

Qualitative exploration of the City as Living Laboratory: Codifying the CALL approach and insights about expanding the role of contemporary art in sustainable development

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EXECUTIVE SUMMARY:

The findings of this study support the hypothesis that socially/environmentally minded contemporary art has significant elements to contribute to the social movement towards sustainable development as described by the UN Agenda 2030. These elements extend far beyond the role of art as a platform to present and translate key scientific concepts in environmental science. The exceptional role of art and the artistic endeavor in society provides unique platforms to engage the complexity inherent in sustainable development. It also provides a platform for community actors to explore new ways of perceiving themselves, relate to each other and act in the world.

The study also considers in detail the City as Living Laboratory (CALL) approach to art and community engagement. We propose that CALL goes beyond the regular best-practices of community engaged art projects in a way that challenges and enriches both the artistic practice and community development. Of note is the deliberate movement beyond the physical expressions of art and towards an art practice that is built around and has as outcome thoughtful, respectful, personal, quiet building of human relationships and collaborations.

This project has yielded a wealth of topics and questions for further inquiry. We believe that this research and community of practice should be explored and supported. One area of concern is how can funding institutions continue developing approaches to capture promising projects and to fund them in ways that reflect the increasingly, iterative, complex and dynamic nature of the most farsighted and creative practices.

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Introduction:

This document presents the findings for the (ongoing) research about the CALL project funded by Mellon Foundation between July of 2016 and August of 2017. As described in the proposal, this research project has two overarching goals: 1) to document and codify the CALL process, especially as related to interactions with community institutions, and; 2) to observe the larger context in which the work of CALL is being done to draw inferences about the role of contemporary art in supporting sustainable development in communities.

The narratives, documents, objects, experiences and social interactions collected over the past year were analyzed in the context of existing literature about socially minded contemporary art, environmental policy and community development. This report will describe the research process and present the most significant themes and patterns emerging from the content analysis.

Description of research methodology:

Due to the emergent nature of the subject (the CALL process and art in the context of sustainable development) this project is intended to be exploratory. We relied on participant observation, documentation and qualitative data analysis to cast as wide a net as possible. The qualitative, multidimensional, participatory methodology is also intended to reflect the complexity inherent in CALL's endeavor.

On prior CALL projects, the assessment and research have focused on one dimension: the capacity of artistic interventions to help increase scientific literacy. We believe this is a limited and limiting understanding of the capacity and potential of socially minded/environmentally minded contemporary art. Somewhat more expansive, are exploratory essays and publications that discuss the social and environmental role of art and art-related institutional outreach (i.e.: art museum and cultural institution outreach and education programs). In both cases the methodology reflects historical, culturally biased

perspectives about the role of art. Even the most superficial survey of current contemporary art shows that artists have migrated far beyond the media, methods, contexts, themes, and social roles they occupied in past centuries.

We wanted the research approach to reflect this expanded/multidimensional artistic agenda and how it interacts with the larger context of social change and the transition towards sustainable development. Rather than aiming for a definitive statement, the findings presented here will provide information about promising themes that can be studied in more focused projects and as part of action-research projects.

For the last year, the research team has worked using a “snowball” approach to collecting content, where experiences, interviews and readings reveal a continuously expanding network of actors, readings and relevant experiences. At the core of this “snowball” is the work of Mary Miss and CALL in the context of two projects (BROADWAY: 1000 Steps, in New York City and WaterMarks, in Milwaukee). Correspondingly, we have focused significant attention to documenting and describing the CALL process.

Our documentation approach has yielded 102 individual items to be analyzed. The items include interview and event notes, researcher participant observation journals, books, scholarly papers and popular literature articles, requests for proposals, proposals by artists, government documents, website contents from all key actors, videos of events and presentations, and photographic/video documentation of artistic output. Following the “snowball” approach, we began by collecting documents directly related to the activities that took place between July of 2016 and July 2017. From there we have turned to other related, relevant documents regardless of time of creation or publication. The documentary evidence was combined with the insights gained by the myriad of undocumented informal conversations and experiences that were part of the participant observation process undertaken by the principal investigator and the research team.

The content analyzed was uploaded into a QDA (qualitative data analysis) system named Dedoose, where relevant quotes and elements were identified (tagged) and coded for analysis. The code tree for this project is divided in three main areas: 1) documenting the artistic endeavor, 2) exploring the relationship between artists and community/government institutions, and 3) considering the relationship between artistic projects and the agenda of sustainable development. Due to the

exploratory nature of the project, the “child” codes (or sub-codes) emerged as the documents were uploaded and analyzed. One benefit of using QDA software is that it allows the analysis to become more refined and better organized as more content is brought to the system and the research team becomes more familiar with it. Given the richness of the content we are processing, we expect the code tree to evolve. The current code tree is presented below:

<i>Codes that provide insight into artistic practice</i>	<i>Tags for code</i>
1. The artistic endeavor	
a. Influences (and precedents)	47
b. Artistic output	569
c. Context of action (part of a commission, ongoing studio work, part of museum exhibition, element in park, retrospective, academic project)	785
d. Art movement (socially engaged art, land art, <i>arte povera</i> , street art)	203
e. Media (performance, painting, installation, sculpture)	907
f. Scope of practice (art collective, art school, individual artist)	154
g. Venue (museum, gallery, landscape, community center, street, virtual)	507
2. Scope	
a. Local	784
b. International	34
c. Grassroots	355
d. National	180
e. Regional	68
<i>Codes that consider the context of the artistic endeavor</i>	
1. Relation between Institutions and Art	
a. Non-specific statements about this relation	47
b. Cultural critique of relation between art and institutions	204
c. Economic support	675
d. Access to networks	203
e. Providing complementary programs and activities	274
f. Providing space for artistic endeavor	452
g. Serving as advocate for artistic endeavor	475
<i>Codes that show alignment between artistic projects and sustainable development agenda</i>	
1. Sustainable Development Goals	
a. Poverty	275
b. Hunger and food security	109
c. Health	35
d. Education	274
e. Gender equality and women’s empowerment	104
f. Water and sanitation	317
g. Energy	163
h. Decent work & economic growth	47
i. Infrastructure and Industrialization	275
j. Reduced Inequality	148
k. Sustainable cities and communities	475

l. Responsible consumption and production	204
m. Climate action	384
n. Oceans	23
o. Biodiversity, forests and desertification	45
p. Peace, justice and strong institutions	180
2. Contemporary art in the context of sustainable development	
a. Addressing relations to nature and others	237
b. Addressing complexity	130
c. Addressing cognitive dissonance	45
d. Complements science	389
e. Advances democracy, inclusion and equity	453
<i>Codes that provide general information about documents and actors</i>	
1. Report perspective	
a. characteristics assigned by others	274
b. Self-description	87
2. General context	
a. Philosophical framework (social philosophy)	187
b. Urban landscape (parks, gentrification & displacement, ecological restoration, urban renewal)	249
c. Actors (demographics, institutional actors, individual actors, artists)	745
3. Interesting (but orphan) quotes	834

Because of the adaptive nature of open content analysis, the code tree reveals some of the threads and patterns that inform the findings, which we will discuss below.

Summary of findings:

The analysis reveals four overarching themes consistently present in the CALL approach, the projects observed, and the documentation analyzed: 1)The importance of productive and successful individual artistic/aesthetic practice; 2)Nurturing fundamental infrastructure to allow for rich and diverse artistic creation and collaborations in support of social development, and; 3) The role of institutions in facilitating contemporary art for sustainable development, and 4)Nurturing innovative and supportive platforms to engage the sustainable development agenda. These themes were chosen because the content tends to cluster in these areas, thus they provide the most coherent narrative platforms. That said, as would be expected in a project about such a complex subject, there is substantial overlap between these areas, which will be reflected in the discussion. We will consider these themes in more detail below. But first we consider the network that provides context for the exploration of these four themes.

Observations about the CALL methodology:

1. An extensive and diverse network

Our survey also proposes that a fundamental element in the CALL approach is the consultation, support and collaboration with an extensive and diverse (interdisciplinary) network of partners and colleagues. The review found that these actors represent a wide spectrum of social institutions and perspectives including: government (local, state and national), academic institutions (including scholars in the sciences and humanities), cultural and educational institutions (including museums and galleries), community based organizations, environmental organizations and (to a smaller extent) private sector, for-profit organizations. This network extends far beyond the expected network of an art studio. It even extends beyond the expected network of a socially minded art studio. The CALL process builds and interacts with these ever-increasing networks in organic, dynamic ways.

Three elements interact to influence the interactions between CALL and this extensive network: 1)the ethic and philosophy of Mary Miss; 2)an extensive/complex conceptual frame, and; 3)limited organizational resources.

Reflecting the ethics and inclinations of Mary Miss and the CALL staff, interactions in new sites begin with identifying existing individuals, organizations and networks that are already engaged in the issues that interest CALL and enthusiastically joining these efforts. When the dialogue is too incipient, CALL serves as an igniter of the dialogue and a promoter of connections and relations. When the networks are too dispersed, rather than acting as a central, organizing node, CALL tends to serve as a convener, a bridge builder between unlikely partners and an active participant in the collaborations that result from these networks.

The resulting dialogue, explorations and institutional interactions are rich, complex and dynamic. With its limited resources CALL endeavors to support, encourage, participate and nurture as many of these interactions as possible. It is also constantly monitoring the dynamics of the process to encourage movements towards interdisciplinary collaboration.

Another feature of the CALL practice of community engagement is that this engagement is not only intensive, it is also extensive. For as long as resources allows, CALL staff (with direct participation from Mary Miss) is consistently present and participating in community related activities. Not just activities

related to the project itself, but also activities that are important to get a deeper understanding of the community or that allow CALL to support social, cultural or sustainable development in the community.

While this intensive and extensive approach to community engagement reflects best practices in community-based work, we observed friction when establishing connections with the community both in the direct interventions and at the institutional level. In both cases the friction seems to spring from the dissonance created by CALL's "code switching".

The traditional model is of art studios and art projects that interact with communities through museums, galleries and interventions that are clearly identifiable as "art". As will be discussed further below, CALL (as have a growing number of contemporary artists) has extended the definition of artistic practice, it has moved beyond the tangible (i.e.: a sculpture, a painting) and considering the intangible medium and output of art and deliberately chosen to be an active participant in the community process. These choices are dissonant even within the contemporary art community, but even more so when brought to bear in settings where actors have limited exposure or interest in art. Thus, an interesting circumstance is established where community members trying to understand the presence of a new actor/stakeholder in the community can be puzzled to hear that what looks like a community-based development initiative is actually an art project. This dissonance is moderated by the fact that CALL's presence is usually part of a collaboration with an existing, known and respected community partner. But even in the best-case situation, community members must make the cognitive leap that accommodates the role of an art studio as a community development partner.

This code-switch offers opportunities as well as complications for both CALL and the larger agenda of community sustainable development.

2. An unlikely but welcome participant in the community development process

One consistent issue observed was the tension between the definition of art held by community members and the expanded definition proposed by CALL. It was observed that, particularly in first conversations with community members and institutional/government representatives there was a fair amount of curiosity (and sometimes skepticism) about an art studio crossing the disciplinary borders to involve itself in activities that are usually identified with city planning, community development, environmental conservation, architecture and engineering. This dissonance was reduced as the dialogue

evolved over months. But while CALL is consistently successful at justifying its presence in the community landscape, it is harder for the partners to understand the breadth and complexity of the artistic practice. Therefore, interventions proposed by CALL are most welcome when they fit the traditional definition of art (especially when an object is the output) and are more fraught when they challenge these definitions. It is mostly through collaborations and partnerships that CALL addresses this dissonance and creates space to undertake an expanded artistic practice. The artistic practice is both part of, and camouflaged as other elements in community development. For this deep integration of the artistic practice and the community, CALL staff are continuously learning the language and the culture of the community actors. This moment of dissonance that is brought by introducing such an unexpected actor into the community development ecosystem brings with it an interesting, potentially positive impact.

The dissonance produced by making sense of an art studio as part of community development and of art as part of the community development agenda, forces actors to consider the larger question of what is “community development”. In doing so, it provides an opportunity to re-align definitions, attitudes and commitment by all actors. Because it is an art studio (which is perceived as a relatively benign, low conflict actor) that is activating this reflection, it is taken on in a more positive and creative attitude. For the same reason, the actors feel more motivated to consider the importance of beauty, aesthetics, and creativity in the community development process. A reflection ignited by an art studio (or with the participation of an art studio) can have a beneficial effect on the overall discussion about community development practice.

3. Deepening the participation and increasing the space for partners to flourish

The availability (i.e.: lack) of funding and resources is certainly a limiting factor in the actions and participation of CALL in these networks. But it is important to point out that given more resources, CALL would not shift towards a more central role, or a more directive role in these networks. When resources become available they are focused on enhancing the quality of the existing networks and facilitating the work of the partners. They are also focused on providing time and funding for Mary Miss and other artists to explore individual creative impulses as part of the larger network.

It is clear from the survey of content that the goal of CALL is not to create new organizations to oversee and direct the project of community-based contemporary art. The goal of CALL is two pronged: to

enrich, support and nurture communities of sustenance and in the process create an environment for the socially minded artistic impulses and actions to thrive. Increased resources to CALL would allow the organization to gain a level of stability and internal sustainability that will increase the effectiveness and impact of its approach.

4. The practice of slow, consistent, thoughtful, personal and quiet relationship building

A defining element of the CALL approach is the practice of actively and eagerly engaging and learning from the community partners. More importantly, this process is quietly and patiently considering what questions have not been asked, what members of the community have not been included, what connections have not been drawn. It is a process that is the opposite of flashy and ego-driven, but rather an intentional dialogue where the relationships that are developed and the connections that are drawn are considered part of the artistic output as much as any potential physical artistic expression (i.e.: sculpture, mural, video, etc.).

As can be seen in the description above, the community practice approach of CALL, follows what are considered best practices in community-based organizations. It reflects the general improvement of quality and outcomes in community engagement. It also reflects the documented intention and ever increasing practice of embedding environmental and socially minded art in the context of communities. In and of themselves these two characteristics would make CALL a relatively unremarkable actor in a growing field of community based contemporary art. But CALL has made the deliberate choice of continuously asking two questions: how does art contribute to society without losing the essence of the aesthetic intention? And, at the same time asking, how can the aesthetic intention be integrated to community development, while maintaining the capacity to significantly contribute to the life of the community?

What makes the CALL methodology remarkable and an interesting approach to consider is that the organization understands that the answer to these two questions are not a new and ingenious answer, whether that answer be a new kind of art object or community organization. The best way to address these questions is to continuously ask them in and to invite the members of the community to consider them in an active, ongoing, respectful process that slowly reveals relationships, collaborative actions and artistic outputs.

The CALL approach is designed to continuously, thoughtfully add the aesthetic impulse into the evolutionary process of communities and cities.

Because this approach is somewhat counterintuitive (and artistic practice that is not driven by the need to produce and object) it takes time and patient engagement to explain this process. It also takes time and patience from the community partners to understand this approach to art. This awkward process of sharing and aligning worldviews (if taken on earnestly by the participants) provides great opportunities for actors to get to know each other in deep and significant ways. Which, in turn allows for more dimensions of the community and the actors to be revealed and considered. It also opens the space for unlikely actors and issues to be brought into the conversation and considered as dimensions in the agenda.

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As will be seen in the findings presented in the sections below, the CALL approach reflects and has the potential to enhance the movement towards sustainable development in communities. Rather than providing a harness to guide the overwhelmingly complex endeavor of sustainable development, this approach focuses on the relationships and a sense of a shared participation to both nurture and be an active part of the project. It embraces and navigates complexity successfully, rather than unsuccessfully trying to tame it and the diverse network of actors involved in it.

This approach proposes an interesting set of questions to another key actor in this network: foundations and philanthropists. In a world of reductive, short term and tangible outcomes, how does a funder identify organizations and projects that can effectively engage the complex, long term and ineffable nature of sustainable development. More difficult still is to identify and support projects and organizations that intend not only to engage this complexity, but also aim to do so from the platform of the artistic impulse. The findings presented below should provide some areas of consideration that might help differentiate promising organizations and projects.

Observations about CALL and other artistic actors in the context of sustainable development:

1. The importance of productive and successful individual artistic/aesthetic practice

The question of what constitutes successful individual artistic practice, and how to judge the artistic qualities of art works, installations, performances, written and other media work is beyond the scope of this research project. For the purposes of this project, the artistic endeavor is considered as a “black

box". The term used in systems theory literature to refer to systems of elements that are not clearly explained or understood (known as "obscure"). There is ample and wide ranging literature on the components and dynamics of this "black box", and it would be unproductive for this project to delve into that topic/polemic. We believe that it is more relevant to consider the periphery of the artistic endeavor. The elements that contribute to the success of individual art practice (particularly socially-minded art) and the process, outcomes and impact of this practice. The sections below discuss these peri-artistic space in more detail. This section reflects that, as should be expected, the content analyzed contained a rich and consistent dialogue about the artistic endeavor itself.

Of foremost importance is the tension discussed in the section above between the way art is defined in the community and the expanded art practice that studios like CALL are sharing with communities. This tension and the resolution of this tension proposes that an expanded socially minded art practice should become well versed in the best practices of community engagement and participation. But more relevant for this project, we observed several examples of art studios (and individual artists) absorbing the relationships, and creative, mindful, productive social engagement into the practice itself. Showing that the dialogue generated by these new art practices are not just pushing the boundaries of community development, but also extending the boundaries and concepts of art practice.

Another significant element drawn from the content analysis is that art practice seems to be expanding the narratives from the documentation and raising awareness about social and environmental concerns, towards exploring new forms of relating to these issues and each other in order to consider, imagine and enact more sustainable lives (or lives and communities of sustenance, as proposed by Mary Miss).

2. Nurturing fundamental infrastructure to allow for rich and diverse artistic creation and collaborations in support of social development

- *The relation between art and communities*

Our work documented multiple conversations (as well as published perspectives) regarding the relation between artists and communities. The term community is used to describe two separate, but related, concepts. First are the places, including people and organizations that serve as sites and local/grassroots partners for community transformation. The second refers to local institutions (government, cultural non-profits, private donors and foundations) that have the authority and/or resources to facilitate socially minded art work.

Regarding the former, the content analyzed thus far proposes that there is a general agreement by artists that projects should serve and add value through transformative action to create agency. There is also a perception in the communities that artistic interventions are beneficial for the quality of life. That said, the interest and best intentions do not necessarily add up to effective, productive collaborations. This is particularly true when the interventions do not fit the conventional definitions of art (e.g.: painting, sculpture, drawing) and when the interventions require the direct and active participation of community members. As with other community interventions, the movement towards active collaboration and successful partnerships must begin with being present, building relationships, listening and engaging the community patiently until the most effective path forward reveals itself. When that kind of long-term, direct presence is not possible, it is fundamental to have partnerships with organizations that have both a solid community footing and commitment and understanding of the intended art project. These organizations can then serve to introduce the artists, vet them for the community and facilitate the logistics of the art project implementation.

In either case, the most relevant intervening element in the success of achieving this kind of effective community collaboration hinges on the support that is available from government, cultural and private institutions. The relation between socially minded art projects and this aspect of the community is usually described as fraught and complicated by both sides. The priorities and values of funders and community actors seem misaligned. In the analysis, the main concern that arises is the difficulty of navigating the tension between creating rules for fair and fiscally responsible approaches to distribute support for the arts, without constraining the creative and explorative nature of the artistic endeavor. This issue is closely tied to who and how is the quality of art and artistic production evaluated. Because this project is not focused on that aspect of the artistic endeavor, we can't add much to that aspect of the discussion. But it is worth noting that as artistic endeavors overlap and collaborate more closely with environmental and community development, the criteria used to determine quality in those proposals, might serve to enrich the evaluation of these expanded artistic proposals.

There are, as would be expected, constant references to the lack of resources available. But when these complaints go deeper, they are mostly focused on the lack of fairness in the distribution of resources. One reason consistently given for this inequitable distribution is that organizations tend to focus their resources on the most highly visible and sanctioned projects. There are a growing number of

organizations that support more exploratory, high risk projects, but these organizations still provide a significantly small proportion of the existing funding. There is also the concern that even if funding priorities have changed for some organizations, their funding approaches and structures have not and they lack the capacity to capture emergent, exploratory and iterative approaches.

Another source of complication in this relationship is that as the artistic explorations move farther from conventional practices, and specially as they intersect more with other social development practices (such as social work, city planning, ecological restoration, community development) it is harder for funding organizations to compare the merits of proposals and make decisions that truly represent the most promising initiatives.

As art programs and projects move farther from convention and become more interwoven into other aspects of community life and infrastructure, it also becomes harder for city governments to provide the support and bureaucratic support needed to assure the success (and sustainability of projects).

Thus far, the content reviewed offers very little in terms of possible approaches to address these inequities and limitations. As with the other community issues, the only effective path is to have enough time (and resources) to build relationships with government offices and agencies so that they can understand the projects well enough, develop trust in the artists and can figure out how to adapt and support the program. This is an ideal approach that is limited by the lack of resources discussed above. The only organizations that seem to have effectively addressed the nexus to the community, are artists that become embedded in a community and make one place (or region) a defined boundary for their practice. But while this offers a higher level of community integration, it limits the diversity of artistic perspectives that can come into play in a community.

Finally, even if a community based art project achieves initial success and is able to deploy an intervention, the issues discussed above limits the capacity for the community to consolidate its ownership of the project and limits the long-term sustainability of the project.

One way of addressing this misalignment between the current funding sources/strategies and the qualitative jump that socially minded art has taken, is to consider this art as a form of social entrepreneurial endeavor (and an extension of entrepreneurship and innovation). Seen as a platform for

long-term social transformation, and a way of shifting knowledge, attitudes and practices to promote sustainable societies, it is more acceptable to think of funding as investments that will yield (when effective) a significant social, individual and environmental return. This perspective allows for funding approaches that allow for more exploration, experimentation, space for failure, but also the opportunity for extraordinary transformative leaps, rather than selecting only projects that are more likely to deliver on the benefits we understand and feel comfortable with. As it is the case with angel investing in the technology sector, funders have to become more comfortable with the idea that in order to make the great leaps possible, a significant amount of investments will be made in promising (but ultimately unsuccessful) projects that yield no return.

Enough of these issues are still unresolved and all parts would probably benefit from extended dialogue to find more effective solutions. All the issues discussed above are made more difficult by the fact that artists are choosing to sidestep the institutions (agents, galleries, museums and cultural institutions) that served as their intermediaries, advocates and connectors to communities. We will discuss this theme in more detail below.

3. The role of institutions in facilitating contemporary art for sustainable development

One theme, which was revealed later in the analysis and we are now considering in more detail now, is the apparent misalignment between the institutions that traditionally served to facilitate, market, advocate for and exhibit art. This theme remained somewhat hidden because most of the artists and projects reviewed intersected with museums and traditional cultural institutions in relatively superficial and limited ways.

Further analysis proposes that these conventional art related institutions seem ill-suited to be part of the dynamic, community-centered, exploratory, often politically fraught projects associated with socially minded contemporary art. More analysis will be needed to understand the reason for this misalignment.

But it is fair to assume that if these organizations are still operating, but their missions are misaligned (for the most part) with the trends in contemporary art, they create a vacuum of capacity, resources and support that further complicates the landscape for the practice of socially minded contemporary art.

This misalignment (whatever its reasons) is possibly related to a phenomenon observed and described in the literature analyzed: art studios, such as CALL, that, in order to take on an expanded, exploratory artistic agenda, are forced to become largely autonomous institutions that serve as their own agents, galleries, producers, curators, institutional liaisons, proposal writers and exhibition managers. The elements that were the traditional the responsibility of museums or galleries, are now absorbed into the artistic practice, without necessarily the resources, personnel or institutional capacity to take them on.

It is very possible that the missing piece of the contemporary art puzzle is not dependent only on increased capacity and responsibilities for the artists. Just as museums and other cultural institutions facilitated the explosion of quantity and quality of modern art in the 20th century, by becoming more aligned with the art moment, they can become key contributors to the growth and success of current practices in socially minded contemporary art. Examples of the way forward are the social engagement work supported and facilitated by the Walker Art Center, Project Row Houses, Rebuild Foundation (Theaster Gates), The Laundromat Project, Center for Urban Pedgogy, A Blade of Grass, and the Queen's Museums.

All the themes discussed above propose that the role of art in promoting sustainable development is far from settled. It is also clear that there is no current list of guidelines and rules that address the current needs of both artists and communities in what is a complex and ever-changing landscape. It is possible that the most important step forward is for all key actors in this system to allow time and spaces to have the kind of slow, patient, thoughtful, respectful and direct dialogue that leads to building effective and sustainable interdisciplinary relations. As it is in other community-based interventions, when those relations solidify, the path forward (or paths forward) will become apparent.

4. Nurturing innovative and supportive platforms to engage the sustainable development agenda

Perhaps the most significant conceptual finding on this project is that the role of contemporary art in the social, ecological and individual life of a community is best framed and productively activated when seen as part of the full agenda of sustainable development.

This is a departure from narratives that characterize art as tool to explain environmental science and draw support for environmentalist causes. It also challenges the presentation of art as an instrument for drawing interest and improving the aesthetics of communities. Finally, it diverges from the role of monumental/public contemporary art as a decorative aspect to parks and other urban development initiatives.

While art has served these roles, and these roles are part of the spectrum of functions art can serve in society, this is a limited and limiting perception of the capacity of art to transform society. These limiting narratives feed the misperception that art is a minor, less serious, discipline, that is intended to be subservient to other (presumably more sophisticated) disciplines. The content analysis reveals representations about art and artists and disconnected, romantics, ungrounded, visionaries, impractical dreamers that require the support of grounded, connected, realistic, practical people to make their work possible. Alternatively, artists are represented as full of wonder and innocence (as children) in a world of grownups. One reason given for these characterizations about art is that the methods used for art production do not conform to the scientific method or the practices of evidence-based research.

Our participant observations and content analysis, on the other hand, reveal that art, and the artistic endeavor represents a full-fledged, comprehensive approach (more precisely approaches) to knowledge with its own concepts, language, culture and practices. It is a set of disciplines as deep and sophisticated as any natural and social sciences, with as much capacity to contribute to the betterment of society.

Furthermore, the studios and artists that were observed in our research, or were described in the literature analyzed, tend to complement the stereotypical characteristics ascribed to artists (e.g.: imagination, sense of wonder, ingenuity and skill in creating) with the capacity to be grounded, realistic, entrepreneurial and complex sophisticated thinkers about the world. Artists are bringing their concepts, knowledge, passion and skills to grapple with the same challenges that are currently under consideration for multiple other disciplines.

When seen from the overarching frame of sustainable development, the current misunderstanding/misrepresentations of contemporary, socially minded artists, and its role in society, becomes a significant problem. Beyond the problems inherent in misunderstanding art, it reveals that the capacity of art is being severely underutilized in the process of social, ecological and individual

transformation. Capacities that might hold the key to unlocking the movement towards sustainable development.

We believe that some of the features of contemporary, socially minded art are excellent tools to address the complex, aspirational, transformational nature of sustainable development. For example, sustainable development is a complex, dynamic and irreducible endeavor; art is particularly well suited to introduce audiences/participants into complexity in accessible, acceptable ways that lead to insight, rather than information overload and frustration. Because of its aspirational and transformational goals, sustainable development agendas can challenge perspectives, practices and values. Art as a human endeavor that (among other roles) provides a safe environment to think beyond our perceptions and imagine other versions of the world and of ourselves in the world. Art, different from marketing and advertising, is capable of providing a democratic, non-coercive, non-manipulative environment where individuals can imagine the future possible of nurturing, healthy communities.

Beyond imagination, immersive, experiential practices in contemporary art also provide safe spaces to explore and enact different ways of being in the world. This makes art an exceptional space for experience learning.

The elements described above highlight the importance and potential of integrating art as an equal, full participant in the movement towards sustainable development. The Sustainable Development Goals (SDGs) recently adopted by the United Nations, provide further evidence about the interconnection between art and sustainable development. On one hand, artistic collaborations can help make the agenda, more accessible, more real and more achievable. On the other, the SDGs provide an exceptional frame for the art world to think about their role in society and what their contributions can be. As communities and nations move towards achieving the SDGs, constant opportunities will arise to benefit from the power of art.

Our research is currently considering how do the artistic projects documented overlap with the 17 Goals of the SDGs. Thus far, we have evidence that contemporary socially minded art projects span the full spectrum of the SDGs. But this spectrum doesn't necessarily constitute a comprehensive, integrated narrative about the full agenda of sustainable development (as an irreducible system). It is also interesting to note that artistic projects that are described as "sustainability" or "environmentally"

oriented are usually focused on issues of pollution (air and water), climate change, biodiversity conservation and energy. Whereas projects focused on education, gender equity, justice and peace are usually categorized as socially minded projects, not as part of an integrated sustainable development agenda. This proposes that art practice reflects the social perception that environmental and sustainable have to do with nature, and, social and human rights have to do with people.

Concluding notes and questions for further research:

Socially and environmentally minded contemporary art practices embrace the social responsibility and significance of art. This intention highlights social and environmental issues (the constitutive elements of the sustainable development agenda) as the overarching context for these artistic practices. If sustainable development is the overarching agenda, what can be said about the role of contemporary art in sustainable development?

The findings of this project propose that there are significant contributions to be made by art in the movement towards sustainable development. The content analyzed proposes that these contributions can be clustered in three areas. The first can be considered conceptual: providing objects, spaces, relationships, experiences and ideas to engage, explore and navigate the irreducible, dynamic complexity of the sustainable development agenda. The second is applied: producing objects, spaces, relationships and experiences that allow/encourage actors to enact different ways of being, or being in society and of being in the ecological context. The third is aesthetic: To continue producing objects, spaces, relationships and experiences that contribute to the ongoing cultural conversation about aesthetics and beauty.

The third contribution might not seem consistent with the overall agenda of sustainable development, but the content collected in this project proposes that the first two contributions cannot be achieved if art does not preserve its inherent aesthetic intent. It can be said that for art to be of social and environmental value, it must continually strive to be art first.

What are obstacles to fully developing the potential of art to contribute to sustainable development?

This project has identified three key areas of interest regarding the intersection of art and sustainable development. These areas reflect the elements discussed in in the body of this report:

1. The implication of these findings for artistic practices: How can the artistic community increase its capacity to understand and navigate the concepts of the dynamic irreducible system of sustainable development? In turn, how can artistic practices be more reflective of the full sustainable development agenda (or consistently contribute to an integrated understanding)?

2. The implications for community engagement: How can these new approaches to community-based art be most effectively introduced to the community process so they are more understandable and more quickly absorbed? What can be done to invite and collaborate with an ever-expanding diversity of actors, disciplines and perspectives in a community? How can the community dialogue about sustainable development agenda be enriched as well as enrich the artistic agenda? What can be done to move beyond the perspective that art mostly a creative way to communicate science and towards benefiting from all the dimensions that artistic practices can bring to the process?

3. The implications regarding institutional and financial support: What can be done to encourage and enrich the process of moving cultural institutions to embrace an expanded social/environmental agenda? As part of this expanded agenda, how can these institutions support and encourage innovative, community-based art practices? How can institutions collaborate to continue expanding the reach and impact of art programs beyond the usual audiences and participants? How can institutions that provide financial support increase their capacity to identify and support promising practices? How can funders attend to their fiscal and mission oriented obligations while increasing their capacity to support practices that are, complex, dynamic, speculative, experimental and iterative?

The questions above propose a wide-ranging and fundamentally significant agenda. On the table is not just the future of art, but also of community development and the emergent impact of integrating art to sustainable development. This study shows that there is much to gained by continuing to consider this integrated agenda in a deliberate, consistent way. As with the case with other emerging topics, there is much left to explore and understand. Continued exploration, documentation and analysis of the intersection between artistic practices and sustainable development will provide tools for these relations to be achieve their fullest potential.

We hope that this report offers useful insights and interesting threads of inquiry that benefit the understanding, practice and future research about these topics which are fundamentally important for humanity to move successfully towards sustainable lives.

Books, online media and other publications analyzed:

A blade of Grass (2017) Information about Foundation: <http://www.abladeofgrass.org/get-to-know-us/>

A Blade of Grass (2017) Mel Chin: ABOG Distinguished Artist Fellow:

<http://www.abladeofgrass.org/fellows/distinguished-artist-fellowship-mel-chin/>

Ahn, C.; Cerezo, A.; Miss, M.; Russell, D.; Sax, S.(2017) Creating Sustainable Development: The Power of Collaborations Between Environmental Science and Contemporary Art. (panel at Yale School of Forestry and Environmental Studies):

<https://yale.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=8e1a448b-1ce8-4d9a-a538-be537853a092>

Barcio, P. (2009) Art for Earth's Sake: Jackie Boorkner's Biosculptures. Tikkun Daily: Dec. 3rd:

<http://www.tikkun.org/tikkundaily/2009/12/03/art-for-earth's-sake-jackie-brookner's-biosculptures/>

Big Car Indianapolis Art Collective (2017)General Description of Organization: <http://www.bigcar.org>

Bishop, C. (2006) Participation (Documents of Contemporary Art). MIT Press, Cambridge.

Bishop, C. (2012) Artificial Hells: Participatory Art and the Politics of Spectatorship. Verso, Brooklyn.

Brown, A. (2014) Art & Ecology Now. Thames and Hudson, London.

Boetzkes, A. (2010) The Ethics of Earth Art. University of Minnesota Press, St. Paul.

Burton, J.; et al. (2016) Public Servants, Art and the Crisis of the Common Good (Critical Anthologies in Art and Culture). MIT Press, Cambridge.

Cahan, S.; Kocur, Z. (1996) Rethinking Contemporary Art and Multicultural Education.

The New Museum of Contemporary Art, Routledge, New York:

<http://cw.routledge.com/textbooks/9780415960854/>

Carrion, J. (2017) Website for Janli Carrion: <http://www.juanlicarrion.com/index.html>

Center for Urban Pedagogy (2017) About: <http://welcometocup.org/About>

Chadwick, W. (2012) Women, Art and Society. Thames and Hudson, New York.

Chin, M. (2016-2017) Themes: <http://melchin.org/oeuvre/category/work/themes>

Chin, M. (2015) Before The Storm Clouds of the 21st Century. The Brooklyn Rail: Nov 5th:

<http://brooklynrail.org/2015/11/criticspage>

City as Living Laboratory (1998-2001) Milwaukee Riverwalk: <http://marymiss.com/projects/milwaukee-riverwalk/>

City as Living Laboratory (2005-2006) Park as a Living Laboratory: <http://marymiss.com/projects/park-as-living-laboratory/>

City as Living Laboratory (2002-2008) Indianapolis Museum of Art:

<http://marymiss.com/projects/indianapolis-museum-of-art/>

City as Living Laboratory (2011) Ravenswood/CALL: If the City Could Speak:

<http://marymiss.com/projects/ravenswoodcall-if-only-th-city-could-speak/>

City as Living Laboratory (2013) Broadway: 1000 Steps: <http://marymiss.com/projects/broadway-1000-steps/>

- City as Living Laboratory (2015) Streamlines: Indianapolis/City as Living Laboratory:
<http://marymiss.com/projects/streamlines-indianapolis-city-as-living-lab-icall/>
- City as Living Laboratory (2016-2017) Documentation for Milwaukee Watermarks Project. City as Living Laboratory, New York.
- Clark, J. (2015) Oikos and Poesis: Art and Our Planetary Future. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>
- Clark, S. (2002) The Policy Process: A Practical Guide for Natural Resources Professionals. Yale University Press, New Haven.
- Creative Time (2017) About: <http://creativetime.org/about/>
- Davis, H.; Turpin, E. (2015) Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies (Critical Climate Change). Anexact, Open Humanities Press, London.
- Dederer, C. (2007) Looking for Inspiration in the Melting Ice. New York Times: Sept. 23:
<http://www.nytimes.com/2007/09/23/arts/design/23dede.html?mcubz=1>
- Demos, T.J. (2016) Decolonizing Nature: Contemporary Art and the Politics of Ecology. Sternberg Press, New York.
- Dewhurst, M. (2014) Social Justice Art: A Framework for Activist Art Pedagogy. Harvard Education Press, Cambridge.
- Dhilon, N. (2015) Art as Training in the Practice of Freedom. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>
- Elkins, W. (2015) Ecological Normalcy. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>
- Finkelpearl, T. (2001) Dialogues in Public Art. MIT Press, Cambridge.
- Fraser, J.; Miss, M. (2012) City as Living Laboratory for Sustainability and Urban Design:
<http://www.newknowledge.org/pdf/NKO%20CaLL%20Book%202012%2012%2020.pdf>
- Gould, K. (2015) Remembering the Life and Work of Ecological Artist Jackie Brockner. Metropolis: June 30th: <http://www.metropolismag.com/cities/landscape/remembering-the-life-and-work-of-jackie-brockner-creator-of-living-sculptures/>
- Grady, E.M. (2017) Future Imperfect: A Blade of Grass. A Blade of Grass Books, Brooklyn.
- Grande, J.K.; Lucie-Smith, E. (2004) Art Nature Dialogues: Interviews with Environmental Artists. State University of New York Press, New York.
- Grimes, W. (2016) The Plot to Put Conceptual Art on 'Melrose Place.' Yes, Really. New York Times: September 28: <https://www.nytimes.com/2016/09/29/arts/design/the-plot-to-put-conceptual-art-on-melrose-place-yes-really.html>
- Hanley, M.S.; Sheppard, G.L.; Noblit, G.W.; Barone, T. (2013) Culturally Relevant Arts Education for Social Justice: A Way Out of No Way. Routledge, New York.
- Hardy, J. (2017) Best Practices for Creative Placemaking. Urbanland: The Magazine of the Urban Land Institute: April 26: <https://urbanland.uli.org/planning-design/10-best-practices-creative-placemaking/>
- Helguera, P. (2011) Education for Socially Engaged Art: A Materials and Techniques Handbook. Jorge Pinto Books. New York
- Heartney, E. (2013) The Reckoning: Women Artists of the New Millenium. Prestel USA, New York.

Heartney, E. (2015) Eco-Feminism Revisited. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>

Hess, T.B.; Baker, E.C. (1973) Art and Sexual Politics: Why Have There Been No Great Women Artists?. Collier, New York.

Jackson, S. (2011) Social Works: Performing Art, Supporting Publics. Routledge, New York.

Kastner, J. (1998) Land and Environmental Art. Phaidon, New York.

Kastner, J. (2012) Documents of Contemporary Art: Nature. MIT Press/Whitechapel, Cambridge.

Kastner, J. (2015) An Art of Why Not. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>

Kester, G.H. (2013) Conversation Pieces: Community and Communication in Modern Art. University of California Press, Los Angeles.

Kingsley, A. (1978) Six Women at Work in a Landscape." Arts Magazine 52 (April): 108-12

Lindquist, G. (2015) Social Ecologies. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>

Lippard, L. (1974) Mary Miss: An Extremely Clear Situation. Art in America 62 (March–April): 76-7

Malen, L.; Schor, M. (2015) In Memoriam: Jackie Brookner (1945-2015). News Grist, May 20th:
<http://newsgrist.typepad.com/underbelly/2015/05/in-memoriam-jackie-brookner-1945-2015.html>

Markusen, A.; Gadwa, A. (2010) Creative Placemaking. Markusen economic Research Services and Metris arts consulting: <https://www.arts.gov/sites/default/files/CreativePlacemaking-Paper.pdf>

Marter, J. M. (1989) Collaborations: Artists and Architects on Public Sites. Art Journal 48: 315-20

Mattingly, M. (2017) Mary Mattingly's work:
<http://www.marymattingly.com/html/MATTINGLYWork.html>

Mattress Factory (2017) History of the Mattress Factory: <http://www.mattress.org/content/history>

McKee, Y. (2015) From Eco-Art to Biopolitical Struggle on the Eve of COP21. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>

Miranda, C. A. (2014) How the Art of Social Practice is Changing the World, One Row House at a Time. Art News: April, p. 58: <http://www.artnews.com/2014/04/07/art-of-social-practice-is-changing-the-world-one-row-house-at-a-time/>

Miss, M. (1984) "On a Redefinition of Public Sculpture." Perspecta, no. 21: 52-69

Miss, M. (2015) Remixing Messages: A Call for Collaboration Between Artists and Scientists. The Brooklyn Rail: Nov 5th: <http://brooklynrail.org/2015/11/criticspage>

Moreno, G (2015) Alternative Spaces and the Anthropocene. The Brooklyn Rail: Nov 5th:
<http://brooklynrail.org/2015/11/criticspage>

Morton, T. (2013) Hyperobjects: Philosophy and Ecology after the End of the World. University of Minnesota Press, St. Paul.

National Academy of Sciences (2017) Information about DASER Cultural Programs of NAS:
<http://www.cpnas.org/events/daser-102617.html>

National Endowment for the Arts (2016) How to Do Creative Placemaking. NEA:
https://www.arts.gov/sites/default/files/How-to-do-Creative-Placemaking_Jan2017.pdf

New Knowledge (2017) Publications and Online Tools:
<http://www.newknowledge.org/resources/publications-online-tools/>

- Ng, E. (2017) Decoding the City: An Interview with Mary Miss, DDC Artist-In-Residence, NYC X Design: <https://www.nycxdesign.com/decoding-the-city-an-interview-with-mary-miss-ddc-artist-in-residence/>
- Nowacek, N. (2015) Re: Ecology Draft. The Brooklyn Rail: Nov 5th: <http://brooklynrail.org/2015/11/criticspage>
- Pottenger, M. (2010) About Marty Pottenger: <http://martypottenger.com/index.html>
- Princenthal, N. (2012) Mary Miss. Art in America: April 03: <http://www.artinamericamagazine.com/news-features/magazine/mary-miss/>
- Provisions Library (2017) About Provisions Library: <http://provisionslibrary.com/about/info/>
- The Laundromat Project (2107) About: <http://laundromatproject.org/who-we-are/about/>
- Thompson, N. (2012) Living as Form: Socially Engaged Art from 1991-201. MIT Press, Cambridge.
- Thompson, N. (2015) Seeing Power: Art and Activism in the Twenty-first Century. Melville House Publishing. Brooklyn.
- Schneekloth, L.H.; Shibley, R.G. (1995) Placemaking: The Art and Practice of building Communities. Wiley, New York.
- Schwarzman, M.; Knight, K. (2005) Beginner's Guide to Community-Based Arts. New Village Press, New York.
- Scott, E.E. (2015) Critical Landscapes: Art, Space, Politics. University of California Press, Los Angeles.
- Shrivastava, P.; Ivanaj, V.; Ivanaj, S. (2012) Sustainable development and the arts. International Journal of Technology Management, 2012; 60 (1/2): 23 DOI: 10.1504/IJTM.2012.049104
- Senie, H. (1998) Critical Issues in Public Art, Content Context and Controversy. Smithsonian Books, Washington DC.
- Solnit, R. (2016) Hope in the Dark: Untold Histories, Wild Possibilities. Haymarket Books, Boston.
- Steiner, A.; Rosenberg, R. (2007) Art in Action: Nature, Creativity, and Our Collective Future. Earth Aware Editions, San Rafael.
- Thompson, N. (2017) Culture as Weapon: The Art of Influence in Everyday Life. Melville House, New York.
- United Nations (2015) Sustainable Development Goals: Agenda 2030: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- United Nations (2016) Proposal for Using Arts to Promote SDGs: <https://sustainabledevelopment.un.org/partnership/?p=12530>
- Weintraub, L. (2003) In the Making: Creative Options for Contemporary Art. Distributed Art Publishers, New York.
- Weintraub, L. (2012) To Life!: Eco Art in Pursuit of a Sustainable Planet. University of California Press, Los Angeles.
- Wikipedia (2016) Joseph Beuys: https://en.wikipedia.org/?title=Joseph_Beuys
- Wikipedia (2017) Biography and Overview of work of Theaster Gates: https://en.wikipedia.org/wiki/Theaster_Gates
- Wikipedia (2017) Mierle Laderman Ukeles: https://en.wikipedia.org/wiki/Mierle_Laderman_Ukeles

Participative observation journals analyzed:

- Journal entries (3) about City as Living Laboratory Walk in Chinatown, NYC. October 2016

- Journal Entries (4) about City as Living Laboratory Community Meeting in Chinatown, NYC, November 2016
- Journal Entries (2) about Creative Times Summit, Washington DC, October 2016
- Journal entries (2) about City as Living Laboratory Workshop, Washington DC, May 2017