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## Nature: The natural choice in reconstruction scenarios.

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## **Summary**

Within the academic and professional community, nature and the environment have predominantly been researched both as a source of conflict and natural destruction. Little previous emphasis has been placed on the use of nature as a tool of healing, peace-building, reconstruction and development. Nature, however, provides an opportunity for multi-tiered benefits within post-crisis reconstruction scenarios. The construction of green spaces provides a practical means of concurrently addressing immediate psychosocial needs within post-crisis, peace-building and reconstruction settings, whilst simultaneously addressing long-term development, reconstruction, environmental and peace-building goals. Green spaces should thus be a priority in reconstruction planning.

The complexity of reconstruction scenarios insists on a holistic and interdisciplinary approach. The notion of green spaces within reconstruction scenarios draws on theories and frameworks identified in urban design, peace studies, reconstruction planning, peace-building, development studies, psychology, landscape architecture, ecotherapy, and other relevant fields. It is hoped that the emergence of this field of inquiry will encourage greater cooperation between interested parties, and the adoption of more holistic nature-centred approaches to reconstruction.

**Keywords:** nature, holistic, wellbeing, priority, green-space.

Reconstruction scenarios are unique and complex scenarios. After a crisis where destruction has occurred, be this as a result of natural events or conflict, the location is frequently inundated by numerous local, national and international agents. These various actors find themselves attempting to simultaneously address diverse needs of the local population. The focus of the assistance may be determined by what is perceived to be the greatest need, or particular skill or concern of the organisation. Some organisations aim to restore physical infrastructure, others community services. Some focus on vulnerable groups, others on the community at large. Various organisations address immediate humanitarian issues, such as survival needs, while others attempt to establish a basis to obtain long term development goals. Some focus on establishing and maintaining security while others aim to recreate a sense of well-being amongst individuals, and trust between communities or factions where the destruction has been the result of conflict. Many of these issues are addressed separately, despite the continued rhetoric calling for effective assistance.

Notably, the human and physical realms of the reconstruction field seem to be often considered separately. The establishment of green spaces provides an opportunity to simultaneously address a multitude of issues, many of which are often perceived as being non-complementary. Green spaces provide a unique opportunity to combine relief and reconstruction efforts by addressing both tangible and abstract notions prevalent within the reconstruction field.

While no two reconstruction scenarios are identical, the ideas presented here refer to urban reconstructions where citizens still inhabit the urban environment. The location and size of a green space can be variable, and the specifics of implementation depend on the situational context of the project. While not discounting the notion of one large green space, it is suggested that the concepts provided in this presentation are best applied to various smaller spaces. Clearly, the size and location of the space impacts on its subsequent use, and role within the reconstruction process.

There are several key arguments which support the implementation of green spaces as a physical reconstruction priority. Physically, green spaces provide the opportunity to meet various tangible issues. For example the construction of green spaces can provide an opportunity to meet immediate survival needs. In many developing and rural scenarios access to clean water is often made possible through the construction of a communal well or hand pump. If damage has occurred to the established water system within the reconstruction area, focusing on providing a temporary communal water source could be an immediate priority which alleviates considerable extenuating humanitarian concerns, particularly those associated with health.

In addition to community access to drinking water as a relatively immediate priority and benefit, green spaces provide a location for food production. While such spaces may not be substantial enough to fully support a community in self-sufficiency, they allow for first steps to be taken to promote such a concept. Self-sufficiency and food security are primary considerations within the development field. The destruction of crops and food production, impediments to food transportation, and the inability of local citizens affected

by the destruction to pay for food, are all directly affected by natural and man-made destruction. Careful planning of the green space could ensure medium and long-term food security benefits for the local community. Even in smaller areas, medicinal and culinary herbs could be planted. In addition to the practical benefits, food production reestablishes a sense of normalcy, ownership and a sense of purpose for local citizens.

In most reconstruction scenarios, safe locations for children to play and education to be conducted are hard to come by. The removal of debris and reconstruction of an area is often time consuming, in addition to generally avoiding or delaying reconstruction of areas typical for child play. The establishment of green spaces provides a safe haven for children to play in. Play subsequently affects physical health and psychosocial wellbeing of children, and the knowledge that their children have a safe haven to play positively affects adults. Prioritising play areas is slowly occurring within the reconstruction field. USAid in Sri Lanka, for example, established a programme to build 80 play areas in areas of Sri Lanka that suffered both from the tsunami as well as the conflict occurring there. Similarly, Groundwork Northern Ireland has establish numerous play areas within Belfast and across Northern Ireland, particularly in areas of contested space. Play areas, with a bit of ingenuity and holistic thinking, can also become part of the reconstruction effort. One such example is PlayPumps, an organisation that establishes water pumps powered by children's merry-go-rounds.

Green spaces, however, provide much more than a place for children to play. Having established a safe area, this space can now be used for any number of community activities. While climatic conditions certainly impact on the use of such space, green spaces can be used to hold community meetings, concerts, technical and formal education, and sporting events – size permissible. Providing the community early on with a location to conduct such activities may help establish a sense of normalcy and community.

On a larger long term scale, green spaces may promote environmental protection, encourage sustainable development, reduce pollution and thus improve health. While reconstruction is not exclusive to developing countries, poor infrastructure, a lack of readiness for, and an ability to cope with the aftermath of a crisis, results in a prevalence of scenarios within developing countries which require substantial external assistance. The aforementioned larger-scale environmentally-based issues are often major contributors to impeding development. Additionally, given the current global shift towards a more environmentally aware society, prioritising such issues at the outset of a reconstruction scenario lays the foundations for a future that not only positively directly affects the local environment and inhabitants, but brings reconstruction zones, many of which lie in developing countries, in line with current global trends.

Predominantly, the abstract realms of emotional, social, and psychological considerations in post-crisis scenarios are treated separately to the physical realm. Increasingly, however, there is recognition that successful reconstruction must incorporate both spheres. Green spaces provide a unique platform to combine physical reconstruction efforts while simultaneously addressing a multitude of intangible issues raised within the various reconstruction foci.

Improving wellbeing is of increasing importance within the reconstruction field. Research has shown that nature positively affects wellbeing. Emotional, psychological and physical wellbeing improvements have been noted to occur on all spectrums of nature contact, from a view of nature through a window to time spent in the wilderness. The notion that architecture and urban design affect wellbeing is also well recognised. Consequentially, in non-crisis scenarios, the aesthetic, emotional and psychological impact of space is a standard consideration. Thus the link between nature and design is not new, and some form of nature is often incorporated into everything from individual building design to urban planning. The "re-invention" of urban areas that have not suffered destruction is growing daily. Examples of large-scale green 'make-overs' are evident world-wide, and the concept of the eco-city is increasingly popular. Reconstruction scenarios provide a unique opportunity to surpass previous planning that failed to consider emotional and psychological responses. Reconstruction scenarios allow urban areas to be brought in line with current trends, which often highlight environmental concerns and 'resident friendliness'. Ultimately, rather than merely patching up a destructed area, or returning an area to its former glory, reconstruction of post-crisis areas should embrace the unique opportunity to enhance individual, communal and environmental wellbeing.

Whether the destruction has been caused by natural or man-made activity may affect individuals and communities differently, but crisis is ultimately an affecting force. While there is contention regarding the classification of trauma within reconstruction scenarios, there is no doubt that a vast majority of individuals affected would benefit from some form of psychosocial intervention. The healing power of nature is not a new phenomenon. Records show that 'treatment' administered in ancient Egypt, Babylon and China include time spent in gardens. The positive impact contact with nature has on wellbeing has been universally identified. Studies have shown that mere views of nature through a window reduce hospital stays in post-operative patients, and give employees less frustration and greater enthusiasm for their job. Residents in areas with tree lined streets report feeling happier with where they live than those in places without trees, and the presence of plants and flowers has been shown to positively impact the enjoyment of places visited, be it a restaurant or historical site. Given the plethora of evidence that indicates that the presence of nature benefits wellbeing, the immense need for emotional and psychological uplifting in reconstruction scenarios, and the wonderful opportunity to incorporate nature in the reconstruction process, the choice seems obvious. Slowly, such measures are being taken by donors and governments. AusAID for example funded the placement of hanging flower beds along the main roads Honiara in the Solomon Islands. Trees have been planted along the 'peace wall' in Belfast. Parks have been implemented by the ngo CHF in Palestine, with a focus on community involvement in the construction, including local design students and children. Groundwork Northern Ireland with the support of local government has conducted beautification projects and created neutral communal spaces throughout the country. The prioritization of communal green space as part of the reconstruction process in the eyes of local populations is clear in a statement by the Kabul government regarding the reconstruction of Deh Mazang park. Recognising the

benefit of access to green space, they note women and children, who have suffered tirelessly from war, have the need and right to acquire:

spiritual rest in the environment that should be healthy, green, and beautiful and they need that their children could freely play and have fun and the families too. Man and woman [sic] among themselves enjoy from [sic] the green environment. The recreation sites will be possible, in that case when we should have many extensive parks in the city. (Kabul Municipality 2006:10)

In addition to improved wellbeing, green spaces in reconstruction scenarios provide an opportunity to meet other abstract notions. Memorialisation and monumentalisation are well recognised as important aspects of reconstruction. The use of nature and green spaces for this purpose is growing, as it provides the opportunity for symbolic representation coupled with the therapeutic benefits of nature contact. The use of nature within the realms of memorialisation is increasingly evident. In Belfast, both sides incorporate nature into their memorials. The original plan for the New World Trade Towers site was deemed too harsh, and subsequently 'softened' by the incorporation of grass and trees. The memorial site for the trade towers is FreshKills park, 2,200 acres incorporating the rubble of the twin towers.

Horticultural therapy is a common form of nature interaction that is applied in a multitude of scenarios with various individuals including prisoners, the elderly, people with developmental, psychological or physical disability challenges, as well as those suffering from trauma. Hospital gardens are also increasing common, as the benefits of being in contact with nature, combined with the opportunity to be involved in the creation of new life, compounds the cathartic nature of gardening. Within reconstruction scenarios, not only does allocating space and resources for green spaces benefit the community at large, but it also provides a unique opportunity to simultaneously provide healing for those involved in construction, as well as a sense of ownership and involvement in the reconstruction process. Community consultation has long been recognised within the reconstruction field. The construction of green spaces provides a relatively simple method, when compared to other physical reconstruction, of promoting hands-on community involvement. Providing citizens with a sense of purpose and ownership is as beneficial as providing them with the green space itself.

Psychosocial notions such as identity, unity, ownership, and power are often fragile within post-crisis scenarios. Such issues can be partially addressed through community participation in design and construction of green spaces. In post-crisis scenarios that have resulted from conflict, green spaces can play a role in constructive peace-building. Many peace-building efforts attempt to establish bonds, understanding and forgiveness through joint participation in activities. The construction of green-spaces provides a unique opportunity for joint participation in a community project that is beneficial to all community members, in addition to providing individual therapeutic benefits to construction participants.

Hypothetically, the construction of a green space such as garden-park has multi-tiered benefits. Community involvement in the park design ensures suitability with local needs, allows for creative expression, and provides communities with a sense of ownership over the area. Community participation in the construction of the park provides physical activity, the therapeutic benefits of gardening, a symbolic renewal, a sense of participation and achievement, and the opportunity to bring together individuals and groups which may have previously been in conflict. Once constructed, garden-parks provide a safe area for community gatherings and children to play, a location to conduct various forms of interventions from education to psychosocial interventions; a location for memorialisation, and the psychological benefits of contact with nature. Additionally, garden-parks may help to improve health through physical activity and nutrition (if consumables are planted), establish an understanding of and pride in nature that may be reflected in greater conservation and less pollution, as well as provide a positive effect on community cohesion, and psychosocial wellbeing.

The complexity of reconstruction scenarios demands a holistic and interdisciplinary approach. It is hoped that the emergence of this field of inquiry will encourage greater cooperation between interested parties, and the adoption of more holistic approaches to reconstruction.

While it is not proposed that green spaces are the answer to many of the problems faced in reconstruction scenarios, it is proposed that the combined benefits of such a project validate consideration within reconstruction frameworks. Enhancing the reconstruction experience for local citizens, and providing a platform upon which a holistic approach to reconstruction can be undertaken, green spaces are a key step towards improving the reconstruction process.

## **Bibliography**

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## **Author's Biography**

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Tiffany Greene has several degrees in the Humanities, and specialises in Peace studies. She is the founder and director of The Gnome Project, a research, advocacy and consultancy organisation concerned with the use of nature in post-crisis and peace-building scenarios. She plans to complete a PhD investigating the role of nature in peace-building.