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Sustainable Way of Life and Environmental Chaos: A Textual Analysis of an Expert Panel Held at Brazilian Meeting of Alternative Communities

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" *This study of the views of Brazilian experts on Sustainable Way of Life corroborates the idea that a capitalist model – based on consumption, linear production systems and disconnected with nature – has made the city way of life unsustainable. It also suggests that these struggles point to a move from urban environmental* **chaos** *to a new reality, as well as the difficulties in making it happen. As a confrontation with* **chaos**, *a new order represents a different way of reorganizing oneself and the group, in search of a new social and environment ideal reconnected and inspired by virtuous cycles as seen in nature.* "

Introduction

The concept of sustainability highlights the idea that alternative lifestyles can allow human beings to satisfy their present and future needs without exceeding nature's ability to restore extracted resources (WCE, 1987). Its challenges are thus as heterogeneous, dynamic and complex as the diversity of human societies and natural ecosystems around the world. Envisioning alternatives to the current way-of-life, its models encompass the understanding of people-environment issues that go beyond the triple bottom line of sustainability composed by social, environmental (or

ecological) and financial dimensions. With a global scope, the people-environment relationship comprises interdependent actions, with effects in the present and concrete projections of escalation in the future. It is guided by the interdependence between ecosystems, by pro-social and pro-ecological actions and by local and global levels of intervention and understanding of each phenomenon in focus.

Our current scenario of generalised global urban chaos stands out as one of the most worrying themes of the urban environmental debate. It is a direct result of the capitalist development process, based on an inconsequential model of urban occupation, and high socio-environmental inequalities and risks with direct implications for society's way of life (Acselrad, 2001; Bueno, 2008; Rodrigues, 2011). In such chaotic setting, various groups of people have been adopting alternatives to the hegemonic capitalist model of life, seeking changes in relation to current environmental impacts, socioeconomic disparities and cultural aspects. Such alternatives require an understanding of human-environmental issues close to Sustainable Lifestyles (SL) and Sustainable Way of Life (SWL) concepts (Tapia-Fonllem, Corral-Verdugo and Fraijo-Sing, 2017).

In order to investigate these possible ways to re-establish the people-environment order, this paper presents the results of a research conducted with eleven people that adopted alternative ways of life to the current 'mainstream' model. The investigation took the form of an 'expert panel' (EP) and semi-structural interviews. It was held at *Encontro Nacional de Comunidades Alternativas – ENCA* (National Meeting of Alternative Communities) which took place in 2019 in the Brazilian state of Bahia. The meeting aimed to encourage and discuss creation/formation/consolidation of basic structures for sustainable societies by offering people the opportunity to experience an alternative way of life during one week. To analyse the results, I used word-clouds created through the software *IRAMuTeQ.*

Urban environmental chaos and Unsustainable Way of Life

In the contemporary world, urban chaos is one of the main outcomes of a capitalist development; product of industrialisation and an inconsequential model of urban occupation. In this context, environmental issues reflect socio-environmental problems, including 'hidden' costs such as inequalities and risks caused by technological and organizational innovations (Beck, 2010). Research shows that these phenomena are strongly related to each other (Acselrad, 2001; Rodrigues, 2011) and have direct implications to our way of life (Bueno, 2008). According to Beck (2010), if in the twentieth century the 'capital' proved to be the element around which society was built, in the twentieth-first century, 'fear' occupied that place in sociological, economic and political views, giving rise to the term 'risk society'. Although many perceive danger only as the dark side of progress, such risks are global and unite all through technical, administrative and political decisions.

Marques (2016) analyses how industrial production and consumption work to influence human societies, showing that the Earth is approaching a critical point as a direct result. He alerts about the constant and increasing environmental degradation, due to deforestation, climate change, natural recourses reduction, pollution (of atmosphere, water and soil), among other impacts caused by human beings in function of the economic capitalism activities, known as "anthropogenic changes". Cechin (2010) states that economic activities do not consider the biophysical relationships in their surroundings and do not recognize the flow of matter and energy that enters and leaves their productive processes, nor the qualitative difference between what came and went during these processes. The researcher reinforces William Kapp's questions about the implications of the incompatibilities between the economic system and the ecological (and social) system, which are a threat to economic processes and its social impacts, and to the survival of humanity on the planet. Globalisation has induced a new society and a new human being, as a result of changes in

markets, work processes, aesthetics, products, habits, values, culture, individual and social subjectivity, occupation of territory and production of built environment in relation to nature which shaped a whole way of life, leading to changes in housing and in cities (Maricato, 2015).

The central issue within the capitalist logic is to perceive nature and people as resources. Even the environmental issue has become a commodity. In order to expand production and meet the increased levels of consumption, capitalism then dictates an unsustainable model that ramps up the use of natural and social resources, beyond the environment's potentialities (Silva, 2010). In its place, the urban space reflects the ecological crisis, which is the result of a behavioural crisis with direct effects on environment, that is, a human-environment crisis (Pinheiro and Pinheiro, 2007).

For decades, the environmental issues debate has been anchored on the concept of sustainable development and on the levels of production and growth of wealth, reinforcing an economic and administrative vision of the exploitation of natural resources. Nowadays, this vision has begun to lose its centrality (Cerutti and Morigi, 2010). The idea of sustainability can call for changes in attitudes, behaviour and public policies, which are often difficult to adopt in the face of the developmental paradigm that propagates a consumer culture (Martine and Mello, 2012).

Yoon (2009) presents studies on perception that corroborates people's disconnection from nature. To her, the human innate ability to distinguish elements of the natural world through the senses was co-opted by marketing; immersed in a world of products, which like nature are characterized by colour, size, shape, smell and sound. For instance, children are able to recognize brands, but do not recognize the plants around them. For Martine and Mello (2012), consumerism encourages and sustains the current development's trajectory, but also triggers and accelerates the environmental changes on the planet.

Sustainability and Sustainable Way of Life

Sustainability is essentially a multidisciplinary theme, involving issues such as climate change, resilience and adaptation. It requires continuous negotiation between everyday concerns and routines, and their impact on an abstract future of climatic chaos (Roaf, Crichton, and Nicol, 2009). Despite all the scientific knowledge produced about the consequences of climate change, humanity is just beginning to respond adequately to new demands of development of new habits, policies and practices (Giddens, 2010).

In this knowledge area, the 'way of life' concept refers to cultural parameters established in relation to the social-physical environment in which people live (Braga, Fiuza, and Remoaldo, 2017). According to Belleze and collaborators (2017), the demand is for more sustainable and responsible ways of life, so that society may deal adequately with the challenges related to human survival on the planet. Simas (2013) points out that the necessity to reinvent our ways of inhabiting the world is linked to the demand for spaces where people can experiment with solidarity and collaborative social ties, corroborating Boff's notion of a sustainable way of life. Reflecting on the current development model, Boff (2003) presupposes a paradigm shift, that must include changes in spheres that involve individuals, communities, culture, politics, industry and even the way cities are planned and used.

In the holistic view of sustainability, society and the management of natural resources must be considered equally (Sachs, 2002). However, most environmental problems are originated in cities or in the current standard of life (Pereira, Chian, and Accioly, 2010). It is important to notice that the Covid-19 pandemic in 2020 has placed humanity in a situation of social isolation, and its impacts on human life, health and the global economy are yet to be known; it is not yet possible to measure the dimensions, even the consequences of the coronavirus in cities and urban life.

To be efficient, cities need to pay attention to their dynamics, which point to an 'intra-urban decompression' need. This operation necessarily involves the revaluation of public free spaces in the city, as more permanent fundamental structures, from the physical and social points of view (Panerai, 1994). Alongside the process of changing that cities are forced to undergo; we need to think about new urban and architectural issues. When reflecting on how the pandemic makes us think of alternatives to the way of living, producing, consuming and living together, Santos (2020) concludes that only with a new articulation between the political and the civilising processes will it be possible to start thinking about a society in which humanity assumes a more humble position on the planet it inhabits.

For instance, the "cradle to cradle" thinking developed by McDonough and Braungart (2002) goes against the programmed obsolescence of linear extraction, production and disposal processes, which consider the life cycle "from cradle to grave". In it, resources are managed in a circular logic of creation and reuse, which is healthy for humans and the biosphere, replacing the linear model with cyclic systems, which consider the circulation of all materials in biological or technical cycles. "Circular city" refers to the idea applied in the construction of buildings and urban areas.

With the growing emphasis on environmental concerns and a progressive ecological awareness, urban regeneration is understood as a process of intervention in the pre-existing urban space. In this sense, community initiatives in favour of sustainability, such as ecovillages, eco-neighbourhoods and ecocities, seek to apply integrated practices to the environment through the sustainable use of resources and usually adopt societal innovations, such as participatory management (Mattos, 2017).

Eco-neighbourhoods are current experiences of urban project that value discourses on sustainable development at a local scale, based on a bottom-up approach, transforming and creating places that point out alternatives to overcome urban chaos (Barton, 1998). In the Brazilian context,

the *Instituto Ecobairro Brasil* promotes and supports actions aimed to make cities more sustainable and peaceful in the neighbourhoods of capitals such as *São Paulo* and *Salvador*. Through an integrative and systemic design that strengthens urban communities, it seeks to apply practical and easily adapted solutions in different contexts. To sum up, urban sustainable development is characterized not only by the adequate conditions of the economy, but also by the search for environmental and social adequacy. In this sense, the search for solutions should be based on the democratic consensus of various actors that make up urban life (ASBEA, 2012).

Alternative Communities: Movement and Meetings

The historical construction of the contemporary culture concept is related to the way of life concept. Culture is a constitutive social process, which turns to everyday practices. The notion of culture as a way of life shows that it is something common to all society, including the great works and forms of creation, as well as the meanings and values that organise common life (Cevasco, 2003).

Although the contemporary dominant culture operates through a capitalist worldview, communities encompassing new values and principles are emerging, such as the culture of sustainability and the regenerative culture (Mattos, 2017). For decades, groups of people have been looking for alternatives to the hegemonic way of life and sociability, by attempting a life style oriented towards sustainability and questioning capitalist logics. They integrate alternative communities' movement, which seeks limited societal change – examples include Tamera (Portugal), EcoTrully (Peru), LA Eco-Village (Unites States), BedZED and Findhorn (United Kingdom) and Auroville (India). Currently, they are not restricted to rural areas; in cities, groups of people organise themselves into small communities, using public and private urban spaces to guarantee basic needs, as 'edible cities' projects, which encourage urban food-growth projects around the world in cities such

as Oslo (Norway) and São Paulo (Brazil). They develop working conditions, create their own jobs and manufacture products (Tavares, 1985).

In Brazil, the National Meeting of Alternative Communities (ENCA) began in the 1970s. It is promoted by the Brazilian Association of Alternative Communities (ABRASCA). Their annual meeting usually takes place in new communities, aiming to provide participants with a one-week experience of community life. Several structures are built to support the event, such as community kitchens and composting toilets. At the community kitchen, volunteers prepare two daily vegan meals using local organic products. Throughout ENCA, participants organise and offer activities, lectures, experiences, classes, conversation circles, therapeutic practices and services aligned with a culture of sustainability. Among other things, people learn about viable alternatives with low socio-environmental impact and about developing a respectful relationship with nature. ENCA aims to show that an alternative way of life to the current capitalist model is possible.

Methods

The Expert Panel (EP)[1] (Figure 1) involved eleven key-people or leaders in the field, who were contacted at ENCA 2019, which took place at an alternative community in formation located in *Chapada Diamantina*, Bahia (Brazil). The participants' perception of concepts and aspects associated with the relationship between 'being sustainable', 'sustainable way of life' and 'unsustainable way of life' took place through semi-structured interviews. The number of respondents was based on a mutual suggestion system (snowball), which reached 78% saturation. The experts were identified by the letters EP followed by a number from 01 to 11. Their selection considered

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[1] The Expert Panel is a research technique used in Social Sciences (Environmental Psychology among them), especially in studies that adopt mix-method strategies (Taschakkori, Teddlie, 2002). It allows the understanding of the point of view of a group of participants with recognized competence on the analysed topic, and its results can serve to support other investigative activities (Pinheiro et al. 2013).

people performance in ABRASCA and their participation and involvement in ENCA's organization (from its beginning to the present day).
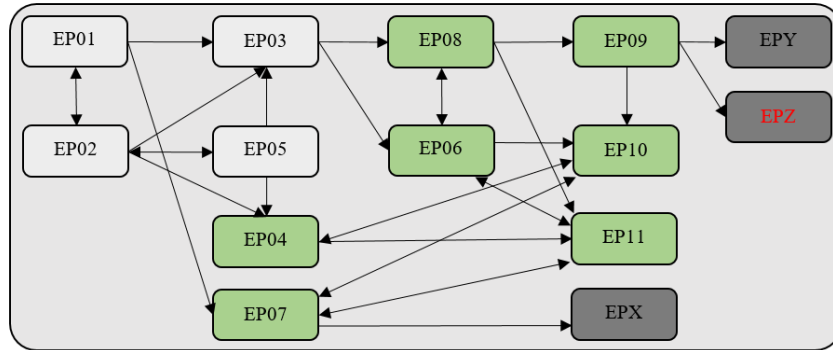

Figure 1: The Expert Panel table were composed by 14 experts and it based on a mutual indications system. The table presents the 11 experts interviewed and the 03 non-participants (graphire).

Data analysis used the software *IRAMuTeQ²*. The results are presented in word clouds, showing a set of words grouped, organized and structured in the form of a cloud. The technique facilitates the visualisation of textual content. It presents words in different sizes according to their frequency in the corpus (set of texts analysed).

Results and discussion

The EP comprises eleven persons in a total of fourteen experts (appointed by a mutual indications system): three people were not contacted because they had already left the event, amongst them the only woman who was appointed (EPZ); the person with the most appointments was EP11, who founded and lives in an ecovillage since 1991; EP04, EP06, EP07, EP09 and EP10 all live in rural areas; EP06, EP07 and EP10 all live in ecovillages; and EP08 is founding an ecovillage[3].

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[2] IRAMuTeQ (*Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires)* is a software developed in 2009 (Marchand and Ratinaud, 2012), which highlights essential information contained in a text or set of texts, through textual statistical analysis.
[3] The first two subjects contacted are recognised in Brazil as pioneers in the construction of ecovillages. In their interviews, they indicated other people to be contacted, and so on, until the names began to repeat themselves.

The research corpus was constructed by eleven texts, divided into 388 text segments. From it, 13488 occurrences emerged (words or expressions), of which 2866 are distinct forms and 1714 have a single occurrence in the semantic network. The word cloud, which is in Portuguese, included nouns and verbs totalling 428 active forms with frequency above nine occurrences. In a word cloud, the largest words are those that have the greatest importance in the textual corpus, from the frequency indicator. It is possible to identify graphically the keywords of the corpus. The most important words are closer to the centre and have a larger font.

The word cloud (Figure 2) refers both to SWL and to Unsustainable Way of Life (UWL). However, it is observed that when the word has a positive connotation, it is referring to SWL, and when it has a negative connotation, it is referring to UWL.
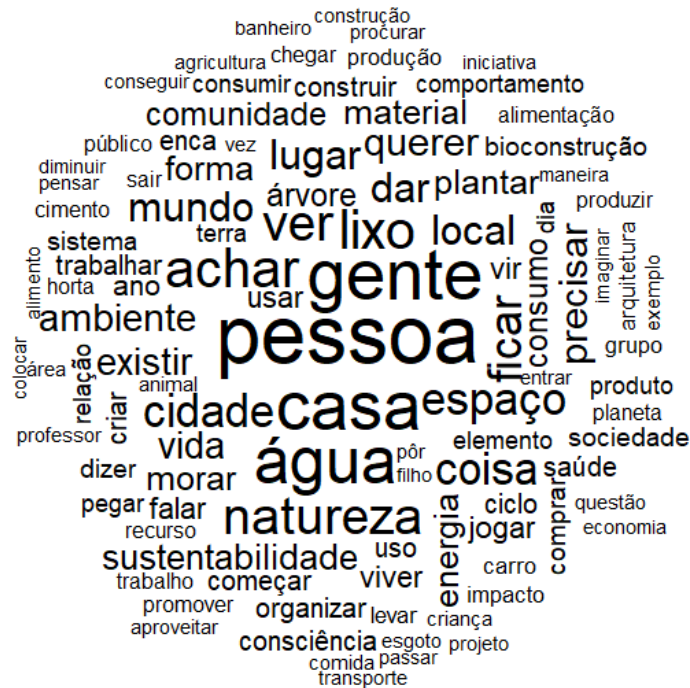

Figure 1: Expert Panel word cloud included nouns and verb with frequency above 9.

Table 1 shows the frequency (eff) of the main words in the world cloud in Portuguese (first column) and their translation to English (second column). The words 'people/person' (64) and 'we' (55) were the most mentioned, followed by 'house/home' (52), 'water' (49), 'rubbish' (40) and 'nature' (38); 'city' (33) and 'space' (33) were also words that stand out in the corpus.

Word in Portuguese	Word in English	Eff	Word in Portuguese	Word in English	Eff
Pessoa	People/ person	64	ENCA	*ENCA*	17
Gente	We	55	Construir	To build	17
Casa	House/home	52	Consciência	Conscience	16
Água	Water	49	Ciclo	Cycle	16
Achar	To find/ to think	40	Saúde	Health	16
Lixo	Rubbish	40	Criar	To create	16
Natureza	Nature	38	Organizar	To organize	16
Ver	To see	38	Começar	To begin	16
Ficar	To stay	33	Dizer	To say	15
Espaço	Space	33	Sistema	System	15
Cidade	City	33	Sociedade	Society	15
Coisa	Thing/stuff	32	Comprar	To buy	15
Local	Local	30	Bioconstrução	Bioconstruction	15
Lugar	Place	29	Consumir	To consume	14
Dar	To give	29	Relação	Relationship	14
Mundo	World	28	Elemento	Element	14
Querer	To want	27	Comportamento	Behavior	14
Precisar	To need	27	Terra	Ground	14
ambiente	environment	26	Pegar	to pick	14
Vida	Life	25	Dia	Day	14
Existir	To exist	25	Produto	Product	14
Sustentabilidade	Sustainability	24	Arquitetura	Architecture	13
Energia	Energy	23	Impacto	Impact	13
Morar	To live	23	Grupo	Group	13
Material	Material	22	Carro	Car	13
Forma	Form/shape	22	Produção	Production	13
Plantar	To plant	22	Levar	To take	13
Comunidade	Community	21	Cimento	Cement/concrete	12
Consumo	Consumption	20	Público	Public	12
Árvore	Tree	20	Trabalho	Work/Job	12
Usar	To use	20	Chegar	To take	12
Jogar	To discard	19	Planeta	Planet	12
Vir	To come	19	Alimentação	Feeding	12
Viver	To live	19	Horta	Vegetable garden	12
Falar	To speak	19	Recurso	Resource	12
Ano	Year	18	Produzir	To Produce	12
Trabalhar	To work	17	Sair	To leave	12
Uso	Use	17	Promover	To promote	12

Table 1: The most cited words (in Portuguese and English) with their frequency (eff)

The results are qualitative and based on the analysis of thematic content. In the expert's interviews, it is possible to verify the relationship between the words presented and a sustainable or unsustainable way of life. In this paper, all citations are free translations by the author of the original in Portuguese.

When questioned about SWF, the panel mentions frequently the words nature, home and person. On the other hand, consumption and rubbish were the words most mentioned by experts when asked about UWL. EP06 said, "I do not consider myself sustainable. Although I try, I still produce rubbish". Consumption however was mentioned as something linked to the capitalist system that goes against a sustainable way of life, as was pointed out by some participants:

> There will only be sustainability when everyone becomes sustainable, when society changes the paradigm of unrestrained consumption to a sustainable society. Personal sustainability is not the goal. The goal should be a paradigm change (EP04).

> I try not to consume too many things, not to depend too much on the current production system and I try to attend to my own needs. That is, reduce consumption and consume more consciously [...] If the components of a society have a balanced, more conscious way of life, we change the paradigm (EP10).

When addressing the theme of SWL, the main aspects mentioned by the experts were healthy and vegetarian or vegan diets, relationship with nature, bioconstruction, clean energy and family farming. When asked about being sustainable and having a vegan lifestyle, some answers stood out:

> I plant part of my food, I live in a house built by me, bioconstruction. Most of the energy I use is clean energy, through hydraulic ram, solar panel and rainwater harvesting. I promote family farming. Above all, I follow a vegan lifestyle. Of all that, veganism is the biggest impact (EP06).

> I have a vegan way of life [...] I try to make my choices keeping in mind a positive impact (EP08).

The word 'nature' appeared 38 times, always referring to environmental emotions, interdependence and future orientation. The experts highlighted person-environment interrelationships focused on cooperation and responsibility:

> Nature works in a systemic and perfect way (EP06).
>
> The relationship with nature requires sensitivity, knowledge, and especially responsibility, which means the ability to respond (EP02).

'Nature' is also related to virtuous cycles, as pointed by EP01: "In nature everything works in circles".

When asked about the relationship between urban environment chaos and UWL, the relationship with nature also appears on the interviewees' discourses. In these cases, it was associated with a depletion of natural resources and agriculture, and the participants criticized the current urban lifestyle.

> We are living in the city, and that is our biggest mistake. When the countryside is demobilized, people go to the city and the city is unsustainable. People are forced to work because there are no trees. The food comes from the supermarket. You cannot produce the basic food for your livelihood. [...] Here, I build my house, I have access to drinking water and I can plant and have food (EP09).
>
> An urban space that requires the use of a lot of electricity and a lot of fossil fuel ends up becoming susceptible to risks (EP10).
>
> I believe the solution for big centres is to empty them so that humans return to the field, return to nature. I think this will be our alternative (...) I do not believe the challenges and problems of urban life can be solved (EP11).

The emphasis on verticalization in urban space was also mentioned:

> Everything is cultural. Have you ever imagined life without buildings? It would not fit. Verticalizing is a way to reduce the ground impact. It is an intelligent form of housing for cities. However, I am in favour of

buildings having forests, vegetation. This is unfortunately not preserved. I am not against any model. I think people could include in these models some things that would add to urban sustainability (EP05).

When asked about UWL, experts stressed urban dynamics based on the linear production which do not favour SWL. EP07 said, "It is easier for a sustainable life in the countryside to meet basic human needs than one in the city". According to the experts, the difficulties faced when adopting SWL in the city are related to the disconnection people-nature. In urban environment it is more difficult to close cycles, thereby generating vicious cycles that impact on food production, housing, waste management and mobility, making it difficult to change the paradigm.

The relationship between UWL and the linear production model appeared on another interview:

Unsustainable ways of life break cycles and generate waste. If it is linear, it is degenerative. The cycle does not degenerate; it regenerates, it recomposes itself. Everything is a cycle – if it breaks the cycle, it is garbage, it is destruction and it is unsustainable (EP10).

Based on EP, it is possible to say that experts understand the sustainable behaviours concept in a systemic way, through virtuous cycle systems involving practices favourable to the restoration of social and natural environments, and therefore seek to meet sustainability by integrating all its dimensions. The text analysis results corroborate with Thompson and Barton (1994) who state that for people with eco-centric orientations, nature has a spiritual dimension and an intrinsic value that is reflected in their feelings and experiences in natural environments. In addition, their discourse aligns to the 'circular city' concept as a guide for urban planning with a focus on nature to reduce socio-environmental impacts caused by the current urban lifestyle.

Conclusion

Humanity is experiencing a moment of widespread global crisis; this is even more serious in the urban centres, where the current development model is proving unsustainable. The circular city concept, which has nature as the central focus, points to possible solutions for it, showing that urban chaos could be a fuel to incite changes into a sustainable culture.

This study of the views of Brazilian experts on SWL corroborates the idea that a capitalist model – based on consumption, linear production systems and disconnected with nature – has made the city way of life unsustainable. It also suggests that these struggles point to a move from urban environmental chaos to a new reality, as well as the difficulties in making it happen. As a confrontation with chaos, a new order represents a different way of reorganizing oneself and the group, in search of a new social and environment ideal reconnected and inspired by virtuous cycles as seen in nature.

Sustainable living, adopted in ecovillages, reinforce the importance of behavioural and dispositional predictors of sustainability in order to achieve quality of life in both urban and rural areas. The Expert Panel showed pro-ecological behaviour, solidarity and environmental emotions as important variables, giving clues that the relationship with nature and nature cooperation are essential to reverse the current chaotic environmental scenario.

The proposed discussion points to ethical and political reflections on the ways of life adopted in contemporary times in order to contribute to advancements in the sustainability agenda in the face of environmental degradation and urban chaos.

Acknowledgments

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