Riverside Ranch, Colorado by Design Workshop Inc. The cultural properties of the listed sustainable features of designs are as follows:

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⁷⁹ Certified Projects, on sustainablesites.org, accessed November 2013

- Preserving, emphasizing, and fostering cultural historic landscapes,
- Maintaining or rehabilitating historic structures (e.g. building footprints or ruins), and plantings (historic native species and crops)
- The use of local materials and local traditional construction methods,
- as well as the integration of local specialists and craftsmen in order to gain a local cultural unique character.

Van Valkenburg's cultural projects highlight historic preservation, enabling people to express their local culture (art, music, and literature) and connect people to nature. The firm describes their cultural landscapes as follows: "MVVA cultural landscapes help museums, libraries, historic sites, and other institutions express their identity and values, interpret and reinvigorate their history, and argue for their enduring relevance. They are guided by a sensitive approach to historic preservation and an abiding respect for the role of art, music, and literature in contemporary society." ⁸⁰ The projects in the Design Collective category express cultural values through extending cultural indoor facilities such as museums and educational facilities into the outdoor realm. An important part of their design process is to get to know their client and include future site users through community design workshops.

Based on pre-research experiences and the literature review the designer expected to encounter a strong emphasis on tangible aspects of cultural design, which was confirmed by the studied design examples. However, intangible characteristics such as community involvement, and local plant and construction knowledge do play an important role as well. This pleasant surprise reveals, that the profession has started to enhance the understanding of socio-cultural sustainable design through the

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⁸⁰ Projects- cultural, on mvvainc.com, accessed on January 2014

inclusion of the mentioned intangible features. The lesson learned from the case studies is that the profession is struggling with understanding and embracing the outcomes from the literature review.

I.5.Summary

At the beginning of the research, the designer stated in her hypothesis, that cultural sustainable design enables people to care for and by doing so acquire a space.

The literature review has confirmed the hypothesis and emphasized, that:

- There is a need to involve the communities in the pre- and design phase to achieve a design that is supported and sustained by the communities.
- There is also a need to include the citizens in the post design phase in maintenance and programming, which depends on fostering a sense of ownership and pride through the design process and the design responses.
- There is a need to pay attention to creating enabling spaces that bring people together, foster a sense of community, and a sense of place, as well as allowing their users to express who they are and will be. This requires a sequence of determined and flexible spaces that allow for different acquisitions over time.

The studied design examples reveal that the profession's main focus remains on tangible heritage aspects, but there are also several project examples that include people in the design and post design decision-making processes.

II. The Project Analysis

II.1. Site Background, Context and History

II.1.1. Site Context: The Park's situation and its broader context

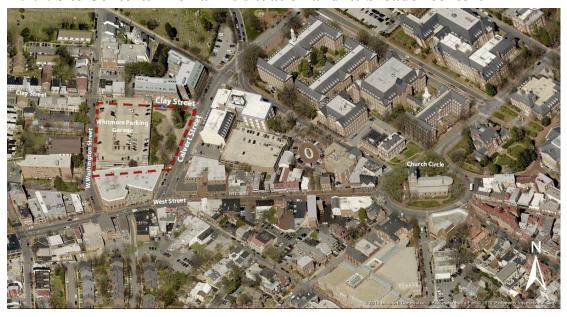


Figure 2 Bird's eye view. Basemap: BING. C 2014 Microsoft Corporation. Changed by the author.

The project site is located in southeast Annapolis and is comprised of John Whitmore Parking Garage and a half-acre park. The City of Annapolis is the capitol of Maryland, and is located 30 miles south of Baltimore and 32 miles east of Washington DC. It lies in Anne Arundel County, which is situated on the western shore of the Chesapeake Bay in Maryland and houses the County Seat.

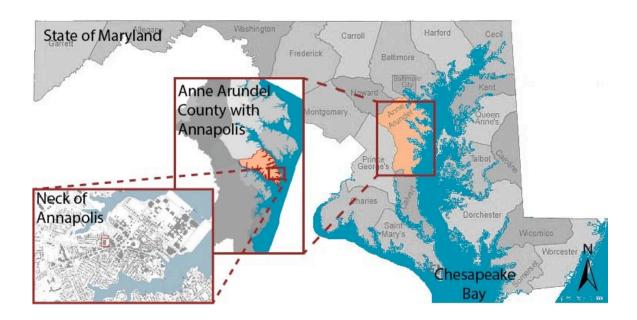


Figure 3 Vicinity Map. Maryland Map from geology.com. Graphic created by the designer

Climate

The microclimate of the park is impacted by the local conditions, which are moderate due to the Chesapeake Bay's microclimate. In July the average high temperature is 89°F in January the average low temperature is 44°F. The average annual rainfall is 47.32 inches⁸¹, which is a little higher than the US average of 36.5 inches, and 11.3 inches of snow. The total number of precipitation days per year is 110, which is close the United State's average of 100 days and an average of 208 sunny days. Although due to high humidity from May until August, the overall comfort index is only 42 out of 100.⁸² The wind comes mainly from the northwest with an average high speed of 8 mph during winter and spring and 5 mph during summer and fall.⁸³ Due to four story buildings around the project site, the impacts of the breezes are buffered.

⁸¹ US climate data, Climate Annapolis, Maryland. usclimatedata.com. Accessed Feb. 6, 2014.

⁸² Climate in Annapolis, Maryland. bestplaces.net. Accessed Feb. 6, 2014.

⁸³ Average Weather For Annapolis, Maryland, USA. weatherspark.com. Accessed Feb. 6, 2014.

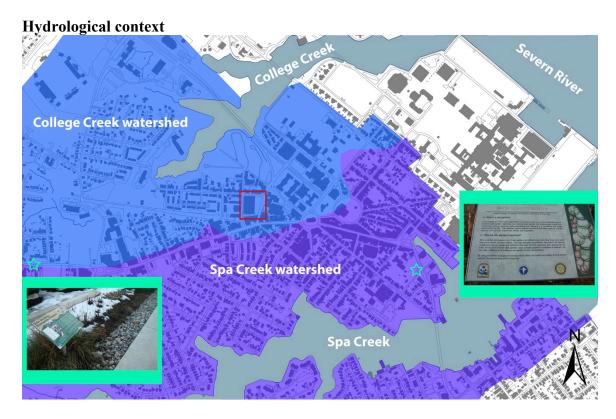


Figure 4 Watersheds and Rain Gardens within a one-mile radius. Information adapted from the Annapolis Comprehensive Plan 2009. Graphic created by the designer.

Whitmore Park lies within the watershed of College Creek, close to the boundary to the Spa Creek watershed. They are sub-watersheds within the Chesapeake Bay watershed. College Creek is a tributary to the Severn River, which flows into the Bay. Across the city there are several rain garden projects which are all administered and partially sponsored by the National Fish and Wildlife Foundation (NFWF) and built and maintained by different partners such as the Annapolis Recreation and Parks Department, Spa Creek Conservancy, and the RainScaping Campaign. The network is part of a city wide educational outreach through which Annapolis' "public and private sectors have developed more than 60 bioretention areas." ⁸⁴ There are two projects within one mile of the site.

⁸⁴ Annapolis 2009 Comprehensive Plan, Chapter 7 Environment, p. 91

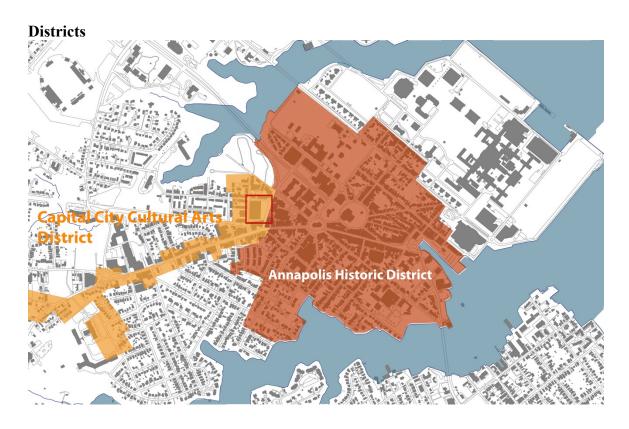


Figure 5 Historic District & Capital City Cultural Arts District. Information adapted from the Annapolis Comprehensive Plan 2009. Graphic created by the author.

The site lies on the edge of two districts, The Capital City Cultural Arts

District and the Annapolis Historic District. The Cultural Arts District serves to

support and enhance existing arts and cultural organizations as well as to "create

opportunities for new cultural arts resources which will enhance the cultural diversity

and vitality of the city." The city describes the Historic District as a "special

American Place" and strives to protect and sustain its cultural quality and economic

vitality as "a gift for future generations."

 $^{^{\}rm 85}$ Annapolis 2009 Comprehensive Plan, Chapter 3 Land Use and Economic Development, p.83

⁸⁶ Annapolis 2009 Comprehensive Plan, Chapter 3 Land Use and Economic Development, p.20

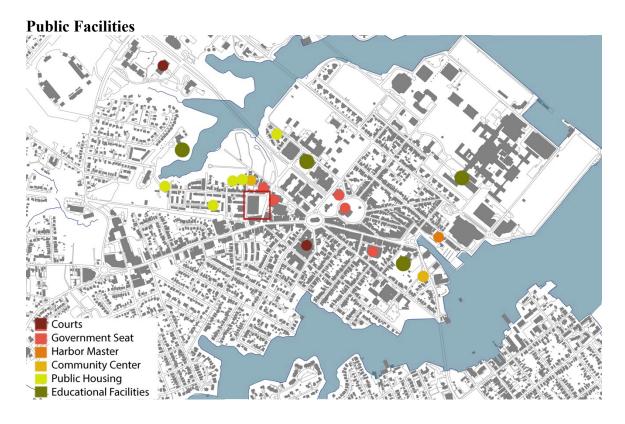


Figure 6 Public Facilities within 0.6 miles of the site. Information adapted from the Annapolis Comprehensive Plan 2009. Graphic created by the author.

There are five public housing projects west of the site. The northeast is dominated by state and county government facilities. Furthermore there is the Stanton Community Center around the corner from the park, and four educational facilities within a one-mile radius around the site. These can be integrated in the construction of the park improvements and the event programming for the park.

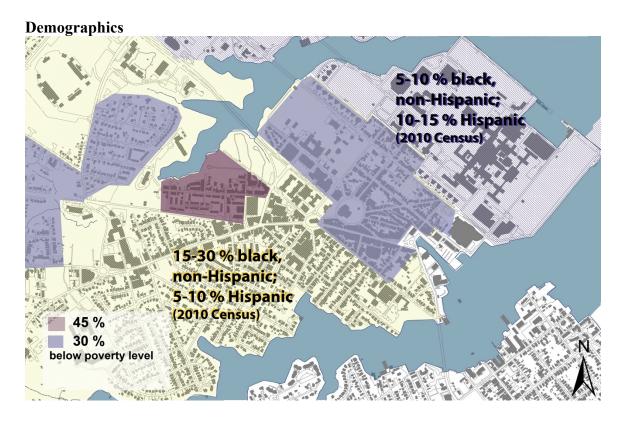


Figure 7: Information from: Poverty level: City data Annapolis, citydata.com, Race: mapUSA US Census 2010, accessed: 03.20.2014. Graphic created by the author.

The demographics map shows all non-white ethnicities greater than 1 % living in Annapolis Neck. From site visits and interviews, the designer discovered that the Clay Street neighborhood North West of the site is on the 30% site of the 15-30 % range of black, non-Hispanic citizens. In comparison to the rest of Annapolis Neck this area is significantly poorer with 45 % of the citizens living below the poverty line. This might be due to the fact that there are four public housing projects, and two Habitat for Humanity projects situated in this area. Moreover, as shown in the history and the community engagement chapters later, this neighborhood underwent an unsuccessful urban renewal. Contrary to the renewal along West Street, which is

⁸⁷ Poverty level: City data Annapolis, citydata.com, Race: mapUSA US Census 2010, accessed: 03.20.2014 the main street in Annapolis Neck, the renewal in the Clay community failed and caused an economic decay.



Figure 8: Proposed Land Uses. Information adapted from the Annapolis Comprehensive Plan 2009. Graphic created by the author.

The existing (2009) land use for the site is zoned as commercial. However, as shown in the proposed land use map, the zoning for the site has changed from commercial to mixed use. In both the land use from 2009 and the proposed land use, Whitmore Park is not shown as open space. The three big open spaces north and northwest of the park are cemeteries.



Figure 9: Public spaces. Information adapted from the Annapolis Comprehensive Plan 2009. Graphic created by the author.

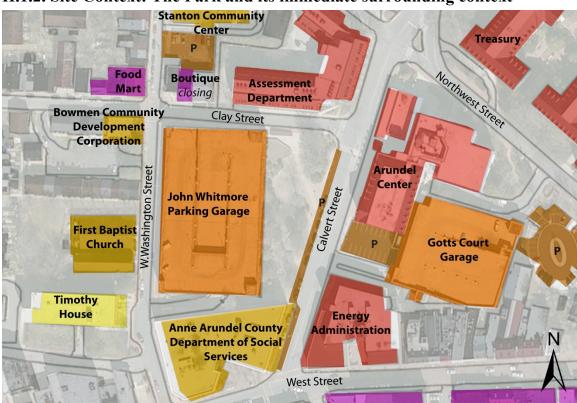
In comparison to the City of Annapolis, the Annapolis Neck has a shortage of public parks that allow for acquisition and festivities, which is a strong argument for keeping Whitmore Park. Currently the city owns and manages 40 parks and facilities, of which seven are bigger than five acres. The site is neither identified in this list, nor on the city's master plan, because it is not einlouded in the Park and Recreation's management budget. The closest of the mentioned large parks is the Bates Heritage Complex with eight acres, which lies 0.8 miles southwest of the site. There are about 20 street-end and neighborhood 'parks' and several plazas that each measure maximum ½ acre.



Figure 10: Community gardens, public playground and sport facilities. Graphic created by the author.

There is also a shortage of playgrounds. The closest playground is situated 0.4 miles southeast of the site. However there is a sufficient supply of sport facilities with two outdoor and one indoor facility. The indoor facility is in the Stanton Community Center 300 feet around the corner of Whitmore and the closest outdoor facility is next to the playground.

The analysis of public places revealed another new type of public places: a network of community gardens. Two projects are within one mile of the park and the position of Whitmore Park lends itself to take advantage of the existing network by adding a project in the new park program. The gardens are administered by the non-profit organization Grow Annapolis Food + Community + Education.



II.1.2. Site Context: The Park and its immediate surrounding context

Figure 11: The site's immediate context. Graphic created by the author.

The site is framed by Clay Street in the north, Calvert Street in the east, West Street in the south, and West Washington Street in the west.

The daily users of the park are employees from the Department of Social Services and the Family Support Center, a daycare run by the Anne Arundel County Department of Social Services. Because the closest playground is 0.4 miles away, the day care faculty is forced to set up toys and seating mats on the concrete, close to their facility in the south tip of the park. The children and the faculty would greatly benefit from a real play nearby playground.

Besides the daycare and the before mentioned employees, state and county employees walk through the park on their way from Whitmore Parking garage to the Arundel Center and Assessment Department.

West of the Whitmore Garage there are two churches and a public housing project called Timothy House, which could be involved in the new park's construction, establishment and event management.



Figure 12: Whitmore Parking Garage. 1. Entrance. View from intersection of Clay Street and Calvert Street. View from Calvert Street into the park. Pictures taken by the author.

Whitmore Parking Garage was built in 1976 and was recently renovated. It was not included into the original urban redevelopment plan for the Clay Street Community, but, when funding failed, it was built to provide sufficient parking for state and county employees. This resulted cutting off the residents, along Clay Street and West Washington Street, visually and physically from downtown. "People were angry about the concrete block", remarked a former resident in an interview. And the community still shows a very strong dislike towards the garage because they don't profit form it unless friends or family members from outside the neighborhood visit them. To former residents who came back following the urban renewal of the neighborhood in the 70s, the presence of the garage is a constant reminder of the failure of the urban renewal which is explained in the paragraph about the site's history.

The garage has five levels, four floors above ground and one beneath. It is operated 24 hours a day, with a maximum parking of 8 hours for \$10 until 4 pm.

From 4 pm until 4 am it attracts users with a flat rate of 2 \$88, which attracts visitors who go into one of the bars or restaurants on West Street or downtown at night. The facility is well used by county and state employees during workdays, West Street and downtown visitors as well as church visitors on the weekends and at night.

Because of the history of the garage and the fact that the community hardly profits from it and suffers from its spatial-constraining factors, an important aspect of the design is it to turn the facility into an opportunity for the community, which will be outlined in the Design chapter.

Due to limited parking downtown, the relatively good use of the garage, and a shortage of development space, the garage will most likely not be torn down in order to redevelop the block in a community friendly way.

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⁸⁸ Information from site visit.

Compiled shadow study
from March - October, 2 pm

Whitmore Parking Garage

Old concrete
Poor looking vegetated areas
Berm
Clogged drain
Broken wall lighting
Good trees

Figure 13: Constraints in and conditions of the Park. Graphic created by the author.

Overgrown & Pioneer vegetation

To turn the four-story garage into an opportunity for the site and the community is a challenge. It does not only cut both visually and physically the Clay Street community off from the flourishing West street and downtown. It also casts a 20-feet shadow at 2 pm on the west side of the park and, most dominantly, the east tip of Clay Street. The shadow analysis was conducted with Sketch Up for 2 pm, the result was is a critical loss of sunlight for gardens. The analysis revealed that there are major limitations for the placements of a public garden and rain gardens.

The overall condition of the park is poor, which is due to the lack of proper maintenance. The vegetation, dominated by overgrown conifers and pioneer vegetation along the garage, is overgrown which is a major safety concern for the residents and stakeholders. They kept attracting homeless people, until the Stanton Community Center launched a program to employ former park residents in order to

maintain the park. They have done minor pruning and mainly kept the park clean. Removing the existing, unattractive and 'hostile' vegetation was one of the most mentioned desires by residents and stakeholders. The exceptions are two mature maples and five mature red oaks along Calvert Street and another maple between the garage and the Department of Social Services. They will be maintained and integrated into the new design proposal. Unfortunately the tree group along the southeast corner of the park was planted on berms, which has caused erosion and exposal of the root structures. In order to keep the specimen, retaining structures have to be built around the critical root zone.

The park equipment, consisting of retaining walls along the garage with an integrated lighting system, outlets for power, draining inlets, tall lights and benches, are in poor condition. The walls that form four grassy plateaus increases from two feet in the south to five feet in the north have cracked tops, corners and also show cracks in the foundation. The inserted lights don't work anymore. The condition of the stormwater management system is described in detail in the following paragraph. According to the facility manager, it would cost a minimum of \$15,000 to repair the equipment. The cracked concrete is not included in the calculation.





Figure 14: Conditions on site. From left: Broken lights in the retaining wall, cracks in the concrete, failing retaining walls, vegetation planted on berms- exposed roots due to erosion, sketchy corners, overgrown Junipers. Pictures taken by the author.

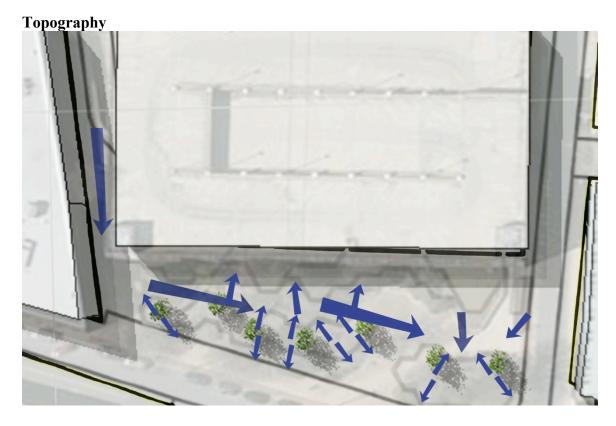


Figure 15: Stormwater flow according to topography. Graphic created by the author.

The site is moderately flat. It slopes from south to the site's northeast corner with an elevation change of 5 feet over 300 feet, which is an average slope of 1.7 %. Due to the old site design, the site unfortunately also slopes towards the garage. The momentary low points are along the existing retaining wall, where the catchment system is established. However, due to a lack of maintenance, the existing system

does not work anymore and all storm water ponds along the wall.

Stormwater



Figure 16: Ponding along the retaining walls. Picture taken by the designer.

The site's poor condition is not the only reason for the stormwater management's high priority in the design response; the site is also close to the College Creek and there is a strong emphasis in the Annapolis Comprehensive Plan on sustainable storm water management. The first of the five environmental policy recommendations addresses the reduction of the polluting effects of stormwater runoff into the Chesapeake Bay and its tributaries. Both these environmental and recreational goals foster environmental education and stewardship. One of the policy recommendations concerning the parks development and management emphasizes to "Aggressively implement best land management practices in park improvements and maintenance, specifically for purposes of environmental protection and management

as well as interactive education opportunities and overall beautification efforts."⁸⁹ This emphasize is due to the adoption of stormwater management standards in response to a new State legislation in 2007. They were also implemented into the Sustainable Annapolis Community Action Plan (CAP) in 2009.⁹⁰

The designer computed the stormwater calculations with the EPA stormwater calculator, which, other than the TR 55 method, takes transpiration into account. The calculations take the far term climate change into account, and are based on the current and the improved conditions for a ten-year storm event (due to MD regulations for swm facilities⁹¹), which is 4.95" rainfall within 24 hours⁹² for Anne Arundel County. The current conditions for the computed event are as follows:

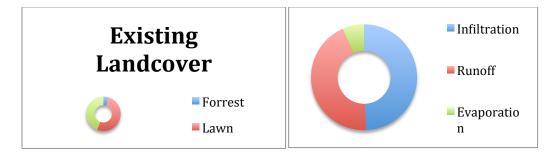


Figure 17: Current conditions due to the EPA stormwater calculator. Graphic created by the designer.

⁹⁰ Annapolis 2009 Comprehensive Plan, Chapter 7 Environment.

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⁸⁹ Annapolis 2009 Comprehensive Plan, Chapter 6 Parks, p.84.Policy 1.3

⁹¹ MD The department of the Environment Maryland Stormwater Design Manual , Volumes I & II (October 2000, Revised May 2009)

⁹² MD The department of the Environment, Maryland Stormwater Design Manual, Volumes I & II (October 2000, Revised May 2009), Table 2.2 Rainfall Depths.

Development Context_History 93



Figure 18: Historic picture of the corner of Clay Street and Calvert Street. Kindly provided by Jannice Hayes-Williams. BING bird's eye view. C 2014 Microsoft Corporation C Pictometry International Court.

The park's history is based on the history of the Clay Street community northwest of it. Until the 1960s the Clay Community was called "The Fourth Ward" and was a statewide example for a thriving, self-sufficient African American community without segregation orders. The Fourth Ward gained its vibrant reputation due to its great jazz, gospel and theater performances and cultural virtuosos such as Pearl Bailey. This reputation brought the community its nickname of Harlem Park Annapolis. Furthermore it was a buzzing commercial harbor for 33 small but flourishing businesses. The Fourth Ward also offered plenty of family-friendly and supportive housing, and it sheltered the first public housing project in Annapolis. Where the park and garage are currently situated, there were several row houses and shops; many of the houses had gardens flourishing with fruit trees. In the center of the block were a parking lot and an alley with more fruit trees and a grassy area.

⁹³ information for the paragraph was kindly provided by the Legislative Assistant, and former residents of the site, Annapolis, December 2013- February 2014.



Figure 19: Shop on the corner of West Washington Street and Clay Street, Residents waiting for the bus on the corner of Clay Street and Calvert Street, The Star Theater. Kindly provided by the Stanton Community Center.

At the beginning of the 1960s the county decided to undertake an urban renewal, which the community intentionally refers to as the Urban Removal. 50 families sold their homes and were relocated to the outskirts of the city. In the course of the renewal the project site, also referred to as the "gateway into the city", was developed into the John Whitmore Parking Garage, the 0.5-acre Whitmore Park along Calvert Street, and the County Department of Social Services along West Street. The community replaced its former label "The Fourth Ward" by "The Clay Community". The city's gateway to downtown Annapolis on Calvert Street was removed, and the former jail across Calvert Street was developed into the Arundel County Center. Only three businesses remain and are still situated at the former heart of the Fourth Ward, which is the intersection of Clay Street and West Washington Street, the northeast boundary of the site.

"After the urban renewal, all fell apart. The community never recovered from that." said a former resident and remarked, that the community used to be a family, and the urban removal scattered it. "They caused division and did not give us back, what they had taken from us." Hardly anyone from the former community has moved back, because the new housing prices are too high, and the new apartments are not

family-friendly. The county planned to implement more public housing projects that were more family-friendly. Up to now, those projects have been carried out in Obery Court, College Creek Terraces, Annapolis Gardens, Bowman Court and Timothy Gardens (5 out of 10 projects in Annapolis⁹⁴). All public housing projects are partially owned by the county and partially by the developer. As the previous renovations show, senior citizens and/or singles suffer from the increased prices while families and couples are more likely to move in, and this has changed the previous neighborhood constellation.

There are also three housing projects that are run by Habitat for Humanity on the north end of West Washington Street. In accordance with the organization's mission, the constellation of the neighborhood has not changed. 95

Since the urban renewal, the only changes in the now Clay Community have been the public housing developments. The Whitmore Park development turned out very simple and not community-oriented because budget costs restrained the original design. Due to increased budget cuts to basic maintenance slow decay has characterized the park since the 70s, which has given it a reputation of being run down, overgrown and therefore unsafe. In 2010, the county wanted to sell and develop the site in compliance with an infill development policy and because of a lack of prime office space and the fact that Annapolis is known as one of the "tightest" office markets in the Baltimore region with low vacancy rates ⁹⁶. However, the improvement of vacant or underutilized parcels should "occur in a manner that

⁹⁴ http://www.tw2.org/HousingPatterns.htm, 12/02/2013 http://www.habitat.org/how/about_us.aspx, 12/02/2013

⁹⁶ Annapolis 2009 Comprehensive Plan, Chapter 3 Land Use and Economic Development.

respects the size, scale, and use of existing and historic development patterns" and should "strengthen, not distract from neighborhood and community character." ⁹⁷ However, looking at the community's historical and present situation, developing the area into office building space contradicts the stated development principles. Instead of the contradictive development, the city could include the park into its cultural heritage strategic plan⁹⁸, which will be addressed both in the new design and programming.

The future of the existence park is unclear 99

Because of a councilman's engagement, however, Anne Arundel County put the development plans aside and signed a three-year lease for the park with the city of Annapolis. The deal ensured the park could remain a public place¹⁰⁰. The lease will expire in 2015, and unless the city has a shared vision for the site, the county will return to the initial development plans.

Because of the efforts of the Stanton Community Center in the Clay Community, the homeless were employed to maintain the park and accommodated somewhere else. Furthermore, residents and advocates of the park teamed up as "Friends of Annapolis Parks" and organized concerts that were held during the warm season. The concerts were a great success in bringing people from the different communities together. As a result of this success, the City of Annapolis has shown interest in keeping the park. But due to higher priorities for the creation of parks in

⁹⁷ Ibid.

⁹⁹information for the paragraph, unless cited, was kindly provided by "Friends of Annapolis Parks", November 2013

¹⁰⁰Sauers, 2012

new development areas due to new regulations¹⁰¹, and budget constraints, the city council relies on the surrounding communities to take action with a long-term commitment. However, a commitment such as "Friends of Annapolis Parks" requires a design and program concept that enables people to acquire and care for the park. So far, no one has developed that concept yet. Mrs. Hayes-Williams confirmed that the county would continue the lease if the city council presents a concise common vision supported by planning documents in the county's budget conferences in February 2014.

¹⁰¹ Annapolis 2009 Comprehensive Plan, Chapter 6 Parks.

II.2 Site Selection

There are two reasons for choosing Whitmore Park as the project site.

First of all, there is a simple need to keep the park. I was looking for a project site for a sustainable, community based redevelopment research design, and "Friends of Annapolis Parks" (FAP) were looking for someone who can take a lead in bringing stakeholders and residents together, help them to develop a shared vision and turn it into a design that can be presented to the city and to donors.

Moreover, in chapter six of the Annapolis Comprehensive Plan, parks and open spaces are considered to be *an important part of its community character and should be approached as a valuable aspect of the community's identity* and must be accessible to all neighborhoods. As the park analysis reveals, there is a lack of parks in the Neck of Annapolis. The city already has fewer park acres per person (5.7 acres per 1,000 persons) than the recommended minimum national standard (6.0 acres per 1,000 persons). For new developments there has to be a recreation facility within 0.5 miles, due to the recently adopted Adequate Public Facilities Ordinance (APFO)¹⁰³. It would be unfair to give new developments this credit and at the same time take away a possible recreational public space from an under-supplied area. Besides the shortage, keeping the park aligns with two of the three policy recommendations for Parks in the Comprehensive Plan:

"1. Enhance existing parks and facilities with the objective of supporting structured and informal recreation, protecting the natural environment, and encouraging human health and fitness.(...) 3. Expansion of the parks system should be undertaken

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¹⁰² Annapolis 2009 Comprehensive Plan, Chapter 6 Parks.

¹⁰³ Ibid.

selectively and strategically, with the objective of taking advantage of rare opportunities, providing parks and recreation services to underserved areas,(...), and furthering environmental goals." 104

Secondly, the site is situated within an interesting socio-cultural context and history, which is especially appealing to the cultural-based design approach of this thesis. It is an interesting and challenging border situation between white and African Americans and wealthy tourists and struggling neighborhoods. Due to that situation FAP hopes that a new concept for Whitmore Park could overcome this frontier and connect socially disconnected neighborhoods. Likewise a park redesign is a wonderful opportunity to reconnect the city to an almost forgotten chapter of its history and redefine the character and self-awareness of the Clay Street community.

¹⁰⁴ Annapolis 2009 Comprehensive Plan, Chapter 6 Parks.

II.3. Public engagement

II.3.1. Community Engagement Processes

This chapter explains the organization and structure of the engaged action research. All interactions sought to provide a concise understanding of the park's and community's unique socio-cultural contexts and characteristics.

The following chapter elaborates on engagement outcomes and how they informed the design process and outcomes as well as the event management for the park.

Engaged Action Research

The designer decided to approach the design research in form of engaged action research, which welcomes stakeholders and community members as researchers, designers, and agents of change to the analysis and design table. Action Research is defined as "comparative research of other conditions and effects of various forms of social interactions." The process is iterative because each circle of fact finding and planning feeds into the next. As Deming and Swaffield emphasize, this approach is very helpful in landscape architecture situations where the landscape "problem" lies amidst complex social conditions." And Whitmore Park and garage are located within such a complex socio-cultural and historic sensitive situation.

Engaged Action Research can be divided into different approaches, of which the designer chose Participatory Action Research (PAR). It is a combination of "critical, pedagogy and active learning with community-generated activism, research

¹⁰⁵Deming and Swaffield, 2011, p.192

Deming and Swaffield, 2011, p.202

outcomes, and service "107", where residents and stakeholders are involved in the analysis and design process. Together, they critically reflect on past, present and current issues, and brainstorm how they can improve the situation. It attains to develop a stronger, engaged, problem solving community with a greater social and environmental awareness. This happens through a dialogue between the researcher and the participants, where the designer serves as an explainer and facilitator.

Through the interactive, educational approach the participants can become educated, active partners, leaders 108. This aspect is not just important in the design process, but also for the programming of the park past the design and construction phase, which will incorporate ongoing environmental research in the storm water management facilities and the gardens.

Deming and Swaffield's (2011) guiding principles for PAR also served as guidelines for this project: there was a collective investigation of past, present and possible future issues, the designer relied on the communities' knowledge in order to get a better understanding of the site, and had the desire to encourage and facilitate the residents to deal with the elaborated challenges and opportunities.¹⁰⁹

The principles of PAR perfectly align with the requirements for a socially and culturally sustainable park, because through the active, educational involvement of the residents, they turn into active stewards and cause a sense of ownership and pride (Nassauer 1997). And with the research-designer in the role of a facilitator, the preconditioned immersion into the community also aligns with Hester's argument,

¹⁰⁷ Deming and Swaffield, 2011, p.200

¹⁰⁸ Deming and Swaffield, 2011, p.194

Deming and Swaffield, 2011, p.200

that *the designer must become part of the scene*, which *takes unconventional effort*. (Hester, 2006, p.160). The designer must do so, because a sustainable design is a design that is rooted in and enhances its site's physical and non-physical uniqueness (Hester, 2006). An important task therefore is, to find, reveal and synthesize these details of the particularity of both natural and cultural factors.

Civic Engagement Approaches

In order to gain a better understanding of these natural and cultural factors of the site and the surrounding communities, the designer therefore chose a combined approach of passive and active immersions into the Clay community and the park's stakeholders. The passive immersions were carried out through an online survey, two photo analyses, and observations at attended events.

The active immersion was comprised of different PARs, interviews, telephone conversations and email exchanges. As the literature review emphasizes the importance of community engagement as a socio-cultural sustainable design asset, a majority of the time was spent on the active immersion.

Literature review, site analysis and the design process were correlated as they kept informing and shaping each other. The general design process is a result of the following core structure, with the mentioned feedback loops:

- General literature review
- Site selection and visits
- Photo analysis
- Stakeholder interviews
- Core group meetings with "Friends of Annapolis Parks"

- Analysis of previous surveys conducted by stakeholders and the core group
- Focus group meetings
- Specialized literature review
- Site analysis
- First Design responses to spark ideas at the charrette.
- Community design workshops
- Core group meetings and interviews with political stakeholders
- Community specific design goals and concept developments for two programmatic design responses
- Two detailed site plans
- Community response within the second community design workshop
- Literature Review
- Design edits

Becoming part of the scene

Previous to the designer's interactions, a local church as well as "Friends of Annapolis Parks" had conducted surveys to understand the communities' concerns and desires for Whitmore Park, as well as their willingness to take stewardship of the park. The outcomes of the surveys informed the generation of the online survey as well as the design games for the Focus Group meetings, and were integrated into the final involvement outcomes.

Passive immersion Observation, Photo Analysis and an Online Survey

The designer visited the park and the surrounding communities several times from September until March for general observations and to conduct a photo analysis within ¼ mile of Whitmore Park. The latter was intended to reveal visual cues of care and to understand cultural specific aesthetics of care.



Figure 20: Pictures from the neighborhoods within walking distance from the site: Murals of the Old Fourth Ward at the Stanton Community Center; An information booth about the Old Fourth Ward on the entrance to West Washingtin Street; St. Anne's Cemetery northwest of the Clay Street community; Typical housing typology along West Washington Street; Douglas Banneker Museum about African American History in Annapolis in the Inner West Street community; Typical housing typology and small front yards in Inner West street community and on Clay Street; historical pictures in West Street; commercial West Street with narrow brick side walks. Pictures taken by the author.

Furthermore the designer visited the last Jazz concert of the season in the park, and participated in two community dinners that were hosted by a local church in

the community center. At the second dinner, the church conducted a survey to understand the community's opinion about and desires for Whitmore Park.



Figure 21: Jazz concert in Whitmore Park. Movable stage, people bring their chairs, children playing. Pictures taken by the author.

Besides the physical passive immersion, the designer also conducted an online survey. The survey was meant to offer a formal participation that enabled citizens who could not attend, but still wanted to contribute to the Whitmore Park Think Tank. The survey was created based on guidelines and skills that the designer acquired in a class about new planning technologies in urban planning. The content of the 8 exercises derived from the programming for the community design workshops and were adapted to fit the online format. It followed the same logic of two main sections: Section A: Understanding how people use and think about Whitmore Park with 3 exercises and Section B: Think tank for new programming options with 5 exercises. After a pilot testing from the course teacher and the thesis advisor, followed by amendments, the survey was published through qualtrix. The link was distributed via email and put on invitations that were distributed for the engagement processes.

Active immersion – Community engagement processes

The following chart explains the different engagement processes the designer undertook for the following actions to actively becoming part of the scene:

Whitmore Park Think Tanks 2013 September - November December 7, 2013 January 11; February 1&2 December - February Core Group meeting Focus Group meeting with 8 Community Design workshop; Online Survey stakeholders (city, community, Interviews with residents & Community Feedback sessions stakeholders activists) and Design workshops Insights: personal testimonies, concerns & desires, community needs, heritage, we want to Themes: "Music Park", "Heritage Park" March - April Meeting with the Mayor, presentation at City of Annapolis and Anne Arundel County Council meetings. Insights: history, garage, rea-Insights: past, present & future Insights: personal testimonies, of plaza & community, contact sons to keep the plaza, music, concerns & desires, issues, funding options, further conattitudes, community needs, Themes: Broken promises, a tacts. Themes: "Revive the heritage. Themes: "Urban Removal", "Jazz history", "Revive dispersed community, clash of spirit of the Dixie Hotel"...Heritage Park", "Tell the story & cultures, an endangered plaza, the former vibrant character", need for a common vision. connect the communities". "Scaterred".

Figure 22: Overview of the community engagement processes. Graphic created by the designer.

As earlier explained, the design and organization of the various community engagement processes informed each other and directly fed into both the final design and the event management plans. Besides serving as the think tank for design and programming decisions, these interactions also had the goal to connect people and to cause a common vision and a common sense of responsibility, ownership and pride. As outlined in the literature review (Nassauer 1997&2011, Hester 2006), the latter is crucial for a holistic sustainable design.

All engagement processes followed the same basic recruitment and eligibility criteria: The subjects had to be adults, which was due to a simplified IRB approval. Furthermore, participants must live within a one miles radius of Whitmore Park, be a daily user of Whitmore Park or have another understandable relation to the park or be part of the focus group. The recruitment was conducted primarily through email contacts, as well as through mouth-to-mouth invitation in the streets and gatherings as well as flyers.

Interviews

The interviews can be divided into two categories: The interviews in the beginning of the research process focused on getting a better understanding of the present park situation and people who are involved in saving it. The interviews later in the process served to gain a better understanding in specific areas or about special topics.

The first interview category included individual meetings with stakeholders and former residents of the Clay Community for interviews and walks through the park and the Clay community. An important role in these initial meetings played a pastor from a local church who provided a concise knowledge of the community and the people who are involved in the initiative to save the park. He connected the designer with "Friends of Annapolis Parks" and local people, who supplied more detailed and updated information.

As the designer gained a better understanding of core issues and core characters, the interviews served to gain insight into specific topics such as the history of the park and its surrounding communities, the condition of the park and the garage and the present situation in the Clay Community.

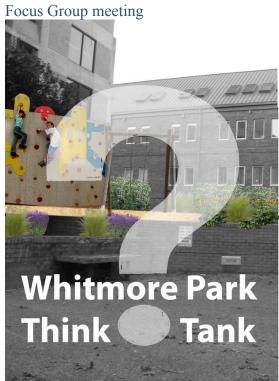
Major stakeholders included a local pastor, an employee in the community center who is a former resident of the Old Fourth Ward and chairman of "We care and friends"- an organization that facilitates homeless employment and court hours to maintain the park-, the Legislative Assistant to Councilman Chris Trumbauer, whose family sold their houses in the course of the urban renewal, and managers of the county's facilities management.

Core group meeting with "Friends of Annapolis Parks"

Prior to the Focus Group meeting, the designer met with "Friends of Annapolis Parks" which will be referred to as *the core group*. "Friends of Annapolis Parks" is an initiative group formed in 2012 to save Whitmore Park from development plans. The team members grew up in and around the Clay Community or had their businesses close to it, and they are familiar with its rich history and heritage. Their motivation to save the park is manifold. The chapter about the site background, context and history outlined three reasons for the site selection, which are also aligning with the group's concerns. Moreover they want to keep the park in order to revive the community's heritage, and to connect the spatially and socially disconnected neighborhoods. They organized very successful free Jazz and Gospel concerts that were held in the park as long as the season 2013 allowed it. They also approached professionals to get advice for minor changes in the park, built a homepage and started a Facebook group to get the word out about the Whitmore Park initiative and to draw people into the park. On Facebook they conducted a survey about program and design desires for the park to which 80 people contributed ideas.

The goal of the core group meeting was to get to know the main initiators to save the park, and to plan the organization of the Focus Group meeting and determine

where the community involvements should take place. They compiled a list of stakeholders who are being kept in the loop, and agreed to be in charge of inviting people. They used the invitations with the survey link that the designer had made. The designer provided the recruitment material to give the community engagement processes a unified look that people would recognize.



Come and join the Whitmore Park Think Tank_ Let's develop fresh ideas for a New Whitmore Park!

My name is Elisabeth Jane Walker, I am a graduate student at Maryland. As my Thesis project I want to help the community to develop ideas for a new Whitmore Park.

I would appreciate it if you attended a Focus group meeting. All stakeholders and people who have been involved in the park will **get together.** We will assess strengths, weaknesses, opportunities and threats of and for the park and prepare a community design workshop (to be held in January 4th&11th).

When? Saturday, Dec. 7th, 10am-12pm
Where? Stanton Community Center
Questions? Please feel free to contact me:
walkerelisabethjane@gmail.com
or:
2403813062

Figure 23: Invitation to the Focus Group meeting. Graphic created by the author.

The core team sent out 35 invitations to politicians, residents and other stakeholders, and 6 people participated in the two-hour meeting on December 7th at the Stanton Community Center in Annapolis, which is five walking minutes away from Whitmore Park. The stakeholders included the manager from the Park and Recreation department of Annapolis, a chairman of the Art in Public Spaces Annapolis council, a musician who organized the Jazz concerts, a politically active

lady who has organized major events in the city, and the three members of the core group.

The original goals for the meeting were to get to know stakeholders, visit the park, conduct a SWOT analysis and compose a design brief for the community design workshop. The analysis consisted of a survey about the strengths, weaknesses and threads associated with the park, and a sketching exercise to elaborate opportunities. However, the introduction took a lot longer than anticipated, which only left room for the site visit and the opportunity sketching exercise. The participants were asked to locate opportunities and desires for the park in a bubble diagram sketch on a 20 scale park plan. The designer decided to skip the survey in order to give the participants enough time for discussions about the park's past, present and future, getting to know each other and the project, and for the sketching exercise. Since one concern was funding opportunities, the group spent some time to brainstorm different funding opportunities. In the course of the conversations, the designer encouraged the participants to form a vision for the park.

Prior to the Focus Group meeting, the designer had planned the community design workshops in order to get the required IRB approval in time. The sketching exercise was taken from the community design program and the focus group served to test if it worked and how effective it was.

The participants enjoyed the exercise and it sparked a priceless conversation about programming options that were the foundation of the shared vision. The sketches and notes from the discussion served to hone primary design and

programming ideas that fed into the adaptation of some design games for the workshops.



Figure 24: Park visit, sketching exercise with Focus group. Programming bubble. Pictures taken by the author.

Community design workshops

There was one community design workshop and two combined review and community design workshops. They took place in the same location. The core group was in charge of inviting residents and stakeholders, and a local restaurant provided lunch.

Workshop exercises

The framework for the design exercises and the overall program were guided by Condon's charette principles (2008) as well as two studio projects from Clemson University, LARCH 840 Community Involvement Seminar's Stromboli Corridor Charrette Report and the following 2013 studio's Long Wharf Park Workshop Report. Furthermore, the designer also drew games and game ideas from the 3 MLA community involvement studio 2013 which included a one day charette that was supported by the studio class. After the Focus group, the designer modified some exercises to fit the community's desire's, concerns and character. She also included a short survey about the character and expressions of the participants' heritage.

The original community design workshop program required a four hour-long commitment from the same group, which was already a downsized version of

Condon's advice. However, due to the core group's concern that the community will most likely not commit so much time on a Saturday, the designer changed the program and adapted a few games to fit a more flexible walk-in-hours style.

Three games only required 5 minutes each and were marked accordingly, so that people who just stopped by were able to participate easily. Two assessed programming desires and one how people feel about the park and its surrounding area.

The other 5 exercises required 10-20 minutes. Three focused on how people feel about the park and their heritage and two focused on sparking and collection programming and design ideas. All exercises together took about 1.5 hours.

The exercises were self-explanatory with an explanation sheet with an exercise number, explanation, the required time and the purpose of the exercise. Only at the last exercise, which was the bubble diagram sketching tested in the Focus Group meeting; there was a facilitator who encouraged the participants to design a park that represents their heritage. The facilitator also engaged the community designers into a conversation about their designs, which provided some valuable insight and confirmed the community designers that their design really mattered.







Section A: Understanding the park and its community

A.2. Mind map: 10 minutes

Please write your opinion on a sticky note and place it on the boards.

You can also place a dot on other sticky

What are your:

- Concerns about the park?
- Desires for the park?

stand how people feel about the park more deta



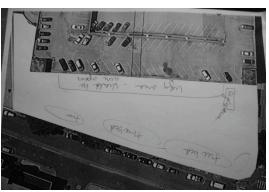
Section A: Understanding the park and its community

A.3. Mental Map: 10 minutes

A person's perception of the world is known as a mental map. A mental map is an individual's own internal map of their known world. Matt Rosenberg, 2013

Please draw Whitmore Park from your memory into the map and name the different areas.

which will reveal the conscious and unconscious spaces. It will help to develop constraints and opportunities, and is a visual amendment to the mind mapping exercise.



Whitmore Park Tank **Think**

Whitmore Park

Tank

Think

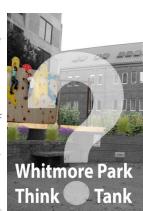
Section A: Understanding the park and its community

A.4. Your Heritage in the park: Please fill out the short survey. Heritage: Definition:

Heritage = An inheritance that is passed down to the next generations, such as:

- valued objects and qualities such as historic buildings and cultural traditions that have been passed down from previous genera-
- things of special architectural, historical, or natural value that are preserved for the
- a traditional brand or product.

This exercise will help us to understand your heritage, and how we can include it into the park design and the park program.



Section B: Think tank for new programming options

B. 6. Vision card: 20 minutes Please fill out the blanks on the survey.

do on the short and the long term in the park. That helps us to develop short and long term goals for the park.

Section B: Think tank for

new programming options

B. 5. Picture Planning: 5 minutes

Please place five dots next to your favorit program/design options (max. 2 dots per picture).

If you want to add an idea, please write it on a sticky note and place it next to the blank sheet.

his exercise reveals the program desires of the commun also helps you to visualize possible design and progran eatures. And, it can help you to spark some ideas for the ketch exercise at station 8.



Whitmore Park Think Tank

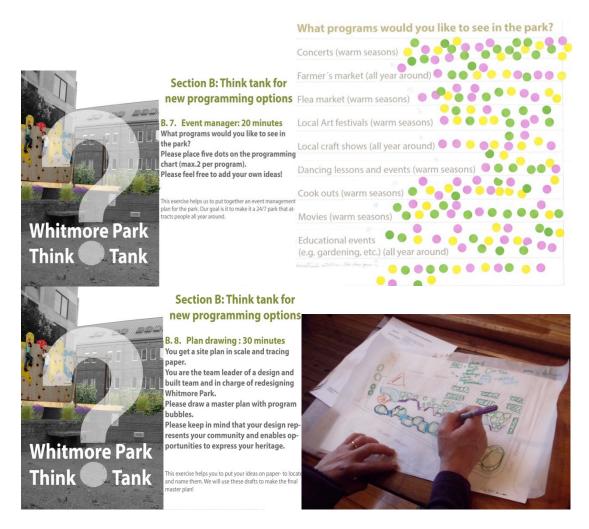


Figure 25: Design Exercises. Graphics made by and pictures taken by the designer.

The first workshop was announced to be from ten until two pm. The majority of the participants came at ten and left after lunch, only one dropped in in the afternoon and did the five-minute games. All together 14 stakeholders and two community members joined in filling out surveys, writing concerns and desire sticky notes, placed dots, drew mind maps and sketched their ideal Whitmore Park in form of bubble diagramming.

The low community participation was most likely due to the rainy cold weather, and the targeted immediate (within walking distance) neighbors mostly don't own cars.

Because of the low neighborhood rate, the designer decided to turn the project

draft review three weeks later into two follow up design workshop. In order to leave enough room for feedback on the first two design options, the programming survey about immediate and long-term changes was excluded from the exercise program.

In the first feedback session on a Saturday afternoon, the majority of the participants were former residents of the site. The discussions at the beginning of the design games were emotional, as the participants shared their individual stories of the pre and post, as they coined it, "urban removal" times. The emotional map turned out to be an offense to them, as they were suspicious about the "places that feel unsafe" option. Even though the designer explained the purpose of the exercise, they kept defending their present or former neighborhood. However, through asking questions about positive memories, and how they could integrate them into new ideas for the park, the designer managed to turn the discussion into fruitful conversations. Due to the sensitive discussion, the emotional map was also removed from the design game list for the following day.

The last feedback session on the following Sunday was incorporated into a community dinner that was hosted by a local church. Whereas the participants on Saturday were all African American and mainly seniors, the group on Sunday was a mix of different generations and races, both African American and White.

The response rate for both days was very good and resulted in 18 participants from the immediate neighborhood, so that there were altogether 21 participants from the Clay Street- West Washington Street neighborhood.

II.3.2. Community Engagement outcomes

Even though "becoming part of the scene" has been challenging and could be exhausting, the designer enjoyed and appreciated the community engagements.

Further, the designer values the deep insights into the site and the neighborhood which directly inform the design response, and, most important, the gained knowledge about the crucial role of engaged action research in sustainable design.



Figure 26: Design Exercise results: Concerns; Changes; Desires; Heritage Survey; Compiled programming sketches. Graphics made by the author.

2 week changes

- change plantings
- temporary art projects

2 months changes:

- picknick and chess tables
- seating (benches, chairs) and tables
- mural on garage

2 year changes:

- repair& restore walls and turn them into raised beds and benches
- drinking fountains,
- Team up with artists to have a competition for a park sculpture

Adult& Senior

Lighting improvements

Recreation

Play grounds

park

Incubator

Want opportunities for small entrepreneurial activities to prosper

meeting areas Good visual impression That it will be used for cond Diverse connecting gathering space

A desire for a safe, diverse gathering space for people to connect Gathering place for all communities Use Park to enhance value of adjoining neighborhoods. Space being happily used

Water features

That it will be used for concerts

and Entertainment district into

Offer variety of experiences Create natural extension of Arts

Educational

Gardening Education for children / kids clubs for karate, Zumba, dancing An outdoor learning environment for all ages that changes

Gardens/ new plants

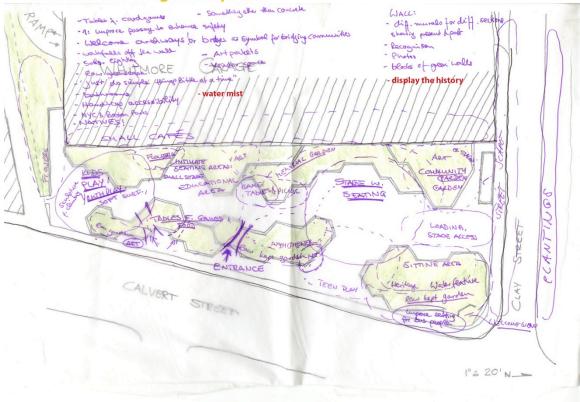
67

Reflection of the local history and culture:

- Local Art and music Jazz
- Seating and meeting places
- Memorial Gardens
- Foster local historic activities and show pictures of what was once here and taken away

And have the following features:

- A stage for Music
- Performance art
- Creative art
- Meeting places_proper seating
- Passive and active recreation
- Mature and indigenous plants



Insights into the site and neighborhood

Confronting Place Identity Issues

One of the most interesting outcomes was the gained understanding about the deep effects of the urban renewal, socially, culturally, and economically, and its lasting impact on the present and the future of the community. At the first feedbackworkshop, it became clear that there are only a few residents left in the immediate neighborhood who are familiar with the unique cultural history. Because of the relocations of 60 families and the drastic changes in the neighborhood, only a few residents returned and stayed after the renewal. The results did not only have a negative impact on the family-like community character, but also on the cohesion of the families. "We were a family and they scattered us." This statement, which the designer heard several times, was meant literally as well as metaphorically. One former resident said, that "memorializing the heritage" in form of a tribute to the families who were relocated should be an important design feature of the plan. However, even though the majority of the former neighborhood citizens have not

A REM

returned, there is still
a community desire to
keep the old history
alive. As the designer
conducted a photo
analysis on Clay
Street, she
encountered a

Figure 27 Picture taken by the author inscription in a lately repaired sidewalk section.

The Stanton Community Center hosts several social events throughout the year, which further tap into the neighborhoods heritage.

The residents also remarked that they really enjoyed and appreciated the jazz and gospel concerts during the previous summer, because they temporarily revived the social and cultural character of the Old Fourth Ward. Families and friends were connected again, and people talked about the good old times, instead of being frustrated about the present conditions. These conversations and the concerts sparked awareness and hope to do something about the situation of the park. However, no one made a move because they either felt unable to achieve anything, ignored by political powers, or they did not know how, until the Think Tanks were hosted. This notion can be seen as a representation of what the designer calls an identity crisis. The neighborhood still remembers its heritage, which is due to the senior citizens and their family members and friends who return for visits, as well as the Stanton Community Center, and an educational booth at the neighborhood's entrance on West Washington Street. But the citizens struggle to connect with each other, and don't know how to express their heritage in the public realm.

"Whose footsteps are you walking in?" 110

One reason why the community has not overcome its identity crisis yet is the fact, that a lot of present residents don't have any relation to the jazz and theater heritage of the place. Many came from further away and were attracted by the public housing projects. The designer gained that knowledge at the second feedback workshop, where several residents were surprised when they heard about the jazz,

 110 A suggested theme of a stakeholder after he learned about the site's history. January 2014.

70

American stakeholders referred to the unique past and their interaction with the old Fourth Ward, and expressed the desire to revive its character and educate people about the history through a new park design. At the focus group meeting the participants decided after an interesting discussion about the past and present efforts, that the park could be a way to "get back the heritage".

They expressed concerns that the community's "unique heritage" was disappearing due to the urban renewal, followed by gentrification and a strong focus on prioritizing other historic conservation efforts within the city. All Think Tank contributors agreed that the site should be both a reminder of and educator about the community's history, but, instead of just freezing the past, doing so by reviving it and fostering the heritage. One of their visions for the park was to become a "Heritage Park" that captures and fosters the heritage through historic displays ("temporary and permanent art islands"), cultural events and through use options for all ages.

Make one out of Two

Along with the interesting socio-cultural dimensions of the neighborhood there is a theme that residents and stakeholders kept mentioning at the first community meeting: The park lies between two cultures, or between two cities within one city. (As the Comprehensive Plan 2009 confirms, Annapolis is a multicultural city, and it is proud of that fact. However, due to the residents, there is not a lot of interaction between the cultures). The events downtown and the cultural events along West Street, which also expand into Whitmore Park, don't draw the Clay Community members because of a high prices and few cultural offers. Vice versa,

there are only very few residents from West Street and downtown who attend events at the Stanton Community Center. Therefore the focus group articulated one goal of the park to be a "place that makes it possible for people from different generations and races to come together and share open space."

In accord with that desire, the group came to the conclusion that music and art were the common transcultural denominators, and should therefore be the focal point of the new programming. "The concerts drew the black and the white communities," said a former resident who helped organizing the concerts, because "Music is the common denominator in culture and art." The focus group's second vision for the park was to "Keep the attitude of the Dixie Hotel". The new "24-7 Park" could draw and connect people of all races, ages and incomes through programming and a good, multifunctional design. A crucial design element was a stage, which enabled people to express their culture and heritage. The focus group's visions were highly appreciated and supported by the residents and other stakeholders, and often mentioned by participants at the introductions, before they started the design games.

To maintain and nurture the musical activities in the park is also in accord with the ninth of the eleven policy recommendations, that "Annapolis' rich cultural history and wealth of current historic and cultural offerings will be protected and enhanced" [11].

The focus group also suggested extending the existing culture and arts programs into the park in a way that gives consideration to the past and present of the Clay Community. The strong focus on expressing the cultural uniqueness through a

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 $^{^{111}}$ Annapolis 2009 Comprehensive Plan, Executive Summary, p. viii

performing arts and heritage sensitive programming influenced the remodeling and adding of some design games for the community design workshop.

Unrecognized historic value

The first review workshop revealed another interesting socio-cultural matter. Residents raised the question, why the historic district does not include the park and the community along Clay Street? The description of the Historic District to be a "special American Place" that will be protected and sustained in its cultural quality and economic vitality as "a gift for future generations" gives the residents' question a cultural-political aspect. The design cannot respond to that matter, but the question can be raised in the process of presenting the project results to city officials.

Important miscellaneous

In addition to the mentioned issues, the interaction called to the designer's attention an urgent need of playgrounds for small children.

Moreover, the focus group and other stakeholder discussions revealed that there is plenty of private and public funding available, if people can buy into a clear vision that is broken down into projects.

As the design goals and the master plan will show, all these matters directly influenced the program and design of the site, with the mentioned exception. In addition to that, a compiled bubble diagram analysis from the design workshops served as a first concept diagram.

What the designer did not include into the design responses were voiced concerns about teenagers possibly attracted by a playground, and homeless people.

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 $^{^{112}}$ Annapolis 2009 Comprehensive Plan, Chapter 3 Land Use and Economic Development, p.20.

The designer's goal and design theory is to be inclusive and not exclusive, and there is a clear need for a playground. The voiced concerns can be mitigated through smart design solutions, a good visibility throughout the park and community stewards.

The role of engaged action research in sustainable design

The above-described matters were results from sparked conversations, and discussions with and without sketching pens as well as gained trust towards each other and the designer. When the participants realized that the core team and the designer were eagerly interested in their needs and asked them for advice, they opened up, and some even started to think outside of their situational-constrained box.

These important matters could have not been grasped through a common site analysis or even an informal participation process.

They are crucial to a culture informed design that nurtures society and culture. The iterative involvement process revealed how insecurity, prejudice and indifference can be turned into self-esteem, openness and an action spirit through sensitive yet fun and challenging design games, and a platform for respectful, open dialogues. And that brings forth a unique, rich asset of concepts, designs and programming ideas that just need to be prioritized and arranged in an artful and visionary design. Listening to the residents' stories, concerns and desires for the future, and to evolve ideas with them through sketching and discussing precedents, enabled the designer to understand their culture and thereby acquire the cultural literacy to "read" the cultural cues. The designer now understood that the African American residents express their culture

through their music and performing arts, and through sharing their everyday life if they have a place that enables them to do so. One resident made a design suggestion how to create a space that encourages people to meet and become familiar again.

Outcomes of the passive immersion

The photo analysis was not as fruitful as the designer had expected. They did reveal three cultural cues, which were found in both dominant African American neighborhoods, as well as in dominant Non-African American neighborhoods. These are porches with rocking chairs, tidy perennial borders with small trees, and cars that dominated private spaces. However, the designer could not identify any unique African American cultural cues, even not after the second photo analysis, which was conducted after the first community workshop. The reason for the second photo walk was the designer's newly gained cultural literacy, which will be explained in the paragraph about *The role of engaged action research in sustainable design*. But even the newly gained understanding of the African American culture did not reveal any cues from the pictures, which is not surprising due to the gained knowledge about the African American cultural expressions mentioned above. Maybe the designer simply was not literate enough yet to read the cues, as Kimberly Cleveland remarks that, "Signifiers of blackness, like all signifiers, are arbitrary unless they have meaning for their audience and are subject to variations over time and between locations." Due to a lack of time, the designer could not redo the photo analysis with a community member, which might have added to the already revealed cultural cues from the community involvements.

¹¹³ Cleveland, 2013, p.43

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III. Project Goals

a. For the overall profession

As outlined in the literature review, there is a gap in sustainable design concerning social and cultural factors. The overall goal of this research project is to close that gap by understanding design-relevant dimensions of social and cultural sustainability factors and by exploring how to reveal these aspects in a community and implement them into a holistic, sustainable design. In short, the overall goal of the project is to learn from culture and implement this knowledge into a socio-cultural based design.

b. For Whitmore Park

The overall goal for Whitmore Park was to develop a socio-cultural sustainable improvement design and event management plan for Whitmore Park with the local community to save the park from development. The design should reveal and foster the community's history and heritage—connect people to their place, connect people to people (generations, neighborhoods, races) and people to natural processes, and, most of all, meet the socio-cultural specific user needs. The following graphic shows a list of user needs that the designer prioritized both based on community input, finds from the literature review, and the site analysis.

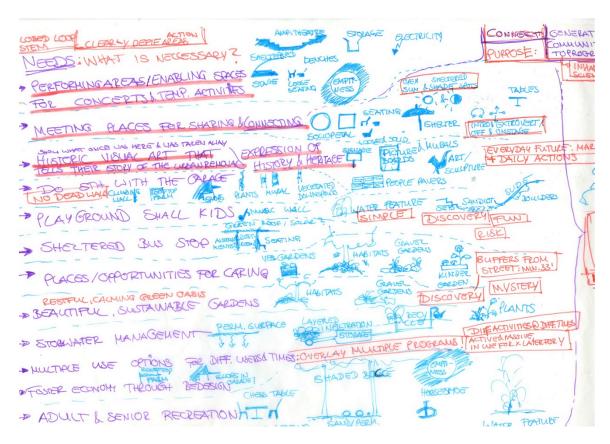


Figure 28: Prioritized communities' needs. Sketch made by the author.

Another goal is to spark a sense of pride of ownership and a desire to acquire the park and actively sustain it through including the community in the design, construction, and maintenance processes.

Overall, the park should enable its users to perform and express their heritage, to meet and share their stories, and to acquire and care for the park.

In order to attain the overall goal, the designer broke it down into specific action goals for Whitmore Park:

Connect present and potential users, stakeholders and other supporters of
 Whitmore Park to create an awareness of the park and its potential benefits for
 the community.

- Develop a common vision with them that is based on their specific user needs, that revives and fosters their characteristic socio-cultural history and heritage, and that enables them to acquire and take care of the park.
- 3. Replenish and present all the collected data and the design responses in a way that allows the community and city to keep using them past the designer's involvement.

The second action goal was broken down into several design goals, which further explained the aspects of a sustainable, socio-culturally sensitive and an aesthetically pleasing design:

Socio - Cultural goals

- Represent and foster the communities' heritage through a reinterpretation of the former, vibrant character of the site, which was dominated by performing arts.
- Enable citizens to meet and share their stories through providing different types and sizes of sociopetal places.
- Enable them to take stewardship and care for the park through simple yet unique design solutions and material choices, as well as tying the park programs into existing programs, such as the rain garden network.
- Harness the social value of nature by incorporating microhabitats and showcasing stormwater management.

Provide multifunctional spaces that are adaptable to change, and have an artistic remnant of their primary function even when they are not in use.

Economic goals

- Embrace the garage as an opportunity space and extend the park into and on top of it.

Environmental goals

- Catch and recycle storm water artistically and educationally and reuse it on site.
- Create a closed loop energy system through on-site energy harvest and composting plant material.
- Use native plants for butterfly and bee habitats.

IV. The Design

The following paragraphs explain the design logic before the next chapter explains the master plan and its cultural, social, economic, and ecological layers.

The Design Logic

Concept

Concept progress

The concept described in the next paragraph is a result of two main concepts that were the result from the literature review and the main themes that evolved in the participation process. Due to site constraints, and Hester's design logic (2006) the design responses looked similar, but have a different focus. Both design options were reviewed by the community and voted on.

"Tell the stories of the past & share the stories of the future"

This concept had a strong emphasis on providing different meeting places, which enable the park users to come together and share their stories. Those places were both

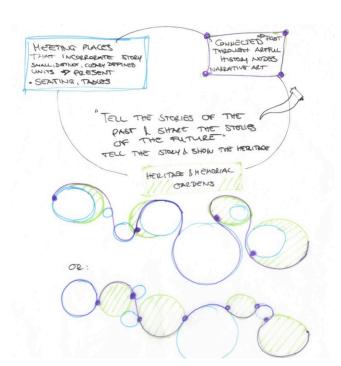


Figure 29: Concept history telling

comprised of permanent and loose seating elements and tables. They were connected through artful history nodes, such as kiosks or exhibition islands, and framed by heritage and memorial gardens.

The gardens should display the communities' heritages and histories through specific plant

palettes and art that tells the story visually. The design made minor changes to the existing park layout, because the designer also wanted to find out, if the residents and stakeholders prefer the old arrangement, or want something new. The major structural changes that the designer made included a restroom facility, and opening up the park along Calvert Street through removing the berms and replacing them by entrances and raised plateaus around the trees.

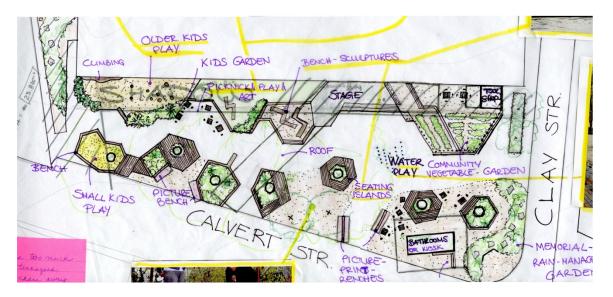


Figure 30: Design based on Concept 1. Graphic made by the author.

About 40 % of the second and third workshops' participants voted for this design response, but voiced concerns that the seating islands might attract homeless people. They liked how the designer had opened the park up towards Calvert Street, really appreciated the picture wall benches, and the different uses that this design provided.

The main flaw of this option however is its ADA inaccessibility along the garage.

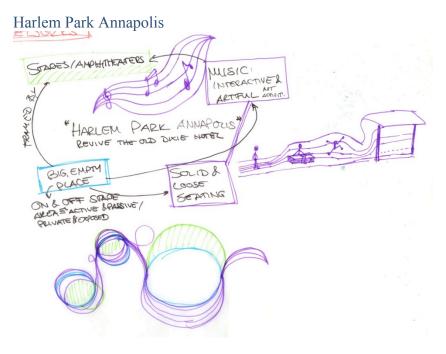


Figure 31: Concept 2. Made by the author.

Harlem Park Annapolis – Revive the old Dixie Hotel is driven by the Jazz heritage of the Old Fourth Ward and fosters performing arts. Its main feature is stages and amphitheaters that offer performance opportunities of different sizes. The second important feature is a series of empty places, that allow for different uses and different spectator crowds. Some of these spaces are active, and exposed, and foster busy activities, whereas in contrast other spaces are more private and allow visitors who do not want to be in the crowd, to participate in events in a more secluded manner. An artful, interactive music ribbon ties the different place sequences together. The wall incorporates different functions, and changes its height according to its surroundings. As in the first concept, this option also entails both solid and loose seating elements to allow for flexibility. The organic shape was inspired by the designer's connotation of music flow with a swirly line, which also fosters sociopetal, circular design.

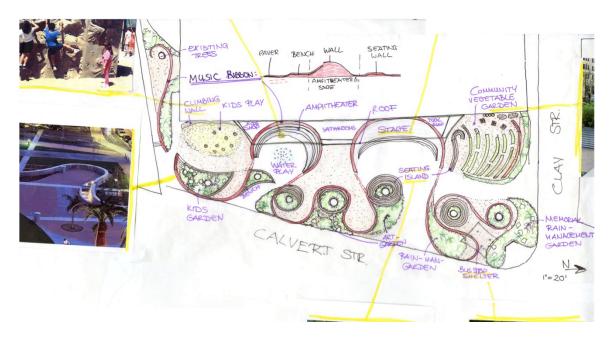


Figure 32: Design based on Concept 2. Graphic made by the author.

The main difference between the first and second design responses is the organic design language and the second option only provides one additional entrance to Calvert Street. The majority (60%) of the residents and stakeholders voted for this design response, because they liked the vibrant feeling of the loops and its strong connection to the Jazz history. They appreciated the stage, the amphitheater, the kids' gardens well as the numerous gardens along Calvert Street—,and the different sized meeting and performance spaces.

The final concept is an evolved version of Concept Two. The design integrates the picture walls, which frame the entrances from option one. The major improvement was the connection to the garage. The previous design responses had ignored the garage, which was based on the stakeholder's strong opposition to changing anything on the facility. However, after conversations with the Clay Street citizens, as well as the thesis committee, the designer decided to embrace the garage, instead of ignoring it.

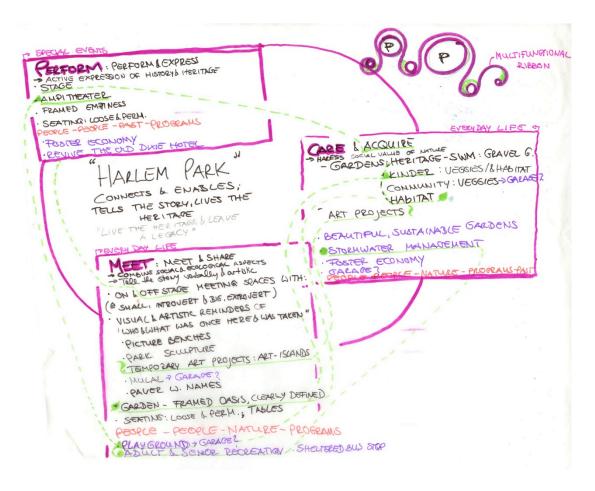


Figure 33: Concept sketch. Graphic created by the designer.

The final design was driven by the slogan: Harlem Park Annapolis: Enables people to perform and express their culture, meet and share their stories, and embrace and take care of their park. The programming was informed by the most relevant outcomes from the site analysis, the community engagement, and the literature review, which are shown in the list of community needs (figure 28), a combined bubble diagram form the workshops (figure 34), as well as in the simplified graph of the literature review outcomes (figure 35).

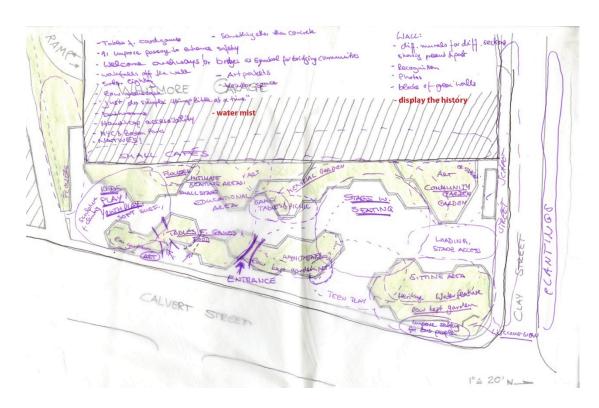


Figure 34: Overlay of all the citizen's bubble diagrams. Graphic created by the designer.



Figure 35: Simplification of Figure 1. Overlapping of social and cultural aspects in sustainability and sustainable design. Graphic created by the designer.

Parallel to the mentioned factors and the plan view sketches, the design was

also informed by several studies on a play dough model in ten scale, as well as measurements of amphitheaters on campus, and chalk drawings outside.

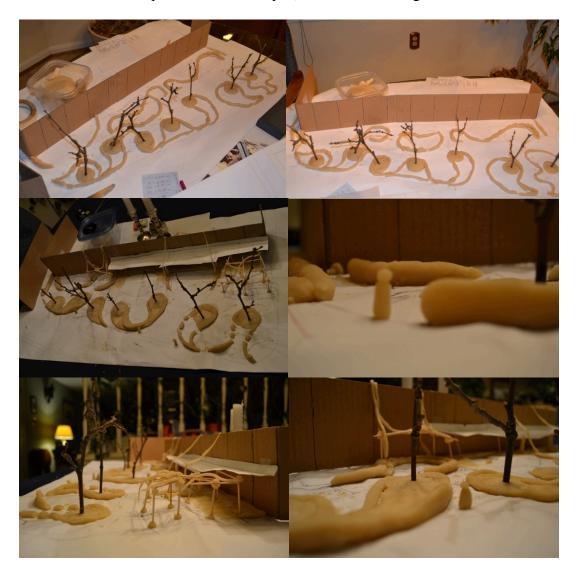


Figure 36: Play Dough studies. Pictures taken by the designer.

In order to translate the goals and the programming into design, the designer facilitated the core characteristics of Jazz music as design concepts.

Jazz characteristics

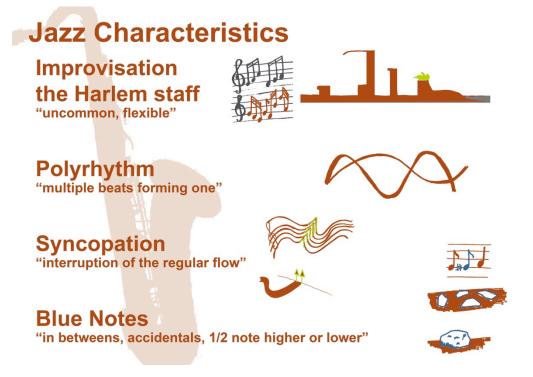


Figure 37: Jazz Concept. Graphic created by the designer.

Improvisation

The most important trademark of jazz is improvisation. Improvisation is a flexible musical conversation around a main theme. Even though it differs from the main theme in various ways, all of the variations, when combined with the predictable main theme played by the background band, form one cohesive piece. The flexible and malleable character of improvisation and the theme of conversion is translated into the Harlem Staff, which is a multifunctional paver-wall element that serves to organize the site's programs and give it a unique design feature.

Whether the staff functions as a linear pavement that collects stormwater or as a low or high wall structure depends on the staff's situation.



Figure 38: Harlem staff. Graphic created by the designer.

Along the site's boundaries (yellow), the staff turns into a 1.5 feet wide wall. The wall serves variously as a welcome sign with murals, to acknowledge donors, as an art exhibition, as sheltered seating nooks, or as a sheltered bus stop. It clearly defines the park's inside, outside, and its entrances, without shutting the surrounding environment out. In order to allow for good visibility, and yet creating an inside feeling, the walls are maximum four feet high.

Within the park (orange), the staff functions as multifunctional seating, planting, or a combined seating-planter wall. In designated areas the seating wall also houses the park's recycle and trash bins, as well as mini libraries. Due to its multifunctionality, the wall structure is 1.5 to five feet wide, and 1.5 feet to three feet high. In main transit areas, the staff "goes down" (burgundy) and turns into a pervious signature paver that is directing runoff to overflow features or the park's cistern

underneath the main performance area.

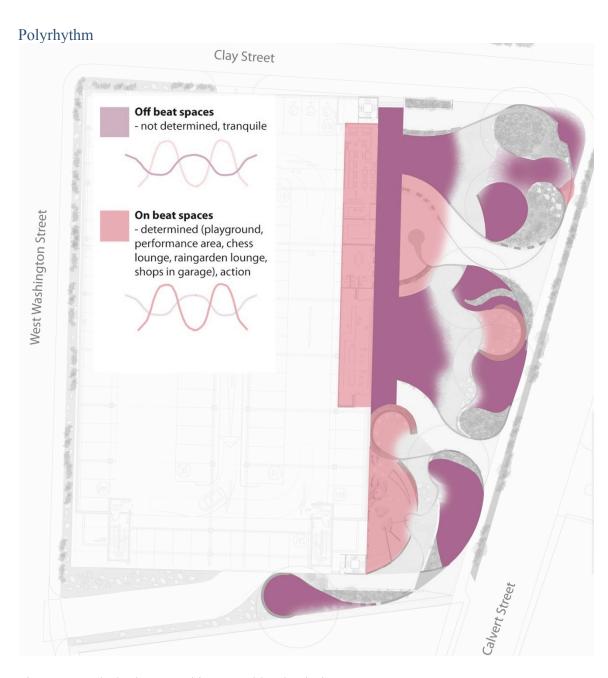


Figure 39: Polyrhythm. Graphic created by the designer.

Almost as important to jazz music as improvisation is polyrhythm, where several rhythms are played simultaneously. Even though they seem to contradict at first, they form one unique pattern through a primary and secondary beat structure, as

well as through on beat and off beat patterns. This characteristic influenced the placement of clearly defined main beat areas, which are the playground with outdoor classroom, the chess amphitheater, the main stage, and the restaurant, shop, and exhibition hall and meeting room in the garage. In between and around these action spaces, there are the flexible, more tranquil off beat components such as the gravel turf areas, and the rain garden lounge. They allow for a wide range of different uses, by different users, and at different times. This flexibility allows for easy future adaptations, and therefore enables the present and future park users to determine the park's function and character.

Syncopation

Along the lines of polyrhythm there is another characteristic rhythmic jazz element, the syncopation. According to the National Symphony Orchestra at the Kennedy Center, syncopation is characterized as a "disturbance or interruption of the regular flow of rhythm" or as an "uncommon placement of accents" The interruption of the regular flow is visualized through another behavior of the Harlem Staff: where the Staff hits the garage, it changes from a horizontal into a vertical element. This element is a vine bearing structure, which also visually connects the park with the rooftop of the garage.

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¹¹⁴ From: Classical music companion on kennedy center.org/nso/classicalmusiccompanion/syncopation.html, accessed in February 2014.

Blue Notes Clay Street Blue notes/ "Accidentals" - boulders - concrete fragments, representing the broken community history

Figure 40: Blue Notes. Graphic created by the designer.

The notion of the seeming misplacement is also incorporated into the fourth design feature, which is scattered concrete pieces and boulders. They symbolize Blue Notes, which are played slightly higher or lower than the main key of a song and cause the dissonant, blue sound of jazz music. These notes are also called accidentals. The concrete fragments are placed along the site's boundaries where houses used to be, and tell the story of the community's history of broken families. However, through this reuse of the park concrete, these fragments also symbolize turning the old into something new.

Master Plan



Figure 41 Masterplan Top View. Graphic created by the designer.

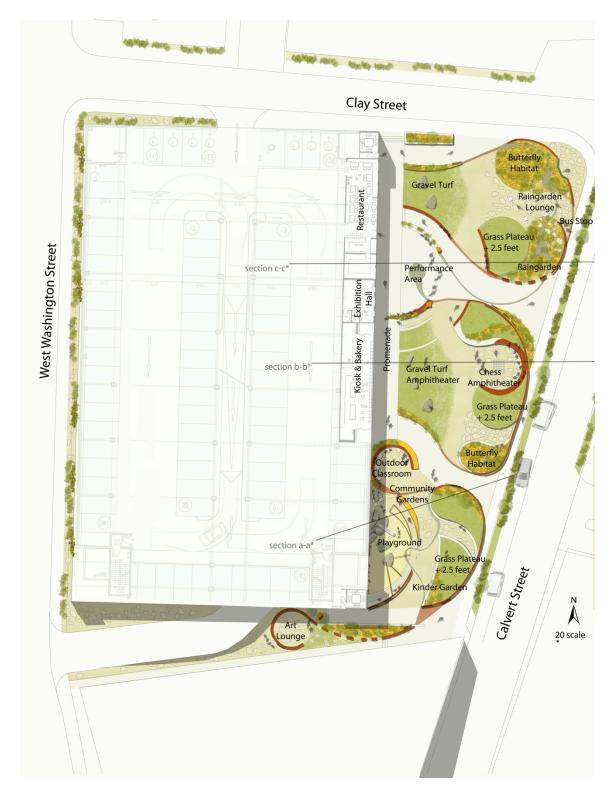


Figure 42: Master Plan ground level. Graphic created by the designer.

The master plan is comprised of four layers that take the four parameters of sustainable development into account.

Each layer will be explained in detail after the explanation of the master plan.

The four program components

The four major program components are the playground and education section, the chess amphitheater section, the main performance area that is framed by two gravel turf lawns, and the raingarden lounge section with a sheltered bus stop.



Figure 43: Playground masterplan section. Graphic created by the designer.



Figure 44: Sectional perspective through the playground. Graphic created by the designer.

The main play area is in a sand pit and framed by a three-step amphitheater in the south, and an elevated sand box, a community garden, a picnic area and an outdoor classroom in the north. Across from the sand pit, there are two gravel turf plateaus that are 2.5 feet high and mounted by seating retaining walls.

The reasons to include a playground area are threefold: As outlined in the site analysis, there is a lack of playground supply in the Neck of Annapolis. Also, even though several citizens were opposed to it, the majority of the workshop participants wanted a playground in the new park and a day care facility in the building south of the park desperately needs an outdoor play environment. Lastly, as explained in the history of the site, more families are moving into the newly renovated public housing projects on Clay Street. Therefore, the designer wanted to meet the growing future need for a playground, as well as offering a space that enables new and former

residents to meet and young and old generations to connect. Therefore, the playground section is an important part of the master plan.

The playground is ADA accessible and was designed and programmed according to the desires of the manager of the day care. She also informed the designer about regulations concerning playground organization and design, as well as specific educational sensory standards that it has to meet for their age group. Due to the sensory regulation, there have to be three distinct different play surfaces that also meet different ability needs, which the designer proposes to be gravel, sand, and gravel turf. The play features enable children to enhance their mobility abilities and encourage upper body strength, such as balancing, and climbing. The manager also emphasized that the playground should be able to adapt in order to be user friendly for different abilities, which means a balanced combination of clearly defined and less or not defined play and explore features. Another important design aspect that the manager requested was to design for educational opportunities and enable the children to explore, which the designer incorporated both through educational equipment as well as through gardens, as later in this paragraph explained.

Since the state facility moved onto Calvert Street six years ago, they provided outdoor play through temporary play structures, as shown in figure 45. Currently 45 children and toddlers from six weeks to five years old visit the day care daily. The playground was primarily sized according to that number. Yet, through the outdoor classroom and the kindergarten gravel turf plateau, it is expandable for greater numbers.



Figure 45: Existing, mobile playground. Picture taken by the designer.

The designer sized
the playground
primarily according
to the number
provided by the day
care, and not based
on the number of the

approximately 100 children living within a one-quarter mile radius. There are two reasons for this decision. First, the public housing projects provide a small play area in their inner semi-private courtyards. Second, there is a one-acre playground and sport fields 0.7 miles south east of the site. This distance is too long for the age group one to ten, and the day care's group size, but it is reasonable for older children. Therefore, this playground complements the playground supply, and especially fills the gap for the mentioned age group. Secondly, because the playground is one feature out of several, and not given main priority, the designer decided to size it primarily for the daycare needs, and not for the entire neighborhood. A facility that meets the playground need of the adjacent neighborhoods would require too much space.

The playground with the adjacent outdoors classroom are framed by two community gardens that serve both to educate children about food production, develop their sensory skills through digging, planting, and maintenance, and also to bring different generations and cultures together through gardening. The long-term

plan for the park includes a roof top farm on top of the garage, which would supply the plants and compost for the community gardens. Another educational feature is the Kinder Garden across from the playground, which provides the same developmental opportunities as the community garden by allowing the children to be the head gardeners for the flowerbed. The elevated garden also enables disabled children to partake in the gardening. Besides serving as a spillover and garden room, the gravel turf plateaus also frame a more intimate meet and share cove, where parents can sit and watch their children.

South of the play area, there is an art lounge that extends the park into the passage between the garage and the building south of the park. It is a circular bench formation that wraps around an existing red oak, and "shoots out" towards Calvert Street, acting as seating benches and sheltered seating benches, as well as an enclosure wall for a perennial sculpture garden. Where the Staff meets the passage, the seating wall is framed by transparent picture walls (see figure 56) that display images of former residents of the site and famous musicians who performed in the Old Fourth Ward. This little meet and resting cove primarily serves employees from the businesses and county departments in the building complex to take a lunch break, and for temporary sculpture exhibitions. There is one permanent sculpture which functions as a marker for the southwest entrance. The art lounge can also function as a smaller performance area or a meeting point. The designer played special attention to this corner of the park because the mental mapping exercise from the workshops revealed that no one considers that corner as part of the park. The designer also

observed how staff took their lunch or smoke breaks standing in the passage, which is only 3 feet wide, because there is no seating.

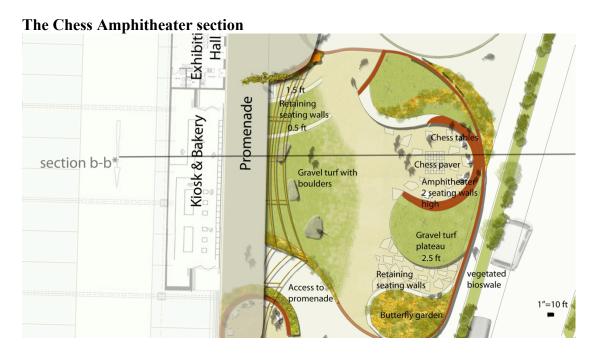


Figure 46: Plan section of the chess amphitheater. Graphic created by the designer.



Figure 47: Sectional perspective through the chess amphitheater. Graphic created by the designer.

When the designer proposed adult and senior recreation, such as outdoor chess tables at the workshops, the community showed a strong interest. An elderly citizen

said that 15 years ago there were chess tables downtown, but unfortunately the city removed them. Therefore, it was not surprising that the chess tables scored second place in a programming option dot game, which gave the citizens ten options. Chess is also a great feature to connect people from different age groups, communities and different ethnic backgrounds, and the tables can also function as picnic tables. For these reasons, the designer included a chess amphitheater in the programming. The amphitheater can also hone small performances, if not used for chess games or competitions. If it is used for a small performance, the surrounding 2.5" grass plateaus as well as the gravel turf across the theater function as spill over areas for seating.

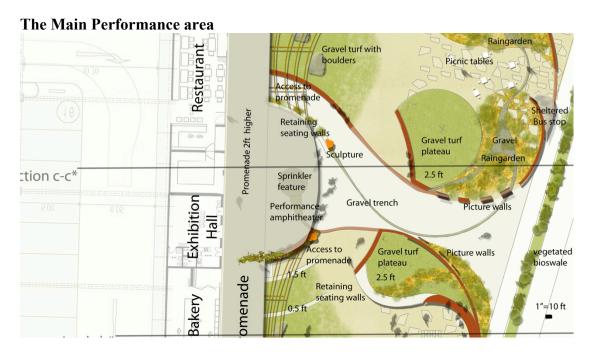


Figure 48: Plan section of the main performance area. Graphic created by the designer.

The stage amphitheater is the center of the park. It is covered by a stage roof, which is supported by pillars and two 13 feet high Jazz sculptures on each side. The amphitheater is framed by gravel turf areas in the north and south that step down

towards the main stage in 0.5 and 1.5 feet retaining seating walls, and another retaining seating wall that frames the main performance area. This area is three feet lower than the stage and 1.5 feet lower than the surrounding grade. The centerpiece is a pervious paver circle that has integrated sprinklers. Underneath the circle is the park's 5000-gallon cistern (for sizing see p.126). The water collection is symbolically made visible through the gravel-paver trench that meanders through the entire site, and either feeds into the cistern, or the rain gardens. The main stage itself is included into the promenade.

The amphitheater serves as a venue for larger performances, movie nights, or public speeches. The gravel turf areas allow for different uses, from picnic over playing on the boulders, temporary uses such as markets to spill over seating place for big events on the main stage. The two gravel turf plateaus across from the stage likewise can provide seating for shows, function as miniature stages, or picnic areas.

The performance area and all surrounding retaining seating walls were sized according to an average number of 250 people that the Friends of Annapolis Team drew for the past year's Jazz concerts in the park. However, through the gravel turf areas, this number is expandable. The designer also considered leaving enough room for approximately 100 movable chairs, of which 50 are provided by Friends of Annapolis Parks. Some residents attended the concerts with their own lawn chairs. The seasonal sections show an array of different user options for this section throughout the entire year.



Figure 49: Seasonal Sectional perspective through the main performance area: Spring, summer, autumn, winter. Graphics created by the designer.

The Raingarden Lounge section

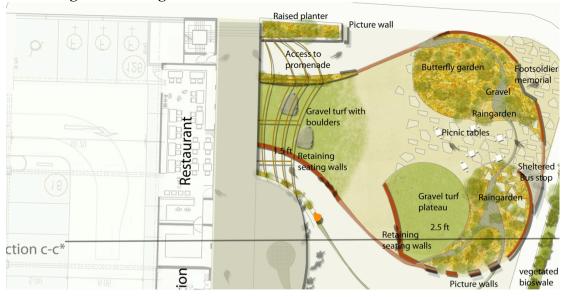


Figure 50: Plan section of the rain garden lounge. Graphic created by the designer.

The rain garden lounge serves both as another spillover seating option for visitors who want to attend a concert without being in the main crowd. It can also function as a lunch break, meeting, or waiting area for county and state staff, people who wait on their bus, or other visitors who want to take a break from the hectic office or busy city life in this rain and butterfly garden surrounded oasis.

The butterfly and rain garden planting palettes were carefully designed to provide yearlong interest and to attract and host butterflies. The broken concrete pieces are intentionally scattered into the gardens to make their maintenance easier and to invite people into the gardens, who want to explore the plants and insects.

In order to enhance the interest and to promote environmental education, there will be signage about rain gardens, microhabitats, native plants, and urban beekeeping along the garden borders and the stepping-stones.

To adapt to different uses and also be able to function as a passage between the garage and the county council across from the park, movable chairs and tables dominate this section. They are light enough to be moved around, but heavy enough to prevent stealing. Over winter they will be stored in the garage.

Garage and promenade

Due to the mentioned facts that the garage is well-used and there is no alternative parking close to downtown, the designer decided to keep the garage and turn it into an opportunity for the community.

Based on studies of reuses of garages, the designer decided to connect the park's first floor that faces the garage with the park through introducing retail and exhibition rooms on the ground level that are extend through a promenade along the garage, and a rooftop farm on top of the garage.

Garage case studies

The studied examples are Ballet Valet garage in Miami Beach, which has a row of ground-floor shops, and parking on the four stories above. The design firm also screened the garage's façade with vertical gardens.¹¹⁵

 115 Ballet Valet Parking Garage, Miami Beach, Florida. On: arquitectonica.com, accessed on $01/05/2014\,$

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Figure 51: Adaptive reuse of the Ballet Valet Parking Garage in Miami Beach. Picture from: Arquitectonica GEO International Corporation.

The second example is Shinjuku Gardens in Tokyo by the international design studio Cheungvogl in Hong Kong. It is a two story, green walled garage that will also function as a gallery and has a rooftop garden. 116



¹¹⁶ Shinjuku Gardens, Tokyo, Japan. On: www.cheungvogl.com, accessed on 01/05/2014

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Figure 52: Adaptive reuse of the Shinjuku Gardens Parking Garage in Tokyo. Rendering from: Cheunvogl.com.

The third example is an adaptive reuse project by KSS Architects in downtown Trenton. The five-story garage has a very similar situational and historic context than Whitmore Garage. It was also built in the 1970s, lacks any recognition of the site's former history, is situated on the gateway to downtown, and is across from a park.



Figure 53: Adaptive reuse of the Trenton Parking Garage in Miami Beach. Rendering from: KSS Architects.

The architects screen the park's facing façade with a 4,000-square-feet LED sign that also functions as a movie screen, and a green wall. The ground level facing the streetscape is turned into retail. Due to the garage's east-west orientation, the designers also include a solar array that will pay off 50% of the project's construction

costs over the next 25 years.¹¹⁷ There are also numerous examples of garages that are camouflaged by green walls, such as the project on the Edwards Lifesciences campus in Irvine, California by Seasons Natural Engineering.¹¹⁸



Figure 54: Greened garage wall on Edwards Life sciences campus in Irvine. Picture from: Seasonslandscaping.com.

They screen the four-story garage with a 4000 square feet hydroponic living wall. However, due to the high cost and expert knowledge required to install and maintain a hydroponic green wall, the designer decided to not include green walls as an option to screen the garage. Instead, there are five climbing structures for vines that will partially screen the concrete wall.

¹¹⁷ A facelift for Trenton: KSS on Arch.Daily.com (June 24,2010), onkssarchitects.com, accessed 01/05/2014

¹¹⁸ Seasons engineers the largest hydroponic living green wall in North America, on seasonslandscaping.com, accessed 01/05/2014

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Design Layers

The master plan is comprised of four sustainability layers.

Cultural layer

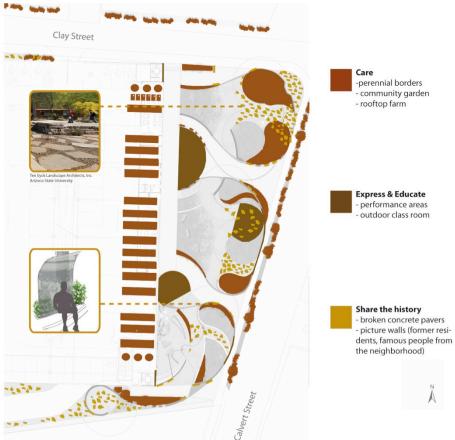


Figure 55: Cultural layer. Graphic created by the designer.

Harlem Park Annapolis manifests and fosters the neighborhoods' cultures through enabling its users to tell their personal stories as well as the story of the site verbally and visually through picture walls and murals on the Staff, express their heritage, and take care of the park.

Share the story

The story sharing happens in a twofold sense. This paragraph describes the passive part, and the paragraph about the social layer will further explain how the design enables active story telling. Several citizens, both community residents and

other stakeholders, expressed the desire to visually include the former residents of the site as well as people who performed and worked in the Old Fourth Ward into the new park. The designer translated that idea into picture-printed fiberglass walls that frame the entrances. The walls are transparent and therefore merge the former and the present visually and literally help park visitors to see the past. The transparency also symbolizes, that the story goes on, that it is not static. This notion is further expressed through murals on the staff walls that will be renewed every other year by local artists, to keep telling the story through art.

Another design feature that indirectly tells the site's own story is the broken concrete pieces. They are placed along the park's boundaries, where the row houses used to be. They refer to broken promises that former residents kept mentioning when they told about the urban renewal, as well as to the scattered former community. However, the recycled concrete from the old park also symbolizes that the old can function as stepping-stones for the present and the future.

Express and educate

The core design features are two amphitheaters (the big performance area and the chess amphitheater), a bench circle next to the playground, and the gravel turf plateaus. They are multifunctional and serve both as performance areas, and as outdoor classrooms or for other functions. The different sizes and their placement allow for different types performances—from the informal drum circle, which are currently held in the Stanton Community Center—to a Jazz concert. They also enable different performance at the same time. If there is an art festival, the outdoor classroom at the playground can serve as a poetry slam stage, while traditional dances are performed on the main stage.



Figure 56 Broken Pieces. Ten Eyck Landscape Architects, Inc. Arizona State University Polytechnic Campus.

Figure 57: Picture Wall. Graphic created by the designer.

Care

As laid out in the literature review, it is important to actively enable citizens to take care of a site in order to foster sustained attention. Moreover, one of the meanings of the word "culture" is to care for the land, sharing a linguistic root with the word "cultivate." These aspects inspired the designer to include the citizens into the park's maintenance, and also to utilize the gardens to connect people through work. Therefore the designer chose the plants amongst other factors based on their simple maintenance requirements, and drought tolerance. There are two basic types of gardens: Community gardens in the park and on the garage, as well as perennial borders along Calvert Street, Clay Street, and West Washington Street. The paragraph about the ecological aspects of the design will further explain the gardens.

Social layer

Social sustainability is fostered through different types of activity spaces, an emphasize on sociopetal design, allowing for flexibility, providing good visibility throughout the park, as well as through different shelters that enable weather independent park uses.

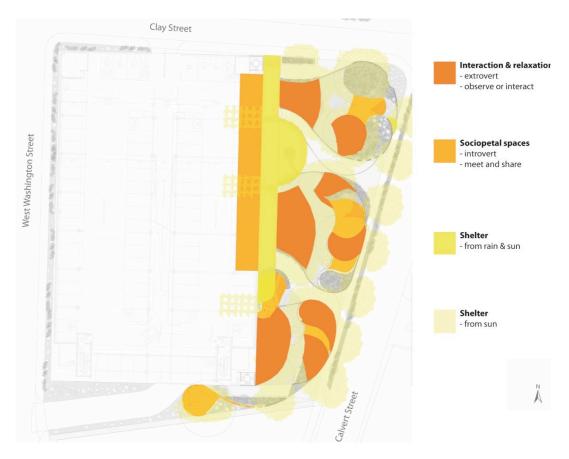


Figure 58: Social Layer. Graphic created by the designer.

Interaction and relaxation

The multifunctional gravel turf areas, as well as the playground, are extrovert spaces that enable its users to observe and interact with others. They are exposed and frame the main action/on beat areas. They serve park users who come with groups or by themselves in order to do something actively in the park, such as picnics, interaction with others, to play, or to make music. As a counterbalance to the extrovert spaces, there are a number of smaller, introvert corners along Calvert Street

and in the outdoor classroom, as well the art lounge. They serve those who come to the park to meet a friend, converse during a lunch break, or to take a break from the busy city life and be alone, and do not wish to be exposed to or participate in the main activities of the park life. These sociopetal spaces enable people to come together, get to know each other, share their stories, or just catch up. If someone wishes to be alone, there will also be movable chairs and tables available. They are set up in the rain garden lounge, the outdoor classroom, and the chess amphitheater, and allow for flexible preferences on where to spend time in the park. They are light enough to be carried around in the park, but too heavy to be taken out of it. The designer's idea is also to color them burgundy—according to the Staff— or have the local schools paint them, so that these chairs also become trademarks of the park.

In order to keep good visibility and enhance the feeling of safety, which is an important social sustainable aspect, the Staff as well as the plantings do not exceed four feet in height. The serviceberries are single stems that are limbed up to ten feet.

Another feature that enhances visibility at night are lights that are integrated into the music Staff as well as existing lampposts.

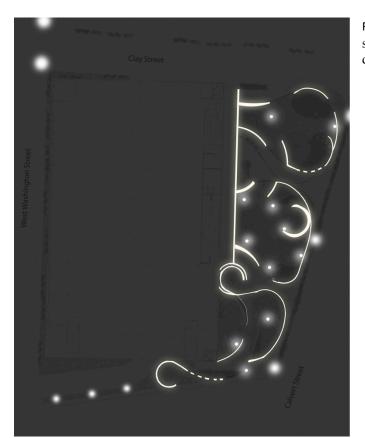


Figure 59: Night plan. Not to scale. Graphic created by the designer.



Figure 60 Perspective into the park at the playground. Graphic created by the designer.

Shelters

Aside from the serviceberries and the existing oaks and maples, a trellis structure that weaves through the entire park provides additional shade. It is a horizontal extension of the promenade structure, and has an irregular shape to break up the regularity of the garage and the promenade. The canopy not only creates a relief from the sun, but also contributes to a better microclimate. The promenade and main performance area are covered with a roof, which also extends over the outdoor classroom.

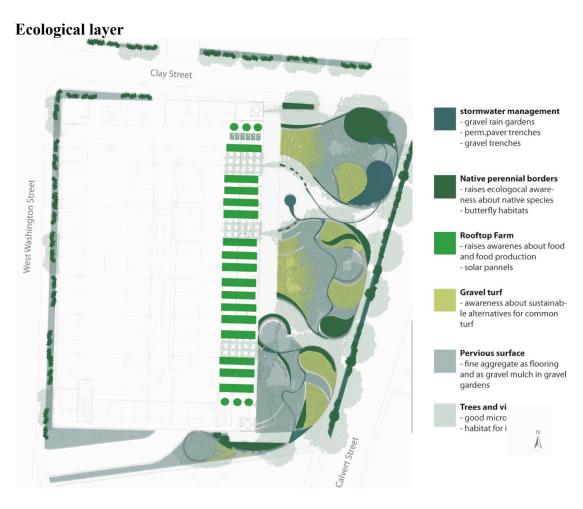


Figure 61: Ecological layer. Graphic created by the designer.

The designer included several best management practices, which are

combined in the ecological layer.

Stormwater management and pervious surfaces

As mentioned in the site analysis, the existing stormwater management system does not work anymore, and the berms along Calvert Street have a poor infiltration due to erosion and compacted soil. The first step in the design was to implement a stormwater catchment and treatment system, which is comprised of rain gardens, cisterns, a bioswale along Calvert Street and a gravel and pervious paver trench system that meanders through the site like a river. It catches and directs runoff into the two rain gardens in the northeast corner of the park and into the site's two cisterns, situated under the picnic area between the outdoor classroom and the playground and under the main performance area. The collected runoff is both used for sprinklers above the cisterns and for irrigation. In addition, the amount of impervious surfaces is reduced to 34%, a reduction of 17%, through pervious surfaces such as fine aggregate for flooring (33% of the entire new park), gravel turf (14 %), and infiltration trenches and pervious pavers (2.9%).

The rain gardens were sized according the runoff rates of the surfaces and areas that drain into them. Therefore, the rain gardens were sized a total of 848 sqft that have a holding volume of 5,075 gallons. The cisterns were sized according to the EPA's calculated runoff, which equals 10,349 gallons of stormwater in a ten-year storm event. The cistern in the main performance area was sized bigger than the one between the playground and the outdoor classroom, because three quarters of the park drains into it. It is therefore sized to hold 7,762 gallons, and the smaller one accordingly 2,588 gallons.

According to the EPA stormwater calculator, the new design reduces the

amount of runoff to 11%. This calculation did not take the two proposed cisterns and the bioswales along Calvert Street into account.

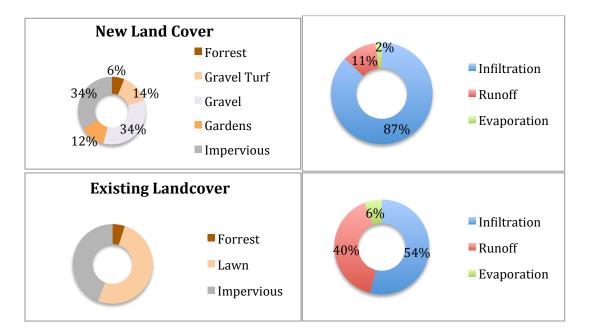


Figure 62: New land cover and stormwater calculations, based on the EPA stormwater calculator. In comparison: The existing land use and stormwater. Graphics created by the designer.

Native perennial borders and gravel turf

Another LID strategy applied in the design is the composition of the new perennial borders as well as the replacement of the common turf through gravel turf. The new gravel turf is drought tolerant and grows slower than common turf. The plants for the rain garden and butterfly habitats are all native and were chosen according to their drought tolerance, habitat value, and low maintenance need. The plants around the playground area are non-toxic. The plant palette shows in detail when and how the chosen perennials and shrubs bloom and what are their specific characteristics. Introducing native plants into the urban green realm not only educates the citizens about their local ecology, but also fosters micro habitats for native butterflies, which are described on site through interpretive signage.

riant palette r	larlem Park							
Group	Latin name	common name	height in ft	flower color	Flowers	Notes	Туре	Colour
Trees							.,,,,	50.00
						purple berries in June,		
						orange-red fall color,		
	Amelanchier Canadensis	Serviceberry	25	white	Apr-May	good for small habitats	solo	
	/ Include the Canada train	Serviceserry		Wince	Aprilvidy	good for small flabitats	3010	
Dain gardons								
Rain gardens			-					
Shrubs								
	Rhododendron					poisnous, evergreen, keep		
	viscosum	Swamp Azalea	7′	white-pink	May-Aug	trimmed down to 4	solo	
				1 2		keep trimmed down to 4,		
	Myrica cerifera	Southern bayberry	6'	yel-green	Apr-Jun	evergreen	solo	
Herbaceous								
				red-brown,				(Table 1)
	Osmunda cinnamomea	Cinnamon Fern	2-4 ft	wooly	Apr-May	tolerates drought well	GC	
	Onoclea sensibilis	Sensitive Fern	1-3.5 ft	maroon	Jun-Oct	spreads in wet areas	GC	
	Offociea serisibilis	Sensitive Ferri	1-3.5 11	Illaroon	Juli-Oct		GC	
						controls erosion, red fall		
						color, good for small		1, 77, 2, 7
	Panicum Virgatum	Switchgrass	3-6 ft	maroon	Jul-Oct	habitats	solo,clumps	Date Land
	Conoclinium							
	coelestinum	Mist Flower	1-3.5'	purple, white	Jul-Oct	Attracts butterflies	filler	
						interesting brown		
					l	capsules, requires		
	Iris versicolor	Blueflag Iris	3	blue	May-Jun	average-moist soil	solo,clumps	
	Helianthus	Swamp						
	angustifolius	Sunflower	1.5-5.5'	yellow	Aug-Oct	Attracts butterflies	solo,clumps	
	Penstemon	Tall White		,		Attracts humming birds,	,	
	digitalis "Husker's Red"	Beardtongue	2-5'	white	Apr-Jun		filler	
	digitalis Husker's Red	beardiongue	2-5	wnite	Apr-Juli		illei	
	DL I		4.24		Mau Cant	Attracts butterflies,	£:11 = 11	
	Phlox maculata	Meadow Phlox	1-3'	pink	May-Sept	aromatic&showy flowers	filler	
	Physostegia						spreads	
	virginiana	Obedient Plant	1.5-5'	pink	Jun-Sept	Attracts butterflies	rapidly	
	Salvia lyrata	Lyre-leaf Sage	2	purple, white	Apr-Jun	Attracts butterflies	filler	
Perennial								
borders full sun-								
		l	1					ı
partial shade		l						
						purple fall colour,	GC, has	
Shrubs	Arcostaphyplos uva-ursi	Bearberry	0.5′	white	May-jun.	purple fall colour, evergreen	GC, has berries	
	Arcostaphyplos uva-ursi	Bearberry	0.5′	white	May-jun.			
						evergreen fragrant, nitrogen fixer,		
Shrubs	Arcostaphyplos uva-ursi Comptonia peregrina	Bearberry Sweetfern	0.5′	white yellow-green		evergreen	berries	
				yellow-green		evergreen fragrant, nitrogen fixer,	berries	
Shrubs	Comptonia peregrina	Sweetfern	3′	yellow-green red-brown,	Apr-May	evergreen fragrant, nitrogen fixer, evergreen	solo	
Shrubs	Comptonia peregrina Osmunda cinnamomea	Sweetfern Cinnamon Fern	3′ 2-4 ft	yellow-green red-brown, wooly	Apr-May Apr-May	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well	solo GC	
Shrubs	Comptonia peregrina	Sweetfern	3′	yellow-green red-brown,	Apr-May	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas	solo	
Shrubs	Comptonia peregrina Osmunda cinnamomea	Sweetfern Cinnamon Fern	3′ 2-4 ft	yellow-green red-brown, wooly	Apr-May Apr-May	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall	solo GC	
Shrubs	Comptonia peregrina Osmunda cinnamomea Onoclea sensibilis	Sweetfern Cinnamon Fern Sensitive Fern	2-4 ft 1-3.5 ft	yellow-green red-brown, wooly maroon	Apr-May Apr-May Jun-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small	solo GC GC	
Shrubs	Comptonia peregrina Osmunda cinnamomea	Sweetfern Cinnamon Fern	3′ 2-4 ft	yellow-green red-brown, wooly	Apr-May Apr-May	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall	solo GC	
Shrubs	Comptonia peregrina Osmunda cinnamomea Onoclea sensibilis	Sweetfern Cinnamon Fern Sensitive Fern	2-4 ft 1-3.5 ft	yellow-green red-brown, wooly maroon	Apr-May Apr-May Jun-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small	solo GC GC	
Shrubs	Comptonia peregrina Osmunda cinnamomea Onoclea sensibilis	Sweetfern Cinnamon Fern Sensitive Fern	2-4 ft 1-3.5 ft	yellow-green red-brown, wooly maroon	Apr-May Apr-May Jun-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small	berries solo GC GC solo,clumps	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass	3′ 2-4 ft 1-3.5 ft 3-6 ft	yellow-green red-brown, wooly maroon	Apr-May Apr-May Jun-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats	berries solo GC GC solo,clumps	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine	3' 2-4 ft 1-3.5 ft 3-6 ft 0.5-3'	yellow-green red-brown, wooly maroon maroon red-yellow	Apr-May Apr-May Jun-Oct Jul-Oct Apr-Jul	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats Attracts butterflies & bees	solo GC GC solo,clumps filler	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum virginianum	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine Golden knees	3′ 2-4 ft 1-3.5 ft 3-6 ft	yellow-green red-brown, wooly maroon	Apr-May Apr-May Jun-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats	berries solo GC GC solo,clumps	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum virginianum Penstemon	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine Golden knees Tall White	3' 2-4 ft 1-3.5 ft 3-6 ft 0.5-3'	yellow-green red-brown, wooly maroon maroon red-yellow yellow	Apr-May Jun-Oct Jul-Oct Apr-Jul May-Jun.	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats Attracts butterflies & bees Attracts bees	berries solo GC GC solo,clumps filler GC	
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Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum virginianum Penstemon digitalis Phlox maculata Phlox subulata Physostegia virginiana Rudbeckia hirta	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine Golden knees Tall White Beardtongue Meadow Phlox Moss Phlox Obedient Plant Black-eyed susan	3' 2-4 ft 1-3.5 ft 3-6 ft 0.5-3' 0.5' 2-5' 1-3' 0.5'	yellow-green red-brown, wooly maroon maroon red-yellow yellow white pink pink pink yellow	Apr-May Jun-Oct Jul-Oct Apr-Jul May-Jun. Apr-Jun May-Sept Apr-Jun Jun-Sept Jun-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats Attracts butterflies & bees Attracts butterflies, aromatic&showy flowers Attracts butterflies, aromatic&showy flowers Attracts butterflies Attracts butterflies Attracts butterflies Attracts butterflies	berries solo GC GC solo,clumps filler GC filler filler GC filler, spreads qui.	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum virginianum Penstemon digitalis Phlox maculata Phlox subulata Physostegia virginiana Rudbeckia hirta Salvia lyrata	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine Golden knees Tall White Beardtongue Meadow Phlox Moss Phlox Obedient Plant	3' 2-4 ft 1-3.5 ft 3-6 ft 0.5-3' 0.5' 2-5' 1-3' 0.5'	yellow-green red-brown, wooly maroon maroon red-yellow yellow white pink pink	Apr-May Jun-Oct Jul-Oct Apr-Jul May-Jun. Apr-Jun May-Sept Apr-Jun Jun-Sept Jun-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats Attracts butterflies & bees Attracts butterflies, aromatic&showy flowers Attracts butterflies, aromatic&showy flowers Attracts butterflies Attracts butterflies Attracts butterflies Attracts butterflies Attracts butterflies	berries solo GC GC solo,clumps filler GC filler filler GC filler, spreads qui.	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum virginianum Penstemon digitalis Phlox maculata Phlox subulata Physostegia virginiana Rudbeckia hirta Salvia lyrata Symphyotrichum novae-	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine Golden knees Tall White Beardtongue Meadow Phlox Moss Phlox Obedient Plant Black-eyed susan Lyre-leaf Sage	3' 2-4 ft 1-3.5 ft 3-6 ft 0.5-3' 0.5' 1-3' 0.5' 1.5-5' 3.5'	yellow-green red-brown, wooly maroon maroon red-yellow yellow white pink pink pink yellow yellow	Apr-May Jun-Oct Jul-Oct Apr-Jul May-Jun. Apr-Jun May-Sept Apr-Jun Jun-Sept Jun-Oct Apr-Jun	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats Attracts butterflies & bees Attracts butterflies, aromatic&showy flowers Attracts butterflies, aromatic&showy flowers Attracts butterflies	berries solo GC GC solo,clumps filler GC filler filler GC filler, spreads qui. solo, clumps filler	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum virginianum Penstemon digitalis Phlox maculata Phlox subulata Physostegia virginiana Rudbeckia hirta Salvia lyrata Symphyotrichum novae- angliae	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine Golden knees Tall White Beardtongue Meadow Phlox Moss Phlox Obedient Plant Black-eyed susan Lyre-leaf Sage New England aster	3' 2-4 ft 1-3.5 ft 3-6 ft 0.5-3' 0.5' 1.5-5' 3.5' 2-6'	yellow-green red-brown, wooly maroon maroon red-yellow yellow white pink pink yellow purple, white	Apr-May Jun-Oct Jul-Oct Apr-Jul May-Jun. Apr-Jun May-Sept Apr-Jun Jun-Sept Jun-Oct Apr-Jun Aug-Oct	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats Attracts butterflies & bees Attracts butterflies, aromatic&showy flowers Attracts butterflies, aromatic&showy flowers Attracts butterflies Attracts butterflies Attracts butterflies Attracts butterflies Attracts butterflies	berries solo GC GC solo,clumps filler GC filler, spreads qui. solo, clumps filler solo,clumps	
Shrubs	Osmunda cinnamomea Onoclea sensibilis Panicum Virgatum Aquilegia canadensis Chrysogonnum virginianum Penstemon digitalis Phlox maculata Phlox subulata Physostegia virginiana Rudbeckia hirta Salvia lyrata Symphyotrichum novae-	Sweetfern Cinnamon Fern Sensitive Fern Switchgrass Wild columbine Golden knees Tall White Beardtongue Meadow Phlox Moss Phlox Obedient Plant Black-eyed susan Lyre-leaf Sage	3' 2-4 ft 1-3.5 ft 3-6 ft 0.5-3' 0.5' 1-3' 0.5' 1.5-5' 3.5'	yellow-green red-brown, wooly maroon maroon red-yellow yellow white pink pink pink yellow yellow	Apr-May Jun-Oct Jul-Oct Apr-Jul May-Jun. Apr-Jun May-Sept Apr-Jun Jun-Sept Jun-Oct Apr-Jun	evergreen fragrant, nitrogen fixer, evergreen tolerates drought well spreads in wet areas controls erosion, red fall color, good for small habitats Attracts butterflies & bees Attracts butterflies, aromatic&showy flowers Attracts butterflies, aromatic&showy flowers Attracts butterflies	berries solo GC GC solo,clumps filler GC filler filler GC filler, spreads qui. solo, clumps filler	

Perennial				1				
borders partial		l'						
shade to full								
shade								
Shrubs					la			
						great fall color, attaract	solo, forms	
	Clethra alnifolia	Summersweet	6′	white	Jul-Aug	butterflies, very fragrant	colonies	
							GC, very	
						evergreen groundcover	fragrant	
	Mitchella repens	Partrige berry	0.5#	white	April-May	with red berries	flowers	-
Herbaceous								
				red-brown,		kalanakan danuakkunsii		
	Osmunda cinnamomea	Cinnamon Fern	2-4 ft	wooly	Apr-May	tolerates drought well	GC GC	
	Onoclea sensibilis	Sensitive Fern	1-3.5 ft	maroon	Jun-Oct		GC	
						Attracts butterflies,	c:11	
1 2 2	Phlox maculata	Meadow Phlox	1-3'	pink	May-Sept	aromatic&showy flowers	filler	
	Aquilegia canadensis	Wild columbine	0.5-3′	red-yellow	Apr-Jul	Attracts butterflies & bees	filler	
	Cimicifuga racemosa	Black snakeroot	4'	white	Jun-Sept.	Attracts butterflies	solo	
	Chrysogonnum	1 King 2 15		4 1				
	virginianum	Golden knees	0.5	yellow	May-Jun.	Attracts bees	GC	
	Eupatorium rugsom					purple colored cultivar,		
	'Brunette'	Snakeroot	1-5'	white	Jul-Oct	attracts bees& butterflies	solos	
	Symphyotrichum	common blue wood						<u></u>
	cordifolium	aster	1-5'	lavender	Aug-Oct	Attracts butterflies	solo	
	Viola sororia	Violet	0.5	purple	Mar-Jun		filler	
Bulbs	Tulipa sylvestris	Wilde tulip	1'	yellow	Apr-May	Non Native		
Vines								
		V 1 1/1				attracts butterflies, to be	Vines for	
					1	planted in Kisa play area-	trellis	
					1	not poisinous; herbaceous	structure	
	Mikania scandens	Climbing hempvine		white	Jun-Oct	vine	and garage	
						Hosts pipevine		-,777
					1	swallowtail, slightly		
	Aristolochia macrophylla	pipevine		purplish	May-Jun	poisinons		
						Slightly Poisinos,		
					1	evergreen, attracts		
	Bignonia capreolata	Crossvine	35'	apricot	May-Jun	butterflies		

Figure 63: Plant palette. Based on Native Plants for Wildlife Habitat and Conservation Landscaping by Slattery, B.E et al. Graphic created by the designer.

The saved trees, along with the new planted serviceberries and the vines further enhance the microhabitat value of the site, and also improve the microclimate.

Rooftop farm and community garden

The community gardens and the rooftop farm further educate the citizens about ecological issues in terms of food production, and reducing one's carbon footprint. The designer also proposes solar panels on the roof to satisfy the park's energy needs and make revenue.

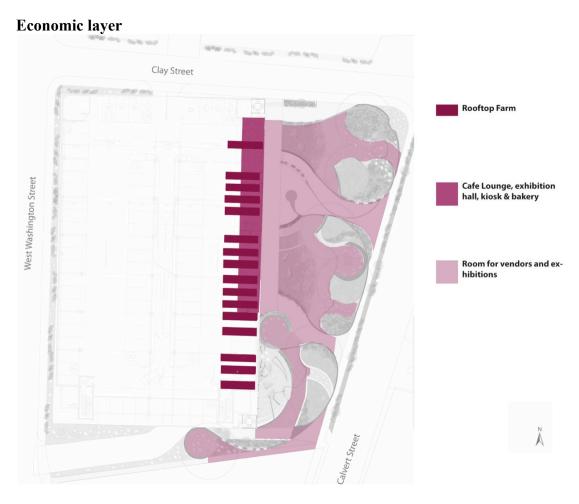


Figure 64: Economic layer. Graphic created by the designer.

Several citizens wished to use the redesign of the park in order to create new economic opportunities for the local economy. For this reason, and to include the fourth parameter of sustainability, the designer took the following economic opportunities into consideration: The rooftop farm can make revenue, if well maintained. Due to the Sustainable Annapolis Community Action Plan, the city encourages urban farming and the support of local produce, which would give Harlem Park a unique role as incubator and at the same time laboratory for rooftop farms to introduce rooftop farming to Annapolis. As already mentioned, the solar panels also have the potential to yield revenue once they are paid off. The designer

did not conduct an energy demand study for the park, and therefore does not provide any related numbers. On the ground level, there are two possible revenue opportunities: the shop, restaurant, and exhibition hall in the garage, as well as plenty of room for vendors, exhibitions, and other events.

Harlem Park Annapolis Roof Top Farm! lanuary Bates Middle School Sculpture Exhibition in the Park and the Exhibition Hall. Exhibition Opening Gala on the second Sunday in January. Farmer's Market on every first and third Saturday. Winter Special: Market booths at the Roof Top Farm! February Festival of the Lights. Come and see local art that works with light features. Farmer's Market on every first and third Saturday. Join us as we kick off out Garden Academy 2020 season! Academy every second and March fourth Saturday afternoon in the exhibition hall, in the park, or in the roof top farm. et's get the Roof Top Farm ready for the season & celebrate it with a Roof Top Grill Out Farmer's Market on every first and third Saturday. Garden Academy: April Let's get the Park ready and celebrate our accomplishments with the Servicberry Festival vith Jazz Music, Neighborhood Kitchens, and Local Performing Artists! Farmer's Market on every first and third Saturday. May First Sunday Arts is back! - Jazz & Gospel Concerts are back every Thursday and Sunday - Garden Academy Farmer's Market on every first and third Saturday. First Sunday Arts - Kick off of Friday Movie Night- azz & Gospel Concerts every Thurs **Iune** day and Sunday - Serviceberry Festival: Let's celebrate our accomplishments to get our park ready for summer with Very Berry cook shows, Art shows, and Music Performances Farmer's Market on every first and third Saturday First Sunday Arts - Friday Movie Nights - Jazz & Gospel Concerts every Thursday and July Sunday - Summer Special: Battle of the Bands! Farmer's Market on every first and third Saturday. First Sunday Arts - Friday Movie Nights - Jazz & Gospel Concerts every Thursday and August Sunday - Mural competition on our music staff. Farmer's Market on every first and third Saturday. Also ontop of the garage! First Sunday Arts - Friday Movie Nights - Jazz & Gospel Concerts every Thursday and September Sunday - Monday NIght Lights- Open Stage for either Karaoke, stand up comedy or musi al performances, food stands provide local goodies! Farmer's Market on every first and third Saturday. First Sunday Arts - Friday Movie Nights - Jazz & Gospel Concerts every Thursday and October Sunday - Fall Festival : Let us celebrate our accomplishments of getting our park ready for the winter season with performances, pony rides, local food, and crafts! Farmer's Market on every first and third Saturday. November First Sunday Arts - Jazz & Gospel Concerts every Thursday and Sunday Farmer's Market on every first and third Saturday. Winter Special: Market booths at the Roof Top Farm! December Winter Markets throughout the entire Advent Season: International booths with crafts, food, hot cider and good music!

Figure 65: Park events throughout the seasons. Graphic created by the designer.

Another sustainable economic aspect is the inclusion of the community into

the construction and maintenance of the park, as well as the maintenance extensive plant material, stormwater recycling, and recycling of deconstruction material from Whitmore Park. All these factors save money in the long term.

Besides the mentioned opportunities and factors, the designer also considered tying the site's programs into existing, and funded projects, such as the Grow Annapolis Program, a tree planting program supported by the state, and the raingarden networks that is supported by the Watershed Academy, the Maryland Department of Natural Resources, and the Chesapeake Ecology Center. Moreover, the designer also found other funding options that the project is eligible for. These options include the Maryland Department of Natural Resources, Program Open Space, Community Parks and Playgrounds (CP&P) Program, the MDE Maryland Stormwater Pollution Control Cost-Share Program (max. of \$500,000 per project), the MDE Water Quality State Revolving Loan Fund (SRF), US EPA Five Star Restoration Program (average of \$10,000 per project), the MD Tree Planting Program, and the National Environmental Education and Training Foundation Competitive Challenge Grants.





Figure 66: Park entrance from Clay Street summer and autumn. Graphics created by the designer.



Figure 67: Bird's eye views of Harlem Park. Graphics created by the designer.

V. Conclusions

The last chapter determines possible outcomes and future impacts of the project, and also looks back on the research and design process and reflects on strategies.

Potential impacts for Whitmore Park and the communities

It was great to see, how the inclusive design approach brought former and present community members, as well as stakeholders, together and sparked productive conversations. These conversations sparked ideas, enthusiasm, and created clarity on who is who and where to go with ideas. It was also encouraging to observe, how the residents realized that they can make a difference and that they are heard, and that they expressed the desire to get involved in the park changes.

The involvement revealed that the community supports the project ideologically and practically, and that there are funding options available. If the project gets built, the inclusive design, construction, and management approach has the potential to bridge the gap between former and new residents within the community, between generations and races, and also between communities. Through the community empowerment, and because the park will enable its users to meet, share their stories, and express their heritages through performances, art, and events, the project has the potential to foster a new sense of community and a new sense of place. Possible results of this, in combination with the sustainable design layers, are a safer and healthier park and community environment, as well as more educated and involved citizens who keep maintaining and developing the site. Therefore, the project can serve as an example for the greater context of the City of Annapolis as to

what sustainable, inclusive design can look like and how the citizens and the city can benefit from that. It can serve as a laboratory for the Sustainable Annapolis

Community Action Plan, which encourages several of the features and approaches implemented into the design.

Potential impacts for the profession, anticipated outcomes and lessons learned

The project can also function as an ongoing case study for the profession about the opportunity and constraints of socio-cultural sustainable design, which is inclusive, enabling, and empowering design that gives the project back to the citizens after the design phase is over. The profession can further learn how to develop a socio-cultural literacy through the community involvement process and how to translate the findings into socio-cultural sustainable designs.

In terms of the cultural literacy, the designer anticipated to learn the most from observation and the historic and site context analysis. However, the intangible aspects described in the literature review ended up being much more influential to the design than the tangible factors. To actively blend passivity becoming part of the scene takes time and energy, but it is worth the effort and results in a community-fed and community-supported design.

The greatest challenge was dealing with the conflicting desires and concerns of the community members and stakeholders concerning space for children and teenagers. The designer talked to the residents about their reasons behind their concerns and discovered that the main fears were safety issues and vandalism.

Therefore, the designer emphasized good visibility throughout the site as well as

multifunctionality and the inclusion of schools in the construction and programming of the park. If children and youths are part of these processes and thereby make the site their own, they will be less likely to damage it and more likely to use it with pride. Another solution to the concerns is to actively foster a sense of community and a sense of place through the mentioned involvement, which will very likely create an atmosphere of respect and trust.

If the designer did the project again, she would include children and youths in the design process. The earlier the next generation is heard and included in the design process, the better. Due to the time restrictions of the thesis and the extensive required IRB approval for human research with underage population, the designer made the decision to exclude them.

Another lesson learned is the importance of effective project management. As important as the collaboration with the core team in Annapolis was, it also posed some problems in terms of communication, invitation, and passing on important information, because the designer gave them those responsibilities. However, delegating those responsibilities led to a situation where the designer did not follow up on certain tasks as much as ended up being needed. This resulted in frustrated citizens who felt overstepped, last minute organization, and a smaller turnout at the hosted events than was originally anticipated.

The designer still values and appreciates the team and thinks that it is crucial to work with local groups and individuals. The team has learned a lot about the community's needs and desires, as well as funding sources, relationships, and new design options that they had not seen before. They are able to keep working on the

project, even if the designer should not be able to keep supporting them due to her absence. However, for the next project, the designer will pay more attention to communication and information flow, instead of handing out the task and not following up on it regularly. She will also train the core people more in terms of the scope of and responsibilities for a community-involved design process.

All these lessons can also be valuable for the profession and will certainly impact the designer's future design and project management decisions.

Next steps

The next steps of Harlem Park are to present to project to the city council and to present it in front of the county council with the mayor. When the county renews the lease, the follow-up will be to obtain funding for each phase through possible city, county, and state grants, as well as private donations. Friends of Annapolis Parks and the designer will exhibit the final master plans and make revisions according to city and county feedback, and then a licensed architect or engineer has to approve of the design's realization.

Once the future of the site is clear and the team starts receiving funding, it is crucial to educate the community and local schools about the project and their possible involvement and to make community events out of each construction phase.

Appendices

EPA Stormwater Calculations for the existing park

National Stormwater Calculator Report Site Description

Parameter	Current Scenario	Baseline Scenario
Site Area (acres)	0.7	
Hydrologic Soil Group	В	
Hydraulic Conductivity (in/hr)	0.5	
Surface Slope (%)	5	
Precip. Data Source	ANNAPOLIS POLICE BR	
Evap. Data Source	ANNAPOLIS POLICE BR	
Climate Change Scenario	Median/Far Term	
% Forest	4	
% Meadow	0	
% Lawn	51	
% Desert	0	
% Impervious	45	
Years Analyzed	20	
Ignore Consecutive Wet Days	False	
Wet Day Threshold (inches)	0.10	
LID Control	Current Scenario	Baseline Scenario
Disconnection	0	
Rain Harvesting	0	
Rain Gardens	0	
Green Roofs	0	
Street Planters	0	
Infiltration Basins	0	
Porous Pavement	0	

[%] of impervious area treated / % of treated area used for LID

US EPA National Stormwater Calculator - Release 1.1.0.0

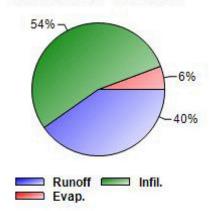
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National Stormwater Calculator Report Summary Results

Statistic	Current Scenario	Baseline Scenario
Average Annual Rainfall (inches)	50.79	
Average Annual Runoff (inches)	20.51	
Days per Year With Rainfall	76.80	
Days per Year with Runoff	50.82	
Percent of Wet Days Retained	33.83	
Smallest Rainfall w/ Runoff (inches)	0.18	
Largest Rainfall w/o Runoff (inches)	0.36	
Max. Rainfall Retained (inches)	3.69	

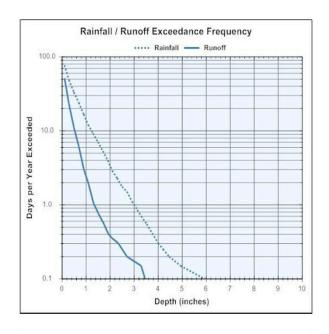
Current Scenario

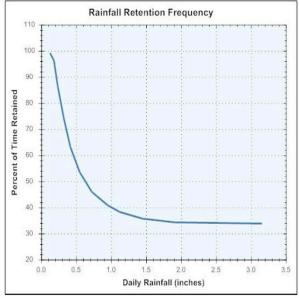
Annual Rainfall = 50.79 inches



US EPA National Stormwater Calculator - Release 1.1.0.0

National Stormwater Calculator Report

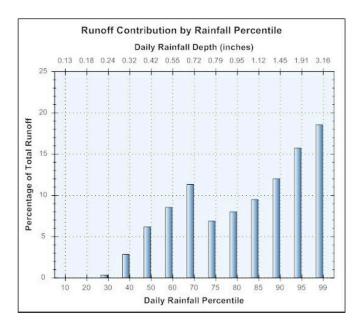


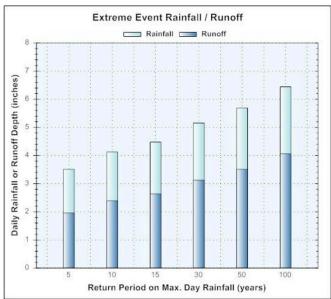


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National Stormwater Calculator Report





US EPA National Stormwater Calculator - Release 1.1.0.0

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National Stormwater Calculator Report Site Description

Parameter	Current Scenario	Baseline Scenario
Site Area (acres)	0.7	
Hydrologic Soil Group	В	
Hydraulic Conductivity (in/hr)	0.5	
Surface Slope (%)	5	
Precip. Data Source	ANNAPOLIS POLICE BR	
Evap. Data Source	ANNAPOLIS POLICE BR	
Climate Change Scenario	Median/Far Term	
% Forest	6	
% Meadow	0	
% Lawn	60	
% Desert	0	
% Impervious	34	
Years Analyzed	20	
Ignore Consecutive Wet Days	False	
Wet Day Threshold (inches)	0.10	
LID Control	Current Scenario	Baseline Scenario
Disconnection	2 / 100	
Rain Harvesting	13 / 33	
Rain Gardens	3.5 / 5	
Green Roofs	0	
Street Planters	0	
Infiltration Basins	0	
Porous Pavement	53 / 100	

[%] of impervious area treated / % of treated area used for LID

US EPA National Stormwater Calculator - Release 1.1.0.0

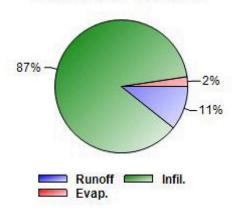
Page 1 Of 4

National Stormwater Calculator Report Summary Results

Statistic	Current Scenario	Baseline Scenario
Average Annual Rainfall (inches)	50.79	
Average Annual Runoff (inches)	5.25	
Days per Year With Rainfall	76.80	
Days per Year with Runoff	14.39	
Percent of Wet Days Retained	81.26	
Smallest Rainfall w/ Runoff (inches)	0.94	
Largest Rainfall w/o Runoff (inches)	1.07	
Max. Rainfall Retained (inches)	6.30	

Current Scenario

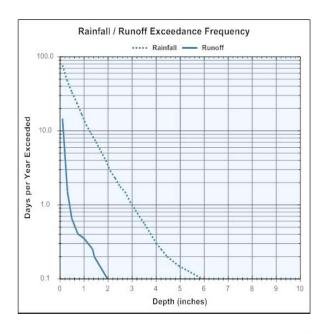
Annual Rainfall = 50.79 inches

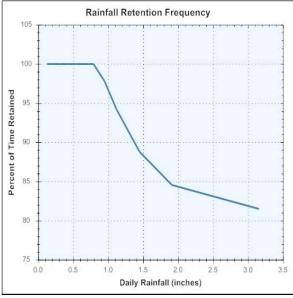


US EPA National Stormwater Calculator - Release 1.1.0.0

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National Stormwater Calculator Report

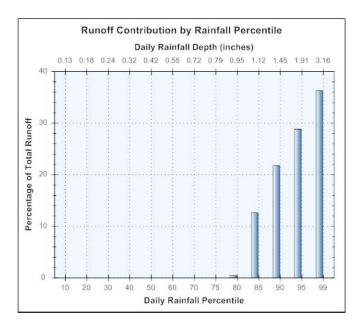


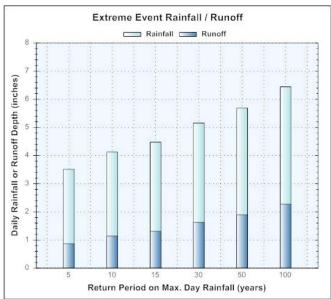


US EPA National Stormwater Calculator - Release 1.1.0.0

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National Stormwater Calculator Report



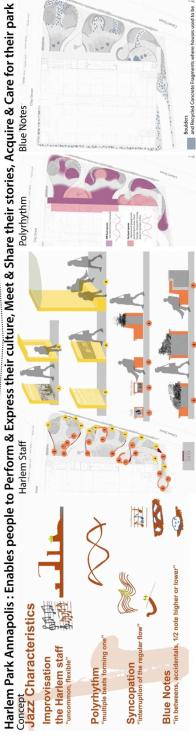


US EPA National Stormwater Calculator - Release 1.1.0.0

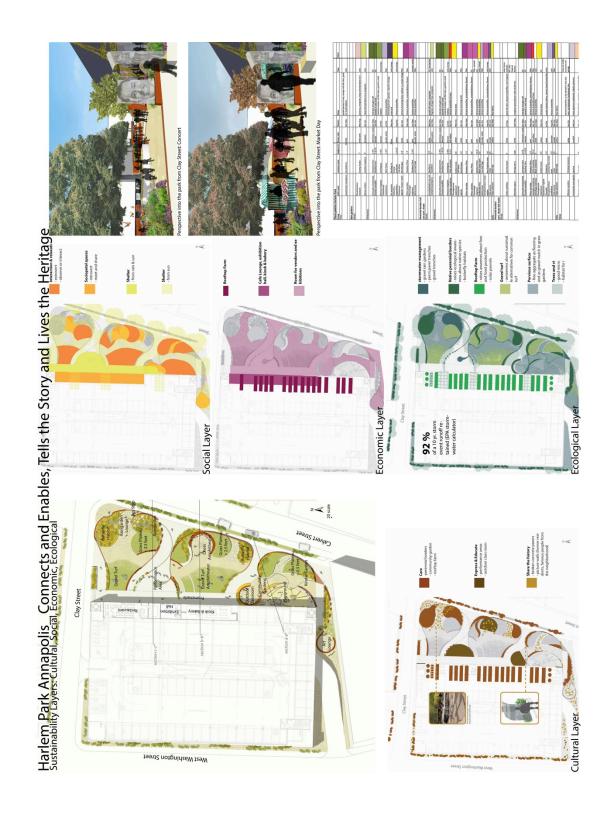
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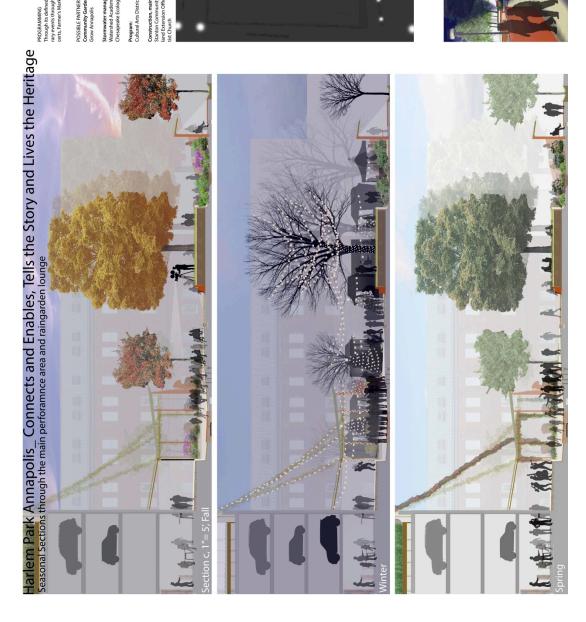
Masterboards











Lighting Plan, not to scale

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