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An introduction to urban filmmaking towards SDGs local achievement

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## Digital limits and human possibilities

### An introduction to urban filmmaking towards SDGs local achievement

Sezione I - Il tema

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*The adoption of the 17 Sustainable Development Goals in 2016 marked an unprecedented step in the acknowledgment of universal disparities and major global challenges, whose ambitious achievement was soon threatened by the actual possibilities of each country to properly address the challenges. The following paper will hence discuss some of the main digital limits in tackling the SDGs in local contexts, while exploring the human possibilities of new sensitive approaches, supported by the changing role of architects and urban planners throughout the employment of visual methodologies.*

*Keywords: Sensitive planning, action research, urban filmmaking, participatory documentary, community planning.*

#### **The contradiction between SDGs assessment and resources accessibility**

According to the United Nations, the number 1 Sustainable Development Goal stating the eradication of poverty in all its forms, deeply calls that, by 2030, «all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance» (UN DESA, 2023, 1.4) and further adds «natural resources, appropriate new technology and financial services, including microfinance». Despite the net and ambitious definition of the goal, it is possible to identify some very generic concepts, which intrinsically embed relative meaning. The accessibility to basic services for instance, can be differently addressed by every country, as the initial stage for every country conveys itself a different possibility to access basic services. Furthermore, the "basic" adjective per se, additionally discloses diverse connotations. When speaking about Western and Global North countries for example, the accessibility to a basic service, namely accessibility to clean water (Sustainable Development Goal 6, 2015) is consistently different from the one identified in the Global South countries; according to the latest UNI-

CEF<sup>1</sup> data reported in July 2023, still «2.2 billion people still lack access to safely managed water services» of whom the highest percentage refers to Global South countries (UNICEF, 2023). For instance, the differences acknowledged in poverty do not only refer to "all forms of poverty" (Sustainable Development Goal 1), but also to different levels of poverty belonging to every country in the world. This initial recognition in the used terms, is essential in order to better delineate the subsequent differences in the actual possibilities to address climate change, socio-economic as well as environmental inequalities, end of poverty and all the other goals defined by the Agenda 2030. The same must be repeated for the other terms previously mentioned at the beginning of the paragraph; when speaking about "ownership and control over land" for example, there are substantial differences within the legal so as the urban planning systems frameworks where those definitions are inserted. Indigenous planning indeed, is one of the main contradictory theme of the Agenda, as the control over land, as well as the inheritance and the accessibility to natural resources consists of a divergent legal framework who is now at the center of national debates in Pacific countries, namely New Zealand and Australia<sup>2</sup>. The actual possibility to reclaim land ownership and eventually apply land protection

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and land conservation is not a linear process. Moreover, due to the fact that the implementation of the Sustainable Development Goals is not legally binding, although it remains at the disposal and the responsibility of national bodies, many of these challenges and issues are far from the real context. It is up to the governments to establish new roots and to define national frameworks in which to integrate the SDGs according to their own regional and/or local situations. On this regard, unfortunately, comes one of the biggest gap and weakness of the Agenda; because of these substantial differences in values and actual accessibility to legal, natural, digital as well as human resources, the inequality occurs right at the beginning of the process. The contradiction between the ambitious goals and the actual accessibilities to digital resources manifest the great paradox of inevitable inequalities in the approaches, strategies and possibilities of tackling the sustainable transition and all the goals in the same way. The technological state of the arts of every country then must not be ignored; on the contrary, it should be explicitly evinced for the purpose of developing a specific context-aware and technologically feasible solution.

#### Filmographic approaches in local contexts

On these grounds, 'less-ordinary' practices have been engaging local communities and fostered innovative solutions, that includes visual methodologies within participatory approaches (Mitchell C., 2017), that can serve not only as informativetools, although they encapsulate a bigger picture of a more sensitive, as well as locally-focused, planning approach. In countries such as Guatemala for example, where the level of poverty exceeds half of the population, around 55.2% of the population as for the 2023 World Bank economic report, some interesting and hopefully inspiring interventions have gained outstanding results in the assessment and integration of new micro financial systems. The turning point of these achievements has been defined by the creation of a documentary<sup>3</sup> in rural Guatemala, called *Living on One Dollar*, by at the time two economics students, Chris Temple and Zach Ingrasci, whom co-living and immersive participative experience within the local communities of local farmers has reached unexpected impacts, both in the students perception, so as in the community sense of trust and openness with the two foreigners. Moreover, the visual recording of this engaging experience has led to a more precise understanding of the environmental context, the social organization, the delicate and extreme condition of economic poverty and instability, although most importantly, it allowed a relevant cultural exchange, of which the community partici-

pation and the microfinance experiment eventually led to an actual economic impact throughout the creation of a micro system of loans aimed to sustain female entrepreneurs and fund local scholarship. Although this experiment does not reflect 'ordinary planning practices', nor it has been carried out by architects or urban planners, it demonstrates how the interconnection between visual methods and participatory approaches can reach unprecedented results. The paradox between global goals and local possibilities could hence be fostered throughout more locally-sensitive approaches, community-led or shared projects, that take into consideration the culture of the place, the less tangible features, and the actual socio-economic conditions, working on the latter towards more creative solutions that can lead to SDGs local achievement throughout different paths that simply might not have been undertaken yet. The videographic approach proves to be a complex although highly powerful tool in this regard, deploying potentially more realistic and just forms of representation, while working as a catalyst instrument towards community dialogue and policy inquiry (Sandercock, Attili, 2012). For this reason, it is extremely important that architectural practitioners and urban planners rethink their role as 'therapeutic figures' (Arnstein, 1969) within the process of change and transition, daring unfamiliar solutions that could support SDGs local achievement.

#### The changing role of the architects and urban planners

The debate around Sustainable Development Goals, particularly the 11 Sustainable Development Goal on Sustainable Cities and Communities, has raised awareness and somehow re-woke the experts in the design, architecture and spatial planning fields, as creative as well as conscious minds who can assist and support governments in the recognition and achieving of the Goals and mostly, in finding new more up-to-date technologies, approaches and methodologies. The civic role of these figures has indeed been refreshed, starting from major architectural firms focusing on more sustainable buildings, forest-friendly urban development, so as energy efficient structures; another relevant focus has been the one relative to climate change adaption and natural hazards.

In this regards, one of the main issues declared by the World Food Programme (WFP), Red Cross<sup>4</sup> and UNICEF while assisting the previously mentioned events is often the lack of actual understanding and even public comprehension of the entity of those events. The current cartographic system, together with the implementation of aerial photography, satellites and drones ima-

gery, can still not grasp and eventually, assess peculiar information regarding the manifestation of hazardous events, or even be able to authentically visualize some less tangible aspects of space, including the perception of space by its inhabitants, the level of safety, the whole sensorial representation of a place, whose soundscape is a great component for example. The role of architects and urban planners then, must adapt to these challenging circumstances, with a careful and flexible eye as to create and modify solutions suitable to context and eventual emergency; the expert must be able to read and comprehend city and citizens' senses (Landry, 2008), needs and expand its imagination towards a more audacious system of planning (Sandercock, 2004). To do so, the planner must assist and support 'therapeutically' together with a new sensitivity the whole design process (Sandercock, Attili, 2014), guiding towards a more socio-environmental just mode of design and representation.

#### Representation of senses: film and visual potential

The concept of representation of space has been and still is a controversial topic of discussion; geographic information systems (GIS), digital twins<sup>5</sup>, so as other architectural digital models used in the architectural as well as the urban design practices, are becoming more and more integrative parts both in the analytical, so as the design as well as in their informative phase of a project. Despite the unstoppable technological rapid development, technology «can also be a driver of income and wealth inequality because of its skills-bias nature» according to the United Nations Social Commission for Asia and Pacific (ESCAP) Technology and Inequality report. The 2030 UN Agenda also addresses the enhancement of contemporary technological tools, supports innovation and promotes equitable access to technology for all (Sustainable Development Goal 9). Nevertheless, this proposition is still quite contradictory with the current global situation, due to the economic costs of software availability, the high expertise required to assess all the data, and last but not least, the often "cold" and limited type of data that can be extracted. In fact, the majority of these models appears to be authentic representation of space and place, although, as anticipated before, these models only refer to peculiar data or specific information, too often excluding sensorial aspects regarding the liveability of a place. More attentive forms of planning and space studies, can hence foster these weaknesses, and compensate a more quantitative approach with a more qualitative-focused one. The sense of safety and insecurity, the joyful sounds in comparison to unbearable noises, and even the spatial dimensions of some elements composing the landsca-

pe are difficult to be read throughout current maps and cartographic representations. On the other hand, complementary tools such as photographic or videographic representations can fulfil these lacks, providing a more comprehensive set of information and understanding of place. In this sense, participatory video applied into the practice of spatial planning can be extremely effective in addressing today's lack of perception of space in spatial design. The question of visualization and digital methods of representing the world can be as triggering as challenging, in the sense that its subjectivity and instrumental filtering can also cause harm even when that is not the intent, transfixing images, hence representations, in time. As explained by Sarah Pink, Professor of Design and Media Ethnography «there are culturally different ways of understanding harm and causing it with images» and further adds «in order to prevent harm being caused, a researcher needs a good understanding of local notions of harm and anxiety, how these may be experienced by different people, and how they relate to images in that specific context» (Sarah Pink, *Doing Visual Ethnography*, pag.63, 2013). The potentialities of filmmaking within the practice of architecture and urban planning are very wide, and should always take into consideration the participation of those who live or have lived that place, with respect of their persona and acknowledged approval. This approach together with an open and attentive listening as the many visual methods utterly illustrated by Claudia Mitchell in *Participatory Visual Methods*, along with the performative practices towards the recognition of body in space within planning and architecture mastered by Virgilio Sieni<sup>6</sup>, can actually make a positive impact and improve the quality of planning and designing practices.

The contemporary Italian and French duo of artists, architects and filmmakers Bêka&Lemoine has shaped this consolidated approach and mentality, opening this approach to a wider non-expert audience, while mastering film application within the urban environment. Their sensible look towards the details and the simplicity of architecture and urban spaces revealed an attentive gaze to the most trivial aspects of human existence in the urban realm. Bêka&Lemoine work has been widely acclaimed as "a new form of criticism" (Mark) which "has deeply changed how we look at architecture" (Domus). Selected by the Metropolitan Museum of Art in New York (The Met) as one of the "Most exciting and critical design project of the year 2016", throughout their experimental work, they have re-attributed importance to documentaries and realistic videos, additionally pointing out the possibility to merge different disciplines, overlapping different fields, and find connections in between visual tools that apparently belonged only to the cinema-



Fig. 1. Spontaneous oil reservoir in fresh water, 2022, Tramutola, Basilicata; image by the author.

tographic world, and urban interpretation of space, consequently also in urban design. Bêka&Lemoine work has finally generated a whole new attention from academics and professionals over the theme of film as “architectural tool”. Starting from Bêka&Lemoine acknowledgment of absence of people within first architectural representations, they re-discovered the relation between body and scale (Bêka&Lemoine, 2023); in Italy another relevant photographer, Mario Cresci, has been investigating this relationship between the subject and its movement within the surroundings (Cresci, *Geografia Naturalis*, 1975-2011). The re-appropriation of this relationship is essential according to Bêka&Lemoine, because it links visual representation with realistic spatial representation, namely the way in which people, animals, vegetation inhabit a space. The acknowledgment of subjective experience is the crucial point towards authentic representation of space, hence better understanding of place, that can help and support the definition, communication as well as implementation of punctual design strategies, particularly when tackling Sustainable Development Goals objectives.

#### Changing local lens: visual experiences in Basilicata and Piedmont, Italy

Being part of an ongoing doctoral research about the interconnection between audiovisual practices and spatial planning, the current paper contains a variety of different experiences that have been undertaken throughout the first year of the research development: some of which have been chosen to be illustrated in the following paragraphs as practical examples of filmographic application's variety as well as possibilities, in addition to sometimes limited cartographic representation and/or as powerful case studies of human possibilities in authentic participation to visual representation with limited digital resources. One of the first experience in which the author became involved, occurred in 2022, with a research period of two weeks walking through the inner areas of Basilicata region in the south of Italy, starting from Melfi, in the north, until the southern village of Latronico. The project, coordinated by the Laboratorio del Cammino<sup>7</sup> association - who explores walking as a methodological possibility in urban planning and design disciplines - consisted in the close study of the Lucan territory throughout physical perception of being and crossing those spaces while experimenting different multimedia tools,



Fig. 2. Val D'Agri Oil Centre (COVA) noise and unbearable air condition, 2022, Viggiano, Basilicata; image by the author.

from drawing, to photography and video, but also sound recording as to investigate the less tangible aspects when analysing a territory via ‘classic’ cartographic representation. Starting from the very first days of the walk, the outcomes were remarkable. The Basilicata region has gone through a considerable changing process in the landscape, whose natural resources namely oil reservoirs [Fig. 1] - which have been extracted for decades [Fig.2]-, persistently affected the natural landscape of the region. In a time where green and energy transition is called and necessary (Sustainable Deve-

lopment Goal 7), also the Basilicata region has implemented new sustainable energy technologies in order to contribute to the decarbonization global process and reach the Agenda goals (Di Leo, Pietrapertosa, 2021). Nevertheless, some peculiarities of these interventions have not been taken into consideration in the context of the project, or in the communities affected by these interventions. One key example is the integration of wind turbines all over the territory, whose great intentions have been facing several issues and confrontations by the local communities. Particularly some citizens, whom houses have been surrounded by wind turbines indeed, have complained the intolerable sound of the turbines, together with the extreme vicinity to their properties, in addition to an overall ruination of the natural landscape [Fig.3]. The debate can certainly face several interpretations and forms of discussions, but the reason why it is specifically mentioned in this paper is because it embodies some fragilities regarding cartographic representation in actually depicting elements as wind turbines, both in their sonic and spatial configuration, their actual dimension - usually identified as punctual dots on the map - while some other relating to the gaps in between the human perception of these new elements inserted within an inhabited landscape. For this reason, the research group created a short film, collecting different sounds relating to different wind turbines – of size,



Fig. 3. Extensive wind farm installation, 2022, Avigliano, Basilicata; image elaborated by the author.

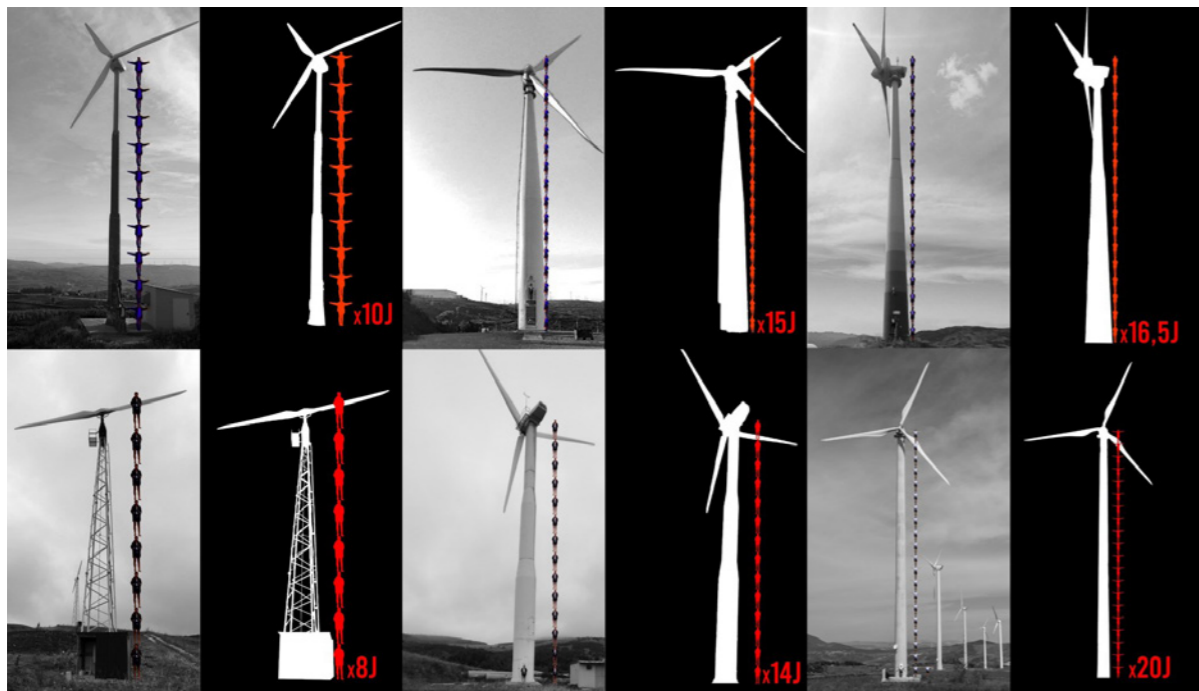


Fig. 4. Human body and wind turbine scaling, 2022, Soave Summer School, Laboratorio del Cammino, image elaborated by the author.



Fig. 5. Local discontent, 2022, Avigliano, Basilicata; image elaborated by the author.



Fig. 6. Cartographic exploration with the students, 2023, 'Roncalli' elementary school, Settimo Torinese; image elaborated by the author.



Fig. 7. First-hand strategies definition with the students, 2023, 'Vivaldi' elementary school, Settimo Torinese; image elaborated by the author.

age and technology – together with citizens interviews, visual representation of the actual dimensions of these structures, and created a new fictional unit measure for human size comparison to wind turbines [Fig.4]. The fictional unit referred to one of the group component height and comparison, as to subjectively investigate the real scale between human body and a wind turbine. The results of this visual survey have highlighted the weaknesses of cartographic plan-view approach when implementing these kind of strategies, without taking into account the effective physical connotation of these technologies, their related sound and impact on human liveability. For this reason, visual methods integrated with the ordinary planning approaches could fulfil these gaps and give more space to human possibilities and actual involvement into the planning process. Visual communication is also extremely important in the mediation process, both for illustrating the intentions before the actual implementation, so as throughout the design phase and the potential conflictual phase where citizens could respond and provide their personal and relevant consideration [Fig.5].

A set of different experiences eventually took place in the Piedmont region, where videographic methods and tools have been implemented to address diverse issues and projects: the first one has been La Città Animata<sup>8</sup> project, in collaboration with the INArch Association of Piedmont and the elementary school of Settimo Torinese, with the aim of creating a collaborative animated cartoon, gathering all the ideas, threats and suggestions elaborated by the young students of the elementary schools, following a two months collaborative project over urban design and environmental crisis. The human possibility of this project has been defined by the powerful participation of the schools' students within all the video proposal realization. During the first month of

the project indeed, the students have been shown urban planning basic information and general overview [Figures 6 and 7]; starting from what an urban space is and what is the role of architects and urban planners, the students have been discovering the high power they own as citizens and how they can contribute to a positive impact for our cities. The brilliant amount of ideas, suggestions, dreams and considerations has been incredibly stimulating and has found its very unique form of representation throughout visual animation. As a consequence, all their drawings [Fig.8] referring to the city of the future have been collected within an animated project, coordinated by a professional visual animation team, who assisted and trained them on visual animation creation during the second month of the project. The latter has eventually been shown to the students and the school representatives, then to the students' families and to the Settimo Torinese municipality during a public screening.

Finally, another example of videographic application has been the joint project between the Polytechnic of Turin<sup>9</sup> and a multidisciplinary team of researchers, working on the creation of a new narrative for river Po, for its ecological emergency, but also for its diverse utilizations [Figures 9 and 10]. One of the possible implementations of urban filmmaking for instance, relies on the scientific dissemination domain. Scientific data and surveys have been a topic of discussion strictly within the scientific community; with the upcoming of social platforms, open sources data banks, as well as independent divulgative channels, new communication tools must be taken into consideration, specifically to disseminate reliable scientific data and avoid fake news overlaps. As a matter of fact, the United Nations, as well as other major agencies, have been adopting satellite imagery story maps and short videos, with the aim to spread trustworthy

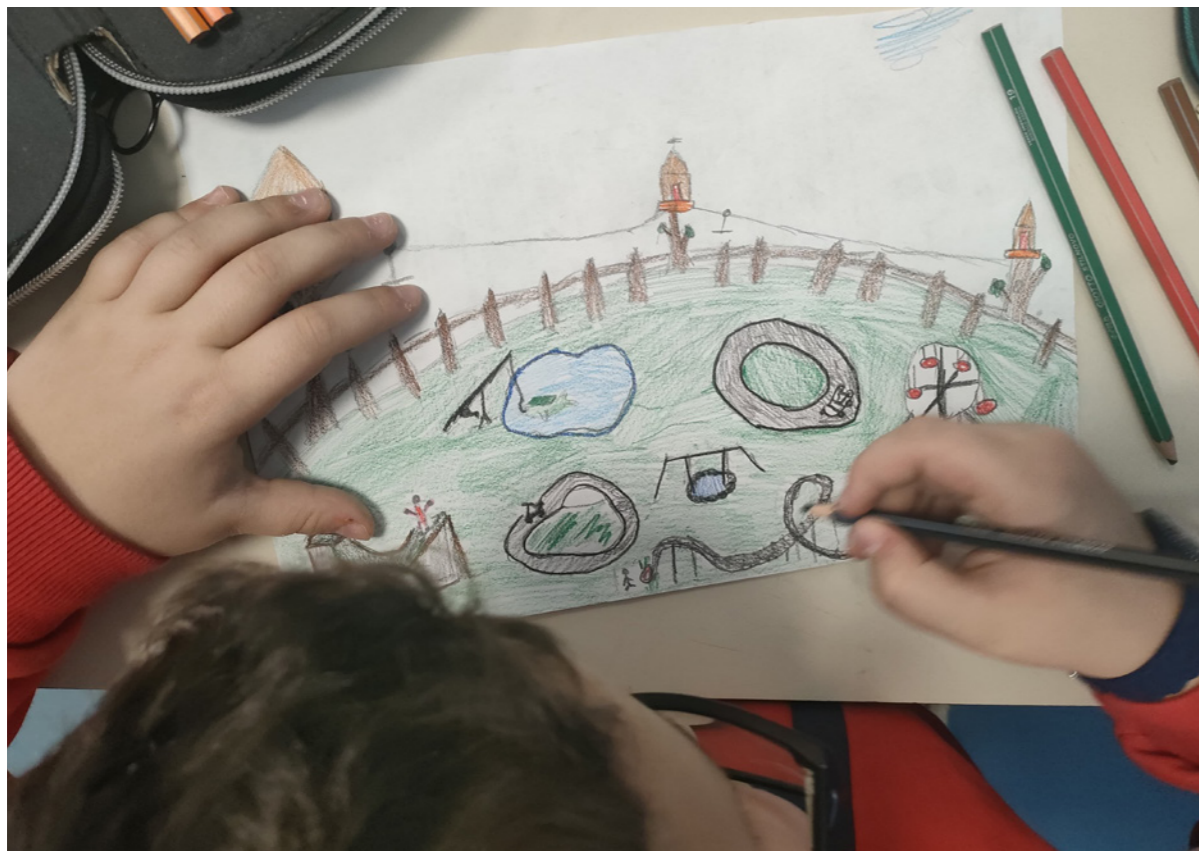


Fig. 8. Student's proposal for the green city through the form of hand drawing, 2023, 'Vivaldi' elementary school, Settimo Torinese; image elaborated by the author.



Fig. 9. Extract of the environmental documentary realized in collaboration with Polytechnic of Turin, 2023, photograph by the author.



Fig. 10. Interview frame during the realization of the environmental documentary, 2023, photograph by the author.

data, and also overcome the gaps in between scientific dissemination and the non expert audience.

### Research limits and final considerations

The presented approaches and case studies can bring some new proposals, as well as new perspectives on how to tackle and address SDGs at a local level. Notwithstanding, the current research still presents some relevant shadows and limits that have yet to be surveyed and discovered; the nexus between filmmaking and spatial planning is indeed not new, if taking as example the filmographic work of architect and urban planner Giovanni Michelucci<sup>10</sup> in the city of Florence during the 1970s (Butini, 2007). At the same time though, the videographic approach has never been recognized as a proper architectural tool and the debate is yet open and to be commonly shared. The Sustainable Development Goals can hence be a substantial opportunity for improving the current system of planning tools, foster local collaboration, with respect to the identity of the place, its inhabitants, its strengths and fragilities, throughout a more comprehensive mode of representation, including human perceptions (Lynch K., 1960), sense of space, spatial configurations, sound presence or absence, sense of community and community awareness while more realistically shape the path on how to reach the Goals. In a world permeated by challenges and threats, it is up to the changing role of experts to adjust solutions to local features together with local communities and a more creative system of tools and methodologies. From animated cartoons, to drawings, participatory films or cellphlms, due to the worldwide ubiquity of cellphones (Mitchell C., 2017), the possible fields of application are many and yet to be discovered. More locally-sensitive, digital and human-resources aware planning approaches can eventually support the local achievement of Sustainable Development Goals and promote a more comprehensive, respectful and harmonious mode of design, planning and overall coexistence.

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## Note

1. UNICEF, acronym of United Nations Children's Fund, consists of a special program of the United Nations (UN) devoted to aiding national efforts to improve the health, nutrition, education, and general welfare of children. Source: Britannica.
2. The concepts of "ownership and land appropriation" in New Zealand and Australia can be very different from a more European perspective, due to the presence of indigenous communities and indigenous laws. In New Zealand for example, up to 1.5 million hectares – almost 6% of the total land area – is Māori land. Nevertheless, speculative planning and major development investments still present a contradictory topic of discussion. Source: New Zealand parliament website: [oag.parliament.nz](http://oag.parliament.nz).
3. Living On One Dollar started as an academic experiment of four American economics students, investigating microfinance structure and system of loans in rural Guatemala, where the higher percentage of the population is constrained to live on less than one dollar a day. Their first-hand experiment received multiple recognitions both at academic levels, so as within film industry.
4. World Food Program and Red Cross convey some of the major non-governmental agencies that normally get activated during a humanitarian, environmental form of emergency. Following any emergency assessment, these agencies must provide a detailed report outlining issues and achievements occurred during the monitoring or rescue phases of the intervention. WFP and Red Cross are open and usually validated on site following prior elaboration.
5. A Digital Twin is a digital representation of a physical object, person, or process, contextualized in a digital version of its environment. Digital twins are becoming more and more implemented within contemporary architectural and planning design.
6. Virgilio Sieni is an Italian contemporary dance choreographer, who has engaged his practice together with the University of Architecture in Mendrisio, and later on with many other European academic institutions. His work became internationally recognized as a new form of participatory performative practices, particularly thanks to his Atlante del bianco project in 2018, working with people with physical disabilities. His approach is now supporting architectural design studios and lectures.
7. Laboratorio del Cammino is a Social Promotional Association (APS) consisting of the union of multiple Italian universities, working on the adoption of "walking" as a research approach to urban and environmental

analysis, design tool and multisensorial methodology.

8. La Città Animata is a collaborative project unifying the education sector of the elementary schools, together with professional institutions and academies within the framework of the National Recovery and Resilience Plan (PNRR) funded by the European Commission. It is a descendant of the 1991 project "La città delle bambine e dei bambini".
9. The Department of Urban Ecology of the Polytechnic of Turin created in 2022 a joint workshop, gathering academic students so as filmmaking experts specifically for the creation of a short documentary, later named "Ascoltando la Corrente" as an experimental approach to the usage of filmmaking within scientific data dissemination and environmental awareness.
10. Giovanni Michellucci has been an important Italian urban planner and architect, who, among his well known work, has been a pioneer in the experimentation of filmmaking approaches to urban planning, realising four short movies for the understanding of Florence urban environment during the 1970s.

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<https://www.un.org/sustainabledevelopment/> (Last consultation 12/09/2023)